On The Move: 2035

San Benito Regional Transportation Plan

Final June 2014

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CHAPTER 1 EXECUTIVE SUMMARY

The Council of San Benito County Governments (Council of Governments) is the regional transportation planning agency representing the County of San Benito, and the Cities of Hollister and San Juan Bautista. The Council of Governments provides a forum for solving problems of area wide interest and builds consensus on transportation issues facing the region.

On the Move: 2035 – San Benito Regional Transportation Plan presents a bold new blueprint for solving region wide transportation issues, now and into the future. *On the Move* identifies the existing transportation conditions and plans future needs based on growth, previously approved plans, public input, and prior Council of Governments Board action.

As of 2014, the San Benito region had weathered the worst of the economic recession of 2007-2010 and private investment activity was beginning to emerge. Looking into the future, the population is forecasted to grow from 55,269 in 2010 to 81,332 in 2035[1]. This growth will place increasing demand on San Benito County's transportation infrastructure.

The rural and bucolic character of San Benito County and the Cities of Hollister and San Juan Bautista make it an attractive place to live. Lower cost housing, as compared to the neighboring counties of Santa Clara, Monterey, and Santa Cruz, make Hollister and San Benito County attractive to those who cannot afford to buy elsewhere.

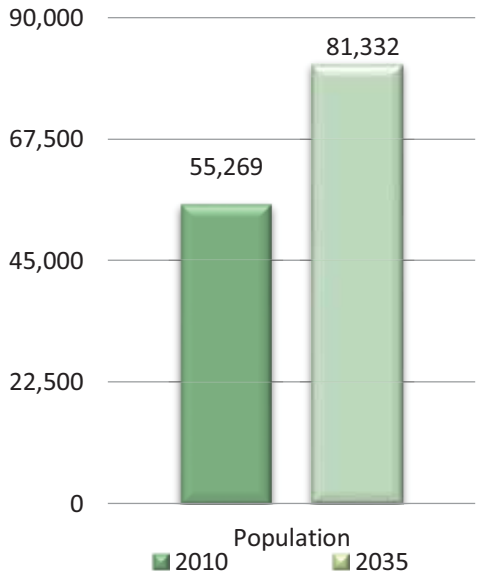


Figure 1-1 San Benito County Population Growth
Source: Association of Monterey Bay Area Governments

San Benito County is located within a one-hour drive to the higher employment Counties of Santa Clara, Monterey, and Santa Cruz, which has resulted in a high percentage of the workforce traveling on the regional roadway network to get to work. 48.9 percent of the workforce travels to other counties for work.[2]

ON THE MOVE: 2035 POLICY APPROACH

On the Move:2035 is guided by principles of accessibility, sustainability, and preservation. The Council of Governments concentrated on an overall policy approach of:

- Access and Mobility

[1] Association of Monterey Bay Area Governments Growth Forecast
[2] U.S. Census: Table 1. Residence County to Workplace County Flows for the United States and Puerto Rico Sorted by Residence Geography: 2006-2010

- Economic Vitality
- Environment
- Healthy Communities
- Social Equity
- System Preservation and Safety

ADDRESSING MOBILITY NEEDS

On the Move:2035 identifies a number of transportation projects and programs to help meet future needs and enhance the system. Unique to this Plan is a focus on Complete Streets and the Sustainable Communities Strategy prepared by the Association of Monterey Bay Area Governments. Extensive public outreach was conducted to align projects with the identified transportation needs including all users, regardless of age or ability. The transportation investments proposed are reflective of the policy goal areas identified above as well as the suggestions expressed by interested community groups, policy makers, and the public.

The goal of the Plan is to identify a clear direction for maintaining the transportation network in San Benito County and expanding the network to include more roadway capacity, and improved access for all users, including pedestrians and bicyclists, other modes of transportation, and public transit.

FUNDING TRANSPORTATION

On the Move: 2035 identifies a number of transportation financing sources. These sources come to San Benito County from Federal, State, and local programs. As the funding landscape changes, new dollars may become available for transportation projects but are not considered in this update due to prior Council of Governments Board action.

The Council of Governments advocates for transportation funding across all levels so that transportation needs can be met. In addition, San Benito County jurisdictions have continued to be innovative through local financing in the Traffic Impact Mitigation Fee Nexus Study. These fees are collected from commercial, industrial, and residential developers as a requirement for a building permit. The primary objective of the program is to ensure that new development pays its fair share of the transportation costs associated with growth and the increased demand on the transportation network. These fees will help finance over $115 million in transportation projects over the next twenty years. No other innovative, local transportation funding is assumed as a part of the financial projections due to prior Council of Governments Board action.

The investments identified in *On the Move: 2035* are illustrated in Figure 1-2 and broken out by mode of transportation. This illustration shows how much funding is projected to be available

for 1) highways, streets, and roads, 2) public transit, 3) active transportation (e.g. bikeways and pedestrian paths), 4) demand management (e.g. Ridesharing), and 5) aviation.

Figure 1-2 is illustrative of the funding proposed to be invested in our transportation network. However, this figure does not show how many new miles of bicycle lanes or sidewalks will be constructed or the number of people who will benefit from these investments. There are also constraints imposed by laws and guidelines which prevent optimizing transportation dollars for the greatest need across transportation modes. These constraints and guidelines are found in the programs set forth by the Federal government and the State in the funding silos which limit funding to only eligible transportation projects and programs. For example, Transportation Alternative Program funding may only be used for certain types of bicycle and pedestrian infrastructure projects and programs. This lack of flexibility in project selection is a barrier to meeting the needs of the traveling public and putting resources to where they need to go.

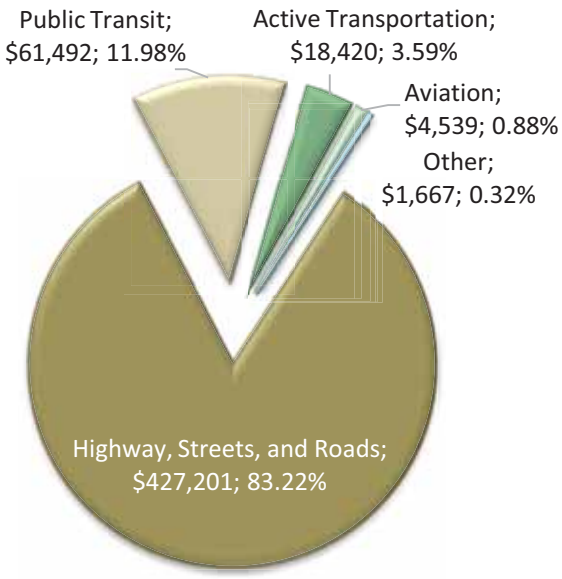


Figure 1-2 Investment by Mode
Dollars in 1,000s

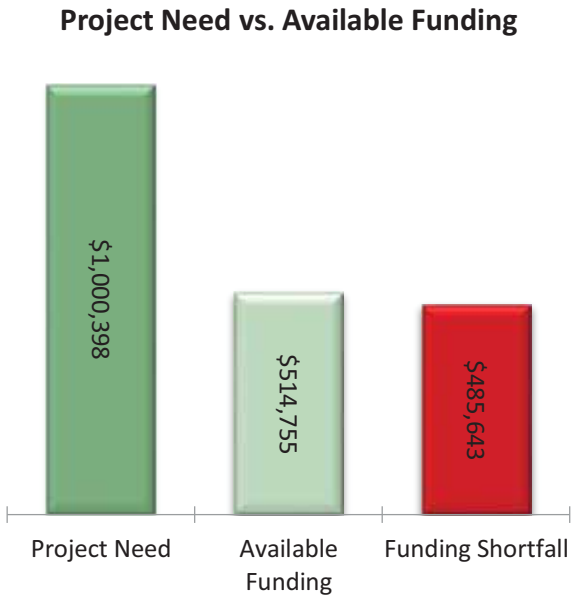


Figure 1-3 Project Need vs. Available Funding and Shortfall
Dollars in 1,000s

Although *On the Move: 2035* identifies nearly $515 million (escalated) in estimated transportation funding for projects and programs, the region would require at least $486 million more to meet its future need.

The lack of available transportation funding is the biggest challenge facing San Benito County in its ability to implement transportation projects and programs which improve transportation options for all. As the region grows in population, the strain on available resources will continue to be a challenge.

PUBLIC PARTICIPATION

The Council of Governments launched an extensive public outreach process in 2013, reaching out to the community to hear concerns about transportation in the region. County residents overwhelmingly expressed a desire for healthier, more walkable communities and more compact development. Figure 1-4 provides an illustration of compact development in a

downtown. Other concerns noted included the need for more capacity on the region's highways, specifically State Routes 25 and 156. Community members emphasized the importance of transportation to support the economic vitality of the region.

Figure 1-4 Compact Development in a Downtown

Unique to this planning effort was coordination with the Association of Monterey Bay Area Governments with an online survey. Hundreds of San Benito County residents responded to the survey and noted their preference of growth strategies for the region and how transportation plays a role. Results of an online survey are shown in Figure 1-5.

In addition, a telephone survey was conducted to determine transportation preferences. Results showed strong support of roadway safety improvements and alternative methods of transportation.

The telephone survey asked if participants would support a local transportation sales tax measure. The results of that question show that 48 percent of those surveyed would support a local sales tax measure for transportation. This result is significant because special sales tax measures require 66.7 percent of the vote.

The projects and programs identified in *On the Move: 2035* are aligned with these community priorities and preferences.

Priority	Score	Rank
Reduced commute times	2.64	1
Alternative travel modes	2.67	2
Improved system maintenance	2.78	3
Reduced congestion	2.95	4
Preservation of open space	2.98	5
More jobs near transit	3.00	6
Improved air quality	3.08	7
Improved transit accessibility	3.11	8
Efficient movement of goods	3.33	9
Conservation of farmland	3.34	10
Reduced pollution	3.35	11
Equitable investment	3.52	12
Trips within 30 minutes	5.00	13

Figure 1-5 MetroQuest Survey Results
Source: Association of Monterey Bay Area Governments

NEW TO *ON THE MOVE: 2035*

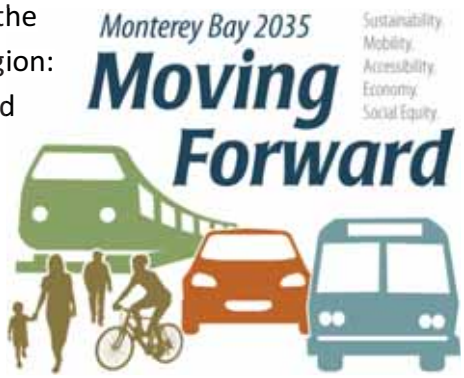
REGIONAL HOUSING NEEDS ASSESSMENT

In concert with the Regional Transportation Plan update, the Council of Governments is also developing a Regional Housing Needs Assessment. The Regional Housing Needs Assessment and Plan is a state mandated activity (Government Code 65584 et seq.) with the intent to "adequately plan to meet the existing and projected housing needs of all economic segments of the community". The Department of Housing and Community Development uses population projections from the Department of Finance and/or the Association of Monterey Bay Area Governments to estimate the housing need over the planning period. New guidelines from the State of California have streamlined the process for developing the Assessment so that it is

conducted closely following the Regional Transportation Plan development as required by SB 375.

SUSTAINABLE COMMUNITIES STRATEGY

Senate Bill 375 set forth a new requirement for Metropolitan Planning Organizations in California to develop a Sustainable Communities Strategy. The Sustainable Communities Strategy identifies transportation and land use strategies to reduce greenhouse gas emissions from cars and light trucks. As part of its long-range transportation planning effort, the Association of Monterey Bay Area Governments developed the Sustainable Communities Strategy for the Monterey Bay Region: *Moving Forward Monterey Bay Area.* San Benito COG worked closely with the Association of Monterey Bay Area Governments on the development of *Moving Forward Monterey Bay Area.* The projects in this Plan are reflected in *Moving Forward* and help the region achieve greenhouse gas emissions reductions.



PERFORMANCE OF *ON THE MOVE: 2035*

Performance of the projects and programs are measured against the Overall Policy Approach contained in Chapter 2. The Association of Monterey Bay Area Governments used the Regional Travel Demand Model to predict performance of the transportation projects. Across the Policy Goals, the Preferred Scenario performs best in the areas of Access and Mobility, Economic Vitality, Healthy Communities, Social Equity, and System Preservation. The Preferred Scenario assumes that local jurisdictions will implement mixed use, transit oriented development near high quality transit stops per adopted General Plans and contains a balanced mix of transportation investments.

CONCLUSION

Overall, *On the Move: 2035* accomplishes the goals set forth and provides a menu of transportation options for a growing community with different mobility needs. The projects and programs make the best use of limited Federal, State, and local transportation dollars. However, since the 2010 Regional Transportation Plan publication, the funding gap between reasonably expected revenues and project costs has risen by $207 million.

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Chapter 2 Introducing *On the Move: 2035*

The Council of San Benito County Governments (Council of Governments) is the regional transportation planning agency representing the County of San Benito, and the Cities of Hollister and San Juan Bautista. The Council of Governments provides a forum for solving problems of area wide interest and builds consensus on transportation issues facing the region. As a part of this intent, the agency develops a long range transportation plan which is presented in this document.

A Regional Transportation Plan communicates the long-term vision of a community's transportation system. *On the Move: 2035* looks into the future and recognizes the potential impact of housing, population, and employment growth on the existing transportation network and identifies transportation needs to meet the increased demand.

The Regional Transportation Plan was developed with the understanding of its regional setting, recent economic events, long term trends, and constraints and opportunities. A comprehensive approach is needed to implement long term solutions for our transportation challenges. This Introduction provides the backdrop and context for the chapters to follow.

Chapter 2 explores factors which explain the current place, time, and condition with which we find ourselves in relation to solving our transportation challenges. This chapter provides an overview of the transportation system and its components as well as the challenges and opportunities we face moving forward to 2035.

REGIONAL SETTING

San Benito County is ideally located inland from the Central California Coast. The County borders Monterey, Santa Cruz, Fresno, Merced, and Santa Clara Counties. Combined with more affordable housing and its close proximity to Monterey, Santa Cruz, and Santa Clara Counties, San Benito County is an attractive home to 55,269 people (2010). Although the County consists of 1,390 square miles, the majority of the population lives in Hollister (the County seat) San Juan Bautista, or the unincorporated area of northern San Benito County.

Figure 2-1 Map of San Benito County

The year round mild climate is influenced by the Gabilan and Diablo mountain ranges which protect the County from hot summer weather in the Central Valley and from the cool Monterey Coast.

Over thousands of years, the San Benito and Pajaro Rivers have deposited rich soil that is still being used to grow vegetable crops year round.

The County has a long history of agricultural production and agriculture continues to be the economic driver of the region. The County boasts a $298 million (2013) agricultural industry along with manufacturing, education, health care, and government.

GREAT RECESSION

Since the last Regional Transportation Plan, San Benito County felt the negative impact of the Great Recession. Most notably, the unemployment rate has been higher than the statewide and national average. Most notably, at its peak in February 2010, San Benito had an unemployment rate of 21.3 percent compared to California at 12.8 percent and the U.S. average of 10.4 percent[3] over the same time period. Between 2000 and 2010, only 802 new jobs were created compared to an increase in population of 2,035.[4] Although foreclosures were abundant between 2007 and 2012, they have since declined. The housing market appears to be rebounding as the vacancy rate is down to 5.5 percent.[5]

REGIONAL GROWTH FORECAST

The most persuasive reason for preparing a Regional Transportation Plan is to address increased pressure from population growth on transportation infrastructure.

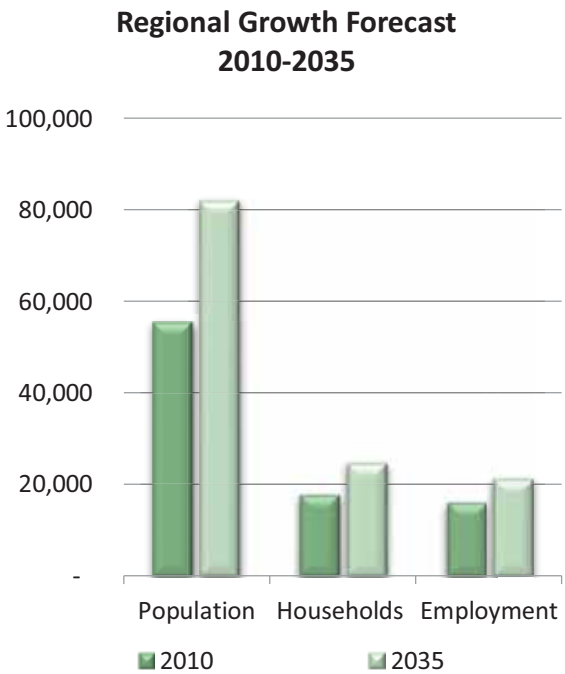

Figure 2-2 Final 2014 Regional Growth Forecast
Source: Association of Monterey Bay Area Governments

Looking forward, an increase in the population will strain area roads and highways, decrease capacity for freight movement, and increase the demand for bicycle and pedestrian facilities.

San Benito County growth is projected by the Association of Monterey Bay Area Governments, the Metropolitan Planning Organization for the three county region of San Benito, Monterey, and Santa Cruz Counties. Through an interactive dialogue with planners in the Monterey Bay region, the Association of Monterey Bay Area Governments prepared a Regional Growth Forecast for use in preparing the Regional Transportation Plans of the three counties. The Regional Growth Forecast estimates population, employment, and

[3] U.S. Bureau of Labor Statistics
[4] U.S. Census 2010
[5] U.S. Census Bureau, DP04, Selected Housing Characteristics, 2010-2012 American Community Survey 3-Year Estimate

growth to the year 2035.

According to the Regional Growth Forecast, San Benito County is expected to grow by 47 percent between 2010 and 2035 to 81,392 people in 2035. Adding an estimated 26,123 new residents will strain the existing highway system which lacks capacity to handle increases in traffic volumes. Employment and housing is also expected to grow along with the population. By 2035, employment is expected to grow to 21,508 jobs and housing is expected to grow to 24,854 housing units.

Demographic changes during the next 25 years will influence the transportation demands of the community. Between the years 2010 and 2020, the Monterey Bay region is expected to regain the jobs lost during the recession. During this time, jobs in San Benito County are expected to grow by 25.3 percent. Afterward and during the years 2020 to 2035, job levels will grow more slowly, by an estimated 4.1 percent, as the baby boomers retire but remain in the population.

This shift in the age of the population will create new and different challenges for our transportation system.

Figure 2-3 depicts the San Benito population by age range in the year 2010 and compares it with the age range in the year 2035.

The population of those 65 and older is expected to increase by 74.1 percent between 2010 and 2035. By 2035, those 65 and older will reach 9,333 people and represents 11.5 percent of the total population.

San Benito County is expected to grow as the economy grows. The population age 20-64 is expected to grow by 14,225 while job growth is projected to grow by 5,308. The gap between population growth of those between 20 and 64 and the employment forecast is a result of employment growth in the Silicon Valley and other areas. The largest industry in San Benito County, agriculture, contributes slow, but steady growth in employment.

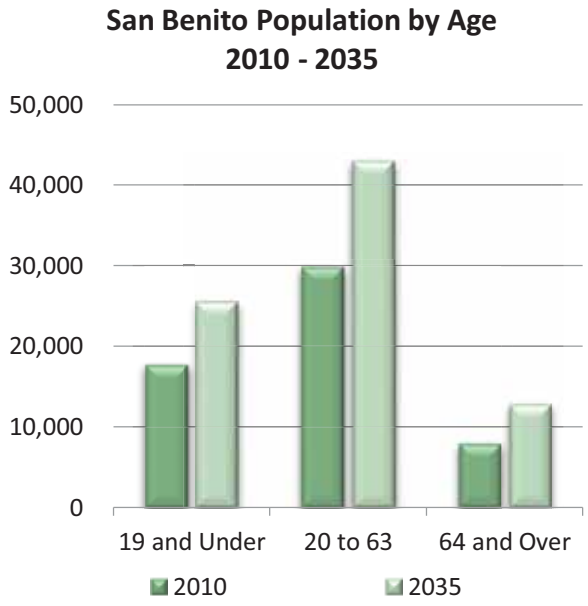

Figure 2-3 San Benito Population by Age 2010-2035
Source: Association of Monterey Bay Area Governments

TOURISM

Tourism is expected to play an important role for San Benito County over the next 20 years. Many destinations attract tourists to the region for different reasons as outlined below.

State Parks including Hollister Hills State Vehicular Recreation Area, the San Juan Bautista Mission, and Fremont Peak all attract visitors to the region. Hollister Hills provides off road motor biking. The San Juan Bautista Mission is a popular outing for area schools because of its importance to the rich history of California. Fremont Peak State Park attracts hiking and camping enthusiasts with breathtaking views of the Monterey Bay.

Pinnacles National Park attracts people interested in geology, bird watching, wildflowers, hiking, and caving. Pinnacles National Monument became the 51st National Park in January 2013. As a result, Pinnacles National Park is expected to draw visitors to the region. The east entrance to the Pinnacles is accessed by Highways 25 and 146. The Park has seen an increase in the number of visitors since the Park changed its status in January 2013. An increase in vehicle traffic on Highways 25 and 146 is expected as a result. Recreational trips to the Pinnacles peaks in the spring and falls back during the autumn.

TRAVEL AND SAFETY

Safety of those using the transportation system is a very important consideration in developing this Regional Transportation Plan. This section summarizes the safety issues and challenges facing the San Benito County region.

Driving and Vehicle Availability	
Miles driven each day (2011)	1,346,150[A]
Number of driver licenses issued (2012)	35,755[B]
No vehicle available (2010-12)	2.8%[C]
One vehicle available (2010-12)	26.3%[C]
Two vehicles available (2010-12)	35.5%[C]

Figure 2-4 Driving and Vehicle Availability

Source:

[A] *California Department of Transportation, 2011 California Public Road Data*

[B] *California Department of Motor Vehicles*

[C] *U.S. Census, 2010-2012 American Community Survey 3 Year Estimates, DP04*

As of 2011, the San Benito County region contained 88.84 maintained miles of State highways, 385.71 maintained miles of County roadways, and 109.78 maintained miles of city streets. There are also 8.68 maintained miles of National Park Service roads and 306.4 maintained miles of State Park Service roads. Most of the City streets include sidewalks. There are 11 miles of Class II bicycle lanes and 3.1 miles of Class I bike trails.

Most households had access to at least one vehicle, and 70.8 percent of San Benito households had two or more vehicles available. According to the Department of Motor Vehicles, there were 35,755 driver licenses issued to San Benito County residents in 2012.

The rate of fatal and injury collisions in California have been declining since the 1930s when the California Highway Patrol began tracking the information. The 2010 statewide mileage death rate was 0.84. In 2011, San Benito County experienced a mileage death rate of 1.02, above the statewide average but below the national average of 1.11. In 2011, there were 8 pedestrian and 13 bicycle collisions.

The mileage death rate is expressed as fatalities per 100 million vehicle miles traveled.

MULTIMODAL TRANSPORTATION

HIGHWAYS, STREETS, AND ROADS

Of the 899.41 miles of San Benito County's highways, streets, and roads, 593 miles are used by the motoring public for commuting to work, transporting goods, traveling for recreation, moving people by bus, bicycling, and walking. On average, San Benito County highways, streets, and roads saw 1.3 million miles of travel each day. The majority of those miles, 79 percent, are driven on rural highways, streets, and roads (2012).

Commuting to other counties for work is also very important for San Benito County residents. According to the 2010 U.S. Census, 51.1 percent of the workforce traveled within the County for work.[6] Another 32.1 percent of residents, traveled to the San Francisco Bay area (including Santa Clara County) for work. Still another 15.7 percent of workers traveled to Santa Cruz and Monterey Counties for work. The remaining 1.1 percent of the workforce traveled to other areas for work. The commute pattern has changed since 2000 as shown in Figure 2-5.

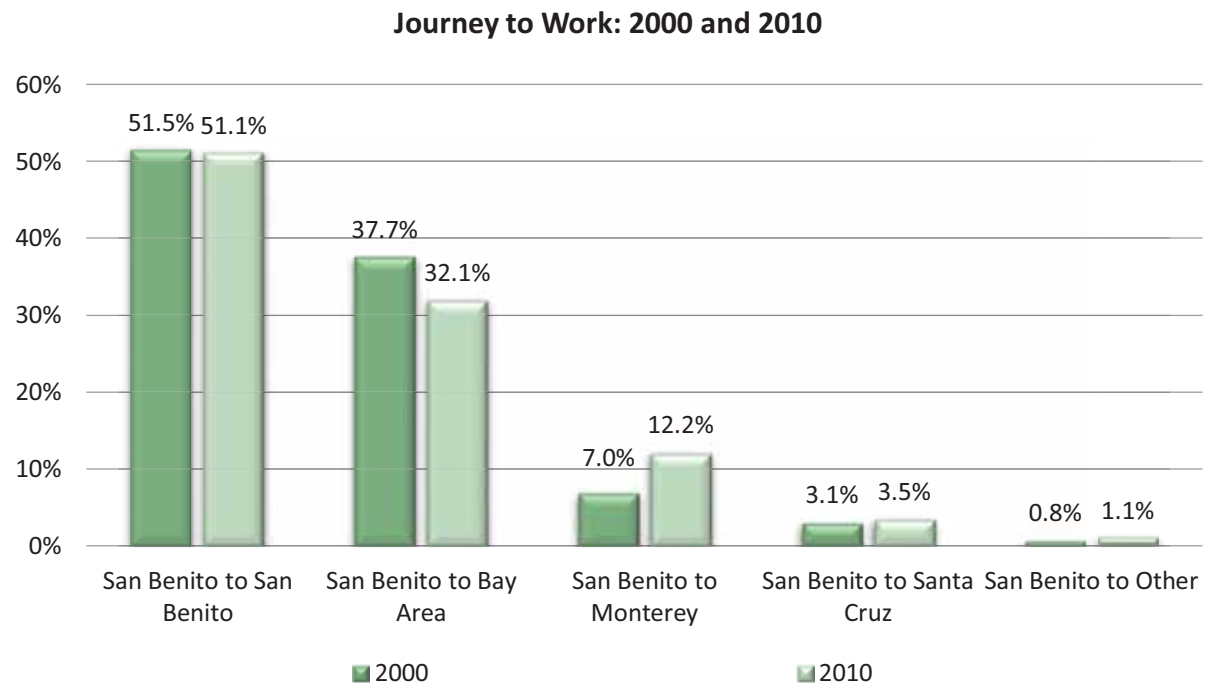

Figure 2-5 Journey to Work 2000 and 2010
Source: U.S. Census

Traveling to other counties for work accounts for 48.9 percent of the daily commute. Residents have a limited number of highways to travel to their job sites. Those traveling to Monterey and Santa Cruz Counties likely take State Route 156. Those traveling to the Bay area likely travel by way of State Route 25. These assumptions are further supported by traffic counts taken on these routes, as illustrated in Figure 2-6.

[6] U.S. Census 2010 Journey to Work

State Route 25 between Hollister and US 101 is an important corridor for the region. Due to safety concerns, the California Highway Patrol, the California Department of Transportation, the Council of Governments, and local leaders formed the Stay Alive on Highway 25 Committee in 2000. The Committee reviewed, analyzed, and made recommendations for safety improvements along the corridor. In 2010, the final phase of safety improvements were constructed between SR 156 and the San Benito County line with a concrete median barrier and consolidated driveways to reduce conflicts.

Traffic	
U.S. 101 Average Annual Daily Traffic (2010)	48,000-58,000[A]
SR 25 Average Annual Daily Traffic (2015)	22,900[B]
SR 156 Average Annual Daily Traffic (2014)	29,344[C]
SR 152 Average Weekday Daily Traffic (2009)	36,600[D]

Figure 2-6 Average Annual Daily Traffic

Sources:

A *Transportation Concept Report, U.S. 101, August 2013*

B *Hollister to Gilroy State Route 25 Widening and Route Adoption, Draft Environmental Impact Report and Tier 1 Draft Environmental Impact Statement, April 2010*

C *San Benito Route 156 Improvement Project, Final Environmental 4 Impact Report/Environmental Assessment, October 2008*

D *Route 152 Trade Corridor Project (U.S. 101 to Route 99), Preliminary Traffic and Revenue Study, February 12, 2010*

The State Route 25 corridor is important for residents who work in Santa Clara County and points north. The Council of Governments is working with Caltrans and others to identify funding for a future project to increase capacity in the corridor.

Traffic

The majority of people in the San Benito workforce drives alone to work. A smaller percentage carpool. The split by mode of transportation is further depicted in Figure 2-7.

Modes of Transportation	
Travel alone by car or truck	73.9%
Travel with another person, carpool	17.1%
Travel by working from home	5.0%
Travel by other means	1.7%
Travel by walking	1.4%

Figure 2-7 Modes of Transportation

Source: 2007-2011 American Community Survey,

Mode of Transportation

San Benito residents use the public roads and highways system for their daily needs and this need will grow as the population grows. Combined with population growth, San Benito County is isolated in that other economic centers are at least 20 miles away.

PUBLIC TRANSIT

Public transit services in San Benito County are provided by the San Benito County Local Transportation Authority. An extensive menu of services is provided including the following:

- Fixed Route – serves Hollister on the Red, Green, and Blue lines
- Paratransit – serves those eligible who have a disability and their trip start or end is within ¾ mile of the fixed route
- Dial-A-Ride – serves trips outside of the fixed route area
- Intercounty (Service to Gilroy)

  - Caltrain – serves the Caltrain station
  - Greyhound– serves the Greyhound station
  - Gavilan College – serves San Juan Bautista and Gavilan College
- Out of County Non-Emergency Medical Transportation – provides transportation for people with a disability or elderly for medical appointments outside of San Benito County
- Senior Lunch Transportation Program– Provides transportation to the elderly for a lunch program at the Hollister Community Center
- Medical-Shopping Assistance Program – provides transportation and escort service to those with a disability or elderly for medical services and for shopping

In Fiscal Year 2012/2013, the Local Transportation Authority reported that 136,865 passengers used these public transit services. This form of transportation is important for getting children and adults to school, residents to medical services, people to shopping for necessities, and other trips.

An important component of improving transit ridership is locating housing and services near existing bus lines. This encourages transit usage, decreases the need for parking, and improves air quality. Transit must also serve these developments with more frequent service.

Funding cuts to public transit since 2009 have severely undermined the ability of local decision makers to meet the needs of the community. A troublesome cycle begins when funding cuts at the State level occur. This results in service cuts at the local level, followed by ridership declines. Ridership on public transit services has decreased by 19.6 percent since 2009 when transit funding cuts were first made by the State. Funding cuts coupled with the rising cost of maintenance, fuel, parts, and labor undermine the long term stability of transit service in the region. A reliable source of funding is needed to restore services and avoid service cuts and fare increases.

The Local Transportation Authority is updating its Short Range Transportation Plan and developing a Long Range Transportation Plan to address some of these challenges.

ACTIVE TRANSPORTATION

Active transportation plays an important role in the transportation system. Increasingly, people desire more opportunities to participate in walking and bicycling to work, school, and for recreation. Active transportation has many benefits including reducing congestion and air pollution, improving health, and improving quality of life.

Active Transportation is a means of getting around that is human-powered, primarily walking and bicycling.

As the region grows over the next two decades there will be a great need for public infrastructure to accommodate active transportation. With over 25,000 people under the age of 19 by 2035, bicycling, and walking will play an important role in the transportation menu of options.

AVIATION

San Benito County has two general aviation airports, Hollister Municipal Airport and Frazier Lake Airpark. General aviation airports do not have scheduled commercial air-carrier service operations. These two airports serve those who use helicopters, gliders, propeller aircraft, and jets. Single engine piston aircraft represent the majority of airport operations.

The Hollister Municipal Airport serves private pilots, corporate interests, and the California Department of Forestry and Fire Protection (CalFire). The airport also serves supporting industries. In 2010, an estimated 53,000 operations (takeoffs and landings) occurred at the airport.[7] The number of operations is expected to grow to 130,600 by 2030 as the airport develops and support facilities expand. Currently and into the future, no commercial passenger service is anticipated at the Hollister Municipal Airport. The Hollister Municipal Airport includes two runways: a longer 6,350 foot runway, and a shorter 3,150 foot runway.

The Frazier Lake Airport is considered quasi-public use because it allows the public to land and take off, but only allows members to rent hangers. Frazier Lake Airport is unique in that it has one grass runway and one water runway. The grass runway is 2,500 feet long and the water runway is 3,000 feet long. In 2013, annual operations accounted for 10,500 take offs and landings with forecasted operations for 2020 at 23,990.[8]

These two general aviation airports will continue to play an important role in the future of transportation in San Benito County, whether for general aviation or business purposes.

TRANSPORTATION DEMAND MANAGEMENT

Transportation demand management is intended to reduce congestion at peak times through the promotion of strategies including carpooling, vanpooling, working from home, or walking and bicycling. These strategies are aimed at the peak commute times as a way of getting more people through roadways and managing traffic delays.

The San Benito County RideShare program has played an important role in transportation demand management over the last 20 years. Ridesharing services include:

- Carpool, vanpool, and bicycle matching,
- Vanpool vehicle leasing,

[7] Hollister Municipal Airport Land Use Compatibility Plan, June 21, 2012
[8] Comprehensive Land Use Plan, Frazier Lake Airpark, November 15, 2001

- Bike Week and Rideshare Week promotions, and
- Marketing transit services.

TRANSPORTATION SYSTEM MANAGEMENT

Transportation system management involves technologies and strategies to improve the efficiency of the transportation network. Transportation system management includes Intelligent Transportation Systems (ITS). In collaboration with the Association of Monterey Bay Area Governments, and the Regional Transportation Planning Agencies in Monterey, Santa Cruz, San Luis Obispo, and Santa Barbara, the Council of San Benito County Governments developed an Intelligent Transportation Systems Deployment Plan. The Deployment Plan outlines the strategies and projects for the San Benito region. Some of these strategies and technologies include:

- Traffic light synchronization which improves traffic flow and reduces traveler delay
- Advance traveler information including 5-1-1 which provides real-time information about traffic delays, transit options, and more
- Improved efficiency for commercial vehicles including weigh-in-motion, automated route guidance, electronic clearance, and other methods
- Ramp metering which improves the efficiency of heavily used highways

CHALLENGES AND OPPORTUNITIES

With the demographic, transportation system, and economic context described above, the San Benito County region is faced with a complex set of challenges over the next 2 ½ decades. These challenges are the backdrop for the remaining chapters of this Regional Transportation Plan.

TRANSPORTATION FINANCING

The biggest challenge to solving the transportation challenges ahead is funding at all levels. Stable and reliable funding for the array of transportation projects and programs is critical to maintaining and improving our infrastructure. The projected growth forecast and the demand to travel will additionally put pressure on our transportation infrastructure. The need for transportation funding has far surpassed expected revenues with the sunset of San Benito County Measure A, State funding cuts to public transportation since 2009, the diminished value of the gas tax, and the elimination of the Congestion Mitigation and Air Quality Improvement Program for the Monterey Bay region in 2005. In San Benito, the gap between reasonably expected revenues and future need is $486million over 20 years.

An increase in the use of more efficient vehicles combined with the value of the gas tax diminishing has created an enormous gap in funding for the region, State, and nation. To illustrate the point, Figure 2-8 shows this gap.

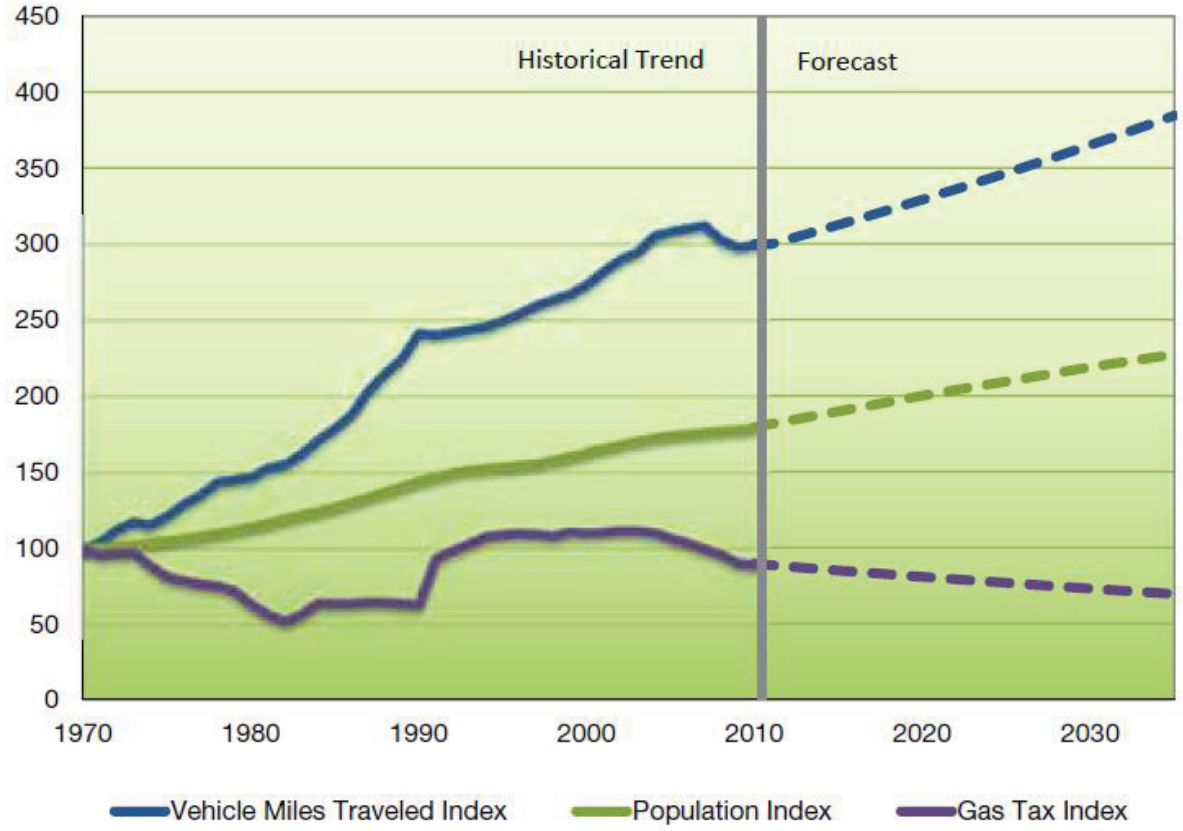

Figure 2-8 Projections on Vehicle Miles Traveled, Population, and Gas Tax Revenues
Source: Southern California Association of Governments, 2012-2035 Regional Transportation Plan

Because San Benito County is home to many who work in other counties and its population center is geographically distant from neighboring counties, funding large transportation projects is an overwhelming challenge.

One method of meeting this challenge that has been adopted by the Council of Governments, City of Hollister, and San Benito County is the Traffic Impact Mitigation Fee Program. These fees are levied to ensure that new development pays its fair share to the transportation improvement costs associated with growth. The last update to the Traffic Impact Mitigation Fee Nexus Study was completed in 2011. This update eliminated the State Route 25 4-Lane Widening project from the project list for funding. The Nexus Study replaced the Highway 25 4-Lane Widening Project with a passing lanes project. Although the need for capacity improvements is recognized by San Benito COG and its member jurisdictions, financial constraint made it necessary to eliminate the widening project and it was replaced with operational improvements, in the form of proposed passing lanes. The Traffic Impact Mitigation Fee Nexus Study is scheduled to be updated in 2015.

SYSTEM PRESERVATION

The San Benito County region has invested millions of dollars in its transportation system including enhancing existing bikeways and highways. Maintenance is needed to protect this public investment for generations to come. However, because of the instability and

vulnerabilities of previous funding sources and the current funding shortages, challenges exist to keep San Benito County's transportation infrastructure in good repair.

Many of the County roads serve remote rural areas and some serve as alternative routes to the State Highways when an incident occurs and ties up traffic. The most pressing challenge with maintaining these streets and roads is funding to extend the life of the roadway or walkway with limited State, Federal, and local financial resources.

FREIGHT MOBILITY

The San Benito County transport network is at a crossroads for moving goods throughout California and the Nation. To the west of the County, the Salinas Valley produced $4.03 billion in agricultural value in 2010.[9]

San Benito County is also home to a strong $298 million agricultural industry (2012).[10] The ability of farmers and producers to get product to the market is crucial. The movement of perishable goods from farm to table relies on investment in transportation infrastructure for long term sustainability. While agriculture steals the show when it comes to freight mobility, other products also rely on the transportation system to support business. Additionally, the increase in population that is projected for San Benito County will lead to increased consumption and an increased local demand for inbound freight.

The effect of this industry can be seen on State highways in San Benito County by the percentage of truck traffic on State highways (Figure 2-9).

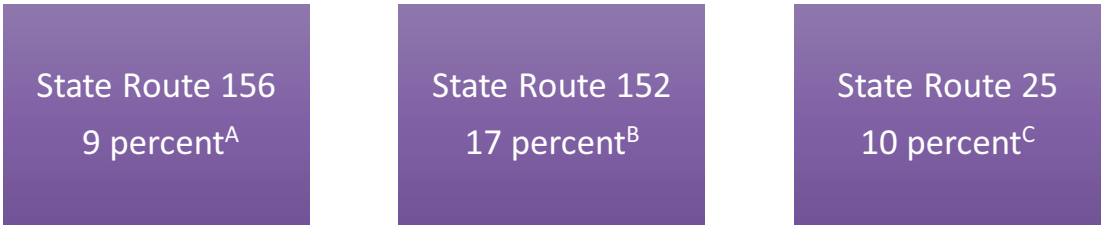

Figure 2-9 Percentage of Truck Traffic on State Highways in San Benito County

Sources:

A *San Benito Route 156 Improvement Project, Final Environmental Impact Report/Environmental Assessment, October 2008*

B *Route 152 Trade Corridor Project (U.S. 101 to Route 99), Preliminary Traffic and Revenue Study Report, February 12, 2010*

C *Hollister to Gilroy State Route 25 Widening and Route Adoption, Draft Environmental Impact Report and Tier 1 Draft Environmental Impact Statement, April 2010*

Given the amount of truck traffic on State highways, the movement of goods within and through San Benito County is of Statewide interest.

One challenge to improving freight mobility in San Benito County is establishing a comprehensive truck route network which meets Caltrans and engineering requirements. Many of the County roads were built decades ago and lack adequate space for the large trucks to turn

9 Economic Contributions of Monterey County Agriculture, Leading the Field – 2011, Monterey County Agricultural Commissioners Office

10 San Benito County 2012 Annual Crop Report

at intersections or tight curves. There are also various length and weight restrictions on portions of the State Highway System within the county, including State Routes 25 and 146.

In order to support the agricultural economy, the County will need to invest in its roadways and correct these issues. However, availability of funding will make it difficult to make these investments.

INTEGRATED TRANSPORTATION AND LAND USE

A Regional Transportation Plan must recognize the connection between land use and transportation. In this respect, the Council of San Benito County Governments worked closely with the Association of Monterey Bay Area Governments, the Cities of Hollister and San Juan Bautista, and San Benito County to coordinate land use and transportation through the Sustainable Communities Strategy.

SUSTAINABLE COMMUNITIES STRATEGY

In 2008, Senate Bill 375 was passed requiring Metropolitan Planning Organizations to prepare a Sustainable Communities Strategy. The Sustainable Communities Strategy integrates land use and transportation planning by coordinating transportation investments with land use patterns in the region to reduce greenhouse gas emissions. Additionally, the Sustainable Communities Strategy accommodates the housing needs of the region.

The Sustainable Communities Strategy is an element of the Metropolitan Transportation Plan prepared by the Association of Monterey Bay Area Governments and covers the tri-county area of Monterey, San Benito and Santa Cruz Counties. As the Regional Transportation Planning Agency, the Council of San Benito County Governments coordinated with the Association of Monterey Bay Area Governments on the development of the Sustainable Communities Strategy by identifying transportation projects for inclusion in the Metropolitan Transportation Plan.

The Regional Transportation Plan contains this list of projects for San Benito County, which were identified through coordination with local jurisdictions. Projects were selected based on extensive public outreach, project performance, and to support the goals of the Regional Transportation Plan. The Association of Monterey Bay Area Governments developed a sustainable land use pattern in conjunction with local jurisdictions that is supportive of the countywide transportation projects list.

Understanding the enormous challenges associated with San Benito County transportation needs, and general lack of funding for repair and maintenance needs, the Council of San Benito County Governments placed an emphasis on system preservation. This direction is reflected in the project list and is reflected in the Sustainable Communities Strategy.

For more information on the Sustainable Communities Strategy, refer to the Association of Monterey Bay Area Governments' *Monterey Bay 2035: Moving Forward* at www.AMBAG.org.

REGIONAL TRANSPORTATION PLANNING IN SAN BENITO COUNTY

Regional transportation planning in San Benito County involves collaboration with our regional partners, the local jurisdictions, community groups, and the public. *On the Move: 2035* involved a greater emphasis on reaching out to community groups and partnering with the Association of Monterey Bay Area Governments on the Sustainable Communities Strategy than in previous Regional Transportation Plans.

Additionally, the Council of Governments works with the local jurisdictions and partner agencies on the project list including determining the purpose, need, cost estimates for projects as well as the financial plan.

The following chapters describe, in detail, the regional issues and overall policy approach, a snapshot of the existing transportation network, investments for our transportation future, financing, performance, and public participation efforts.

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Chapter 3 Regional Issues and Overall Policy Approach

The Council of Governments worked closely with the Association of Monterey Bay Area Governments to develop a set of policy goals that were responsive to the needs of the region's transportation system. These policy goals are crafted to guide policymakers in their comprehensive and day-to-day decision making about transportation.

Additionally, the Council of Governments reached out to the public to help develop these goals and objectives in order to ensure that planning decisions are responsive to what residents of San Benito County want to see for their community. Using public comment and data from the Association of Monterey Bay Area Governments, the goals and policy objectives reflect the majority of San Benito County residents' desires for a healthy, active lifestyle, safe motor vehicle travel, and options for shorter trips to be taken by bicycle or by walking.

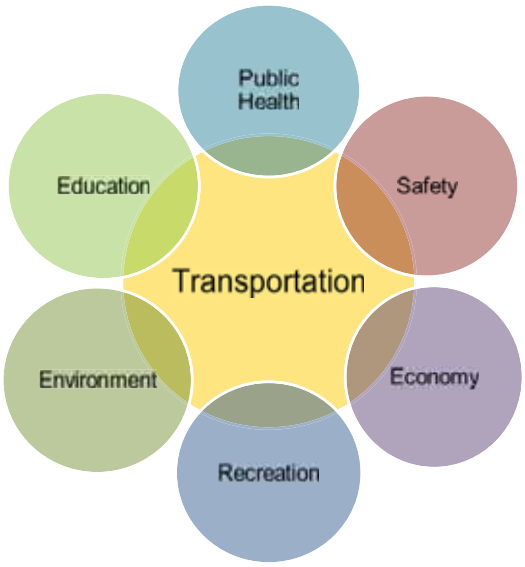


Figure 3-1 Transportation Impacts on Community

San Benito County has seen a recent surge in efforts among the community to initiate change as reflected in these goals and policy objectives. For example, in 2011, the Community Foundation for San Benito County launched Community Vision San Benito, hosting a summit to answer this question: ***"What would you like San Benito County to be in 10 years?"*** Over 200 people attended and themes such as health, safety, and community emerged. In nearly every way, transportation options can affect the attainment of this goal. One theme that emerged from the public input was the desire for San Benito County to "have improved transportation, that meets the community's interest." Other community partnerships among different agencies have also emerged, with the alignment of transportation and land use planning, public health, and economic development all showing a need for infrastructure that meets the goals set forth in this plan. Figure 3-1 illustrates the way transportation impacts so many segments of the community and can have an effect on quality of life.

FEDERAL AND STATE PLANNING GOALS

The Regional Transportation Plan considered the federal and state planning goals when the local goals and policy objectives were being developed. U.S. Congress issues federal planning factors (Title 23 United States Code, Section 134(f)), which are revised when the federal transportation bill is reauthorized. The regional and local transportation goals align closely to these federal planning factors.

Figure 3-2 Eight Metropolitan and Statewide Planning Goals

The State of California participates in several statewide planning efforts related to transportation. The California Transportation Plan (CTP 2040) is a state-level transportation plan that combines statewide transportation goals with regional transportation and land use plans to produce a unified multimodal transportation strategy. The California Transportation Plan defines performance-based goals, policies, and strategies to achieve a collective vision and recommendations for California's future, statewide, integrated, multimodal transportation system over the next 25 years.

In addition to the California Transportation Plan, Caltrans completes five modal plans statewide:

- California Aviation System Plan
- California Freight Mobility Plan
- California State Rail Plan
- Interregional Transportation Strategic Plan
- California Statewide Strategic Plan

These statewide modal plans help regions develop a framework for long-range transportation planning locally.

REGIONAL AND LOCAL TRANSPORTATION GOALS

The San Benito County Regional Transportation Plan calls for a safe, sustainable, globally competitive multimodal transportation system that provides reliable and efficient mobility and accessibility for people, goods and services.

Policy goals were adopted by the COG Board in January 2013 and are further described below.

The goals adopted in the previous 2010 Regional Transportation Plan were extensive and categorized by mode of transportation. The Council of Governments advisory committees reviewed those goals and recommended streamlining them and making them more dynamic and applicable to the needs of the region.

While the Plan focuses on San Benito County, it is important to consider the transportation network as it operates throughout the Monterey Bay region. Therefore, the goals were aligned closely with those of COG's regional partners at the Association of Monterey Bay Area Governments (AMBAG), the Santa Cruz Regional Transportation Commission, and the Transportation Agency for Monterey County.

Figure 3-3 lists the regional and local transportation goals and policy objectives approved by the Council of Governments Board of Directors. These goals and policy objectives are further described and illustrated below.

Goal	Policy Objective
Access and Mobility	Provide convenient, accessible, and reliable travel options while maximizing productivity for all people and goods in the region.
Economic Vitality	Raise the region's standard of living by enhancing the performance of the transportation system.
Environment	Promote environmental sustainability and protect the natural environment.
Healthy Communities	Protect the health of our residents; foster efficient development patterns that optimize travel, housing, and employment choices and encourage active transportation.
Social Equity	Provide an equitable level of transportation services to all segments of the population
System Preservation and Safety	Preserve and ensure a sustainable and safe regional transportation system

Figure 3-3 Goals and Policy Objectives of Regional Transportation Plan

ACCESS AND MOBILITY

Successful transportation planning efforts must be committed to the belief that all residents and visitors of San Benito County are able to access basic needs conveniently, safely, and affordably. This includes the need to get to school, work, health care, shopping, and recreation.

This long-range transportation plan provides for this accessibility by investing in transportation options across all types, including walking, bicycling, driving, and taking transit.

ECONOMIC VITALITY

A well-performing and well-planned transportation system can enhance economic well-being across the region. Investments in transportation have a direct impact on retail spending and job growth. In addition to job growth, efficient freight transportation attracts new business and lowers the inventory costs for goods and services.

The transportation system also supports a regional, state, and national freight industry that relies on efficient movement of goods. The County transportation system also supports a $298 million dollar agricultural industry that is a large producer of jobs and enhances the region's economy.

ENVIRONMENT

A successful Regional Transportation Plan allows all residents to enjoy a better quality of life, including the ability to lead a healthy lifestyle and enjoy clean air and water and ample opportunities for recreation and physical activity. It also focuses on the need to protect our valuable natural resources and wealth of prime agricultural lands. In addition, transportation planning can have an effect on air quality. The Council of Governments is tasked with considering transportation alternatives that improve air quality and reduce greenhouse gas emissions from cars and light trucks.

HEALTHY COMMUNITIES

More and more, the link between transportation and the health is emerging. Transportation policy decisions can greatly impact the health of individuals as evidenced in obesity rates, air quality, and tasks demanding concentration at school. The American Public Health Association notes that transportation has a direct link to the following public health factors:

- Levels of Physical Activity
- Safety and Injury Prevention
- Air Quality
- Health of vulnerable populations, including children, the elderly, and lower income populations
- Mental Health

Additionally, there is an opportunity to control health care costs by investing in sidewalks and bicycle lanes and transit stop

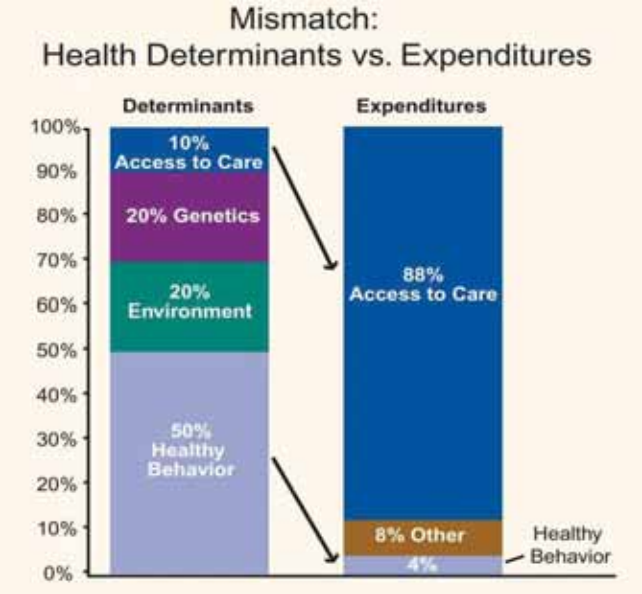


Figure 3-4 Health Determinants vs. Expenditures
Source: New England Healthcare Institute. National Health Care Expenditures, 2005.

improvements. In San Benito County, there have been several recent initiatives that created opportunity for stewards of public health to partner with the Council of Governments to ensure that transportation decisions adequately address public health. These included partnerships with the YMCA, the Department of Public Health, and First 5 San Benito, a local nonprofit whose vision is that *"San Benito County children and their families will reside in a safe, healthy and nurturing environment, enjoy equal access to resources and realize their unique potential with a strong sense of responsibility to self and community*." For example, as a continuation of work of First 5 San Benito's Dunne Park Collaborative, the Council of Governments led planning efforts to improve safe routes to R.O. Hardin and Calaveras Elementary schools including identifying existing conditions that prevent an/or discourage community members from walking, bicycling, and scooting within the project area. Additionally, the San Benito County Local Transportation Authority has created partnerships with local schools and healthcare providers, including the San Benito Health Foundation and Hazel Hawkins Memorial Hospital, to install bus stop shelters to make traveling by public transit more comfortable by providing better walking, bicycling, and scooting access to transit.

SOCIAL EQUITY

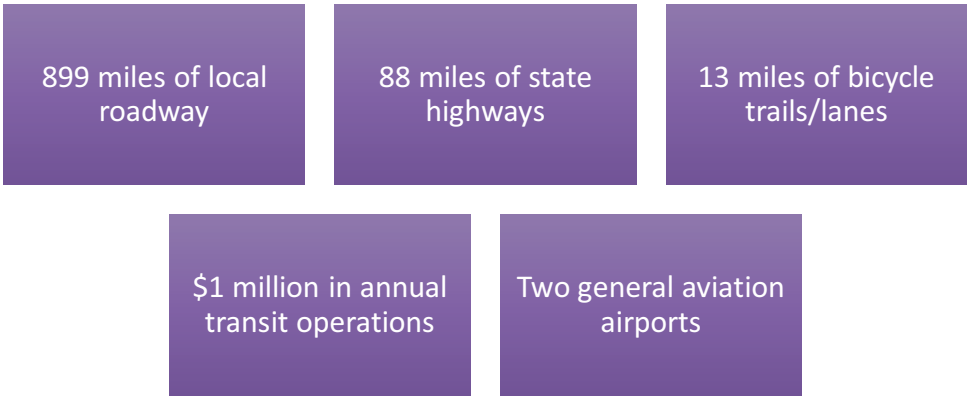
It is important that transportation investments reflect the needs of all residents in the region, and not disproportionately favor any one segment of the community. A responsive Regional Transportation Plan will spread resources throughout the region, making investments in diverse geographic regions and to benefit diverse populations. Over the past 15 years, there has been a greater focus throughout California to ensure that projects and planning efforts consider socioeconomic factors including income, education, and occupation. In San Benito County, 12.7 percent of the population is below the poverty line,[11] with 20 percent having an education level below high school education.[12] Available mapping of San Benito County income distribution shows no highly disadvantaged segments of the community; however, the heavy commute population out of the county masks the reality of income disparity. For example, research completed for efforts to improve safety around R.O. Hardin and Calaveras schools in West Hollister showed that approximately 80% of students lived in households that met income requirements for a free school lunch.

Overall, it is rare to receive feedback from socially and economically disadvantaged populations when making transportation policy decisions related to project development; therefore, decision-makers are tasked with considering social equity impacts of transportation investments.

[11] 2010 U.S. Census
[12] 2010 U.S. Census

SYSTEM PRESERVATION AND SAFETY

San Benito County is home to:



San Benito County is also home to 55,269 (2010 Census) people using these facilities daily, needing them to be in a safe, navigable, and well-maintained condition. In addition, San Benito County is expected to grow to have a population of over 81,332 by 2035. The goal of this Regional Transportation Plan is to ensure that transportation investments are adequate to maintain existing transportation facilities and meet the needs of the community.

Overall, San Benito County is committed to planning for a transportation system that will enhance the lives of its residents and visitors, while preserving the rich and varied resources available.

Chapter 4 Snapshot of the Existing Transportation Network

The strength of San Benito County's regional multi-modal transportation network lies in its vast network of roads, bus routes, sidewalks, and bicycle lanes.

This chapter discusses the existing system needs and provides a snapshot of the facilities that make up San Benito County's transportation multi-modal network. The chapter highlights the importance of a coordinated multi-modal planning system which is critical to the continued growth of our local and regional economies. This coordinated planning approach is important to ensure that as the system grows; we manage transport in a way that is sensitive to the San Benito County region's valuable natural and community resources. As such; it is critical to discuss the impacts growth will have on the existing transportation network.

Multi-modal transportation is a connected transportation system that supports vehicles, bicycles, pedestrians, and public transit.

As the region's transportation network grows and the need for maintenance grows, transportation funding is shrinking, as illustrated in Chapter 2. To understand the impact and needs of the transportation network, it is important to provide insight into San Benito County's regional travel patterns and behaviors.

REGIONAL TRAVEL BEHAVIORS

Nine out of ten trips in the San Benito County region use our highway and arterial network, which supports a host of modes, including the automobile, transit, and active transportation. The region is also home to a growing number of commuters.

In San Benito County, the average commute time to work is just over 30 minutes; this is higher than the United States and State of California averages. In addition, 48.9 percent of San Benito County residents now commute to jobs outside of the county, leaving for work in the dark and coming home after dark.[13]

The Association of Monterey Bay Area Governments' Regional Travel Demand Model also estimates the mode choice by users of the San Benito County region roadway system in Figure 4-1.

Modes of Transportation	
Travel alone by car or truck	73.9%
Travel with another person, carpool	17.1%
Travel by working from home	5.0%
Travel by other means	1.7%
Travel by walking	1.4%

Figure 4-1 San Benito County Mode Choice Data
Source: 2007-2011 American Community Survey, DP03

This data is notably important because most commuters travel at the same time of day on roads and highways that meet or exceed today's capacity demands. Increased traffic has adverse impacts on San Benito County's regional transportation

[13] 2010 U.S. Census, San Benito County

system – causing a strain on the existing infrastructure and available funding resources. Maintaining the local transportation infrastructure is important for the entire region and in order to do so, it is critical to understand the transportation needs of the San Benito County region.

MULTI-MODAL TRANSPORTATION NEEDS ASSESSMENT

How well our transportation system performs directly affects the day-to-day movement of people and goods. On a macro scale, it shapes the region's economic vitality, growth patterns and quality of life. Several needs have been identified upon evaluating existing transportation conditions which should be assessed.

Figure 4-2 Mean Travel Time for Work
Source: U.S. Census Data, San Benito

The predominant mode of transportation in the San Benito County region is the private vehicle. This particular mode of transportation excludes many residents like children under the legal driving age, persons with limited means, or persons with disabilities. As we identify the needs in the region it is crucial to also recognize the needs of the multi-modal transportation system as a whole to include alternative transportation facilities; such as public transit, bicycle and pedestrian facilities to accommodate residents that do not have access, or choose not to use, a private vehicle.

Despite the importance of the San Benito County region's transportation system, improvements have not kept pace with the region's increasing population and transportation demand. As a result, the region's traffic congestion continues to increase, leading to a less productive transportation system, impacts to air quality, deterioration of transportation infrastructure, and financial and health impacts to commuters.

Roadways

San Benito County region's network of roads is crumbling under the weight of decades of underinvestment. The California Statewide Needs Assessment Project surveyed California's 58 counties and 480 cities in 2012 on the condition of local streets and roads infrastructure. It collected data on the amount and type of funding used to support the needs of pavement, essential component needs, and bridges. San Benito County's average pavement condition was 66, consistent with the statewide average.[14]

[14] 2012 California Statewide Needs Assessment Project

The Statewide Report identifies that there is a significant need for increased funding for local streets and road maintenance. There is a statewide funding shortfall of $82 billion over the next ten years. Currently, only $2.5 billion a year is available statewide for local streets and road maintenance in California. In the San Benito County region, the 20-year pavement needs total $313 million.

According to the California Statewide Needs Assessment Project, the average pavement condition index for streets and roads statewide dropped from 68 to 66. This rating is considered to be in the "at risk" category.

As noted, a shortage of funding has had a significant impact to the multi-modal transportation system as a whole – including the needs of public transit, bicycle, and pedestrian facilities.

Public Transit

Public transit needs in the San Benito County region have increased – causing an increase in local Unmet Transit Needs. In 2009, the State of California eliminated Proposition 42 State Transit Assistance Increment (STA) funds from the Transportation Development Act due to State budget constraints. As a result, the San Benito County Local Transportation Authority had to make significant reductions to its transit services and increase fares. At the 2012 Unmet Transit Needs hearing, the Social Services Transportation Advisory Council found that the lack of mid-day Fixed Route service was an unmet transit need that was not reasonable to meet due to funding constraints.

Current transit funding projections inadequately meet all the transportation needs in San Benito County. In order to meet public demand, San Benito is always looking toward generating revenue through various grants to help fund transit. Some examples of recent grants that were awarded to the Local Transportation Authority include:

- Continuation of Intercounty Gavilan College and Greyhound Services
- Transit Internship Program
- Transit Design Guidelines
- Short-Range and Long-Range Transit Plan
- Transit Infrastructure Assessment

Although the agency has been successful in receiving grants, these types of funds are unstable in nature. Grants are typically highly competitive and last one to two years. While these grants are helpful, they are not guaranteed nor consistently funded. Therefore, these grants do not provide a sustainable and/or reliable source of funding needed for planning activities or maintaining service levels.

Bicycle and Pedestrian (Active Transportation)

San Benito County's regional financial needs also impact the regional bikeway network. Currently, the regions' bikeway network is modest in size. However, steps have been taken towards improving citizens' quality of life which create a more sustainable environment by reducing traffic congestion, air pollution from vehicle exhaust emissions, noise, and energy consumption. The Council of Governments has also actively sought grant opportunities to meet the funding shortfall of the bikeway network. Past grants have included:

- Community Based Transportation Planning Grant, which funded the (San Benito County Bikeway and Pedestrian Master Plan),
- Bicycle Transportation Account and Safe Routes to School Grant funded the construction of the San Juan Highway Bike Lanes Project. These grant programs were consolidated into the Active Transportation Program (ATP).
- Monterey Bay Area Unified Air Pollution Control District's AB2766 Vehicle Emissions Reduction Grant Program, which funded the construction of the Southside Road Bike Lanes Project
- Silicon Valley Health Trust Grant, which funded the Safe Routes to School Implementation Plan for R.O. Hardin and Calaveras Schools

Funding for San Benito County's regional multi-modal system typically comes from a range of sources, including state gasoline taxes, county sales taxes, Transportation Development Act, State Transit Planning Assistance. For detailed funding sources, see Chapter 6.

Identification of new strategies will play a vital role in moving the region towards a more cohesive multi-modal network. These strategies will address the current and future needs of pedestrians, bicyclists, transit riders, drivers, and the disabled.

An essential component to any multimodal system should be a "Complete Streets" approach to facility planning. Complete Streets is a roadway design template whereby facilities for different modes of transportation, such as bicycle and pedestrian, are accounted for within the street design.[15] Such a design would include a roadway travel lane adjacent to a bicycle lane and sidewalk, including necessary separations for safety. All facility design decisions should foster a cooperative relationship between recreational and commuter traffic. Appropriate signage and wayfinding strategies need to be employed to ensure that transportation is safe and efficient for all modes, see Chapter 5 for more details.

> Complete Streets meet the needs of all users of the roadway including pedestrians, bicyclists, users of public transit, motorists, children, elderly, and persons with disabilities.

[15] Monterey Bay Area Complete Streets Guidebook

The implementation of Complete Street strategies and policies is important in the development of an integrated multimodal transportation system that facilitates the safe and efficient movement of people and goods. In addition, using performance measures, which are later discussed in Chapter 7, allows us to evaluate current and projected transportation needs of the region.

A Complete Streets Guidebook was prepared by the regional transportation planning agencies of San Benito, Monterey, and Santa Cruz counties and the Association of Monterey Bay Area Governments. This Guidebook is found in Appendix A.

MULTIMODAL SYSTEM

A truly multimodal transportation system is one that supports a variety of transportation resources including highways, local roadways, public transit, bike lanes and trails, pedestrian sidewalks and pathways, aviation, goods movement, and Transportation Demand Management. A multimodal transportation system ensures that land development practices and transportation projects promote community connectivity. A complete multimodal network will also support economic development, tourism and sustainability goals. As a result, the network will improve livability by offering travel choices for all ages and ability of users.

LOCAL ROADWAYS

Roadways are the backbone of San Benito County's economic well-being. Roadways facilitate the movement of people and goods via multiple modes of transportation, including automobiles, public transit, and active transportation. A map of local roadways can be found in Figure 4-4.

The public roads system within San Benito County, the City of Hollister, and the City of San Juan Bautista extends for 521 miles. San Benito County's network includes numerous county roads and city streets. Local jurisdictions classify these facilities according to their function into one of five categories: arterials, collectors, local, local business street, or private roads.

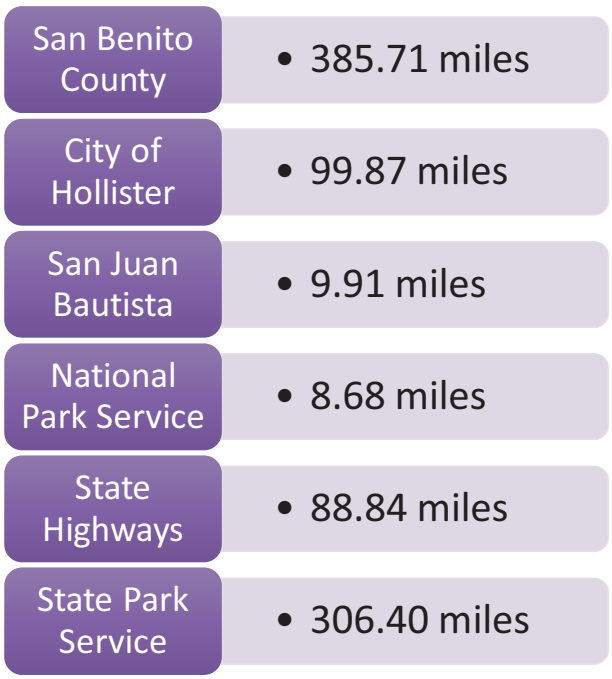


Figure 4-3 Maintained Road and Highway Miles in San Benito County by Jurisdiction
Source: California Department of Transportation, 2011 California Public Road Data

Arterials

Within urbanized areas, arterials provide access to major activity centers and accommodate pedestrian and bicycle use. Arterials usually have relatively high traffic volumes and travel speeds. Arterial streets have limited parking opportunities or parking is prohibited altogether.

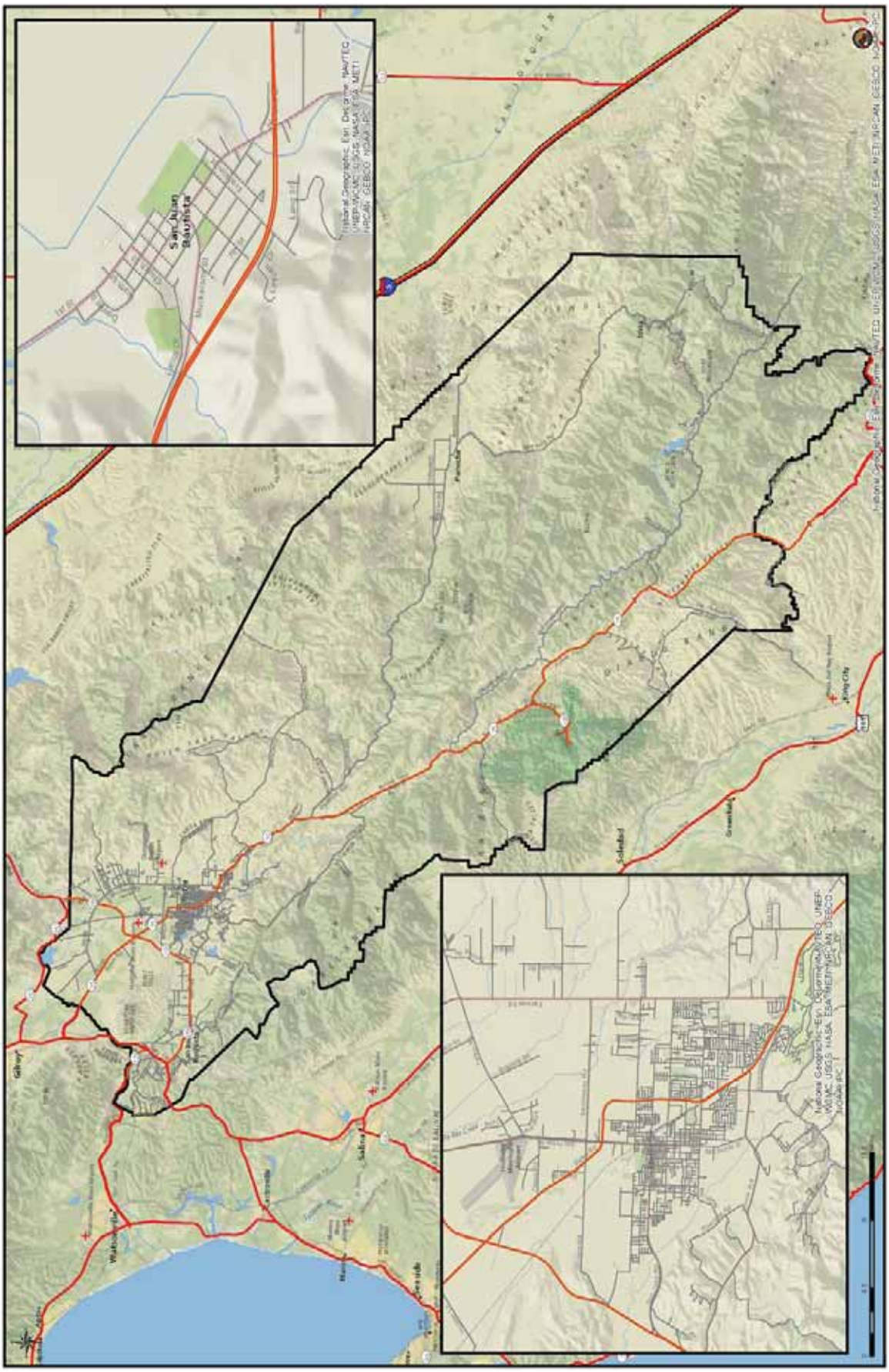


Figure 4-4 San Benito Regional Roadway Network

Collectors

The collector street and road system primarily provides for vehicular, pedestrian, and bicycle movement between sub-areas within residential, commercial, and industrial neighborhoods.

Collector streets and roads usually have moderate traffic volumes and travel speeds, consistent with a moderate level of pedestrian and bicycle use. Collector streets have limited on-street parking opportunities.

Local

The local street and road system primarily provides for vehicular, pedestrian, and bicycle movement. Moderate to high traffic volumes and low travel speeds are consistent with the highest level of pedestrian and bicycle use. Main streets have ample on-street parking opportunities for commercial use.

Private Roads

Private roads provide access from public roads to properties otherwise unconnected to the public road system. Private roads are also found in multi-family or condominium development projects. Usually, local jurisdictions require new private roads to meet the same standards as public roads, but in many cases older facilities do not meet minimum public standards. Private roads usually have low traffic volumes and travel speeds, and pedestrian and bicycling facilities are often missing.

Existing Conditions

San Benito County's roads have seen increased traffic due to growth in the late 1990s. Traffic congestion on rural roads in northern San Benito County has created long delays at rural intersections. Within Hollister, many local and collector streets are being used for through travel.

STATE AND FEDERAL HIGHWAYS

The San Benito region's State of California highway system extends for 88 maintained miles. The California Department of Transportation (Caltrans) maintains five state highways in San Benito County which includes routes 25, 101, 129, 146, and 156. With the exception of U.S. 101, the highways in San Benito County were designed as two-lane conventional highways. Many of these facilities have been overwhelmed by increased commuter, recreational, and goods movement traffic. State highways are discussed in more detail below.

State Route 25

State Route 25 traverses the entire length of San Benito County in the south at the junction of State Route 198 in Monterey County, north through Paicines, Tres Pinos, and Hollister to the northern county boundary near Gilroy, where it connects to U.S. 101. This primarily minor rural route functions as a two-lane facility, with the exception of a short section in Hollister where there are three miles consisting of four and six lanes.

State Route 25 is a primary commuter route between Hollister and Gilroy. Between 1998 and 2003, State Route 25 experienced a high number of traffic accidents and fatalities along the corridor. Anecdotal evidence indicates that heavy peak-period traffic volumes impact parallel routes including Frazer Lake Road. State Highway 25 from the Monterey County line to State Highway 156 is eligible for inclusion in the California Scenic Highway program.

In response to these conditions, the Council of Governments in coordination with various state and local government agencies has planned and implemented a series of projects, identified below, that address the needs of travelers using Highway 25 in San Benito County.

- Highway 25 Bypass
  The Measure A Authority funded and the Council of Governments constructed the Route 25 Hollister Bypass, which was opened to the public in February of 2009. The Bypass is a six and four-lane urban arterial with bicycle lanes that begins at the intersection of State Route 25 at Sunnyslope Road and extends north intersecting East Park Street, Hillcrest Road, Meridian Street, and Santa Ana Road. The new facility continues north and then west to connect to San Felipe Road and Highway 25. The new route is parallel to and to the east of Downtown Hollister.

  In 2014, the Council of Governments worked in partnership with Caltrans to designate the Bypass as the official State Route 25. The existing State Route 25, that runs through Downtown Hollister was relinquished and is now a city owned street. The transfer of the Bypass to the State was made in May 2014.

- Highway 25 Safety and Operational Enhancements Project
  In 2010, the Council of Governments completed construction on the Highway 25 Safety and Operational Enhancements Project. The purpose of the Highway 25 Safety and Operational Enhancements Project was to reduce the potential for cross centerline collisions by constructing a median barrier and consolidating private driveways. This project is located on State Route 25 between San Felipe Road in San Benito County and U.S. 101 in Santa Clara County; a distance of approximately 11.2 miles.

- Highway 25 Widening
  Caltrans, in cooperation with the Council of Governments and the Santa Clara Valley Transportation Authority, is proposing the eventual replacement of 11.2 miles of the existing State Route 25 two-lane conventional highway with a four-lane expressway in San Benito and in Santa Clara Counties. In San Benito County, the project would extend for 8 miles from San Felipe Road (within the City of Hollister) to the San Benito/Santa Clara County line. This project is intended to add capacity along the corridor. For fiscal constraint reasons, funding for the Highway 25 Widening project is unavailable in the 2035 planning period.

U.S. Highway 101

U.S. 101 passes through the northwestern portion of San Benito County for 7.5 miles and serves primarily interregional traffic. It is the main north/south route that Caltrans classified as a principal arterial and includes it as part of the Interregional Route System (IRRS). San Benito County has designated the route as a Scenic Highway. U.S. 101 from the Monterey County line to State Highway 156 is eligible for inclusion in the California Scenic Highway Program.

Figure 4-5 State and Federal Highways in and around San Benito County
Source: California Department of Transportation

U.S. 101 in San Benito County starts as a four-lane expressway at the Monterey/San Benito County Line and changes to a four-lane freeway 1.6 miles north. The route continues as a four lane freeway to the Pajaro River Bridge at the San Benito/Santa Clara County Line. State Routes 156 and 129 intersect U.S. 101 in San Benito County. Caltrans has identified a route concept for U.S. 101 that is a six-lane freeway configuration, which is currently unfunded.

State Route 129

As a two-lane conventional highway, State Route 129 extends from Santa Cruz County into the northwestern portion of San Benito County connecting to U.S 101 approximately 2.6 miles from the Santa Cruz/San Benito County Line. It provides access from State Route 1, in Santa Cruz County to U.S. 101 for truck traffic generated by food processing plants in the Watsonville area and a sand and gravel quarry in southeastern Santa Cruz County. The route also serves agricultural production areas used by farm equipment and slow-moving trucks carrying farm produce. State Route 129 provides access to Santa Cruz and Monterey County beaches.

Truck traffic originating from Santa Cruz County on State Route 129 impacts San Juan Highway and San Justo Road, both of which are narrow two lane roads ill-equipped to handle heavy loads and large vehicles. Agricultural-related businesses located on San Juan Highway are generating much of this truck traffic, which impact the county's roads as trucks move through the area toward State Route 156. In addition, Anzar High School, which is also located on San Juan Highway, generates motor vehicle traffic in the area during school hours.

The route concept for State Route 129 is a two-lane conventional highway with passing lanes where appropriate.

State Route 146

State Route 146, in San Benito County is a two-lane conventional highway used primarily to provide access from State Route 25 to Pinnacles National Park. Caltrans classifies this route as a minor arterial. San Benito County has designated the route as a local Scenic Highway and the corridor has been identified as eligible for inclusion in the California Scenic Highway Program.

Figure 4-6 Rock climber at Pinnacles National Park
Source: Friends of Pinnacles

State Route 146 is expected to accommodate anticipated growth through the long-term (2035) forecast without major capacity improvements. The route concept for State Route 146 is to maintain the corridor as a two-lane conventional highway.

State Route 156

State Route 156 traverses northern San Benito County, from U.S. 101 (west of San Juan Bautista) through San Juan Bautista and Hollister to the San Benito/Santa Clara county line where it connects with State Route 152. State Route 156 is a four-lane expressway from U.S. 101 to San Juan Bautista, where it narrows into a conventional two-lane rural highway. In the Hollister area, State Route 156 becomes a two-lane expressway, as it bypasses Hollister and maintains that configuration to the San Benito/Santa Clara County line. Near Hollister, the State Route 156 Bypass continues north of the city limits.

The corridor serves interregional traffic traveling east/west, including a substantial number of trucks during the week and recreational traffic between the Central Valley, Monterey Bay Area, and San Francisco Bay Area on the weekend. Caltrans classifies State Route 156 as a rural minor arterial and includes it as part of the Interregional Road System. State Route 156 is a Caltrans Focus Route. As such, the route has a high priority for completion to facility standards in order to handle higher volumes of interregional trip movements and connect all urban areas, goods movement gateways, and rural areas. It is also designated as a Federal Aid Primary Route and is part of the Freeway and Expressway System, although a large portion of the route is a conventional highway.

State Route 156 is also a major corridor for residents of Hollister, San Juan Bautista, and San Benito County traveling to Monterey and Santa Clara Counties. While portions of the facility have been upgraded to handle increased demand, the segment between San Juan Bautista and Hollister remains a two-lane facility. With conflicts between commuters and agricultural operations, improving safety on this highway segment is a priority for Caltrans and San Benito County policy makers.

Caltrans' future route concept for State Route 156 is a four-lane access-controlled conventional highway from The Alameda to Union Road (west of Hollister), and a two-lane access-controlled

conventional highway from Union Road to the San Benito/Santa Clara County Line. Caltrans has secured funding for the San Benito Route 156 Improvement Project and is currently in the final design and right-of-way phases to widen State Route 156 from The Alameda to Union Road. Once constructed, the existing State Route 156 will become a county road and will serve as access for residents living on the north side and a bicycle and pedestrian multi-use path connecting bicyclist traveling between Hollister and San Juan Bautista.

State Highway 156 from the Monterey County line to the Santa Clara County line is eligible for inclusion in the California Scenic Highway Program.

GOODS MOVEMENT

The majority of commodities in San Benito County are transported in and out of the county by truck, with a small portion transported by rail.

TRUCKING

San Benito County experiences a higher than average amount of truck traffic in and around San Juan Bautista and Hollister. Commodity exports from San Benito County are primarily agricultural products and quarry materials, and the transport of these products generates a significant amount of truck traffic in and out of the County. While this traffic is largely confined to state highways it also impacts local streets and rural roads not designed to handle large heavy trucks, creating conflicts with local traffic and adding to congestion. Seasonal trucking activity in the region is a challenge for farmers trying to get their produce to market. In addition to congestion, infrastructure is not adequate to handle large truck volumes. Figure 4-7 depicts highway freight movement in the United States. San Benito County is entirely covered by the lines, highlighting the importance of trucking in regional goods movement. Figure 4-8 depicts the existing and proposed freight network for San Benito County. Projects identifed for funding in the Regional Transportation Plan's timeframe include projects which will accommodate this freight network improvement need. Additional projects, such as improvements to the State Route 25, US 101 and State Route 152 corridors, are included in the illustrative, unconstraind project list in the Plan. These identified needs underline the importance of the need to accommodate a goods movement network that is safe and efficient.

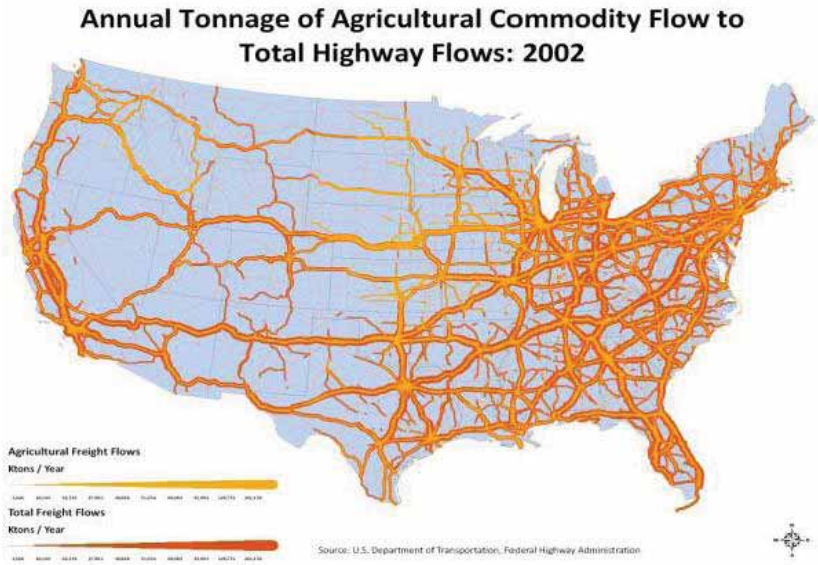


Figure 4-7 Agricultural and Total Freight Movement on United States Interstate System, 2002
Source: U.S. Department of Agriculture

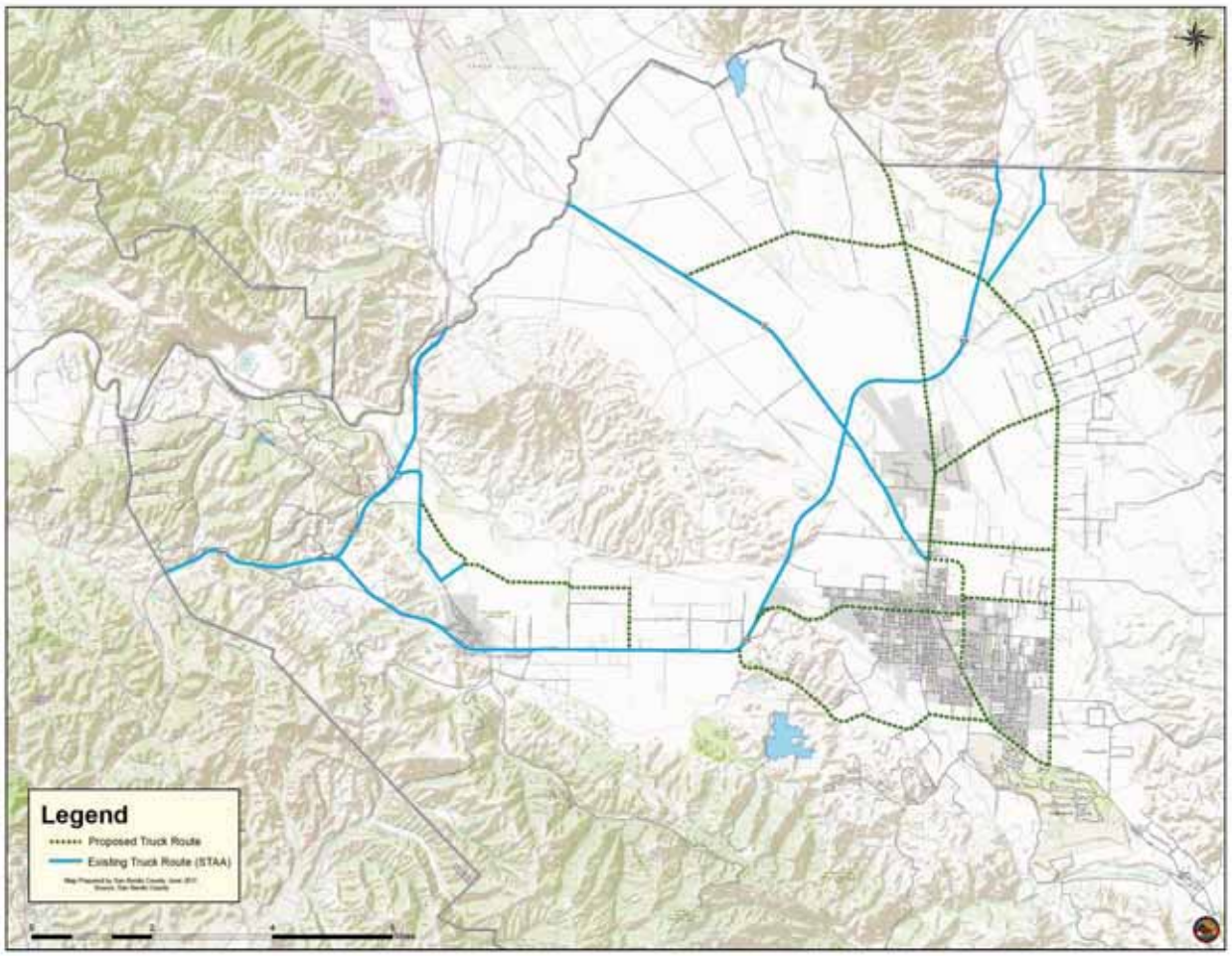


Figure 4-8 Existing and Proposed Truck Routes in San Benito County

RAILROAD

The primary rail line in San Benito County is the 12-mile-long Hollister Branch Line running from Hollister to Carnadero Creek in Santa Clara County. The facility transports approximately 10,000 gross tons of goods on the rail line each year. With the advent of the state highway and the competitive shipping rates offered by truckers, rail has become a less viable form of commodity transport than it was in decades past. In 2014, there were no established plans to expand rail growth in San Benito County by either the public or private sector.

PUBLIC TRANSIT SYSTEM

Despite San Benito County's common perception as an auto-oriented culture, the region's transit system includes an extensive network of services and options.

The San Benito County Local Transportation Authority was formed by a Joint Powers Agreement between the Cities of Hollister and San Juan Bautista and the County of San Benito in 1990. The Authority is responsible for the administration and operation of public transportation services in the County provided by County Express and Specialized Transportation Services.

During Fiscal Year 2012/2013, the Local Transportation Authority transit providers served 120,109 passengers on County Express and 16,756 on Specialized Transportation Services (Figure 4-9).

As an ongoing effort to coordinate public transportation services and resources in the San Benito County region, the Association of Monterey Bay Area Governments, in partnership with the Authority and other regional transit agencies developed a comprehensive strategy for public transportation service. The Monterey Bay Area Coordinated Public Transit-Human Services Transportation Plan identifies the current transportation needs of individuals with disabilities, older adults, and individuals with limited incomes, and outlines strategies for meeting these needs. The Coordinated Plan can be found at www.AMBAG.org.

COUNTY EXPRESS TRANSIT SYSTEM

The County Express system currently provides three fixed routes in the City of Hollister, complementary Americans with Disabilities Act Paratransit service, Intercounty service to Gilroy in Santa Clara County, and a general public Dial-A-Ride.

As of December 2013, the County Express fleet included 23 vehicles. All vehicles are ADA compliant and equipped with wheelchair lifts/ramps and bicycle racks. The Local Transportation Authority contracts with a private operator for management, dispatchers, trainers, and drivers of its County Express transit service.

Fixed-Route

Fixed-Route service operates three Fixed Routes within the City of Hollister. These routes operate between 6:20 a.m. and 5:40 p.m. However, there is no Fixed Route service between 11:00 a.m. to 2:00 p.m. Headways for each of the routes range from 40 to 50 minutes.

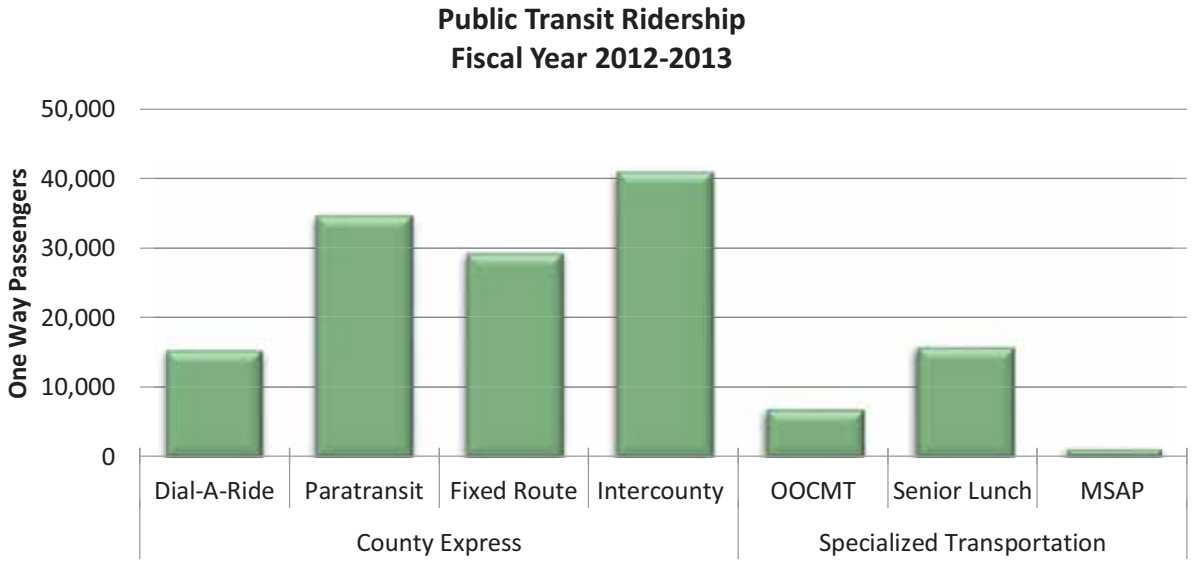


Figure 4-9 Fiscal Year 2012/2013 Public Transit Ridership
OOCMT – Out-of-County Non-Emergency Medical Transportation
MSAP – Medical-Shopping Assistance Program
Source: San Benito County Local Transportation Authority

Dial-A-Ride

County Express transit system provides Dial-a-Ride service to parts of northern San Benito County, including Hollister, San Juan Bautista, and Tres Pinos, Monday through Friday from 6:00 a.m. to 6:00 p.m. where and when Fixed Route is not available and on weekends. Reservations for the Dial-A-Ride may be made up to 14 days in advance. Same-day service is available but is subject to availability and a convenience fee.

Paratransit

Complementary Americans with Disabilities Act Paratransit service is available for residents and visitors who are eligible for the service as determined by the Authority. The service is for individuals who are not able to access Fixed Route due to a physical or cognitive disability and have trips that begin or end in a location less than ¾ mile from a Fixed Route bus stop. Reservations for the Paratransit service may be made up to 14 days in advance. Same-day service is available but is subject to availability and a convenience fee.

Intercounty

County Express' Intercounty routes provide connections from the Cities of Hollister and San Juan Bautista to the City of Gilroy. There is daily weekday service to Gavilan College and the Caltrain station and Saturday service to the Greyhound station in Gilroy. The weekday shuttle service to Gavilan College is from 6:50 a.m. to 6:10 p.m. with a limited schedule when school is not in session. There are three early morning and three evening runs to the Gilroy Caltrain station for connections to Caltrain and Valley Transportation Authority bus services. Service to the Greyhound station operates on Saturday and Sunday from 7:40 a.m. to 6:00 p.m.

SPECIALIZED TRANSPORTATION SERVICES

According to the 2010 U.S. Census, 10.4 percent of the total county population is aged 65 or older.[16] Many of these elderly individuals and persons with disabilities require specialized transportation services to travel to medical appointments, shop, and visit recreation centers.

Figure 4-10 Clients of Specialized Transportation Services

The Authority contracts with Jovenes de Antaño, a local non-profit organization that has been providing specialized transportation services in San Benito County since 1990. Specialized services include Out of County Non-Emergency Medical Transportation, Medical Shopping Assistance Transportation, and Senior Lunch Transportation Program. These services are beyond the requirements of

[16] U.S. Census, San Benito County

Americans with Disabilities Act. They provide escort services, door-through-door, and minor translation services.

Jovenes de Antaño also has a referral program that provides information about other social services within the community, coordination of home-based services, referral to legal assistance, and other local services to their clients. The coordination effort between Jovenes de Antaño and the Authority allows for efficient, affordable and reliable service for this critical need in the community of San Benito County.

REGIONAL VANPOOL PROGRAM

The Council of Governments administers a commuter Vanpool Program. The Program is designed to help San Benito County residents save money, reduce traffic congestion, and make the commute to/from work more pleasant by providing affordable shared transportation. The Vanpool Program fleet consists of four 15-passenger vehicles that are leased to commuters traveling to and from San Benito County.

Calvans

CalVans is a state-wide Vanpool Program that includes more than 200 vanpools tailored to meet the needs of commuters, plus nearly 150 vans especially designed for farm workers. CalVans is sponsored by the California Vanpool Authority.

COMMUTER RAIL SERVICE

Although there is no direct commuter rail service from San Benito County to Santa Clara County, County Express provides Intercounty shuttle service to connect commuters to Caltrain services available in Gilroy. The California High Speed Rail Authority has a planned route that is proposed to go through northern San Benito County as it connects the Bay Area with the Central Valley and Los Angeles. There is no planned stop within San Benito County.

SCHOOL BUS TRANSPORTATION

San Benito County has 11 public school districts, 7 private schools and 4 special-purpose schools. The four school districts that provide bus service for their students are Aromas-San Juan Unified, Hollister, North County Joint Union, and San Benito High School. School bus service is open only to students who live within a specific distance from the school or have a disability.

TAXI SERVICE

Taxi service is available from Hollister Taxi, LTD Taxi Service, and Yellow Cab.

ACTIVE TRANSPORTATION IN ACTION

Active transportation modes (e.g., bicycling and walking) are essential and increasingly important modes of transportation. These non-motorized modes are low-cost, do not contribute to air pollution, help reduce roadway congestion, improve health, and contribute to quality of life. As the region works toward reducing congestion and air pollution, safe facilities

to encourage active transportation will become essential to meet the future needs of our residents.

Figure 4-11 Social Media Marketing Efforts by San Benito Rideshare Program
Source: San Benito Rideshare

SUPPORTING ACTIVE TRANSPORTATION

In recent years, there has been a push in state, regional, and local policies to enhance the existing transportation system while improving the environment. Some of the laws, planning documents, and guidelines which support this shift include:

- The California Global Warming Solutions Act of 2006 (AB 32) challenges California to fight climate change through a comprehensive program reducing Greenhouse Gas emissions from virtually all sources statewide. The Act requires the California Air Resources Board (CARB) to develop regulations and market mechanisms that will cut the state's greenhouse gas emissions to 1990 levels by 2020 – a 25 percent reduction statewide.[17]
- The California Complete Streets Act (AB 1358), passed in 2008, requires that any major revision of a jurisdiction's General Plan include modification to the circulation element to "plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads and highways."[18] The Complete Streets Act will ensure that the transportation plans of California communities meet the needs of all users of the roadway including pedestrians, bicyclists, users of public transit, motorists, children, the elderly, and the disabled.
- In 2009, Governor Brown signed SB 99, which consolidates existing federal and state transportation programs, including Bicycle Transportation Account (BTA) and Safe Routes to School into a single program, Active Transportation Program (ATP), with the focus to make California a national leader in active transportation.
- SB 375 (Chapter 728, Statutes of 2008) directs the California Air Resources Board to set regional targets for reducing greenhouse gas emissions. The new law establishes a "bottom up" approach to ensure that cities and counties are involved in the development of regional plans to achieve those targets.

  SB 375 builds on the existing framework of regional planning to tie together the regional allocation of housing needs and regional transportation planning in an effort to reduce greenhouse gas (GHG) emissions from motor vehicle trips.
- The Monterey Bay Area Complete Streets Guidebook builds upon best practices from across the nation and was developed to assist local jurisdictions in planning, designing

[17] California Air Resources Board
[18] California Government Code section 65302(b)(2))

and implementing complete streets projects. Complete streets are roadways designed to safely and comfortably accommodate all users, including, but not limited to motorists, cyclists, pedestrians, transit and school bus riders, delivery and service personnel, freight haulers, and emergency responders. Complete streets accommodate people of all ages and abilities.[19] See Appendix A.

- In May 2009, the Council of Governments adopted the San Benito County Bikeway and Pedestrian Master Plan. The Plan provides a blueprint for making bicycling and walking an integral part of the daily life in the San Benito County region. The Plan proposes 140.16 miles of designated trails, lanes, and routes that can be used to conveniently access major employers, shopping centers, and schools throughout the San Benito County region. The goals of the Bikeway and Pedestrian Plan are consistent with the system goals of the Regional Transportation Plan.
- In September 2010, the San Benito County Local Transportation Authority adopted Transit Design Guidelines. These Guidelines were developed to provide information about the benefits of incorporating transit-friendly design in private development projects, making new communities well served by transit, and encouraging transit use.

ACTIVE TRANSPORTATION PROJECTS AND PROGRAMS IN SAN BENITO COUNTY

An important first step in promoting Active Transportation is to recognize that city streets are not just for cars. This is significantly important when nearly 33 percent of Hollister's population is under the age of 18 and generally would not have access to a vehicle for personal use. In fact, while city streets must accommodate automobile traffic, an equal or greater focus should be placed on accommodating pedestrians.

Bicycling Facilities

Like many communities throughout the United States, San Benito County is experiencing resurgence in bicycling as a means of transportation. The bicycle is a low-cost and effective means of transportation that is quiet, non-polluting, energy-efficient, versatile, healthy, and fun. Bicycles offer low-cost mobility to the non-driving public and offer recreational activity for people of all ages. Recent national and local surveys find that more people are willing to bicycle more frequently if better facilities are available.

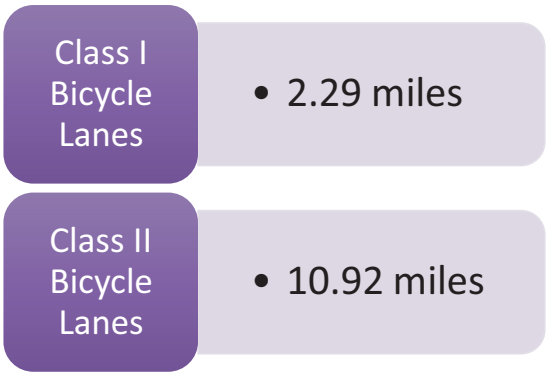


Figure 4-12 Bicycle Lanes in San Benito County
Source: 2009 San Benito County Bikeway and Pedestrian Master Plan

In the San Benito County region, there are 13.21 miles of bicycle facilities in San Benito County. San Benito County and cities' existing bikeway network consists of approximately 2 miles of bike paths and 11 miles of bike lanes. Existing Class I bike paths often parallel arterial roadways.

[19] Monterey Bay Area Complete Streets Guidebook

Existing Class II bike lanes are on urban roadways, often on arterial streets. There are no existing Class III bike routes in the region. Figure 4-13 illustrates examples of the three bike lane classifications. Figure 4-14 depicts the current and proposed bicycle lanes.

Most bicycling in the San Benito County region is done on roadway shoulders, which are not striped for bike lanes, or sidewalks on busy arterials.

As is the case with pedestrian activity, the sign of a healthy street and city is the common use of bicycles for travel in and around town. In many cases, bicycles can be accommodated on well-designed streets without the need for separate bike lanes. As many of the major city streets in Hollister and San Juan Bautista become impacted by heavy traffic, planners must consider building bicycle facilities to encourage and accommodate bicycle travel. This can be accomplished by striping Class II bicycle lanes and posting Class III bicycle routes on existing streets and by providing alternative routes dedicated to bicycle and pedestrian use.

Pedestrian Activities

As they developed, the San Benito County region and its two cities often did not require new communities to include sidewalks on streets because they wanted to maintain the "country" feel. This creates a juxtaposition of wanting to balance the desire to retain a rural or small-town character with residents' need to move about safely on foot. Sidewalks can minimize the dangers of weather conditions, tripping hazards, and public health concerns. Sidewalks elevate the individual from storm and stagnant waters along roadways that can collect debris or bacteria.

There are numerous places where sidewalks do not exist or end abruptly. For example, such a condition exists in Hollister on Sunnyslope Road. In this instance, pedestrians use a dirt path along the street. There are other examples in the county of inadequate sidewalk facilities. In San Juan Bautista, the lack of continuous sidewalk along 5th Street considerably limits pedestrian flow.

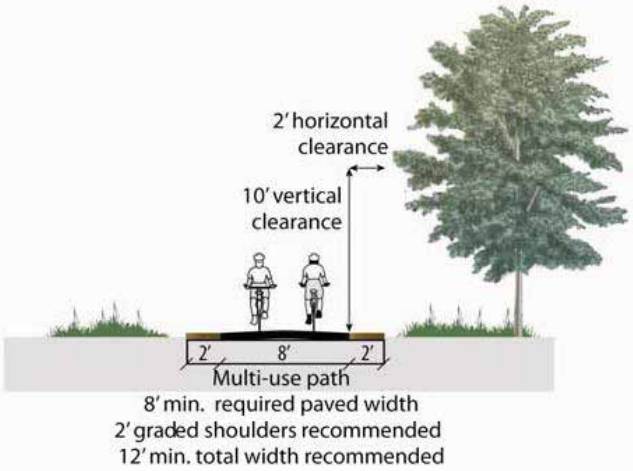
Bicycle Safety Education Programs

Education is an important element for increasing bicycling while also improving safety – bikeways cannot do it alone. There is also a need for proper education of both youth and adult bicyclists and motorists. In the past, the Council of Governments has promoted the following educational programs and projects in support of bicycling.

- Bike Week: Bike to School/Work Day
- Walk 'N' Roll Event
- Walk to School Day
- Suggested Safe Routes to School Maps
- San Benito County Bike Map

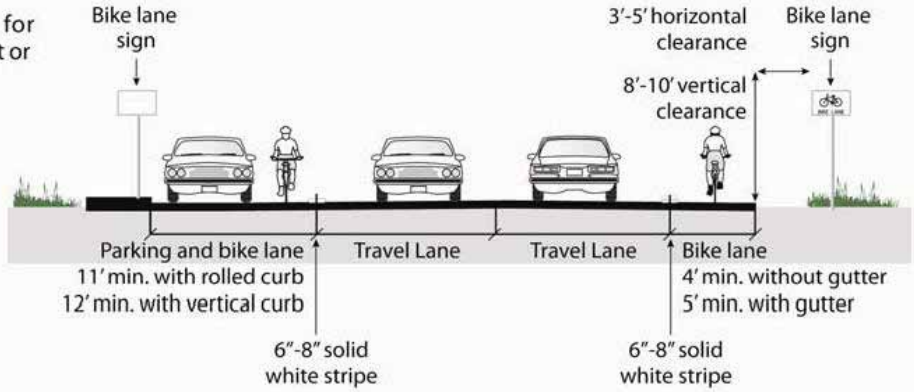
CLASS I
Multi-Use Path

Provides a completely separated right of way for the exclusive use of bicycles and pedestrians with crossflow minimized.



CLASS II
Bike Lane

Provides a striped lane for one-way bike travel on a street or highway.



CLASS III
Bike Route
Signed Shared Roadway

Provides for shared use with pedestrian or motor vehicle traffic, typically on lower volume roadways.

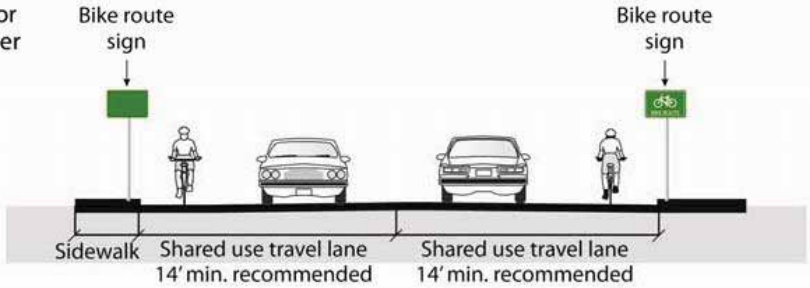


Figure 4-13 Caltrans Bikeway Classfications
Source: 2009 San Benito County Bikeways and Pedestrian Master Plan

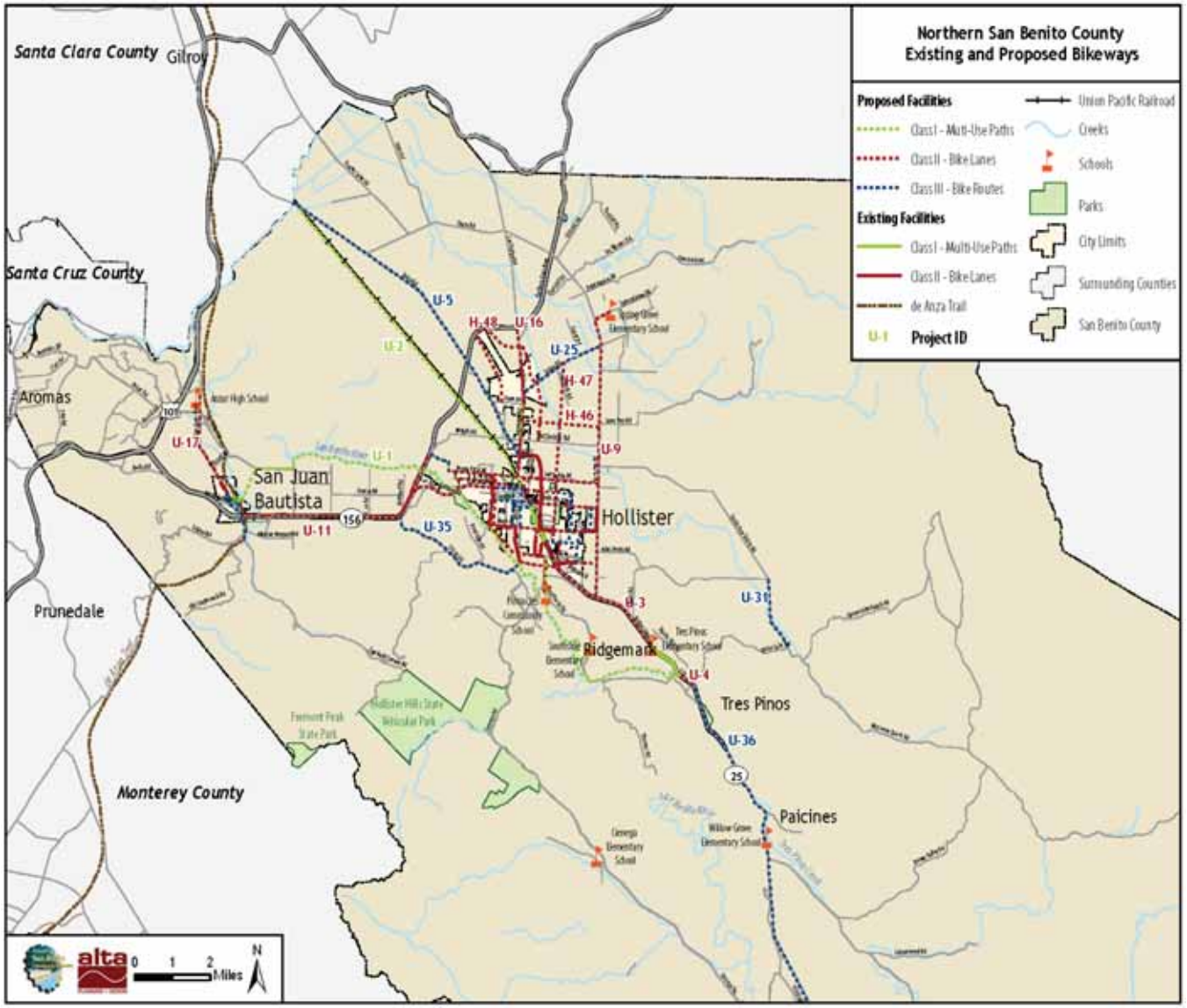


Figure 4-14 Northern San Benito County Existing and Proposed Bikeways

Since the adoption of the 2009 San Benito County Bikeways and Pedestrian Master Plan, the San Juan Highway Bike Lanes Project (U-17) has been completed

Source: 2009 San Benito County Bikeways and Pedestrian Master Plan

Safe Routes to School

The San Benito County Safe Routes to School efforts aim to improve the health of kids and the community by making walking and bicycling to and from school safer, easier, and more enjoyable. Safe Routes to Schools uses education and incentives to encourage walking or riding a bicycle to and from school.

The Council of Governments has made great strides to encourage walking and bicycling within the San Benito County region. Specifically, by implementing various Safe Routes to School focus programs and projects, including:

- Suggested Safe Routes to School Brochures - Bilingual handouts for various schools in Hollister that outline the best suggested routes to and from school. Printable brochures are available online at: http://sanbenitorideshare.org/schools/safe-routes-to-school/.
- Safe Routes to Schools Program – Draft Implementation Plan on improving facilities and encouraging walking and bicycling at R.O. Hardin and Calaveras Schools in Hollister.
- Bike-to-School Day - Free breakfast, peer support, and prizes. By encouraging students to safely ride to and from school, the event strives to reduce childhood obesity, traffic at school sites, and greenhouse gas emissions, and encourage long term bicycling habit.
- Walk-to-School Day - Annual event which encourages physical fitness and healthy habits, heightens awareness of traffic, safety and environmental concerns around schools, and encourages a long term bicycling habit.
- Walk 'N' Roll - The official kickoff event to Bike Week. In the past, this event has hosted a bicycle repair clinic, bicycle registration, low-income helmet giveaway, bicycle beauty contest, and bicycle safety course. The goal is to provide bicycle safety information and encourages a long term bicycling habit.

TRANSPORTATION DEMAND MANAGEMENT

San Benito County will experience a significant increase in the number of commuters over the next 25 years.

The U.S. Census reported that there were 23,907 individuals commuting to work in San Benito County between 2006 and 2010 and 48.9 percent of this workforce traveled outside the county to work.[20] To help manage the growth in demand for highway capacity, the Council of Governments provides ridesharing services.

[20] U.S. Census Bureau, Table 1. Residence County to Workplace County Flows for the United States and Puerto Rico Sorted by Residence Geography: 2006-2010

RIDESHARING

The Council of Governments has provided ridesharing services to San Benito County residents since 1987, and the program focuses on commuters who travel outside San Benito County for employment. The goal of the Rideshare Program is to help commuters traveling to or from San Benito County use alternatives to driving alone. The Rideshare Program helps improve air quality by encouraging shared vehicle use, and use other modes of transportation as alternatives to the single-occupant vehicle.

As a resource to commuters, San Benito County Rideshare partners with the Bay Area's Metropolitan Transportation Commission (MTC) for use of its 511 Ridematch Database. The database contains over 500 registered individuals in San Benito County that use carpool and vanpool ride matching services. After registering in the 511 database, registrants can see if there are others with a similar commute. If schedules align, a carpool can be formed, if there are a large number of people commuting to the same location, a vanpool could be formed.

TRANSPORTATION SYSTEM MANAGEMENT

Transportation System Management strategies increase the efficiency of the existing transportation system and reduce the need for costly system expansion. Transportation System Management strategies often use Intelligent Transportation System technologies. These measures include signal synchronization, ramp metering, "at-speed" truck scales "weight in motion", and 5-1-1 traveler information systems. Strategic application of Intelligent Transportation System technology on our transportation system can increase system productivity by as much as 5 percent. Projects expected to significantly increase single-occupancy vehicle capacity are required to implement Transportation System Management strategies to mitigate the capacity increases.

The California Department of Transportation (Caltrans) implemented a statewide effort to develop Corridor System Management Plans for corridors funded under the Corridor Mobility Improvement Account. This integration of transportation planning and operations seeks to maintain over the long term, through identification of multimodal, operational, and minor capacity enhancements, the mobility benefits gained from major corridor projects.

INTELLIGENT TRANSPORTATION SYSTEMS

Intelligent Transportation Systems involve the use of advanced computer, electronic, and communication technologies to increase the safety and efficiency of the entire surface transportation system.

The Central Coast region has a history of planning and implementing Intelligent Transportation Systems. In 2000, the Central Coast Coordinating Group, which is composed of various transportation agencies in the Monterey Bay Area, coordinated with Caltrans to develop the Central Coast Intelligent Transportation Systems Implementation Plan. Building upon this foundation, the region is deploying and promoting Intelligent Transportation Systems. This

project will help local agencies develop new products that will help each agency to better implement, operate, and maintain their Intelligent Transportation Systems projects. More importantly, the Central Coast Intelligent Transportation Systems Implementation Plan is expected to provide a more expeditious, unified and consistent integration of ITS projects into the State and regional transportation planning and programming processes.

How can Intelligent Transportation Systems help?
As transportation funds become more limited and travel demands increase, we need to find ways of maximizing the use of our existing transportation systems. Wise use of Intelligent Transportation Systems technologies will help us more efficiently use our initial transportation investment.

The Central Coast Intelligent Transportation Systems Implementation Plan included various Intelligent Transportation Systems projects being considered for the Central Coast Region including:

- Traffic signal control (signal timing, synchronization, and central control)
- Network Surveillance (video of highways, traffic volume censors, smart call boxes)
- Interactive traveler information systems (internet websites, kiosks, telephone call-in systems, apps)
- Smart Motorist Aid Call Boxes

The San Benito County region continues to implement Intelligent Transportation Systems application in various transportation projects when feasible.

EMERGENCY CALL BOX PROGRAM

Call boxes help motorists in distress by providing a direct connection to a California Highway Patrol communications center. The motorist-aid system operates along major roadways throughout the State. The programs are administered at the county level by local Service Authorities for Freeways and Expressways (SAFEs).

Call Boxes in San Benito County

- 8 on Highway 25, North of Hollister
- 4 on Highway 25, South of Hollister
- 1 on Highway 146
- 6 on US 101
- 17 on Highway 156
- 4 on Panoche Road, in south San Benito County

Figure 4-15 Call Box Locations in San Benito County
Source: San Benito Service Authority for Freeways and Expressways

In 1998, the Council of San Benito County Governments established the San Benito County Service Authority for Freeways and Expressways (SAFE) to administer the $1 vehicle registration fee collected by the Department of Motor Vehicles (DMV) for maintaining an Emergency Call Box Program in San Benito County. San Benito County Service Authority for Freeways and Expressways (SAFE) currently maintains a total of 40 call boxes in region (Figure 4-16).

Call box usage in San Benito County has remained steady over the past few years. Call box usage trends for the year typically show a decrease in calls during the winter months as people

tend to travel less. Although cell phone usage is becoming more prevalent, it is still important to maintain this program because of the rural nature of San Benito County. There are areas with little to no cell phone service. Most recently, the Service Authority for Freeways and Expressways installed four call boxes in South San Benito County at the request of the California Department of Forestry due to the lack of cell service.

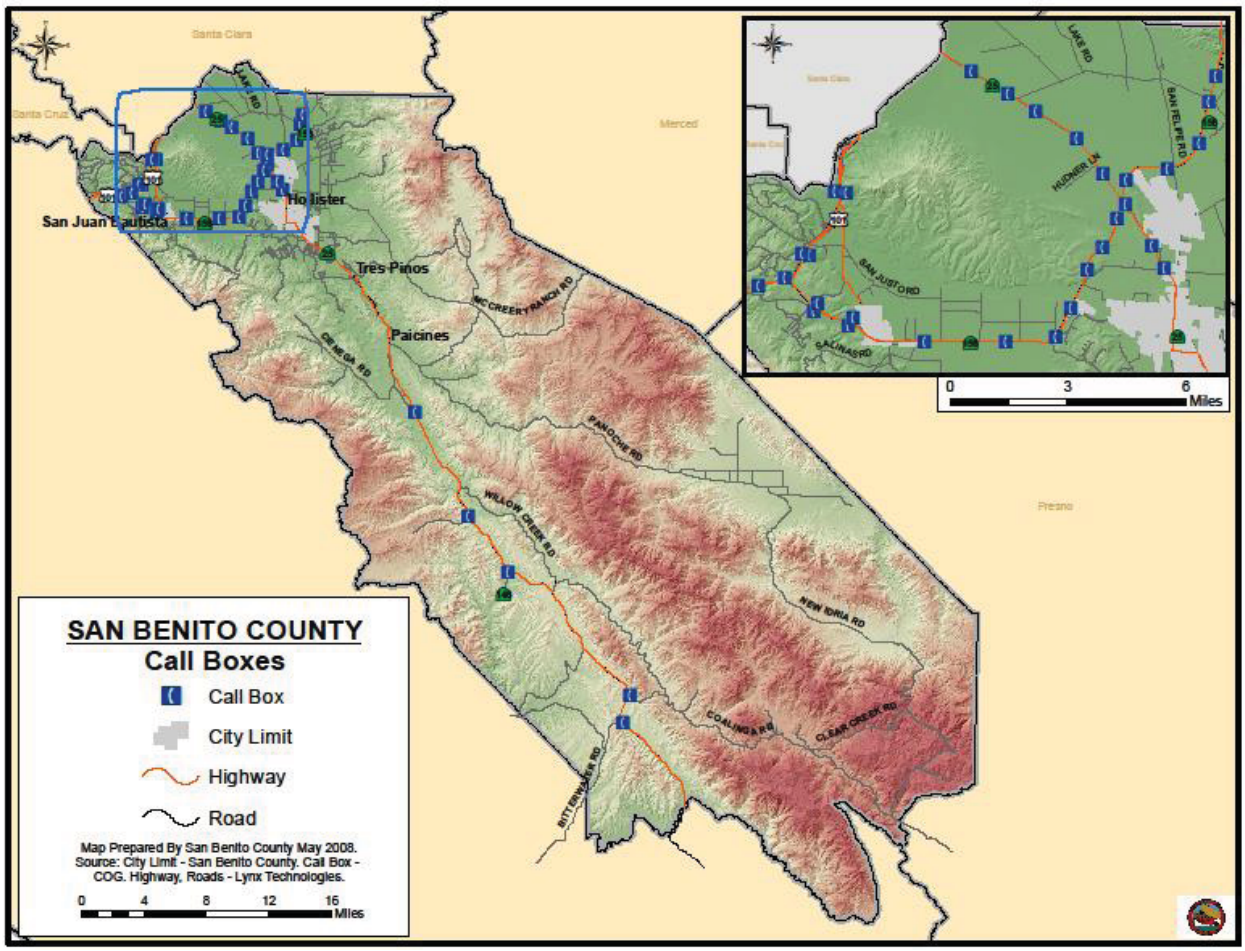


Figure 4-16 Map of Call Box Locations in San Benito County
Source: San Benito County Service Authority for Freeways and Expressways

PARK-AND-RIDE LOTS

San Benito County currently has two park-and-ride lots serving area commuters. One location is at the intersection of U.S. 101 and State Route 156 near Searle Road. The other location is in Hollister at the intersection of Hillcrest Road and Memorial Drive; this location also serves as a County Express transfer point for commuter transit service to Gilroy.

RECREATIONAL TRAVEL

San Benito County residents enjoy world-class recreation, sports and cultural amenities within the County as well as within a 45 mile radius. There are also a number of community organizations, educational facilities, public libraries and museums close to home. Highlights of recreational activities within San Benito County are noted below.

Pinnacles National Park, known for hiking, rock climbing, home to California Condors, camping and picnic grounds, is a close getaway.[21] Those traveling to the east entrance of Pinnacles National Park use Highway 25 to get there.

Hollister Hills State Vehicular Recreation Area offers 24 trail miles for 4-wheel drive recreational vehicles and 128 trail miles for motorcycle and all terrain vehicles (ATV) to use. According to the Economic Development Corporation of San Benito County, over 250,000 people visit the park every year.

Bicyclists, bird watchers and nature lovers venture out on the many winding roads or choose the canyon trek to Fremont Peak State Park with its magnificent vistas to Monterey Bay and observatory star gazing opportunities. Other major recreation facilities in San Benito County include the San Juan Bautista Mission, which the County region relies on tourism as its major industry, and the tourist traffic is welcome by downtown businesses. On street parking near Downtown San Juan Bautista is impacted by the shortage of parking at the mission. Many streets throughout the city are in need of maintenance and repair. Motorists traveling to and from San Juan Bautista use State Route 156 to access the Mission.

U.S. 101 is also used by the traveling public to access recreational opportunities on the Monterey Peninsula, Santa Cruz County, San Benito County, and points north and south. U.S. 101 is the coastal alternative to Interstate 5 connecting the San Francisco Bay Area to Los Angeles.

AVIATION SERVICES AND GROUND ACCESS

San Benito County has one public airport (Hollister Municipal Airport), one public/private airport (Frazier Lake Airpark), and several private landing strips scattered throughout the County. Regional airport services are provided by San Jose International Airport and Monterey Peninsula Airport.

In San Benito County, agricultural producers, fire fighters, and emergency medical services all depend on the use of the local airports for various purposes. Private aircraft users also use San Benito County's aviation facilities for commercial and recreational uses. The land uses surrounding the Hollister Municipal Airport are varied and include open space, agricultural uses, and industrial/commercial development. In order to promote compatibility between the land uses surrounding the Hollister Municipal Airport and Frazier Lake Airpark, the San Benito County Airport Land Use Commission guides itself by the Hollister Municipal Airport Land Use Compatibility Plan and the Frazier Lake Airpark Comprehensive Land Use Plan, respectively. The Compatibility Plan and the Comprehensive Land Use Plan seek to protect the public from the adverse effects of aircraft noise, ensure that people and facilities are not concentrated in areas susceptible to aircraft accidents, and to keep aircraft operational areas free from obstructions or activities that may impact aircraft navigation. The San Benito County Airport

[21] San Benito County Brochure, Economic Development Department

Land Use Commission is made of members of the Council of San Benito County Governments Board of Directors.

Hollister Municipal Airport

The Hollister Municipal Airport is located approximately two miles north of Hollister adjacent to State Route 156 and is owned and operated by the City of Hollister. The Airport Manager is responsible for the operation, maintenance, and management of the airport. A five-member Airport Advisory Commission provides recommendations on the policies and long-range plans for the Hollister Municipal Airport to the City Council.

The facility is a general aviation airport and is included in the National Plan of Integrated Airport Systems. In its operational role, it is classed as General Utility and accommodates all current aviation aircraft except certain business jets. There are 167 aircraft currently based at the airport with annual operations estimated at 53,000.

Figure 4-17 Hollister Municipal Airport
Source: Hollister Municipal Airport Master Plan

Hollister Municipal Airport has two intersecting runways. Runway 13-31, the primary runway, is aligned in a north/west prevailing wind direction with winds commonly out of the northwest. The crosswind runway, Runway 6-24, is aligned east/west. Both runways are lit for night use.

Runway 13-31 is the longest runway at the airport with a length of 6,350 feet. Additionally, it is the only runway served with a straight-in instrument approach. Runway 31 is equipped with a localizer performance with vertical guidance instrument approach, with visibility minimums of 1¼ mile and a decision altitude of 553 feet Mean Sea Level (323 Above Ground Level). Large aircraft, such as business jets and Cal Fire aircraft, almost exclusively use Runway 13-31.

Runway 6-24 is 3,150 feet in length and 100 feet wide. Runway 6-24 is a visual approach runway that it has no straight-in approach procedures. As a crosswind runway, Runway 6-24 allows aircraft, particularly smaller aircraft which are susceptible to strong crosswinds, to safely land and depart the airport when wind conditions do not favor the primary runway. Local weather patterns indicate that winds are out of the northwest in the morning, favoring Runway 31. In the afternoon, winds shift and blow out of the west, favoring Runway 24.

The City of Hollister has made continual improvements to address the future needs of the Hollister Municipal Airport. The Hollister Municipal Airport, in cooperation with the Federal Aviation Administration (FAA) and the State, is planning an expansion of the Airport via a proposal for a jet center with unique "through-the-fence" access. This will allow increased air

cargo traffic, including air-training centers for pilots and mechanics, plus support additional air tourism traffic to the area. A regionally recognized clean energy tech center is planned for workforce training and suitable alternative energy source opportunities.

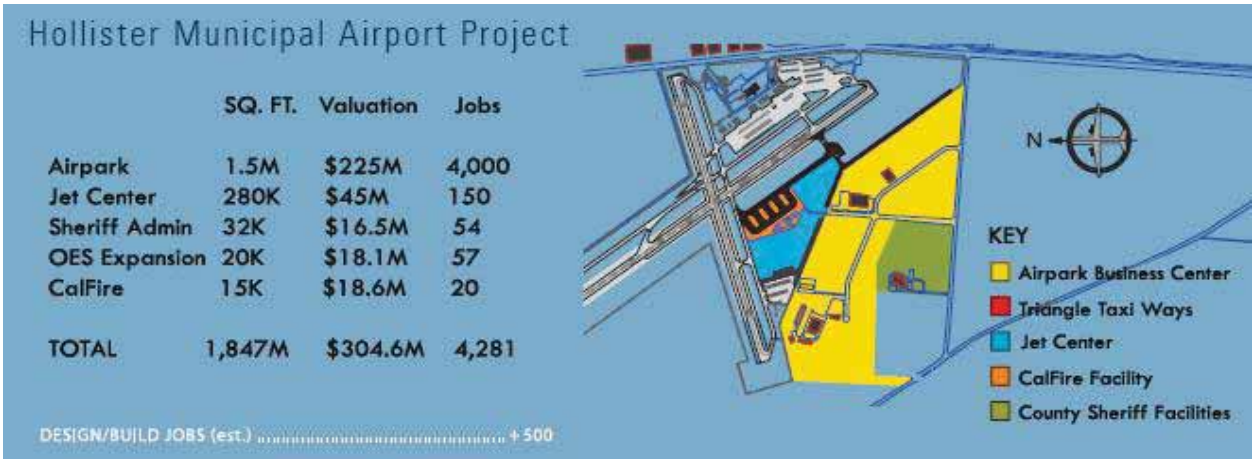


Figure 4-18 Hollister Municipal Airport Project
Source: San Benito County Brochure

Frazier Lake Airpark

Frazier Lake Airpark is located approximately 4.5 nautical miles northwest of Hollister Municipal Airport and is privately-owned and operated by the Frazier Lake Airpark Corporation. Two runways are available for use at the airport, one waterway which is 3,000 feet long and a turf runway that is 2,500 feet long. The airport does not have an airport traffic control tower and no published instrument approach procedures. Approximately 90 aircraft are based at the airport, with tiedowns being the only service available.

Regional Airports

San Jose International Airport is a major carrier airport that provides San Benito County residents with airline service throughout the state, nation, and selected foreign countries. The airport is approximately 55 miles north of Hollister and 45 miles from San Juan Bautista. Primary access to San Jose International Airport is via State Route 25, 156 and U.S. 101.

Monterey Peninsula Airport is a smaller regional airport that provides San Benito County residents with airline service within California and a few out-of-state destinations. The airport is approximately 40 miles southwest of Hollister and 35 miles from San Juan Bautista. Primary access to Monterey Peninsula Airport is via State Route 156 and U.S. 101.

The airports service the needs of agriculture, tourism, government, and other business interests throughout the region. Almost 50 percent of the total air trips to the area through the regional airports are specifically for business purposes while another 40 percent of those trips are for tourism. Without the region's airports, the potential loss of these patrons could mean a large loss to the region's overall economic productivity.

Chapter 5 sets forth a plan of action to address existing transportation deficiencies and future transportation needs.

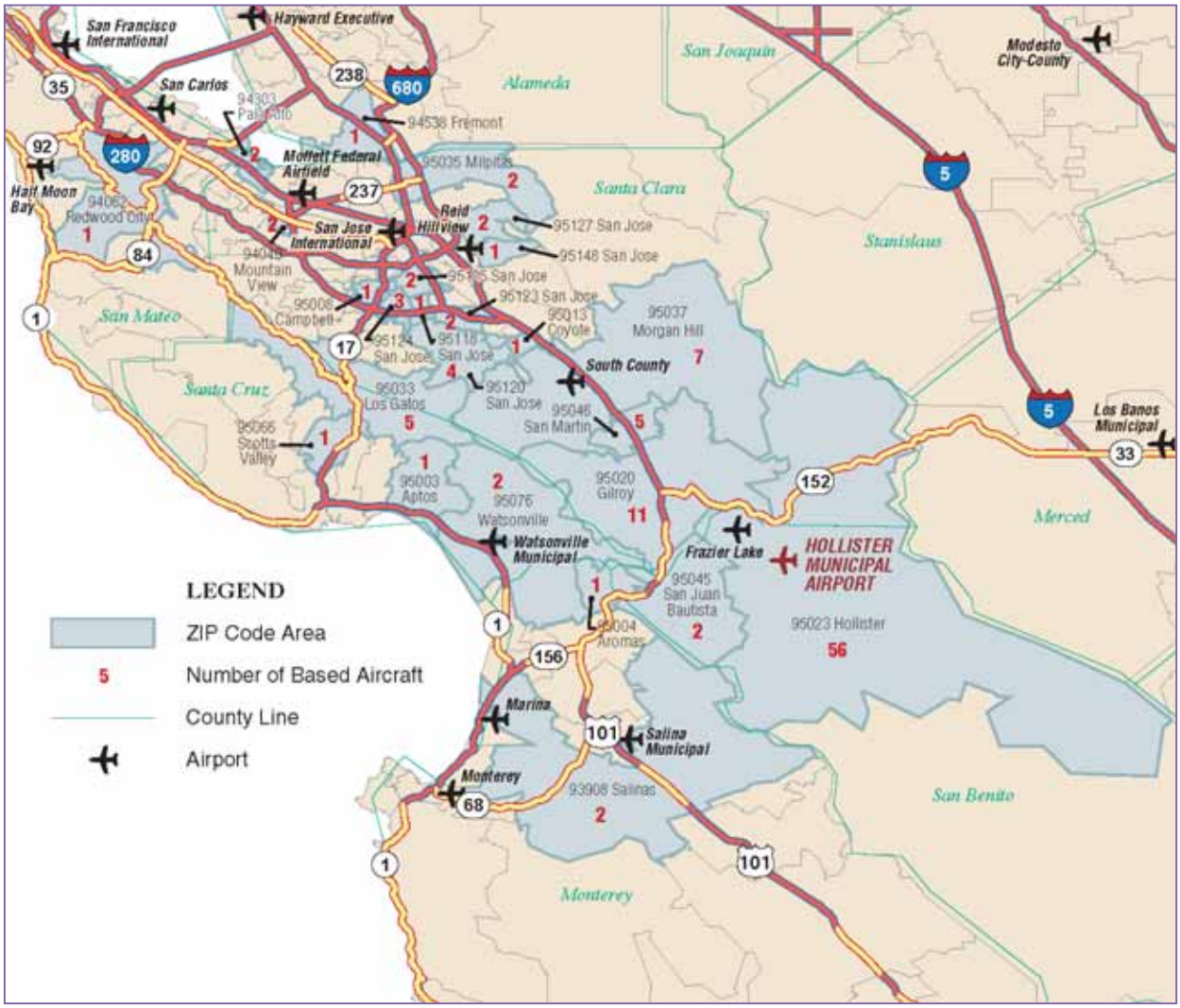


Figure 4-19 Map of Regional Airports
Source: Hollister Municipal Airport Master Plan

Chapter 5 Investments in Our Transportation Future

This chapter sets forth a plan of action to address existing transportation deficiencies and future transportation needs. The programs and projects described in this chapter will help San Benito County achieve the goals and policy objectives identified in Chapter 3, allowing for more efficient and effective transportation systems. This host of transportation investments was identified based on input received from the public, policymakers, and staff at local jurisdictions.

This chapter reviews the investments identified in Chapter 5 by project mode. A detailed project list is included in Appendix C.

COMPLETE STREETS

The Council of Governments has committed to planning for complete streets in the future, and that commitment is reflected in the Regional Transportation Plan, with significant investments in bicycle and pedestrian facilities and other enhancements to the system. In 2013, the Council of Governments partnered with the Association of Monterey Bay Area Governments, the Santa Cruz County Regional Transportation Commission, and the Transportation Agency for Monterey County to develop a Complete Streets Guidebook (Appendix A).

"Streets are vital to daily travel, economic exchange and maintaining an acceptable quality of life."[22]

Figure 5-1 Example of Complete Streets
Source: Monterey Bay Complete Streets Guidebook

More and more, planners and engineers are recognizing that streets are used not only by drivers, but also people walking and bicycling or using other modes of transportation. All of these users have different needs, and streets should accommodate those needs. Complete Streets are streets that are comfortable and safe to use regardless of age, ability, or mode of transportation. Complete Streets planning considers streets as places in the community, where residents and visitors can meet, enjoy recreation opportunities, and be a part of the neighborhood.

Complete Street designs include amenities for bicyclists and pedestrians, such as bike lanes, wider sidewalks, and safer crossings. They also take into account the comfort of the user—for example, while a sidewalk or bike lane might be present, it might be adjacent to a high-speed roadway that a pedestrian would not be comfortable using. Adding street trees and buffer

[22] Monterey Bay Area Complete Streets Guidebook, September 2013

zones between the road and the bike lane or sidewalk can make the route more pleasant for the user. Measures to slow speeds can also be considered.

The Complete Streets Guidebook contains sample policies and engineering best practices that can be adopted by local jurisdictions to comply with California Complete Streets Legislation (AB 1358). Various complete street types are identified and defined in the guidebook, along with sample cross-sections, associated land uses and suggested roadway user prioritization. The complete street types provide design recommendations for various roadway arrangements. Another key component of the guidebook is a complete streets project review and design checklist (Appendix A). The checklist is a tool that can be used in planning and public works departments to identify opportunities for complete streets and document constraints or exemptions.

The Complete Streets Guidebook also addresses the link between Complete Streets design and economic development and includes a White Paper on the economics of Complete Streets. The Paper concludes that while we cannot say that implementing Complete Streets design will always have a significant positive impact on economic vitality, there is often a link. Several case studies have shown that when Complete Streets concepts are implemented, the area experiences economic growth. Figure 5-2 demonstrates the economic framework for evaluation of Complete Streets:

Categories of Economic Activity	Direct and Non-Direct Transportation Impacts	Effect on Economic Activity			
		Possibly Negative	Possibly None	Possibly Positive	Possibly Very Positive
Business Activity	Access[a]			●	●
Business Activity	Trip Volume		●	●	
Business Activity / Investment	Trips Duration[b]	●	●	●	
Fiscal Impact	Construction[c]	●	●	●	●
Fiscal Impact	Maintenance		●	●	
Property Values / Investment	Amenities		●	●	
Economic Growth	Health[d]			●	●

Notes:

[a] New facilities for non-automobiles are likely to have a larger positive impact on economic activity than improving existing facilities.

[b] An increase in trip duration for automobiles may negatively impact economic activity while a reduction in trip duration for non-automobiles may result in a positive on economic activity.

[c] Construction of new facilities may have significant economic impacts, while adding new elements may have no to little impact economic impacts.

[d] If Complete Streets contribute to healthier people by encouraging regular physical activity. As reflected in Caltrans 'Main Street, California," encouraging walking and bicycling as a frequent mode of travel can reduce health spending at a state and federal level.

Figure 5-2 Economic Framework for Evaluating Complete Streets

Source: Santa Cruz County Regional Transportation Commission, White Paper on Economic impacts of Complete Streets

MEETING OUR NEEDS

Chapter 4 of the Regional Transportation Plan discusses in length the existing transportation system in San Benito County and the needs we face in the future. As the population grows and the Cities and County develop, there will be more and more pressure on the transportation network: streets and roads, public transit, airport operations, active transportation, and transportation technology. This Regional Transportation Plan sets forth a dynamic and extensive list of projects and programs to help meet that demand while meeting the adopted goals and performance objectives.

The projects included in the Regional Transportation Plan are consistent with projects included in the State's Interregional Transportation Improvement Program and the Monterey Bay Metropolitan Transportation Improvement Program. The project list is financially constrained and projects identified do not exceed anticipated funding revenues. The list also contains unconstrained projects for illustrative purposes. These projects are a noted need but funding is not reasonably expected in the 2035 planning timeframe.

VEHICLE AND FREIGHT MOBILITY

Figure 5-3 Truck on San Juan Highway, in San Benito County
Source: Council of Governments

While the Regional Transportation Plan looks at Complete Streets planning as a guide, it is unrealistic not to recognize the needs of the car and freight traffic on roadways. In particular, there are some roads that are meant to carry high volumes of traffic quickly and efficiently. In Northern San Benito County, this need is seen on Highway 25, 156, and U.S. 101. Highway 25 serves commuters travelling to jobs in Santa Clara County. The average number of trips on Highway 25 each day is expected to reach 22,900 by 2015.[23] Highway 156 is expected to carry an average of 29,344 vehicles each day in 2015. U.S. 101 is expected to carry an average between 48,000 and 58,000 vehicles each day in 2035.

These trips mean increased pressure on these highways. The Council of Governments is proposing an investment of approximately $90 million in highway expansion projects in the Regional Transportation Plan. There are an additional $102 million in state highway operations projects proposed.

In addition to highways, higher-volume regional roads also serve high numbers of cars and trucks every day. The Regional Transportation Plan identifies 10 new segments of local roadway for expansion by 2035. These new roadway segments will carry high volumes of traffic and

[23] Hollister to Gilroy State Route 25 Widening and Route Adoption, Draft Environmental Impact Report and Tier 1 Draft Environmental Impact Statement, April 2010

ensure that circulation throughout the northern portion of the county remains flowing well. The majority of these projects are financed with Traffic Impact Mitigation Fees, as growth in housing and commercial services in the county require these new facilities to adequately mitigate for its traffic impacts.

PUBLIC TRANSIT

A growing population will have diverse needs that will not always be met by vehicle trips. Public transit will play a key role in providing access and mobility to future residents. The San Benito County Local Transportation Authority's goal is to provide transportation options that are safe, reliable and affordable to enhance quality of life, reduce traffic congestion, and stimulate economic vitality of the growing community and incorporate new areas while maintaining efficiency and effectiveness throughout the system.

Figure 5-4 County Express in Downtown Hollister
Source: San Benito Rideshare

The Regional Transportation Plan identifies $61 million investment in transit operations and facilities. Of that amount, $11 million is expected to fund service expansion, including regional transit connections to Monterey, Santa Clara, and Santa Cruz Counties. These investments will enhance the transit system and help meet the goal of providing access and mobility for all residents.

AVIATION

The Hollister Airport has significant need to adapt to future growth. The airport is an important resource for the region, providing jobs and revenue that help fuel the economy. Airport operations are expected to more than double by 2030.

Recognizing the airport's role as an economic driver and important asset, the Regional Transportation Plan proposes investments for airport improvements in the future. The majority of this funding comes from the California Aid to Airports program, which provides an annual disbursement of funding to all general public airports in the State.

ACTIVE TRANSPORTATION

Active transportation projects are those which facilitate things like walking and bicycling while travelling. Active transportation projects can help improve public health by reducing the amount of time spent sedentary in a car while making trips. Active transportation projects are an important element of a well-rounded transportation plan, taking into consideration the needs of more than just vehicular travel.

These projects also help improve safety in the community. San Benito County has a growing "Safe Routes to School" program,

with several efforts to identify improvements that would enhance the safety around schools for children walking and bicycling. A number of these improvements are included in the Regional Transportation Plan.

Overall, the Plan commits $18 million in funding to Active Transportation projects in the next 20 years.

SUPPORTING INFRASTRUCTURE & PROGRAMS

The Regional Transportation Plan also considers management of the existing system. These programs include:

- **Intelligent Transportation Systems**: commonly referred to as electronics, communications, or information processing used singly or in combination to improve the efficiency or safety of a surface transportation system. Recognized as having the ability to either increase the efficiency of the existing transportation system or incorporate ITS features and the resultant benefits to a new capital project, ITS provides the opportunity of system enhancement at significant savings to larger, capital- and/or operating-intensive projects. In San Benito County, ITS projects are included in the Central Coast Intelligent Transportation Systems Implementation Plan. The Council of Government was involved in the preparation of the Implementation Plan

- **Emergency Call Box Program:** San Benito County operates emergency call boxes along Highways 25, 146, 101 and 156, as well as some rural County roads. The Call Box program helps improve the safety and security of residents and visitors to San Benito County by connecting drivers with roadside assistance.

- **Transportation Demand Management**: It is important to recognize that while efforts are made to improve the infrastructure available for travel, there is a need to monitor the demands on the transportation system and encourage practices that may help reduce demand on overly burdened networks such as highways. The Council of Governments offers services that assist users in defining alternatives to driving alone and encourage the use of alternative modes of transportation.

- **Freight Support**: Supporting the needs of freight and goods movement can be accomplished by using infrastructure and programs such as safety rest/parking areas, promoting existing public or private truck parking, turnouts, freight hubs or truck-rail transfer.

Figure 5-5 depicts proposed roadway improvements in San Benito County.

Chapter 6 considers the transportation investments included here, and looks to funding resources to identify monies available for projects.

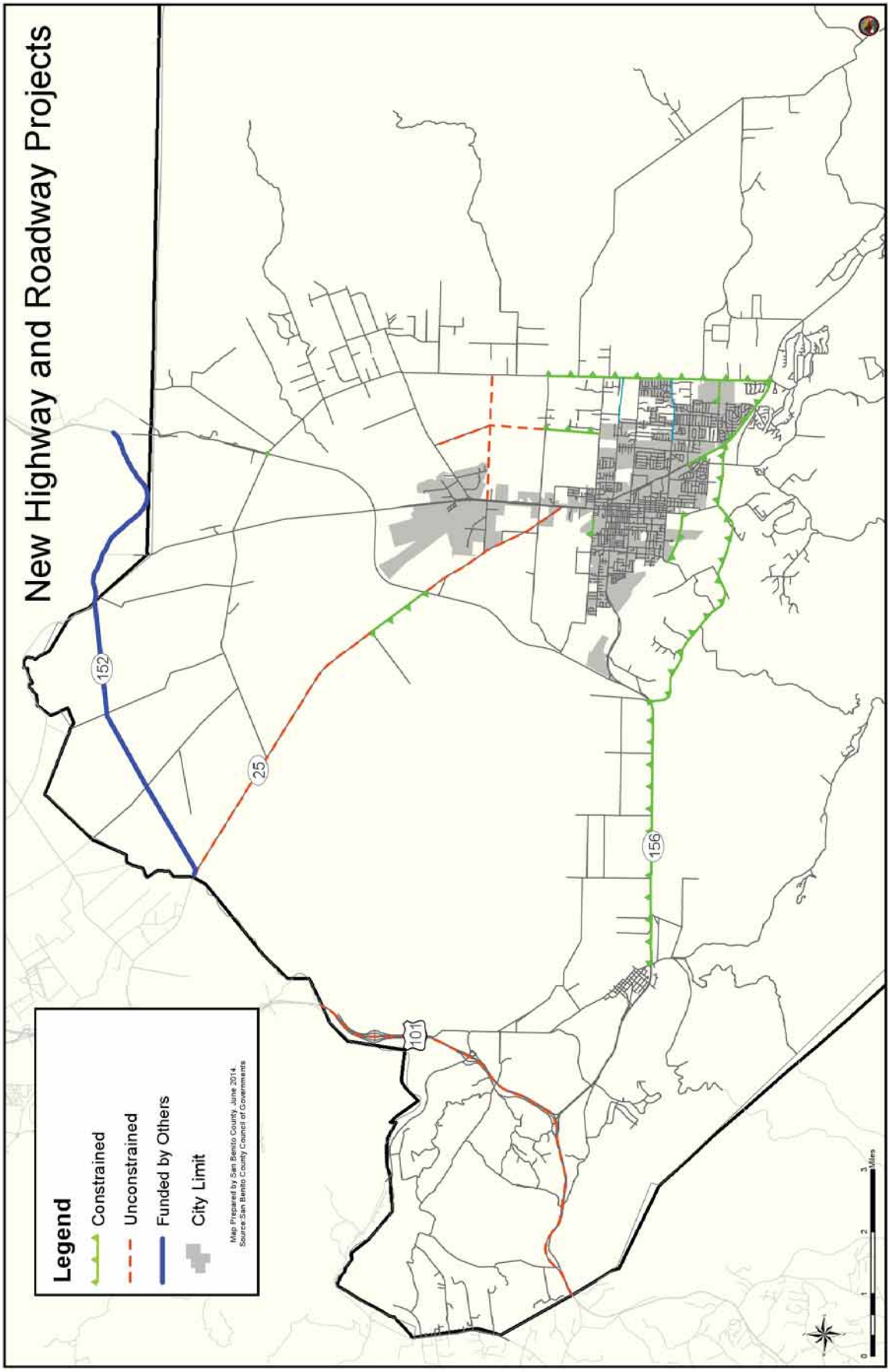


Figure 5-5 New Highway and Roadway Projects

Chapter 6 Financing Our Transportation Investments

This financial element identifies nearly $515 million (escalated to year of expenditure) in local, state, and federal money available for transportation projects and programs through the 2035 planning horizon. The Council of Governments developed the financial projections based on these guiding assumptions:

- A consideration of previous funding levels made available to the region
- Funding identified in currently adopted plans and programs
- Guidance from state and federal offices
- Direction from policymakers regarding consideration of new, alternative revenues

The Council of Governments recognizes that financing transportation projects is a challenge due to the limited local, state and federal funding available to regions compared to the need. Because of this, the Council of Governments, along with its regional partners, advocates for additional funding at the state and federal levels. Locally, San Benito County and the cities of Hollister and San Juan Bautista have opted to partially finance transportation needs with a fee assessed on new residential and commercial developments under the Traffic Impact Mitigation Fee Nexus Study. This strategy allows for an estimated $115 million in transportation dollars to come to the region over the next 25 years.

As discussed in Chapter 2, the lack of available transportation funding is the biggest challenge facing the San Benito County in its delivery of transportation projects and programs. As the region grows in population, the strain on available resources will continue to be a challenge.

The financial projections included in this chapter have been escalated to 2035 levels using a consistent escalation factor based on previous levels of funding and reasonable assumptions about future funding sources. These fund projections were developed in concert with regional partners who subscribed to the same methodology in preparation of their Regional Transportation Plans.

FUNDING SOURCES

FEDERAL FUNDING SOURCES

Federal funding for transportation is delivered through the federal transportation funding bill. MAP-21, the Moving Ahead for Progress in the 21st Century Act, was signed into law by President Obama in July 2012. The bill provides for approximately $105 billion in transportation funding over a two year timeframe. While this investment is significant, there is still a momentous need that is left unfunded. Moreover, having only two years of identified funding

makes it difficult to project future funding levels. In addition, there is a need for a more secure, long-term federal funding source for transportation investments.

This financial plan assumes that federal funds will remain available for transportation projects; however, core revenues available are expected to decline due to increasing fuel efficiency. Because so much funding comes through fuel taxes and fees, a decline in fuel sales will lower revenues.

Figure 6-1 describes the federal revenue sources available to San Benito County:

Federal Program	Description	Escalated Revenue (Dollars in 000s)
Highway Bridge Program	The Highway Bridge Program provides funding to improve the condition of highway bridges through replacement, rehabilitation, and systematic preventive maintenance.[24]	$50,372
Highway Safety Improvement Program	The goal of the program is to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-State-owned public roads and roads on tribal lands.[25]	$4,242
Regional Surface Transportation Program	Regional Surface Transportation Program funds construction, reconstruction, rehabilitation, resurfacing, restoration, and operational improvements on federal and state highways, local roads, and bridges.	$17,298
Enhanced Mobility of Seniors and Individuals with Disabilities (5310)	The 5310 program awards grants to private non-profit organizations to serve the transportation needs of elderly persons and persons with disabilities.[26]	$513
Rural Area Formula Program (5311)	This rural transit program provides funding for the purpose of supporting public transportation in rural areas, with population of less than 50,000.[27]	$9,480
Transit Planning Grants (5304)	The Transit Planning grant program is funded by the Federal Transit Administration, which has authorized Caltrans to distribute these grant funds. Funds can be used for transit planning for sustainable communities and for rural communities.[28]	$1,081
Federal Aviation Administration Airport Improvement Plan	Airport Improvement provides grants to public agencies for planning and development of public-use airports that are included in the National Plan of Integrated Airport Systems. [29]	$4,053
	Total	**$87,039**

Figure 6-1 Federal Funding Sources for San Benito County

[24] U.S. Department of Transportation, Federal Highway Administration
[25] U.S. Department of Transportation, Federal Highway Administration
[26] U.S. Department of Transportation, Federal Transit Administration
[27] U.S. Department of Transportation, Federal Transit Administration
[28] California Department of Transportation
[29] U.S. Department of Transportation, Federal Aviation Administration

STATE FUNDING SOURCES

Funding for California's transportation investments are comprised of the following taxes and fees:

- ***State Fuel Excise Tax:*** The State of California collects 35.3¢ per gallon excise tax on gasoline and 13¢ per gallon on diesel fuel, which historically has generated over $3 billion a year.
- ***Fuel Tax Swap (2011)***: Eliminated the state sales tax on gasoline and instead imposed an additional excise tax on gasoline of 17.3¢ per gallon.
- ***Motor Vehicle License Fees***: The state collects fees through the motor vehicle license program. A portion of these funds go toward funding the Call Box program in San Benito County.

The first four years of the anticipated funding under the State Transportation Improvement Program is consistent with the California Transportation Commission's adopted fund estimate for 2014. Additionally, the fund estimates and projects contained in this Regional Transportation Plan are consistent with the Interregional Transportation Improvement Program and the Federal Transportation Improvement Program. Figure 6-2 further describes funding sources available statewide in California and the estimated amount available to San Benito County.

State Program	Description	Escalated Revenue (Dollars in 000s)
Airport Improvement Program Match	The program grants funds for planning, development, or noise compatibility projects that are at or associated with individual public-use airports including heliports and seaplane bases.[30]	$216
California Aid to Airports Program	The purpose of the program is to assist in establishing and improving a statewide system of safe and environmentally compatible airports whose primary benefit is for general aviation.[31]	$270
Proposition 1B	A voter approved bond program for funding transit rehabilitation, safety, and modernization improvements, capital service enhancements or expansions, new capital projects, bus rapid transit improvements, or rolling stock (buses and rail cars) procuremet[32]	$1,600
Service Authority for Freeways and Expressways	The goal of SAFE is to quickly identify and respond to freeway incidents such as breakdowns and accidents in order to minimize their impacts in terms of congestion, public safety and air quality, and to increase the reliability of the freeway system and better manage traffic flow.[33]	$1,434

[30] Federal Aviation Administration
[31] California Department of Transportation
[32] California Department of Transportation
[33] California Department of Transportation

State Program	Description	Escalated Revenue (Dollars in 000s)
	This could be in form of providing emergency call boxes and/or freeway service patrols.	
State Highway Operations and Protection Program	The State Highway Operations and Protection Program funds the maintenance of the State Highway System and supporting infrastructure. Projects usually fall into the categories: collision reduction, major damage restoration, bridge preservation, roadway preservation, roadside preservation, mobility enhancement, and preservation of other transportation facilities related to the state highway system.[34]	$90,427
State Transit Assistance	State Transit Assistance funds, which are derived from the statewide sales tax on diesel fuel, are for the development and support of public transportation needs that exist in California and are allocated to areas of each county based on population, taxable sales and transit performance.[35]	$7,737
State Transportation Improvement Program-Interregional and Regional Share	The State Transportation Improvement Program is a capital improvement program for allocations of certain state transportation funds for state highway improvements, intercity rail, and regional highway and transit improvements.[36] Funds are divided into two categories: interregional and regional.	$29,242 – Interregional $29,665 – Regional
Active Transportation Program	The purpose of the Active Transportation Program is to encourage increased use of active modes of transportation, increase safety and mobility for non-motorized users, reduce greenhouse gas emissions, and enhance public health.[37]	$13,145
Assembly Bill 2766	The Monterey Bay Unified Air Pollution Control District allocates the vehicle registration surcharge fee to fund a grant program. The program funds planning, monitoring, enforcement, capital, and technical studies. [38]	$6,944
	Total	**$180,680**

Figure 6-2 State Funding Sources in San Benito County

Appendix B includes a flowchart that illustrates how different revenue sources are collected and distributed in California.

LOCAL FUNDING SOURCES

Local fund sources augment state and federal funds, allowing for additional transportation investments in the region. Local funding is used on local streets and roads for maintenance and system preservation. Additional local funds are generated by the adopted Traffic Impact Mitigation Fee program, which funds both local roads and state highway capacity projects. These Traffic Impact Mitigation Fees pay for the costs attributable to the increased demand for

[34] California Department of Transportation
[35] California Department of Transportation
[36] California Transportation Commission
[37] California Department of Transportation
[38] Monterey Bay Unified Air Pollution Control District

public facilities reasonably related to development projects and per Government Code Section 66001. There are no local sales tax measures identified for transportation funding in San Benito County due to prior direction from the Council of Governments Board of Directors.

Local Program	Description	Escalated Revenue (Dollars in 000s)
Gas Tax (Highway User Tax)	Cities and counties receive Highway User Tax revenue ($0.13 per gallon for diesel fuel and $0.18 per gallon for gasoline) based on population.[39]	$81,062
Regional Developer Impact Fees	Regional developer impact fees are assessed on new development to pay for new transportation infrastructure needs, as governed by AB1600 (1987). Fee levels are calculated based on a selected list of projects to be funded; due to nexus rules requiring a demonstrated reasonable relationship between the impact and improvement, these are almost exclusively road and highway system expansion.[40]	$115,297
City/County Developer Fees	Fees collected from developers by local jurisdictions used to build infrastructure needed to support new developments.	$9,659
Public Transit Fares	The Local Transportation Authority collects fares from passengers using the transit system.	$3,998
Transportation Development Act	Local Transportation Fund (LTF), which is derived from a ¼ cent of the general sales tax collected statewide.[41]	$36,586
Vanpool Lease	The Council of Governments collects fees in exchange for the lease of vans to commuter groups.	$432
	Total	**$247,034**

Figure 6-3 Local Funding Sources for San Benito County

NON-TRADITIONAL REVENUE SOURCES

Given the unreliable and inconsistent flow of transportation funding in the United States, some regions may consider non-traditional revenue streams to augment state and federal funding available. The Local Transportation Authority operates an advertising program to generate non-traditional funds for public transit. This funding source is not identified in this Regional Transportation Plan due to a lack of interest over the last four years from interested businesses, public agencies, and non-profits.

Other transportation funding beyond those identified in this Regional Transportation Plan include local sales tax measures, vehicle base user fees, tolling, cap and trade revenue, or an increase in the gas tax at the State and/or federal level. These other funding sources were not assumed in the funding tables above due to prior Council of Governments Board direction. In February 2013, the Council of Governments Board directed staff to assume that additional

[39] California City Finance
[40] Statewide Transportation Needs Assessment Revenue Report
[41] California Department of Transportation

funding beyond the core funding available today would not be available in the 20-year planning horizon.

PROJECT COSTS VS. FUNDING PROJECTIONS

As identified previously, the needs in San Benito County far outweigh the available funding. Figure 6-4 outlines the project costs as compared to available funding.

Overall, San Benito County faces a deficit of at least $486 million in transportation funding available to the region. This lack of funding means fewer needed projects will be constructed, maintenance of local streets and roads will be deferred, and fewer programs implemented. This impacts the community in several ways: less access to jobs, medical appointments, and shopping, increased traffic congestion on commute routes, unreliable transportation systems, and a lack of public transportation.

Project Category	Project Need (Dollars escalated in 000s)	Available Funding through 2035 (Dollars escalated in 000s)	Difference
Local Street and Road Maintenance & Operations	$312,566	$138,070	$174,496
Highway Operations and Maintenance	$145,866	$101,993	$43,873-
Highway Capacity Expansion	$359,634	$89,848	$269,786
New Local Streets & Roads	Unknown	$97,353	--
Active Transportation	$31,304	$18,539	$12,765
Public Transit	$91,800	$62,546	$29,344
Other	$8,155	$1,866	$7,355
Aviation	$51,073	$4,539	$46,534

Figure 6-4 Projected Costs and Available Funding for San Benito County

Chapter 7 measures the performance and effectiveness of identified transportation investments.

Chapter 7 Performance Measures

Regional Transportation Plans are required to address the issue of climate change as a result of AB 32 and SB 375. Below is a description of the issue and how climate change may impact transportation in San Benito County.

Additionally, the Association of Monterey Bay Area Governments through the Travel Demand Model provided performance measures specifically for this Regional Transportation Plan, which are described in the pages to follow.

CLIMATE CHANGE

The increased amount of greenhouse gases caused by human activity has resulted in the increase of the average temperature of the Earth of more than 1.4ºF over the past century.[42] These activities include, but are not limited to, burning of fossil fuels, deforestation, agricultural, and industrial activities. Once greenhouse gases are emitted into the atmosphere, they do not disperse. They can remain there for a few years to thousands of years depending on the type of gas. Figure 7-1 uses a "bathtub" analogy to illustrate the collection of greenhouse gasses in the atmosphere. With population growth and increased human activity, the greenhouse gas blanket is increasing in thickness resulting in:

- Slow increase of the Earth's average temperature
- Changes in weather patterns and amounts of rainfall
- Reduction of ice, show and permafrost cover
- Raising sea levels
- Increasing acidity of the oceans[43]

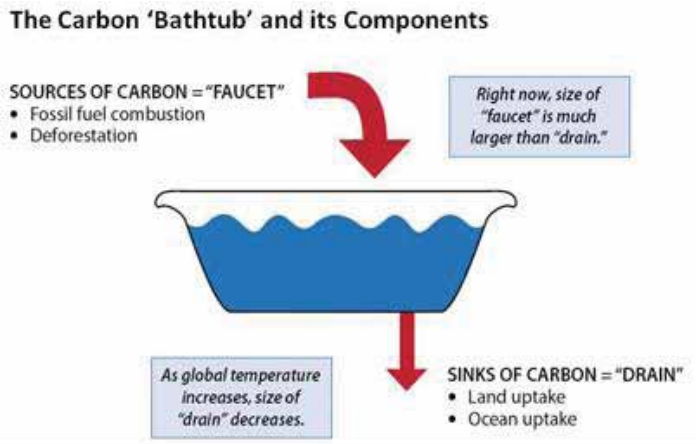


Figure 7-1 Carbon "Bathtub" Analogy
If the amount of water flowing into a bathtub is greater than the amount of water leaving through the drain, the water level will rise. Carbon dioxide (CO_2) emissions like the flow of water into the world's carbon bathtub. "Sources" of CO_2 emissions such as fossil fuel burning, cement manufacture, and land use are like the bathtub's faucet. "Sinks" of CO_2 are like the drain. Today, human activities have turned up the flow from the CO_2 "faucet," which is much larger than the "drain" can cope with, and the level of CO_2 in the atmosphere (like the level of water in a bathtub) is rising.
Source: U.S. Environmental Protection Agency

[42] U.S. Environmental Protection Agency, *Climate Change: Basic Information*, http://epa.gov/climatechange/basics/, Accessed December 19, 2013
[43] U.S. Environmental Protection Agency, *Future Climate Change,* http://epa.gov/climatechange/science/future.html, Accessed December 20, 2013

IMPACTS TO SAN BENITO COUNTY

In addition to negatively impacting the environment, climate change can directly and indirectly impact agricultural and related industries.

Air Temperature

Temperatures have been steadily increasing since 1910. [44] The Environmental Protection Agency has modeled temperature changes in the United States based upon high and low greenhouse gas emissions rates. Figure 7-2 illustrates the temperature changes across the United States for the mid and end of the 21st century.

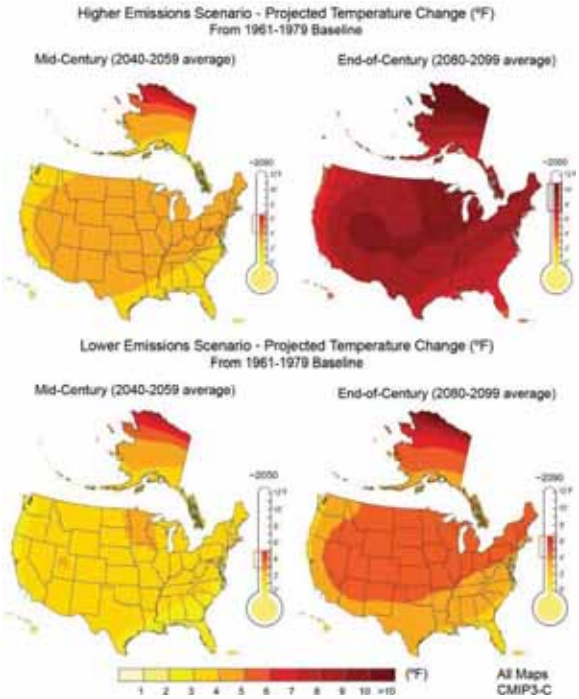


Figure 7-2 Projected Temperature Changes of the United States

Top two maps show the projects under a higher emissions scenario and the bottom maps show projections under a lower emission scenario.

Source: U.S. Environmental Protection

Air temperature is vital in determining the yield of agricultural products. All plants have a minimum, maximum and optimum temperature in which they will survive, produce the most, and yield the best quality product. However, these temperatures may fluctuate depending on the local soil condition, water content and evaporative heat loss.[45] For example, if the air temperature is above the maximum temperature for the plant, its effects could be offset by having soil that has enough water content and evaporative heat loss. However, if air temperature, soil water content and evaporative heat loss are not balanced, crop loss will result. Some agricultural forecasts suggest 36 percent to 40 percent crop loss could be expected in low emissions scenarios and up to 70 percent in higher emissions scenarios for wheat, corn, and cotton yields.[46]

When water changes from its liquid form to gas (vapor) form, it absorbs heat and cools down the surrounding area. This is known as vaporization. There are two types of vaporization: boiling and evaporative. Evaporative is the most common form of vaporization to describe dried soil or soil water content.

According the United States Department of Agriculture's report, *Climate Change and Agriculture in the United States: Effects and Adaptations*, there are other negative

[44] U.S. Environmental Protection Agency, *U.S. and Global Temperature,* http://www.epa.gov/climatechange/science/indicators/weather-climate/temperature.html, Accessed December 20, 2013

[45] U.S. Department of Agriculture, *Climate Change and Agriculture in the United States: Effects and Adaptations,* http://www.usda.gov/oce/climate_change/effects_2012/CC%20and%20Agriculture%20Report%20(02-04-2013)b.pdf, Accessed May 14, 2014

[46] U.S. Department of Agriculture, *Climate Change and Agriculture in the United States: Effects and Adaptations,* http://www.usda.gov/oce/climate_change/effects_2012/CC%20and%20Agriculture%20Report%20(02-04-2013)b.pdf, Accessed May 14, 2014

impacts on agriculture in addition to the direct production levels. It identifies that higher air temperatures also increase the number of invasive weeds, native and non-native insect pests, and diseases in plants. For example, the mortality rate of insects is reduced while reproduction rates increase during warmer periods.

The Agricultural Commissioner is responsible for controlling, eradication and detection of invasive plants and pests in San Benito County. Since agriculture is a major economic driver in San Benito County, the Commissioner has programs and policies in place to monitor and address these issues. In its 2012 Annual Crop Report, the Commissioner deployed up to 950 insect detection traps to intercept new exotic and non-native insect pests before to prevent establishment. There were also six sites that had programs in place to eradicate invasive weeds and biological control programs for three invasive weeds and insect pests.

Water Resources

As air temperature rises, so does the need for water by people, animals, and agriculture. According to the National Oceanic and Atmospheric Administration (NOAA), parts of California experienced its all-time warmest winter weather in 2013-2014.[47] As a result, there was very little precipitation and even less snow. More than half of California's precipitation arrives via winter storms in December through February. The Central Coast, which includes San Benito County, received a record low of 4.9 inches of rain. The previous lowest record was 10.9 inches in 1923.[48] On January 17, 2014, Governor Brown declared a State of Emergency due to new record lows of California's rivers and reservoirs. The snowpack was at 20 percent of normal average at that time of year.[49]

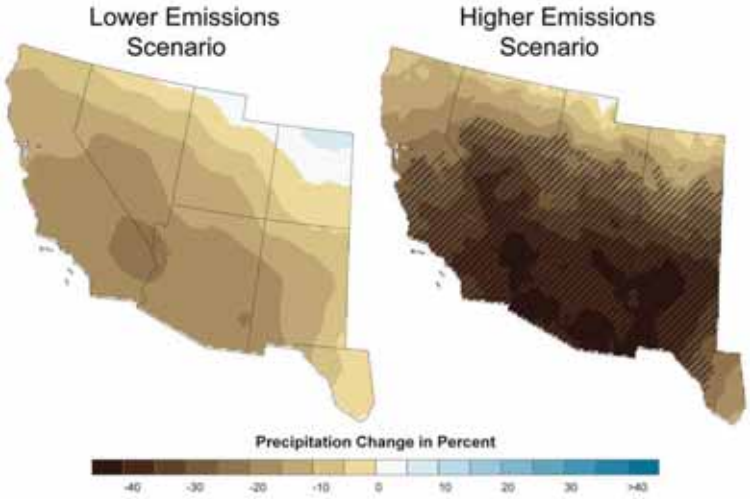


Figure 7-3 Spring Precipitation Comparing 2080-2099 to 1961-1979 under Low and High Emissions Rates
Source: U.S. Environmental Protection Agency

The United States Global Change Research Program modeled precipitation levels for the entire United States. By the end of the 21st Century, there will be less rainfall in San Benito County (Figure 7-3) impacting the agricultural and livestock production.[50] Decrease in rainfall amounts will mean less yield from crops and livestock, resulting in a negative economic impact for the agricultural industry.

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47 National Oceanic and Atmospheric Administration, http://www.climate.gov/news-features/event-tracker/winter-storms-bring-only-fleeting-relief-drought-stricken-california, Accessed May 16, 2014

48 California Department of Water Resources, http://www.water.ca.gov/waterconditions/images/DWR-precipitation-rankings-by-climate-region-013114.jpg, Accessed May 16, 2014

49 Office of Governor, Edmund G. Brown, Jr., *Governor Brown Declares Drought State of Emergency*, http://gov.ca.gov/news.php?id=18368, Accessed May 16, 2014

50 U.S. Global Change Research Program, http://www.epa.gov/climatechange/impacts-adaptation/agriculture.html, Accessed December 20, 2013

Figure 7-4 Tres Pinos Road in Hollister, CA
Pot hole and stress cracks in pavement in a section of Tres Pinos Road in Hollister, CA.
Source: Council of Governments

Transportation

In terms of transportation, climate change will increase the cost of maintaining infrastructure. Heat can cause pavement to deteriorate at a faster rate due to softening, increasing potholes on local roadways.[51] Figure 7-4 shows the pavement condition of a section of Tres Pinos Road in Hollister, California. The roadway received a slurry seal treatment approximately two years prior to the photo taken. Such treatments are estimated to last five to seven years, but as seen here, this section may not reach the five year mark.[52]

In addition to the damage to pavement, increased air temperatures may cause damage to railways. Heat will cause rail tracks to expand and buckle. Although there is only 12-miles of railway directly serving San Benito County, it is being used to transport goods in and out of the San Benito County.

Economic Impact to San Benito

In addition to impacts to the physical world of San Benito, climate change will also impact San Benito County economically. The decrease in agricultural production would directly impact farms and ranches, as they would have less product to sell and income to generate. This results in a domino effect that impacts other industries that rely on agriculture, such as, warehousing, processing plants, packaging, trucking, and even rail transport. It would also reduce the number of jobs available in these industries. Of the 24,640 employed in San Benito County, approximately 26 percent work in these industries.[53]

Despite potential negative impacts that climate change may have for San Benito County, it may be reduced through careful long-range planning. *On the Move:* 2035 is one of the tools used to plan for the future. The following sections in the chapter outline what lead to development of *On the Move:* 2035, how the preferred scenario was selected, and the results of the preferred scenario.

CALIFORNIA AIR RESOURCES BOARD

In 1967, the California legislature established the Mulford-Carrell Act creating the California Air Resources Board (CARB). The Air Resources Board's mission is to, "promote and protect public health, welfare and ecological resources through the effective and efficient reduction of air

[51] U.S. Environmental Protection Agency, http://epa.gov/climatechange/impacts-adaptation/transportation.html, Accessed December 20, 2013
[52] California Department of Transportation, *Maintenance Technical Advisory Guide (MTAG)*, http://www.dot.ca.gov/hq/maint/MTA_Guide.htm, Accessed May 16, 2014
[53] U.S. Census, 2008-2012 American Community Survey, S2403

pollutants, while recognizing and considering the effects on the state's economy."[54] More recently and through a series of laws passed and a Governor's Executive Order, the Air Resources Board developed and implemented greenhouse gas emissions and carbon limits for new vehicles and fuel sold within California (Figure 7-5).

Under Senate Bill 375, the Air Resources Board set regional emissions reductions targets from passenger vehicles. They also charged the Metropolitan Planning Organizations with developing strategies to meet emissions reduction targets. These strategies are outlined in the Sustainable Communities Strategies (SCS) which can be found in the Association of Monterey Bay Area Governments' *Monterey Bay 2035: Moving Forward* at www.AMBAG.org.

Assembly Bill 1493

- Passed in 2002
- Regulates greenhouse gas emissions from passenger vehicles

Governor's Executive Order S-03-05

- Issued by Governor Schwarzenegger in 2005
- Set greenhouse gas emissions reduction goals to reduce 2010 emission levels to 2000 levels; reduce to 1990 levels by 2020; and reduce by 80 percent of 1990 levels by 2050

Assembly Bill 32

- Passed in 2006
- Set goal of reducing greenhouse gas emission levels back to 1990 levels by 2020
- Authorized the California Air Resources Board to set policies, regulations, and enforce the limits through fines and fees

Governor's Executive Order S-01-07

- Issued by Governor Schwarzenegger in 2007
- Created Low Carbon Fuel Standards in California
- Set a goal of reducing carbon intensity by 10% by 2020

Senate Bill 375

- Passed in 2008
- Required the California Air Resources Board to set regional emissions reduction targets from passenger vehicles
- Required Metropoltian Planning Organizations to develop Sustainable Communities Strategies to reach reduction targets

Senate Bill 391

- Passed in 2009
- Requires the California Department of Transportation to prepare the California Transportation Plan (CTP), the long-range transportation plan, by December 2015, to reduce green house gas emissions.
- Reaffirmed goals as described by AB 32 and Executive Order S-03-05.

Figure 7-5 Timeline of Legislative Actions Contributing to Greenhouse Gas Limits

[54] California Air Resources Board, *History of Air Resources Board,* http://www.arb.ca.gov/knowzone/history.htm, Accessed December 19, 2013

In 2009, Senate Bill 391 was passed and required the California Department of Transportation to prepare the California Transportation Plan (CTP), the long-range transportation plan, by December 2015, to reduce GHG emissions. The upcoming California Transportation Plan 2040 demonstrates how major rural areas, and state agencies can coordinate planning efforts to achieve critical statewide goals outlined in Assembly Bill 32 and Executive Order S-03-05 (Figure 7-5).

In order to achieve the goals outlined in Chapter 3 of the Regional Transportation Plan, the region must consider projected future growth impacts on land use and transportation projects to meet the needs of future growth. Although there are a myriad of scenarios to achieve the goals, funding for transportation projects is scarce.

SCENARIO DEVELOPMENT

In the past, land use and transportation planning efforts were viewed as completely separate. However, that philosophy has been replaced with the passage of California Senate Bill 375: Sustainable Communities and Climate Protection Act of 2008. The Bill mandates that regions set targets to address their greenhouse gas emissions through the development of a Sustainable Communities Strategy. The Association of Monterey Bay Area Governments is responsible for the Sustainable Communities Strategy which integrates land use, housing, and transportation planning for San Benito, Monterey, and Santa Cruz Counties.

Partnering with the Association of Monterey Bay Area Governments and the Hollister Downtown Association, the Council of Governments reached out to the community to gather public input and comment from residents of San Benito County to develop the Strategies and to shape the scenarios for the Regional Transportation Plan. Details on outreach efforts are provided in Chapter 8. After the first set of comments, the following five scenarios were developed:

SCENARIO 1 - REGIONAL TRANSIT CORRIDORS

Under Scenario 1, growth would be focused along regional transit corridors and rail infrastructure in existing cities. Local cities would encourage mixed use growth within its urban centers instead of growth on the outskirts or in rural areas. A priority would be placed on investing in public transit to expand and increase availability for Bus Rapid Transit (BRT) to major destinations of employment and recreation.

A potential project under this scenario would be to fund public transit links, via shuttle or Bus Rapid Transit to the proposed high speed rail station in Gilroy in Santa Clara County. Such links would facilitate interregional travel for San Benito residents and tourists from the San Francisco Bay Area and Los Angeles Region. This could potentially decrease commuter traffic while encouraging tourism in San Benito County

SCENARIO 2 – EXPANDED COMMUNITY CENTERS

While the first scenario focuses on regional travel, Scenario 2 focuses on investments within San Benito County. Growth is encouraged within the existing neighborhoods near commercial corridors. Additionally, there is a push to attract green technology businesses and business incubators to the area to improve the availability of employment for residents. As a result, the number of residents commuting out of San Benito County for employment would be reduced.

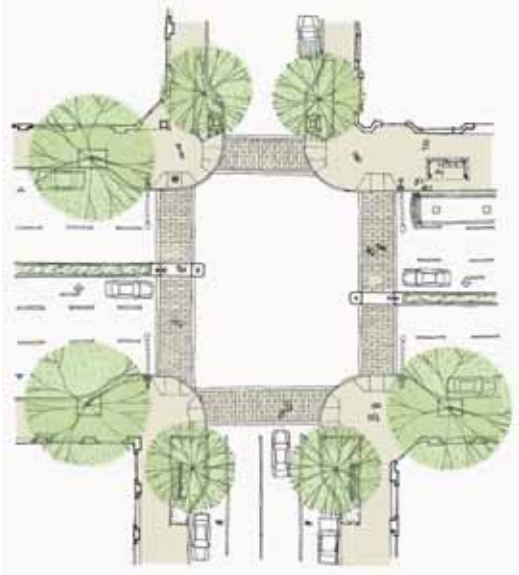

Figure 7-6 Example of Complete Streets Improvements in Intersection
Source: San Benito County Local Transportation Authority's Transit Design Guidelines

Using the Complete Streets Guidebook (Appendix A) local streets and roads would be improved to encourage pedestrians, bicyclists and public transit traffic to key destinations. Examples of improvements could include bulb outs, narrowing of traffic lanes, and raised medians. Investments would also be made to increase local public transit to increase frequency of services, additional routes, and local express bus routes.

SCENARIO 3 - DISPERSED GROWTH

Unlike the first two scenarios, growth is encouraged in the unincorporated communities outside of the urban center. This type of development typically requires the conversion of open space or land previously used for farming activity. Investments would be focused on reducing congestion, travel time, highway safety improvements, and transit access for tourism.

Other Land
•Rural Residential Land
•Semi-Agricultural and Rural Commercial Land
•Vacant or Disturbed Land
•Confined Animal Agriculture
•Non-agricultural or Natural Vegetation

Source: California Department of Conservation

These developments have been common within San Benito County in the past. According to the California Department of Conservation, there has been a loss of almost 34,000 acres in farmland between 1984 and 2010 in San Benito County.[55] While most was converted to grazing land, approximately 11 percent of the loss can be attributed to "Urban and Built-Up Land." Another 34 percent was converted to "Other Land." Although the category includes a wide spectrum of land uses, a safe assumption can be made that a small portion of that loss was converted to rural residential uses.

SCENARIO 4 - TARGETED GROWTH AND ECONOMIC DIVERSITY

The focus of Scenario 4 includes the encouragement of attracting a variety of industries, supporting current and future industries, and managing housing availability for all residents.

[55] California Department of Conservation, San Benito County 1984-2010 Land Use Summary

More importantly, investments would concentrate on goods movement needs of various industries and the low-income and minority populations.

Transportation investments include increased public transit services, heavy rail improvements, highway capacity and interchange improvements.

SCENARIO 5 - SYSTEM PRESERVATION

Under this scenario, growth would be allocated per local General Plans and transportation funding would center on the maintenance of existing facilities. No major land use changes or transportation improvements would be made.

PREFERRED SCENARIO – A MIX

After receiving public comment and policy board comments from additional workshops and surveys, none of the five scenarios were selected as a preferred scenario. Instead a hybrid of the scenarios was developed by the Association of Monterey Bay Area Governments to better reflect the comments received. Figure 7-7 illustrates and compares the performance of the hybrid scenarios. The Association of Monterey Bay Area Governments adopted Hybrid A as the Preferred Scenario for the region. Hybrid A emphasizes investments for active transportation, complete streets improvements, public transit services, and system preservation.

PERFORMANCE TARGETS

Working with the Association of Monterey Bay Area Governments and the public, the Council of Governments identified six targets with specific performance measures. The performance measures were used to evaluate current and future projects' effectiveness in meeting the targets. Figure 7-8 summarizes those performance measures of the projects identified in Appendix C.

Access and Mobility

Access refers to the menu of options available for traveling within a city/town or from an outlying community to a state highway. Route options include any combination of vehicle, public transit, walking and bicycling.

Mobility refers to the ease of accessing route options. Depending on the mode of travel, the performance criteria will vary. For example, a person driving a vehicle would want increased mobility by decreasing travel time and delay encountered for a particular trip. However, a bicyclist would want increased connectivity of bicycle lanes.

System Preservation and Safety

Complementing access and mobility, the ability to maintain and preserve a region's roadways is a high priority. There are 899 miles of rural and urban roadways maintained by local, state and federal jurisdictions in San Benito County. Regular maintenance prevents more costly roadway rehabilitation projects in the future. State highways are maintained by Caltrans while local jurisdictions are responsible for local street and roads.

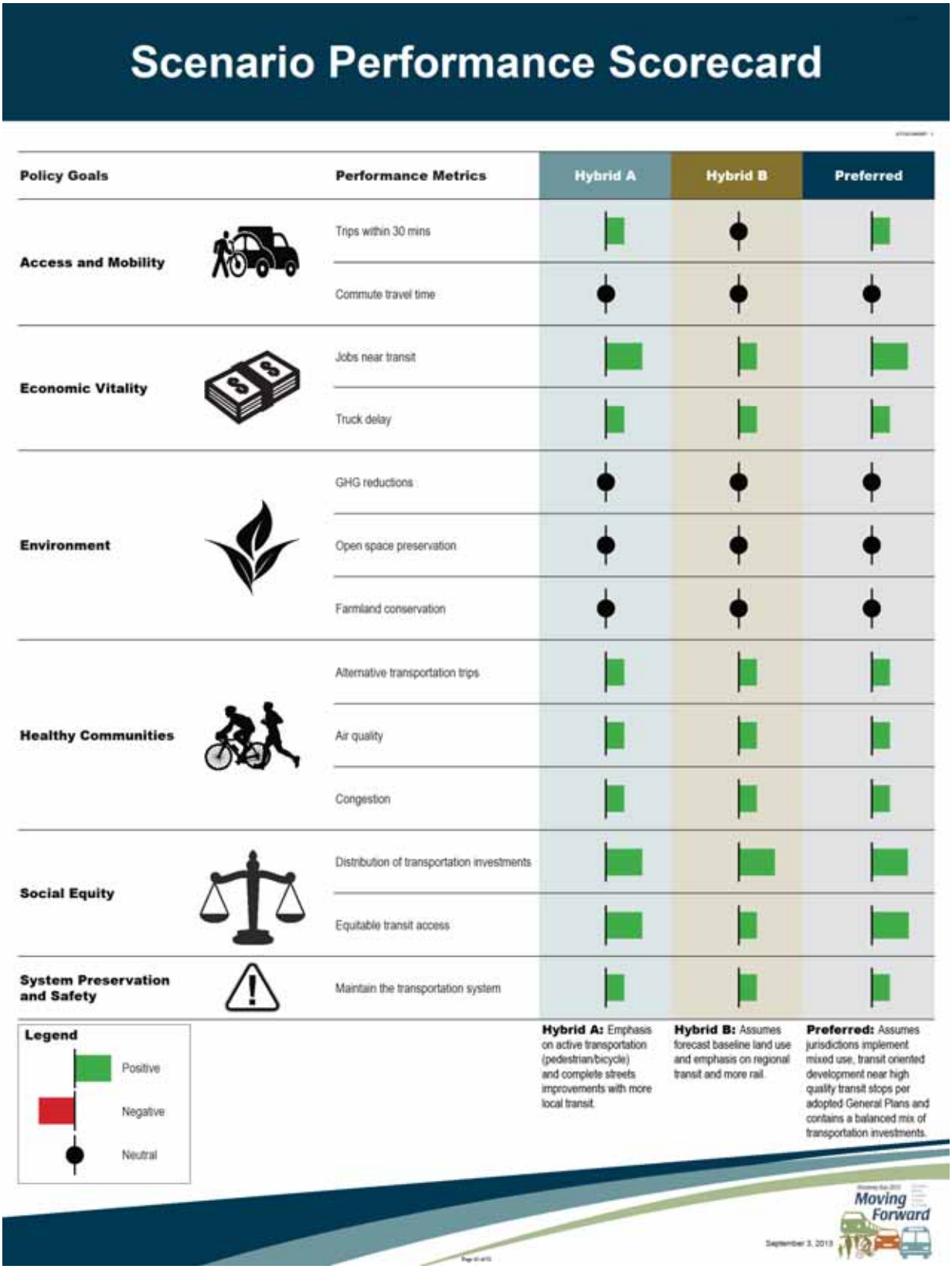

Figure 7-7 Hybrid Scenario Scorecard

Source: Association of Monterey Bay Area Governments

Target	Performance Measures	Source of Analysis
Access and Mobility *Provide convenient, accessible, and reliable travel options while maximizing productivity for all people and goods in the region*	Increase the percent of peak period trips that are 30 minutes or less by mode.	Regional Transportation Demand Model
	Improve average work trip travel time.	Regional Transportation Demand Model and off model calculations
System Preservation and Safety *Preserve and ensure a sustainable and safe regional transportation system*	Reduce injuries and fatalities due to collisions.	Regional Transportation Demand Model and Statewide Integrated Traffic Records System
	Maintain the transportation system and keep it in a state of good repair.	State Highway Operation and Protection Program (SHOPP) and California Transportation Commission's Statewide Transportation System Needs Assessment
Healthy Communities *Protect the health of our residents; foster efficient development patterns that optimize travel, housing, and employment choices and encourage active transportation*	Increase active transportation trips (including transit).	Regional Transportation Demand Model
	Decrease harmful airborne pollutants.	Regional Transportation Demand Model and Emissions Factors
	Reduce congested Vehicles Miles Traveled (VMT).	Regional Transportation Demand Model
Environment *Promote environmental sustainability and protect the natural environment*	Reduce greenhouse gas emission by 0 percent by 2020 and 5 percent by 2035	Regional Transportation Demand Model and Emissions Factors
	Minimize impacts to sensitive habitat areas and preserve open space.	Geographic Information Systems
	Conserve open space and farmland	Geographic Information Systems
Social Equity *Provide an equitable level of transportation services to all segments of the population*	Improve the equitable distribution of investments through expenditures per capita and reduce the disproportionate impacts of those investments.	Geographic Information Systems
	Increase the percent of population within ½ mile of a high quality transit stop (total population and transportation disadvantaged communities).	Geographic Information Systems
Economic Vitality *Raise the region's standard of living by enhancing the performance of the transportation system*	Increase the percent of jobs within ½ mile of high quality transit stop.	Geographic Information Systems
	Reduce daily truck hours of delay	Regional Transportation Demand Model and off model calculations

Figure 7-8 San Benito County Performance Targets

Pavement Management Systems are used to measure and report on roadway conditions. Such systems are regularly updated to forecast pavement deterioration over time, calculate the estimated cost for improvement projects, and identify strategies to maximize maintenance and funding needs. For more details on San Benito's pavement needs, see Chapter 4.

In addition to saving money and maintaining productivity, a well preserved transportation system increases safety for all users. Future transportation projects will improve and enhance the safety of the roadways. Safety is measured by the following:

- Number of accidents
- Number of fatal vs. injury only accidents
- Accidents per million miles traveled

According to the Statewide Integrated Traffic Records System (SWITRS) compiled by the California Highway Patrol, there were 249 motor vehicle collisions between January 1, 2012 and December 31, 2012.[56] Of the 249 incidents, 26 were located on a state or federal highways and resulted in 11 injuries.[57]

The rate of fatal and injury collisions in California has been declining since the 1930s when the California Highway Patrol began tracking the information. The 2010 statewide mileage death rate was 0.84. In 2011, San Benito County experienced a mileage death rate of 1.02, above the statewide average but below the national average of 1.11. In 2011, there were 8 pedestrian and 13 bicycle collisions.

Healthy Communities

By integrating land use and transportation planning, healthy communities are created by higher density of mixed-use and infill developments. Such developments encourage residents and visitors to use active transportation and decrease the use of vehicles because shopping and services are close by. With a decrease in vehicle usage, the following is achieved:

- Improved air quality by decreasing air pollution emitted from vehicles
- Decreased greenhouse gas emissions
- Reduced traffic congestion on roadways

Environment

Land use type can affect the environment in the immediate and regional areas. New developments, new roadways, and increasing roadway capacity typically requires the

[56] Statewide Integrated Traffic Records System. Department of California Highway Patrol. *Report 1 – Collisions and Victims by Motor Vehicle Involved*. Available from Department of Highway Patrol, I-SWIRTS Report. Generated December 4, 2013

[57] Statewide Integrated Traffic Records System. Department of California Highway Patrol. *Report 1 – Collisions and Victims by Motor Vehicle Involved*. Available from Department of Highway Patrol, I-SWIRTS Report

conversion of open space or farmlands. This results in the loss of habitat and reduces the region's agricultural production.

In a rural agricultural county like San Benito, decisions on expanding the transportation network and urban areas have an instant effect on agricultural land. Most of the projects outlined in Appendix C are located within the urbanized areas and in prime farmland. As seen in Figure 7-9, these projects are necessary because of the location of the existing urbanized growth and the travel and mobility needs of the workforce, residents, and freight mobility.

In addition to impacts to farmland, open spaces are also affected by urban development and transportation projects. In San Benito County, there are 13 Federal and State recognized threatened and endangered species. Of the 13, 4 species types are found near the projects listed in the Regional Transportation Plan. Figures 7-10 and 7-11 identify the locations of the threatened and endangered species.

Mixed-use and infill developments within urbanized areas and near residential neighborhoods provide additional opportunities for employment and retail shopping. Lessening the impact of development may reduce the immediate need for future expansion of the region's roadway network and decrease the impact on the environment.

Social Equity

Transportation projects will be evaluated on the how equitable a transportation project is to the residents, businesses and visitors. A transportation projects social equity takes the following into consideration for communities of varying income levels:

- Ease of access
- Location of the project and potential impacts to nearby residents and business
- Equitable burden of funding transportation projects

Funding for the transportation projects identified in the Regional Transportation Plan are proposed to be funded with existing sources such as the County's percentage of the state sales tax, state and federal fuel taxes, and traffic impact fees.

Economic Vitality

Investing in the transportation projects outlined in the Regional Transportation Plan is important to maintaining and encouraging economic vitality in San Benito County. Projects which increase capacity and provide safety improvements result in decreased delays for residents and commercial truck drivers.

Increasing the ease of access by roadways, bikeways, or pedestrian walkways attracts more businesses and visitors to the area. Direct access for residents and visitors is vital to supporting the local economy due to increased foot traffic by pedestrians, bicyclists, and transit users in

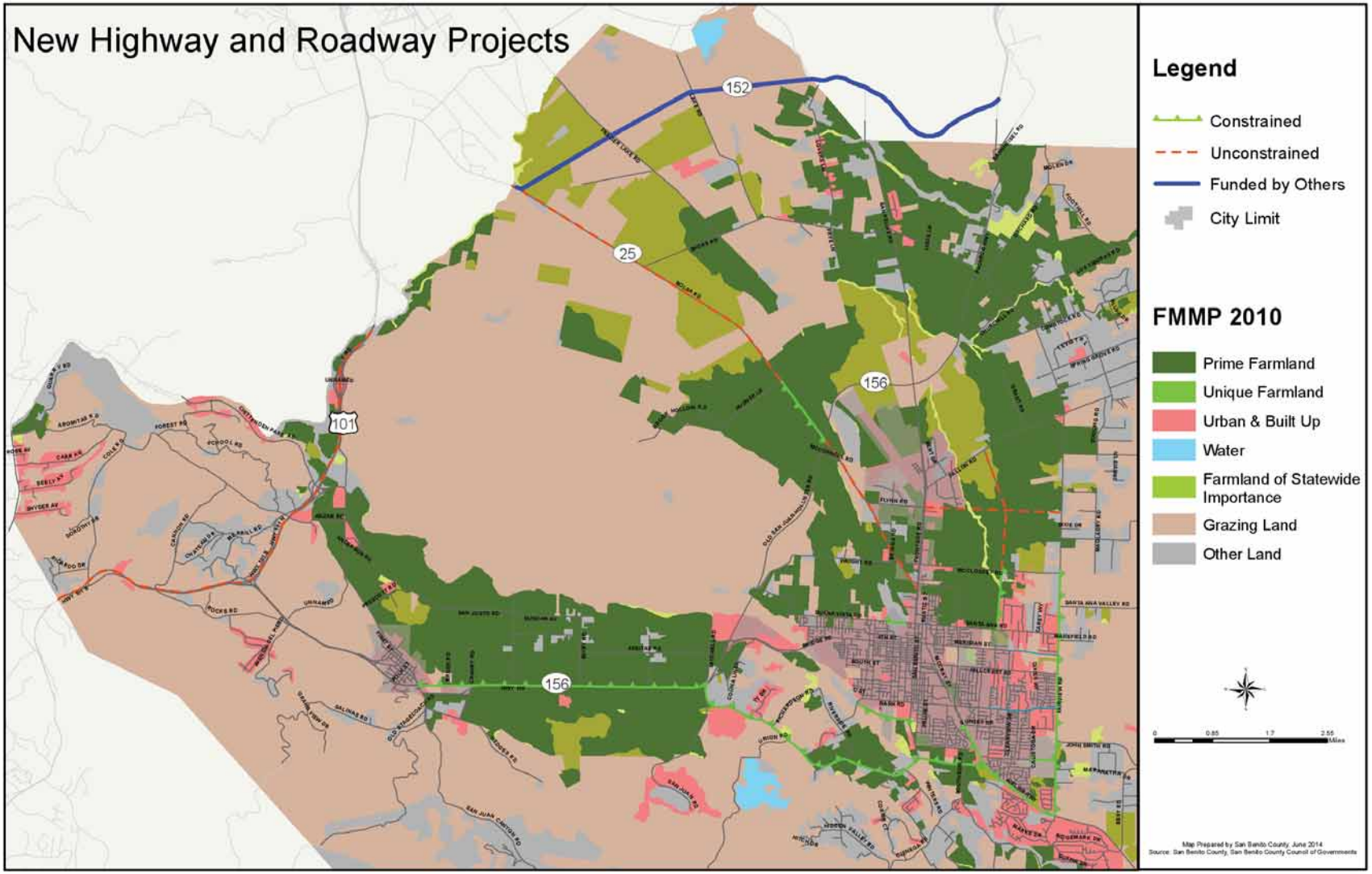

Figure 7-9 Map Regional Transportation Plan Projects and Regional Farmland

Map depicts the locations of transportation projects in relation to the types of land in the project area. The California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) samples soil quality and irrigation status to rate agricultural lands.

Source: Council of San Benito County Governments and California Department of Conservation, Farmland Mapping Monitoring Program 2010

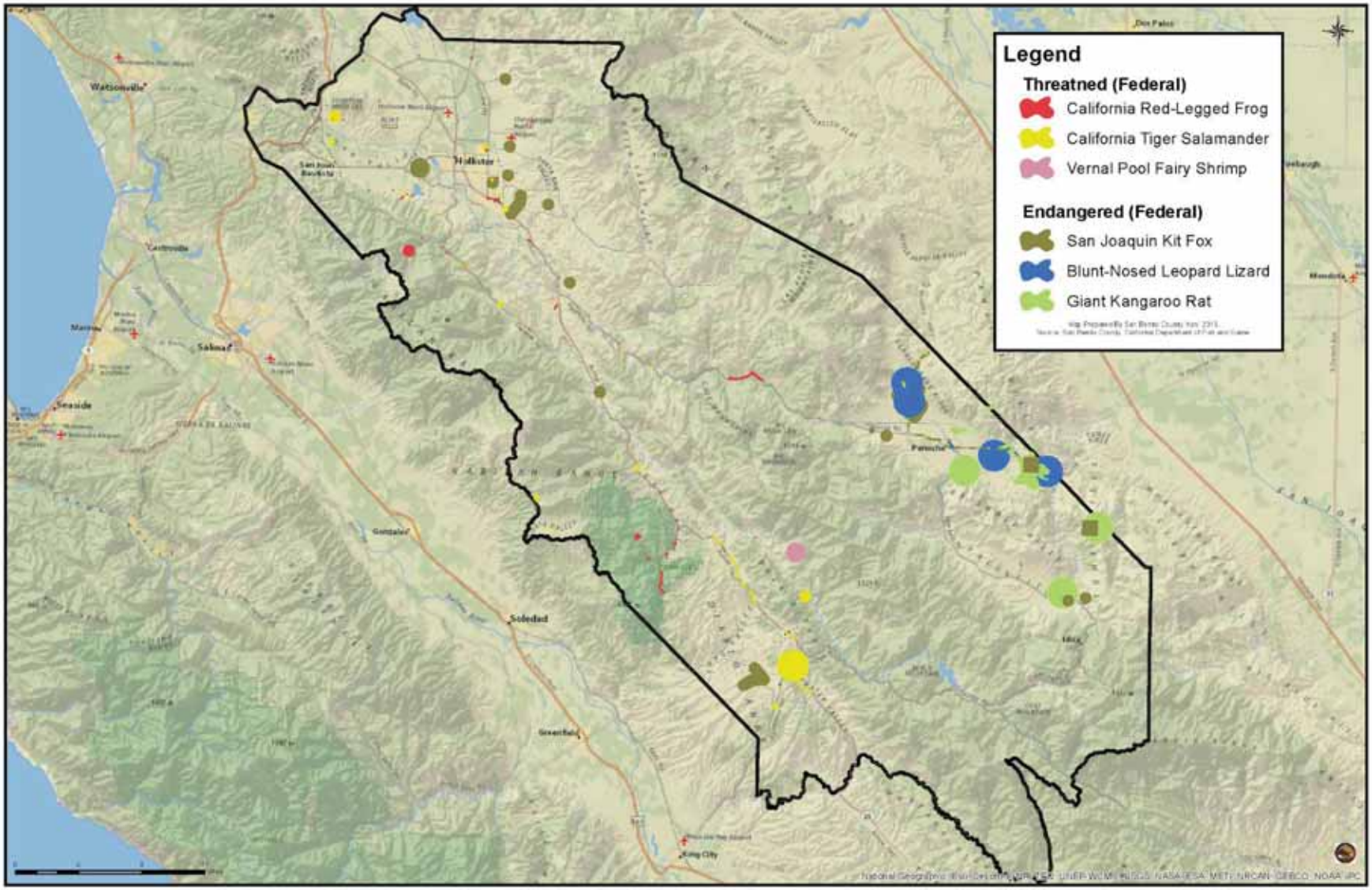

Figure 7-10 Federally Threatened and Endangered Species in San Benito County
Source: San Benito County Geographic Information Systems

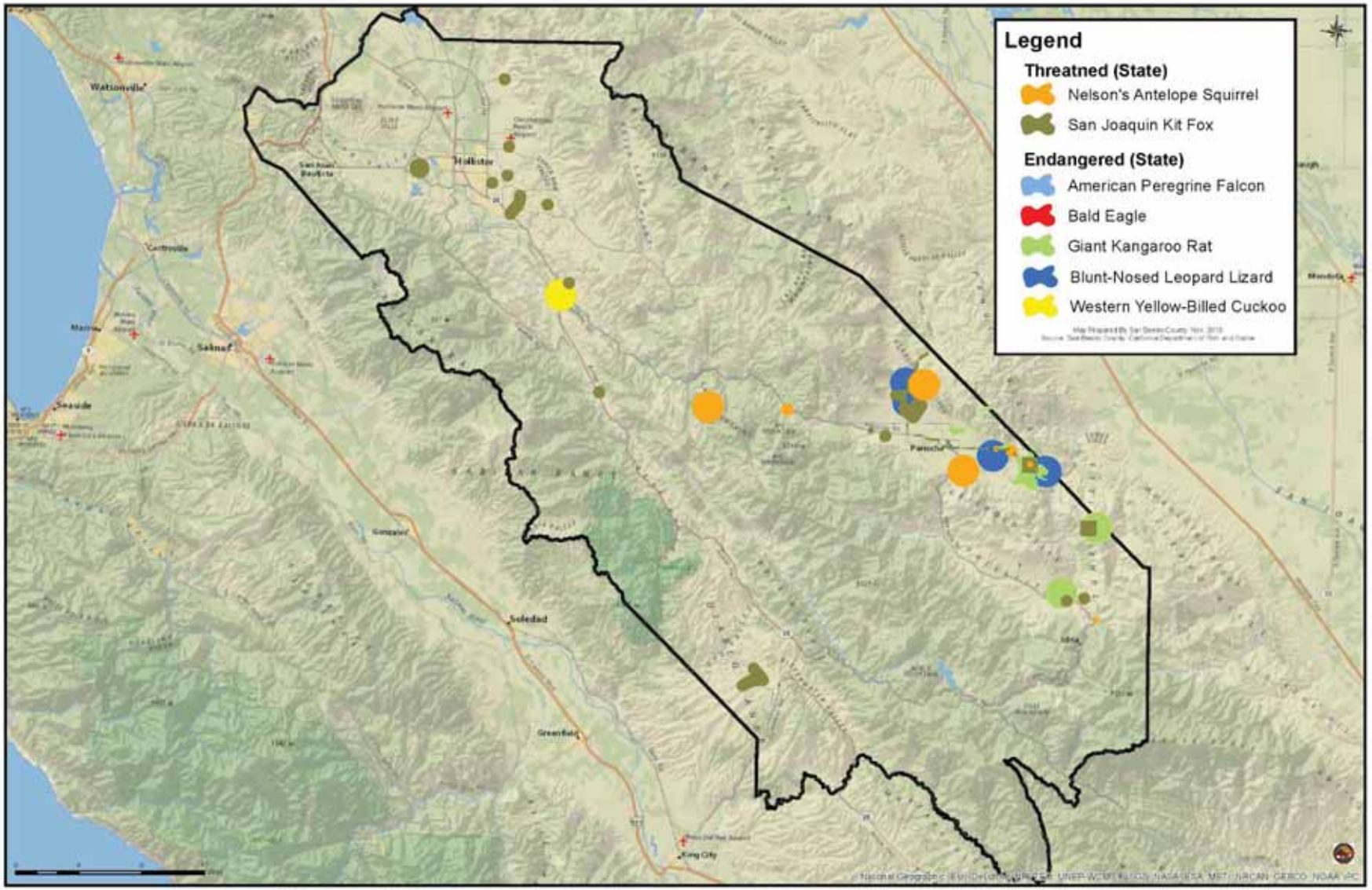

Figure 7-11 State Threatened and Endangered Species in San Benito County
Source: San Benito County Geographic Information Systems

business districts. Equally important, businesses needing to receive and send shipments increase their productivity by spending less time spent in traffic and saving fuel costs.

PERFORMANCE OUTCOMES

The Council of Governments worked with local jurisdictions within San Benito County to provide information about current and future projects to the Association of Monterey Bay Area Governments to input into the Regional Transportation Demand Model.

Using data from 2010 as the base year, the Association of Monterey Bay Area Governments used the model to show how growth in San Benito County will affect transportation demands and greenhouse gas emissions in 2035. The Regional Transportation Plan discusses the base conditions for 2010, 2035 with a No Build Scenario and 2035 Preferred Scenario.

2010 Base Year	2035 No Build	2035 Preferred Scenario
• Existing conditions based upon transportation system in service in 2010	• Assumes current land use trends and represents a future with no regional transportation projects built	• Shows future conditions in which regional transportation projects and sustainable community strategies are implemented

The Council of Governments partners with the Association of Monterey Bay Area Governments for modeling future transportation demands. Though it is beneficial to run transportation demand models, all have their limitations. The Association of Monterey Bay Area Governments model limitations are that it is unable to account for active transportation, or complete streets projects, which are listed in Appendix C. Although they are included, the model is not sensitive to public transit projects. The Association of Monterey Bay Area Governments estimates an overall 6 percent decrease of greenhouse gases from 2005 levels under the 2035 Preferred Scenario.

SYSTEM CONDITIONS

The amount of traffic congestion and its resulting impacts will depend on the decisions made by local jurisdictions and policymakers today. As San Benito County's population increases 47 percent by 2035, the transportation system will also experience increased demand from personal vehicle use and truck traffic. Total vehicle miles traveled (VMT) for the No Build and Preferred scenarios will increase by over 51 percent from 2010.[58]

Despite the increase in vehicle miles traveled for No Build and Preferred Scenarios, the Preferred Scenario modeling results indicate that it is the superior scenario. According to Figure 7-12, the Congested Vehicle Miles Traveled is considerably less in the Preferred Scenario than the No Build through 2035. Figure 7-13 highlights the estimated Vehicle Hours Delayed for each scenario through 2035. Low vehicle hour delay numbers imply that there is less congestion

[58] Association of Monterey Bay Area Governments, *Regional Transportation Demand Model*

on the roadways. Less congestion means greater productivity for industries that rely heavily on moving goods on major highways and local roads, reliability for residents, and benefits to the environment.

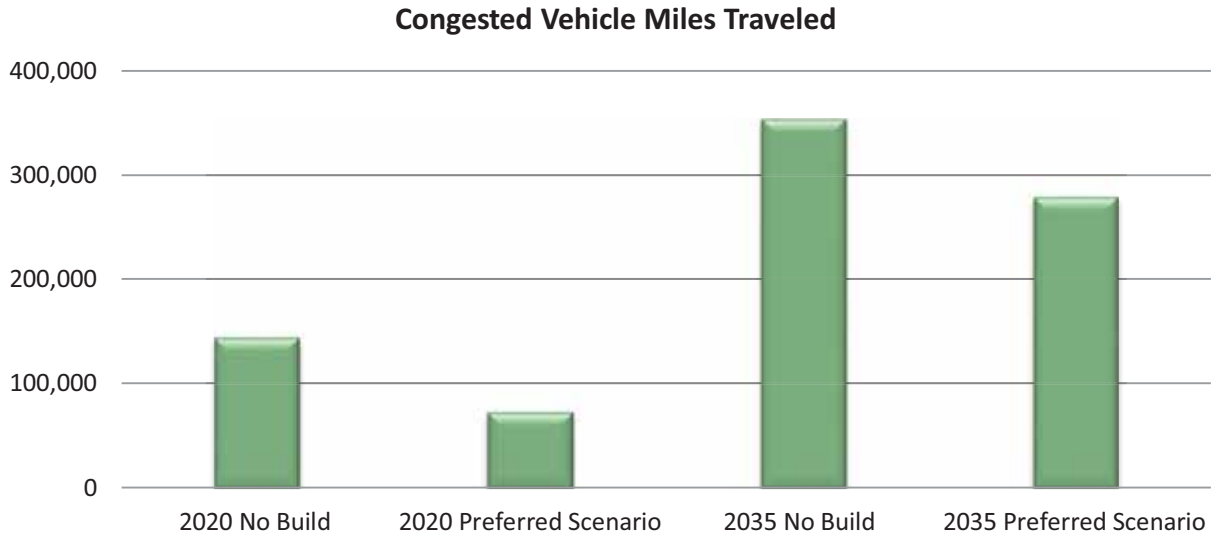

Figure 7-12 Daily Vehicle Miles Traveled vs. Daily Congested Vehicle Miles Traveled
Source: Association of Monterey Bay Area Governments

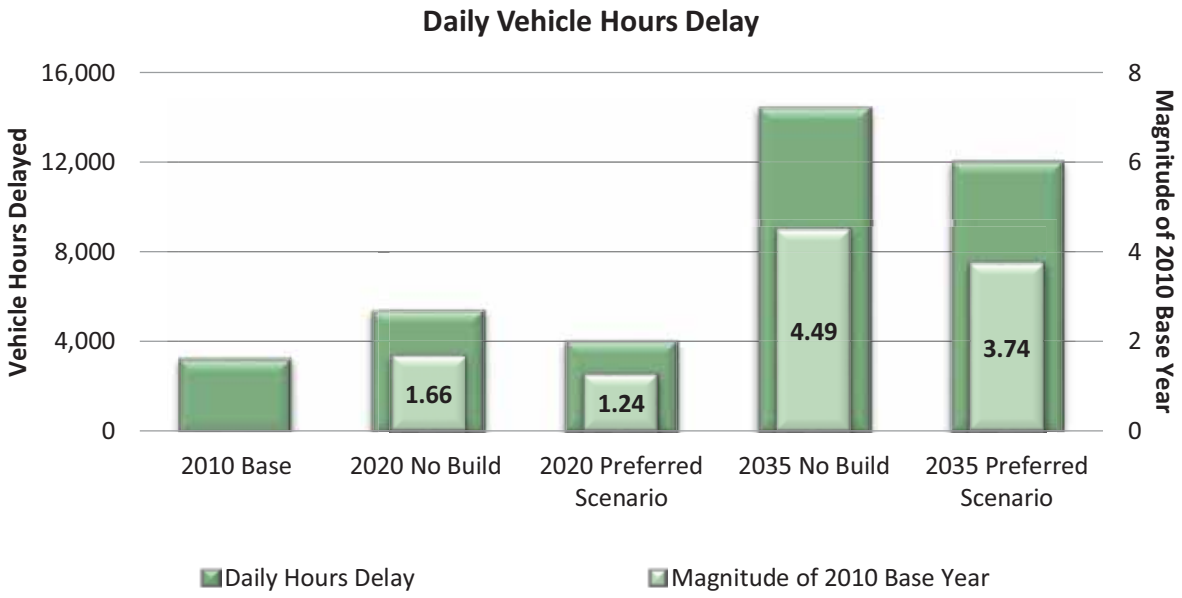

Figure 7-13 Daily Vehicle Hours of Delay
Source: Association of Monterey Bay Area Governments

Approximately 54 percent of the San Benito County Labor Force is involved in industries that support agricultural production.[59] This includes farming activity, transportation of raw agricultural products for packaging and processing, the processing and packaging of agricultural products and the shipping of products to retailers. For this reason maintaining and improving

[59] State of California's Employment Development Department, Labor Market Information Division, *San Benito County Industry Employment & Labor Force – by Annual Average*

roadway efficiencies and safety is vital for freight traffic, as well as for commuters. According to the U.S. Department of Agriculture,

> *The agricultural sector is the largest user of freight transportation in the United States…Adequate and efficient transportation is especially critical to successful marketing of U.S. agricultural products, which depends on transportation to deliver goods.*[60]

Figure 7-14 shows vehicle miles traveled for all modes and truck only. Although truck only is under 11 percent of the total vehicles miles traveled, it is still a significant amount. Of that truck only traffic, San Benito County transported 2.4 million tons of freight worth almost $2.5 billion in 2007.[61]

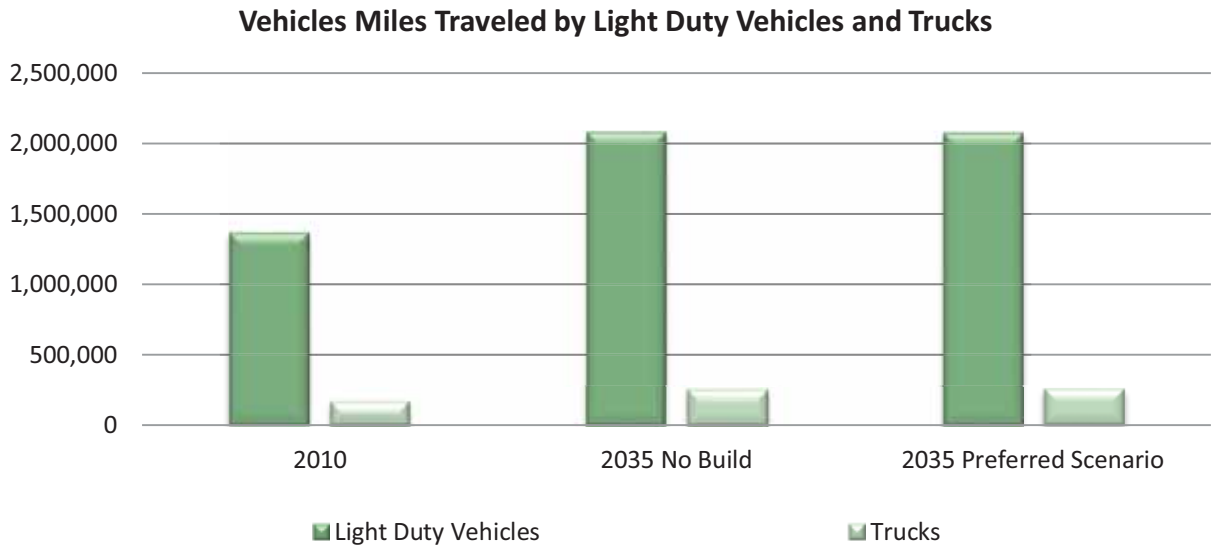

Figure 7-14 Daily Vehicle Miles Traveled Compared to Daily Truck Only Vehicle Miles Traveled
Source: Association of Monterey Bay Area Governments, Regional Transportation Demand Model

AIR QUALITY AT HOME

Transportation planning, land use, and the resulting projects and programs impact air quality. With an increase vehicle travel, greenhouse gas emissions from vehicles is anticipated to increase for most of the United States. In California and San Benito County, that is not the case due to policy changes.

The greenhouse gas emissions for San Benito County are provided in Figure 7-15. The data within the first eight rows reflect the requirements of the legislative actions in Figure 7-6. The last row of Figure 7-15 are the project emissions without the passage of the Bills or Executive Orders.

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[60] Casavant, Ken , Marina Denicoff, Eric Jessup, April Taylor, Daniel Nibarger, David Sears, Hayk Khachatryan, Vicki McCracken, Eric Jessup, Marvin Prater, Jeanne O'Leary, Nick Marathon, Brian McGregor, and Surajudeen Olowolayemo. *Study of Rural Transportation Issues*, U.S. Department of Agriculture, Agricultural Marketing Service, April 2010. http://dx.doi.org/10.9752/TS041.04-2010, Accessed December 19, 2013

[61] Association of Monterey Bay Area Governments, *Central Coast California Commercial Flows Study February 2012*

Greenhouse gas emissions are projected to decrease for the No Build and Preferred Scenario by 30 percent to 53 percent. There is an increase of about 16 percent of CO_2 emissions of the 2010 Base Year because of increased vehicle miles traveled. However, without the policy changes and increased regulations, CO_2 emissions would have increased by over 90 percent.

In addition to greenhouse gases, particulate matter (PM) is also a growing concern because of its ability to pass through the throat and nose and enter the lungs. Particulate matter is categorized by size ($PM_{2.5}$ and PM_{10}). Particulate matter are very small air borne particulates and are typically generated from industrial, farming, construction, and driving activity. It contains a combination of acids, organic chemicals, metals, and/or dust particles. Particulate matter has been linked to respiratory and cardiovascular disease, aggravated asthma, and many more health conditions.[62]

The California Interregional Strategic Plan states, "It is widely accepted that carbon dioxide forms approximately 84 percent of all greenhouse gas emissions; this is true in California as in the rest of the word. The impacts from a change in global climate can be felt throughout the region. California has adopted the public policy position that global climate change is 'a series threat to the economic well-being, public health, natural resources, and the environment of California.'"

[62] U.S. Environmental Protection Agency, http://www.epa.gov/ncer/science/pm/, Accessed December 20, 2013

	Emissions Output					Percentage Change from 2010 Base Year			
	2010 Base Year	2020 No Build	2020 Preferred Scenario	2035 No Build	2035 Preferred Scenario	2020 No Build	2020 Preferred Scenario	2035 No Build	2035 Preferred Scenario
Total Particulate Matter$_{10}$ (PM_{10})	0.2114	0.1477	0.1458	0.1919	0.1915	-30.13%	-31.03%	-9.22%	-9.41%
Total Particulate Matter$_{2.5}$ ($PM_{2.5}$)	0.1449	0.0745	0.0736	0.0965	0.0962	-48.59%	-49.21%	-33.40%	-33.61%
Total Sulfure Oxides (SO_x)	0.0092	0.0124	0.0123	0.0170	0.017	34.78%	33.70%	84.78%	84.78%
Total Organic Gasses (TOG)	0.9323	0.499	0.4931	0.5544	0.5522	-46.48%	-47.11%	-40.53%	-40.77%
Total Reactive Organic Gasses (ROG)	0.8413	0.4469	0.4421	0.4904	0.489	-46.88%	-47.45%	-41.71%	-41.88%
Total Carbon Monoxide (CO)	8.7158	4.1481	4.1041	3.6049	3.5905	-52.41%	-52.91%	-58.64%	-58.80%
Total Nitrogen Oxide (NO_x)	4.3188	2.0972	2.0737	1.8853	1.8765	-51.44%	-51.98%	-56.35%	-56.55%
Total Carbon Dioxide (CO_2) without Policy Changes	1,048.1088	1409.164	1392.832	2,027.6046	2016.3262	34.45%	32.89%	93.45%	92.38%
Total Carbon Dioxide (CO_2) with Policy Changes	1,045.5264	1163.098	1149.669	1,613.7829	1605.266	11.25%	9.96%	54.35%	53.54%

Figure 7-15 Emissions Factors (EMFAC) in San Benito County

Source: Association of Monterey Bay Area Governments, Regional Transportation Demand Model

Chapter 8 Public Participation

Providing opportunities for public participation in the Regional Transportation Plan is important to the Council of San Benito County Governments. Early and frequent public involvement is essential to ensure that the community gains a clear understanding of the Council of Governments role as the Regional Transportation Planning Agency for San Benito County. Furthermore, public involvement helps the Council of Governments policymakers and staff better understand the needs and concerns of the community, leading to more meaningful planning efforts and activities.

In compliance with federal and state requirements and to guide effective public involvement, the Council of Governments utilized its Public Participation Plan. The Monterey Bay Area Public Participation Plan provides the direction for public participation activities. It outlines the processes and strategies the Council of Governments uses to reach out to a broad range of stakeholders to gain their input.

The Monterey Bay Area Public Participation Plan is intended to guide all public involvement activities of the Regional Transportation Planning Agencies, including the Council of Governments. It also complies with federal and state legislation.

To ensure compliance with federal and state requirements, the Council of Governments implements a public involvement process to provide information, timely public notice, and to support early and continuing public engagement in developing its regional plans. In order to develop an effective public participation process that is specific to the needs of San Benito County residents, it is important to acknowledge the community's demographics. To help inform the public of opportunities for input on the 2014 Regional Transportation Plan, the Council of Governments developed a comprehensive public outreach plan to meet the needs of its community demographics.

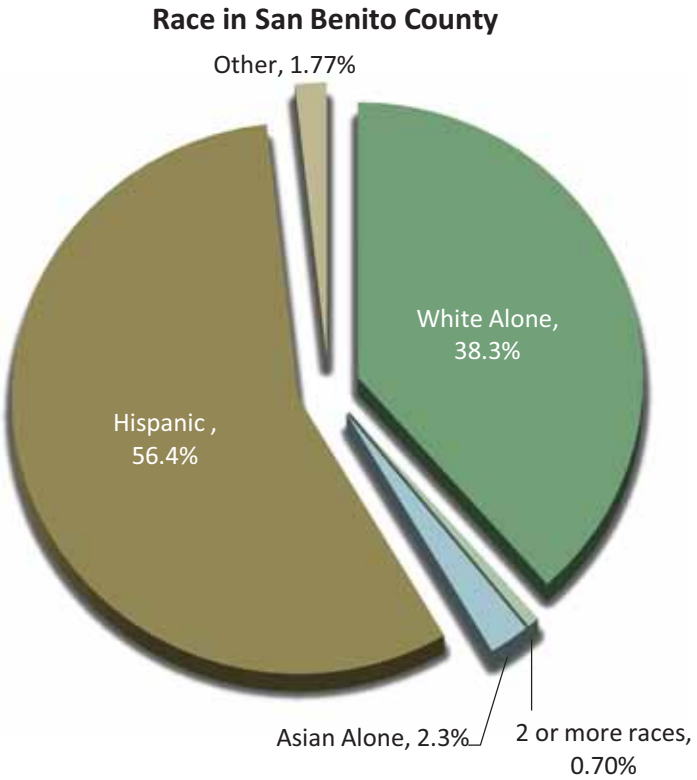

Figure 8-1 Race in San Benito County
Source: U.S. Census

In San Benito County more than 56.4 percent of the residents are Hispanic; however, Spanish is

not always the primary language spoken in these households.[63] According to the U.S. Census 39.5 speak a language other than English at home.[64] As such, the majority of Regional Transportation Plan announcements, surveys, and general information were provided in both English and Spanish. The Council of Governments has strived to ensure that the public have the opportunity to voice their thoughts and concerns during the development of the Regional Transportation Plan.

TECHNIQUES TO ENHANCE PUBLIC PARTICIPATION

Using strategies identified in the Public Participation Plan, the Council of Governments has enhanced the techniques and strategies for Regional Transportation Plan outreach, by the following efforts:

- Developing presentation materials for public outreach in a variety of formats to reach broad audiences, including PowerPoint presentations, fact sheets, surveys, and maps.
- Enhancing website capabilities to allow posting of all Regional Transportation Plan related information on its website to ensure that it is accessible and transparent to the public.
- Coordinating outreach efforts with other stakeholder organizations and community groups to maximize outreach opportunities.
- Involving multiple committees and task forces of the Council of Governments partners, stakeholders, and interested groups to develop the key components of the Regional Transportation Plan.
- Holding multiple public workshops before the release of the Draft Regional Transportation Plan to allow direct participation by interested parties.
- Reaching out to traditionally underrepresented and/or underserved audiences.
- Considering comments received during the outreach activities regarding proposed plans and programs.

Figure 8-2 Public Workshop at Hollister Community Center
Source: Council of Governments

- Evaluating public participation activities to continually improve the outreach process.

The Council of Governments considered an array of options for public participation, especially for those of underserved or underrepresented minorities, low income, elderly, and disabled

[63] U.S. 2010 Census, San Benito County
[64] U.S. 2010 Census, San Benito County

populations within San Benito County. The Council of Governments sought input from the following advisory committees:

- Social Services Transportation Advisory Council members represent various social service agencies and transit providers representing the elderly, persons with disabilities and persons of limited means.
- Bicycle and Pedestrian Advisory Committee members advise the Council of Governments Board on bicycle and pedestrian issues in the San Benito County region.
- Technical Advisory Committee advises the Council of Governments on matters related to transportation planning and project development.
- Regional Transportation Plan Advisory Committee members advise the Council of Governments on the development of the San Benito Regional Transportation Plan.

PUBLIC PARTICIPATION ACTIVITIES

The Council of Governments conducted the following the following outreach activities both prior and post the Regional Transportation Plan.

OUTREACH ACTIVITIES CONDUCTED POST REGIONAL TRANSPORTATION PLAN

For this Regional Transportation Plan, the Council of Governments sought public participation through various forms. This input helped provide direction on regional priorities for the Regional Transportation Plan's policy element and influenced the list of projects that are included in the Plan. The public participation findings helped identify issues that require more study outside the Regional Transportation Plan and as projects move forward.

REGIONAL TRANSPORTATION PLAN PUBLIC SURVEY

In 2010, the Council of Governments conducted a Regional Transportation Plan Public Survey to gather input on the transportation policies and projects most important to the community. The survey results provided imperative insight to existing and future transportation needs of the community, which are addressed in this Final Regional Transportation Plan.

A total of 78 people responded to the Regional Transportation Plan Public Survey. The public survey was published in The Pinnacle Newspaper, on the Council of Governments website, and distributed to various locations and to community groups. Survey results are graphically depicted in Figure 8-3.

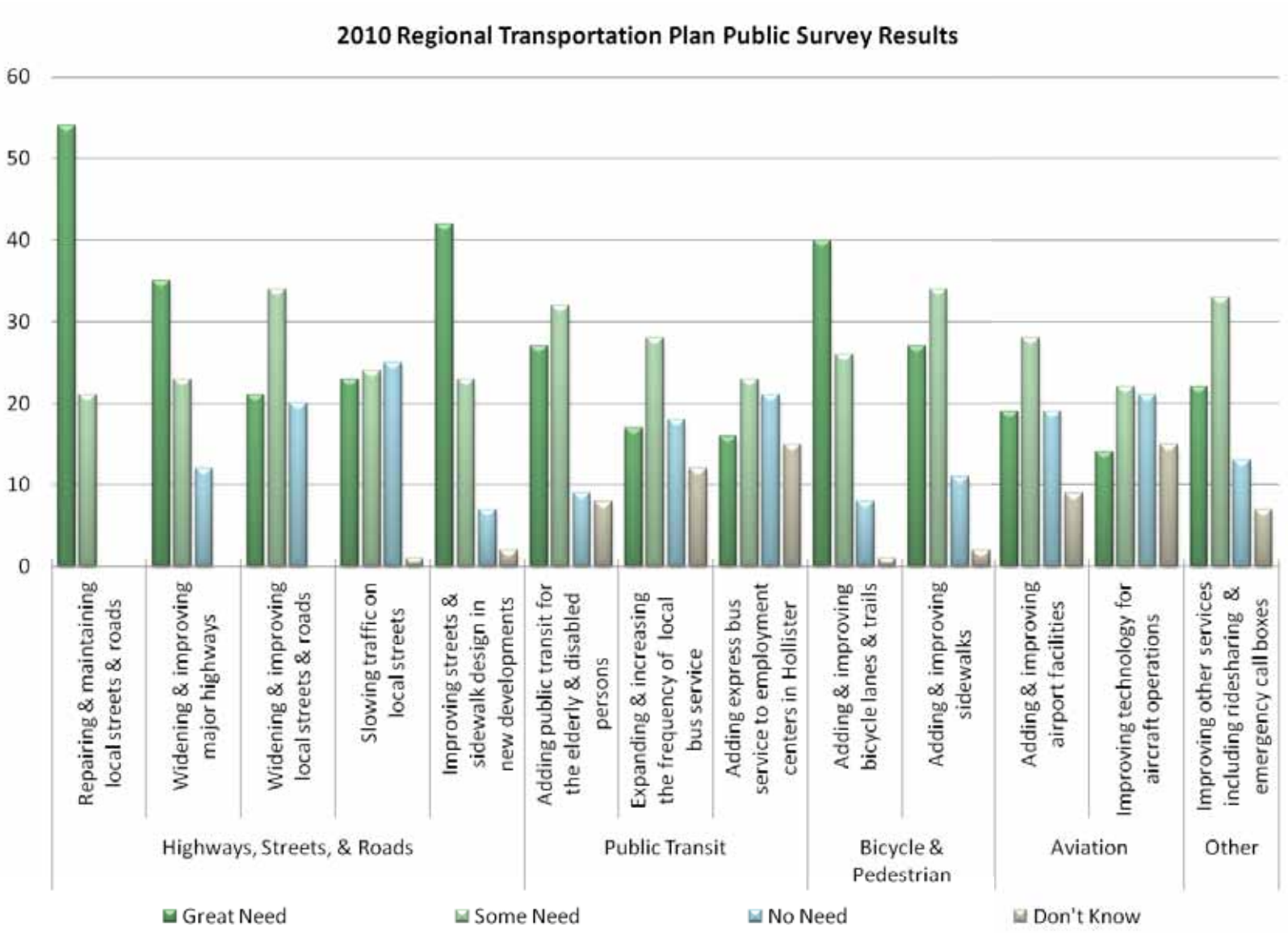

Figure 8-3 2010 Regional Transportation Plan Public Survey Results
Source: San Benito County 2010 Regional Transportation Plan

The following top four transportation needs were identified in the Public Survey:

1. Repairing and Maintaining Local Streets and Roads
   The most pressing transportation need, according to survey respondents, was repairing and maintaining local streets and roads. Respondents felt that there is either a great need or some need. There were 55 respondents that indicated that this was the greatest need and 22 respondents who indicated that there is some need. No respondent indicated that there is either no need or didn't know.

2. Adding and Improving Bicycle Lanes and Trails
   Respondents were enthusiastic on the question about adding and improving bicycle lanes and trails. There were 40 respondents who indicated that there is a great need, 26 respondents who indicated that there is some need, 10 respondents who indicated that there is no need, and one respondent who didn't know.

3. Improving Street and Sidewalk Design In New Developments
   Respondents were supportive of the question about improving streets and sidewalk design when new developments are constructed. There were 42 respondents who indicated that there is a great need, 24 respondents who indicated that there is some need, 8 respondents who indicated that there is no need, and 2 respondents who didn't know.

4. Widening and Improving Major Highways
   Respondents were supportive on the question about widening and improving major highways (such as Highways 25, 156, 101, and 152). There were 36 respondents who indicated that there is a great need, 24 respondents who indicated that there is some need, 12 respondents who indicated that there is no need, and no respondents who didn't know.

METROQUEST SURVEY

As part of the Regional Transportation Plan and Association of Monterey Bay Area Government's Sustainable Communities Strategy process, a survey was made available online using a comprehensive assessment tool. MetroQuest is an online community engagement platform used by local agencies for planning purposes.

The Survey consisted of several topics of interest, including:

- Future transportation improvements (i.e. projects)
- Public investments and financing
- Land use and transportation coordination

Based the survey results, people ranked their priorities in order of preference. Those items that

received a 1 were ranked most desirable, while those that received a ranking of 13 were considered the least desirable. The results allowed the Council of Governments to obtain valuable insight on the community's opinion about their preferences regarding roads, bicycle and pedestrian facilities over the next 20 years. The survey results are summarized above, in Figure 8-4.

Priority	Score	Rank
Reduced commute times	2.64	1
Alternative travel modes	2.67	2
Improved system maintenance	2.78	3
Reduced congestion	2.95	4
Preservation of open space	2.98	5
More jobs near transit	3.00	6
Improved air quality	3.08	7
Improved transit accessibility	3.11	8
Efficient movement of goods	3.33	9
Conservation of farmland	3.34	10
Reduced pollution	3.35	11
Equitable investment	3.52	12
Trips within 30 minutes	5.00	13

Figure 8-4 Metroquest Survey Results
Source: Association of Monterey Bay Area Governments

TELEPHONE SURVEY

The Transportation Agency for Monterey County (TAMC) in partnership with the Association of Monterey Bay Area Governments, the Council of Governments, and the Santa Cruz County Regional Transportation Commission conducted a Priorities and Preferences Survey. The survey targeted local voters in the tri-county region about priorities for funding and projects.

In San Benito County, 301 people responded to the telephone survey, which was made available in English or Spanish. San Benito County voters identified their top priorities to include the following:

- Road safety and maintenance
- Preserving farmland and agriculture
- Preserving open space and wildlife habitat
- Making it easier and safer for people to walk

In addition to the top priorities, residents were concerned about jobs and the economy, which outweigh those about the environment or greenhouse gas emissions. Commuters also noted that commuters are spending a lot of time in their cars and many would like to drive less. However, most people believed that people will continue to need their cars to get around the San Benito County region.

Although, voters favored improvements to the transportation network just under half of San Benito County voters would conceptually support a sales tax for transportation improvements.

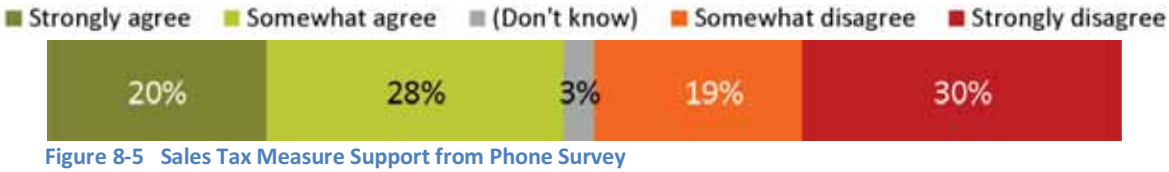

Figure 8-5 Sales Tax Measure Support from Phone Survey
Source: Association of Monterey Bay Area Governments

FARMERS MARKET

The Council of Governments created a paper version of the MetroQuest survey in both English and Spanish. Surveys were distributed and administered by staff to interested patrons of the Hollister Farmers Market on two separate occasions.

SOCIAL MEDIA

The MetroQuest survey and all Regional Transportation Plan information was uploaded on the Council of Governments' Facebook and Twitter pages in both English and Spanish. Staff also posted this information on the Facebook pages of local community groups. The Local Transportation Authority and the Rideshare program also helped distribute the survey and the Regional Transportation Plan information.

OUTREACH ACTIVITIES CONDUCTED POST REGIONAL TRANSPORTATION PLAN

The Council of Governments has continued to consult with a range of interested parties to refine the agency's public participation strategies, procedures and techniques. This was accomplished by soliciting comments from a diverse number of stakeholders through email correspondence, workshops, presentations, meetings, telephone communications, and website postings. Specifically, the Council of Governments conducted the following outreach activities:

INVOLVING OTHER GOVERNMENT AGENCIES

The Council of Governments contacted government agencies during the development of the Regional Transportation Plan and provided an opportunity to other agencies to comment on the Draft Regional Transportation Plan. The Association of Monterey Bay Area Governments provided an opportunity for comment on its Metropolitan Transportation Plan and joint Metropolitan Transportation Plan/Regional Transportation Plan Environmental Impact Report to other agencies. A list of these agencies is included in Appendix D.

COMMUNITY ORGANIZATIONS

The Council of San Benito County Governments distributed the Draft Regional Transportation Plan to various public and private community organizations to gather input on transportation needs facing San Benito County (Figure 8-6.)

These organizations were also notified of the Public Hearing for the Draft Environmental Impact Report.

Community Organizations
•Chamber of Commerce – Government Relations Committee
•Business Council
•Farmer's Market
•Hollister Rotary
•Lunch with Leaders
•Hollister Downtown Association
•Economic Restructuring Committee
•San Juan Rotary
•Community Workshops
•San Benito County Farm Bureau
•Economic Development Cooperation

Figure 8-6 Participatory Non-Governmental Organizations

WEBSITE

The Council of Governments maintains a website that provides timely information about the agency, its programs, and special projects. Meeting notices and agendas with minutes and staff reports are also posted and available for review at www.SanBenitoCOG.org.

The Regional Transportation Plan Public Workshop, Notice of Preparation, and Public Hearing meetings were posted in the "What's New" section of the website. The information was intended to provide the public with updates on the development and environmental review of the Regional Transportation Plan.

PUBLIC WORKSHOPS AND HEARING

As part of development of the San Benito Regional Transportation Plan and the Sustainable Communities Strategy, the Association of Monterey Bay Area Governments (AMBAG) in partnership with the San Benito, Monterey, and Santa Cruz Regional Transportation Planning Agencies conducted a series of collaborative community workshops in May and July 2013. The purpose of the workshops was to initiate a regional dialogue about future growth and how we should prioritize future transportation improvements.

The Council of Governments also conducted a public hearing for the Draft San Benito Regional Transportation Plan. The purpose of the Public Hearing was to present information and obtain input from the public on transportation issues, policies, programs, plans, and/or projects. The Council of Governments conducted the Public Hearing on May 29, 2014 in Hollister. A bilingual interpreter was available at the public hearing. There were no public comments at the Public Hearing.

ENVIRONMENTAL REVIEW

In addition to the public input and review process required by the federal government, the Association of Monterey Bay Area Governments (AMBAG) conducted an extensive environmental review process, in accordance with the California Environmental Quality Act (CEQA), which also includes public review and a public hearing.

The Association of Monterey Bay Area Governments (AMBAG) established a Memorandum of Understanding between the Council of San Benito County Governments, Transportation Agency for Monterey County, and Santa Cruz County Regional Transportation Commission to prepare one Environmental Impact Report (EIR) which included each Regional Transportation Plan collectively in the Metropolitan Transportation Plan (MTP). The decision to participate in a joint Environmental Impact Report was at the discretion of the board of directors for each agency. The completion of the Draft Environmental Impact Report was the result of an extensive 55-day public review period, in which the Association, as the lead agency, responded to written public comments. The Council of Governments Board of Directors adopted a resolution certifying the Environmental Impact Report at its meeting on June 19, 2014.

MITIGATION BANKING STRATEGIES

The Safe Accountable Flexible Efficient Transportation Equity Act - A Legacy for Users (SAFETEALU) requires Regional Transportation Plans to include a discussion of types of potential environmental mitigation activities and identify potential strategies that have the least environmental impacts affected by the Regional Transportation Plan.

As part of the development of the San Benito Regional Transportation Plan and the Environmental Impact Report, California Environmental Quality Act Findings of Fact, Statement of Overring Considerations, and Mitigation Monitoring and Reporting Programwas prepared by the Association of Monterey Bay Area Governments as the Lead Agency.

PUBLIC REVIEW AND FINAL PLAN ADOPTION

The Draft Regional Transportation Plan included a 30-day period for public comment. The Council of Governments received five comment letters and four comments at its April meeting regarding the Draft Regional Transportation Plan. The letters and responses to the comments received are included in Appendix F. All public comment was considered and revisions to the Final Regional Transportation Plan were made as appropriate. The Final Plan was brought before the Council of Governments' Board of Directors for adoption at the June 19, 2014 meeting.

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Appendix A Monterey Bay Area Complete Streets Guidebook

Monterey Bay Area

COMPLETE STREETS GUIDEBOOK

August 2013

ACKNOWLEDGEMENTS

PARTNER AGENCIES

FUNDING

This project was funded by a grant from the California Strategic Growth Council and administered by the Association of Monterey Bay Area Governments.

ADVISORY COMMITTEES

Monterey County

Technical Advisory Committee

Bicycle & Pedestrian Facilities Advisory Committee

Santa Cruz County

Interagency Technical Advisory Committee

Bicycle Committee

Elderly & Disabled Transportation Advisory Committee

San Benito County

Technical Advisory Committee

Bicycle & Pedestrian Advisory Committee

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EXECUTIVE SUMMARY

People are the lifeblood of a community, and streets are its veins and arteries. Streets are vital to daily travel, economic exchange and maintaining an acceptable quality of life. Streets connect people to important destinations and serve as destinations themselves, as places to walk with friends, ride a bicycle, view public art, or enjoy the local farmers market. Although for many years streets have primarily been designed to serve automobile traffic, they are public places to be used by all people including non-drivers.

Local and State transportation policy has evolved from planning and designing almost exclusively for the movement of cars, to an increasing focus on the movement of people and goods. Complete streets policy and design embodies this paradigm shift by recognizing that
(1) not all people travel by car, and
(2) land use affects who uses the street and how that street should function.

The Monterey Bay Area Complete Streets Guidebook builds upon best practices from across the nation and was developed to assist local jurisdictions in planning, designing and implementing complete streets projects. Tools such as talking points to engage decision-makers and community members and a project review checklist are included in the Guidebook and technical Appendix. The policies, processes and design treatments included in the Guidebook have been vetted, and refined by experts, planners, advocates and policy makers nationally and locally. The materials included in the Monterey Bay Area Complete Streets Guidebook builds on similar reports such as the Charlotte Department of Transportation Urban Design Guidelines, the Manual for Living Streets developed by the County of Los Angeles, the Smart Growth America Best Complete Streets Policy, and the Caltrans Complete Streets Action Plan. The contents of the Guidebook are summarized in the following sections.

EXECUTIVE SUMMARY

CHAPTER 1: GENERAL PLAN VISION, GOALS & POLICIES

This chapter of the Guidebook provides suggestions as to how communities can meet requirements of the Complete Streets Act (AB 1358) by incorporating complete streets policies into their general plans. Sample vision statements are provided in the chapter and complete street general plan policies can be found in Appendix B.

CHAPTER 2: COMPLETE STREET PERFORMANCE MEASURES

Performance measures indicate how well a street functions and meets the needs of all applicable users. Performance measures can also evaluate the effects of a policy or project on the performance of the system and to assess whether it has achieved its goal. The Guidebook provides a discussion of the 2010 Highway Capacity Manual methodology for calculating multimodal level of service as well as more qualitative performance measures.

CHAPTER 3: COMPLETE STREETS ACTION PLAN

The Action Plan of the Guidebook outlines strategies for coordinating intra-agency tasks to better integrate complete streets into the transportation design processes. A key component of the Action Plan involves providing complete streets design training to planners, civil and traffic engineers, project managers, plan review personnel, inspectors and other personnel responsible for design and construction of streets. A sample Action Plan is included as **Appendix D** to the Guidebook, and integrates complete streets into every step of community development in a way that can be tailored to the needs of each jurisdiction.

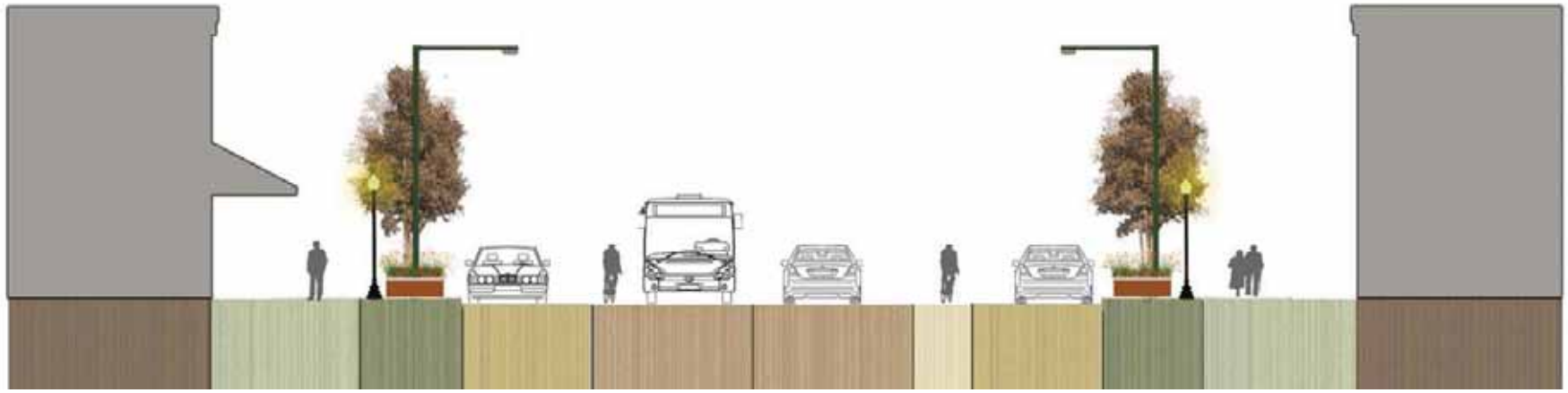
CHAPTER 4: COMPLETE STREETS TYPES

This chapter provides information to agency decision-makers on how to match the appropriate complete streets features to adjacent land uses and roadway users. This chapter introduces complete street types and a discussion of roadway user needs and design solutions.

CHAPTER 5: COMPLETE STREETS DESIGN

This chapter provides best practices examples of street features to be considered when designing and engineering complete streets. Example cross-sections are included and organized by complete street type and by user zones. Additional bicycle facility treatments are shown in Appendix K.

Conceptual Cross-Section



Draft Monterey Bay Area Complete Streets Guidebook (August 2013)

EXECUTIVE SUMMARY

CHAPTER 6: IMPLEMENTING COMPLETE STREETS PROJECTS

The Guidebook outlines a 6-Step Process for implementing complete streets that involves defining the existing land use and transportation context, identifying deficiencies and goals for the future, determining the appropriate complete street type, considering alternative designs, and balancing the trade-offs between modes. Questions for each step of the process are included in Appendix I.

The Project Review Checklist in Appendix H of the Guidebook can be used to follow these 6-steps. The Checklist may be adopted by local jurisdictions to reveal opportunities for complete streets projects and document how the needs of all users were considered.

CHAPTER 7: TRANSITIONING TO COMPLETE STREETS

Frequently, the last steps in implementing complete streets are the most difficult, which involves enacting requirements and regulations and compiling funding to enable the development of complete streets improvements. Specific tools and strategies for addressing these challenges are described in this chapter.

CHAPTER 8: EDUCATION, ENCOURAGEMENT & ENFORCEMENT PROGRAMS

Education, encouragement, and enforcement programs complement complete street infrastructure and can play an important role in achieving community goals such as health and safety. This chapter identifies local education, encouragement and enforcement strategies.

CHAPTER 9: TALKING ABOUT COMPLETE STREETS

Complete streets are roadways designed and operated to enable safe access for all users. However, the meaning of complete street may vary between communities, applications or individuals. This chapter is intended to serve as a resource for professionals, decision makers and the public who are interested in discussing and educating others about complete streets concepts.

INTRODUCTION

PURPOSE

The Monterey Bay Area Complete Streets Guidebook provides resources and procedures for developing streets in the Monterey Bay Area that meet the needs of all users including non-drivers of all ages and abilities. Although great strides have been made by local jurisdictions across the Monterey Bay Area to provide adequate facilities for all roadway users, many streets are not "complete" in the Monterey Bay Area due to lack of sufficient bicycle and pedestrian facilities. In recognizing that roadways have primarily been designed to serve the automobile, the Monterey Bay Area Complete Streets Guidebook highlights bicycle and pedestrian access as an essential design objective.

The policy guidance and recommendations herein may be adopted by jurisdictions to address the following:

- Ensure future changes to roadways function well for all roadway users;
- Pursuant to the Strategic Growth Council grant, meet Sustainable Communities Strategies requirements in state law;
- Comply with California Complete Streets legislation (AB 1358);
- Adopt a planning process in which all roadway users considered;
- Reduce vehicle miles traveled and reach regional greenhouse gas targets pursuant to California law (SB 375); and
- Achieve objectives identified in local Climate Action Plans.

Unlike many guidebooks, which may be more prescriptive, the Monterey Bay Area Complete Streets Guidebook places greater emphasis on process and the importance of understanding the trade-offs between different design considerations. Balancing the needs of all roadway users can be challenging in the Monterey Bay Area, where right-of-way and funding is limited. The planning processes recommended by this guidebook seek to ensure that the resulting streets provide for the safety and comfort of all users to the greatest extent possible.

Goals of the Complete Streets Guidebook

- Provide tools for transitioning streets to complete streets
- Improve safety, especially for the most vulnerable users
- Facilitate understanding the impacts on communities of implementing complete streets policies
- Identify types of improvements needed to accommodate growth and address congestion in areas of compact development
- Better integrate land use and transportation to reduce vehicle miles traveled
- Establish a collaborative process for integrating planning and designing streets
- Serve as a resource for implementing the California Complete Streets Act (AB1358)

HOW TO USE THE GUIDEBOOK

Interested parties may use the Guidebook in whole or in part to address the following:

- Practice six steps to successfully implementing Complete Streets: addressing complete streets from planning and design to implementation **(Chapter 6: Projects and Implementation)**
- Incorporate Complete Streets into community plans **(Chapter 1: Vision , Goals and Policy)**
- Measure the effectiveness of complete streets policy **(Chapter 2: Performance Measures & Targets)**
- Provide a context for how Complete Streets can affect current systems and procedures **(Chapter 3: Complete Streets Action Plan)**
- Develop projects based on land use context and street functional classifications **(Chapter 4: Complete Street Types)**
- Design treatments for complete streets **(Chapter 5: Design Treatments)**
- Become familiar with tools for transitioning to complete streets **(Chapter 7: Transitioning to Complete Streets)**
- Learn about programs that enhance or are improved by complete streets projects **(Chapter 8: Education, Enforcement and Encouragement)**
- Communicate the benefits of complete streets and engage the community **(Chapter 9: Talking about Complete Streets)**

ADOPTION

This guidebook is suitable for full or partial adoption by local jurisdictions and regional agencies to guide the planning and design of streets. Adoption of this guidebook represents an agency's commitment to incorporate complete streets into policy, project evaluation, design, implementation, training, and public involvement. Jurisdictions may also adopt a complete streets ordinance or resolution that references the Monterey Bay Area Complete Streets Guidebook.

It is recommended that local and regional agencies that adopt or use this guidebook should:

- Review their approach to street design through all stages of the process, from advanced planning through preliminary design and construction;
- Update existing design manuals and training materials to address complete streets concepts;
- Incorporate a comprehensive range of policies which address complete streets in the general plan or regional plan;
- Support training for planners and engineers in complete street concepts and design considerations; and
- Seek ongoing public input from the community.

Adoption of the guidebook, in whole or in part, is a necessary first step in ensuring complete streets are consistently developed in the Monterey Bay Area. Agencies may have to take additional steps and modify their internal processes in order to fully and successfully implement the guidebook. Tools to assist local jurisdictions in these tasks can be found throughout the Monterey Bay Area Complete Streets Guidebook.

BACKGROUND

The Monterey Bay Area Complete Streets Guidebook was developed to address complete streets on local and regional scales. In 2011, the Association of Monterey Bay Area Governments (AMBAG), which serves as the Metropolitan Planning Organization for the three county region of Monterey, Santa Cruz and San Benito Counties, in coordination with the three Regional Transportation Planning Agencies (RTPAs) in each county, received a grant from the Strategic Growth Council to conduct a complete streets needs assessment and develop a complete streets guidebook specific to the Monterey Bay Area. In addition to addressing regional complete streets issues, the Guidebook is a tool to help jurisdictions meet State complete streets requirements. The California Complete Streets Act (AB 1358), passed in 2008, requires that any major revision of a jurisdiction's General Plan include modification to the circulation element to "plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads and highways" (California Government Code section 65302(b)(2)). Several jurisdictions in Santa Cruz, Monterey and San Benito Counties currently meet this requirement but many do not.

The Monterey Bay Area Complete Streets Guidebook will benefit the entire region by encouraging bicycle, pedestrian and transit usage. The Metropolitan Transportation Plan (MTP) is prepared by AMBAG in cooperation with the RTPAs to plan for the long-range transportation needs of the region over the next 25 years. Pursuant to California Senate Bill 375, the MTP incorporates a Sustainable Communities Strategy and a transportation and land use strategy that will achieve regional greenhouse gas emissions reduction targets established by California Air Resources Board. The regional targets are: a 0% increase in greenhouse gas emissions by 2020 and a 5% reduction from 2005 greenhouse gas levels by 2035. Implementation of complete streets projects will contribute to reductions in greenhouse gas emissions by providing safe, convenient alternatives to driving.

The Monterey Bay Area Complete Streets Guidebook builds on best practices from across the nation. The policies, processes and design treatments included in the Monterey Bay Area Complete Streets Guidebook have been vetted, refined, and approved by experts, planners, advocates and policy makers nationally and locally. The materials included in the Monterey Bay Area Complete Streets Guidebook include references from similar documents such as the Charlotte Department of Transportation Urban Design Guidelines, the Manual for Living Streets developed by the County of Los Angeles, the Smart Growth America Best Complete Streets Policy, and Caltrans Complete Streets Action Plan.

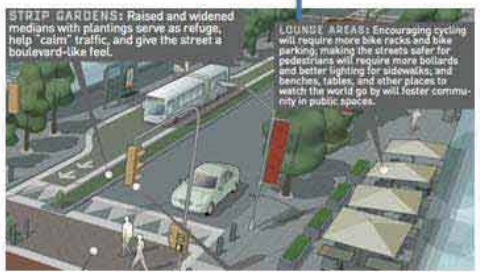
Complete streets are being incorporated into every level of transportation planning in the Monterey Bay Area from the Metropolitan Transportation Plan and Regional Transportation Plans to local plans and projects.

Metropolitan Transportation Plan/SCS

Regional Transportation Plans

Local General Plans

Area Plans



Local Projects

WHAT ARE COMPLETE STREETS?

Complete streets are roadways designed to safely and comfortably accommodate all users, including, but not limited to motorists, cyclists, pedestrians, transit and school bus riders, delivery and service personnel, freight haulers, and emergency responders. Complete streets accommodate people of all ages and abilities. Complete streets expand transportation choices by making walking, bicycling, and public transportation more convenient and safe. This includes consideration of varying levels of tolerance for traffic stress when choosing a transportation mode, particularly as it relates to bicycling.

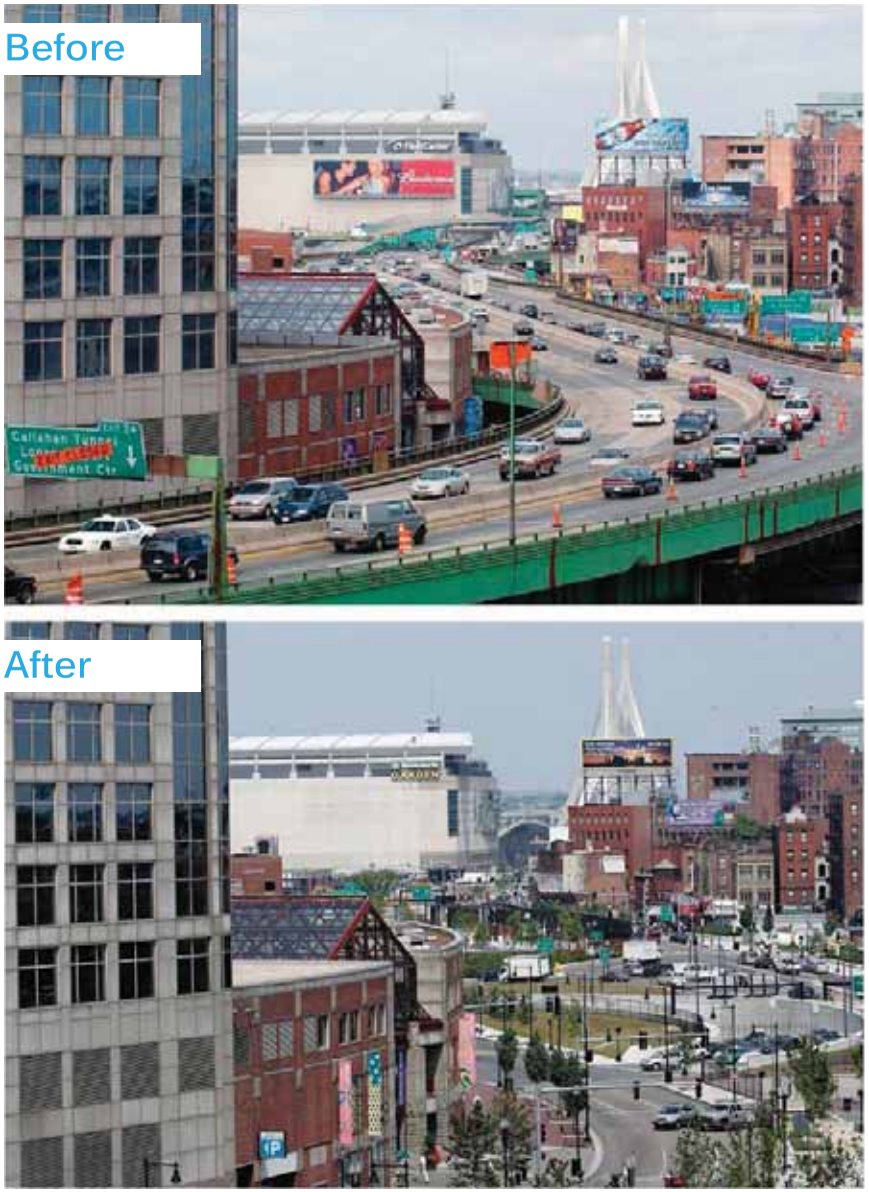
The Monterey Bay Area Complete Streets Guidebook does not prescribe "one size fits all". Complete streets facilities should look different depending on the surrounding land use context and user needs. Each street in a complete streets network is designed to provide safe accommodation for the various intended users. This does not mean all streets must be designed to equally support all users. Instead, a diverse palette of street design options that consider the location, land uses, and multimodal transportation volumes should be considered.

WHY COMPLETE STREETS?

More and more complete streets are being developed across California as decision-makers realize the value they add to their communities. Complete Streets projects address user needs across multiple modes, and provide numerous individual and community-wide benefits; although trade-offs between modes are often required in areas where there are right of way and funding constraints.

Improving access to goods and services has long been an important transportation goal and has guided transportation policy, facility design and measures of success. Historically the focus has been on accessibility for motorists to goods and services. Concentrating all efforts on one mode of transportation meets the needs of only a portion of roadway users. Complete streets can more fully improve a transportation network by increasing accessibility and mobility for non-motorized modes and addressing trade-offs between modes.

"Big Dig" Boston, MA



User Needs

The need for diverse transportation systems has existed among non-drivers for many years. In recent years there has been an increasing demand for alternatives to the automobile from individuals who historically have chosen to drive. Young people in particular are opting to ride the bus, bicycle and walk in greater numbers and fewer young people have driver's licenses or own automobiles than previous generations.

The number of older, low-income and disabled non-drivers is also increasing, as is the need for alternative ways to get around. An aging population may mean higher demand for public transit and in particular, paratransit. Restructuring existing transportation systems to address special needs can benefit not only the users of the system but also the service provider. Monterey-Salinas Transit, for example, has started a senior shuttle service in the Carmel Valley Area to begin meeting this new demand. The smaller senior shuttle vehicles allow for increased route flexibility and lower fuel demand, which benefits both transit riders and Monterey-Salinas Transit.

Today, the majority of Monterey Bay Area residents use an automobile as their primary mode of transport. Congestion and safety are the two greatest concerns of automobile drivers. Like other transportation investments, complete streets may impact local automobile congestion, automobile access, traffic patterns in neighborhoods, and parking. Potential impacts are dependent on the local context, application and design timeframe.

Cost-Effectiveness

Complete streets can be affordable to users and implementing agencies. The cost of transportation is increasing relative to fuel prices. For many American households the cost of car ownership is the second largest monthly expense after housing. Households that are dependent upon daily automobile use spend more income on transportation and have less disposable income (See Figure 0-1). Rising transportation expenses have a negative effect on the local economy and particularly on low income individuals with limited mobility many of whom are seniors and those under eighteen. In the face of rising automotive transportation costs, complete streets provide more affordable transportation options such as riding the bus, bicycling and walking.

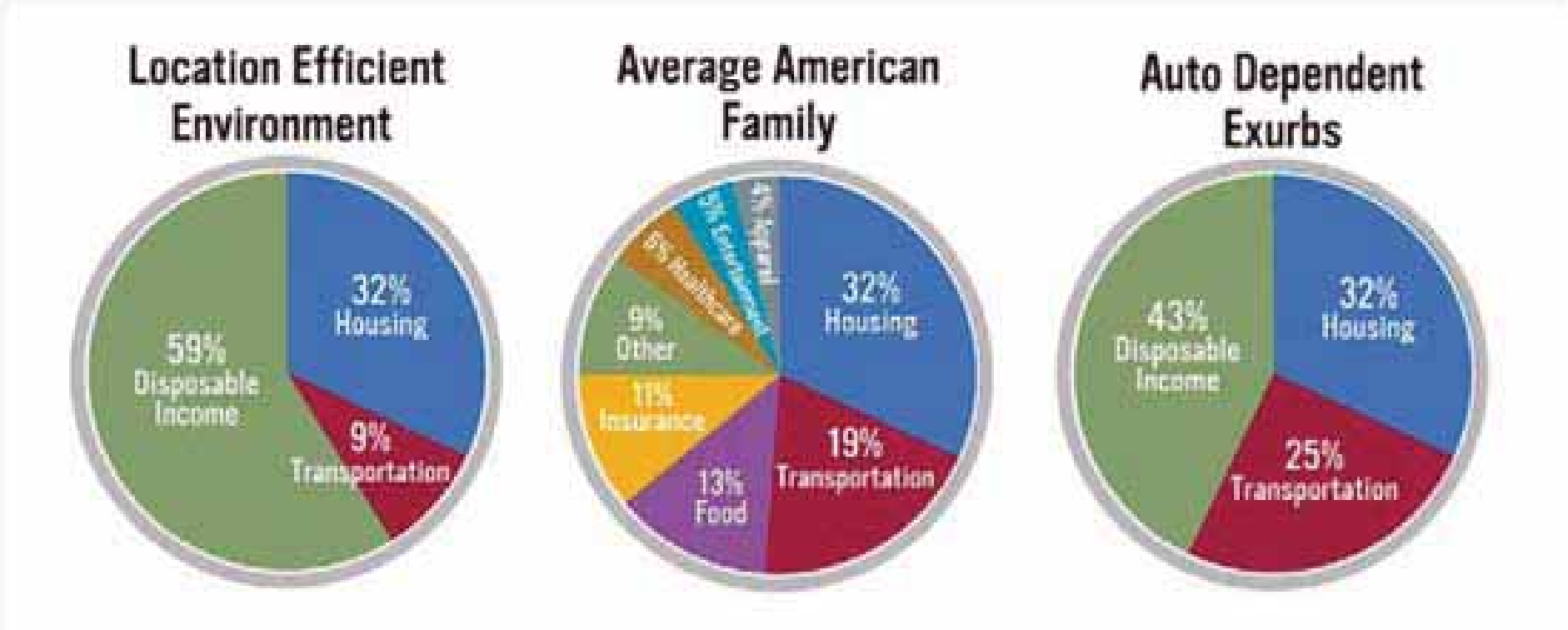


Figure 0-1: U.S. Department of Transportation

When it comes to implementing complete streets, jurisdictions can incorporate complete streets elements into currently planned projects by incorporating them in the early design stage. A cost-effective way to develop complete streets projects is to re-evaluate pending roadway projects and identify opportunities to accommodate additional users within the existing right-or-way.

For example, a standard resurfacing/restriping project could be modified to undergo a road diet or provide striping for bicycles at intersections. A road diet reduces the number of travel lanes, typically from four to two and adds a center left-turn lane and bicycle lanes or bicycle lanes and a sidewalk (Figure 0-2). Striping bicycle lanes at intersections dedicates space and indicates where the bicyclist should position themselves in order to cross more safely. These types of project can benefit all users of the roadway by providing a smoother road for drivers, decreasing conflicts between bicyclists and motorists, and creating greater separation between automobile traffic and pedestrians on sidewalks.

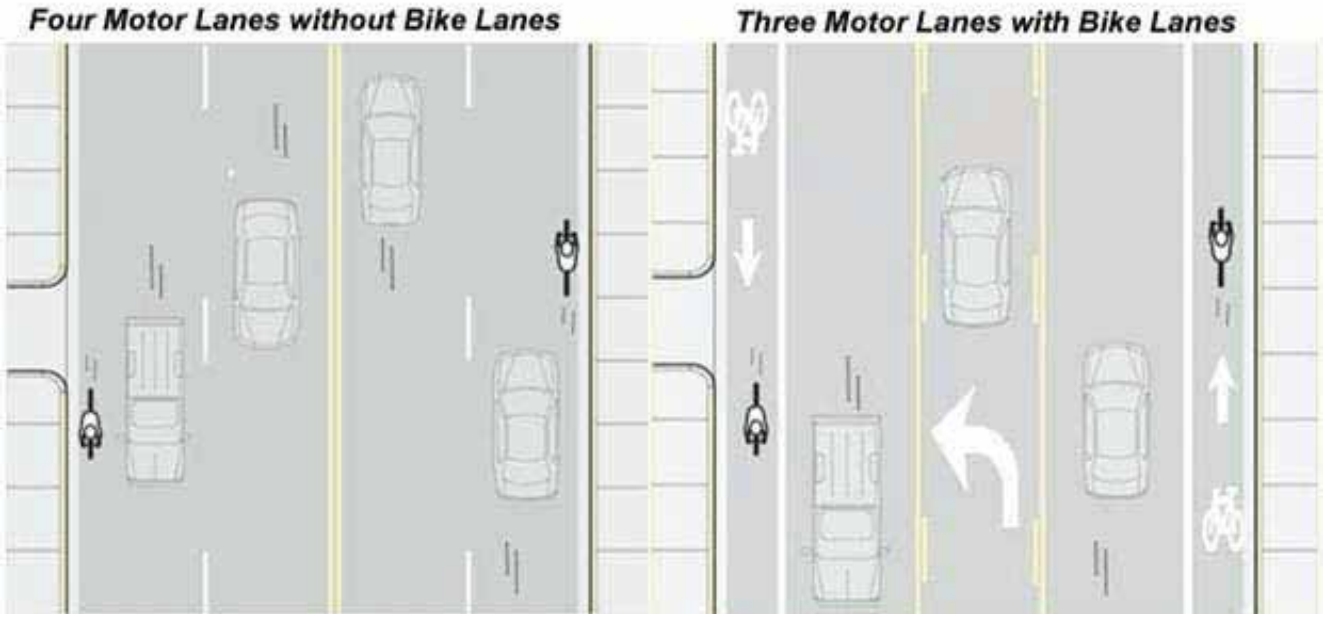


Figure 0-2: Road Diet Before and After (nozziwalkablestreets.com)

Benefits

Complete Streets can provide the following benefits:

Transportation Equity - Different travelers may expect varying accommodations by a street. A street design that works well for a motorist may not work well for a pedestrian or a bicyclist. People experiencing poverty or language barriers, people of color, older adults, youth, people with disabilities and other groups with limited or no access to a vehicle tend to experience a disproportionately small share of benefits from transportation investments focused on motorists. Complete street design attempts to restore equity in the transportation system by improving transportation options for non-drivers and enabling greater use of the transportation system.

Safe, Convenient and Attractive Travel Choices - Surveys throughout the Monterey Bay Area indicate residents desire to have a greater number of transportation choices. Typically, the primary reason given for not using non-motorized transport is safety concerns. Complete street design emphasizes safe and convenient travel choices for all modes.

Reduced Traffic Congestion - Increasingly more people are choosing not to drive and some are moving into cities where there are more transportation options. Complete streets can provide attractive choices for individuals who desire an alternative to automobile; thereby decreasing automobile volumes.

Increased Roadway Capacity – While populations continue to grow constraints such as environmental, physical and cost limit the opportunity to increase roadway capacity with more travel lanes. Complete streets can accommodate more people if they are copmlete and support travel by bus, bicycle or on foot, instead of by car.

Healthy Communities, Economy and Environment – There is a correlation between a diversified transportation network and healthier communities, and a stronger economy and a cleaner environment. By encouraging active transportation such as walking and cycling, complete streets can result in improved health for residents. Reduced GHG and criteria pollutant emissions may result in reduced incidence of respiratory disease. These factors have the potential to keep the local workforce healthier and more productive.

Improved Access for People with Disabilities - Individuals with disabilities are more likely to use the sidewalk network and take transit. Yet, roadways are often difficult to navigate for people who use wheelchairs, have diminished vision, can't hear well, or for people who move slowly. Complete streets policies can have the effect of removing barriers to independent travel by designing facilities to meet the needs of all users.

Reinvestment in the Local Economy – Improved complete streets will incentivize non-automotive modes of travel which are less expensive than driving and vehicle ownership. By reducing vehicle related expenses for commuters, they will have discretionary incomes which can be invested locally.

Economic Activity- Property values, business activity, redevelopement, fiscal health of governments and economic growth can all be postiviely impacted by complete street investments as a result of increased trip volumes, improved trip quality, benefits to safety and health, potential reductions in construction and maintenance costs, and provisions for new public amenities. A detailed discussion of the correlation between complete streets and economic activity is included in Appendix J.

HOW TO BALANCE ROADWAY USERS NEEDS

All of the possible benefits derived from complete streets investments must be evaluated in the context of how they affect the transportation network as a whole and the tradeoffs between alternative investments. For instance, prioritizing bicycle and pedestrian facilities on neighborhood streets may have potential impacts on automobile congestion, automobile access, traffic patterns, and parking. In contrast, prioritizing automobile facilities can have impacts on bicycle and pedestrian safety, and access, and may reduce opportunities for convenient alternatives to driving. The impacts on congestion and safety for all modes must be considered in the discussion of tradeoffs between modes as it relates to complete streets planning and design.

Despite challenges, many local jurisdictions in the Monterey Bay Area have made significant investments in bicycle and pedestrian infrastructure during the past two decades in an effort to serve a larger and more diverse group of roadway users. The result has been a considerable improvement in the bicycle network and pedestrian facilities. However, in many cases bicycle and pedestrian facilities are not provided when projects are constrained by right of ways or lack of funding. Prior planning practices have supported an approach to project design that emphasizes maintaining the existing roadway function first and adding bicycle and pedestrian improvements only where space and funding allow. In some cases a street may have been made more complete had alternative designs been considered. The trade-offs between investments can be challenging and the balance between modes is a result of a complex factors.

The tools provided in the Monterey Bay Area Complete Streets Guidebook, and discussed in detail below, are intended to support a transparent discussion of trade-offs amongst design features and roadway users and encourage evaluation of design alternatives. Consideration of all roadways users current and future needs using the complete streets framework promoted in the Monterey Bay Area Complete Streets Guidebook should result in cost-effective investments that provide convenient and safe facilities for all modes in the most appropriate locations.

Chapter 1: General Plan Vision, Goals and Policies

This chapter of the Monterey Bay Area Complete Streets Guidebook provides suggestions as to how communities can meet requirements of the Complete Streets Act by incorporating complete streets policies into general plans. Although the California Complete Streets Act requires complete streets policies only in the circulation element, the most effective policies are present or supported in more than one element of the general plan.

Guidance for developing a vision statement and circulation element and land use element goals are provided in this chapter and in Appendix B.

VISION

The vision statement of a general plan encapsulates community values and desires and provides inspiration for goals and policies. Developing a vision statement that considers complete streets is often a precursor to adopting complete street goals and policies. A vision statement may be included in the circulation element of the general plan focusing entirely on the community's vision, or may appear at the beginning of the circulation element. Vision statements are generally developed through a consensus-driven, collaborative community engagement process. When developing a vision statement the following questions should be considered:

- **What are the benefits of adopting a Complete Streets policy in our community?**
- **What reason for adoption (such as health, safety or providing transportation choice) will consistently rally support from the community, its transportation professionals and its leaders?**
- **What is our vision for Complete Streets?**

The model vision language below is provided to offer an example of a detailed vision statement and demonstrate the range of goals that can be considered in setting out a statement.

Sample Transportation Vision Statement

"The community of [Jurisdiction] envisions a safe, balanced and environmentally-sensitive multi-modal transportation system that supports greater social interaction, facilitates the movement of people and goods, and encourages active living, mobility independence, and convenient access to goods and services for all users including but not limited to pedestrians, bicyclists, children, seniors, persons with disabilities, motorists, movers of commercial goods and transit"

GOALS & POLICIES

Communities may include the entire sample complete streets policy in the general plan circulation element as a complete policy package, or may selectively adopt specific objectives or policies. Communities are encouraged to tailor the policy and implementation measures to local needs, concerns, and conditions, and to identify the local agency or department responsible for implementation. Most circulation elements already include goals, objectives, and policies addressing the needs of motorists and movers of commercial goods, so the suggested complete streets goals and policies focus on other types of users.

Sample general plan goals and policies are included as in Appendix B.

Chapter 2: Performance Measures

Performance measurement is an important tool in the implementation of complete streets. Performance measures can inform planners, decision makers and public how effective complete streets policies and projects are at reaching community goals. Performance measures are particularly important in today's environment where there is strong competition for limited transportation funds. In grant funded projects, results must be demonstrated using performance measures.

The Monterey Bay Area Complete Streets Guidebook provides a list of relevant performance measures for evaluating the effectiveness of complete street policies and projects. The suggested performance measures may be used in several different ways to facilitate the implementation of complete streets policies. First, performance measures can be used for needs assessment to identify problems in the system and to assess their relative severity. Second, performance measures can be used to rank projects for funding in the programming process. Third, performance measures can be used in impact assessments. In this application, the probable impact of a proposed development project on the performance of the street system is projected, and the result is used as the basis for impact fees or other exactions, such as requirements to provide bicycle and pedestrian facilities. Fourth, performance measures can be used to evaluate the effects of a policy or project on the performance of the system and to assess whether it achieved its goal.

Table 1 lists performance measures that can be used to gauge the effectiveness of five complete streets policy objectives (safety, health, access, economic benefit and equity). These suggested performance measures support the goals of the Metropolitan Transportation Plan and the Regional Transportation Plans for Monterey, Santa Cruz and San Benito Counties.

Using consistent methodology for collecting before and after data is important when measuring performance. Best practices for data collection, such as the establishment of a consistent way of conducting bicycle and pedestrian is helpful to demonstrate changes in trends over time that may result from the implementation of complete streets. The Santa Cruz County 2012 Bike and Pedestrian Count Report aimed to standardize methodolgies for bicycle and pedestrian counts done within the county using the Institute of Transportation Engineers Pedestrian and Bicycle Council recommend methods and includes templates and instructions for data collection.

MEASURES OF EFFECTIVENESS

Table 1: Complete Streets Performance Measures

	Measure	Source
Safety	Reduce colissions involving bicycles and pedestrians	SWITRS counts
	Improve speed suitability through street design	Number of bicycle routes on low speed streets
	Increase the number of local traffic calming plans	Number of traffic calming plans adopted by local jurisdictions
	Decrease the number of citations for jaywalking, reckless behavior or missing helmet (if under 18 years)	Pedestrian and bicycle observation surveys
	Reduce the number of bicycle and pedestrian hazards	Number of bicycle and pedestrian facilities repaired
Health	Increase the percent of people who walk, bike and take transit	American Community Survey or local survey
	Increase the number of students walking, bicycling or taking transit to school	Bicycle and pedestrian counts and surveys
	Increase the number of events that promote alternative transportation	Number of events held in Santa Cruz County that promote alternative transportation
Access	Number of households within 1/4 mile of transit stop	
	Increase the percent of people who walk, bike and take transit	American Community Survey
	Decrease transit headways on high quality transit corridors	Santa Cruz Metro
	Improve the quality of walk, bike, and transit trips	MMLOS or QOS
	Increase the % of population within a 30 minute walk, bike or transit trip of key destinations	GIS Street Network and Place Type Designations
Economic Benefit	Increase property values	Tax assessment
	Increase business activity	Taxable sales
	Increase investment	Number of new commercial and residential investments
	Government fiscal health	Cost per mile of transportation improvements
Equity	Increase the number of improvements completed near key destinations for transportation disadvantaged populations such as near schools, hospitals, transit stops	GIS Project Location and Key Destinations

LEVEL OF SERVICE

The traditional performance measure for street design is Level of Service (LOS). A methodology for calculating Level of Service can be found in the current version of the Highway Capacity Manual (HCM) published by the Transportation Research Board. This measure, in all its forms, is a function of the ratio of the number of cars on a road to the road's carrying capacity, and is expressed by assumed delay for each vehicle. Historically, it has been used to calculate how much road capacity is needed to serve a given volume of vehicles, and it is directly tied to the goal of reducing automobile congestion and delay. In most common use, LOS is reported on an A through F scale, with LOS A representing free-flowing automobile traffic, and F representing complete congestion. Although it has the advantage of being highly standardized and widely used, traditional vehicular LOS measurement does not account for all users of a roadway nor tradeoffs between different modes. This results in facility design based solely on the needs of automobile users often at the expense of others.

The revised version of the Highway Capacity Manual, adopted in 2010, includes methods (referred to as Multimodal LOS), for measuring the quality of travel for bicyclists and pedestrians, including comfort and sense of safety. In the absence of establish standards, communities have been developing their own methods for measuring LOS for bicycles, pedestrians, and transit. In general, bicycle, pedestrian, and transit levels of service tend to be more complex to measure than vehicle LOS.

One of the common concerns with using Multimodal Level of Service is that it requires a substantial amount of data that may not be regularly or reliably collected. If data does not exist for the study area, new data must be collected in order to utilize this performance measure, which can be time intensive and expensive. Some communities are not pursuing new LOS measures, but instead are choosing more qualitative measures of success. The Santa Cruz County Regional Transportation Commission recently tested a Quality of Service (QOS) measure to evaluate how transportation investments affected the quality and convenience of bicycle, pedestrian and transit trips (Appendix C). The performance measures recommended in Table 1 provide a range of options for evaluating the effectiveness of complete streets policies and projects while recognizing limited data and resources available to project sponsors.

Chapter 3: Action Plan

Successful implementation of complete streets requires collaboration amongst several departments and stakeholders at the policy, planning, project delivery and maintenance and operations levels. The Action Plan of the guidebook outlines the requirements for coordinating inter-departmental tasks. A key component of the Action Plan involves updating training practices for planners, civil and traffic engineers, project managers, plan reviews, inspectors and other personnel responsible for design and construction of streets to integrate complete streets. A sample Action Plan is included as Appendix D, which integrates complete streets into every step of community development in a way that can be tailored to the needs of each jurisdiction. For example, instructions and training could be instituted for maintenance crews to assure their work complies with complete streets policies. Resources for updating specific manuals are also provided in Appendix D.

LEGAL STANDING OF STREET MANUAL

Local jurisdictions generally follow certain established standards for designing streets. Confusion can exist as to which standards to follow, what is merely guidance, when jurisdictions can adopt their own standards, and when they can use designs that differ from state standards. It is critical for cities and counties to understand how adopting the Monterey Bay Area Complete Streets Guidebook in part or in whole meshes with other standards and guides Appendix E discusses the myriad of accepted design documents and is based on the Los Angeles County Model for Living Streets Design Manual discussion of design documents.

Chapter 4: Complete Streets Types

Complete streets are context sensitive. The intent of this chapter is to provide information on how to match relevant street elements to the existing or desired land uses along the street and the roadway users. This chapter includes a description of complete street types to provide project sponsors with a template for roadway designs that serves all users and prioritizes modes based on the land use and transportation context.

LAND USE CONTEXT

Place types developed by AMBAG in coordination with local jurisdictions are used in th Monterey Bay Area Complete Streets Guidebook to describe the complete streets land use context. These place types were established during the development of the Sustainable Communities Strategy to create common classifications for similar land uses across the Monterey Bay Area.

Place types consider land use characteristics (ex. urban, town, neighborhood, suburban, and rural) as well as use (ex. residential, commercial, institutional). Each place type creates a distinct context for land use and transportation investments. Applying place types can help the guidebook user identify complete street features that fit the land uses being considered. A detailed description of place types adopted by AMBAG for use in developing the Sustainable Communities Strategy is included in Appendix F.

COMPLETE STREET TYPES

The complete streets types take into consideration various user perspectives and the surrounding land use context in addition to the street function. The complete streets types described in this chapter serve as a tool for linking street functional classifications and land uses. Figure 4-1 demonstrates how complete streets types relate to traditional functional classifications.

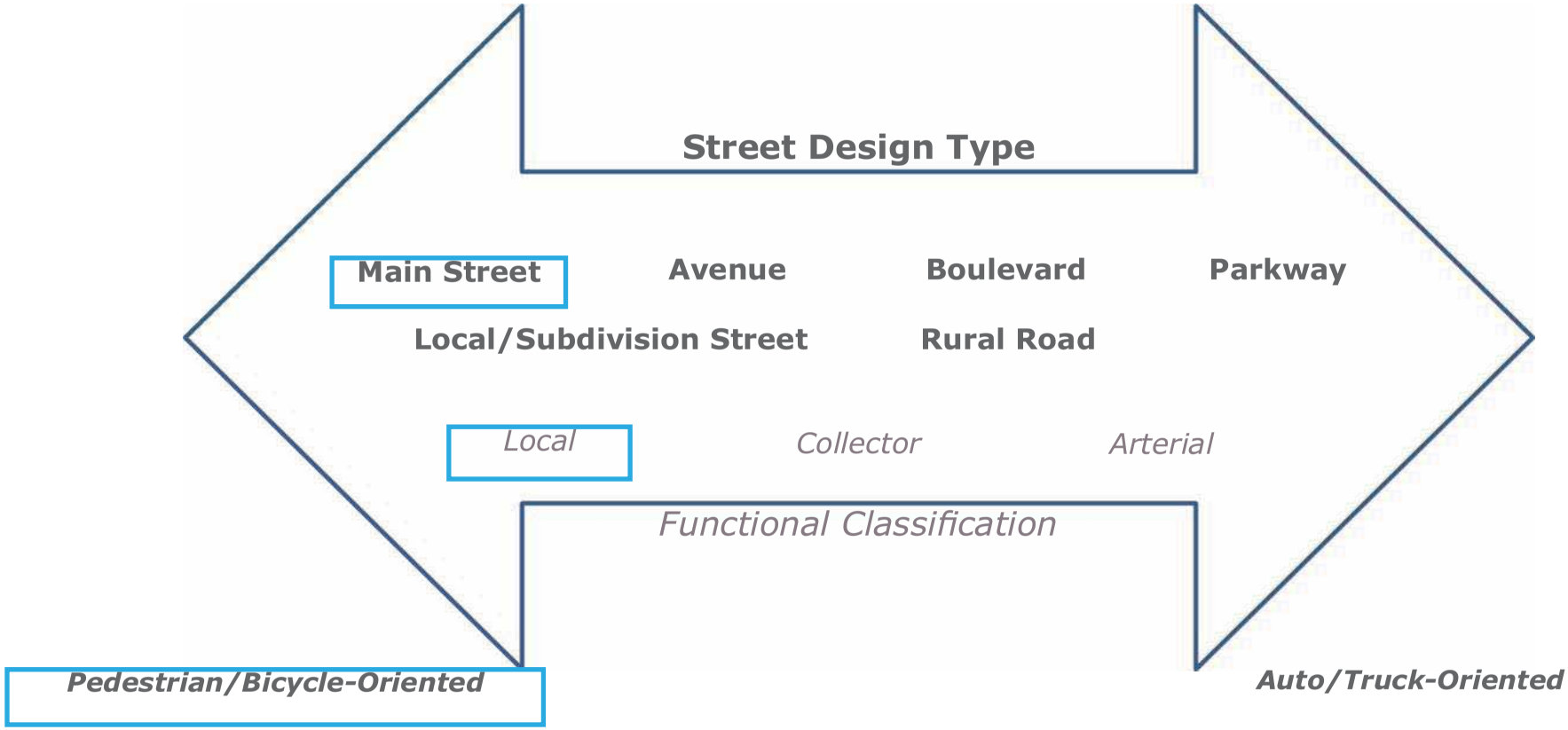
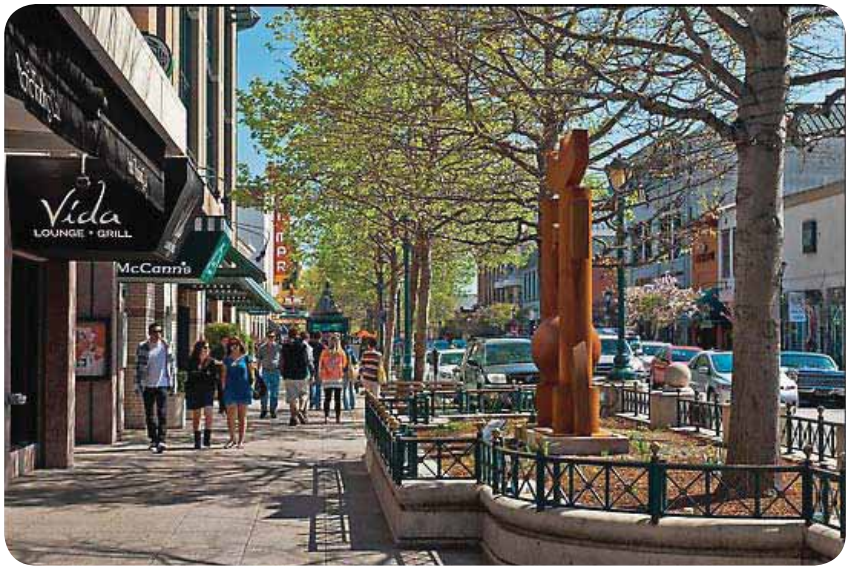


Figure 4-1 Complete Street Design Type and Functional Classification

Table 2 names complete streets types and provides a description of the transportation and land use attributes associated with each type. The land use place types developed through the Sustainable Communities Strategy planning process (**Appendix F**) are also listed. Each of complete street type indicates which roadway users shold be prioritized based on land use and transportation context. Both the land use place type and complete street types should be identified early on in the process of planning and designing streets. Cross sections for each complete street type are included in Chapter 5: Complete Streets Design. Illustrative cross sections for complete streets types are based on the Charlotte Department of Transportation: Urban Street Design Guidelines, 2007.

For specific design treatments to considering when developing complete street cross sections see Chapter 5: Complete Street Design.

Main Street (Pacific Avenue, Santa Cruz)



Rural Road (Blanco Road, Monterey County)

TABLE 2: COMPLETE STREET TYPES

SEGMENT TYPE	TRANSPORTATION & LAND USE DESCRIPTION	USER PRIORITIZATION	LAND USE PLACE TYPES	EXAMPLES
Main Streets	Pedestrian-oriented "destination" streets; land uses: mixed-use, commercial, entertainment, office, civic; short blocks, grid street pattern; can be used as a flexible space for community events (ex:// .farmers markets)	1. Pedestrians 2. Bicyclists 3. Transit 4. Autos/Trucks Special accommodations for delivery trucks	Urban Commercial; Urban Mixed-Use; Town Commercial; Town Mixed-Use; Rural-Town Commercial; Institutional	Alvarado Street (Monterey); Ocean Ave (Carmel); Pacific Ave (Santa Cruz); Main St (Salinas)
Avenues (collector)	Bicycle and transit-oriented streets connect neighborhoods to job centers and commercial areas. Higher speeds than main streets; land uses: diverse mix of land uses including but not limited to residential, schools, parks, neighborhood commercial and commercial	1. Bicyclists 2. Pedestrians 3. Transit 4. Autos/Trucks Special accommodations for pedestrians (children and seniors) at crossings	Urban Multi-Family Residential; Multi-Family Residential; Neighborhood Commercial; Town Multi-Family Residential; Town Mixed-Use; Institutional; Open Space/Recreation	Sloat Ave (Monterey); California St (Santa Cruz)
Boulevards (minor arterials)	Higher speeds and volumes of automobile traffic than avenues, but more pedestrian and bicycle-friendly than parkways	1. Transit 2. Autos/Trucks 3. Bicyclists 4. Pedestrians	Multi-Family Residential; Neighborhood Commercial; Regional Commercial; Employment Center; Neighborhood Mixed-Use; Institutional; Open Space/Recreation	Munras Ave (Monterey); Capitola Rd (Live Oak/Capitola Branciforte Ave (Santa Cruz)
Parkways (major arterials)	Auto-oriented designed to move high volumes of vehicular traffic quickly; land uses: major destinations such as regional commercial, academic institutions and visitor-serving uses	1. Autos/Trucks 2. Transit (BRT/Rail) 3. Bicyclists 4. Pedestrians	Regional Commercial; Employment Center; Airport; Institutional; Open Space/Recreation	Imjin Parkway/Rd (Marina); Soquel Drive (Aptos); Canyon Del Rey (Del Rey Oaks); Ocean Street (Santa Cruz)

TABLE 2: COMPLETE STREET TYPES

SEGMENT TYPE	TRANSPORTATION & LAND USE DESCRIPTION	USER PRIORITIZATION	LAND USE PLACE TYPES	EXAMPLES
Local Streets	Low-speed and low-traffic volume shared streets (bicycle, pedestrian & auto) with on-street parking; land uses primarily residential, neighborhood commercial, office, mixed-use, schools and parks	1. Pedestrians 2. Bicyclists 3. Autos/Trucks 4. Transit	Urban Single-Family Residential; Urban Multi-Family Residential; Urban Mixed-Use; Single-Family Residential; Multi-Family Residential; Town Single-Family Residential; Town Multi-Family Residential; Rural Town Residential; Institutional; Open Space/Recreation	Cayuga (Santa Cruz); Riverview Drive, Capitola; San Miguel Ave, Salinas;
Rural Roads	Mostly auto-oriented with few bicycle facilities for agricultural workers and long-distance cyclists	1. Autos/Trucks 2. Transit 3. Special accommodations for school buses Bicyclists 4. Pedestrians	Agriculture and Rural Residential; Exurban Residential; Industrial and Manufacturing; Open Space/Recreation	Corralitos Road (Santa Cruz); West Beach St, Santa Cruz County; Old Stage Rd, Monterey County;
Scenic Roads	Mostly auto-oriented with bicycle facilities, some pedestrian facilities and access to natural resources	1. Autos 2. Bicyclists 3. Pedestrians 4. Transit 5. Accommodations for recreational cyclists and hikers	Exurban Residential; Agriculture and Rural Residential; Open Space/Recreation	Old San Jose Road (Santa Cruz); Sunset Drive, Pacific Grove; San Andreas Rd, La Selva Beach; Carmel Valley Rd, Monterey County;

USER NEEDS

New roads and road improvements should be designed to provide safe and convenient routes for all applicable users and purposes including, but not limited to:

Pedestrians (all ages and abilities)

Bicyclists (all ages and abilities)

Transit (riders and operators)

Motorists

Commercial/agricultural large vehicle drivers

Commuters

Tourists

Active/recreational users

Emergency responders

Each user group has different needs and group-specific priorities for any given roadway. These needs and priorities should be considered when designing or rehabilitating a roadway in order to accommodate all users. Table 3 illustrates the needs specific to each user group and examples of design solutions. One of the greatest challenges of planning for and designing complete streets is balancing the often conflicting needs of different roadway users in a limited space For example, motorists generally want uninterrupted quick travel, wide lanes and large turning radii whereas pedestrians prefer to travel along streets with low volumes of slow traffic, small turning radii and frequent crossings.

TABLE 3: ROADWAY USER NEEDS		
USER GROUP	**PROBLEMS ENCOUNTERED**	**DESIGN SOLUTIONS/APPLICATIONS**
Pedestrians – Commuters/Residents	Crossing delayed, few crossings, little separation from moving vehicles, high traffic volumes, few access points to destination, inadequate ADA access, little/no shade or shelter, poorly-lit walkways and crossings, slippery surface materials, obstructed routes, inefficient drainage, indirect routes	Pedestrian signal actuation and adequate crossing time, traffic calming, continuous sidewalk network, short blocks, ample width, planting strip/on-street parking, ADA ramps, street trees and pedestrian-scale lighting appropriately designed storm drains
Pedestrians – Seniors, disabled and children	Small gaps in traffic, long crossing distances, few crossings , inadequate ADA access, shade or shelter, poorly-lit walkways and crossings, slippery surface materials, obstructed routes, inefficient drainage	Adequate crossing time at signalized intersections, curb extensions, high-contrast markings, two-stage actuated crossings, medians, audible countdown pedestrian phase (signalized) and ADA ramps, street trees, pedestrian-scale lighting
Pedestrians – Visitors/Tourists	Few/no pedestrian destinations, limited/no way-finding, unmarked crossings, narrow sidewalks, little/no shade or shelter, few/no pedestrian amenities, poorly-lit walkways and crossings	Pedestrian plaza, way-finding signage, high-contrast marked crossings, wide sidewalks, on-street parking, street trees, outdoor seating, public art, public toilets, pedestrian-scale lighting
Bicyclists – Intermediate to Advanced; Commuters	Little separation from motorized vehicles (moving and/or parked), indirect routes/limited access to job centers, shopping and major destinations, bicycle detection at few/no signalized intersections, insufficient short-term and long-term bicycle parking, few/no commuter facilities	On-road facilities (Class II lanes/Class III shared roadway), well-connected bikeway network, marked bicycle detection, bicycle racks and covered/indoor bicycle parking, public or employer-provided shower facilities,

TABLE 3: ROADWAY USER NEEDS		
USER GROUP	**PROBLEMS ENCOUNTERED**	**DESIGN SOLUTIONS/APPLICATIONS**
Bicyclists – Novice; Children	Little separation from motor vehicle traffic, disjointed/incomplete bikeway network, narrow right-of-way, insufficient/no bicycle parking	Off-road facilities (Class I paths), complete bikeway network, bicycle racks, marked bike detection
Bicyclists – Recreational/Touring	Little separation from motorized vehicles, insufficient/no way-finding	Wide paved shoulders, way-finding signage and distance markers, bike racks
Transit – Riders	Limited access to and from transit stop, poorly-lit stop, poor visibility, no/insufficient transit route and schedule information, no/insufficient seating, no/insufficient shelter, no/small buffer from moving traffic	Marked pedestrian crossing, curb extensions, ADA ramps, pedestrian-scale lighting, transit shelter facing out to street, real-time traveler information, transit shelter/station
Transit - Operators	Limited space to operate transit vehicles, numerous conflicts, long delays	Large turning radius, wide travel lanes, generous merging distance, signal prioritization, street furniture setback from curb

Levels of Traffic Stress- Low Stress Users

Within each roadway user group are individuals with varying abilities and levels of experience. Ability and experience both factor into how comfortable an individual is travelling by a certain mode or on different types of transportation facilities. User ability, experience, comfort, and traffic stress tolerance should be taken into consideration with designing complete streets. Research focused on bicycling has shown that roadway users have varying levels of tolerance for traffic stress. For instance, adults who commute by bicycle to work are more likely to feel comfortable riding in a bike lane on a busy street next to fast moving motor vehicles than those who have less experience bike riding or are unfamiliar with the street network.

Traffic stress may include a combination of perceived danger and other stresses such as noise and exhaust fumes associated with motor traffic. Several recent research efforts, including those at the Mineta Transportation Institute, have classified streets according to the stress they impose on cyclists. Although some of the classifications for level of traffic stress vary, the general concepts are the same. Roads with the lowest level of traffic stress can be accepted by most children (who are less capable of negotiating traffic and more prone to irrational and sudden movements), and the highest level of stress is tolerated by advanced cyclists whose skill enables them to share road with motor traffic. In order to accommodate the majority of roadway users, complete street design should strive to create routes and features that support "low stress users".

NEIGHBORHOOD SHARED STREETS

Neighborhood shared streets, or "greenways", can be an important characteristic of the complete street network. Neighborhood shared streets are located on local streets and emphasize slow speeds and lower volumes. To achieve lower speeds and volumes, neighborhood shared streets employ some or all of the following features:

- Traffic calming features to slow vehicle speeds
- Pavement markings that signal drivers and bicyclists to share the road and show where pedestrians should cross
- Bicycle and pedestrian scale way finding signs to provide information about nearby amenities, such as business districts and parks
- Partial street closures that limit the number of vehicles on the
- Public spaces and amenities to encourage pedestrian and bicycle activity.

A list of Quality Criteria (Appendix G) for greenways has been developed by the City of Seattle and is included in this packet for use by project sponsors to evaluate greenway designs and locations and to facilitate public dialogue about greenways.

Neighborhood shared streets may be a helpful tool for developing "low stress" routes for bicyclists and pedestrians in the Monterey Bay Area. Neighborhood shared streets are often less costly than dedicated bicycle and pedestrian facilities, which also serve "low stress" users. Like other types of complete street type investments, impacts of neighborhood shared streets, particularly the potential for diverting traffic to nearby neighborhood streets, should be evaluated as part of the discussion about tradeoffs. See the discussion regarding low stress users under Levels of Traffic Stress-Low Stress Users earlier in this chapter.

Chapter 5: Complete Streets Design

PURPOSE

The Monterey Bay Area Complete Street Guidebook provides examples of various street features to be considered when designing complete street facilities, so that they are utilized in the appropriate places. Copmlete street design should adhere to design principles and consider critical factors affecting design. The design features herein are organized by complete street type (i.e. Main Streets, Avenues, Local Streets, etc…) and by user zones (i.e. pedestrian, bicycle, street furniture, parking, etc…). Much of the content of this chapter has been adapted or borrowed from the Los Angeles County Model Design Manual for Living Streets.

EXCEPTIONS

The design elements and engineering best practices described in this chapter may not be appropriate for use in all jurisdictions. Local policy must be adhered to and engineering judgment applied; for example, the City of Monterey restricts the use of speed bumps/humps and uses other methods and measures to calm traffic.

DESIGN PRINCIPLES

Design for all users

Street design should accommodate all users of the street, including pedestrians, bicyclists, transit users, automobiles, and commercial vehicles. A well-designed traveled way provides appropriate space for all street users to coexist.

Design with the network in mind

Streets should be well connected and provide access to land uses for a diverse group of users.

Design intuitively

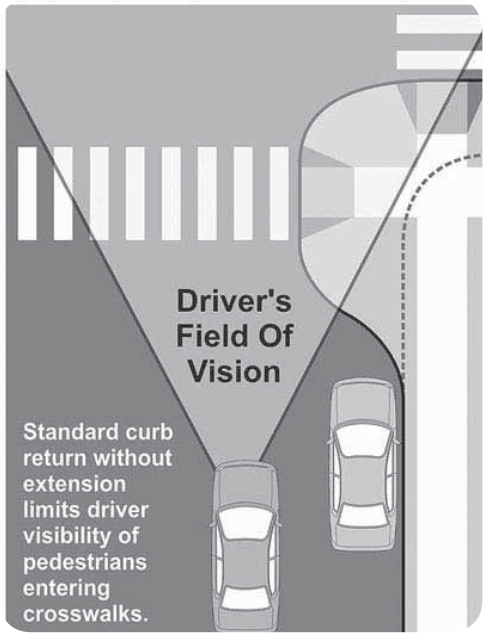
Street design should be intuitive for the users and require minimal signage and markings.

Design using the appropriate speed for the surrounding context

The right design speed should respect the desired role and purpose of the street, including the type and intensity of land use, urban form, the desired activities on the sidewalk, such as outdoor dining, and the overall safety and comfort of pedestrians and bicyclists. The speed of vehicles impacts all users of the street and the livability of the surrounding area. Lower speeds reduce crashes and injuries.

Design for safety

The safety of all street users, especially the most vulnerable users (children, the elderly, and disabled) and modes (pedestrians and bicyclists) should be paramount in any design of the traveled way. The safety of streets can be dramatically improved through appropriate geometric design and operations.



FACTORS AFFECTING DESIGN

Design To Accommodate All Users

Providing safe and convenient routes for all users is a core goal of complete street design. Therefore, it is important to identify and consider the needs of all potential roadway users. Since most modern roadways have been designed for motorists, complete streets design often puts more emphasis on other users such as pedestrians, bicyclists and transit.

Everyone is a pedestrian at some point every day, even if they drive, take the bus or ride a bicycle for the bulk of their trip. Areas that draw pedestrians such as downtowns generate activities that support the community and contribute to a higher quality of life. A recent survey of Monterey Bay Area residents concluded that more people would like to walk and to have nicer pedestrian facilities in their community. Despite some efforts to improved facilities, much more can be done to improve pedestrian conditions.

Studies have shown that most pedestrian crashes occur when a person crosses the road, and the most common crash type is a conflict between a crossing pedestrian and a turning vehicle at an intersection. Vehicle speed is directly related to the severity of injuries in collisions involving pedestrians. The severity of pedestrian injuries and risk of death in a collision with a motorized vehicle dramatically increases as the impact speed increases above 25 miles per hour (see Figure 5-1). Traffic calming can significantly improve pedestrian safety by slowing motor vehicles, especially in areas where there are high rates of pedestrian crossings.

Although incredibly important, pedestrian facility design should not be solely focused on improving safety, but should also consider factors that improve comfort and walking for pleasure. The two most effective methods to achieve these goals are to minimize the footprint dedicated to motor vehicle traffic and to slow down the speed of moving traffic. This approach allows the designer to use features that enhance the walking environment, such as trees, curb extensions, and street furniture, which in turn slow traffic, resulting in a virtuous cycle. All streets should have sidewalks except for rural roads and shared-space streets.

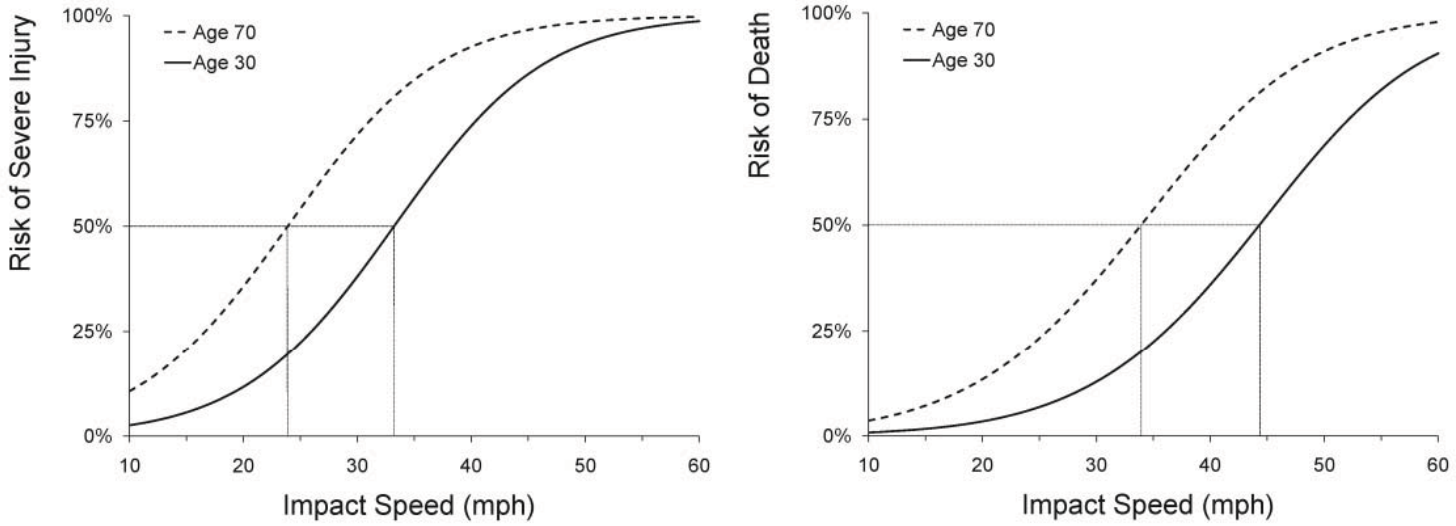


Figure 2: Risk of Pedestrian Injury or Death vs. Vehicle Impact Speed (AAA Foundation for Traffic Safety, 2011)

Accomodating all users also requires considering different needs within each user group. For instance, conditions arise in sidewalk networks that may create trip and fall hazards. Although these conditions, such as such as broken and raised pavement, slopes, vegetation intruding into the walkway, vehicles obstructing sidewalks, and signs, poles, stands or benches that obstruct or narrow the path are a danger for all pedestrians, the elderly, and others with impairments that affect vision and balance, are more susceptible to such hazards. In recognition of the negative impacts poor sidewalk conditions can have on elderly and disabled individuals in particular, the Santa Cruz County Regional Transportation Commission Pedestrian Safety Work Group developed a Program Model for Sidewalk Network Maintanence.

Another example of differenting between needs of users within each user group is the range of experience in bicycle users. Adults who commute by bicycle to work are more likely to feel comfortable riding in a bike lane on a street with higher vehicle volumes and speeds; whereas less experienced bike riders, including children, may feel more comfortable on a bike facility buffered from motor vehicles.

How Streets are Sized

The size and geometric design of a street (including lane width, corner radii, median nose design, and other intersection design details), is determined in large part by the design vehicle, or the typical vehicle considered for use on that particular roadway. Designing for a larger vehicle than necessary is undesirable, due to the potential negative impacts larger dimensions may have on pedestrian crossing distances and the speed of turning vehicles. On the other hand, designing for a vehicle that is too small can result in operational problems if larger vehicles frequently use the facility.

For design purposes, the wheel-base 40 feet (WB-40) is appropriate unless larger vehicles are more common. On bus routes and truck routes, designing for the bus or large WB-40 type truck may be appropriate, but only at intersections where these vehicles make turns. For example, for intersection geometry design features such as corner radii, different design vehicles should be used for each intersection or even each corner, rather than a one-size-fits-all approach, which results in larger radii than needed at most corners. The design vehicle should be accommodated without encroachment into opposing traffic lanes. It is generally acceptable to have encroachment onto multiple same-direction traffic lanes on the receiving roadway.

Furthermore, it may be inappropriate to design a facility by using a larger control vehicle, which uses the street infrequently, or infrequently makes turns at a specific location. An example would be a vehicle that makes no more than one delivery per day at a business. Depending on the turn frequency, under designing the control vehicle can make streets more appropriate for multimodal use by reducing lane and right-of-way widths, without having to encroach on sidewalks and ramps, while allowing larger vehicles to encroach on opposing traffic lanes or make multiple-point turns.

Design Speed

In contrast to the high-speed design approach, the goal for complete streets is to establish a roadway design speed that creates a safer and more comfortable environment for motorists, pedestrians, and bicyclists. The complete streets approach also increases access to adjacent land, thereby increasing its value, and therefore is more appropriate for the surrounding context. For most complete streets, design speeds of 20 to 35 mph are desirable. Alleys and narrow roadways intended to function as shared spaces may have design speeds as low as 10 mph.

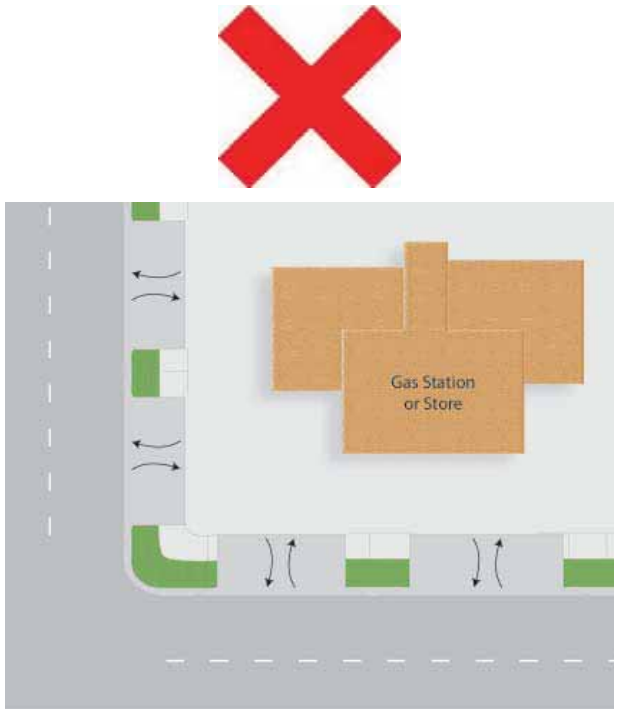
Design speed does not determine nor predict exactly at what speed motorists will travel on a roadway segment. Rather, design speed determines which design features are allowable or mandated. Features associated with high-speed designs, such as large curb radii, straight and wide travel lanes, ample clear zones , and guardrails, degrade the walking experience and make it difficult to design complete streets. Ultimately, designing roads which encourage high speeds creates a vicious cycle. A slower design speed allows the use of features that enhance the walking environment, such as small curb radii, narrower sections, trees, on-street parking, curb extensions, and street furniture, which in turn slow traffic, creating a virtuous cycle.

A narrow roadway with sharrow markings encourages slower speeds and is more comfortable for bicyclists.

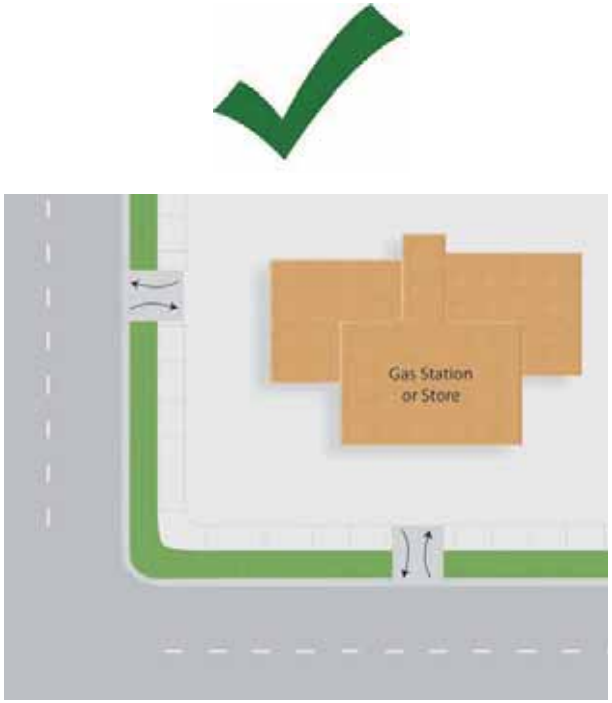
Parkways or expressways are designed for higher speeds which can also benefit transit and bicycle commuters if appropriate facilities are provided.

Access Management

A major challenge in street design is balancing the number of access points to a street with the need for multiple users to enter the facility. There are many benefits of well-connected street networks; on the other hand, most conflicts between users occur at intersections and driveways. The presence of many driveways in addition to the necessary intersections creates many conflicts between vehicles entering or leaving a street and bicyclists riding or pedestrians walking along the street. Particularly in commercial zones, new driveways should be minimized and old driveways should be eliminated or consolidated, and raised medians should be placed to limit left turns into and out of driveways.



Corner with many wide driveways (Credit: Michele Weisbart)



Reconstructed corner with fewer, narrower driveways (Credit: Michele Weisbart)

COMPLETE STREET TYPES CROSS SECTIONS

Complete street type cross sections represent example roadway designs that take into consideration the convenience and comfort of all roadway users based on land use and transportation context. Complete street types cross sections should serve as a starting point when designing for complete streets and should not be interpreted as design requirements. Existing roadways undergoing improvements may not have sufficient right-of-way to accommodate all of the design features shown in the complete street cross sections.

The advantage of starting with a complete street type cross section when designing projects is that it provides project sponsors and stakeholders with a vision of a complete street, which prioritizes roadway user needs based on land use and transportation context, before moving into the discussion about constraints and trade-offs. In many cases the final project design will not replicate what is shown in the complete street type cross sections, but that the project design will maintain the balance of roadways user needs as illustrated in the cross sections using the resources, skills and techniques available.

For example, a rural roadway, which is primary designed for truck/agricultural vehicles and private automobiles, and where vehicle lanes cannot be reduced to provide exclusive bicycle or pedestrian facilities, utilizing sharrows to indicate bicycle use of traffic lane and/or providing a wide paved shoulder to allow pedestrian access may be considered when evaluating roadway designs.

User Zones

The complete street types identify the roadway characteristics by mode using "user zones" with the preferred dimensions of elements along the street. The complete street type cross sections go beyond street functional classification by considering bicyclists and pedestrians, not only automobile movement. The specific function of zones may vary by complete street type. However, generally the zones can be defined as follows:

Pedestrian zone: Includes unobstructed sidewalks with appropriate widths based on demands generated by adjacent land uses and pedestrian facilities, as appropriate.

Street Furniture zone: Includes pedestrian, bicycle and transit supportive amenities such as transit shelters, seating, lighting, bicycle parking, signage, kiosks and public art.

Green zones: Includes landscaping or hardscape amenity zones. Supports pedestrian zone by maintaining comfortable pedestrian travel by providing a buffer from motorized zone or by shortening pedestrian crossings through establishing an "island" in the roadway. Can also support traffic calming and neighborhood livability.

Parking zone: Includes parking to serve adjacent businesses. The parking zone also can serve to calm traffic and provide a buffer to the pedestrian zone. Parking zone may be utilized as intermittent transit and bicycle lanes often referred to as "business access and transit lane" (BAT) and/or floating bicycle lanes.

Motor vehicle zone: Includes a variety of possible lane configurations to accommodate desired motorized vehicle speed and volumes.

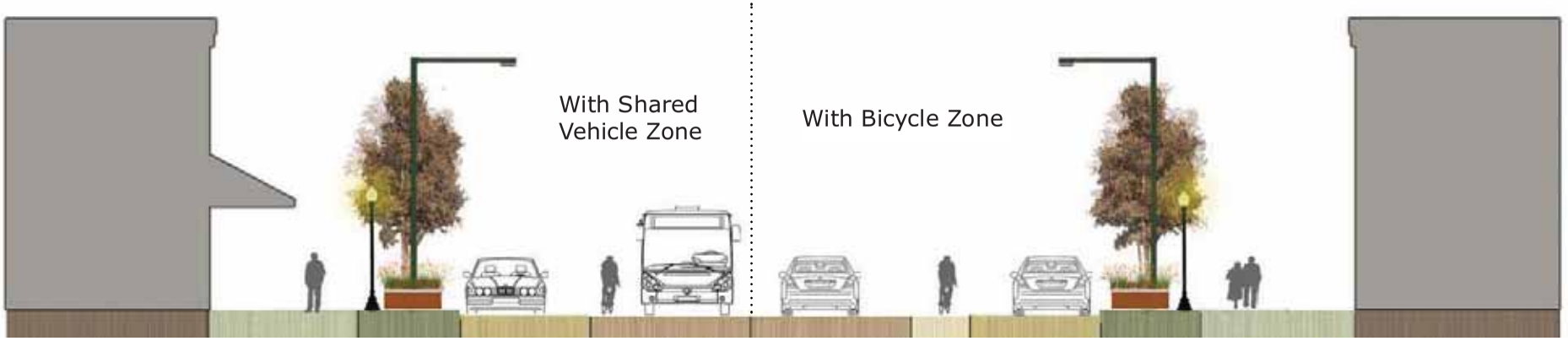
Bicycle zone (exclusive zone): Includes dedicated bicycle facilities on typicall on higher speed and volume roadways and may include additional buffering from other modes. Bicycle treatments can be found in **Appendix K.**

Bicycle zone (mixed vehicle zone): Includes shared facilities with motorists typically on low volume and speed roadways and pavement markings, where appropriate.

Emergency vehicle zone: No specific zone is exclusive to emergency vehicles. Together, motor vehicle and bicycle zones will be meet the California Fire Code that requires public streets to have an unobstructed travel way of at least 20 feet, unless an exception is made.

Main Street Zones

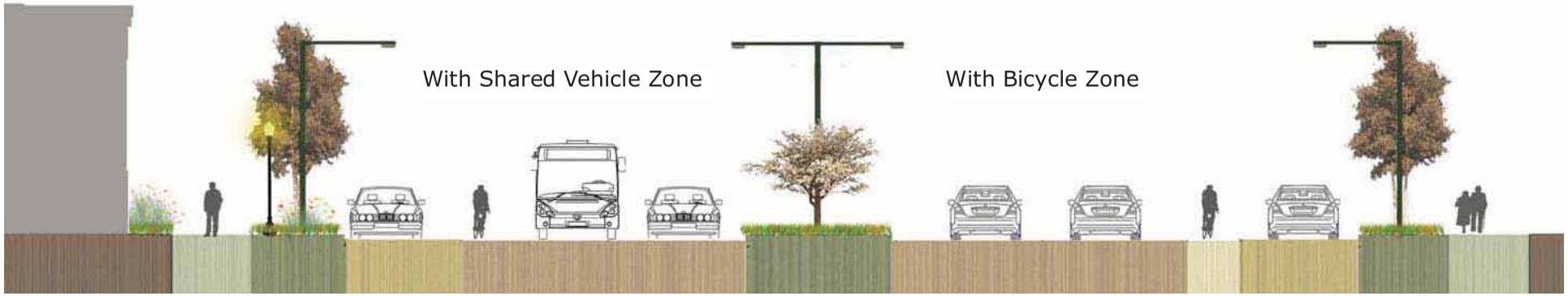
- **Design Speed** – Less than 30 miles per hour
- **User Prioritization**– Pedestrians & Bicyclists
- **Land Use Place Types** - Urban Commercial; Urban Mixed-Use; Town Commercial; Town Mixed-Use; Rural-Town Commercial; Institutional



Pedestrian	Street Furniture	Green	Motor Vehicle	Bicycle	Parking
Main Streets generate high levels of pedestrian traffic and pedestrians should be prioritized over other modes. The unobstructed pedestrian zone should be at least 10' wide and extend to the building frontage.	Pedestrian amenities such as seating, lighting, wayfinding signage, public art, kiosks, and bicycle racks near store entrances are encouraged	Street trees add character to the street and provide shade and shelter from the rain. Trees with deep roots should be selected over those with shallow roots to avoid uplifted sidewalk which can become a tripping hazard	Travel lanes should be 13' if shared with bicyclists; otherwise travel lanes should be narrowed to 10' to provide space for 6' bicycle lanes. Images for each zone	Shared bicycle facilities are appropriate due to low vehicle speeds. Markings ("sharrows") that position bicyclists away from the "door zone" of parked vehicles are recommended as they reduce the risk of injury to bicyclists.	On-street parking is encouraged and acts as a buffer between pedestrians and the motor vehicle zone. Parallel parking is preferred, however angled parking is acceptable. Parking meters should be places as to not block access to the pedestrian zone.

Avenues

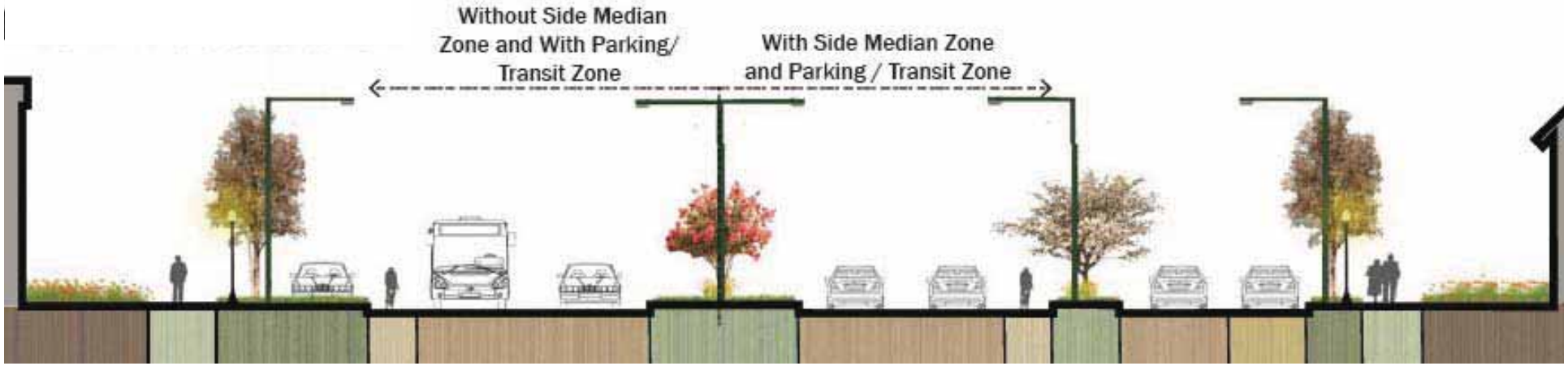
- **Design Speed** – 25-35 miles per hour
- **User Prioritization** – Bicycles, Pedestrians & Transit
- **Land Use Place Types** - Urban Multi-Family Residential; Multi-Family Residential; Neighborhood Commercial; Town Multi-Family Residential; Town Mixed-Use; Institutional; Open Space/Recreation
- **Local Examples**: Sloat Avenue (Monterey); Branciforte Avenue (Santa Cruz)



Pedestrian	Street Furniture	Green	Motor Vehicle	Bicycle	Parking
Avenues serve a variety of land uses and thus generate medium to high levels of pedestrian activity. The unobstructed pedestrian zone should be at least 6' wide but 8' or 10' is preferred.	Amenities such as transit shelters, seating, pedestrian-scale lighting, wayfinding signage, public art, kiosks, and bicycle racks near store entrances are encouraged.	Permeable hardscaping, landscaping and street trees are desired. The green zone should be a minimum of 8' to provide adequate buffer between pedestrians and motorists.	Travel lanes should be 13' if shared with bicyclists; otherwise travel lanes should be narrowed to 10' to provide space for 6' bicycle lanes. Images for each zone	Shared bicycle facilities are appropriate on streets with low vehicle speeds 6' bike lanes are recommended on streets with a posted speed of 30 mph or more. The gutter pan is not considered part of the lane width or bicycle lane width.	On-street parking may be provided. One benefit to parking is that it acts as a buffer between pedestrians and the motor vehicle zone. However, on streets with limited right-of-way there may not be room for both parking and a dedicated bike lane.

Boulevards

- **Design Speed** – 30-40 miles per hour
- **User Prioritization** – Transit, Autos/Trucks & Bicycles
- **Land Use Place Types** - Multi-Family Residential; Neighborhood Commercial; Regional Commercial; Employment Center; Neighborhood Mixed-Use; Institutional; Open Space/Recreation
- **Local Examples**: Munras Avenue (Monterey); Capitola Road (Live Oak/Capitola)



Pedestrian	Street Furniture	Green	Motor Vehicle	Bicycle	Parking
The unobstructed pedestrian zone should be at least 6' wide but 8' or 10' is preferred. The pedestrian zone should also be set back from the street. to mitigate discomfort generated from greater volumes of fast-moving vehicles.	Amenities such as transit shelters, seating, pedestrian-scale lighting, wayfinding signage, public art, kiosks, and bicycle racks near store entrances are encouraged	The green zone should be a minimum of 8' to provide adequate buffer between pedestrians and motorists. Medians should be landscaped and permeable but remain accessible to pedestrians.	The outside travel lanes should be 14' if shared with bicyclists; otherwise travel lanes should be 11'-12'. Boulevards should not have continuous left-turn lanes but instead be separated by a median wherever feasible. Medians should be a minimum of 8' wide.	6' bike lanes are recommended. The gutter pan is not considered part of the bicycle lane width.	On-street parking is not required but allowed where appropriate. Off-street parking is desired.

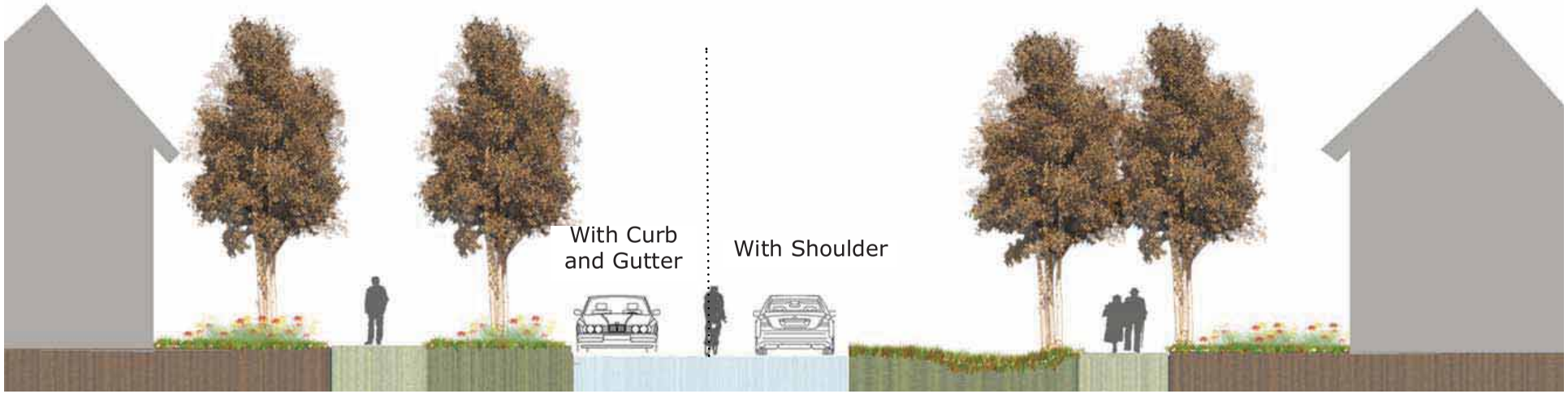
Parkways

- **Design Speed** – 35-45 miles per hour
- **User Prioritization** – Auto/Trucks, Transit & Bicycles
- **Land Use Place Types** - Regional Commercial; Employment Center; Airport; Institutional; Open Space/Recreation
- **Local Examples** - Imjin Parkway/Rd (Marina); Soquel Drive (Aptos); Canyon Del Rey (Del Rey Oaks)

Pedestrian	Street Furniture	Green	Motor Vehicle	Bicycle	Parking
Preferred accomodation for pedestrians is a multi-use path set back from the street.	Amenities such as transit shelters, seating, pedestrian-scale lighting, wayfinding signage, public art, and kiosks are desireable. Transit stops should connect to the sidewalk and/or multi-use trail.	The green zone should be a minimum of20' to accomodate the "clear zone" and to provide adequate buffer between pedestrians and motorists. Medians should be landscaped and permeable but remain accessible to pedestrians.	Travel lanes should be 11'-12' wide. Parkways should not have continuous left-turn lanes but instead be separated by a median wherever feasible. Medians should be a minimum of 17' wide. Shoulders are allowable on an urban parkway if appropriate.	Preferred accomodation for bicyclists is a multi-use path set back from the street. 6' bike lanes are also appropriate and may better serve experienced bicyclists. The gutter pan is not considered part of the bicycle lane width.	On-street parking should not be permitted along parkways. Instead park and ride lots served by transit should be provided.

Local Streets

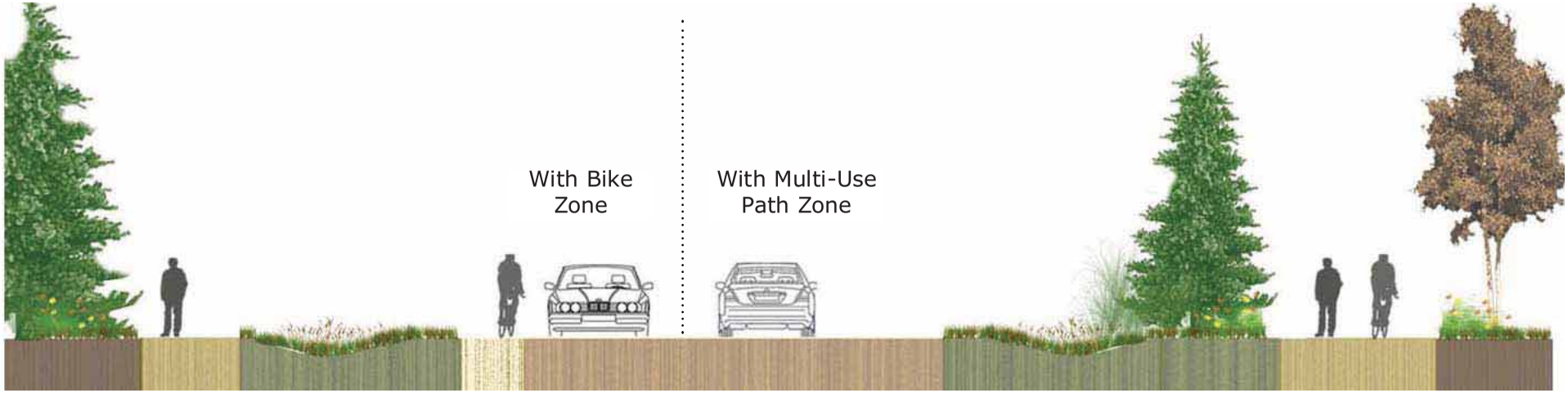
- **Design Speed** – < 25 miles per hour
- **User Prioritization** – Pedestrians, Bicycles & Autos/Trucks
- **Land Use Place Types** - Urban Single-Family Residential; Urban Multi-Family Residential; Urban Mixed-Use; Single-Family Residential; Multi-Family Residential; Town Single-Family Residential; Town Multi-Family Residential; Rural Town Residential; Institutional; Open Space/Recreation



Pedestrian	Street Furniture	Green	Motor Vehicle	Bicycle	Parking
Unobstructed pedestrian zone should be a minimum of 5' with a vertical curb (rolled curbs allow parked cars to encroach in the pedestrian area). Streets with very low traffic volumes may not require sidewalks and instead function as a shared street or "Woonerf ".	Pedestrian-scale lighting and some bicycle/pedestrian wayfinding signage for destinations such as community centers, parks and schools	The green zone should be a minimum of 4' to accomodate landscaping/trees. Bioswales and raingardens may also be appropriate in the green zone.	Travel lanes should be a minimum of 9'-10' with a 4' shoulder. Medians are not typically provided on local streets with the exception of partial medians which can be used for traffic calming and aesthetic purposes	Shared bicycle facilities are appropriate due to low vehicle speeds and traffic volumes. Neighborhood shared streets should have additional amenities such as bicycle boulevard signage, sharrows, partial street closures and traffic calming features.	Parallel on-street parking is recommended along local streets. The parking serves as a buffer between pedestrians and motorists.

Rural Roads

- **Design Speed** – Varies
- **User Prioritization** – Autos/Trucks, Transit & Bicycles
- **Land Use Place Types** –Agriculture and Rural Residential; Exurban Residential; Industrial and Manufacturing; Open Space/Recreation
- **Local Examples** – Corralitos Road (Santa Cruz)



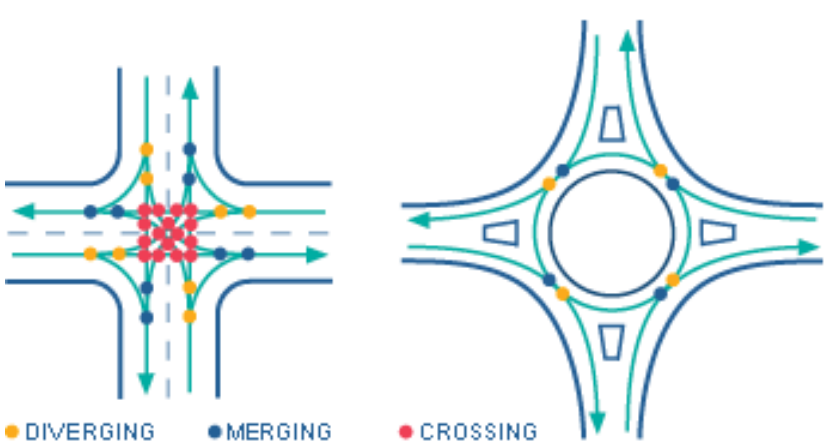
Pedestrian	Street Furniture	Green	Motor Vehicle	Bicycle	Parking
A wide paved roadway shoulder can accomodate both pedestrians and bicyclists in a rural setting. A sidewalk or multi-use path outside of the clear zone may also be appropriate (especially if it provides access to a community resource such as a school).	Pedestrian-scale lighting, amenities at transit stops and some bicycle/ pedestrian wayfinding signage for destinations such as community centers, parks and schools near rural town centers.	The green zone consists of the roadway shoulder and ditch. This area may be paved at intersections to reduce the amount of dirt, mud and debris carried onto the roadway by agricultural vehicles.	A wide paved roadway shoulder can accomodate bicyclists. Multi-use paths ouside of the clear zone may also be appropriate.	Travel lanes should be a minimum of 10’-12’ with a 6’-8’ shoulder.	On-street parking is not recommended on rural roads.

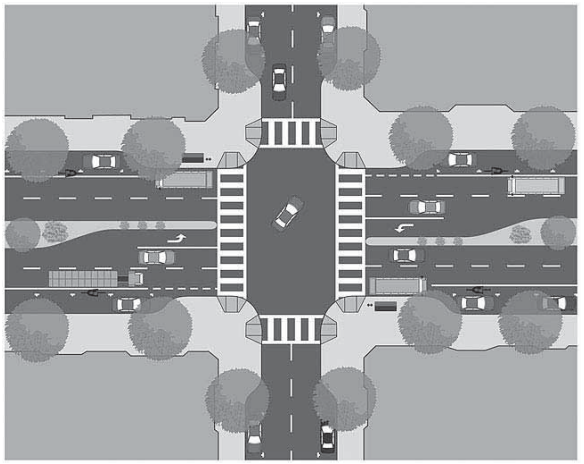
INTERSECTIONS

Principles

The following principles apply to all users of intersections:

- Good intersection designs are compact.
- Unusual conflicts should be avoided.
- Simple right-angle intersections are best for all users since many intersection problems are worsened at skewed and multi-legged intersections.
- Roundabouts reduce points of conflict and severity of potential collisions compared to signalized or stop controlled intersections.
- Access management practices should be used to remove additional vehicular conflict points near the intersection.
- Signal timing should consider the safety and convenience of all users and should not hinder bicycle or foot traffic with overly long waits or insufficient crossing times.





Signalized Intersections

To improve livability and pedestrian safety, signalized intersections should:

- Provide signal progression at speeds that support the target speed of a corridor whenever feasible.
- Provide short signal cycle lengths, which allow frequent opportunities to cross major roadways, improving the us ability and livability of the surrounding area for all modes.
- Ensure that signals detect bicycles.
- Place pedestrian signal heads in locations where they are visible.
- At locations with many crossing pedestrians, time the pedestrian phase to be on automatic recall, so pedestrians do not have to seek and push a pushbutton.
- Where few pedestrians are expected and automatic recall of walk signals is not desirable, place pedestrian push buttons in convenient locations, using separate pedestals if necessary. Use the recommendations regarding push button placement for accessible pedestrian signals found in the Manual on Uniform Traffic Control Devices (MUTCD).
- Include pedestrian signal phasing that increases safety and convenience for pedestrians.

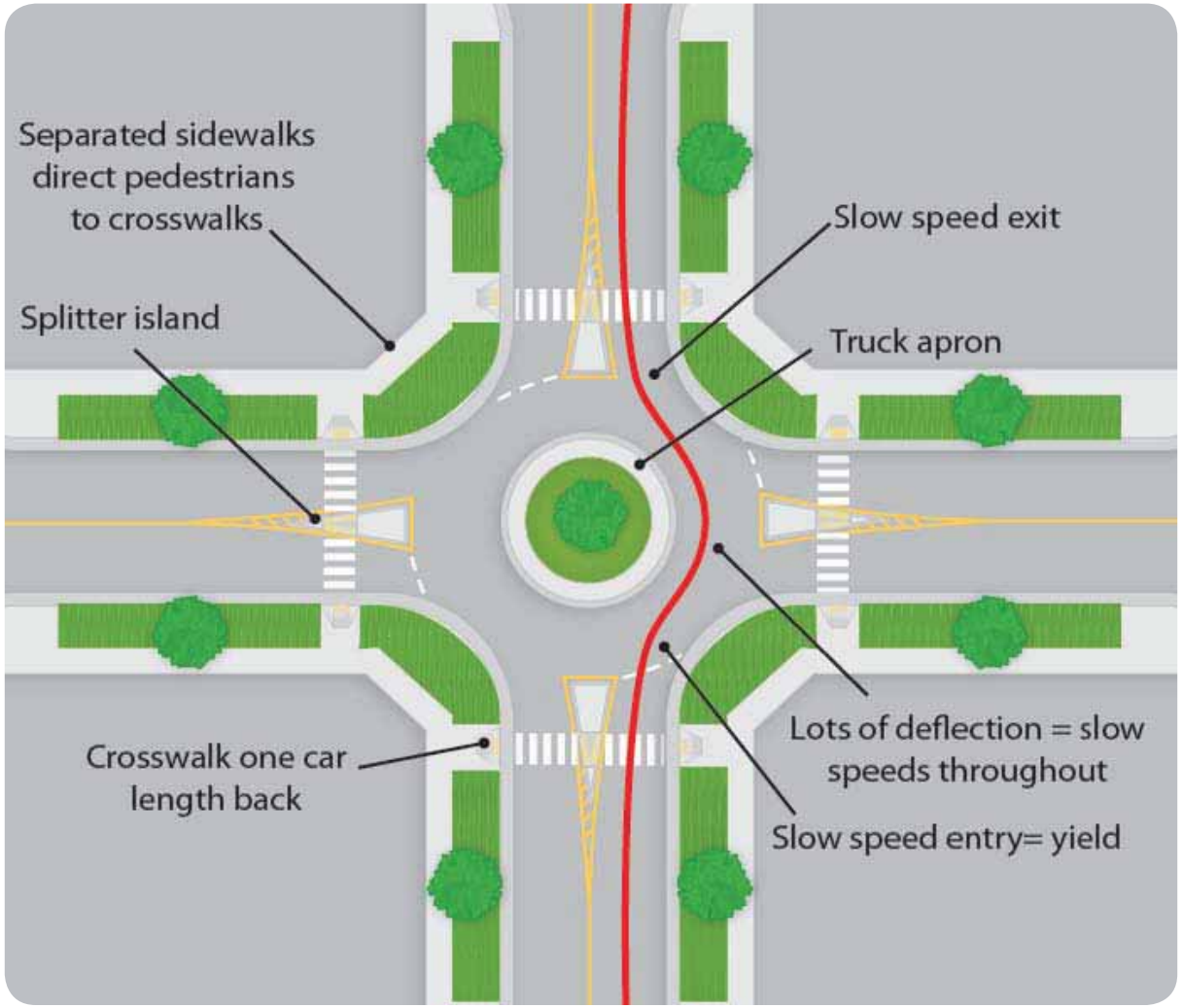
Yield and Stop-Controlled Intersections

Most intersections are either stop-controlled or yield-controlled. In general, stop signs are overused and often mistakenly used for traffic calming. Stop signs are not a traffic calming device. An intersection must meet warrants set forth in the Manual of Uniform Traffic Control Devices (MUTCD) before stop controls may be installed. Intersection control options include the following:

- Yield control, which is under-utilized and should be considered to reduce unnecessary stops caused by the overuse of stop signs.
- Uncontrolled intersections are yield controlled by default.
- Two-way stop control, the most common form of intersection control. This is also an overused device. At many intersections a neighborhood traffic calming circle is a preferable and more effective option.
- All-way stops are often overused, incorrectly, to slow traffic. The use of all-way stops should be consistent with the MUTCD. At many intersections a neighborhood traffic calming circle is a preferable and a more effective option.

Roundabouts

Roundabouts reduce vehicle-to-vehicle and vehicle-to-pedestrian conflicts and, thanks to a substantial reduction in vehicle speeds, reduce all forms of crashes and crash severity. In particular, roundabouts eliminate the most dangerous and common crashes at signalized intersections: left-turn and right-angle crashes.



Other benefits of roundabouts include the following:

- Little to no delay for pedestrians, who have to cross only one direction of traffic at a time.
- Improved accessibility to intersections for bicyclists through reduced conflicts and vehicle speeds.
- A smaller carbon footprint. Less lighting is required for operation and fuel consumption is reduced as motor vehicles spend less time idling and don't have to accelerate as often from a dead stop.
- Opportunity to reduce the number of vehicle lanes between intersections. For example, a five-lane road may be reduced to a two-lane road due to increased vehicle capacity at intersections.
- Little to no stopping during periods of low flow.
- Significantly reduced maintenance and operational costs required by signals and lights
- Reduced delay, travel time, and vehicle queue lengths.
- Lowered noise levels.
- Less fuel consumption and air pollution.
- Simplified intersections.
- Facilitated U-turns.
- The ability to create a gateway and/or a transition between distinct areas through landscaping.
- Light rail can pass through the center of a roundabout without delay because rail has the right of way, although gates may be required

The primary disadvantage of a roundabout is that sight-impaired people can have difficulty navigating around large roundabouts. However, this difficulty can be mitigated with ground level wayfinding devices.
Before starting the design of a roundabout it is very important to determine the following:

- The number and type of lane(s) on each approach and departure as determined by a capacity analysis.
- The design vehicle for each movement.
- The presence of on-street bike lanes.
- The goal/reason for the roundabout, such as crash reduction, capacity improvement, speed control, or creation of a gateway or a focal point.
- Right-of-way and its availability for acquisition if needed.
- The existence or lack of sidewalks.
- The approach grade of each approach.
- Transit, existing or proposed.

UNIVERSAL PEDESTRIAN ACCESS

The following design principles inform the recommendations made in this chapter and should be incorporated into every pedestrian improvement:

- The walking environment should be safe, inviting, and accessible to people of all ages and physical abilities.
- The walking environment should be easy to use and understand.
- The walking environment should seamlessly connect people to places. It should be continuous, with complete sidewalks, well-designed curb ramps, and well-designed street crossings
- The walking environment should not be obstructed.

Legal Framework

Under Title II of the Americans with Disabilities Act (ADA) of 1990, state and local governments and public transit authorities must ensure that all of their programs, services, and activities are accessible to and usable by individuals with disabilities. They must ensure that new construction and altered facilities are designed and constructed to be accessible to persons with disabilities. State and local governments must also keep the accessible features of facilities in operable working condition through maintenance measures including sidewalk repair, landscape trimming, work zone accessibility, and snow removal.

Under the ADA, the U.S. Access Board is responsible for developing the minimum accessibility guidelines needed to measure compliance with ADA obligations when new construction and alterations projects are planned and engineered. These guidelines for public rights-of-way are found in draft form in the Public Rights-of-Way Accessibility Guidelines. The U.S. Department of Transportation has recognized this document as current best practices in pedestrian design and has indicated its intent to adopt the final guidelines.

In addition, Title II of the ADA also requires states and localities to develop ADA Transition Plans that remove barriers to disabled travel.

ADA Transition Plans are intended to ensure that existing inaccessible facilities are not neglected indefinitely and that the community has a detailed plan in place to provide a continuous pedestrian environment for all residents. These plans must:

- Inventory physical obstacles and their location.
- Provide adequate opportunity for residents with disabilities to provide input into the Transition Plan.
- Describe in detail the methods the entity will use to make the facilities accessible.
- Provide a yearly schedule for making modifications.
- Name an official/position responsible for implementing the Transition Plan.
- Set aside a budget to implement the Transition Plan.

Obstructions can make passage difficult or impossible for wheelchair users. (Credit: Michael Ronkin)

User Needs

Wheelchair and scooter users are most affected by the following:

- Uneven surfaces that hinder movement.
- Rough surfaces that make rolling difficult and can cause pain, especially for people with back injuries.
- Steep uphill slopes that slow the user.
- Steep downhill slopes that cause a loss of control.
- Cross slopes that make the assistive device unstable.
- Narrow sidewalks that impede the ability of users to turn or to cross paths with others.
- Devices that are hard to reach, such as push buttons for walk signals and doors.
- The lack of time to cross the street.

Walking-aid users are most affected by the following:

- Steep uphill slopes that make movement slow or impossible.
- Steep downhill slopes that are difficult to negotiate.
- Cross slopes that cause the walker to lose stability.
- Uneven surfaces that cause these users to trip or lose balance.
- Long distances.
- Situations that require fast reaction time.
- The lack of time to cross the street.

Prosthesis users often move slowly and have difficulty with steep grades or cross slopes.

People with visual impairments include those who are partially or fully blind, as well as those who are colorblind. Visually impaired people face the following difficulties:

- Limited or no visual perception of the path ahead.
- Limited or no visual information about their surroundings, especially in a new place.
- Changing environments where they rely on memory
- Lack of non-visual information
- Inability to react quickly
- Unpredictable situations, such as complex intersections that are not at 90 degrees
- Inability to distinguish the edge of the sidewalk from the street
- Compromised ability to detect the proper time to cross a street
- Compromised ability to cross a street along the correct path
- Need for more time to cross the street

People with cognitive impairments encounter difficulties in thinking, learning, and responding, and in performing coordinated motor skills. Cognitive disabilities can cause some to become lost or have difficulty finding their way. They may also not understand standard street signs and traffic signals. Some may not be able to read and benefit from signs with symbols and colors.

Children and many older adults don't fall under specific categories for disabilities, but must be taken into account in pedestrian planning. Children are less mentally and physically developed than adults and have the following characteristics:

- Less peripheral vision.
- Limited ability to judge speed and distance.
- Difficulty locating sounds.
- Limited or no reading ability, so do not understand text signs.
- Occasional impulsive or unpredictable behavior.
- Little familiarity with traffic.
- Difficulty carrying packages.

The natural aging process generally results in at least some decline in sensory and physical capability. As a result, many older adults experience the following:

- Declining vision, especially at night.
- Decreased ability to hear sounds and detect where they come from.
- Less strength to walk up hills and less endurance overall.
- Reduced balance, especially on uneven or sloped sidewalks.
- Slowed reaction times to dangerous situations.
- Slowed walking speed.

Accessible Pedestrian Facility Best Practices

Crosswalks and ramps at intersections should be placed so they provide convenience and safety for pedestrians. The following recommended practices will help achieve these goals:

- Allow crossings on all legs of an intersection, unless there are no pedestrian accessible destinations on one or more of the corners. Closing a crosswalk usually results in a pedestrian either walking around several legs of the intersection, exposing them to more conflicts, or crossing at the closed location, with no clear path or signal indication as to when to cross.
- Provide marked crosswalks at signalized intersections.
- Place crosswalks as close as possible to the desire line of pedestrians, which is generally in line with the approaching sidewalks.
- Provide as short as possible a crossing distance to reduce the time that pedestrians are exposed to motor vehicles. This is usually as close as possible to right angles across the roadway, except for skewed intersections.
- Ensure that there are adequate sight lines between pedestrians and motorists. This typically means that the crosswalks should not be placed too far back from the intersection.
- When a raised median is present, extend the nose of the median past the crosswalk with a cut-through for pedestrians.
- Provide one ramp per crosswalk, or two per corner for standard intersections with no closed crosswalks. Ramps must be entirely contained within a crosswalk. The crosswalk can be flared to capture a ramp that cannot be easily relocated. Align the ramp run with the crosswalk when possible, as ramps that are angled away from the crosswalk may lead some users into the intersection.

At intersections where roads are skewed or where larger radii are necessary for trucks, it can be difficult to determine the best location for crosswalks and sidewalk ramps. In these situations, it is important to balance the recommended practices above. Tighter curb radii make implementing these recommendations easier.

One curb ramp per crosswalk should be provided at corners. Ramps should align with sidewalks and crosswalks. (Credit: Michele Weisbart)

Crossing Times

In planning for people with disabilities, slower speeds must be considered. This is critical in setting the timing of the walk phase of signalized intersections. The Manual on Uniform Traffic Control Devices requires that transportation agencies use an assumed walking speed of 3.5 feet/second for signal timing. In situations where a large number of older adults or persons with disabilities cross, this may be inadequate to meet their needs. Some cities instead use 2.8 feet/second.

Cities may also use Pedestrian-User-Friendly-Intelligent traffic signals to ensure that all pedestrians have adequate time to cross. Pedestrian-User-Friendly-Intelligent crossings use infrared monitors to detect the presence of pedestrians in the crosswalk, and will hold the signal red for cross traffic until the pedestrian has left the crosswalk. Pedestrian-User-Friendly-Intelligent crossings help slower pedestrians, but also help the flow of traffic because they allow the normal pedestrian design speed to be set at a higher level.

Pedestrian-Activated Push Buttons

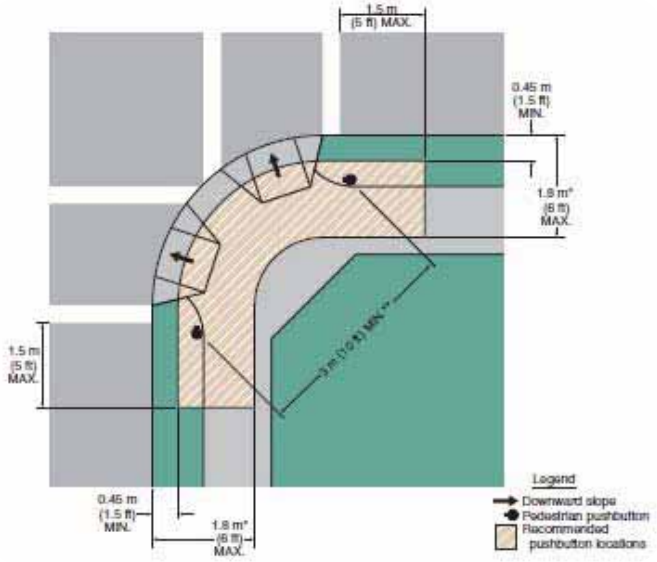
Pedestrian-activated traffic controls require pedestrians to push a button to activate a walk signal. As noted in Chapter 7, "Pedestrian Crossings," pedestrian-activated signals are generally discouraged. The walk signal should automatically come on except under circumstances described in that chapter. Where pedestrian-activated traffic controls exist, they should be located as close as possible to curb ramps without reducing the width of the path. The buttons should be at a level that is easily reached by people in wheelchairs near the top of the ramp. The U.S. Access Board guidelines recommend buttons raised above or flush with their housing and large enough for people with visual impairments to see them. The buttons should also be easy to push.

Pedestrian push button placement
(Credit: Michele Weisbart)

Accessible Pedestrian Signals

Wayfinding for pedestrians with visual impairments is significantly improved with the use of Accessible Pedestrian Signals at signalized intersections. In fact, Accessible Pedestrian Signals are the most commonly requested accommodation under Section 504 of the Rehabilitation Act of 1973. Accessible Pedestrian Signals communicate information about pedestrian timing in non-visual formats such as audible tones, verbal messages, and/or vibrating surfaces. Verbal messages provide the most informative guidance.

These devices should be installed close to the departure location and on the side away from the center of the intersection. Since they are typically only audible 6 to 12 feet from the push button, 10 feet should separate two devices on a corner. If two accessible pedestrian pushbuttons are placed less than 10 feet apart or on the same pole, each accessible pedestrian pushbutton shall be provided with a pushbutton locator tone, a tactile arrow, a speech walk message for the WALKING PERSON (symbolizing WALK) indication, and a speech push button information message. Volumes of the walk indication and push button locator tone shall automatically adjust in response to ambient sound.



Chapter 6: Six-Step Implementation Process

The purpose of this chapter is to explain how the perspectives of all stakeholders interested in or affected by existing or future streets can be incorporated into the review for planning and designing streets. The recommended process is summarized in Appendix H, Complete Street Project Review Checklist. This process was modeled after the work completed in the Charlotte Department of Transportation Urban Streets Design Guidelines, and San Francisco Bay Area, Routine Accommodation Checklist.

PROCESS FOR PLANNING AND DESIGNING COMPLETE STREETS

The six step process outlined below emphasizes coordinating city planning, urban design, and transportation planning activities by establishing a sequence of fact finding and decision-making steps. Applying this process to planning and designing streets is intended to support the creation of more streets which meet the needs of more people.

Six-Step Process

The process described below provides a great deal of flexibility to those involved in the decision-making process. This flexibility is intended to foster creative solutions by ensuring that land use planners, engineers, transportation planners, transportation system users, and others work together to think through the implications of alternative street designs. The six-step process will play an important role in addressing the significant challenge of retrofitting streets with limited right-of-way by means of completing a tradeoff analysis.

The six step processes below was vetted and carefully refined through a process lead by the Charlotte Department of Transportation in North Carolina. Since its adoption, the process has been credited was accomplishing complete streets goals and avoiding the need for costly redesign and preventing missed opportunities.

The following three assumptions are built into the six-step process:

- The process will involve a variety of stakeholders. The number of stake holders and discussions will vary, depending on the magnitude of the project(s).
- The resulting street will be as "complete" as needed and possible, given the context of the facility.
- The complete streets evaluation will clearly document the major tradeoffs made among competing design elements, how those were discussed and weighed against each other, and the preliminary and final outcomes. Thorough documentation will ensure that all stakeholders' perspectives are adequately considered in the final design.

Figure 6-1 shows the review steps to be included in applying the Monterey Bay Area Complete Street Guidebook. Each of the six steps is defined in more detail later in this chapter. The steps described below can be applied either to a single street or to a collection of streets in an area, such as when an area plan is being developed.

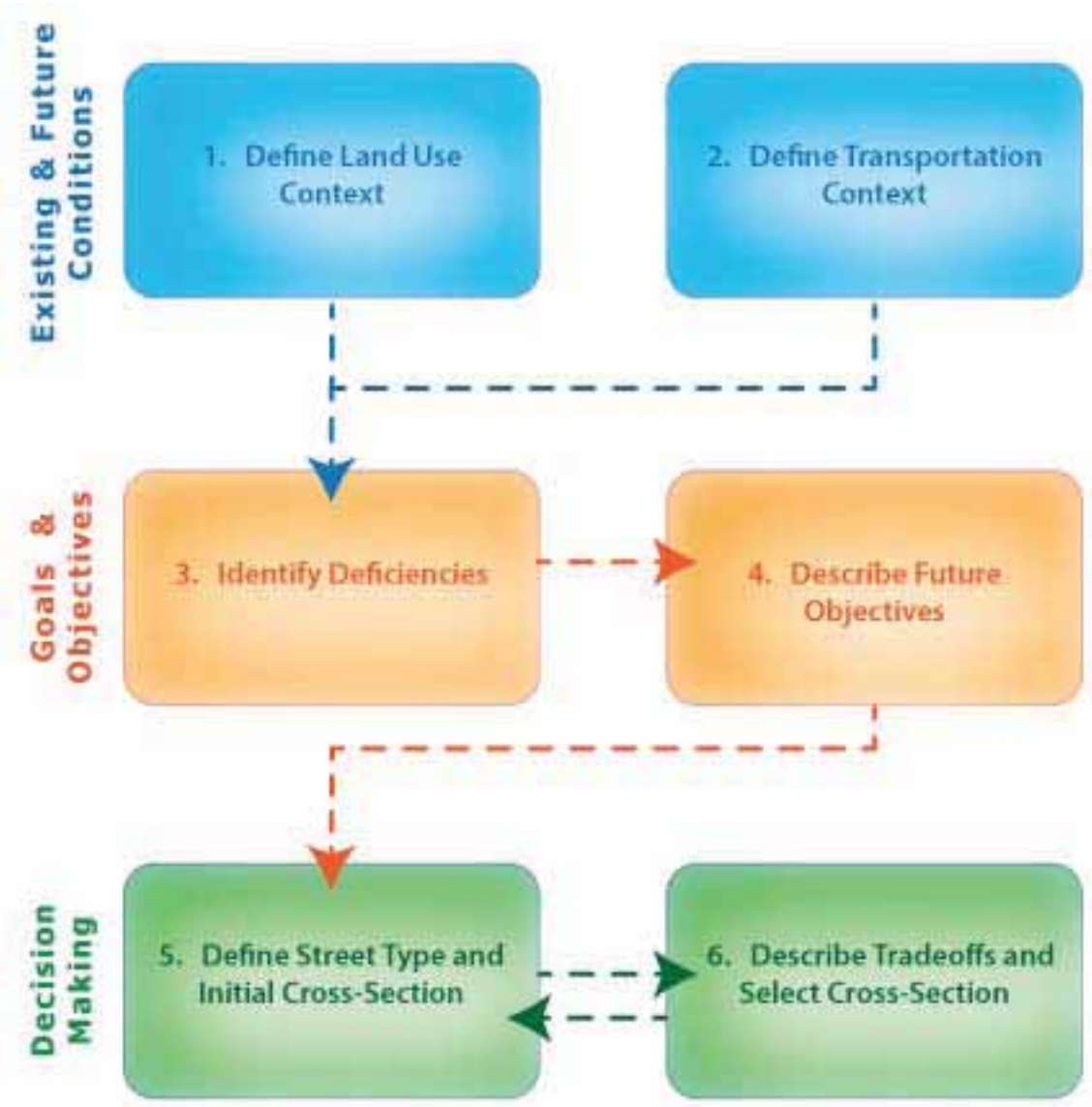


Figure 6-1 Six Step Process

Step 1: Define the Existing and Future Land Use and Urban Design Context

The classification and ultimate design of any street should reflect both the existing and expected future land use contexts. These contexts should be considered from the area wide level down to the immediately adjacent land uses. For example, a street is likely to be classified and/or designed differently if it is in an area slated for higher density development, such as a transit station area, versus in a neighborhood of single family houses, where very limited development changes are anticipated.

Step 2: Define the Existing and Future Transportation Context

The transportation assessment should consider the existing and expected future conditions of the transportation network adjacent to the street to be designed. The design should not be strictly related to capacity on a segment in isolation. Rather, the design should reflect the entire transportation context, including function, multimodal features, and form. The Complete Streets Project Review Checklist (Appendix H) should be used to assess and document existing and future conditions. Questions to facilitate dialogue and consideration of existing and future conditions are included in Appendix I.

Step 3: Identify Deficiencies

Once the existing and future land use and transportation contexts are clearly defined and understood at the area wide level, the design team should be able to identify and describe any potential deficiencies. This step should consider the relationship between different modes and the land use context. Use the Complete Streets Project Review Checklist (Appendix H) to identify and document deficiencies. Questions to facilitate dialogue and consideration of deficiencies are included in Appendix I.

Step 4: Describe Future Objectives

This step synthesizes the information from the previous steps into defined objectives for the street project. Objectives could be derived from the plans and/or policies for the area around the street, as well as from the list of deficiencies identified in step three. The objectives will form the basis for the future street classification and design. Sample questions that can be used to facilitate dialogue about potential issues can be found in Appendix I.

Step 5: Recommend Street Type and Initial Cross-Section and Constraints

The plan/design team recommends the appropriate complete street type(s), and cross-section design based on previous steps. The rationale behind the classification should be documented using the Complete Streets Project Review Checklist in Appendix H. Table 3 provides a reference for matching land use place types and street typologies and sample cross-sections. This step should also include a recommendation for any necessary adjustments to the land use plan/policy and/or transportation plan for that area. Since the street type and the design are influenced by the land use context, subsequent land use decisions should reflect and support the agreed-upon street type and design.

At this point, any constraints to the provision of the initial preferred cross-section should be clearly identified. These may include:

- Lack of right-of way,
- Existing structures,
- Existing trees or other environmental features,
- Topography, and
- Location and number of driveways.

Step 6: Describe Tradeoffs and Select Complete Street Type

Most likely the initial cross-section will need to be refined to better address the land use and transportation objectives, given the constraints identified in step five. If the technical team develops more than one alternative design, these multiple alternatives should be presented to the stakeholders, and made available to the public. Any refinements to the cross section should result from a through consideration of tradeoffs among competing uses of the existing or future public right-of way.

EXCEPTIONS

The Federal Highway Administration (FHWA) (2000) lists three exceptions to providing accommodations for bicycle and pedestrian travel on all streets. They follow the FHWA's guidance on accommodating bicycle and pedestrian travel and identified best practices frequently used in existing complete streets policies. Project sponsors may find it beneficial to consider these exceptions when evaluating trade-offs.

- Accommodation is not necessary on corridors where specific users are prohibited, such as interstate freeways or pedestrian malls.
- Cost of accommodation is excessively disproportionate to the need or probable use. It is unnecessary to attach a percentage to define "excessive" as the context for many projects will require different portions of the over all project budget to be spent on the modes and users expected. Additionally, costs may be difficult to quantify. A cap on amount spent for roadway improvements may be appropriate in unusual circumstances, such as where natural features (e.g. steep hillsides, shorelines) make it very costly or impossible to accommodate all modes. Any such cap should always be used in an advisory rather than absolute sense. A documented absence of current and future need. This exception can be problematic if the method for determining future need is not defined. Ensure that a qualified individual or committee is tasked with approving this exception. Many communities have included other exceptions that the National Complete Streets Coalition, in consultation with transportation planning and engineering experts, also feels are unlikely to create loopholes.
- Transit-specific facilities, such as bus shelters, are not required where there is no existing or planned transit service.
- Routine maintenance of the transportation network that does not change the roadway geometry or operations, such as mowing, sweeping, spot repair, or when interim measures are implemented in temporary detour or haul routes. Be sure to check your internal procedures and policies regarding these activities so that facilities such as bike lanes are swept in a timely manner".

MONTEREY BAY AREA COMPLETE STREETS ASSESSMENT

As part of the development of the 2014 Monterey Bay Area Sustainable Communities Strategy, staff from the regional transportation agencies in the tri-county area worked with key stakeholders from each jurisdiction to develop criteria for evaluating how well streets meet the needs of all users. The goal of this complete streets needs assessment was to identify deficiencies in the existing transportation networks and opportunities for improvements, which would provide safe mobility for all users including bicyclists, pedestrians, transit riders and motorists, particularly in areas identified for increased density and diversity of land use as part of the Sustainable Communities Strategy. Key components of the Monterey Bay Area Complete Streets Assessment are discussed further in this section and can serve as a model inventory for project sponsors and stakeholders.

Complete Streets Inventory

Compiling an inventory of complete street transportation attributes was the first step in conducting the Monterey Bay Area Complete Streets Assessment. This inventory identified the existing mobility context and documented complete streets facilities and considered gaps in the transportation network and services. It is recommended that project sponsors and stakeholders utilize the inventory provided in Appendix A in whole or in part when developing complete street projects for inclusion in local plans.

To support the complete streets needs assessment, RTPA staff worked with regional transit agencies to identify current and future "high quality transit routes" and "major transit stops" as defined by SB375. Identifying high quality transit routes and major transit stops, which serve 15 minute headways during peak periods, were important in order to identify potential priority areas for pedestrian investments, since the majority of transit trips begin with a roadway user walking to the transit stop.

Complete Streets Project List

The result of the Monterey Bay Area Complete Streets Assessment included a list of transportation projects that would support multi-modal facilities, improve connectivity and reduce vehicle miles traveled within each area. For each project, opportunities were identified to develop low stress routes which emphasize the quality, comfort, convenience and safety of bicycle, pedestrian and transit facilities. Each project list was considered by the respective regional transportation planning agencies for inclusion in the regional tranpsortaiton plan.

Complete streets projects typically fell into one of the following categories:

- Bicycle/pedestrian enhancements (ex. bicycle lane treatments such as painted or buffered bike lanes and pedestrian buffers such as landscaping, bicycle actuation at traffic signals, pedestrian scale lighting, wider side walks)
- Pedestrian crossing improvement (ex. raised cross walks, enhanced striping contrast, cross walk beacon, bulbouts and pedestrian islands)
- Bike/pedestrian network filler (ex. new bicycle lane or sidewalks which eliminates gap in existing network)
- Bike intersection improvement (ex. bike boxes, bike signal priority)
- New bike/ped connection (ex. new bike/ped path not located on current transportation facility)
- Bike parking facilities (ex. bicycle racks)
- Neighborhood shared streets (ex. pavement markings, wayfinding, traffic control on local streets to give priority to bicycles and pedestrians and reduce vehicle speed and volume)
- Pedestrian place/universal street (ex. roadway or alley with restricted vehicle access which often is serves as a plaza for assorted businesses)
- Crosswalk frequency (ex. new/additional cross walks to reduce spacing between cross walks)
- Commercial area bike/ped access (ex. pavement treatments, tactile strips and wayfinding)
- Traffic calming (ex. bulb outs, landscaping)
- High Occupancy Vehicle/transit priority (ex. signal priority for transit and carpool lanes)
- Bus pullouts
- Wayfinding (ex. pedestrian and bicycle scale signage providing information about surrounding amenities)
- Information and incentives for bicycling, walking and transit

Chapter 7: Transitioning To Complete Streets

COMPLETE STREETS TRANSITION PLAN

Implementing complete streets begins with adoption of polices, plans and designs described in this guidebook. Frequently, the last steps in implementing complete streets are the most difficult and involve enacting requirements and regulations and providing funding for complete streets improvements. Specific tools for addressing these challenges are described in this chapter.

Providing all of the ingredients for implementing complete streets will take a significant investment in some communities. Below are some tools that local jurisdictions may want to consider to facilitate the transition of motor vehicle oriented street towards streets that provide a greater range of safe and convenient choices for all users.

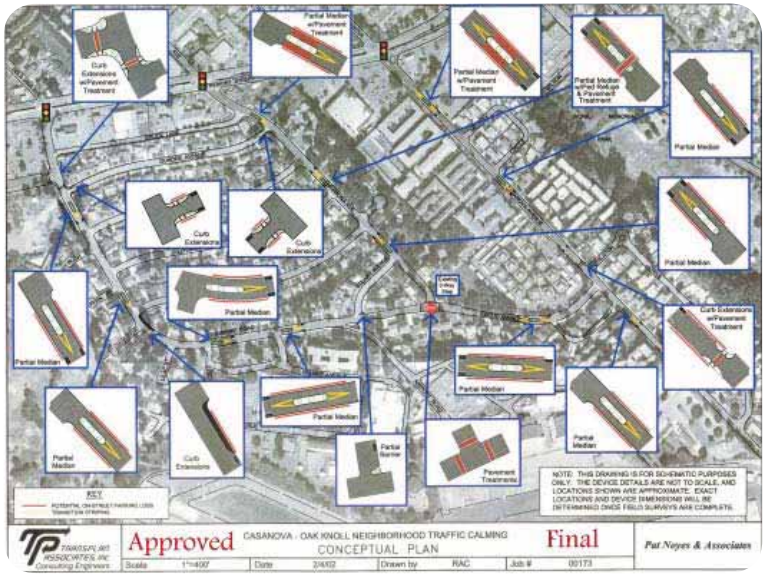
Zoning Ordinance Review

Zoning ordinance, subdivision ordinance, and municipal code may need to be reviewed to identify where policy is weak in establishing standards. The following zoning ordinance features will support implementation of complete streets:

- Requirements for access management and transit-oriented development;
- Regulations that support recommended complete street characteristics and non-motorized site design for development sites, setbacks, and building entrances;
- Regulations promoting higher density and multi-use developments, which encourages walking and bicycling between destinations;
- Regulations that require easements for bicycle and pedestrian facilities and require new development to make improvements consistent with bicycle, pedestrian, transit, and traffic calming plans.
- Incentives for developments that provide enhanced bicycle, pedestrian and transit facilities.

Local Area Plans

Local area specific plans can be helpful in developing a complimentary set of investments which support a systems approach to complete streets. In some cases, local area specific plans may have strong potential for implementing complete streets policies by taking a comprehensive approach to ensuring consistency with higher level plans, while at the same time providing detail which is responsive to specific local area evidence-based needs. In the early 2000s, the City of Monterey worked with residents to develop neighborhood traffic calming plans. Since their adoption, the City has successfully implemented the majority of these plans.



City of Monterey Neighborhood Traffic Calming Plan

Bicycle and Pedestrian Plans

Bicycle transportation plans and pedestrian master plans should also be utilized to develop complete streets projects. Ensuring that complete streets projects are consistent with these mode specific plans is an effective way to support the development of a network of complete streets. Establishing a network of complete streets is important because roadway users typically utilize several transportation facilities and more than one mode when traveling between their origin and destination.

Ensuring that new projects are consistent with bicycle and pedestrian plans can be utilized as strategy for transiting to complete streets, particularly to improve connectivity. For example, the Tahoe Regional Planning Council worked closely with local jurisdictions to establish zoning ordinances for its bicycle and pedestrian plan. These ordinances require new developments to implement bicycle and pedestrian facilities identified in the plan if they are located within or along a proposed development parcel.

FUNDING COMPLETE STREETS

Funding for complete streets project remains a challenge in the Monterey Bay Area where transportation needs far outweigh available transportation funds. Complete streets projects are currently being considered in the development of the Monterey Bay Area Sustainable Communities Strategy as part of a suite of projects to reduce vehicle miles traveled in areas identified for growth and more intensified use. Although many complete streets projects may be identified to receive funding in the long-range transportation plan and sustainable communities strategy, they will need to compete for limited transportation resources.

Existing Funding Sources

- Transportation Development Act Funds
- Regional Surface Transportation Program
- Neighborhood Improvement Program (City of Monterey)
- Bicycle Transportation Account
- Office of Traffic Safety
- Highway Safety Improvement Program
- Transportation Alternatives Program (formerly Transportation Enhancement funds)
- Regional Development Impact Fees

Potential New Funding Sources

Active Transportation Program: Legislation is currently under consideration at the state level to consider consolidating the federal Transportation Alternatives Program, the state Bicycle Transportation Account, the state and federal Safe Routes to Schools and the Environmental Enhancement and Mitigation program into a single statewide competitive program.

Multimodal Impact Mitigation Fees: Development impact fees are now being assessed and applied to bicycle, pedestrian and transit projects. Like traditional impact fees, multimodal impact fees are used to mitigate the cost of new demands on the transportation system resulting from trips incurred by new development. Local jurisdictions with multimodal impact fees are using model projections, multimodal level of service thresholds, or multimodal trip generation rates by land use type, (such as those developed by the Institute of Transportation Engineers), as the mechanism for assessing the mitigation payment amount. Fees are them applied to investments that are reasonably connected to the development impacts. Multimodal impacts fees work in areas where there is already pedestrian, bicycle and transit activity or in areas that could potentially benefit from and support diverse transportation options.

Local Transportation Sales Tax Measure: Over 85% of California residents live in a region with an approved transportation measure which dedicates sales tax funding to transportation projects. Local transportation measures are applied to projects identified in an approved expenditure plan and currently require a two-thirds majority vote.

Public and private grant programs focused on improving health by reducing greenhouse gas emissions, improving air quality and reducing obesity through physical activity may also play a role in funding complete streets projects.

REGIONAL COMPLETE STREETS PHASING PLAN

The tools provided in the Monterey Bay Area Complete Streets Guidebook support a transition from streets that are primarily auto-oriented to streets which safely and comfortably accommodate all users. The Monterey Bay Area Complete Streets Guidebook takes the approach that by incorporating complete streets into policy, plans, and design, streets will begin to become more complete in stages, beginning in the short-term (2020) and continuing into the long-term (2035).

Given the significant need for road rehabilitation throughout the Monterey Bay Area , complete streets improvements that can be coupled with roadway rehabilitation projects are more likely to be completed in the short-term (2020), such as complete street features that can be realized primarily through roadway restriping. Other projects expected to be completed in the short-term are those funded by continuous funding sources such as Transportation Development Act funds, which frequently support curb ramp improvements, and Safe Routes 2 School funds which support bicycle, pedestrian and traffic calming around schools. The projects which require a greater amount of resources will be implemented closer to the 2035 horizon if current funding trend continue.

Short-term projects such as bicycle lane striping

Long-term projects such as the Monterey Branch Line Light Rail Service and Stations

Chapter 8: Education, Encouragement & Enforcement

Education, encouragement, and enforcement programs complement complete street infrastructure programs and can play an important role in achieving complete streets objective.

EDUCATION

Developing complete streets is a critical step in providing alternatives to driving. However, to achieve an actual shift from driving to walking, bicycling or taking transit requires a change not only in the safety and reliability of those alternatives, but also a change in an individual's preference, perception and behavior. . Many local jurisdictions around the Monterey Bay Area are implementing marketing campaigns to encourage healthy and active lifestyles. Obesity and sedentary lifestyles are on the rise for both adults and children in America, and daily exercise needs to be integrated into American lifestyles. In the Monterey Bay Area region, marketing campaigns, such as Bike Week, add support to existing messages of getting more exercise while pro¬moting complete streets principles.

A telephone survey conducted in the AMBAG region in May 2013 provided information regarding travel preferences. Throughout the region, survey participants overwhelmingly indicated that they rely on their cars to travel; however, they felt that if it were more convenient or more comfortable, they would like to walk or bicycle to shopping or recreation destinations. Integrating Complete Streets features into our transportation system can help this desire to become a reality.

Complete Streets policies are viewed as an important element for achieving Safe Routes to School goals, as children are one of our most vulnerable transportation users. Safe Routes to School programs have become tremendously popular not only across the country, but within the Monterey Bay Area. These programs benefit from Complete Streets policies that can help turn all routes into safe routes. Examples of Safe Routes to School Programs include:

- Safe Routes to School Maps
- Bike/Walk to School Day
- Walking School Buses
- Bicycle Train
- Bike to School Day Resource Guide:
- Monterey County: (http://www.tamcmonterey.org/bikeweek/breakfast.html)
- San Benito County: (http://sanbenitorideshare.org/schools/safe-routes-to- school/)
- Santa Cruz County: (http://bike2work.com/s_cruz/)

Training

Another critical component of a successful education program is providing decision makers and project designers with information on the latest approaches to roadway design to help establish a common level of understanding and facilitate discussions complete streets. Planners are encouraged to hold workshops or provide their elected governing bodies and advisory committees with presentations on facility design and other topics related to bicycling and walking as a means to understand Complete Streets principles. Agencies may want to consider "certifying" staff members as complete streets specialists when a specific level of training in complete streets concepts is completed. Several resources for this type of training are available, including:

- The UC Berkeley Tech Transfer Program
- The Transit Cooperative Research Program (TCRP)
- The National Complete Streets Coalition
- The National Rural Transit Assistance Program

More informal training may involve meeting with local jurisdictions who have experience implementing complete streets policies or hosting roundtables for project sponsors to discuss lessons learned. The regional transportation planning agencies can help educate city and county project planners and designers to ensure that Complete Streets concepts are well understood and can be incorporated into future projects.

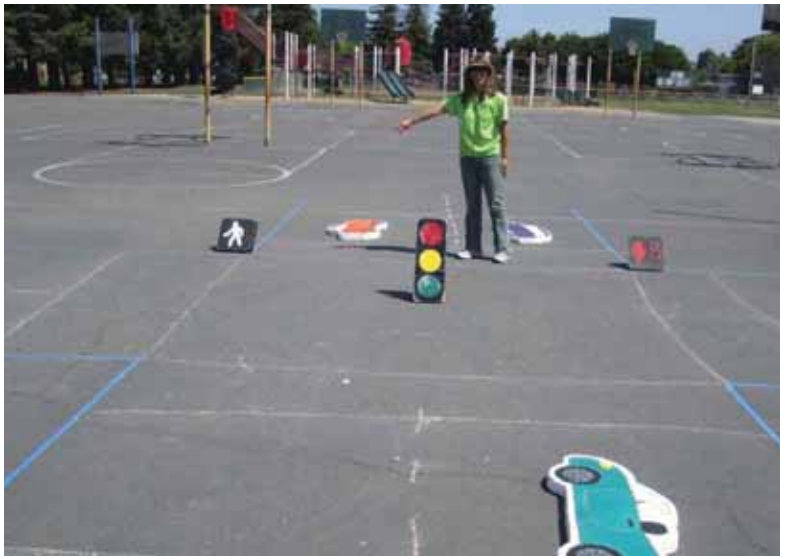
Walking Audits

Walking audits are a tool that can be very useful to educate users about the needs on a particular street. Walking audits can be completed individually or as a group. The auditor(s) should use a checklist to note the overall quality of their travel on the street and identify gaps in the pedestrian network, safety or accessibility concerns, areas needing repair, and other opportunities to enhance the corridor to make it more comfortable for all users.

Vehicle Code

Pedestrians and bicyclists should be educated about vehicle codes related to their transportation mode. The Traffic Safe Communities Network in Santa Clara County has produced a guidebook for this purposes that can be found at: http://www.ots.ca.gov/pdf/BicyclePedSafetyBrochure.pdf.

The guide includes references to the California Vehicle Codes that establish safe practices for bicycling and walking. This is a tool that can be used by local jurisdictions to ensure that those walking and bicycling for transportation are informed about their rights and responsibilities.



ENCOURAGEMENT

Communities can encourage the development of complete streets projects by demonstrating the need for and benefits of active transportation and transit. Some activities may include conducting organized community bike rides, walking events and providing transit access to community gatherings. A community may also focus on breaking down barriers to active transportation and transit by producing user-friendly bike maps and transit schedules, providing commuting incentives and bike share programs and offering discounted transit passes. The Monterey Bay area has several events and programs aimed at encouraging walking and biking, including the following:

- Bike Week , including Bike to Work & Bike to School Events
- Walk to School Week
- Condor Classic
- Sea Otter Classic
- Community bicycle rides

In addition, an integral partner in promoting and implementing Complete Street efforts are colleges and universities within the Monterey bay Area. Local jurisdictions may work to share resources and leverage opportunities to educate the public and leadership on the value and implementation of complete streets within the region.

Elementary and high schools are also taking an active role in Complete Streets by helping promote more active lifestyles, such, as encouraging children to walk or bike to school. Bike to School Day and Walk to School Day educational campaigns have been tremendously successful in the region as Complete Streets make it easier for students to get around by all modes of transportation, providing more choices for those who want them. The Transportation Agency for Monterey County offers a Bike to School Day 2012 Resource Guide online at tamcmonterey.org.

ENFORCEMENT

Enforcement emphasizes the complete streets connection between the law enforcement community and project planners and designers. Often times, communities have an established relationship with a liaison within the local police department or California Highway Patrol to monitor and promote safe bicycling and walking. This relationship builds on local efforts to prevent bicycle theft, enforcement campaigns to encourage cyclists and motorists to share the road safely, and understand the California Vehicle Codes addressing safe bicycling and walking.

Enforcement agencies should be encouraged to understand the concepts of Complete Streets planning and design, and work closely with planners, engineers, and policymakers to ensure that users are comfortable when travelling. The rights of both vehicles and non-motorized transportation should be understood by all users, as well as planners and engineers, to ensure that Complete Streets projects can be appropriately enforced.

Code enforcement is another tool that can be used to support the maintenance of safe sidewalks or other maintenance of the traveled way. These codes should be considered by planners and designers when implementing Complete Streets projects.

Chapter 9: Talking About Complete Streets

The accepted definition of complete streets is: roadways designed to meet the needs of all users regardless of mode choice, age or ability. However, the meaning of complete street may vary by community, application or individual. This chapter is intended to serve as a resource for professionals, decision makers and the public who are interested in discussing and educating others about complete streets concepts.

SIMILAR CONCEPTS

The complete streets terminology is similar to terms such as "livable streets", "context sensitive solution", "sustainable transportation", and "transit oriented developed". All of these concepts give greater emphasis to alternatives to driving alone than traditional transportation planning concepts which primarily focused on vehicle transportation. Each of these newer terms reveal an approach to planning and designing transportation facilities which takes into consideration transit, bicycling and walking and the demands and desires of each community. Unlike the other terms, "complete streets" is the most encompassing phrase associated with this approach and conveys the need for streets to have all the necessary and appropriate parts to achieve its objective, as opposed other concepts that place greater emphasis on one particular transportation design such as transit accommodations, or pedestrian scale facilities.

COMMUNITY VALUE

In order to facilitate dialogue about complete streets between various stakeholders, this section provides some suggestions for talking about complete streets in way that resonates with roadway users not familiar with in transportation planning terminology. Groups that may be engaged in complete streets discussion include, but are not limited to policy makers, advocacy groups, schools, law enforcement, neighborhood associations, and business groups.

When encouraging dialogue about complete streets amongst with stakeholders, begin with a common understanding of complete streets. See Chapter 1: What are Complete Streets, Why Complete Streets? When talking about the benefits of complete streets, consider the following:

What does improved access mean?

- Increasing people's ability to meet most of their daily needs (ex. shopping, school, services, work) without having to drive.
- Improving the convenience of walk, bicycle and transit by designing facilities that provide shorter routes that are not obstructed and reduce weight times at intersections.
- Improving the comfort of walk, bicycle, and transit by designing facilities that are buffered from high traffic volumes or speeds, reducing pedestrian exposure to traffic at intersections and providing lighting and shade.

What does economic benefit mean?

- Reinvesting money in the local economy by reducing fuel consumption and vehicle related expenses.
- Reducing household cost by not spending it on fuel and other vehicle-related expenses
- See Appendix J, Economic Framework for Evaluating Complete Streets.

Why care about safety?

- Traffic crash injuries can result in severe and/or permanent health damage, affecting quality of life and at a great cost to individuals and societies.
- Bicycle and pedestrians are disproportionately negatively impacted by collisions.
- Increasing the number of people of walking, biking, and public transportation use result in lower rates of chronic disease (including cancer, diabetes, stroke, and heart disease) and mortality.
- Slower vehicle speeds have a positive correlation with improved safety for all modes.

Why is equity important?

- People experiencing poverty or language barriers, people of color, older adults, youth, and people with disabilities tend to experience a disproportionately small share of benefits from transportation investments, particularly because traditional transportation investment prioritize vehicles. These groups are overrepresented in households without access to a vehicle.
- Other elements of the transportation system, such as lack of ADA compliance or safe street crossings also create extra barriers that may prevent these groups from experiencing the full benefit of transportation investments

How are the environment and complete streets related?

- The street is a system: a transportation system, an ecosystem and a system of social and economic interactions.
- Improve habitat in right-of-ways.
- Increase tree canopy in rights-of-way which can increase habitat and reduce the urban heat island affect.
- Treat storm water volumes and flow to improve water quality and reduce run off.
- Avoid impacts to natural areas.
- Reduce greenhouse gas emission and fossil fuel consumption by reducing the number and length of vehicle trips and improving the flow of traffic (and minimizing motor idling).

ADDRESSING SPECIFIC USER GROUPS

Consult the following fact sheets developed by Smart Growth American when addressing specific user groups or topics. Go to www.smartgrowthamerica.com to download pdf or view web versions of fact sheets. Smart Growth American offers the following fact sheets:

Children
People with Disabilities
Older Adults
Health
Public Transportation
Climate Change

Economic Revitalization
Gas Prices
Safety
Lower Transportation Costs
Create Livable Communities
Equity

Ease Traffic Woes
Costs of Complete Streets
Change Travel Patterns
Complete and Green Streets
Networks of Complete Streets
Rural Areas and Small Towns

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APPENDIX A: Complete Streets Needs Assessment Matrix

COMPLETE STREETS & CORRIDORS																								
	LIMITS		MOBILITY CONTEXT																	LAND USE CONTEXT	PLANNING			
CT CORRIDOR/STREET BY PRIORITY AREA	1	2	DISTANCE (MI)	Daily Traffic	Functional Classification	# of lanes	Speed Limit	Signalized Intersections	Four Way Stop	Signal Synchronization	Block Length (ft)	Poor Pavement Condition	On-Street Parking (type)	Traffic Calming Devices	Truck Route	Quality Transit Corridor (2035)	Bike Route	SRTS	Wayfinding Signage/ Traveler Information	PLACE TYPES SERVED	COMPLETE STREET TYPE	ISSUES	RECOMMENDED SOLUTIONS	COMMENTS
Pleasure Point																								

PEDESTRIAN NEED/FACILITIES																										
			CONNECTIVITY & COMFORT			CROSSINGS															SAFETY	GAPS	PLANNING			
STREET	Limit 1	Limit 2	Sidewalks	Paved Sidewalk Width	Buffer	Cross Street	Signalized Intersections	Audible Countdowns	Walk Phase Timing	Uncontrolled Crossing	Crossing Distance	# Lanes	Median	Crosswalk Signage	Crosswalk Visibility	School Crossing	ADA Ramps	Detectable Warning	Curb Extensions	Lighting	Collision History	Sidewalk Gaps	Proposed Facilities	ISSUES	RECOMMENDED SOLUTIONS	Comments
																									New sidewalk on southside of [illegible] New connections between [illegible]	
																							Sidewalk buffer needed	Overall pedestrian environment could be more attractive		

BICYCLE NEED/FACILITIES

			CONNECTIVITY & COMFORT				CROSSINGS		SAFETY	GAPS	PLANNING			
Street	Limit 1	Limit 2	Bicycle Facility Type	Bicycle Lane Width	Bicycle Parking	Route Signage	Bicycle Detection (Signalized Intersections)	Uncontrolled Crossings (Class I)	Collision History	Bikeway Gaps	Proposed Facilities	ISSUES	RECOMMENDED SOLUTIONS	COMMENTS

TRANSIT NEED/FACILITIES

	CONNECTIVITY & COMFORT											GAPS	PLANNING				
	STOPS & STATIONS							SERVICE									
Street	Cross Street	ADA Access	Bicycle Racks	Distance to Marked Pedestrian Crossing	Shelter	Lighting	Amenities	Routes	Peak Hour Headways	Existing transit Capacity (along corridor)	Link to Key Destinations	Transit Travel Speeds	Transit Gaps	Proposed Facilities	ISSUES	RECOMMENDED SOLUTIONS	COMMENTS

APPENDIX B: Sample Goals & Policies

Communities may include the entire sample complete streets policy in the general plan circulation element as a complete policy package, or may selectively adopt specific objectives or policies. Communities are encouraged to tailor the policy and implementation measures to local needs, concerns, and conditions, and to identify the local agency or department responsible for implementation. Most circulation elements already include goals, objectives, and policies addressing the needs of motorists and movers of commercial goods, so the package below focuses on other types of users. In tailoring the package for your jurisdiction you may wish to include the entire package as a separate policy set with cross-references to other pre-existing provisions of the circulation element, or you may choose to use some or all of the goals, objectives, and policies below for amendments to existing provisions.

Goal C1: Provide streets that are safe, comfortable, and convenient routes for walking, bicycling, and public transportation to increase use of these modes of transportation, enable active travel as part of daily activities

Objective C1.1: Integrate Complete Streets infrastructure and design features into street design and construction to create safe and inviting environments for people to walk, bicycle, and use public transportation.
"The City will promote context-sensitive streets (i.e., by designing transportation projects within the context of adjacent land uses to improve safety and neighborhood livability, promote transportation choices and meet land use objectives), consistent with the City's Urban Street Design Guidelines." – City of Charlotte

Implementing Policies:

C1.1.1. In planning, designing, and constructing Complete Streets:
o Reference existing planning documents such as the Monterey Bay Area Complete Streets Guidebook and Checklist, local bicycle and pedestrian master plans, specific plans, transit master plans and neighborhood traffic calming plans.
o Include infrastructure that promotes a safe means of travel for all users along the right of way, such as sidewalks, shared use paths, bicycle lanes, and paved shoulders.
o Include infrastructure that facilitates safe crossing of the right of way, such as accessible curb ramps, crosswalks, refuge islands, and pedestrian signals; such infrastructure must meet the needs of people with different types of disabilities and people of different ages.

o Ensure that sidewalks, crosswalks, public transportation stops and facilities, and other aspects of the transportation right of way are compliant with the Americans with Disabilities Act and meet the needs of people with different types of disabilities, including mobility impairments, vision impairments, hearing impairments, and others. Ensure that the [Jurisdiction] ADA Transition Plan includes a prioritization method for enhancements and revise if necessary.

o Prioritize incorporation of street design features and techniques that promote safe and comfortable travel by pedestrians, bicyclists, and users of public transportation, such as traffic calming circles, additional traffic calming mechanisms, narrow vehicle lanes, raised medians, dedicated transit lanes, transit priority signalization, transit bulb outs, road diets, high street connectivity, and physical buffers and separations between vehicular traffic and other users.

o Ensure use of additional features that improve the comfort and safety of users:

Provide pedestrian-oriented signs, pedestrian-scale lighting, benches and other street furniture, bicycle parking facilities, and comfortable and attractive public transportation stops and facilities.

Encourage street trees, landscaping, and planting strips, including native plants where possible, in order to buffer traffic noise and protect and shade pedestrians and bicyclists.

Reduce surface water runoff by reducing the amount of impervious surfaces on the streets.

C1.1.2. In all street projects, include infrastructure that improves transportation options for pedestrians, bicyclists, and users of public transportation of all ages and abilities.

COMMENT: This provision, which requires that all street projects on new or existing streets create complete streets, is a fundamental component of a commitment to complete streets.

o Ensure that this infrastructure is included in planning, design, approval, construction, operations, and maintenance phases of street projects.
o Incorporate this infrastructure into all construction, reconstruction, retrofit, maintenance, alteration, and repair of streets, bridges, and other portions of the transportation network.
o Incorporate multimodal improvements into pavement resurfacing, restriping, and signalization operations where the safety and convenience of users can be improved within the scope of the work.
o Develop systems to implement and monitor incorporation of such infrastructure into construction and reconstruction of private streets.
o Allow exclusion of such infrastructure from street projects only upon written approval by [the City Manager or a senior manager of an appropriate agency, such as the Department of Public Works], and only where documentation and supporting data indicate one of the following bases for the exemption: (a) use by a specific category of users is prohibited by law; (b) the cost would be excessively disproportionate to the need or probable future use over the long term; (c) there is an absence of current and future need; or (d) significant adverse impacts outweigh the positive effects of the infrastructure.

> COMMENTS: This provision provides crucial accountability in the exceptions process by requiring documentation, a transparent decision-making process, and written approval by a specified official. Other exceptions can also be included in this list.
>
> In evaluating whether the conditions of (b) and (c) are met, a jurisdiction may need to conduct latent demand studies, which measure the potential level of use by bicyclists, pedestrians, and others should appropriate infrastructure be provided. Such projections should be based on demographic, school, employment, and public transportation route data, not on extrapolations from current low mode use.

o Provide an annual report to the [City Council/Board of Supervisors] listing the street projects undertaken in the past year and briefly summarizing the complete streets infrastructure used in those projects and, if applicable, the basis for excluding complete streets infrastructure from those projects.

C1.1.3. Develop policies and tools to improve [Jurisdiction]'s Complete Streets practices:
o Develop a pedestrian crossings policy, addressing matters such as where to place crosswalks and when to use enhanced crossing treatments.
o Develop policies to improve the safety of crossings and travel in the vicinity of schools and parks.
o Consider developing a transportation demand management/commuter benefits ordinance to encourage residents and employees to walk, bicycle, use public transportation, or carpool.
o Develop a checklist for [Jurisdiction]'s development and redevelopment projects, to ensure the inclusion of infrastructure providing for safe travel for all users and enhance project outcomes and community impact.
o As feasible, [Jurisdiction] shall incorporate Complete Streets infrastructure into existing public [and private] streets to improve the safety and convenience of Users, construct and enhance the transportation network for each category of Users, and create employment.

C1.1.4. Encourage transit-oriented development that provides public transportation in close proximity to employment, housing, schools, retailers, and other services and amenities.

C1.1.5. Change transportation investment criteria to ensure that existing transportation funds are available for Complete Streets infrastructure.

C1.1.6. Identify additional funding streams and implementation strategies to retrofit existing streets to include Complete Streets infrastructure.

Objective C1.2: Make Complete Streets practices a routine part of [Jurisdiction]'s everyday operations.

Implementing Policies:

C1.2.1. As necessary, restructure and revise the zoning, subdivision, and [insert by name references to other relevant chapters of the city or county code such as "Streets and Sidewalks" or "Motor Vehicles and Traffic"] codes, and other plans, laws, procedures, rules, regulations, guidelines, programs, templates, and design manuals, including [insert references to all other key documents by name], in order to integrate, accommodate, and balance the needs of all users in all street projects on public [and private] streets.

C1.2.2. Develop or revise street standards and design manuals, including cross-section templates and design treatment details, to ensure that standards support and do not impede Complete Streets; coordinate with related policy documents [such as Pedestrian/Bicycle Plans, insert other relevant documents].

Assess current requirements with regard to road width and turning radii in order to determine the narrowest vehicle lane width and tightest corner radii that safely balance other needs; adjust design guidelines and templates to reflect ideal widths and radii.

C1.2.3. Make training available to planning and public works personnel and consultants on the importance of Complete Streets and on implementation and integration of multimodal infrastructure and techniques.

C1.2.4. Encourage coordination among agencies and departments to develop joint prioritization, capital planning and programming, and implementation of street improvement projects and programs.

C1.2.5. Encourage targeted outreach and public participation in community decisions concerning street design and use.

C1.2.6. Establish performance standards with measurable outcomes to assess safety, functionality, and actual use by each category of users; include goals such as:

- By [2020], facilitate a transportation mode shift so that [20] % of trips occur by bicycling or walking.
- By [2015], reduce the number of injuries and fatalities to bicyclists and pedestrians by [__]%.
- Reduce per capita vehicle miles traveled by [__]% by [insert year].
- Provide a high proportion of streets ([__]%) with sidewalks, low design speeds, tree canopy, and street furnishings.
- Increase the miles of bicycle lanes and other bikeways by [__]% by [insert year].
- Increase the miles of sidewalks by [__]% by [insert year]

COMMENT: Other standards could include user satisfaction, percentage reductions in greenhouse gas emissions, and reduction in gaps in the sidewalk network.

C1.2.7. Establish measures of effectiveness for the performance of the circulation system and the effects of new projects on the system, taking into account all modes of transportation including walking, bicycling, and public transportation. Ensure that measures address relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and public transportation; use these measures for planning and in lieu of automobile level of service standards for environmental review.

C1.2.8. Collect baseline data and regularly gather follow-up data in order to assess impact of policies.

- Collect data for each category of users regarding the safety, functionality, and actual use of the neighborhoods and areas within [Jurisdiction].
- Track public transportation ridership numbers.
- Track performance standards and goals.
- Track other performance measures such as number of new curb ramps and new street trees or plantings.
- Require major employers to monitor how employees commute to work.
- All initial planning and design studies, health impact assessments, environmental reviews, and other project reviews for projects requiring funding or approval by [Jurisdiction] shall: (1) evaluate the effect of the proposed project on safe, comfortable, and convenient travel by bicyclists, children, persons with disabilities, pedestrians, users of public transportation, seniors, youth, and families, and (2) identify measures to mitigate any adverse impacts on such travel that are identified.

Objective C1.3: Plan and develop a comprehensive and convenient bicycle and pedestrian transportation network.

COMMENTS: Jurisdictions with existing bicycle or pedestrian plans may have already addressed the policy/action items under this objective. In such jurisdictions, it is not necessary to restate these policy and action items verbatim. Such plans should be reviewed, and, if necessary, revised to complement the complete streets approach. If existing plans address this objective sufficiently, a jurisdiction may incorporate its bicycle and pedestrian plans with language such as: "The provisions set forth in the [Pedestrian/Bicycle Plan] are incorporated into this plan." If this approach is used, be sure that the incorporated plan is internally consistent with the remainder of the general plan.

For jurisdictions that have not developed a detailed bicycle or pedestrian plan, the policies and actions in this section provide a good way to begin addressing those needs in an integrated fashion.

Implementing Policies:

C1.3.1. Develop a long-term plan for a bicycle and pedestrian network that meets the needs of users, including bicyclists, children, persons with disabilities, pedestrians, users of public transportation, seniors, youth, and families.

- Conduct a demand analysis for each category of user, mapping locations that are already oriented to each mode of travel and type of user and those for which there is latent demand.
- For each category of user, map out a preferred transportation network with routes that will enable safe, interconnected, direct, continuous, and efficient travel from each major origination area to each major destination area.
- Encourage public participation in community decisions concerning the demand analysis, preferred route network, and street design and use to ensure that such decisions: (a) result in streets that meet the needs of all users, and (b) are responsive to needs of individuals and groups that traditionally have not participated in public infrastructure design. Include bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, seniors, youth, families, low-income communities, communities of color, and other distinct social groups, and their advocates. Establish ongoing advisory committees and public feedback mechanisms.
- Identify and prioritize necessary changes in order to implement the preferred network; prioritize neighborhoods with the greatest need and projects that significantly alleviate economic, social, racial, or ethnic inequities.
- Ensure that the networks provide ready access to healthy sources of nutrition.
- Explore the use of non-standard locations and connections for bicycle, pedestrian, and public transportation facilities, such as easements, restored stream corridors, and railroad rights-of way.

C1.3.2. Evaluate timeline and funding of the plan.

- Assess the degree to which implementation of the plan can be coordinated with planned reconstruction of streets, development projects, utility projects, and other existing funding streams.
- Develop funding strategies for addressing additional needs; actively pursue funding from state, federal, and other sources.
- Explore imposing development impact fees and dedication requirements on new development to create paths and other Complete Streets infrastructure.

C1.3.3. In collaboration with [appropriate local agencies and regional transportation planning agencies/metropolitan planning organizations], integrate bicycle, pedestrian, and public transportation facility planning into regional and local transportation planning programs and agencies to encourage connectivity between jurisdictions.

C1.3.4. Develop programs to encourage bicycle use, such as enacting indoor bicycle parking policies to encourage bicycle commuting, or testing innovative bicycle facility design.

Objective C1.4: Promote safety of bicyclists, pedestrians, and public transportation.

> COMMENT: As noted for the previous objective, jurisdictions with existing bicycle or pedestrian plans may also choose to omit these items if already addressed in those plans and instead reference those plans.

Implementing Policies:

C1.4.1. Identify physical improvements that would make bicycle and pedestrian travel safer along current major bicycling and walking routes and the proposed future network, prioritizing routes to and from schools.

C1.4.2. Identify safety improvements to pedestrian and bicycle routes used to access public transportation stops; collaborate with [public and private transit agencies operating within Jurisdiction] to relocate stops where advisable.

C1.4.3. Identify intersections and other locations where collisions have occurred or that present safety challenges for pedestrians, bicyclists, or other users; consider gathering additional data through methods such as walkability/ bikeability audits; analyze data; and develop solutions to safety issues.

C1.4.4. Prioritize modifications to the identified locations and identify funding streams and implementation strategies, including which features can be constructed as part of routine street projects.

C1.4.5. Collaborate with schools, senior centers, advocacy groups, and public safety departments [insert additional specific departments as appropriate] to provide community education about safe travel for pedestrians, bicyclists, users of public transportation, and others.

C1.4.6. Use crime prevention through environmental design strategies to increase safety for pedestrians, bicyclists, and other users.

C1.4.7. As necessary, public safety departments should engage in additional enforcement actions in strategic locations.

Objective C1.5: Make public transportation an interconnected part of the transportation network.

Implementing Policies:

C1.5.1. Partner with [public and private transit agencies operating within Jurisdiction] to enhance and expand public transportation services and infrastructure throughout [Jurisdiction] and the surrounding region; encourage the development of a public transportation system that increases personal mobility and travel choices, conserves energy resources, preserves air quality, and fosters economic growth.

C1.5.2. Work jointly with [public and private transit agencies operating within Jurisdiction] to provide destinations and activities that can be reached by public transportation and are of interest to public transportation-dependent populations, including youth, seniors, and persons with disabilities.

C1.5.3. Collaborate with [public and private transit agencies operating within Jurisdiction] to incorporate infrastructure to assist users in employing multiple means of transportation in a single trip in order to increase transportation access and flexibility; examples include, but are not limited to, provisions for bicycle access on public transportation, secure bicycle racks at transit stops, access via public transportation to trails and recreational locations, and so on.

C1.5.4. Ensure safe and accessible pedestrian routes to public transportation stops; relocate stops if safe routes are not feasible at current location.

C1.5.5. Work with [public and private transit agencies operating within Jurisdiction] to ensure that public transportation facilities and vehicles are fully accessible to persons with disabilities.

C1.5.6. Explore working with [public and private transit agencies operating within Jurisdiction] to provide travel training programs for seniors and persons with disabilities, and awareness training for vehicle operators.

C1.5.7. Explore creation of public transportation priority lanes to improve travel time.

C1.5.8. Partner with [public and private transit agencies operating within Jurisdiction] to collect data and establish performance standards related to these steps.

i. Note that many types of accommodations for people with disabilities are mandated by federal law under the Americans with Disabilities Act.

ii. A road diet is a transportation technique in which the number or width of lanes dedicated to motor vehicle traffic is decreased, often by combining the two central lanes into a single two-way turn lane, in order to create additional space within the right of way for features such as bicycle lanes, sidewalks, or buffer zones.

iii. Connectivity describes the directness of routes and density of connections in a street network. A street network with high connectivity has many short links, numerous intersections, and few dead-end streets. As connectivity increases, travel distances decrease and route options increase, allowing more direct travel between destinations.

iv. Crime prevention through environmental design (CPTED) involves designing the built environment to deter criminal behavior. CPTED aims to create environments that discourage the commission of crimes by influencing offenders to not commit a contemplated crime, usually due to increased fear of detection.

APPENDIX C: Multimodal Network Quality Analysis

MULTIMODAL NETWORK QUALITY ANALYSIS

Some communities are not pursing new Multimodal Level of Service measures as defined in the Highway Capacity manual because collecting the new data required can be resource intensive. Instead, some communities are choosing more qualitative measures of multimodal effectiveness. The Santa Cruz County Regional Transportation Commission rested tested a Multimodal Network Quality of Service measure to evaluate how transportation investment affected the quality and convenience of bicycle, and pedestrian trips. The methodology used was developed as a cooperative effort with the Sustainable Transportation Council, the agency responsible for developing the Sustainable Transportation Analysis and Rating System. The analysis methods used are based on the multimodal network quality of service measures applied in Burien, Washington.

PEDESTRIAN SYSTEM SCORE METHODOLOGY

Pedestrian network quality standards utilize scoring criteria for sidewalks/paths. The criteria focus on the factors that make a good pedestrian environment based on the character of the street. Therefore there are different thresholds for arterials/collectors and local roads. The service score designations are show as green, yellow, and red. A green score is defined as a high quality pedestrian route. A yellow score indicates acceptable conditions, while a red score would not be attractive to many potential pedestrians (Table 1).

Table 1. Pedestrian MMNQ Score

Network Score	Along Arterials and Collectors	Local Roads
	6′ Sidewalk and 3′ buffer or tree wells on both sides	Sidewalks on both sides
	Sidewalk on both sides	Sidewalk on one side
	No Sidewalk on one or both sides	No Sidewalk

Table 2. Bicycle MMNQ Score

The scoring system for the bicycle network depends on the type of bicycle facility provided: bike route, bike lane, or shared use trail. As shown in Table 2, roadway classification and speed are intended to guide the determination of which bicycle facility type is most appropriate for a given roadway. Unlike with the pedestrian MMNQ analysis, bicycle MMNQ analysis is not performed on every street. Only the streets identified as having a facility are included in this analysis, since some streets may not be appropriate for cycling.

DATA REQUIREMENTS

Data related to roadway functional class, sidewalk width, presence of buffer, bicycle facility type (route, lane, path) and roadway speed were all taken into account when evaluating the MMNQ score.

APPENDIX D: Complete Streets Action Plan Template

NAME: [Jurisdiction] DATE:

COMPLETE STREET ACTION PLAN				
IMPLEMENTATION ACTION*	TIMELINE			LEAD DEPARTMENT
	Short	Long	Ongoing	
General Plan Vision				
General Plan Policy & Goals				
Transportation Plan Policy & Goals				
Performance Measures				
Planning Guidance Manual				
Street Design Standards & Specifications				
Transportation Analysis/ Impact Guidelines				
Maintenance Manuals				
Funding Guidelines				
Training Standards				

*Titles and actions may vary by jurisdiction. This list is meant to serve as an example only.

APPENDIX E: Legal Standing of Street Manual

Note: The discussion included in this Appendix was adopted from the Los Angeles County Model Design Manual for Living Streets, 2011.

Local jurisdictions generally follow some established standards for designing streets. Much confusion exists as to what they must follow, what is merely guidance, when they can adopt their own standards, and when they can use designs that differ from existing standards. The text below untangles the myriad of accepted design documents. It is critical for cities and counties to understand how adopting this manual meshes with other standards and guides. The most important of those standards and guides are the following:

- The American Association of State Highway and Transportation Officials' (AASHTO) A Policy on Geometric Design of Highways and Streets (the "Green Book")
- The California Highway Design Manual
- Local manuals or street design standards
- The Manual on Uniform Traffic Control Devices (MUTCD)
- The California Fire Code
- The California Streets and Highways Code and California Vehicle Code

A discussion of the federal-aid roadway classification system helps to frame the requirements of each of these documents. Local governments that wish to use certain federal funds must use a street classification system based on arterials, collectors, and local streets. These funds are for streets and roads that are on the federal-aid system. Only arterials and certain collector streets are on this system. In Chapter 3, "Street Networks and Classifications," this manual recommends an alternative system. To maintain access to these federal funds, local jurisdictions can use both systems. The federal aid system encourages cities to designate more of these larger streets, and to concentrate modifications along these larger streets. Nevertheless, for the purposes of understanding design standards and guides, this is the existing system of street classification for federal funding.

AASHTO GREEN BOOK

The Green Book provides guidance for designing geometric alignment, street width, lane width, shoulder width, medians, and other street features. The Green Book applies only to streets and roads that are part of the National Highway System (NHS). These are Interstate Freeways, principal routes connecting to them, and roads important to strategic defense. These streets and roads comprise about 14 percent of all federal-aid roadway miles in California, and about 4 percent of all roadway miles (Urgo, J., Wilensky, M., and Weissman, S., Moving Beyond Prevailing Street Design Standards, The Center for Law, Energy, and the Environment at the Berkeley Law School, 2010). Although the Green Book's application is limited to these streets, some cities apply its recommendations to all streets.

Further, the Green Book provides guidance that cities often unnecessarily treat as standards. The Green Book encourages flexibility in design within certain parameters, as evidenced by the AASHTO publication A Guide to Achieving Flexibility in Highway Design. For example, 10-foot lanes, which cities often shun out of concerns of deviating from standards, are well within AASHTO guidelines.

CALIFORNIA HIGHWAY DESIGN MANUAL

The California Highway Design Manual (HDM) applies only to State Highways and bikeways within local jurisdictions. If cities deviate from the minimum widths and geometric criteria for bikeways spelled out in Chapter 1000 they are advised to follow the exemption process or experimental process as applicable. The HDM does not establish legal standards for designing local streets. However, like the Green Book, some cities apply HDM guidance to all streets.

As of the writing of this manual, Caltrans is in the process of revising the HDM to meet Caltrans' commitment to Complete Streets in Deputy Directive 64-R1.

LOCAL STREET MANUALS

Local jurisdictions follow the Green Book, the HDM, or design guidance from organizations such as the Institute of Transportation Engineers (ITE) out of liability concerns. Neither federal nor state law mandates adoption or adherence to these guides. However, municipalities often adopt them to protect themselves from lawsuits. Further, many don't have the resources to develop their own standards and practices, so they adopt those in the Green Book, the HDM, or another previously adopted manual, or those of other cities,

A question often posed by plaintiffs' attorneys in traffic-related crashes is, "Did they follow established or prevailing designs, standards, and guidance?" If the attorneys can prove that the local jurisdiction deviated from these, they enhance their chances of winning a judgment against the jurisdiction. Therefore, protection from liability is paramount.

Cities are authorized to adopt or modify their own practices, standards, and guidelines that may reflect differences from the Green Book and the HDM. If these changes generally fall within the range of acceptable practice allowed by nationally recognized design standards, the adopting agencies are protected from liability to the same extent they would be if they applied the Green Book or the HDM. Most changes to streets discussed in this manual fall within the range of the guidelines or recommended practices of nationally recognized organizations such as AASHTO, ITE, Urban Land Institute (ULI), and Congress for the New Urbanism (CNU).

Working within previously established regional guidelines generally should result in a design that is protected from liability. The Green Book and the HDM are silent on many design features, and do not consider the needs within unique contexts. In these cases, cities can develop their own guidelines and standards and incorporate international equivalents or practices from other cities. Cities may adopt the guidance in this manual, which compiles best practices in creating living streets. This manual could, in effect, become the legal prevailing standard by which liability would be assessed.

Cities can also utilize designs that fall outside the ranges specified by nationally accepted guidelines and standards, but these practices can potentially increase liability unless done with great care. When agencies elect to utilize designs that fall outside the guidelines of nationally recognized documents, they need to use additional care to ensure they do not expose themselves to liability.

To minimize liability, local jurisdictions either need to adopt their own standards (which should be based on rationale or evidence of reasonableness), or they can conduct an experimental project. When conducting an experimental project, agencies need to show that they are using the best information that is reasonably available to them at the time, document why they are doing what they are doing, use a logical process, and monitor the results and modify accordingly. This is because the agency may be required in the future to show that its design is reasonable, and the agency may not be able to cite a nationally published guideline or recommendation to support its local action. Often, these experimental projects are conducted because the design engineer has reason to believe that the new or evolved design will be safer or otherwise more effective for some purpose than if the project had prevailing standards and guides been used. These reasons or rationales are based on engineering judgment and should be documented to further minimize exposure to liability.

Unless otherwise noted, everything in this manual can readily be adopted and incorporated without fear of increased liability. In addition, this manual carries the credibility of the many top-level experts who produced it.

In some cases, AASHTO design guidelines may not provide information on innovative or experimental treatments that have shown great promise in early experiments and applications. Since AASHTO is a design guide, agencies have some flexibility to use designs that fall outside the boundaries of the AASHTO guide. Deviation from the range of designs provided in the AASHTO guide requires agencies to use greater care and diligence to document their justification, precautions, and determination to deviate from the guidelines. In California, the precautions to establish

"design immunity" should be followed. These include consideration/analysis and approval by a registered engineer qualified to sign the plans, and certification by the city council or reviewing body clearly indicating the agency's intent. This process documents the engineering judgment that went into the design.

Many cities today use various traffic calming measures to slow traffic and to improve neighborhood livability. Traffic calming measures are not traffic control devices and therefore the state exercises no jurisdiction over them.

Local agencies may currently use many other reports and documents to guide their roadway design and transportation planning. Other documents provide valuable procedure and reference data, but they do not set standards. They can be referred to and defined as standards by local agencies, but the local authority often has the flexibility to selectively endorse, modify, or define how these informational documents can be used or incorporated into its engineering and planning processes. Also, newer versions of these documents have additional information that can conflict with the local historical approach.

The expected results of the design approaches presented in this document are generally intended to improve safety and/or livability. As a result, implementation of these features should generally reduce liability and lawsuits. There is no way to prevent all collisions or lawsuits, but adopting policies, guidelines, and standards and doing experimental projects with reasonable precautions is a defensible approach.

MUTCD

The MUTCD provides standards and guidance for the application of all allowed traffic control devices including roadway markings, traffic signs, and signals. The Federal Highway Administration oversees application of the MUTCD. California cities must follow the California MUTCD, which generally mirrors the federal MUTCD, but not always.

The rules and requirements for the use of traffic control devices are different than for street design criteria. Local agencies have limited flexibility to deviate from the provisions of the California MUTCD in the use of traffic control devices due to the relationship between the MUTCD and state law. The California MUTCD does provide flexibility within its general provisions for items such as application of standard traffic control devices, use of custom signs for unique situations, traffic sign sizes, and sign placement specifics. In contrast, agencies do not generally have the flexibility to

develop signs that are similar in purpose to signs within the manual while using different colors, shapes, or legends. Agencies are also not authorized to establish traffic regulations that are not specifically allowed or are in conflict with state law. The provisions of the California MUTCD and related state laws thus make it difficult to deploy new traffic control devices in California. This can result in complications, especially in the areas of speed management, pedestrian crossings, and bikeway treatments.

The State of California and the Federal Highway Administration have procedures that allow local agencies to experiment with traffic control devices that are not included in the current MUTCD. Such demonstrations are not difficult to obtain from the Federal Highway Administration for testing of new devices, especially as they relate to pedestrian and bicycle facilities, but the requesting agency must agree to conduct adequate before-and-after studies, submit frequent reports on the performance of the experimental device, and remove the device if early results are not promising. The State process can be more difficult for obtaining approval. Federal approval must be obtained first. The California Traffic Control Devices Committee advises Caltrans, which must then agree to allow the experiment to be conducted and determine that the experiment is not in conflict with State law. Once approval is granted for the experiment, the city has been given some legal immunity from liability suits. Since the California Vehicle Code is written to mirror the MUTCD, provisions within the Vehicle Code may not allow the experiment to proceed. The need to modify the Vehicle Code can complicate obtaining State permission to experiment.

Both the federal and California MUTCD are amended through experimentation. After one or more experiments have shown benefit, the new devices are sometimes adopted into these manuals. In California, the Vehicle Code must be changed first if the Vehicle Code prevents use of the new device.

The federal MUTCD and California MUTCD establish warrants for the use of some traffic control devices. For example, stop signs, traffic signals, and flashing beacons are expected to meet minimum thresholds before application. These thresholds include such criteria as number of vehicles, number of pedestrians or other uses, distance to other devices, crash history, and more. These warrants often prevent local engineers from applying devices that, in their opinion, may improve safety. For example, trail and/or pedestrian crossings of busy, high-speed, wide arterial streets may need signals for user safety, but they may not meet the warrants.

As with street design guidelines, cities may establish their own warrants or modify those suggested by the California MUTCD to suit their context in order to use some traffic control devices. In special circumstances that deviate from their own warrants, cities need to document their reasons for the exception. For example, they may say the trail crossings or school crossings qualify for certain traffic control devices.

CALIFORNIA FIRE CODE

The California Fire Code can impede street design in limited circumstances. The state legislature has adopted the National Fire Code. The National Fire Code is written by a private agency and has no official legal standing unless states or municipalities adopt it, as has been done in California. The primary barrier caused by this adoption is the requirement for a minimum of 20 feet of an unobstructed clear path on streets. To comply with this, streets with on-street parking on both sides must be at least 34 feet wide. This prevents municipalities from designing "skinny" and "yield" streets to slow cars and to make the streets safer, less land consumptive and more hospitable to pedestrians and bicyclists.

There are ways around this requirement. If the local jurisdiction takes measures such as installing sprinklers and adding extra fire hydrants, or the adjacent buildings are built with fire retardant materials, it may be able to get the local fire department to agree to the exception.

Alternatively, the state legislature could repeal its adoption of the 20-foot clear path requirement due to

- The arbitrary and unresearched nature of the provision
- The safety problems associated with the resulting excessively wide streets
- The contradiction that this provision causes with properly researched guidelines and standards by ITE, CNU, AASHTO, and others for streets under 34 feet wide
- The potential liability that the 20-foot clear provision creates for designers who maintain, modify, or design streets that do not provide 20-foot clear paths

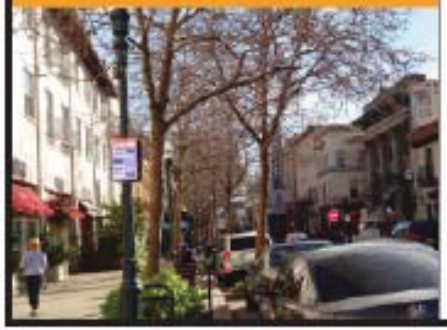
It is likely that the state legislature was unaware of these issues when it adopted the code in its entirety.

CALIFORNIA STREETS AND HIGHWAYS CODE AND CALIFORNIA VEHICLE CODE

The California Streets and Highways Code and the California Vehicle Code include laws that must be followed in street design. These are embodied in the California MUTCD. Changes to the Streets and Highways Code and the Vehicle Code may cause the California MUTCD to change.

APPENDIX F: Land Use Place Type Matrix

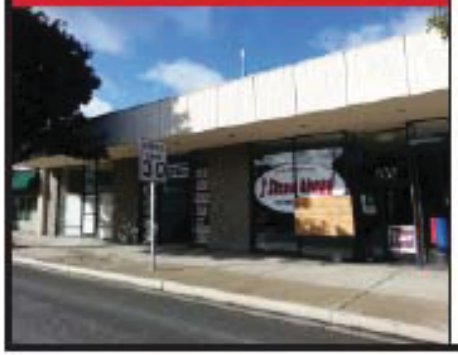
Urban Place Types	Intensity	General Characteristics		Examples
		Land Use	Transportation	
U-1 Urban Single-Family Residential 	Low to Medium Intensity (6 to 18 units per acre)	Single-family homes in close proximity to urban centers, typically laid out in a grid block pattern. Includes occasional duplexes, accessory units, and/or small multi-unit buildings. Compact development pattern with small lots, limited setbacks, and close proximity of structures.	Short blocks, grid street pattern, and proximity to destinations support non-motorized modes of transportation. Complete sidewalks and bicycle infrastructure typically present. Neighborhoods served by bus service with typical 30-minute headways; occasional proximity to multi-modal, regional, or intercity transit stations.	Chestnut Street, Santa Cruz Hellam Street, Monterey
U-2 Urban Multi-Family Residential 	Medium Intensity (12 to 30 units per acre)	Small and large apartment buildings, duplexes, accessory units, and limited single-family homes in close proximity to urban centers. Well-integrated into the surrounding urban fabric. One- to five-story residential buildings on small to medium lots with minimal setbacks from property lines and adjacent structures. Building entrances typically oriented to the street.	Short blocks, grid street pattern, land-use diversity, and proximity of destinations support non-motorized modes of transportation. Complete sidewalks and bicycle infrastructure typically present. Neighborhoods served by bus service with typical 30-minute headways; occasional proximity to multi-modal, regional or intercity transit stations.	Clay Street, Monterey 3rd Street, Santa Cruz
U-3 Urban Commercial 	Low Intensity (FAR 1.0 or less)	A high concentration of retail, service, and office uses organized in a grid block pattern. A pedestrian-friendly environment supported by active ground floor building frontages, entrances oriented to the street, parking located to the rear of lots, and buildings placed at or near property lines.	Short blocks, grid street pattern, land-use diversity, and proximity of destinations support non-motorized modes of transportation. Wide sidewalks support pedestrian circulation; motorists frequently park once to visit multiple destinations. Multiple bus routes typically with 30-minute headways; occasional presence of multi-modal, regional or intercity transit stations.	Downtown Santa Cruz Downtown Monterey

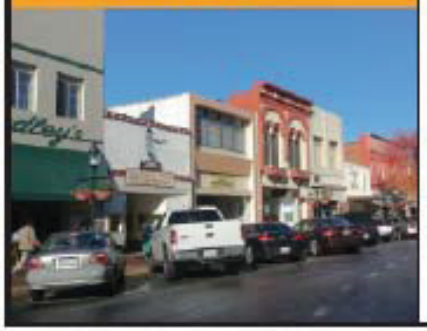
U-4 Urban Mixed Use 	Medium to High Intensity (FAR greater than 2.0)	Commercial, office, and residential uses in medium- to large-scale buildings. Vertical mixed use with residential or office above ground floor retail is typical. A pedestrian-friendly environment supported by active ground floor building frontages, entrances oriented to the street, parking located to the rear of lots, and buildings placed at or near property lines.	High-quality pedestrian infrastructure supports pedestrian circulation. Short blocks, grid street pattern, land-use diversity, and proximity of destinations support non-motorized modes of transportation; motorists frequently park once to visit multiple destinations. Transit typically includes modest to robust bus service, with headways averaging 15 to 30 minutes.	Downtown Santa Cruz Downtown Monterey

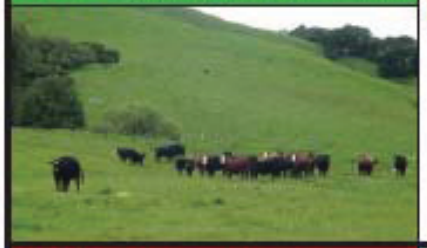
Suburban Place Types				
	Intensity	General Characteristics		Examples
		Land Use	Transportation	
S-1 Single-Family Residential 	Low Intensity (3 to 8 units per acre)	Single-family homes in self-contained residential neighborhoods. One- to two-story buildings typically on 5,000 to 15,000 square foot lots with moderate to large setbacks.	Automobile-oriented with resident-serving local, collector, and occasionally arterial streets. Limited local transit service and park-and-ride lots. Sidewalks and bicycle facilities for recreational use.	Cliffwood Heights neighborhood, Capitola Deer Flats neighborhood, Monterey Hillcrest neighborhood, Hollister
S-2 Multi-Family Residential 	Low to Medium Intensity (10 to 25 units per acre)	Duplexes, apartment complexes, subdivided houses, and mobile home parks in a generally low-density setting. Generally one- to four-story buildings on lots of varying sizes, often inward-oriented.	Automobile-oriented, most often found along collector or arterial streets. Limited local transit service and park-and-ride lots. Sidewalks and bicycle facilities for recreational use.	Bay Tree Apartments, Scotts Valley Capato Court, Hollister Footprints on the Bay, Monterey

S-3 Neighborhood Commercial 	Low Intensity (FAR less than 0.5)	Stand-alone retail buildings, strip malls, local-serving big-box stores, and smaller-scale offices or office parks. Usually one story buildings occupying low proportion of total lot area; offices in some instances are multi-story. Typically set far back from street.	Automobile-oriented with large parking areas and limited pedestrian access; usually found along arterial streets. Limited local or, in rare instances, intercity transit service. Sidewalks and bicycle facilities usually absent or limited.	Forest Ave-Fairway Shopping Center, Pacific Grove McCray-Meridian Shopping Center, Hollister Kings Village Shopping Center, Scotts Valley
S-4 Regional Commercial 	Low Intensity (FAR less than 0.5) or occasionally Moderate Intensity (FAR 1.0 to 2.0)	Large-scale retail or entertainment uses with a regional draw, including shopping malls, national-chain big-box stores, and tourist destinations. Most frequently occurs as large retail stores with substantial surrounding parking areas, but may also include more pedestrian-oriented or urban forms, especially for tourist destinations.	Automobile oriented, with most shoppers or visitors arriving by car; usually found along arterial streets or in core commercial areas. Transit access varies by setting, but in most instances includes only limited local or, in rare instances, intercity transit service. Except when located in core commercial areas, pedestrian and bicycle access and amenities tend to be limited or absent.	Capitola Mall Cannery Row, Monterey Airline Highway Shopping Center, Hollister Sand Dollar Shopping Center, Sand City
S-5 Employment Center 	Low to Medium Intensity (FAR from less than 1.0 to 2.0)	Office and research-oriented industrial land uses with medium to high employment densities. Buildings typically have low to moderate lot coverage; may have multiple stories or higher lot coverage. Suburban-style office parks, with multi-story office buildings and large parking lots are typical, as are stand-alone office buildings with surrounding parking.	Usually auto-oriented with large areas of surface parking, or occasionally parking garages. May in limited instances include internal pedestrian-oriented features. Transit service is reflective of surrounding place types, but is typically similar to other suburban place types, with limited service and frequency. Larger employment centers may feature private shuttle services.	Tres Pinos Road and Rancho Drive, Hollister Ryan Ranch Office Park, Monterey
S-6 Neighborhood Mixed Use 	Medium Intensity (25 or more units per acre; FAR usually 2.0 or greater)	Multi-family, mixed-use developments with ground-floor, neighborhood-serving retail or office uses. Usually found in newly built traditional neighborhood developments or as infill along existing commercial corridors. Buildings usually have high lot-coverage, with no setbacks and pedestrian-oriented entrances directly fronting the street.	Pedestrian, bicycle, and transit oriented with bicycle parking, limited or tucked-away car parking, and pedestrian amenities. Transit service typically similar to other suburban place types, but with greater potential for increased transit service and facilities.	Capitola Beach Villas Greenfield Village

Town Place Types

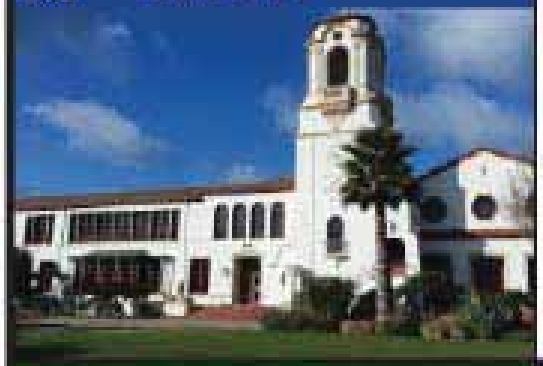
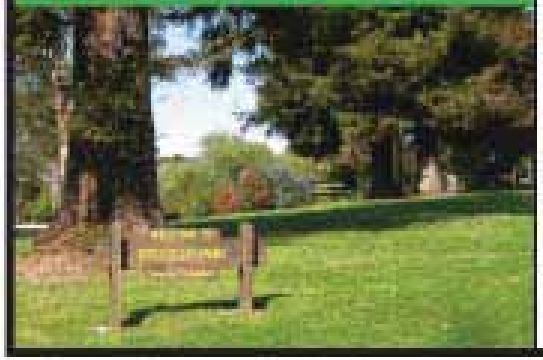
	Intensity	General Characteristics		Examples
		Land Use	Transportation	
T-1 Town Single-Family Residential 	Low to Medium Intensity (6 to 15 units per acre)	Single-family homes in close proximity to town centers or pedestrian-oriented commercial corridors, typically laid out in a grid block pattern. Includes some duplexes, accessory units, or small multi-unit buildings. Compact development pattern with small lots, limited setbacks, and close proximity of structures.	Short blocks, grid street pattern, and proximity to destinations support non-motorized modes of transportation. Complete sidewalks often present; bicycle infrastructure typically limited. Neighborhoods served by bus service with 30-minute or more headways; occasional proximity to regional or intercity transit service.	Jewel Box, Capitola Maple Street, Salinas 6th Street, Hollister
T-2 Town Multi-Family Residential 	Medium Intensity (12 to 30 units per acre)	Combination of apartment buildings, duplexes, accessory units, and some single-family homes. Usually located in areas with traditional street patterns. One- to three-story residential buildings, typically with small setbacks from the street and property lines.	Short blocks, grid street pattern, and proximity to destinations support non-motorized modes of transportation. Complete sidewalks often present; bicycle infrastructure typically limited. Neighborhoods served by bus service with 30-minute or more headways; occasional proximity to regional or intercity transit service.	Laine Street, New Monterey Neighborhood East Riverside Drive, Watsonville
T-3 Town Commercial 	Low intensity (FAR 1.0 or less)	Pedestrian-oriented commercial uses in town core commercial areas or along commercial corridors. Usually in areas with traditional street patterns. One-story buildings, often with no setbacks and sometimes with full lot coverage. Entrances usually face the street. Lots occasionally include parking, usually located at rear.	Short blocks, grid street pattern, and nearby residential uses support non-motorized modes of transportation. Complete sidewalks often present; bicycle infrastructure typically limited. Transit typically includes limited local service, with headways as short as 30 minutes. Many visitors arrive by car, particularly when traveling long distances.	Bay and Misstion Street, Santa Cruz Downtown Carmel

T-4 Town Mixed Use 	Low to Medium Intensity (FAR 1.0 to 3.0)	Small-scale, mixed-use buildings typically in core commercial areas or along commercial corridors. Usually in areas with traditional street patterns. Vertical mixed use buildings common with residential and office above ground-floor commercial. Buildings typically built to property lines; parking may be included, usually to the rear of buildings.	Short blocks, grid street pattern, and nearby residential uses support non-motorized modes of transportation. Complete sidewalks often present; bicycle infrastructure typically limited. Transit typically includes limited local service, with headways as short as 30 minutes. Many visitors arrive by car, particularly when traveling long distances.	Capitola Village 5th Street, Hollister Lighthouse Avenue, Pacific Grove

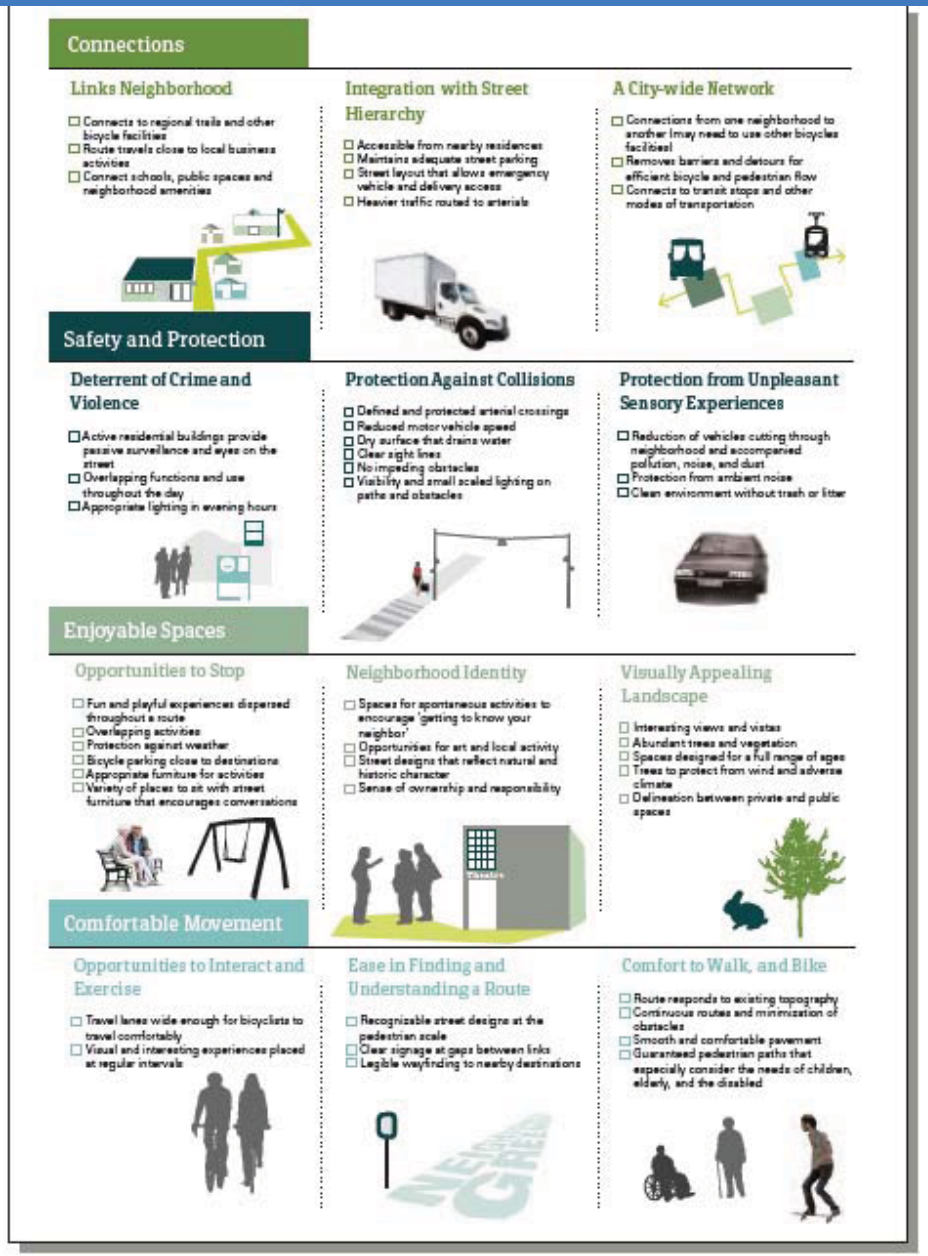
Non-Urban Place Types				
	Intensity	General Characteristics		Examples
		Land Use	Transportation	
NU-1 Agriculture and Rural Residential 	Very Low Intensity (1 unit per acre or less)	Isolated single-family homes, farm houses, and other agriculture-related structures in an agricultural or rural setting. Various building heights and sizes, frequently 2-stories or less, often with expansive setbacks from roads and property lines.	Automobile dependent with widely-spaced, generally rectilinear road patterns. Transit absent or restricted to limited and infrequent regional or inter-city service. Sidewalks and other pedestrian/bicycle infrastructure usually absent.	Outlying portions of Greenfield Outlying portions of San Juan Bautista
NU-2 Rural-Town Commercial 	Low Intensity (FAR usually less than 1.0, up to 2.0 in rare instances)	Variety of small commercial buildings usually located in centers of compact, rural towns. Buildings usually one-story with parking at front or rear. In some cases may not include parking and may include second story with upstairs use.	Mixture of pedestrian- and automobile-oriented. Short blocks, grid street pattern, and nearby residential uses support non-motorized modes of transportation; however, cars may be more commonly used, especially by visitors traveling regionally. Transit absent or restricted to limited and/or infrequent regional or inter-city service. Sidewalks generally present, but may be absent in some cases. Dedicated bicycle infrastructure usually absent.	3rd Street, San Juan Bautista Merritt Street, Castroville Alta Street, Gonzales

NU-3 Rural-Town Residential 	Low Intensity (3 to 8 units per acre)	Single-family homes in areas with grid street patterns; close proximity to central areas of compact, rural towns. May include small multi-family buildings such as duplexes or homes with accessory units. One- or two-story buildings on small- to medium-sized lots. Homes have variable setbacks from property lines and other buildings.	Short blocks, grid street pattern, and proximity to local destinations support non-motorized modes of transportation for intracity trips; however, cars may be more commonly used, especially for regional trips. Transit absent or restricted to limited and infrequent regional or inter-city service. Sidewalks may be absent, but generally low traffic may promote non-motorized transportation. Dedicated bicycle infrastructure usually absent.	6th Street, San Juan Bautista Scott Street, Chualar 9th Street, Gonzales
NU-4 Exurban Residential 	Very Low to Low Intensity (usually 1 unit per acre or less, on rare occasions up to 6 units per acre)	Single-family homes located in neighborhoods on urban fringe. Usually characterized by non-grid street patterns and relatively long distances to noncontiguous urban or town centers. One or two story buildings on large lots with deep setbacks. In rare instances may include smaller "suburban" style lots located far from central areas of towns or cities.	Automobile oriented, often with long distances separating different land uses. Non-grid, typically low-connectivity street patterns discourage non-motorized transportation for non-recreational trips. Transit absent or restricted to limited and infrequent express or regional service; park-and-rides occasionally present. Sidewalks and dedicated bike paths typically for recreational use.	Pasadera Neighborhood, Monterey Fairview Road, Hollister Crescent Drive, Scotts Valley

Other Place Types				
	Intensity	General Characteristics		Examples
		Land Use	Transportation	
IND Industrial and Manufacturing 	Various Intensities (FAR from less than 1.0 to 4.0 or higher)	Various industrial and manufacturing uses, including factories, storage facilities, industrial and commercial suppliers, and some research and development uses. Street patterns and building forms vary, ranging from traditional blocks and pedestrian-oriented configurations to isolated facilities inaccessible by non-motorized transportation.	Transportation characteristics vary, with both pedestrian- and auto-oriented development patterns Availability of transit, pedestrian access, and bicycle infrastructure vary depending upon setting.	Industrial Drive, Hollister Los Coches Road, Soledad Estates Drive, Aptos

AT Airport 	N/A	Airports.	Transportation characteristics vary.	Monterey Peninsula Airport Hollister Municipal Airport
INS Institutional 	Various intensities (FAR from less than 1.0 to 4.0 or higher)	Various institutional, civic, public, educational, hospital, and utilities uses located in various settings. Built forms vary by specific use and location.	Transportation characteristics vary, with both pedestrian- and auto-oriented development patterns Availability of transit, pedestrian access, and bicycle infrastructure are all variable, depending upon setting.	UC Santa Cruz Salinas High School Public Libraries Wastewater Treatment Plants
OSR Open Space / Recreation 	N/A	Open space and recreational uses, including local and regional parks, nature preserves, and beaches.	Transit characteristics highly variable. Isolated regional parks or wilderness areas may lack transit connections and pedestrian/bicycle access. Parks in urban centers may have frequent transit service and complete bicycle/ pedestrian infrastructure.	Village Green, Greenfield Ramsay Park, Watsonville Calaveras Park, Hollister

APPENDIX G: Greenway Quality Criteria



Green Futures: Research and Design Lab, Scan Design Foundation ,GEHL Architects. *Seattle Neighborhood Greenways: Seattle Tool Kit 2012*

COMPLETE STREETS PROJECT REVIEW CHECKLIST

Purpose

This checklist was developed to assist project sponsors in defining and developing projects and local plans using the Monterey Bay Area Complete Streets Guidebook. The checklist is a mechanism for incorporating the perspectives of all stakeholders into the planning and design process for projects. Use of the checklist will result in projects that are consistent with local, regional and state complete street policies, consider adjacent land uses and meet the needs of all users of the roadway.

How to Use the Checklist

The checklist enables project sponsors to document how each existing and future roadway user was considered and accomodated throughout the project development process. Project sponsers are encouraged to reference the Monterey Bay Area Complete Streets Guidebook while going through the checklist for complete streets applications and roadway design ideas.

Public Works and Planning departments should use the checklist to review projects within or affecting the public right-of-way. If projects do not incorporate complete streets design treatments, project sponsors should document why not and what accomodations will be provided for pedestrians, bicyclists and/or transit users unless the project is exempt.

Threshold Requirements

The Complete Streets Project Review Checklist should be used to review the following types of projects:

1. Street improvements requiring permits or approvals by the Department of Planning and/or Public Works which requests a change of the public right of way ; or

2. Public Works Department capital projects that alter or maintain the public right of way prior to the issuance of any permit or approval

Such that any one or more of the following apply:

- A traffic study is required
- A signalized intersection is affected
- Repaving/restriping needed
- Rehab/maintenance needed

CHECKLIST - Exemptions

Projects Exempt from Using the Complete Streets Project Review Checklist

* Roadways that restrict bicycle and pedestrian access (ex//Freeways)

* Documented absence of current and future need

Projects in which it is not appropriate to accomodate all users but may be appropriate to accomodate more than one user group should use the checklist to identify which users should be considered in the project design.

Projects Exempt from CEQA

Some complete streets projects may be exempt from the provisions of the California Environmental Quality Act. The following exemptions may apply:

**** Projects that are built within the existing right-of-way 15301(c)***

**** Re-striping projects (per Section 15282(j))***

If the project is exempt from CEQA further explaination and documentation is needed to comply with California law. The project sponsor should draft a memo describing why the project is exempt and file a notice of exemption.

CHECKLIST - General Project Information

Date

1. Project Title

Project Description

Project Location

Department Review Only

Project #:

2. Contact Information

Implementing Agency

Contact Person

Phone

Fax

Email

3. Project Schedule (**Circle** Current Project Phase)

Project Milestone	Date Started/Anticipated End Date
Planning	
Preliminary Design	
Final Design	
Construction	

PHOTO

CHECKLIST - Existing Conditions

4. Existing Land Uses (check all that apply)

Residential	☐	Park/Open Space	☐
Mixed Use	☐	Visitor-Serving/Commercial	☐
Institutional/School	☐	Senior Housing	☐
Civic/Public Facilities	☐	Rural/Agricultural	☐

5. Safety (***See Complete Streets Needs Assessment Matrix & http://tims.berkeley.edu/***)

Are there percieved safety/speeding issues in the project area? ☐ Yes ☐ No

Is there a history of collisions in the project area?

☐ Pedestrian ☐ Bicyclist ☐ Motorist

6. Congestion

Does the roadway experience congestion? ☐ Yes ☐ No

If so, at what time(s) is it congested? ☐ AM Peak ☐ PM Peak

7. Existing Roadway Conditions/Context

Functional Classification	
ROW Width	Ft
Roadway Pavement Width	Ft
# of Lanes	NB/EB: SB/WB:
2-Way Center Turn lane	☐ Yes ☐ No
Sidewalk Width	Ft
Landscaping/Parking	☐ Yes ☐ No
Shoulder Width	Ft
Bike Lane Width (<5')	☐ Yes ☐ No
Intersection(s)	☐ Signalized ☐ Unsignalized
Pavement Condition	Poor Fair Good
Posted Speed Limit	
Traffic Volumes (AADT)	
Transit Route/Stops	☐ Yes ☐ No
Truck Route	☐ Yes ☐ No

CHECKLIST - Future Conditions

8. Future Roadway Conditions

Are there planned transportation & land use projects that could affect circulation in the project area? ☐ Yes ☐ No

If so, please list the project(s)

Are planned projects anticipated to increase travel demand in the area? (mark yes or no for each mode)

	Car		Transit		Bicycle		Pedestrian	
	☐ Yes	☐ No	☐ Yes	☐ No				

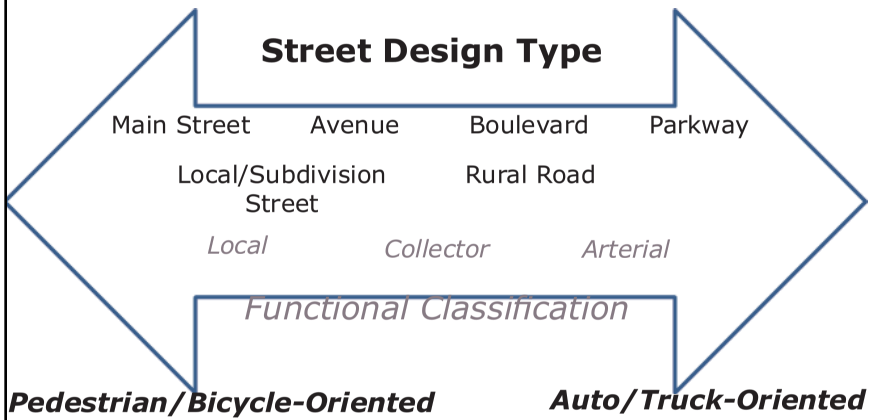
9. Stakeholder Outreach (check all that apply)

Please indicate which stakeholder groups provided input on project scope and design:

Neighborhood Group	☐	Bicycle Committees	☐
Business Association	☐	Pedestrian Committee	☐
School	☐	Senior Group	☐
Property Owners	☐	Transit Agency	☐
Environmental Group	☐	Transportation Disadvantaged	☐

Specific changes requested by stakeholders? ☐ Yes ☐ No

10. **Circle** the Complete Street Design Type - (***See Table 2 of Guidebook***)



11. Transportation Network Deficiencies (Refer to Existing Conditions)

Lacking/Insufficient Bicycle Facilities	Lacking/Insufficient Transit Facilities	Lacking/Insufficient Transit Service
Lacking/Insufficient Pedestrian Facilities	Insufficient accomodations for seniors	Insufficient accomodations for disabled
Bicycle/Pedestrian Connectivity	Insufficient accomodations for students/youth	

Given the Existing and Future Conditions the project area is a candidate for:

Road Diet (3 or more lanes; AADT<20,000; bicycle collisions)	Yes	No
Traffic Calming	Yes	No
Roundabout	Yes	No
Transit-Oriented Development/Transit Corridor (15 min headway)	Yes	No
Neighborhood Shared Street	Yes	No
Pedestrian Place	Yes	No
Transit/Bicycle/Pedestrian Prioritization at Intersections	Yes	No

CHECKLIST - Design

The purpose of this section is to ensure all users have been considered in the design of the project. Complete street design is context-sensitive and a complete street in a rural area may look different than one in an urban area. Refer to safety and special user needs identified in the existing and future conditions sections. The Monterey Bay Area Complete Streets Guidebook Chapter 5 contains design best-practices and sample accomodations for these users.

12. Pedestrian Design

Which, if any, of the following is provided or improved through the project design?

Minimize Driveways	☐ Yes	☐ Existing
Sidewalk/Path	☐ Yes	☐ Existing
Landscaping/Parking Buffer	☐ Yes	☐ Existing
ADA Access	☐ Yes	☐ Existing
Street Trees	☐ Yes	☐ Existing
Crossing Treatments	☐ Yes	☐ Existing
Traffic Calming	☐ Yes	☐ Existing
Wayfinding Signage	☐ Yes	☐ Existing
Audible Countdown	☐ Yes	☐ Existing
Other (Describe)		

13. Bicycle Design

Which, if any, of the following is provided or improved through the project design?

Bicycle Lanes	☐ Yes	☐ Existing
Shared-Lane Markings	☐ Yes	☐ Existing
Multiuse Path	☐ Yes	☐ Existing
Route/Wayfinding Signs	☐ Yes	☐ Existing
Bicycle Parking	☐ Yes	☐ Existing
Bicycle Detection	☐ Yes	☐ Existing
Bicycle Box	☐ Yes	☐ Existing
Color-Treated Bike	☐ Yes	☐ Existing
Floating Bike Lanes	☐ Yes	☐ Existing
Other (Describe)		

14. Transit Design

Which, if any, of the following is provided or improved through the project design?

Priority Bus Lane	☐ Yes	☐ Existing
Bus Bulbs/Pull-Outs	☐ Yes	☐ Existing
Shelter	☐ Yes	☐ Existing
Real Time Bus Arrival Info	☐ Yes	☐ Existing
ITS/Signal Priority	☐ Yes	☐ Existing
Transit Service (15 min headways)	☐ Yes	☐ Existing
Wi-Fi	☐ Yes	☐ Existing
Stop/Station Amenities*	☐ Yes	☐ Existing
Other (Describe)		

*** Transit Amenities include: Bench, lighting, trash can, route information/maps, concessions, music, and public art.**

CHECKLIST - Trade-Offs & Exemptions

15. Project Trade-Offs

Is the recommeneded complete street cross section/design supportable? ☐ Yes ☐ No

If not, explain why:

Lack of ROW width ☐ Existing Structures ☐ Other_____

Trees/Environmental Features ☐ Insufficient Funding ☐ Other_____

Have alternative designs been considered? ☐ Yes ☐ No

What refinements to the cross section/needed were needed?

Removed/partial zones (Ch. 5) for :	Pedestrians ☐	Bicyclists ☐	Landscaping ☐	Vehicles ☐
	Parking ☐		☐		☐		☐
Considered alternative routes/locations for	Pedestrians ☐	Bicyclists ☐	Landscaping ☐	Vehicles ☐
	Parking ☐		☐		☐		☐

16. Exemptions (Refer to Ch. 6 of the Guidebook)

Is the project exempt from accomodating certain users? ☐ Yes ☐ No

Cost of accomodation is excessively disproportionate to the need or probably use? ☐ Yes ☐ No

Documented absence of current and future need? ☐ Yes ☐ No

Other_____

APPENDIX I: Questions to Support Six-Step Process

APPENDIX- QUESTIONS FOR SUPPORTING SIX-STEP PROCESS

Si x Steps

Step 1: Define the Existing and Future Land Use and Urban Design Context

- What does the area look like today?
- What are today's land use mixtures and densities?
- What are the typical building types, their scale, setbacks, urban design characteristics, relation to street, any special amenities, etc...?
- Are there any particular development pressures on the area (the nature of this may vary
- according to whether the area is a "greenfield" versus an infill area and this type of information
- is particularly important in the absence of an area plan)?
- What are the "functions" and the general circulation framework of the neighborhood and adjacent areas?
- Is there a detailed plan for the area?
- If so, what does the adopted, detailed plan envision for the future of the area?
- Does the plan make specific recommendations regarding densities, setbacks, urban design, etc.?
- Are there any other adopted development policies for the area?
- If so, what do those policies imply for the area?

Step 2: Define the Existing and Future Transportation Context

- What is the character of the existing street? How does the street currently relate to the adjacent land uses?
- How does the street currently function? What are the daily and hourly traffic volumes? Operating and posted speeds? What is the experience for pedestrians? Cyclists? Motorists?
- What are the current design features, including number of lanes, sidewalk availability, bicycle facilities, traffic control features, street trees, etc.?
- What, if any, transit services are provided? Where are the transit stops?
- What is the relationship between the street segment being analyzed and the surrounding network (streets, side walks, transit, and bicycle connections)?
- Are there any programmed or planned transportation projects in the area that would affect the street segment?
- Are there any other adopted transportation policies that would aff ect the classifi cation of the street segment?

Step 3: Identify Deficiencies

- Gaps in the bicycle or pedestrian network near or along the street segment;
- Gaps in the bicycle or pedestrian network in the area (which may increase the need for facilities on the segment, because of the lack of alternative routes);
- Insufficient pedestrian or bicycle facilities (in poor repair, poorly lighted, or not well buffered from traffic, e.g.);
- Gaps in the overall street network (this includes the amount of connectivity in the area, as well as any obvious capacity issues on other segments in the area);
- Inconsistencies between the amount or type of transit service provided along the street segment and the types of facilities and/or land uses adjacent to the street;
- Inconsistencies between the existing land uses and the features of the existing or planned street network.

Step 4: Describe Future Objectives

- What existing policies might or should influence the specific objectives for the street?
- What conditions are expected to stay the same (or, more importantly, what conditions should stay the same)?
- Would the community and the stakeholders like the street and the neighborhood to stay the same or to change?
- Why and how would the community and the stakeholders like the street and the neighborhood to change?
- Given this, what conditions are likely to change as a result of classifying the street (exactly how will the street classification and design support the stakeholders' expectations)?

Step 5: Recommend Street Classification and Test Initial Cross-Section

- What is the recommended cross section?
- Is the cross section supportable considering:

    * right-of way,
    * Existing structures,
    * Existing trees or other environmental features,
    * Topography, and
    * Location and number of driveways.

Step 6: Describe Tradeoffs and Select Cross-Section

- Where alternative design scenarios considered?
- What refinements to the cross section were needed ?
- What was the justification for selecting the final design scenario?

APPENDIX J: Economics of Complete Streets

Summary of Economics of Complete Streets

An important question about complete streets is, Are the benefits greater than the costs; are complete streets a good investment? The economic impact of transportation project is particularly important in an environment where regions are pursuing a variety of economic development strategies to improve the quality of life for residents and resources for transportation investments are scarce.

Careful evaluation of the benefits of costs can reveal some of the downstream effects complete streets have on economic activity. However, isolating the economic impacts of a concept as broad and indefinite as complete street makes simple conclusions difficult. The diversity of complete street types and specific implementations suggests a diversity of effects. Moreover, the effects depend on the development, market, and socioeconomic environment in which a complete street is implementing.

The White Paper on the Economics of Complete Streets presents a framework for evaluating the economic impacts of complete streets. The paper was prepared by ECONorthwest, a consulting firm specializing in economics, finance, and planning. ECONorthwest's findings recognize that complete streets are a relatively new concept and that attempts to rigorously evaluate their economic impacts are limited. ECONorthwest's research relies heavily on case studies rather than controlled time-series or cross-section studies. While case studies are excellent tools to confirm or challenge theory, to generalize their results into implementable policies comes with risk because one case study's conditions may or may not be comparable to another.

Approach to Evaluating Economic Benefits of Complete Streets

Transportation systems should aim to do an efficient job of getting people and goods to many desired places safely and quickly. The efficiency of the system is typically evaluated in terms of congestion. Although complete streets investments may address congestion, through managing demand and better use of the existing system, determining the economic impacts of complete streets must go beyond looking at its impacts on congestion. Furthermore, secondary economic impacts can result from transportation investments.

ECONorthwest groups complete street impacts by direct transportation impacts including: trip volume, trip duration, trip quality, safety and construction and maintenance cost, and indirect transportation impacts including: access to amenities, health, and transportation costs, in additional to congestion. ECONorthwest then evaluates the economic effect of the impacts relative to investments, business activity, property values, and government fiscal health.

The white paper notes several points important to the interpretation of its findings. Factors such as existing conditions, transportation geography, time period, perspectives, distribution of impacts, and exogenous trends should be considered when applying the economic framework. The transportation and non-transportation effects of complete streets depend on the details of how complete streets are designed and implemented and on the modes they attempt to influence.

Economic effects of Complete Streets

Given the transportation effects and the non-transportation effects of complete streets, what are the likely effects on economic activity (employment, output, value added, sales, payroll/income, and property values) when measured through investment, business activity, property values and fiscal impacts?

There are some good theoretical reasons for believing that complete streets can have positive effects on the regional or local economy. The limited literature suggests that, in some instances, measures of economic activity have changed with implementation of complete streets. Because the literature is limited, due to the limited empirical work on the

topic, the anecdotal nature of the work, little known about the distributional impacts it does not support unambiguous statements like, "If complete streets are built, the net economic effects will be x."

Investment
Do the levels and composition of public and private investment change with the introduction of complete street?

Transportation investments play an important role in the redevelopment of a center or corridor. Some research suggests that complete street accompany increases in investment for an area. It is reasonable to presume that as a street's safety, health, and amenities improve, private and public entities will be more willing to invest in the area. But complete street may be part of broader redevelopment efforts that included other public investments. Such investment makes it difficult to separate out the unique effects of complete streets. For instance, it is possible that decisions to invest in complete streets makes areas more competitive for the awarding of such development funds. On the other hand it may be true for any type of transportation project. Theory and case studies support the conclusion that complete street can be an important part of a public investment policy that can change the distribution of economic activity within a region.

Business Activity
Do measures of business activity (e.g., business creation, employments, wages/income, sales, revenues) change around complete streets? Do consumes spending patterns change because of complete streets?

Some instances of complete streets have led to more business activity around them. However, an increase of jobs and businesses after the implementation of complete streets does not, by itself, give any indication of how much of that increase is attributable to complete streets. For example, other market forces and location, the amount of new public investment, or pre-development losses such that any new development would have increased measures of business activity.

Consumption patterns could be impacted by a change in the total number of consumers, the cost of goods to consumers, and a change in land values as a result of complete streets. One should expect more economic activity the greater the density and better access. The number of consumers could increase due to potential growth in trip volumes and proximity. Although the number of consumers may increase due to a potential for a growth in trip volumes and proximity, cost of goods may decrease because the transportation cost to the consumer may decrease,

and the higher densities and land values may result in higher rents and higher prices, none of these factors are expected to be affected in a big way. It is unlikely that complete streets decrease consumption. Research reveals that non-motorized consumers are competitive consumers. Although case studies suggest that complete street-type policies may improve bottom lines, it is possible that these kinds of changes will be primarily distributional. A possible exception to the distribution issues is the case where more isolated cities in recreational areas could increase the regional economic activity if they can create "Main Street" environments that are attractive to tourists.

Property Values

Do property values change with the introduction of complete streets?

People choose to live in a certain area, in part, because of the amenities it offers. If people value the effects of complete streets they are more likely to choose to live in or near complete street areas. In the event that complete streets increase amenity and travel by non-auto modes, and do not decrease the effectivess of the automobile too much, complete streets could be correlated with increased property values. However, even if traffic calming features reduce vehicle volume, several studies show property values still increase. The role of improving walkability on increasing property values is depending upon densities and destinations. For example, making a five-lane road servicing commercial strip complete and walkable may have little effect on walking, transit and auto travel, while making a desirable shopping district more walkable cold raise property values.

Social engagement would also be increased if complete streets lead to more people use alternative modes of transportation and allowing users to interact more, which may also affect property values.

Increased property values would likely be a benefit to landowners, as their incomes would increase. Increased property values could be a cost to businesses and residents already operating and living there, as the increase could make the area unaffordable to them.

Government Fiscal Health

What is the net fiscal effect of complete streets on local governments and agencies?

In terms of revenues, while there are solid theoretical arguments and some empirical work for specific cases which explain why complete streets as a type of smart growth policy, could improve fiscal health due to increase sales tax, there is no way to tell that other factors aren't responsible for the increase in tax revenue and sales tax alone do not tell the story of fiscal health.

As a type of transportation investments, complete streets will involve expenditures in public and private funds. Complete streets may increase the up-from implementation costs since they may be above and beyond existing project design improvements. In a 2012 analysis, City of Charlotte Department of Transportation staff found that complete street components, specifically bike lanes and sidewalks, only slightly increase the cost of a project (on the order of 3-5%). In cases where complete street design elements replace larger automotive infrastructure requires, the cost may remain constant or decrease.

If complete streets cause users to shift away from cars, then complete streets could have some maintenance cost savings. However the savings may be minimal because heavy vehicles cause a disproportionate share of road ware. On the other hand, complete street may create a more complicated environment to maintain and higher standards for maintenance, which would generate a higher maintenance cost.

Effects of Health on Economic Growth

Complete streets design frequently incorporates some element of traffic calming which can reduce the number of collisions. Though the safety impacts are worth pursing for their moral merits alone, reducing the number of deaths and injuries has tangible economic benefits. Given the documented potential for complete streets improvements to reduce the number and severity of crashes, it is possible that the safety benefits alone justify complete streets as a policy.

Beyond gains in safety, complete street could facilitate health improvements by increasing activity levels, and reducing noise. If complete streets contribute to healthier people, the economic benefits of that improved health could be measured as longer life expectancy, improved productivity and reduced costs for health care. Although, complete streets could improve health outcomes for some, it could worsen health outcomes for those who remain automotive uses and are whose trip times could increase and for those who experience injuries, such as a sprained ankle from switching to other modes.

Economic Framework for Evaluating Complete Streets

Categories of Economic Activity	Direct and Non-Direct Transportation Impacts	Effect on Economic Activity			
		Possibly Negative	Possibly None	Possibly Positive	Possibly Very Positive
Business Activity	Access[1]			●	●
Business Activity	Trip Volume		●	●	
Business Activity/ Investment	Trips Duration[2]	●	●	●	
Fiscal Impact	Construction[3]	●	●	●	●
Fiscal Impact	Maintenance		●	●	
Property Values/ Investment	Amenities		●	●	
Economic Growth	Health[4]			●	●

Notes:

[1] New facilities for non-automobiles are likely to have a larger positive impact on economic activity than improving existing facilities.

[2] An increase in trip duration for automobiles may negatively impact economic activity, while a reduction in trip duration for non-automobiles may result in a positive impact on economic activity.

[3] Construction of new facilities may have significant economic impacts, while adding new elements may have no to little economic impacts.

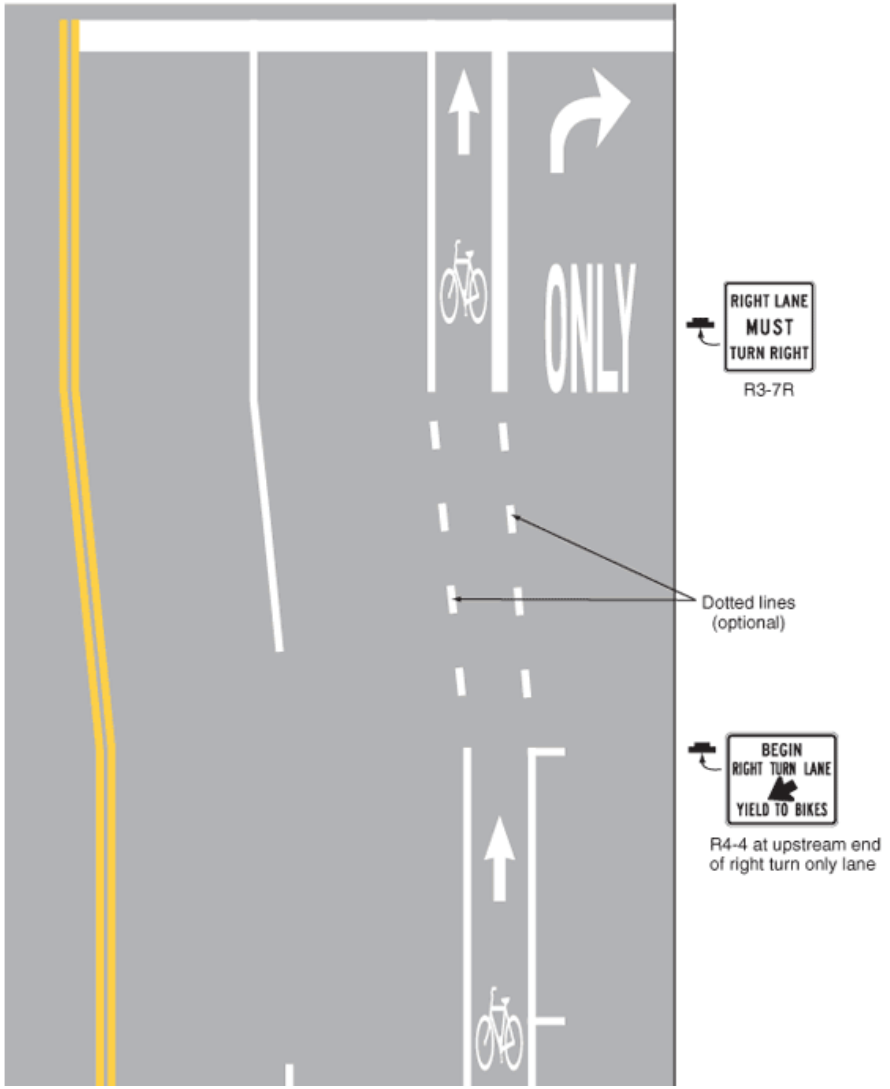
[4] If complete streets contribute to healthier people by encouraging regular physical activity, Complete Streets could positively impact the economic activity by

INTERSECTION TREATMENTS

Bike Box

Bike Signal

Figure 9C-5. Example of Bicycle Lane Treatment at Parking Lane into a Right Turn Only Lane



Right Turn Lane Treatment, MUTCD

BICYCLE DETECTION

Video Camera

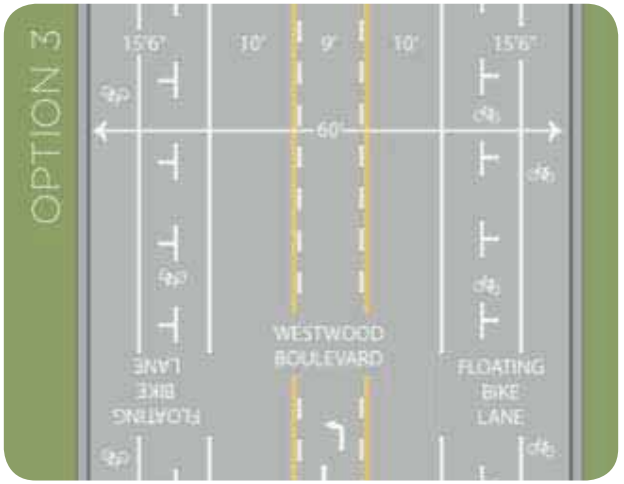
Inductive Loop

ROADWAY TREATMENTS

Green Lane

Buffered Bike Lane

Cycle Track



Floating Bike Lane

BICYCLE AMENITIES

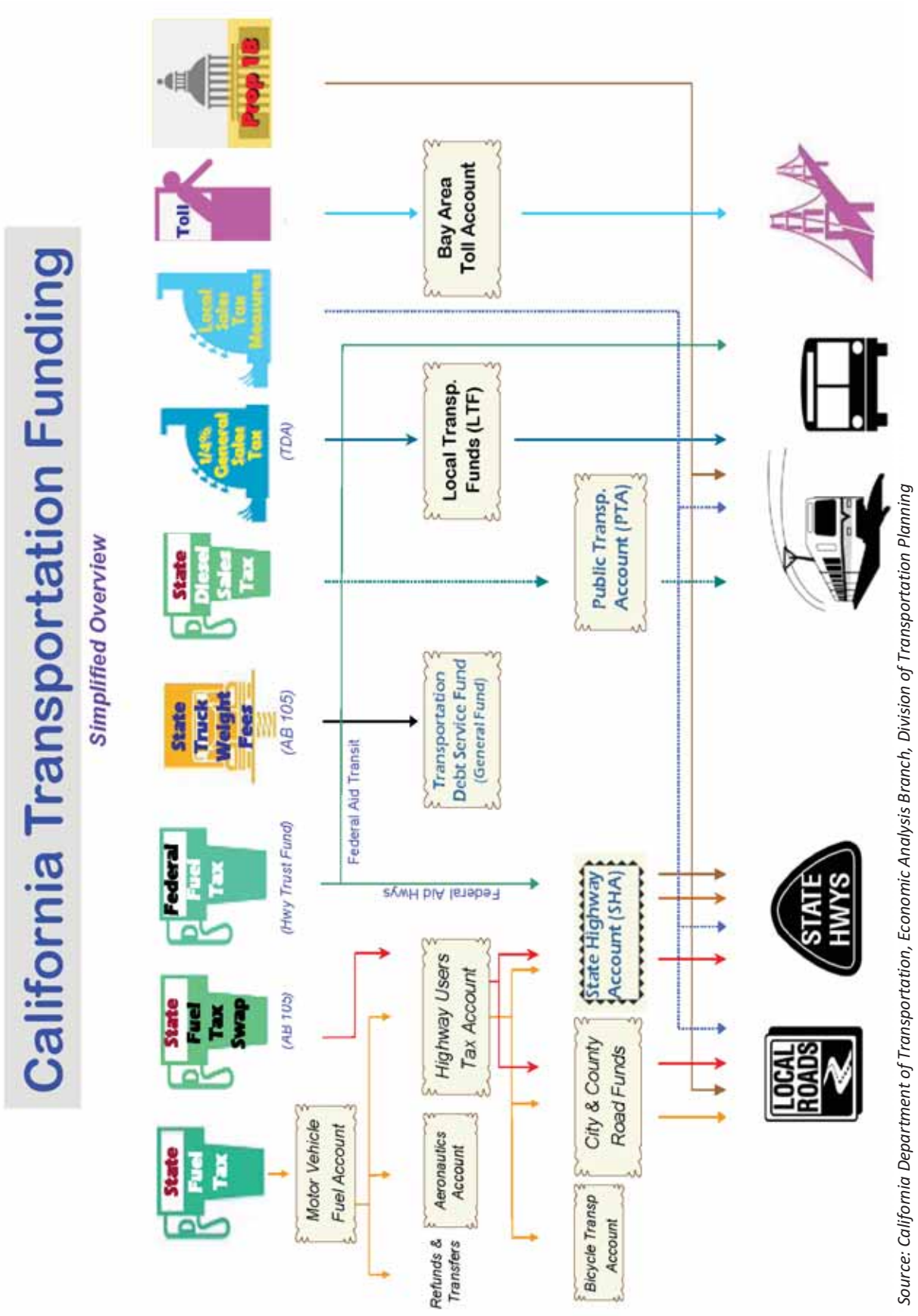
Wayfinding Signage

Fix-it Station

Angled Parking

Racks on Transit

Appendix B Funding Chart



Source: California Department of Transportation, Economic Analysis Branch, Division of Transportation Planning

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Appendix C San Benito County Regional Transportation Plan Project List

ID NO.	PROJECT TITLE	DESCRIPTION	RESPONSIBLE AGENCY	ESTIMATED COST – YEAR OF EXPENDITURE ($000s)	Constrained[1]	Year of Expenditure[2]
SB-A01-Caltrans	Highway 156 Widening – San Juan Bautista to Union Road	Widen to 4-lane expressway	Caltrans	$48,520	✓	2020
SB-A02-Caltrans	Highway 156/Fairview Road Intersection Improvements	Construct new turn lanes at intersection	Caltrans	$6,824	✓	2025
SB-A03-Caltrans	Highway 25 Operational Enhancements	Construct passing lanes	Caltrans	$4,742	✓	2020
SB-A04-SB	Memorial Drive Extension – Meridian Street to Santa Ana Road	Construct 4-lane road extension	City of Hollister	$3,355	✓	2025
SB-A05-SB	Airline Highway Widening – Sunset Drive to Fairview Road	Widen to 4-lane expressway,	Caltrans	$41,326	✓	2035
SB-A06-SB/HL	Westside Boulevard Extension	Construct 2-lane road	City of Hollister & San Benito County	$13,360	✓	2020
SB-A07-HL	North Street (Buena Vista)	Construct 2-Lane road	City of Hollister	$4,207	✓	2020
SB-A08-SB	Fairview Road Widening	Widen to 4-lane arterial	San Benito County	$17,599	✓	2025
SB-A09-SB	Union Road Widening (East) – San Benito Street to Highway 25	Widen to 4-lane arterial	San Benito County	$5,463	✓	2030
SB-A10-SB	Union Road Widening (West) – San Benito Street to Highway 156	Widen to 4-lane arterial	San Benito County	$15,448	✓	2030
SB-A11-SB/HL	Meridian Street Extension to Fairview Road	Construct 4-lane road	City of Hollister & San Benito County	$6,445	✓	2030

[1] Fiscally constrained projects are projects for which full funding is reasonably available for project implementation within the 2035 horizon year, based on reasonably available revenues identified in the plan.

[2] Year of Expenditure is broken down in five-year increments based on the anticipated date of project completion. Multi-year projects are identified in year of completion.

ID NO.	PROJECT TITLE	DESCRIPTION	RESPONSIBLE AGENCY	ESTIMATED COST – YEAR OF EXPENDITURE ($000s)	Constrained[1]	Year of Expenditure[2]
	Intersection Improvements – Lump Sum	Add Signals or Make other Intersection Improvements	City of Hollister & San Benito County	$4,944	✓	2025
SB-A12-Caltrans	Highway 25 4-Lane Widening – Phase I	Widen to 4-lane expressway, San Felipe Road to Hudner Lane	Council of Governments & Caltrans	$67,591		
	State Highway Operations and Protection Program Grouped Project Listing	Varies	Caltrans	$90,427	✓	2035
SB-A13-Caltrans	Union Road (formerly Crestview Drive) Construction	Construct new 2-lane road	Private Developer	$10,906	✓	2020
	Hospital Road Bridge	New Bridge	San Benito County	$14,904	✓	2020
	Local Street & Roadway Maintenance: 2014-2025	System preservation and maintenance	Cities & San Benito County	$40,507	✓	2025
	Highway Bridge Program Grouped Project Listing	Bridge construction and Improvements	San Benito County	$43,598	✓	2030
	Local Street & Roadway Maintenance: 2026-2035	System preservation and maintenance	Cities & San Benito County	$48,181	✓	2035
SB-A14-SB	Highway 25 4-Lane Widening – Phase II	Widen from 2-4 Lanes from Hudner Lane to County Line	Council of Governments & Caltrans	$181,000		
SB-A15-HL	Memorial Drive Construction - Santa Ana to Flynn Road	New 4-lane roadway construction/extension	City of Hollister	$13,842		
SB-A16-SB	Fairview Road/San Felipe Road East-West Arterial (New Road)	New roadway construction north of McCloskey Road	Cities & San Benito County	[To Be Determined]		
SB-A17-SB	Fairview Road/Memorial Drive East-West Collector (New Road)	New roadway construction south of McCloskey Road	Cities & San Benito County	[To Be Determined]		
SB-A18-Caltrans	U.S. 101: Las Aromitas: Monterey/San Benito County Line to State Route 156, Widen to 6-Lanes	Highway widening from 4 to 6 lanes	Caltrans	[To Be Determined]		
SB-A19-	U.S. 101: SR 156 to SR	Highway widening	Caltrans	[To Be		

ID NO.	PROJECT TITLE	DESCRIPTION	RESPONSIBLE AGENCY	ESTIMATED COST – YEAR OF EXPENDITURE ($000s)	Constrained[1]	Year of Expenditure[2]
Caltrans	129, Widen to 6-Lane Freeway	from 4 to 6 lanes and upgrade facility to freeway standards		Determined]		
SB-A20-Caltrans	New State Route 152 Alignment: SR 156 to US 101	Construct new alignment of State Route 152 from State Route 156 to U.S. 101	Santa Clara Valley Transportation Authority, Council Governments, & Caltrans	$848,000	N/A	
	Transit Vehicle Replacements	Replace fleet as needed	San Benito County Local Transportation Authority	$3,140	✓	2035
	Transit Technology Infrastructure Improvements	Improve transit infrastructure to accommodate operations	San Benito County Local Transportation Authority	$385	✓	2025
	Transit Service Operations	Ongoing operation of fixed route and other transit services	San Benito County Local Transportation Authority	$45,761	✓	2035
	Regional Transit – Salinas	Regional Transit Connection to Salinas	San Benito County Local Transportation Authority	$3,113	✓	2035
	Regional Transit – Gilroy Caltrain	Regional transit connection to Gilroy Caltrain Station	San Benito County Local Transportation Authority	$1,249	✓	2035
	Regional Transit – Gavilan College	Regional transit connection to Gilroy Gavilan College Campus	San Benito County Local Transportation Authority	$3,437	✓	2035
	Regional Transit - Watsonville	Regional transit connection to City of Watsonville	San Benito County Local Transportation Authority	$3,124	✓	2035
	Regional Transit Planning	Planning for ongoing regional transit activities	San Benito County Local Transportation Authority	$1,084	✓	
	Transit Infrastructure – Bus Stop Facility Improvements	Improvements to transit bus stop facilities.	San Benito County Local Transportation	$190	✓	2020

ID NO.	PROJECT TITLE	DESCRIPTION	RESPONSIBLE AGENCY	ESTIMATED COST – YEAR OF EXPENDITURE ($000s)	Constrained[1]	Year of Expenditure[2]
			Authority			
SB-A21-SB	Rideshare Program (TDM)	Promote the use of alternative modes of transportation	Council of Governments	$53	✓	2035
	Vanpool Program	Provide commuter vanpool services – lease program	Council of Governments	$364	✓	2035
SB-A27-SB	Bikeway and Pedestrian Master Plan Implementation – Tier II Projects	Implement projects identified in the adopted Bikeway and Pedestrian and master plan	Various	$10,391	✓	2035
	Bikeway and Pedestrian Master Plan Implementation – Tier I Projects	Construct Class II and Class III Bikeway Improvements identified in the Bikeway and Pedestrian Master Plan	City of Hollister	$903	✓	2035
SB-A22-SB	San Benito River Recreational Trail – Phase 1	Construct a portion of recreational bicycle/pedestrian/equestrian trail along the San Benito River	San Benito County	$5,627	✓	2030
SB-A22-SB	San Benito River Recreational Trail – Phase 2	Construct a portion of recreational bicycle/pedestrian/equestrian trail along the San Benito River	San Benito County	$8,538		
SB-A23-SB	Union Pacific Railroad Multi-Use Path	Construct a multi-use path adjacent to the Union Pacific Railroad right of way	San Benito County	[To Be Determined]		
	Intelligent Transportation Systems Lump Sum Projects	Implement projects identified in the Central Coast Intelligent Transportation Systems Plan	Various	$7,355		
	Emergency Call Box Program	Provide emergency call box service throughout the County	Service Authority for Freeways and Expressways	$1,251	✓	2035
SB-A24-HL	West Gateway Improvement Project	Streetscape and intersection	City of Hollister	$7,389	✓	2025

ID NO.	PROJECT TITLE	DESCRIPTION	RESPONSIBLE AGENCY	ESTIMATED COST – YEAR OF EXPENDITURE ($000s)	Constrained[1]	Year of Expenditure[2]
		improvements				
SB-A25-SB	San Benito County Regional Park Access Road	Construct new 2-lane roadway from Nash Road to San Benito Street south of San Benito High School	San Benito County	$565	✓	2025
SB-A26-SB	Commuter Rail Extension to Santa Clara County	Extend commuter rail (currently Caltrain) from Hollister to Gilroy	San Benito County Local Transportation Authority	[To Be Determined]		
	Hollister Airport Operations and Maintenance	Ongoing airport operations and maintenance	City of Hollister	$270	✓	2025
	Hollister Airport Capital Improvements	Capital improvements at Hollister Municipal Airport	City of Hollister	$4,269	✓	2025
	U.S. 101 Widening- Monterey St. to SR 129	Widen from 4 to 6 lanes	Santa Clara County Valley Transportation Authority	$246,000	N/A	
			TOTAL ESTIMATED COST	$1,885,647		
			TOTAL CONSTRAINED COST	$513,321		
			TOTAL UNCONSTRAINED COST	$278,326		
			FUNDED BY OTHERS	$1,094,000		

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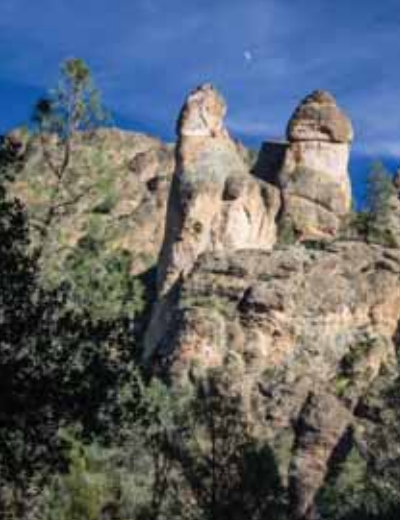
ORGANIZATION	CONTACT	TITLE	ADDRESS	PHONE NUMBER	EMAIL
Migrant Education Program	Erika Sanchez	Program Coordinator		(831) 634-2000 ext. 130	esanchez@hesd.org
San Benito County Chamber of Commerce	Liz Sparling	Executive Director	650 San Benito St. Ste. 130 Hollister, CA 95023	(831) 637-5315	info1@sanbenitocountychamber.com
SJB Chamber of Commerce	Halina Pochron Kleinsmith	Executive Director		(831) 623-2454	sjbc@hollinet.com
Hollister Downtown Association	Brenda Weatherly	Executive Director	455 San Benito St. Ste. 21 Hollister CA 95023	(831) 636-8406	admin@downtownhollister.org
San Benito County Community Services & Workforce Development	Enrique Arreola	Executive Director	1111 San Felipe Rd. Ste. 206 Hollister, CA 95023	(831) 637-9293	kflores@hollinet.com
San Benito County Health & Human Services Agency Public Health Services	Enrique Arreola	Executive Director	439 Fourth St. Hollister, Ca 95023		
Hazel Hawkins Hospitals Foundation	Leah Dowty	Director	911 Sunset Dr. Hollister CA 95023	(831) 636-2653	
Community Foundation for San Benito County	Gary Byrne	Director	829 San Benito St Ste. 200 Hollister, CA 95023	(831) 630-1924	garyebyrne@hotmail.com
Homeless Taskforce of San Benito County	Leigh Dietz		P.O. Box 2710 Hollister, CA 95024	(831) 637-8399	leighdietz@charter.net

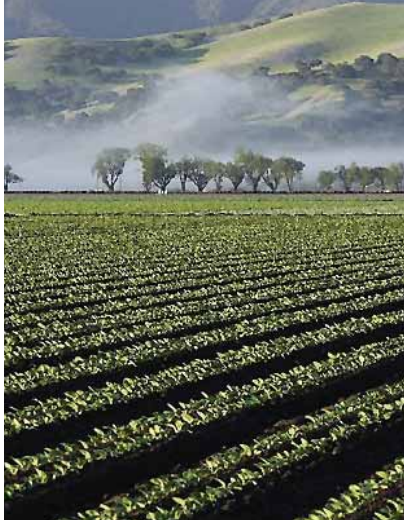
ORGANIZATION	CONTACT	TITLE	ADDRESS	PHONE NUMBER	EMAIL
Gavilan College	Rachel Perez	Associate Dean, Community Development/Grants Management	Gilroy Campus 5055 Santa Teresa Blvd. Gilroy, CA 95020 Hollister - Briggs Building 365 Fourth St Hollister, CA 95023	Gilroy:(408) 848-4800 Hollister:831-636-3783	
League of United Latin American Citizens (LULAC)	Mickie Luna	President	San Benito County Council #2890 P.O. Box 1446 Hollister, CA 95024	T: (831) 673-2009 F: (831)637-0146	mickie@sbclulac.org
Bicycle and Pedestrian Advisory Committee	Veronica Lezama	Transportation Planner	330 Tres Pinos Rd. Ste. C7 Hollister, CA 95023	(831) 637-7665	veronica@sanbenitocog.org
Leadership San Benito County			P.O. Box 1299. Hollister CA 95024	(831) 636-7629	
San Benito Child Care Association	Debbie Pereira		1700 Airline Highway PMB 446 Hollister CA 95023	T: (831)630-0977 F: (831)637-6938	
YMCA of San Benito County			351 Tres Pinos Road, #201a Hollister, CA 95023		
County of San Benito, Planning & Building Department	Byron Turner	Interim Director	2301 Technology Parkway Hollister, CA 95023	(831) 637-5313	

ORGANIZATION	CONTACT	TITLE	ADDRESS	PHONE NUMBER	EMAIL
Hollister School District	John Teliha	Director of Student Nutrition, Maintenance, Operations and Warehouse Services	2690 Cienega Rd. Hollister, CA 95023	(831) 630-6315	skurtz@hsd.k12.ca.us
San Benito High School	Krystal Lomanto	Principal	1220 Monterey St. Hollister, CA 95023	(831) 637-5831	srose@sbhsd.k12.ca.us
San Benito County Office of Education	Mike Sanchez	County Superintendent	460 Fifth St. Hollister, CA 9 5023		
Bureau of Land Management Hollister Field Office			20 Hamilton Ct. Hollister, CA 95023		
San Benito County Farm Bureau			530 San Benito St., #201 Hollister, CA 95023-3955	(831) 637-7643	
Old Mission San Juan Bautista			P.O. Box 400 San Juan Bautista, CA 95045		
Pinnacles National Monument			5000 Highway 146 Paicines, CA 95043		
City of San Juan Bautista	Matt Leal	Planner	P.O. Box 1420 San Juan Bautista, CA 95045		
San Juan Oaks Golf Club	Scott Fuller		3825 Union Rd. Hollister, CA 95023		

ORGANIZATION	CONTACT	TITLE	ADDRESS	PHONE NUMBER	EMAIL
County Planning & Building	Byron Turner		2301 Technology Parkway Hollister, CA 95023	(831) 637-5313	
City of Hollister	Mary Paxton		375 Fifth St. Hollister, CA 95023		

Appendix E Final Environmental Impact Report



Monterey Bay 2035

Moving Forward

Sustainability.
Mobility.
Accessibility.
Economy.
Social Equity.






2035 MTP/SCS and RTPs for Monterey, San Benito, and Santa Cruz Final EIR

SCH #2013061052

Final
June 2014

Association of Monterey Bay Area Governments

FINAL
ENVIRONMENTAL IMPACT REPORT

2035 METROPOLITAN TRANSPORTATION PLAN/ SUSTAINABLE COMMUNITIES STRATEGY AND REGIONAL TRANSPORTTION PLANS FOR MONTEREY, SAN BENITO AND SANTA CRUZ COUNTIES

Prepared by:

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June 2014

This report prepared on 50% recycled paper with 50% post-consumer content.

Final

2035 MTP/SCS AND RTPS FOR MONTEREY, SAN BENITO, AND SANTA CRUZ

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EXECUTIVE SUMMARY

PROJECT SYNOPSIS

Project Applicants

For the 2035 Monterey Bay Area Metropolitan Transportation Plan/Sustainable Communities Strategy:

Association of Monterey Bay Area Governments (Lead Agency)

For the 2014 Monterey County Regional Transportation Plan (MC-RTP):

Transportation Agency for Monterey County

For the 2014 Santa Cruz County Regional Transportation Plan (SC-RTP):

Santa Cruz County Regional Transportation Commission

For the 2014 San Benito County Regional Transportation Plan (SB-RTP):

Council of San Benito County Governments

Project Description

The 2035 Association of Monterey Bay Area Governments (AMBAG) Metropolitan Transit Plan and Sustainable Communities Strategy (MTP/SCS) is a long range planning document required by both State and Federal law that is an update of the 2010 AMBAG MTP. It contains a compilation of Regional Transportation Plans (RTPs) for Monterey, San Benito, and Santa Cruz Counties and is used to achieve a coordinated and balanced regional transportation system. Transportation system improvement projects identified in the 2035 MTP/SCS include: highway/roadway projects; bus rapid transit and rail projects; active transportation (bicycle and pedestrian projects); transportation demand management, transportation system management (TSM) and intelligent transportation system (ITS) ~~projects;~~ and aviation projects.

For the first time, AMBAG now also has the responsibility to prepare a Sustainable Communities Strategy (SCS) as part of the MTP, pursuant to the requirements of California Senate Bill 375 as adopted in 2008. The SCS sets forth a forecasted development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, is intended to reduce greenhouse gas (GHG) emissions from passenger vehicles and light duty trucks to achieve the regional GHG reduction targets set by the California Air Resources Board (CARB).

ALTERNATIVES

This Environmental Impact Report (EIR) examines three alternatives to the proposed 2035 MTP/SCS: Alternative 1, the "No Project" alternative, is comprised of a land use pattern that

reflects existing land use trends and a transportation network comprised of transportation projects that are currently in construction or are funded in the short range Metropolitan Transportation Improvement ~~Plan~~ Program (MTIP); Alternative 2: Intensified Land Use and Transit Alternative, includes a land use pattern that further concentrates forecasted population and employment growth in urban areas with a focus on infill, mixed use, and transit oriented development (TOD) in and around commercial corridors; and Alternative 3: Business As Usual, includes a land use pattern comprised of existing land use plans and a transportation network that includes more traditional congestion relief and roadway projects focused on mobility and safety.

The No Project Alternative (Alternative 1) would entail the fewest projects; and therefore, result in the fewest construction-related impacts and impacts associated with ground disturbance. However, many of the transportation improvements and infill/TOD projects envisioned in the 2035 MTP/SCS would not be developed. The Intensified Land Use and Transit Alternative (Alternative 2) would result in higher VMT than the 2035 MTP/SCS. This would result in more severe air quality, GHG, energy, and transportation impacts. Further, it would have a greater impact to low income and minority populations as fewer people within these communities would be served by transportation improvements than anticipated for the 2035 MTP/SCS. The Business as Usual Alternative (Alternative 3) would not be considered environmentally superior to the proposed 2035 MTP/SCS even though VMT would be slightly less than the 2035 MTP/SCS. Alternative 3 would result in greater GHG and land use impacts as well as greater impact to low income and minority populations as fewer people within these communities would be served by transportation improvements than anticipated under the 2035 MTP/SCS. Table ES-1 identifies each alternative and shows a relative impact comparison to the 2035 MTP/SCS. As shown, each of the three alternatives would have a greater or similar environmental impact relative to the proposed project.

Table ES-1
Alternative Comparison

Issue	Alternative 1: No Project Alternative	Alternative 2: Intensified Land Use and Transit Alternative	Alternative 3: Business as Usual Alternative
Aesthetics	=	-/=	=
Air Quality	+	+	-
Biological Resources	= -	= -	=
Cultural Resources	=	-/=	=
Energy	+	+	-
Environmental Justice	+	+	+
Geology	=	=	=
Greenhouse Gases	+	=/+	+
Hydrology	-	-	=
Land Use	+ -	-/=	+
Noise	-	+	=
Transportation and Circulation	+ =	+	=
Overall	**+/= -/=**	**+/= -/=**	**+/=**

- - impacts would be less than the 2035 MTP/SCS
= - impacts would be similar to the 2035 MTP/SCS
+ - impacts would be greater than the 2035 MTP/SCS

SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table ES-2 includes a brief description of the identified environmental impacts, proposed mitigation measures, and the level of significance after mitigation. Specific 2035 MTP/SCS projects that may contribute to the impacts described below are listed in the tables at the end of individual impact sections (4.1 through 4.12).

This document is a Program EIR. Section 15168(a) of the CEQA Guidelines states that:

> *A Program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either: (1) geographically; (2) as logical parts in a chain of contemplated actions; (3) in connection with issuance of rules, regulations, plans, or other general criteria, to govern the conduct of a continuing program; or (4) as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.*

As a programmatic document, this EIR presents a regional assessment of the impacts of the proposed 2035 MTP/SCS and the RTPs prepared by the Monterey, San Benito, and Santa Cruz RTPAs. Analysis of site-specific impacts of individual projects is not the intended use of a program EIR. Many specific projects are not currently defined to the level that would allow for such an analysis. Individual specific environmental analysis of each project will be undertaken as necessary by the appropriate implementing agency prior to each project being considered for approval. Because the act of adopting the 2035 MTP/SCS would not, in itself, result in the implementation of transportation system improvement~~s~~ projects or programs identified in this document, no environmental impacts would be directly associated with this action. This program EIR serves as a first-tier environmental document under CEQA supporting second-tier environmental documents for:

- Transportation projects developed during the engineering design process; and
- Residential or mixed use projects and transit priority projects consistent with the SCS.

This EIR evaluates potential impacts against existing conditions at the time of the release of the NOP (June 2013), where information is available, for issue areas that would not be substantially influenced by future regional growth that would occur with or without implementation of the 2035 MTP/SCS. It was determined that for these issues a comparison to current, existing baseline conditions would provide ~~the most~~ relevant information for the public, responsible agencies, and AMBAG decision makers. These issue areas include:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Environmental Justice
- Geology
- Greenhouse Gases
- Hydrology/Water Quality
- Land Use
- Transportation and Circulation

For the air quality, energy, greenhouse gas, and traffic environmental impacts resulting from the Program, this EIR evaluates potential impacts against both (1) a forecast future baseline condition and (2) current, existing baseline conditions, controlling for impacts caused by population growth and other factors that would occur whether or not the 2035 MTP/SCS or the RTPs prepared by the Monterey, San Benito, and Santa Cruz RTPAs are adopted.

Class I impacts are defined as significant, unavoidable adverse impacts which require the adoption of a statement of overriding considerations per Section 15093 of the State CEQA Guidelines if the project is approved. Class II impacts are significant adverse impacts that can be feasibly mitigated to less than significant levels and which require findings to be made under Section 15091 of the State CEQA Guidelines. Class III are considered less than significant impacts, and Class IV are beneficial effects. Where mitigation is called for by the "Project Sponsor," "project sponsor" refers to the lead agency, such as Caltrans or the City of Santa Cruz, in charge of approving a transportation or land development project in accordance with the 2035 MTP/SCS.

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
AESTHETICS		
Impact AES-1 Proposed transportation improvement projects under the ~~2014~~ 2035 MTP/-SCS, as well as the land use patterns envisioned by the 2035 MTP/SCS and the RTPs for Monterey, San Benito, and Santa Cruz Counties, may affect public views along designated scenic corridors, adjacent landscaping, and other highways or roadways considered to have high scenic qualities. This would be a Class II, *significant but mitigable* impact.	**AES-1(a)** Where a particular 2035 MTP/SCS transportation improvement project affects adjacent landforms, the project sponsor shall ensure that re-contouring provides a smooth and gradual transition between modified landforms and existing grade. (Implementing agencies: RTPAs, transportation project sponsor agencies) **AES-1(b)** The project sponsor shall ensure that landscaping is installed to restore natural features along corridors where possible after widening, interchange modifications, re-alignment, or construction of ancillary facilities. Associated landscape materials and design shall enhance landform variation, provide erosion control, and blend with the natural setting. Implementing agency shall provide a performance security equal to the value of the landscaping/irrigation installation to ensure compliance with landscaping plans. (Implementing agencies: RTPAs, transportation project sponsor agencies) **AES-1(c)** The project sponsor shall ensure that a project in a scenic view corridor will have the minimum possible impact, consistent with project goals, upon foliage, existing landscape architecture, and natural scenic views. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)	*Less than significant.*

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	AES-1(d) Potential noise impacts arising from increased traffic volumes associated with adjacent land development shall be preferentially mitigated through the use of setbacks and the acoustical design of adjacent proposed structures. The use of sound walls, or any other architectural features that could block views from the scenic highways or other view corridors, shall be discouraged to the extent possible. Where use of sound walls is found to be necessary, walls shall incorporate offsets, accents, and landscaping to prevent monotony. In addition, sound walls should be complementary in color and texture to surrounding natural features.	
Impact AES-2 Development of proposed transportation improvement projects under the 2035 MTP/SCS, as well as the land use patterns envisioned by the 2035 MTP/SCS would contribute to the alteration of the Monterey Bay area's aesthetic character. This impact would be significant because the region's existing visual character or quality would be degraded. This would be a Class I, *significant and unavoidable* impact.	**AES-2(a)** New roadways, and extensions and widenings of existing roadways, shall avoid the removal of existing mature trees to the extent possible. The project sponsor of a particular 2035 MTP/SCS project shall replace any trees lost at a minimum 2:1 basis and incorporate them into the landscaping design for the roadway when feasible. The project sponsor also shall ensure the continued vitality of replaced trees through periodic maintenance (see Mitigation Measure B-1(k) in Section 4.3 *Biological Resources*). (Implementing agencies: RTPAs, transportation project sponsor agencies) **AES-2(b)** Roadway lighting shall be minimized to the extent possible, and shall not exceed the minimum height requirements of the local jurisdiction in which the project is proposed. This may be accomplished through the use of hoods, low intensity lighting, and using a few lights as necessary to achieve the goals of the project. (Implementing agencies: RTPAs, transportation project sponsor agencies) **AES-2(c)** Bus shelters and other ancillary facilities constructed under the 2035 MTP/SCS shall be designed in accordance with the architectural review requirements of the local jurisdiction in which the project is proposed and with local transit requirements and standards. Bus shelters shall incorporate colors and wood materials complementary of the natural surroundings. (Implementing agencies: RTPAs, transportation project sponsor agencies)	Implementation of the above mitigation measures would reduce project-specific impacts to the extent feasible. Nevertheless, the incremental alteration of the area's current rural or semi-rural character to a more suburban environment is considered a *significant and unavoidable (Class I) impact.*

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
AIR QUALITY		
Impact AQ-1 Construction activities associated with transportation projects under the 2035 MTP/SCS, as well as the land use patterns envisioned by the 2035 MTP/SCS would create fugitive dust and ozone precursor emissions and have the potential to result in temporary adverse impacts on air quality in the NCCAB Impacts would be Class II*, significant but mitigable.*	**AQ-1(a)** The project sponsor shall incorporate MBUAPCD feasible mitigation measures for inhalable particles based on analysis of individual sites and project circumstances. MBUAPCD feasible mitigation measures include: • Water all active construction areas at least twice daily. Frequency should be based on the type of operation, soil, and wind exposure. • Prohibit all grading activities during periods of high wind (over 15 mph). • Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days). • Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations and hydro seed area. • Haul trucks shall maintain at least 2'0" of freeboard. • Cover all trucks hauling dirt, sand, or loose materials. • Plant tree windbreaks on the windward perimeter of construction projects if adjacent to open land. • Plant vegetative ground cover in disturbed areas as soon as possible. • Cover inactive storage piles. • Install wheel washers at the entrance to construction sites for all exiting trucks. • Pave all roads on construction sites. • Sweep streets if visible soil material is carried out from the construction site. • Post a publicly visible sign which specifies the telephone number and person to contact regarding dust complaints. This person shall respond to complaints and take corrective action within 48 hours. The phone number of the Monterey Bay Unified Air Pollution Control District shall be visible to ensure compliance with Rule 402 (Nuisance). • Limit the area under construction at any one time. • (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)	*Less than significant*.

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	AQ-1(b) ~~The project sponsor shall ensure that fleet owners of mobile construction equipment are subject to the California Air Resources Board Regulation for In-use Off-road Diesel Vehicles (Title 13 California Code of Regulations, Chapter 9, § 2449), the purpose of which is to reduce diesel particulate matter and criteria pollutant emissions from in-use (existing) off-road diesel-fueled vehicles.~~ The project sponsor ~~shall~~ also ensure to the maximum extent feasible, that diesel construction equipment meeting the California Air Resources Board Tier 3 ~~2 or higher~~ emission standards for off-road heavy-duty diesel engines is used. If use of Tier 3 ~~2~~ equipment it not feasible, diesel construction equipment meeting Tier 2 ~~1~~ (or if infeasible, Tier 1), emission standards shall be used. These measures shall be noted on all construction plans and the project sponsor shall perform periodic site inspections. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects) **AQ-1(c)** The project sponsor shall ensure that to the extent possible, construction activity utilizes electricity from power poles rather than temporary diesel power generators and/or gasoline power generators. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects) **AQ-1(d)** In addition to performing the measures listed above, if implementation of all feasible on-site mitigation fails to reduce construction-related air quality emissions to below threshold ~~guideline~~ levels (to be determined on a project-specific basis), the project sponsor shall ensure that the implementing agency contributes monies for off-site mitigation, as necessary to reduce construction emissions below guideline levels. Monies shall be contributed to an existing fund established to implement vehicle and equipment replacement/conversion and other programs designed to reduce ROG and NO_X emissions. This mitigation shall be accomplished through the application of this condition by the responsible jurisdiction during the individual project's environmental review and shall only be applied following application of all feasible on-site mitigation. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)	

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	AQ-1(e) The project sponsor shall ensure that the removal of underground storage tanks and other project excavation is a permitted activity in accordance with MBUAPCD rules and regulations. This shall be accomplished through the issuance of MBUAPCD permits to the project sponsor prior to issuance of a grading permit. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)	
Impact AQ-2 Implementation of the 2035 MTP/SCS would reduce emissions of ozone precursors as compared to existing conditions as defined by the 2035 MTP/SCS 2010 baseline or the 2012 Triennial Plan Revision baseline and as compared to the future 'no project scenario.' PM_{10} emissions would slightly increase, but the increase would be less than significant. Therefore, long-term operational impacts would be Class III, *less than significant*.	None required.	*Less than significant*.
Impact AQ-3 The transportation improvement projects and the land use envisioned by the 2035 MTP/SCS may facilitate increased exposure of sensitive receptors to hazardous air pollutants and odorous compounds. Implementation of the 2035 MTP/SCS would not result in a significant regional increase in toxic air emissions or odorous compounds when compared to the 2010 AMBAG baseline and 2010 APCD baseline, or when compared to the future 'no project scenario.' However, localized increases may occur as a result of infill and transit oriented development facilitated by the 2035 MTP/SCS land use scenario. Impacts would be Class II*, significant but mitigable.*	**AQ-3(a)** The project sponsor shall incorporate health risk reduction measures based on analysis of individual sites and project circumstances. These measures may include: • Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day. • Design the project to minimize exposure to roadway-related pollutants to the maximum extent feasible through inclusion of design components including air filtration and physical barriers. • Do not locate sensitive receptors near the entry and exit points of a distribution center. • ~~Do not locate sensitive receptors in the same building as a perchloroethylene dry cleaning facility~~Locate structures and outdoor living areas for sensitive uses as far as possible from the source of emissions. As feasible, locate doors, outdoor living areas, and air intake vents primarily on the side of the building away from the freeway or other pollution source. As feasible, incorporate dense, tiered vegetation that regains foliage year round and has a long life span between the pollution source and the project.	*Less than significant.*

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	• Maintain a 50-foot buffer from a typical gas dispensing facility (under 3.6 million gallons of gas per year). • Install, operate and maintain in good working order a central heating and ventilation (HV) system or other air take system in the building, or in each individual residential unit, that meets the efficiency standard of the MERV 13. The HV system should include the following features: Installation of a high efficiency filter and/or carbon filter-to-filter particulates and other chemical matter from entering the building. Either HEPA filters or ASHRAE 85% supply filters should be used. Ongoing maintenance should occur. • Retain a qualified HV consultant or HERS rater during the design phase of the project to locate the HV system based on exposure modeling from the mobile and/or stationary pollutant sources. • Maintain positive pressure within the building. • Achieve a performance standard of at least one air exchange per hour of fresh outside filtered air. • Achieve a performance standard of at least 4 air exchanges per hour of recirculation. Achieve a performance standard of .25 air exchanges per hour of in unfiltered infiltration if the building is not positively pressurized. • Require project owners to provide a disclosure statement to occupants and buyers summarizing technical studies that reflect health concerns about exposure to highway exhaust emissions. • Retain a qualified air quality consultant to prepare a health risk assessment (HRA) in accordance with the California Air Resources Board and the Office of Environmental Health and Hazard Assessment requirements to determine the exposure of project residents/occupants/users to stationary air quality polluters prior to issuance of a demolition, grading, or building permit. Project sponsors shall implement HRA recommendations to a level which would not result in exposure of sensitive receptors to substantial pollutant concentrations	

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	(pursuant to State CEQA Guidelines). • Project sponsors shall implement feasible attenuation measures needed to reduce potential air quality impacts to sensitive receptors such as air filtration systems. • (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)	
Impact AQ-4 Re-entrained dust has the potential to increase airborne PM_{10} and $PM_{2.5}$ levels in Monterey, San Benito and Santa Cruz counties. The increase in growth expected through the 2035 MTP/SCS planning horizon would result in additional vehicle miles traveled, which would add to the PM_{10} and $PM_{2.5}$ levels in the area. However, re-entrained dust levels would be lower with the 2035 MTP/SCS than under the 'no project scenario. In addition, with implementation of MBUAPCD control measures to reduce such emissions, impacts would be Class III, *less than significant*.	None required.	*Less than significant.*
Impact AQ-5 Since the MBUAPCD 2012 Triennial Plan Revision was prepared before the more recent socioeconomic growth assumptions that are used in the 2035 MTP/SCS were adopted, the 2035 MTP/SCS growth assumptions and forecast horizon are not consistent with those in the Triennial Plan Revision. However, since the 2035 MTP/SCS reduces emissions of ozone precursors to levels below those identified in the Triennial Plan Revision, it would not conflict with or obstruct implementation of the Triennial Plan Revision; and therefore, impacts would be Class III, *less than significant*.	None required.	*The 2035 MTP/SCS would be consistent with the Clean Air Plan (CAP).*

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
BIOLOGICAL RESOURCES		
Impact B-1 Implementation of transportation improvements proposed and the land use scenario envisioned by the 2035 MTP/SCS may result in substantial adverse impacts to special status plant and animal species, either directly or through habitat modification. Impacts would be Class II, *significant but mitigable*.	**B-1(a) Biological Resources Screening and Assessment.** On a project-by-project basis, a preliminary biological resource screening shall be performed as part of the environmental review process to determine whether the project has any potential to impact biological resources. If it is determined that the project has no potential to impact biological resources, no further action is required. If the project would have the potential to impact biological resources, prior to construction, a qualified biologist shall conduct a biological resources assessment (BRA) or similar type of study to document the existing biological resources within the project footprint plus a buffer and to determine the potential impacts to those resources. The BRA shall evaluate the potential for impacts to all biological resources including, but not limited to special status species, nesting birds, wildlife movement, sensitive plant communities/critical habitat, Essential Fish Habitat, and other resources judged to be sensitive by local, state, and/or federal agencies. Pending the results of the BRA, design alterations, further technical studies (i.e. protocol surveys) and/or consultations with the USFWS, CDFW and/or other local, state, and federal agencies may be required. The following mitigation measures [B-1(b) through B-1(k)] shall be incorporated, only as applicable, into the BRA for projects where specific resources are present or may be present and impacted by the project. Note that specific surveys described in the mitigation measures below may be completed as part of the BRA where suitable habitat is present. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects) **B-1(b) Special Status Plant Species Surveys.** If completion of the project-specific BRA determines that special status plant species may occur on-site, surveys for special status plants shall be completed prior to any vegetation removal, grubbing, or other construction activity of each segment (including staging and mobilization). The surveys shall be floristic in nature and shall be seasonally-timed to coincide with the target species identified in the project-specific BRA. All plant surveys shall be conducted by a qualified biologist approved by the implementing agency no more than two years before initial ground disturbance. All special status plant species identified on-site shall be	*Less than significant*.

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	mapped onto a site-specific aerial photograph and topographic map. Surveys shall be conducted in accordance with the most current protocols established by the CDFW, USFWS, and the local jurisdictions if said protocols exist. A report of the survey results shall be submitted to the implementing agency, and the CDFW and/or USFWS, as appropriate, for review and approval. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects) **B-1(c) Special Status Plant Species Avoidance, Minimization, and Mitigation.** If State listed or California Rare Plant List 1B species are found during special status plant surveys [pursuant to mitigation measure B-1(b)], then the project shall be re-designed to avoid impacting these plant species, if feasible. Rare plant occurrences that are not within the immediate disturbance footprint, but are located within 50 feet of disturbance limits shall have bright orange protective fencing installed at least 30 feet beyond their extent, or other distance as approved by a qualified biologist, to protect them from harm. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects) **B-1(d) Restoration and Monitoring.** If special status plants species cannot be avoided and will be impacted by a project implemented under the 2035 MTP/SCS, all impacts shall be mitigated at a minimum ratio of 2:1 (number of acres/individuals restored to number of acres/individuals impacted) for each species as a component of habitat restoration. A restoration plan shall be prepared and submitted to the jurisdiction overseeing the project for approval. (Note: if a state listed plant species will be impacted, the restoration plan shall be submitted to the CDFW for approval). The restoration plan shall include, at a minimum, the following components: • Description of the project/impact site (i.e., location, responsible parties, areas to be impacted by habitat type); • Goal(s) of the compensatory mitigation project [type(s) and area(s) of habitat to be established, restored, enhanced, and/or preserved; specific functions and values of habitat type(s) to be established, restored,	

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	enhanced, and/or preserved]; • Description of the proposed compensatory mitigation site (location and size, ownership status, existing functions and values); • Implementation plan for the compensatory mitigation site (rationale for expecting implementation success, responsible parties, schedule, site preparation, planting plan); • Maintenance activities during the monitoring period, including weed removal as appropriate (activities, responsible parties, schedule); • Monitoring plan for the compensatory mitigation site, including no less than quarterly monitoring for the first year (performance standards, target functions and values, target acreages to be established, restored, enhanced, and/or preserved, annual monitoring reports); • Success criteria based on the goals and measurable objectives; said criteria to be, at a minimum, at least 80 percent survival of container plants and 30 percent relative cover by vegetation type; • An adaptive management program and remedial measures to address any shortcomings in meeting success criteria; • Notification of completion of compensatory mitigation and agency confirmation; and • Contingency measures (initiating procedures, alternative locations for contingency compensatory mitigation, funding mechanism). • (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects) **B-1(e) Endangered/Threatened Species Habitat Assessment and Protocol Surveys.** Specific habitat assessment and survey protocol surveys are established for several federally and State Endangered or Threatened species. If the results of the BRA determine that suitable habitat may be present any such species, protocol habitat assessments/surveys shall be completed in accordance with CDFW and/or USFWS protocols prior to issuance of any construction permits. If through consultation with the CDFW and/or USFWS it	

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	is determined that protocol habitat assessments/surveys are not required, said consultation shall be documented prior to issuance of any construction permits. Each protocol has different survey and timing requirements. The applicants for each project shall be responsible for ensuring they understand the protocol requirements. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects) **B-1(f) Endangered/Threatened Species Avoidance and Minimization.** The habitat requirements of endangered and threatened species throughout Santa Cruz, Monterey, and San Benito Counties are highly variable. The potential impacts from any given project implemented under the 2035 MTP/SCS are likewise highly variable. However, there are several avoidance and minimization measures which can be applied for a variety of species to reduce the potential for impact, with the final goal of no net loss of the species. The following measures may be applied to aquatic and/or terrestrial species. Project sponsors shall select from these measures as appropriate. • Ground disturbance shall be limited to the minimum necessary to complete the project. The project limits of disturbance shall be flagged. Areas of special biological concern within or adjacent to the limits of disturbance shall have highly visible orange construction fencing installed between said area and the limits of disturbance. • All projects occurring within/adjacent to aquatic habitats (including riparian habitats and wetlands) shall be completed between April 1 and October 31, if feasible, to avoid impacts to sensitive aquatic species. • All projects occurring within or adjacent to sensitive habitats that may support federally and/or state Endangered/Threatened species shall have a CDFW and/or USFWS-approved biologist present during all initial ground disturbing/vegetation clearing activities. Once initial ground disturbing/vegetation clearing activities have been completed, said biologist shall conduct daily pre-activity clearance surveys for	

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	Endangered/Threatened species. Alternatively, and upon approval of the CDFW and/or USFWS, said biologist may conduct site inspections at a minimum of once per week to ensure all prescribed avoidance and minimization measures are begin fully implemented. • No Endangered/Threatened species shall be captured and relocated without expressed permission from the CDFW and/or USFWS. • If at any time during construction of the project an Endangered/Threatened species enters the construction site or otherwise may be impacted by the project, all project activities shall cease. A CDFW/USFWS-approved biologist shall document the occurrence and consult with the CDFW and/or USFWS as appropriate. • For all projects occurring in areas where Endangered/Threatened species may be present and are at risk of entering the project site during construction, exclusion fencing shall be placed along the project boundaries prior to start of construction (including staging and mobilization). The placement of the fence shall be at the discretion of the CDFW/USFWS-approved biologist. This fence shall consist of solid silt fencing placed at a minimum of 3 feet above grade and 2 feet below grade and shall be attached to wooden stakes placed at intervals of not more than 5 feet. The fence shall be inspected weekly and following rain events and high wind events and shall be maintained in good working condition until all construction activities are complete. • All vehicle maintenance/fueling/staging shall occur not less than 100 feet from any riparian habitat or water body. Suitable containment procedures shall be implemented to prevent spills. A minimum of one spill kit shall be available at each work location near riparian habitat or water bodies. • No equipment shall be permitted to enter wetted portions of any affected drainage channel.	

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	• All equipment operating within streams shall be in good conditions and free of leaks. Spill containment shall be installed under all equipment staged within stream areas and extra spill containment and clean up materials shall be located in close proximity for easy access. • If project activities could degrade water quality, water quality sampling shall be implemented to identify the pre-project baseline, and to monitor during construction for comparison to the baseline. • If water is to be diverted around work sites, a diversion plan shall be submitted (depending upon the species that may be present) to the CDFW, RWQCB, USFWS, and/or NMFS for their review and approval prior to the start of any construction activities (including staging and mobilization). If pumps are used, all intakes shall be completely screened with wire mesh not larger than five millimeters to prevent animals from entering the pump system. • At the end of each work day, excavations shall be secured with cover or a ramp provided to prevent wildlife entrapment. • All trenches, pipes, culverts or similar structures shall be inspected for animals prior to burying, capping, moving, or filling. • The CDFW/USFWS-approved biologist shall remove invasive aquatic species such as bullfrogs and crayfish from suitable aquatic habitat whenever observed and shall dispatch them in a humane manner and dispose of properly. • If any federally and/or state protected species are harmed, the CDFW/USFWS-approved biologist shall document the circumstances that led to harm and shall determine if project activities should cease or be altered in an effort to avoid additional harm to these species. Dead or injured special status species shall be disposed of at the discretion of the CDFW and USFWS. All incidences of harm shall be reported to the CDFW and USFWS within 48 hours.	

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	• (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects) **B-1(g) Non-Listed Special Status Animal Species Avoidance and Minimization.** Several State Species of Special Concern may be impacted by projects implemented under the 2035 MTP/SCS. The ecological requirements and potential for impacts is highly variable among these species. Depending on the species identified in the BRA, several of the measures identified under B-1(f) shall be applicable to the project. In addition, measures shall be selected from among the following to reduce the potential for impacts to non-listed special status animal species: • For non-listed special-status terrestrial amphibians and reptiles, coverboard surveys shall be completed within three months of the start of construction. The coverboards shall be at least four feet by four feet and constructed of untreated plywood placed flat on the ground. The coverboards shall be checked by a qualified biologist once per week for each week after placement up until the start of vegetation removal. All non-listed special status and common animals found under the coverboards shall be captured and placed in five-gallon buckets for transportation to relocation sites. All relocation sites shall be reviewed by the project sponsor and shall consist of suitable habitat. Relocation sites shall be as close to the capture site as possible but far enough away to ensure the animal(s) is not harmed by construction of the project. Relocation shall occur on the same day as capture. CNDDB Field Survey Forms shall be submitted to the CFDW for all special status animal species observed. • Pre-construction clearance surveys shall be conducted within 14 days of the start of construction (including staging and mobilization). The surveys shall cover the entire disturbance footprint plus a minimum 200 foot buffer, if feasible, and shall identify all special status animal species that may occur on-site. -All	

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	non-listed special status species shall be relocated from the site either through direct capture or through passive exclusion (e.g., American badger). A report of the pre-construction survey shall be submitted to AMBAG, RTPA, and or the local jurisdiction for their review and approval prior to the start of construction. • A qualified biologist shall be present during all initial ground disturbing activities, including vegetation removal to recover special status animal species unearthed by construction activities. • Upon completion of the project, a qualified biologist shall prepare a Final Compliance report documenting all compliance activities implemented for the project, including the pre-construction survey results. The report shall be submitted within 30 days of completion of the project. • If special status bat species may be present and impacted by the project, a qualified biologist shall conduct within 30 days of the start of construction presence/absence surveys for special status bats in consultation with the CDFW where suitable roosting habitat is present. Surveys shall be conducted using acoustic detectors and by searching tree cavities, crevices, and other areas where bats may roost. If active roosts are located, exclusion devices such as netting shall be installed to discourage bats from occupying the site. If a roost is determined by a qualified biologist to be used by a large number of bats (large hibernaculum), bat boxes shall be installed near the project site. The number of bat boxes installed will depend on the size of the hibernaculum and shall be determined through consultations with the CDFW. If a maternity colony has become established, all construction activities shall be postponed within a 500-foot buffer around the maternity colony until it is determined by a qualified biologist that the young have dispersed. Once it has been determined that the roost is clear of bats, the roost shall be removed immediately.	

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Impact	Mitigation Measures	Significance After Mitigation
	• (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects) **B-1(h) Preconstruction Surveys for Nesting Birds.** For construction activities occurring during the nesting season (generally February 1 to September 15), surveys for nesting birds covered by the California Fish and Game Code and the Migratory Bird Treaty Act shall be conducted by a qualified biologist no more than 14 days prior to vegetation removal. The surveys shall include the entire segment disturbance area plus a 200 foot buffer around the site. If active nests are located, all construction work shall be conducted outside a buffer zone from the nest to be determined by the qualified biologist. The buffer shall be a minimum of 50 feet for non-raptor bird species and at least 150 feet for raptor species. Larger buffers may be required depending upon the status of the nest and the construction activities occurring in the vicinity of the nest. The buffer area(s) shall be closed to all construction personnel and equipment until the adults and young are no longer reliant on the nest site. A qualified biologist shall confirm that breeding/nesting is completed and young have fledged the nest prior to removal of the buffer. A report of these preconstruction nesting bird surveys shall be submitted to AMBAG, RTPA, and/or the local jurisdiction. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects) **B-1(j)** Worker Environmental Awareness Program (WEAP). Prior to initiation of construction activities (including staging and mobilization), all personnel associated with project construction shall attend WEAP training, conducted by a qualified biologist, to aid workers in recognizing special status resources that may occur in the project area. The specifics of this program shall include identification of the sensitive species and habitats, a description of the regulatory status and general ecological characteristics of sensitive resources, and review of the limits of construction and mitigation measures required to reduce impacts to biological resources within the work area. A fact sheet conveying this information shall also be prepared for distribution to all contractors, their employers, and other personnel involved with construction of the project. All employees shall sign a form documenting that they have attended the	

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Impact	Mitigation Measures	Significance After Mitigation
	WEAP and understand the information presented to them. The form shall be submitted to AMBAG, RTPA, and/or the local jurisdiction to document compliance. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects) **B-1(k) Tree Protection.** If it is determined that construction may impact trees protected by local agencies, the project sponsor shall procure all necessary tree removal permits. A tree protection and replacement plan shall be developed by a certified arborist as appropriate. The plan shall include, but would not be limited to, an inventory of trees to within the construction site, setbacks from trees and protective fencing, restrictions regarding grading and paving near trees, direction regarding pruning and digging within root zone of trees, and requirements for replacement and maintenance of trees. If protected trees will be removed, replacement tree plantings of like species in accordance with local agency standards, but at a minimum ratio of 2:1 (trees planted to trees impacted), shall be installed on-site or at an approved off-site location and a restoration and monitoring program shall be developed in accordance with B-1(d) and shall be implemented for a minimum of seven years or until stasis has been determined by certified arborist. If a protected tree shall be encroached upon but not removed, a certified arborist shall be present to oversee all trimming of roots and branches. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)	
Impact B-2 Implementation of transportation improvements proposed and the land use scenario envisioned by the 2035 MTP/SCS may result in substantial adverse impacts to sensitive habitats, including federally protected wetlands. This impact would be Class II, *significant but mitigable*.	**B-2(a) Wetland ~~Jurisdictional~~ Delineation.** If projects implemented under the 2035 MTP/SCS occur within or adjacent to wetland, drainages, riparian habitats, or other areas that may fall under the jurisdiction of the CDFW, USACE, RWQCB, and/or CCC, a qualified biologist shall complete a wetland ~~jurisdictional~~ delineation. The wetland ~~jurisdictional~~ delineation shall determine the extent of the jurisdiction for each of these agencies and shall be conducted in accordance with the requirement set forth by each agency. The result shall be a preliminary wetland ~~jurisdictional~~ delineation report that shall be submitted to the implementing agency, USACE, RWQCB, CDFW, and CCC, as appropriate, for review and approval. If jurisdictional areas are expected to be impacted, then the RWQCB would require a	*Less than significant.*

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Impact	Mitigation Measures	Significance After Mitigation
	Waste Discharge Requirements (WDR) permit and/or Section 401 Water Quality Certification (depending upon whether or not the feature falls under federal jurisdiction). If CDFW asserts its jurisdictional authority, then a Streambed Alteration Agreement pursuant to Section 1600 *et seq.* of the California Fish and Game Code would also be required prior to construction within the areas of CDFW jurisdiction. If the USACE asserts its authority, then a permit pursuant to Section 404 of the Clean Water Act would likely be required. The CCC would also require a coastal development permit for projects falling within its jurisdiction. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects) **B-2(b) Wetland and Riparian Habitat Restored.** Impacts to jurisdictional wetland and riparian habitat shall be mitigated at a minimum ratio of 2:1 (acres of habitat restored to acres impacted), and shall occur on-site or as close to the impacted habitat as possible. A mitigation and monitoring plan shall be developed by a qualified biologist in accordance with mitigation measure B-1(d) above and shall be implemented for no less than five years after construction of the segment, or until the AMBAG/RTPA/local jurisdiction and/or the permitting authority (e.g., CDFW or USACE) has determined that restoration has been successful. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects) **B-2(c) Landscaping Plan.** If landscaping is proposed for a specific project, a qualified biologist/landscape architect shall prepare a landscape plan for that project. This plan shall indicate the locations and species of plants to be installed. Drought tolerant, locally native plant species shall be used. Noxious, invasive, and/or non-native plant species that are recognized on the Federal Noxious Weed List, California Noxious Weeds List, and/or California Invasive Plant Council Lists 1, 2, and 4 shall not be permitted. Species selected for planting shall be similar to those species found in adjacent native habitats. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)	

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Impact	Mitigation Measures	Significance After Mitigation
	B-2(d) Invasive Weed Prevention and Management Program. Prior to start of construction for each project, an Invasive Weed Prevention and Management Program shall be developed by a qualified biologist to prevent invasion of native habitat by non-native plant species. A list of target species shall be included, along with measures for early detection and eradication. All disturbed areas shall be hydroseeded with a mix of locally native species upon completion of work in those areas. In areas where construction is ongoing, hydroseeding shall occur where no construction activities have occurred within six (6) weeks since ground disturbing activities ceased. If exotic species invade these areas prior to hydroseeding, weed removal shall occur in consultation with a qualified biologist and in accordance with the restoration plan. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)	
Impact B-3 Implementation of transportation improvements proposed and the land use scenario envisioned by the 2035 MTP/SCS may interfere substantially with ~~impact~~ wildlife movement, including fish migration, and/or impede the use of a native wildlife nursery. This impact would be Class I, *significant and unavoidable*.	**B-3(a) Fence and Lighting Design.** All projects including long segments of fencing and lighting shall be designed to minimize impacts to wildlife. Fencing shall not block wildlife movement through riparian or other natural habitat. Where fencing is required for public safety concerns, the fence shall be designed to permit wildlife movement by incorporating design features such as: • A minimum 16 inches between the ground and the bottom of the fence to provide clearance for small animals; • A minimum 12 inches between the top two wires, or top the fence with a wooden rail, mesh, or chain link instead of wire to prevent animals from becoming entangled; and • If privacy fencing is required near open space areas, openings at the bottom of the fence measure at least 16 inches in diameter shall be installed at reasonable intervals to allow wildlife movement. • If fencing must designed in such a manner that wildlife passage would not be permitted, wildlife crossing structures shall be incorporated into the project design as appropriate. • Similarly, lighting installed as part of any project shall be designed to be minimally disruptive to wildlife. This may be accomplished through the use of hoods to direct light away from natural habitat, using low intensity lighting, and using a few lights as	*Significant and unavoidable.*

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	necessary to achieve the goals of the project. • (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects) **B-3 (b) Construction Best Management Practices.** The following construction Best Management Practices (BMPs) shall be incorporated into all grading and construction plans: • Designation of a 20 mile per hour speed limit in all construction areas. • All vehicles and equipment shall be parked on pavement, existing roads, and previously disturbed areas, and clearing of vegetation for vehicle access shall be avoided to the greatest extent feasible. • The number of access routes, number and size of staging areas, and the total area of the activity shall be limited to the minimum necessary to achieve the goal of the project. • Designation of equipment washout and fueling areas to be located within the limits of grading at a minimum of 100 feet from waters, wetlands, or other sensitive resources as identified by a qualified biologist. Washout areas shall be designed to fully contain polluted water and materials for subsequent removal from the site. • Daily construction work schedules shall be limited to daylight hours only [consistent with mitigation measure N-1(a) (Construction Hours) in Section 4.11, Noise]. • Mufflers shall be used on all construction equipment and vehicles shall be in good operating condition. • Drip pans shall be placed under all stationary vehicles and mechanical equipment. • All trash shall be placed in sealed containers and shall be removed from the project site a minimum of once per week. • No pets are permitted on project site during construction. • (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)	

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Impact	Mitigation Measures	Significance After Mitigation
CULTURAL RESOURCES		
Impact CR-1 Implementation of proposed transportation improvements and the land use scenario envisioned by the 2035 MTP/SCS could cause a substantial change in ~~disturb~~ known and unknown cultural resources that are "historic resources" or "unique archeological resources" as defined in CEQA Section 15064.5. Impacts to archaeological ~~and paleontological~~ resources would be Class II, *significant but mitigable* and impacts to historical resources would be Class I, *significant and unavoidable.*	**CR-1(a)** The project sponsor of a 2035 MTP/SCS project involving earth disturbance, the installation of pole signage or lighting, or construction of permanent above ground structures or roadways shall ensure that the following elements are included in the project's individual environmental review: 1. Prior to project construction, a map defining the Area of Potential Effects (APE) shall be prepared on a project by project basis for 2035 MTP/SCS improvements which involve earth disturbance, the installation of pole signage or lighting, or construction of permanent above ground structures. This map will indicate the areas of primary and secondary disturbance associated with construction and operation of the facility and will help in determining whether known archeological, paleontological or historical resources are located within the impact zone. 2. A preliminary study of each project area, as defined in the APE, shall be completed to determine whether or not the project area has been studied under an earlier investigation, and to determine the impacts of the previous project. 3. If the results of the preliminary studies indicate additional studies are necessary; development of field studies and/or other documentary research shall be developed and completed (Phase I studies). Negative results would result in no additional studies for the project area. 4. Based on positive results of the Phase I studies, a Phase II evaluation of identified resources shall be completed to determine the potential eligibility/significance of the resources. Phase III mitigation studies shall be coordinated with the Office of Historic Preservation (OHP), as the research design will require review and approval from the OHP. In the case of prehistoric or Native American related resources, the Native American Heritage Commission and/or local representatives of the Native American	Impacts to archaeological and paleontological resources would be *less than significant.* Impacts related to historic structures would remain, *significant and unavoidable*.

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	population shall be contacted for input and permitted to respond to the testing/mitigation programs. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects) **CR-1(b)** If development of the proposed improvement requires the presence of an archaeological, Native American, or paleontological monitor, the project sponsor shall ensure that a Native American monitor, certified archaeologist, and/or certified paleontologist, as applicable, monitors the grading and/or other initial ground altering activities. The schedule and extent of the monitoring will depend on the grading schedule and/or extent of the ground alterations. This requirement can be accomplished through placement of conditions on the project by the local jurisdiction during individual project permitting. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects) **CR-1(c)** The project sponsor shall ensure that materials recovered over the course of any given improvement are adequately cleaned, labeled, and curated at a recognized repository. This requirement can be accomplished through placement of conditions on the project by the local jurisdiction during individual project permitting (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects) **CR-1(d)** The project sponsor shall ensure that mitigation for potential impacts to significant cultural resources includes one or more of the following: • Realignment of the project right-of-way (avoidance, the most preferable method); • Capping of the site and leaving it undisturbed; • Addressing structural remains with respect to NRHP guidelines (Phase III studies); • Relocating structures per NRHP guidelines; • Creation of interpretative facilities; and/or • Development of measures to prevent vandalism.	

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Impact	Mitigation Measures	Significance After Mitigation
	This can be accomplished through placement of conditions on the project by the local jurisdiction during individual project permitting. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)	
ENERGY		
Impact E-1 Future transportation improvement projects and implementation of the land use scenario envisioned by the 2035 MTP/SCS would increase demand for energy beyond existing conditions. However, the 2035 MTP/SCS would not result in inefficient, unnecessary, or wasteful direct or indirect consumption of energy, and would be consistent with applicable federal, state, and local energy conservation policies. As such, this impact would be considered Class III, *less than significant*.	None required. ~~**E-1(a)** New facilities should be designed with energy efficient equipment and passive solar design (e.g., orientation of building to maximize natural heating and cooling, solar water heating, use of daylighting, and placement of trees to aid passive cooling, protection from prevailing winds, and maximum year-round solar access), provided that additional capital costs are offset by estimated energy savings during the first 5 years of operation. Additional improvements with longer payback periods, such as photovoltaic solar electric systems, should be considered where applicable.~~ ~~**E-1(b)** All lighting should be energy efficient and designed to use the least amount of energy to serve the purpose of the lighting. Lighting should utilize solar energy wherever feasible.~~ ~~**E-1(c)** New landscaping design and irrigation systems should be water efficient.~~	*Less than significant.*
Impact E-2 2035 MTP/SCS projects would not significantly impact the transportation of energy resources within the region. This impact would be Class III, *less than significant.*	None required.	*Less than significant.*
ENVIRONMENTAL JUSTICE		
Impact EJ-1 Implementation of the 2035 MTP/SCS may cause adverse effects on a minority or low-income population; however, these potential impacts would not be disproportionately high as per Executive Order 12898 regarding environmental justice. This would be a Class III, *less than significant* impact.	None required in addition to those recommended to address impacts to Air Quality, Noise and Transportation.	*Less than significant.*

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Impact	Mitigation Measures	Significance After Mitigation
Impact EJ-2 The mobility benefits derived from the 2035 MTP/SCS related to travel accessibility by transit, single-occupancy vehicles, bicycling or walking will not be less for minority populations and low-income populations in the AMBAG region than for the population as a whole. This impact would be Class III, *less than significant.*	None required.	*Less than significant.*
GEOLOGY AND SOILS		
Impact G-1 Implementation of proposed transportation improvements and future projects facilitated by land use scenario envisioned in the 2035 MTP/SCS could be subject to seismic hazards, including fault rupture and groundshaking, that could expose people and structures to potential substantial effects. This would be a Class II, *significant but mitigable* impact.	**G-1(a)** If a 2035 MTP/SCS project is located in a zone of high potential groundshaking intensity, the project sponsor shall ensure that the structure is designed and constructed to the latest geotechnical standards. In most cases, this will necessitate site-specific geologic and soils engineering investigations conducted by a qualified geotechnical expert. Any investigations shall comply with the California Geological Survey's *Guidelines for Evaluating and Mitigating Seismic Hazards in California.* (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects) **G-1(b)** 2035 MTP/SCS projects shall be placed in areas outside of fault rupture zones whenever feasible, in accordance with State and local provisions. If avoidance is not possible, detailed geologic and seismic studies must be conducted by a qualified geotechnical expert to locate active or potentially active fault traces. Structures shall then be placed outside of an appropriate setback distance. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)	*Less than significant.*
Impact G-2 Implementation of proposed transportation improvements and future projects facilitated by the land use scenario envisioned in the 2035 MTP/SCS could be located on potentially unstable soils, or in areas of high liquefaction potential. This would be a Class II, *significant but mitigable* impact.	**If G-2(a)** If a 2035 MTP/SCS project is located in an area of moderate to high liquefaction potential, the project sponsor shall ensure that these structures are designed based upon site specific geology, soils, and earthquake engineering studies. Possible design measures include deep foundations, removal of liquefiable materials, and dewatering. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)	*Less than significant.*

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Impact	Mitigation Measures	Significance After Mitigation
	G-2(b) If a 2035 MTP/SCS project requires cut slopes over 20 feet in height or is located in areas of bedded or jointed bedrock, the project sponsor shall ensure that Hillside Stability Evaluations and/or specific slope stabilization studies are conducted. Possible stabilization methods include buttresses, retaining walls, and soldier piles. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects) **G-2(c)** If a 2035 MTP/SCS project is located in an area of highly expansive soils, the project sponsor shall ensure that a site-specific geotechnical investigation is conducted. The investigation will identify hazardous conditions and recommend appropriate design factors to minimize hazards. Such measures could include concrete slabs on grade with increased steel reinforcement, removal of highly expansive material and replacement with non-expansive import fill material, or chemical treatment with hydrated lime to reduce the expansion characteristics of the soils. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects) **G-2(d)** If a 2035~~305~~ MTP/SCS project involving deep foundations or underground areas is located in an area of high groundwater potential, the project sponsor shall ensure that appropriate construction techniques (such as de-watering, special water proofing, and deeper foundations) are implemented to minimize the potential for liquefaction. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)	
Impact G-3 Implementation of proposed transportation improvements and future projects facilitated by the land use scenario envisioned in the 2035 MTP/SCS could be subject to flood hazards due to storm events and/or dam failure, resulting in exposing people and structures to a significant risk of loss, injury, or death. Impacts are considered Class II, *significant but mitigable.*	**G-3(a)** If a 2035 MTP/SCS project is located in an area with high flooding potential due to a storm event or dam inundation or sea level rise due to climate change, the project sponsor shall ensure that the structure is elevated at least one foot above the 100-year flood zone elevation and that bank stabilization and erosion control measures are implemented along creek crossings. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)	*Less than significant.*

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Impact	Mitigation Measures	Significance After Mitigation
	G-3(b) In areas subject to tsunami effects, the project sponsor shall ensure that 2035 MTP/SCS projects involving the construction of new roadways or other structures are elevated above the 10-foot elevation by an appropriate margin. In addition, the project sponsors shall ensure that early warning systems and evacuation plans for tsunami events are developed and implemented. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)	
GREENHOUSE GAS EMISSIONS		
Impact GHG-1 Construction of the transportation improvement projects and future land use patterns envisioned by the 2035 MTP/SCS would generate temporary short-term GHG emissions that may have a significant effect. Impacts would be Class II, *significant but mitigable*.	**GHG-1** The project sponsor shall ensure that applicable GHG-reducing diesel particulate and NO_X emissions measures for off-road construction vehicles are implemented during construction. The measures shall be noted on all construction plans and the project sponsor shall perform periodic site inspections. Applicable GHG-reducing measures include the following. • Use of diesel construction equipment meeting CARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines, and comply with the State Off-Road Regulation; • Use of on-road heavy-duty trucks that meet the CARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines, and comply with the State On-Road Regulation; • All on and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in the designated queuing areas and or job sites to remind drivers and operators of the 5 minute idling limit; • Use of electric powered equipment in place of diesel powered equipment when feasible; • Substitute gasoline-powered in place of diesel-powered equipment, where feasible; ~~and~~ • Use of alternatively fueled construction equipment such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel, in place of diesel powered equipment for 15 percent of the fleet. ~~on site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel~~ • Use of materials sources from local suppliers; and	*Less than significant.*

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Impact	Mitigation Measures	Significance After Mitigation
	• Recycling and reuse of at least 50 percent of construction waste materials. • (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)	
Impact GHG-2 Implementation of the 2035 MTP/SCS would not result in a significant increase in per capita GHG emissions from the transportation sector compared to both 2010 baseline and future 'no project' conditions. In addition, the 2035 MTP/SCS would not result in a significant increase in total GHG emissions from the transportation sector compared to future "no project' conditions. Impacts would be Class III, *less than significant*.	None required.	*Less than significant.*
Impact GHG-3 Implementation of the 2035 MTP/SCS would not interfere with the GHG emissions reduction goals of AB 32 or SB 375. Impacts would be Class III, *less than significant*.	None required.	*Less than significant.*
Impact GHG-4 Implementation of the 2035 MTP/SCS would not interfere with the goals of applicable GHG reduction plans and policies, including the adopted climate action plans for Monterey County, the City of Monterey, the City of Santa Cruz, and the City of Gonzales, as well as AB 32 and SB 375. Impacts would be Class III, *less than significant*.	None required.	*Less than significant.*
HYDROLOGY AND WATER RESOURCES		
Impact W-1 Implementation of proposed transportation improvements and future projects facilitated by the land use scenario envisioned in the 2035 MTP/SCS would incrementally increase water above and beyond existing use in the Monterey Bay region, potentially requiring new or expanded water supplies, entitlements, or facilities. Such impacts would be Class II, *significant but mitigable*.	**W-1(a)** The sponsor of a 2035 MTP/SCS project shall ensure that, where economically feasible and available, reclaimed and/or desalinated water is used for dust suppression during construction activities. This measure shall be noted on construction plans and shall be spot checked by the local jurisdiction. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects) **W-1(b)** The sponsor of a 2035 MTP/SCS project shall ensure that low water use landscaping (i.e., drought tolerant plants and drip irrigation) is installed. When feasible, native plant species shall be used. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)	*Less than significant.*

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Impact	Mitigation Measures	Significance After Mitigation
	W-1(c) The sponsor of a 2035 MTP/SCS project shall ensure that, if feasible, landscaping associated with proposed improvements is maintained using reclaimed and/or desalinated water. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects) **W-1(d)** The sponsor of a 2035 MTP/SCS project shall ensure that porous pavement materials are utilized, where feasible, to allow for groundwater percolation. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects) **W-1(e)** The sponsor of a 2035 MTP/SCS project that requires potable water service shall coordinate with water supply system operators to ensure that the existing water supply systems have the capacity to handle the increase. If the current infrastructure servicing the project site is found to be inadequate, infrastructure improvements for the appropriate public service or utility should be provided by the project sponsor. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects) **W-1(f)** The sponsor of a 2035 MTP/SCS project shall ensure that bioswales are installed, where feasible, to facilitate groundwater recharge using stormwater runoff from the project site while improving water quality. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)	
Impact W-2 Implementation of proposed transportation improvements and future projects facilitated by the land use scenario envisioned in the 2035 MTP/SCS could result in substantial eroded sediments and contaminants in runoff, which could degrade surface and ground water quality. This impact is considered Class II, *significant but mitigable.*	**W-2(a)** The sponsor of a 2035 MTP/SCS project shall ensure that fertilizer/pesticide application plans for any new right-of-way landscaping are prepared to minimize deep percolation of contaminants. The plans shall specify the use of products that are safe for use in and around aquatic environments. (Implementing agencies: RTPAs, transportation project sponsor agencies) **W-2(b)** The sponsor of a 2035 MTP/SCS project involving construction of a new roadway, or widening or extension of an existing roadway, shall ensure that the improvement directs runoff into subsurface percolation basins and traps which would allow for the removal of urban pollutants, fertilizers, pesticides, and other chemicals. (Implementing agencies: RTPAs,	*Less than significant.*

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	transportation project sponsor agencies) **W-2(c)** For a 2035 MTP/SCS project that would disturb at least one acre, a SWPPP shall be developed prior to the initiation of grading and implemented for all construction activity on the project site. Consistent with requirements in the Clean Water Act, the SWPPP shall include specific BMPs to control the discharge of material from the site and into the creeks and local storm drains. BMP methods may include, but would not be limited to, the use of temporary retention basins, straw bales, sand bagging, mulching, erosion control blankets and soil stabilizers. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)	
LAND USE		
Impact LU-1 Implementation of proposed transportation improvements and the land use scenario envisioned by the 2035 MTP/SCS could result in land use conflicts with existing sensitive land uses. This is impact would be Class II, *significant but mitigable.*	Mitigation measures listed under Impact AES-1 and AES-2 in Section 4.1 *Aesthetics* would reduce potential aesthetic, light and glare impacts. Mitigation measures listed under Impact AQ-1 and AQ-3 in Section 4.2, *Air Quality,* would reduce localized air quality impacts. Mitigation measures listed under Impact N-1, N-2, N-3, and N-4 in Section 4.11, *Noise,* would reduce potential noise impacts. No specific mitigation is required to address impacts related to dividing established communities.	*Less than significant.*
Impact LU-2 The 2035 MTP/SCS would be consistent with applicable adopted State and local goals, policies, and regulations. This impact would be Class III, *less than significant.*	None required.	*Less than significant.*
LU-3 Implementation of proposed transportation improvements and the land use scenario envisioned by the 2035 MTP/SCS could result in the conversion of prime or non-prime agricultural lands into non-agricultural use. The overall impact to agriculture could be Class I, *significant and unavoidable*.	**LU-3(a)** When new roadway extensions or widening projects are planned, the project sponsor shall assure that project-specific environmental reviews consider alternative alignments that reduce or avoid impacts to agricultural lands. (Implementing agencies: RTPAs, transportation project sponsor agencies) **LU-3(b)** Rural roadway alignments shall follow property lines to the extent feasible, to minimize impacts to the agricultural production value of any specific property. Farmers shall be compensated for the loss of agricultural production at the margins of lost property, based on the amount of land deeded as road right-of-way, as a function of the total amount of production on the property. (Implementing agencies: RTPAs, transportation project sponsor agencies)	Although the above measures would reduce impacts to agriculture lands, the potential conversion of agricultural lands cannot be mitigated. Impacts from individual projects will be addressed on a case-by-case basis; however, because impacts to individual agricultural properties cannot be assumed to be less than significant, agricultural impacts are considered *significant and unavoidable.*

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	LU-3(c) Project sponsors should ~~consider~~ implement corridor realignment, buffer zones, setbacks, and fencing when feasible to reduce conflict between agricultural lands and neighboring uses. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects) **LU-3(d)** Farmland Conservation Easements. Prior to approval of 2035 MTP/SCS projects that may adversely impact prime farmland, the project sponsor shall require that a farmland conservation easement, a farmland deed restriction, or other farmland conservation mechanism be granted in perpetuity to the municipality in which the project is proposed, or an authorized agent thereof. The easement shall provide conservation acreage at a minimum ratio of 1:1 for direct impacts. The conservation area shall be located within the county where the project is proposed in reasonable proximity to the project area. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)	
Impact LU-4 Implementation of proposed transportation improvements and the land use scenario envisioned by the 2035 MTP/SCS could temporarily and permanently displace or disrupt existing residences and businesses. This would be a Class II, *significant but mitigable* impact. .	**LU-4(a)** The project sponsors of 2035 MTP/SCS projects with the potential to displace residences or businesses shall assure that project-specific environmental reviews consider alternative alignments and developments that avoid or minimize impacts to nearby residences and businesses. (Implementing agencies: RTPAs, transportation project sponsor agencies) **LU-4(b)** Where project-specific reviews identify displacement or relocation impacts that are unavoidable, the project sponsor shall ensure that all applicable local, State, and federal relocation programs are used to assist eligible persons to relocate. In addition, the local jurisdiction shall review the proposed construction schedules to ensure that adequate time is provided to allow affected businesses to find and relocate to other sites. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects) **LU-4(c)** For all 2035 MTP/SCS projects that could result in temporary lane closures or access blockage during construction, a temporary access plan shall be implemented to ensure continued access to affected cyclists, businesses, and homes. Appropriate signs and safe access shall be guaranteed during project construction to ensure that	*Less than significant.*

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	businesses remain open. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)	
Impact LU-5 Implementation of proposed transportation improvements and the land use scenario envisioned by the 2035 MTP/SCS could redistribute residential and commercial development; however, 2035 MTP/SCS projects that are included in local General Plans would not significantly induce growth beyond that already anticipated, as the primary purpose of proposed improvements is to accommodate projected growth. This is a Class III, *less than significant,* impact.	None required.	*Less than significant.*
NOISE		
Impact N-1 Construction activity associated with transportation improvement projects, and infill and transit-oriented development envisioned by the 2035 MTP/SCS would create temporary noise and vibration level increases in discrete locations throughout the AMBAG region. Impacts would be Class II, *significant but mitigable.*	**N-1(a)** Project sponsors of 2035 MTP/SCS projects shall ensure that, where residences or other noise sensitive uses are located within 800 feet of construction sites, appropriate measures shall be implemented to ensure consistency with local ordinance requirements relating to construction noise and vibration. Specific techniques may include, but are not limited to, restrictions on construction timing, use of sound blankets on construction equipment, and the use of temporary walls and noise barriers to block and deflect noise. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects) **N-1(b)** If a particular project within 800 feet of sensitive receptors requires pilings, project sponsors of 2035 MTP/SCS projects shall require caisson drilling or sonic pile driving as opposed to impact pile driving, where feasible. This shall be accomplished through the placement of conditions on the project during its individual environmental review. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects) **N-1 (c)** Project sponsors of 2035 MTP/SCS projects shall ensure that equipment and trucks used for project construction utilize the best available noise and vibration control techniques (including mufflers, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds). (Implementing agencies: RTPAs,	*Less than significant.*

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	transportation project sponsor agencies, cities and counties for land use projects) **N-1(d)** Project sponsors of 2035 MTP/SCS projects shall ensure that impact equipment (e.g., jack hammers, pavement breakers, and rock drills) used for project construction be hydraulically or electrically powered wherever feasible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatically powered tools is unavoidable, use of an exhaust muffler on the compressed air exhaust can lower noise levels from the exhaust by up to about 10 dBA. When feasible, external jackets on the impact equipment can achieve a reduction of 5 dBA. Whenever feasible, use quieter procedures, such as drilling rather than impact equipment operation. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects) **N-1(e)** Project sponsors of 2035 MTP/SCS projects shall locate stationary noise and vibration sources as far from sensitive receptors as feasible. Stationary noise sources that must be located near existing receptors will be adequately muffled. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects) **N-1(f)** As necessary, project sponsors of 2035 MTP/SCS projects shall retain a structural engineer or other appropriate professional to determine threshold levels of vibration and cracking that could damage any adjacent historic or other structure subject to damage, and design means and construction methods to not exceed the thresholds. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)	
Impact N-2 Implementation of the 2035 MTP/SCS would potentially expose existing and future sensitive receptors to significant mobile source noise levels. This is considered a Class II, *significant but mitigable* impact.	**N-2(a)** Sponsor agencies of 2035 MTP/SCS projects shall complete detailed noise assessments using applicable guidelines (e.g., Federal Transit Administration Transit Noise and Vibration Impact Assessment for rail and bus projects and the California Department of Transportation Traffic Noise Analysis Protocol for roadway projects). The project sponsor shall ensure that a noise survey is conducted to determine potential alternate alignments which allow greater distance from, or greater buffering of, noise-sensitive areas. The noise survey shall be sufficient to indicate existing and projected	*Less than significant.*

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
	noise levels, to determine the amount of attenuation needed to reduce potential noise impacts to applicable State and local standards. (Implementing agencies: RTPAs, transportation project sponsor agencies) **N-2(b)** Where new or expanded roadways, rail, or transit projects are found to expose receptors to noise exceeding normally acceptable levels, the project sponsor shall consider various sound attenuation techniques. The preferred methods for mitigating noise impacts will be the use of appropriate setbacks and sound attenuating building design, including retrofit of existing structures with sound attenuating building materials where feasible. In instances where use of these techniques is not feasible, the use of sound barriers (earthen berms, sound walls, or some combination of the two) will be considered. Long expanses of walls or fences should be interrupted with offsets and provided with accents to prevent monotony. Landscape pockets and pedestrian access through walls should be provided. Whenever possible, a combination of elements should be used, including solid fences, walls, and landscaped berms. (Implementing agencies: RTPAs, transportation project sponsor agencies)	
Impact N-3 The proposed 2035 MTP/SCS land use scenario would encourage infill development and TOD, which may place sensitive receptors in areas with unacceptable noise levels. This is a Class II, *significant but mitigable,* impact.	**N-3** If a 2035 MTP/SCS project is located in an area with exterior ambient noise levels above local noise standards, the project sponsor shall ensure that a noise study is conducted to determine the project's contribution to projected noise levels. If deemed significant in the project-specific analysis, feasible attenuation measures shall be used to reduce noise levels below local standards. Such measures may include, but are not limited to: dual-paned windows, solid core exterior doors with perimeter weather stripping, air conditioning system so that windows and doors may remain closed, and situating exterior doors away from roads. This shall be accomplished during the project's individual environmental review. (Implementing agencies: cities and counties for land use projects)	*Less than significant.*

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation

Impact	Mitigation Measures	Significance After Mitigation
Impact N-4 The proposed 2035 MTP/SCS could expose sensitive receptors to excessive vibration levels. This impact is Class II, *significant but mitigable*.	**N-4** Project sponsors of 2035 MTP/SCS projects shall comply with all applicable local vibration and groundborne noise standards, or in the absence of such local standards, comply with FTA vibration and groundborne noise standards. Methods than can be implemented to reduce vibration and groundborne noise impacts include but are not limited to: • maximizing the distance between tracks and sensitive uses; • conducting rail grinding on a regular basis to keep tracks smooth; • conducting wheel truing to re-contour wheels to provide a smooth running surface and removing wheel flats; • providing special track support systems such as floating slabs, resiliently supported ties, high-resilience fasteners, and ballast mats; and • implementing operational changes such as limiting train speed and reducing nighttime operations. • (Implementing agencies: RTPAs, transportation project sponsor agencies)	*Less than significant.*
TRANSPORTATION AND CIRCULATION		
Impact T-1 Implementation of the 2035 MTP/SCS would improve total vehicle miles traveled, overall delay as defined by total and peak period ~~hour~~ congested vehicle miles traveled, when compared to 2035 conditions without the 2035 MTP/SCS. Impacts would be Class III, *less than significant*.	No mitigation measures are required for transportation operations.	*Less than significant.*
Impact T-2 The 2035 MTP/SCS would generally be consistent with applicable alternative transportation plans and policies. This is a Class III, *less than significant* impact.	No mitigation measures are required.	Less than significant.

PROJECT-SPECIFIC IMPACT SUMMARY

The proposed projects listed in Appendix B and summarized in Section 2.0 *Project Description*, could result in impacts to multiple issue areas discussed in this EIR. For aesthetics, biological resources, geologic and flooding, the project types listed could create significant aesthetic impacts but would not necessarily do so. All projects that include a construction component would associate with Impact AQ-1. Projects that include roadway, rail, and transit features and/or expansions would associate with Impacts AQ-2 and AQ-4. Projects requiring substantial ground disturbance in undisturbed areas have the potential to impact biological and cultural resources. Projects located in urban infill or previously disturbed areas have a greater

potential to impact historic built environment resources, as well as historic archaeological resources in older developed areas. The 2035 MTP/SCS is expected to improve access and mobility throughout the AMBAG region, including to/from and within Environmental Justice communities. Individual projects could impact Environmental Justice communities, but would not necessarily do so disproportionately when compared to the overall population. Projects that require new construction or landscaping may result in impacts to hydrology and water quality. All proposed projects listed in Section 2.0 *Project Description* would associate with Impacts LU-1, LU-2, LU-4, and LU-5. Projects located to nearby agricultural lands have the potential to impact agricultural resources, as described in Impact LU-3. Some project types listed may create noise impacts that could result in noise or vibration impacts, such as auxiliary lane and rail projects.

Other issue areas are not anticipated to be impacted by the specific projects identified in the 2035 MTP/SCS. No specific projects have been identified that would result in significant or wasteful consumption of energy. All projects have the potential to result in GHG emissions; however, the 2035 MTP/SCS as a whole is designed to reduce per capita transportation-related GHG emissions in accordance with SB 375 and AB 32. Similarly, the projects that comprise the program are intended to improve traffic circulation rather than create adverse impacts and projects that are likely to have an adverse impact on traffic/transportation system would not be implemented.

In all cases, project-specific analyses would need to be conducted as the individual projects are designed and implemented to determine the actual magnitude of impact for each issue area. Mitigation measures listed in Table ES-2 may apply to specific projects as impacts are identified.

1.0 INTRODUCTION

1.1 STATEMENT OF PURPOSE

This Environmental Impact Report (EIR) identifies and describes potential environmental impacts associated with implementation of the 2035 Metropolitan Transportation Plan-Sustainable Communities Strategy (2035 MTP/SCS) proposed by the Association of Monterey Bay Area Governments (AMBAG) and the Regional Transportation Plans for the counties of Monterey, San Benito, and Santa Cruz.

Section 21000 et seq. of the California Public Resources Code, commonly referred to as the California Environmental Quality Act of 1970 (CEQA), requires the evaluation of environmental impacts associated with all planning programs or development projects proposed. As such, this EIR is an informational document for use by AMBAG, other agencies, and the general public in their consideration and evaluation of the environmental consequences of implementing of the proposed 2035 MTP/SCS and Regional Transportation Plans for the counties of Monterey, San Benito, and Santa Cruz.

1.2 PROJECT BACKGROUND

The Council of San Benito County Governments (SBtCOG), the Santa Cruz County Regional Transportation Commission (SCCRTC) and the Transportation Agency for Monterey County (TAMC) are the state-designated Regional Transportation Planning Agencies (RTPAs) for San Benito, Santa Cruz, and Monterey counties, respectively. Each RTPA prepares a county-level long-range Regional Transportation Plan (RTP). As the metropolitan planning organization (MPO) for the tri-county region of Monterey, San Benito, and Santa Cruz counties, AMBAG is charged with developing a Monterey Bay Area Metropolitan Transportation Plan and the Sustainable Communities Strategy, 2035 MTP/SCS. The MTP is the metropolitan long-range transportation plan for the three counties and is a compilation of the transportation projects included in the Monterey County Regional Transportation Plan (2014 MC-RTP), the 2014 Santa Cruz County Regional Transportation Plan (2014 SCC-RTP) and the 2014 San Benito County Regional Transportation Plan (2014 SBC-RTP). The most recent MTP was adopted by AMBAG in 2010.The 2010 MTP updated the 2005 MTP. A supplemental program environmental impact report (EIR) was prepared for the 2010 MTP. This EIR will serve as the Program EIR for the Monterey Bay 2035 MTP/SCS and the RTPs prepared by the San Benito, Santa Cruz, and Monterey County RTPAs.

The 2010 MTP update programmed available transportation funding to 2035 and included lists of programmed and planned transportation projects to improve the transportation system during the 2007-2035 planning period. Among these listed projects were highway, road and street projects, pedestrian and bikeway projects, aviation projects, rail projects, and transit projects, as well as programs for transportation demand management and intelligent transportation systems. Although a number of projects from the 2010 MTP have been completed, many have not. Additionally, new projects have been incorporated into the 2035 MTP/SCS from the RTPs prepared by the Monterey, San Benito, and Santa Cruz RTPAs.

In compliance with the CEQA Guidelines (Section 15063), AMBAG, as the Lead Agency responsible for the 2035 MTP/SCS, solicited preliminary public agency comments on the project through distribution of a Notice of Preparation (Appendix A) and receipt of public comments during six scoping meetings held at the following locations:

- Monterey, CA, on July 15, 2013 from 6:00 PM to 7:30 PM at the Monterey City Hall Council Chambers, 580 Pacific Street;
- Greenfield, CA, on July 16, 2013 from 6:00 PM to 7:30 PM at the City of Greenfield Council Chambers, 599 El Camino Real;
- Hollister, CA, on July 17, 2013 from 6:00 PM to 7:30 PM at the City of Hollister Council Chambers, 375 Fifth Street;
- Watsonville, CA, on July 18, 2013 from 6:00 PM to 7:30PM at the City of Watsonville Community Room, 275 Main Street, 4th Floor;
- Santa Cruz, CA, on July 22, 2013 from 6:00 PM to 7:30 PM at the Santa Cruz Police Department Community Room, 155 Center Street; and
- Salinas, CA, on July 23, 2013 from 6:00 PM to 7:30 PM at the Salinas Agricultural Center, 1432 Abbott Street.

1.3 TYPE OF ENVIRONMENTAL DOCUMENT

This document is a Program EIR. Section 15168(a) of the CEQA Guidelines states that:

> *A Program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either: (1) geographically; (2) as logical parts in a chain of contemplated actions; (3) in connection with issuance of rules, regulations, plans, or other general criteria, to govern the conduct of a continuing program; or (4) as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.*

As a programmatic document, this EIR presents a regionwide assessment of the impacts of the proposed 2035 MTP/SCS and the RTPs prepared by the Monterey, San Benito, and Santa Cruz RTPAs. Analysis of site-specific impacts of individual projects is not the intended use of a program EIR. Many specific projects are not currently defined to the level that would allow for such an analysis. Individual specific environmental analysis of each project will be undertaken as necessary by the appropriate implementing agency prior to each project being considered for approval. Because the act of adopting the 2035 MTP/SCS would not, in itself, result in the implementation of transportation system improvements projects or programs identified in this document, no environmental impacts would be directly associated with this action. This program EIR serves as a first-tier environmental document under CEQA supporting second-tier environmental documents for:

- Transportation projects developed during the engineering design process; and
- Residential or mixed use projects and transit priority projects consistent with the SCS.

Project sponsors implementing subsequent projects would undertake future environmental review for projects in the proposed 2035 MTP/SCS. These agencies would include the cities and

counties within the plan area. Other project implementing agencies may include RTPAs, public transit providers, and other public agencies such as the California Department of Transportation, among others. All of these agencies, as well as the AMBAG member agencies, would be able to prepare subsequent environmental documents that incorporate by reference the appropriate information from this program EIR regarding secondary effects, cumulative impacts, broad alternatives, and other relevant factors. If the lead agency finds that implementation of a later activity would have no new effects and that no new mitigation measures would be required, that activity would require no additional CEQA review. Where subsequent environmental review is required, such review would focus on project-specific significant effects peculiar to the project, or its site, that have not been considered in this program EIR.

Section 15151 of the CEQA Guidelines provides the following standards related to the adequacy of an Environmental Impact Report:

> *An Environmental Impact Report should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among experts. The courts have looked not for perfection; but for adequacy, completeness, and a good faith effort at full disclosure.*

1.4 EIR CONTENT AND FORMAT

This document includes discussions of environmental impacts related to several issue areas. The analysis of environmental impacts identifies impacts by category: significant and unavoidable (Class I), significant but mitigable (Class II), adverse but less than significant (Class III), and beneficial (Class IV). It proposes mitigation measures, where feasible, for identified significant environmental impacts. It should be noted that AMBAG, TAMC, SCCRTC, and SBtCOG have lead agency status; and therefore, authority to enforce mitigation measures for projects for which they have ultimate discretionary authority. However, AMBAG, TAMC, SCCRTC, and SBtCOG do not have authority to enforce recommended mitigation measures on project sponsors (e.g., Caltrans, counties, cities, transit agencies, etc.) that are responsible agencies for this 2035 MTP/SCS and RTPs EIR, but will be lead agencies for future transportation and land use development projects. It is the responsibility of the lead agency implementing specific 2035 MTP/SCS projects to conduct environmental review consistent with CEQA and where applicable, incorporate mitigation measures provided herein and developed specifically for the project to minimize environmental impacts and/or reduce impacts to less than significant.

~~The CEQA Guidelines also require the analysis of the cumulative effects of a project in combination with other foreseeable development in the area. Section 15130 of the State CEQA Guidelines prescribes two methods for analyzing cumulative impacts: (1) use of a list of past, present, and reasonably anticipated future projects producing related or cumulative impacts; or (2) use of a summary of projections contained in an adopted general plan or related planning document. However, this document is a Program EIR that analyzes the effects of cumulative~~

~~buildout of the 2035 MTP/SCS and the RTPs prepared by the Monterey, San Benito, and Santa Cruz RTPAs. The proposed 2035 MTP/SCS considers the past, present, and future projects described in method 1 above and proposes a range of specific land use and transportation projects designed to meet the plan goals and current and projected future needs. The project also constitutes the cumulative scenario described in method 2. Therefore, the cumulative effects of all circulation system improvements in the region are included in the analysis of the proposed project's impacts. The analysis of project impacts contained in this "first tier" environmental review document will form the basis for the cumulative analysis contained in any subsequent environmental documentation for specific projects proposed under the 2035 MTP/SCS.~~

This EIR has been organized into eight sections. These include:

1.0 Introduction - Provides the Statement of Purpose, project background, and information about the EIR content and format.

2.0 Project Description - Identifies the project applicant, presents and discusses the project objectives, project location and specific project characteristics.

3.0 Environmental Setting - Provides a description of the existing physical setting of the project area and an overview of the progress in implementing the 2035 MTP-/SCS.

4.0 Analysis of Environmental Issues — Describes existing conditions found in the project area and assesses potential environmental impacts that may be generated by implementing the proposed plan, including cumulative development in the region. These potential project impacts are compared to "thresholds of significance" in order to determine the nature and severity of the direct and indirect impacts. Mitigation measures, intended to reduce adverse, significant impacts below threshold levels, are proposed where feasible. Impacts that cannot be eliminated or mitigated to less-than-significant levels are also identified.

5.0 Consistency Analysis – Describes consistency with other local and regional plans.

6.0 Other CEQA Required Discussions - Identifies the spatial, economic, or population growth impacts that may result from implementation of the proposed project, as well as long-term effects of the project and significant irreversible environmental changes.

7.0 Alternatives - Presents and assesses the potential environmental impacts of five alternatives analyzed in addition to implementation of the proposed 2035 MTP/SCS.

8.0 References/Preparers — Lists all published materials, federal, State, and local agencies, and other organizations and individuals consulted during the preparation of this EIR. It also lists the EIR preparers.

1.5 EIR BASELINE AND APPROACH FOR IMPACT ANALYSIS

Section 15125 of the CEQA Guidelines states that an EIR "must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation [NOP] is published." Section 15125 states that this approach "normally

constitute[s] the baseline physical conditions by which a lead agency determines whether an impact is significant." In certain instances, the lead agency has the discretion to use a baseline other than existing conditions at the time of the release of the NOP based on the information available at the time the analysis is being performed.

This EIR evaluates potential impacts against existing conditions at the time of the release of the NOP (June 2013), where information is available, for issue areas that would not be substantially influenced by future regional growth that would occur with or without implementation of the 2035 MTP/SCS. It was determined that for these issues a comparison to current, existing baseline conditions would provide the most relevant information for the public, responsible agencies, and AMBAG decision-makers. These issue areas include:

- Aesthetics
- Biological Resources
- Cultural Resources
- Energy
- Environmental Justice
- Geology
- Hydrology/Water Quality
- Land Use

For the air quality, energy, greenhouse gas, and traffic environmental impacts resulting from the Program, this EIR evaluates potential impacts against both (1) a forecast future baseline condition and (2) current, existing baseline conditions, controlling for impacts caused by population growth and other factors that would occur whether or not the 2035 MTP/SCS or the RTPs prepared by the Monterey, San Benito, and Santa Cruz RTPAs are adopted. The 2035 MTP/SCS is a long-term, 20-year plan that proposes transportation projects and land use patterns to the year 2035. It is important to emphasize that population growth, urbanization, and volume of average daily traffic generated in the AMBAG region will increase by 2035, with or without implementation of the 2035 MTP/SCS, as a result of a range of demographic and economic factors independent of policy and land use decisions by AMBAG and its member agencies.[1]

An analysis that attributed physical environmental impacts solely to the 2035 MTP/SCS that are in fact the result of future regional growth that would occur in the absence of the 2035 MTP/SCS would overstate the impacts caused by the 2035 MTP/SCS. For this reason, certain environmental issues analyzed in the EIR compare future conditions including the 2035 MTP/SCS with the expected future conditions without the 2035 MTP/SCS (the "future baseline") as well as to the current baseline, controlling for future regional growth that would occur independently of the 2035 MTP/SCS. These comparisons isolate environmental effects potentially resulting from the 2035 MTP/SCS from those caused by future growth that would occur regardless of the 2035 MTP/SCS, as compared to existing baseline conditions in 2013.

[1] *Based on an econometric model, AMBAG's 2014 Regional Growth Forecast predicts the region's population to increase by approximately 732,708 in 2010 to 885,000 people or 17 percent by 2035.Over the course of the same forecast period, regionwide employment is forecast to increase from 307,200 to 372,800 jobs, a 17.5 percent increase*.

Thus, the identification of potential impacts and mitigation measures for these environmental issue areas are based on the increment of physical change resulting from the 2035 MTP/SCS, rather than the future regional growth that would occur regardless of whether the plan is adopted and implemented. The environmental issue areas for which this approach is used include the following:

- Air Quality
- Greenhouse Gases Emissions/Climate Change
- Noise
- Transportation and Circulation

Interim Timeframes

The year 2035 is considered to be the horizon year of the proposed 2035 MTP/SCS. While the plan will be implemented gradually over the planning period, this EIR does not analyze interim time frames because the four/five-year update cycle of the MTP/SCS and the RTPs prepared by the Monterey, San Benito, and Santa Cruz RTPAs already requires short-term adjustments to the plan. The one exception to this approach is in Section 4.8, *Greenhouse Gas Emissions/Climate Change*, which examines impacts for the year 2020 as well as 2035, and in comparison to a baseline of 2005 to satisfy statutory requirements and state goals related to GHG emissions (Health & Safety Code, § 38551(b)).

2.0 PROJECT DESCRIPTION

2.1 PROJECT PROPONENT

For the 2035 Monterey Bay Area Metropolitan Transportation Plan/Sustainable Communities Strategy:

Association of Monterey Bay Area Governments (Lead Agency)
445 Reservation Road, Suite G
Marina, CA 93933-0809

For the 2014 Monterey County Regional Transportation Plan (MC-RTP):

Transportation Agency for Monterey County
55-B Plaza Circle
Salinas, CA 93901-2902

For the 2014 Santa Cruz County Regional Transportation Plan (SC-RTP):

Santa Cruz County Regional Transportation Commission
1523 Pacific Avenue
Santa Cruz, CA 95060

For the 2014 San Benito County Regional Transportation Plan (SB-RTP):

Council of San Benito County Governments
330 Tres Pinos Road, Suite C7
Hollister, CA 95023

2.2 PROJECT OBJECTIVES

The objective of the 2014 MC-RTP, the 2014 SCC-RTP, the 2014-SBC-RTP and the 2035 MTP/SCS is to comply with the current California Transportation Commission Regional Transportation Plan Guidelines, pursuant to Government Code Section 14522, to prepare a regional transportation plan, a long-range transportation planning document which will provide policy guidelines regarding the planning and programming of transportation projects within each respective County through 2035. Further, Government Code Sections 65050, 65400, 65584.01-04, 65587, 65588 and Public Resources Code Section 21155 were amended in January 2009 when Senate Bill (SB) 375 became law, requiring coordinated planning between regional land use and transportation plans to increase efficiency and reduce GHG emissions. The following sections describe the legislative requirements and local objectives associated with the 2035 MTP/SCS.

General Legislative Requirements

The Association of Monterey Bay Area Governments (AMBAG) as the federally-designated metropolitan planning organization (MPO) representing Monterey, San Benito and Santa Cruz

Counties, is required by both federal and State law to prepare a long-range (at least 20-year) transportation planning document known as a Metropolitan Transportation Plan (MTP).The MTP contains a compilation of the projects proposed in the Regional Transportation Plans (RTPs) prepared by the Council of San Benito County Governments (SBtCOG), the Santa Cruz County Regional Transportation Commission (SCCRTC) and the Transportation Agency for Monterey County (TAMC) as the state-designated Regional Transportation Planning Agencies (RTPAs) for San Benito, Santa Cruz, and Monterey counties, respectively. The MTP is a document used to achieve a coordinated and balanced regional transportation system.

For the first time, AMBAG now also has the responsibility to prepare a Sustainable Communities Strategy (SCS) as part of the MTP, pursuant to the requirements of California Senate Bill 375 as adopted in 2008 (discussed further below).The SCS sets forth a forecasted development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, is intended to reduce greenhouse gas (GHG) emissions from passenger vehicles and light duty trucks to achieve the regional GHG reduction targets set by the California Air Resources Board (CARB).

The California Transportation Commission's document *2010 California Regional Transportation Plan Guidelines* serves as the guidance for RTP development. Under both federal and State law, the RTPAs and MPOs must update the RTPs and MTP every four/five years.[1] AMBAG adopted its most recent MTP update in June 2010 in coordination with the adoption of the RTP's by the respective RTPA's. The 2010 MTP covered a 25 year period between 2010 and 2035.

SB 375 Requirements

The Sustainable Communities Strategy and Climate Protection Act, SB 375 (codified at CAL.GOVT CODE §§ 14522.1, 14522.2, 65080.01, 65080, 65400, 65583, 65584.01, 65584.02, 65584.04, 65587, 65588; CAL. PUB. RES. CODE §§2161.3, 21155, 21159.28), is a law passed in 2008 by the California legislature that requires each MPO to demonstrate, through the development of an SCS, how its region will integrate transportation, housing, and land use planning to meet the greenhouse gas (GHG) reduction targets set by the State. In addition to creating requirements for MPOs, it also creates requirements for the California Transportation Commission (CTC) and CARB. Some of the requirements include the following:

- The CTC must maintain guidelines for the travel demand models that MPOs develop for use in the preparation of their RTPs or MTPs.
- The CARB must develop regional GHG emission reduction targets for automobiles and light trucks for 2020 and 2035 by September 30, 2010.These targets were approved on September 23, 2010.
- Each MPO must prepare an SCS as part of its RTP or MTP to demonstrate how it will meet the regional GHG targets.
- Each MPO must adopt a public participation plan for development of the SCS that includes informational meetings, workshops, public hearings, consultation, and other outreach efforts.

[1] *23 C.F.R. §450.322(c); Gov. Code §65080(d).*

- If an SCS cannot achieve the regional GHG target, the MPO must prepare an Alternative Planning Strategy (APS) showing how it would achieve the targets with alternative development patterns, infrastructure, or transportation measures and policies.
- Each MPO must prepare and circulate a draft SCS at least 55 days before it adopts a final RTP or MTP.
- After adoption, each MPO must submit its SCS to the CARB for review.
- CARB must review each SCS to determine whether or not, if implemented, it would meet the GHG targets. CARB must complete its review within 60 days.

CARB set targets for the AMBAG region as "not to exceed 2005 emissions levels" by 2020 and a 5% reduction from 2005 levels by 2035. AMBAG adopted these standards in September 2010. These targets apply to the AMBAG region as a whole for all on-road light duty trucks and passenger vehicles emissions, and not to individual cities or sub-regions. Therefore, AMBAG, through the 2035 MTP/SCS, must maintain or reduce these levels to meet the 2020 target and reduce these levels to meet the 2035 targets.

SB 375 specifically states that local governments retain their autonomy to plan local General Plan policies and land uses. The 2035 MTP/SCS provides a regional policy foundation that local governments may build upon, if they so choose. The 2035 MTP/SCS includes and accommodates the quantitative growth projections for the region. SB 375 also requires that forecasted development patterns for the region be consistent with the eight-year regional housing needs as allocated to member jurisdictions through the Regional Housing Needs Allocation (RHNA) process under State housing law.

In addition, this 2035 MTP/SCS EIR lays the groundwork for the streamlined review of qualifying development projects within Transit Priority Areas.[2] Qualifying projects that meet statutory criteria and are consistent with the 2035 MTP/SCS are eligible for streamlined environmental review pursuant to CEQA.

MAP-21

The most recent federal transportation legislation, the Moving Ahead for Progress in the 21st Century Act (MAP-21), was enacted in 2012. Through the MTP development process, MAP-21 encourages AMBAG to:

> *Consult with officials responsible for other types of planning activities that are affected by transportation in the area (including State and local planned growth, economic development, environmental protection, airport operations, and freight movements) or to coordinate its planning process, to the maximum extent practicable, with such planning activities.*[3]

[2] *A Transit Priority Area is an area within ½-mile of high quality transit: a rail stop or a bus corridor that provides or will provide at least 15-minute frequency service during peak hours by the year 2035.*

[3] *23 U.S.C. §134(g)(3)(A).*

Specifically, MAP-21 requires that the MTP planning process:

Provide for consideration of projects and strategies that will:

> *Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;*
>
> *Increase the safety of the transportation system for motorized and non-motorized users;*
>
> *Increase the security of the transportation system for motorized and non-motorized users;*
>
> *Increase the accessibility and mobility of people and for freight;*
>
> *Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;*
>
> *Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;*
>
> *Promote efficient system management and operation; and*
>
> *Emphasize the preservation of the existing transportation system.*[4]

The 2035 MTP/SCS and the RTPs prepared by the Monterey, San Benito, and Santa Cruz RTPAs discusses in detail how these requirements are met.

Environmental Justice

AMBAG and the individual RTPAs are required to address social equity and environmental justice in the RTP's and MTP. The legal basis for environmental justice stems from the Civil Rights Act of 1964, along with Executive Order 12898 (February 1994), which states that "each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." Agencies must evaluate how the 2014 RTPs and 2035 MTP/SCS might impact minority and low-income populations, and must ensure that the 2014 RTPs and 2035 MTP/SCS does not have a disproportionate adverse impact on such populations.

In addition, per 23 C.F.R. Section 450.316(a)(1)(vii), the participation plan that AMBAG must develop and use must describe explicit procedures, strategies, and desired outcomes for "[s]eeking out and considering the needs of those traditionally underserved by existing transportation systems, such as low-income and minority households, who may face challenges accessing employment and other services." The AMBAG 2011 Public Participation Plan meets these requirements.

[4] *23 U.S.C. §134(h)(1).*

Metropolitan/Regional Transportation Plans

The procedures for developing Regional Transportation Plans – also referred to as Metropolitan Transportation Plans - are provided in the California Transportation Commission's *2010 California Regional Transportation Plan Guidelines.* Because the AMBAG document encompasses three RTPs, it is referred to as a Metropolitan Transportation Plan as AMBAG is the Metropolitan Planning Organization (MPO) overseeing the tri-county area. The guidelines apply to both types of document and identify the purpose of an MTP/RTP to be as follows:

- Provide an assessment of current modes of transportation and the potential of new travel options within the region;
- Project/estimate the future needs for travel and goods movement;
- Identify and document specific actions necessary to address the region's mobility and accessibility needs;
- Guide and document public policy decisions by local, regional, state and federal officials regarding transportation expenditures and financing;
- Identify needed transportation improvements in sufficient detail to serve as a foundation for:
    - Development of the Federal Transportation Improvement Program (FTIP) and the Interregional Transportation Improvement Program (ITIP);
    - Facilitation of the National Environmental Protection Act (NEPA)/404 integration process; and
    - Identification of project purpose and need.
- Employ performance measures that demonstrate the effectiveness of the transportation improvement projects in meeting the intended goals.
- Promote consistency between the California Transportation Plan, the regional transportation plan and other transportation plans developed by cities, counties, districts, Native American Tribal Governments and State and Federal agencies in responding to statewide and interregional transportation issues and needs;
- Provide a forum for 1) participation and cooperation, and 2) facilitating partnerships that reconcile transportation issues which transcend regional boundaries; and
- Involve community-based organizations as part of the public, Federal, State and local agencies, Native American Tribal Governments, as well as local elected officials, early in the transportation planning process so as to include them in discussions and decisions on the social, economic, air quality, and environmental issues related to transportation.

RTPs and MTPs must include long-term horizons (at least 20 years) that reflect regional needs, identify regional transportation issues/problems, and develop and evaluate solutions that incorporate all modes of travel. RTPs and MTPs must also recommend a comprehensive approach that provides direction for programming decisions to meet the identified regional transportation needs. RTPs and MTPs must be fully consistent with the requirements of MAP 21 and other federal regulations, including conformity with the 1990 Clean Air Act Amendments and consistency with the Federal Transportation Improvement Program (FTIP). Because the 2035 MTP/SCS is a compilation of three RTP's, consistency between the documents is addressed within the MTP.

Local Objectives

The purpose of the 2035 MTP/SCS is to coordinate and facilitate the programming and budgeting of all transportation facilities and services within the Monterey Bay region through 2035 and demonstrate how the region will integrate transportation and land use planning to meet the GHG reduction targets established by the California Air Resources Board and in accordance with other State and Federal regulations. In developing the 2035 MTP/SCS, AMBAG considered the following seven planning and strategy areas from the Transportation Equity Act for the 21st Century:

- *Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;*
- *Increase the safety and security of the transportation system for motorized and nonmotorized users;*
- *Increase the accessibility and mobility options available to people and freight;*
- *Protect and enhance the environment, promote energy conservation, and improve quality of life;*
- *Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;*
- *Promote efficient system management and operation; and*
- *Emphasize the preservation of the existing transportation system.*

In preparing the 2035 MTP/SCS Policy Element, AMBAG's objectives were to "ensure that the transportation system planned for the Monterey Bay region accomplishes the following:

- *Serves regional goals, objectives, policies, and plans.*
- *Responds to community and regional transportation needs.*
- *Promotes energy efficient, environmentally sound modes of travel and facilities and services.*
- *Promotes equity and efficiency in the distribution of transportation projects and services."*

2.3 PROJECT LOCATION

The 2035 MTP/SCS covers the entire area of Monterey, San Benito, and Santa Cruz Counties and includes all the incorporated cities and unincorporated communities contained therein (see Figure 2-1). Capital improvement projects identified in the 2035 MTP/SCS are located on State highways, county roads, and locally owned streets, as well as on transit district property, and public utility lands. A description of the study area is provided in Section 3.0, Environmental Setting.

2.4 PROJECT CHARACTERISTICS

The latest MTP and RTPs were adopted in 2010. The 2035 MTP/SCS and the RTPs prepared by Monterey, San Benito, and Santa Cruz reflects changes in legislative requirements, local land use policies, and resource constraints.

The 2035 MTP/SCS plans how the AMBAG region will meet its transportation needs for the period from 2013 to 2035, considering existing and projected future land use patterns as well as

Project Location
(County Boundaries)

N

0 10 20
Miles

Project Location

Figure 2-1

forecast population and job growth. The 2035 MTP/SCS plans for ~~and programs~~ the approximately $7.5 billion in revenues expected to be available to the region from all transportation funding sources over the course of the planning period. It identifies and prioritizes expenditures of this anticipated funding for transportation projects of all transportation modes: highways, streets and roads, transit, rail, bicycle and pedestrian; aviation, as well as transportation demand management measures and transportation systems management.

The 2035 MTP/SCS is based on a preferred land use and transportation scenario which defines a pattern of future growth and transportation system investment for the region emphasizing a transit-oriented development and infill approach to land use and housing. Population and job growth is allocated principally within existing urban areas near public transit. Allocation of future growth directly addresses jobs-housing balance issues.

The preferred scenario consists of an intensified land use distribution approach that concentrates the forecasted population and employment growth in urban areas. The transportation network includes additional highway, local street, active transportation, and transit investments to serve a more concentrated urban growth pattern.

The 2035 MTP/SCS is organized into seven chapters plus an Executive Summary:

- Chapter ES – Executive Summary – includes an overview of the 2035 MTP/SCS, the preferred scenario and its performance, an explanation of the planning process, and the allocation of transportation funding.
- Chapter 1 – Vision– discusses legal authority, the overall purpose of the 2035 MTP/SCS, and transportation-related issues and challenges faced by the region.
- Chapter 2 – Transportation Investments – defines how to make the most out of the existing transportation system by investing in system preservation and maintenance, along with strategic system expansion and management strategies. The transportation investments are intended to provide more travel choices for the region's residents and visitors.
- Chapter 3 – Financial Plan – the financial plan presents funding strategies that are reasonably available by 2035.
- Chapter 4 – Sustainable Communities Strategy – describes how the SCS was developed, identifies the land use and transportation connection, identifies the transportation system and programs, discusses resource areas and farmland, methods to accommodate the region's housing needs, how AMBAG will meet GHG reduction targets, and implementation strategies.
- Chapter 5 – Performance Measures – provides an introduction to the concept of performance measures as they relate to accomplishing the 2035 MTP/SCS goals while meeting social equity responsibilities.
- Chapter 6 – Public Participation – provides a public participation plan including methods for engaging the community and local jurisdictions.
- Chapter 7 – Glossary- identifies key terms and their definitions.
- Appendices – the appendices include the following discussions;
    - A: Regional Growth Forecast;
    - B: Financial Plan;

- C: Project List;
- D: Public Participation and Consultation;
- E: SCS Documentation;
- F: Travel Demand Model and Land Use Model Documentation;
- G. Performance Measures;
- H. Complete Streets Guidebook;
- I. Comments and Responses Received on the Draft 2035 MTP/SCS
- J. ~~I.~~ MTP Checklist

Of these seven chapters, the Vision (Policy) Element, Transportation Investments, Financial Plan, and Sustainable Communities Strategy (Chapters 1, 2, 3 and 4) are the three components that include provisions with the potential to create physical changes to the environment and are the primary focus for analysis in this EIR. These chapters are described in more detail below.

Chapter 1 – Vision and Scope

The 2035 MTP/SCS is a multimodal, financially constrained tri-regional transportation plan which expresses the current state of system planning for the Monterey Bay region which includes Monterey, Santa Cruz, and San Benito Counties. The purpose of the Vision Element of the 2035 MTP/SCS is to ensure that the transportation system planned for their respective regions accomplishes the following:

- Serves regional goals, objectives, policies and plans.
- Responds to community and regional transportation needs.
- Promotes energy efficient, environmentally sound modes of travel and facilities and services.
- Promotes equity and efficiency in the distribution of transportation projects and services.

The 2035 MTP/SCS is built on a set of integrated policies, strategies, and investments to maintain and improve the transportation system to meet the diverse needs of the region through 2035. AMBAG began developing the 2035 MTP/SCS by adopting the following goals and policy objectives:

- *Access and Mobility* – Provide convenient, accessible, and reliable travel options while maximizing productivity for all people and goods in the region.
- *System Preservation and Safety* – Preserve and ensure a sustainable and safe regional transportation system.
- *Healthy Communities* –Protect the health of our residents; foster efficient development patterns that optimize travel, housing, and employment choices and encourage active transportation.
- *Environment* – Promote environmental sustainability and protect the natural environment.
- *Social Equity* – Provide an equitable level of transportation services to all segments of the population.
- *Economic Vitality* – Raise the region's standard of living by enhancing the performance of the transportation system.

It is AMBAG's intent that the goals and policy objectives be supported by the individual RTP's prepared by Monterey, Santa Cruz and San Benito Counties. The goals, policies, and objectives that create the framework for each RTP that comprise the MTP are summarized below:

2014 MC-RTP

The 2014 MC-RTP Policy Element is intended to address transportation issues affecting Monterey County. For each issue, a goal to address that issue is adopted, and then policy(ies)/objective(s) are adopted to accomplish that goal. Only the goals are listed below and all goals/policies/objectives can be found in **Appendix D, Goals, Policies, and Objectives**.

Goal 1: Access and Mobility

Improve ability of Monterey County residents to meet most daily needs without having to drive. Improve the convenience and quality of trips, especially for walk, bike, transit, car/vanpool and freight.

Goal 2: Safety and Health

Design, operate, and manage the transportation system to reduce serious injuries and fatalities, promote active living, and lessen exposure to pollution.

Goal 3: Environmental Stewardship

Protect and enhance the County's built and natural environment. Act to reduce the transportation system's emission of Greenhouse Gasses.

Goal 4: Social Equity

Reduce disparities in healthy, safe access to key destinations for transportation-disadvantaged populations. Demonstrate that planned investments do not adversely impact transportation-disadvantaged populations.

Goal 5: Economic Benefit

Invest in transportation improvements – including operational improvements – that re-invest in the Monterey County economy, improve economic access and improve travel time reliability and speed consistency for high-value trips. Optimize cost-effectiveness of transportation investments.

2014 SCC-RTP

The 2014 SCC-RTP Policy Element is intended to address transportation issues affecting Santa Cruz County. For each issue, a goal to address that issue is adopted, and then policy(ies)/objective(s) are adopted to accomplish that goal. Only the goals are listed below and all goals/policies/objectives can be found in **Appendix D, Goals, Policies, and Objectives**.

Goal 1: Improve people's access to jobs, schools, health care and other regular needs in ways that improve health, reduce pollution and retain money in the local economy.

There is a strong relationship between achieving access, health, economic benefit, climate and energy goals and meeting targets. In many cases actions to achieve one goal or target will assist in achieving other goals and targets. For example, providing more carpool, transit and bicycle trips reduces fuel consumption, retains money in the local Santa Cruz County economy and reduces congestion.

Goal 2: Reduce transportation related fatalities and injuries for all transportation modes

Safety is a fundamental outcome from transportation system investments and operations. Across the United States, pedestrians and bicyclists (vulnerable users) are killed and injured at a significantly higher rate than the percentage of trips they take.

Goal 3: Deliver access and safety improvements cost effectively, within available revenues, equitably and responsive to the needs of all users of the transportation system, and beneficially for the natural environment.

The manner in which access and safety outcomes referenced in Goal 1 and Goal 2 are delivered can impact cost-effectiveness, distribution of benefits amongst population groups, and ecological function.

2014 SBC-RTP

The 2014 SBC-RTP Policy Element is intended to address transportation issues affecting San Benito County. For each issue, a goal to address that issue is adopted, and then policy(ies)/objective(s) are adopted to accomplish that goal. Only the goals are listed below and all goals/policies/objectives can be found in **Appendix D, Goals, Policies, and Objectives**.

Goal 1: Access and Mobility

Provide convenient, accessible, and reliable travel options while maximizing productivity for all people and goods in the region.

Goal 2: Economic Vitality

Raise the region's standard of living by enhancing the performance of the transportation system.

Goal 3: Environment

Promote environmental sustainability and protect the natural environment.

Goal 4: Healthy Communities

Protect the health of our residents; foster efficient development patterns that optimize travel, housing, and employment choices and encourage active transportation.

Goal 5: Social Equity

Provide an equitable level of transportation services to all segments of the population.

Goal 6: System Preservation & Safety

Preserve and ensure a sustainable and safe regional transportation system.

This framework of goals and policy objectives was used to guide the development of the 2035 MTP/SCS and specifically the performance measures developed by AMBAG to evaluate how well the 2035 MTP/SCS and alternatives perform. For reference, the performance objectives are provided in the 2035 MTP/SCS and addressed in more detail Section 7.0, *Alternatives*.

The 2035 MTP/SCS includes Financially Constrained projects which identify the programs and projects proposed by Regional Transportation Planning Agencies, local and county government; public transit operators, and airport operators in the tri-County region for which funding will likely be available. These include a full range of programs and projects intended to improve roadway capacity/vehicular flow, enhance transit operations, improve safety, support transportation planning and travel demand management, promote high occupancy vehicle use, encourage active transportation travel, and improve multimodal and intermodal facilities. Specifically, the 2035 MTP/SCS includes the following types of transportation system improvement projects:

Highway/Roadway Projects: Continued operation and maintenance of the region's highway, arterial and local street system is a primary focus of the 2035 MTP/SCS. Caltrans and each county and local jurisdiction within the study area have proposed projects for the roadway system that address current and future needs based on existing traffic conditions and projected traffic increases. These include a range of road widening and extension projects; interchange/ intersection improvements, safety improvements, and freeway overcrossings. In addition, projects that improve or rehabilitate existing roadway infrastructure are included in the 2035 MTP/SCS. These projects include resurfacing, restriping, signal modifications, and related improvements.

Bus Rapid Transit and Rail Projects. These projects include improvements designed to enhance express bus service as well as the expansion of passenger, freight and light rail throughout the tri-county area. Improvements include the construction of dedicated transit lanes, intermodal stations, new rail track and related infrastructure. Funding is also programmed to support transit operations and investments in paratransit services.

Active Transportation (Bicycle and Pedestrian Projects): The 2035 MTP/SCS includes projects that would complete Class I bike trails and Class II bike lanes, as well as sidewalk gap closures, trail access improvements, pedestrian bridges, bicycle and pedestrian treatments such as signal

priority and amenities, and related improvements to facilitate the use of transportation infrastructure by pedestrians and bicyclists such as traffic calming measures.

Transportation Demand Management, Transportation System Management and Intelligent Transportation System (ITS) Projects: The 2035 MTP/SCS includes TDM/TSM/ITS technology to reduce travel demand particularly during the peak period ~~hours~~ and more efficiently use the existing transportation system.

Aviation Projects: The 2035 MTP/SCS includes projects intended to improve overall operations at existing public use airports in the tri-county area.

The 2035 MTP/SCS does not provide project designs or a construction schedule. Adoption of the 2035 MTP/SCS would not represent an approval action for any of the individual transportation programs and projects listed in the financially constrained Plan. Detailed site-specific alignment, location, design, and scheduling of the improvement projects which are included in the 2035 MTP/SCS are not fixed by the 2035 MTP/SCS, and these individual projects may be modified substantially from their initial description in the 2035 MTP/SCS at the time they are considered for implementation.

Chapter 3 – Financial Plan

The Financial Plan of the 2035 MTP/SCS delineates the current program of improvements to highways, streets and roadways; bicycle and pedestrian infrastructure, bus rapid transit and rail facilities; intelligent transportation systems, transportation demand management and airport projects. The projects included in the 2035 MTP/SCS are "constrained" which means there is a plan in place to secure the funding. In most cases future programming action will be required.

The financial forecasts in the 2035 MTP/SCS are based on reasonably foreseeable revenues. The projections are calculated using a combination of historical averages, current trends, and/or state and federal actions. Actual revenues will vary from year to year. The financial projections and estimation methods used in the 2035 MTP/SCS were developed collectively with transportation planning agencies the Monterey Bay Area including AMBAG, the Transportation Agency for Monterey County, the Santa Cruz County Regional Transportation Commission, the San Benito County Council of Governments, the California Department of Transportation (Caltrans), Monterey-Salinas Transit, the Santa Cruz County Metro Transit District, the three Counties, and 18 cities. The Financial Element identifies major Federal, State, and local funding sources anticipated to be available during the life of the plan. The majority of Federal revenue is projected to come from the Regional Surface Transportation Program and the Urbanized Area Formulation Program (Section 5307). State revenue sources include the State Highways Operation and Protection Program, State Transportation Improvement Program and Proposition 1B Transportation Bond Program. Local revenue sources include the transportation development act, gas tax, transit fares, developer fees and local transportation sales tax. Total revenue is projected to be $7.5 billon. A complete discussion of 2035 MTP/SCS finances is provided in Chapter 3 of the 2035 MTP/SCS.

Chapter 4 – Sustainable Communities Strategy

The SCS ultimately consists of the preferred land use and transportation scenario selected by AMBAG as best capable of meeting MTP goals. The 2035 MTP/SCS simultaneously addresses the region's transportation needs and encourages infill development near transit investments to reduce vehicle miles traveled (VMT), the number of miles vehicles operate in congested conditions (CVMT) and overall GHG emissions. This strategy selectively increases residential and commercial land use capacity within transit corridors in existing urban areas, shifting a greater share of future growth to these corridors.

The transportation projects, programs, and strategies contained in the MTPare major components of the SCS. However, the SCS also focuses on the general land use growth pattern for the region, because the geographic relationships between land uses—including density and intensity— help determine travel demand. Thus, to meet requirements of SB 375, the SCS:

- Identifies existing and future land use patterns;
- Establishes a future land use pattern to meet GHG emission reduction targets;
- Identifies transportation needs and the planned transportation network;
- Considers statutory housing goals and objectives;
- Identifies areas to accommodate long-term housing needs;
- Identifies areas to accommodate eight-year housing needs;
- Considers resource areas and farmland; and
- Complies with federal law for developing an MTP.

These requirements, as outlined in California Government Code Section 65080(b)(2)(B), do not mean that the SCS creates a mandate for certain land use policies at the local level. In fact, SB 375 specifically states that the SCS cannot dictate local General Plan policies (see Government Code Section 65080(b)(2)(J)). Rather, the SCS is intended to provide a regional policy foundation that local governments may build upon as they choose and generally includes quantitative growth projections.

2035 MTP/SCS Transportation Projects

The types of transportation projects comprising the MTP are summarized below. All projects by type and jurisdiction are shown in Tables 1 to 31 in Appendix B.

Highway Projects. These projects are generally focused on US 101 and the state highway system throughout each of the three counties. They include the development of new infrastructure such as new interchanges, ramp improvements, new overcrossings, roundabouts and other modifications designed to improve safety and capacity. Specific projects include the State Routes (SR) 156 West Corridor in Monterey County, SR 156 widening in San Benito County and the construction of three sets of auxiliary lanes on Highway 1 from Soquel Avenue to State Park Drive and the Chanticleer and Mar Vista Bicycle/Pedestrian Bridge over Highway 1 in Santa Cruz County.

Highway Operations, Maintenance and Rehabilitation. These projects focus on improvements to more efficiently use existing highway system infrastructure. These include resurfacing,

restriping, signal modifications and other improvements designed to more efficiently use existing facilities.

Representative actions include funding the State Highway Operations and Protection Program (SHOPP) and improvements to SR 68 from Bishop Street to Sunset Avenue in Monterey County, Highway 156/Fairview Road Intersection Improvements in San Benito County and various State Highway Preservation (bridge, roadway, roadside) projects in Santa Cruz County.

Local Streets and Roads Capital Expansion. These projects are generally focused on county and local streets and roadways. They include the development of new infrastructure such as street widening, realignments, extensions and related improvements designed to improve safety and capacity. Representative improvements include the expansion of Alta Street from Monterey city limits to the US 101 interchange and the Russell Road extension from San Juan Grade Road to Old Stage Road in Monterey County; and the Fairview Road Widening in San Benito County. ~~and the Pacific Cove parking lot expansion in Santa Cruz County.~~

Local Streets and Roads - Operations, Maintenance, and Rehabilitation**.** These projects focus on improvements to existing county and local streets and roadway infrastructure. These include resurfacing, restriping, signal modifications, streetscapes and other improvements designed to maintain and more efficiently and effectively use existing facilities. Representative improvements include US 101/5th Street intersection operations and South Boundary Road improvements from General Jim Moore Road to York Road in Monterey County; Local Street and Bridge Maintenance Program in San Benito County and the Aptos Village Improvement Plan which includes modifications to Soquel Road from west of Aptos Creek Road to just east of Trout Gulch Road and Trout Gulch Road from Soquel to Valencia in Santa Cruz County.

Rail and New BRT Facilities. These projects include a range of improvements that would expand Bus Rapid Transit (BRT), light rail, passenger rail and freight rail services. Improvements include construction of dedicated BRT lanes, road shoulder improvements to allow BRT operation, multi-modal and intermodal bus/rail facilities, signal priority, rail line extensions and related track infrastructure modifications. Specific improvements include the Commuter Rail Extension to Monterey County; express bus/regional transit connections in San Benito County; and rail transit in the Watsonville to Santa Cruz corridor and BRT facilities in Santa Cruz County.

Transit Capital, Rehabilitation, and Replacement. These projects include improvements such as the purchase of rolling stock, bus rehabilitation, purchase of communication equipment, bus shelters and ancillary equipment used to rehabilitate/upgrade existing transit stops/stations. Improvements would include a new operations and maintenance facility in Monterey County, general transit services in San Benito County and bus replacement and transit center improvements in Santa Cruz County.

Transit Operations. Funds would cover transit operations and preventative maintenance projects. Within Monterey, San Benito, and Santa Cruz County, the majority of funds would cover transit operations. Within Santa Cruz County, funds would cover the expansion of the Highway 17 Express service and service to the University of California, Santa Cruz campus.

Americans w/ Disabilities Act/Health and Human Services Administration Transportation Services. These funds would cover paratransit services and related requirements in Monterey and Santa Cruz Counties. No ADA/HSSA projects are proposed for San Benito County; however, funding is programmed to provide ADA-related services.

Active Transportation. These projects are focused on improvements designed to benefit pedestrians and bicyclists. They include the construction of bicycle lanes, sidewalk gap closures, pedestrian bridges, maintenance and repair projects; installation of traffic calming devices and trail access. Within Monterey County, specific projects include Castroville Bicycle and Pedestrian Overcrossing and Reservation Road traffic calming from Beach Road to Del Monte Boulevard. Within San Benito County, a specific project is the West Gateway Improvement Project. Within Santa Cruz County, the funds would cover the design, environmental clearance and construction of the Monterey Bay Sanctuary Scenic Trail Network. This project would include construction near the Santa Cruz Branch Rail Line which would link to the trail network in Monterey County and the California Coastal Trail.

Transportation System Management/ Transportation Demand Management. Within Monterey County, these projects are focused on installation of Wireless Access in Vehicular Environments (WAVE) technology, ITS signal improvements and development/ implementation of the Monterey ~~County~~ Bay Area 511 Traveler Information, which includes both Monterey and Santa Cruz Counties and the Monterey and Rideshare/Commute Alternatives. Funds would cover the existing vanpool program within Monterey County, and the commute solutions rideshare program in Santa Cruz County.

TDM projects include a rideshare/vanpool program in San Benito County and various vanpool, bicycling, and commuter incentive programs designed to reduce VMT in Santa Cruz County.

Airports. These projects are focused on the construction of various improvements at public airports within the study area. These include taxiway lighting and marking improvements; new hangars, drainage improvements, parking and terminal improvements at Monterey, King City, and Hollister Airports. Within Santa Cruz County, funds would cover Watsonville Airport operations and various transportation improvements.

Projects that comprise the 2035 MTP/SCS are shown in Figures 2-2 through 2-~~8~~7.

2.5 PROJECT APPROVALS

To complete the 2035 MTP/SCS process, AMBAG will first adopt the 2035 MTP/SCS and certify the EIR. Subsequently, TAMC, SCCRTC, and SBtCOG will adopt their RTP's and any ~~county~~ specific findings and Statements of Overriding Considerations to complete the CEQA review process. Additional environmental review will be conducted by project sponsors, as the lead agency for the individual projects contained within the 2035 MTP/SCS, prior to project implementation.

Depending on the location of the project, future approvals for individual transportation projects identified in the 2035 MTP/SCS would have to be completed by one or more of the following agencies:

- California Department of Transportation (Caltrans);
- California Transportation Commission (CTC);
- Monterey Bay Unified Air Pollution Control District (MBUAPCD);
- California Coastal Commission (CCC);
- Transportation Agency for Monterey County;
- Council of San Benito County Governments;
- Santa Cruz Regional Transportation Commission;
- Monterey-Salinas Transit;
- Santa Cruz Metropolitan Transit District; and
- San Benito County Express.
- Cities and counties in the AMBAG region

The following public agencies would need to review the assumptions inherent in the 2014 MC-RTP before it could be implemented:

- Association of Monterey Bay Area Governments (AMBAG)
- California Department of Transportation (Caltrans)
- California Transportation Commission (CTC)
- California Coastal Commission (CCC)
- Cities of: Carmel, Del Rey Oaks, Gonzales, Greenfield, King City, Marina, Monterey, Pacific Grove, Salinas, Sand City, Seaside, and Soledad
- County of Monterey
- Monterey Bay Unified Air Pollution Control District (MBUAPCD)
- Monterey-Salinas Transit (MST)

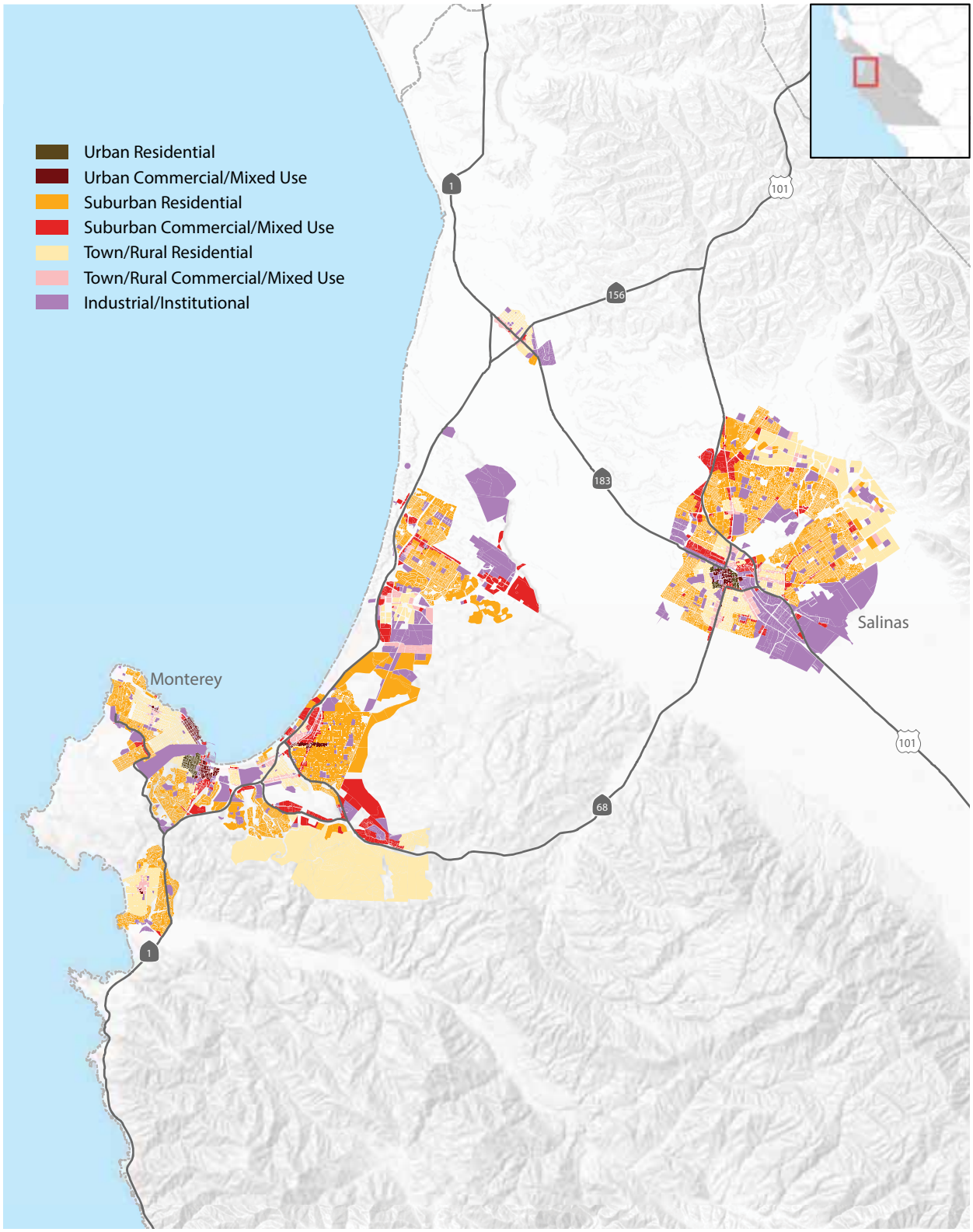
The following public agencies would need to review the assumptions inherent in the 2014 SCC-RTP before it could be implemented:

- Association of Monterey Bay Area Governments (AMBAG)
- California Department of Transportation (Caltrans)
- California Transportation Commission (CTC)
- California Coastal Commission (CCC)
- Cities of: Capitola, Santa Cruz, Scotts Valley, and Watsonville
- County of Santa Cruz
- Monterey Bay Unified Air Pollution Control District (MBUAPCD)
- Santa Cruz Metropolitan Transit District (SCMTD)

Data background elements provided by ESRI and its licensors © 2013.

MTP Projects - Monterey County

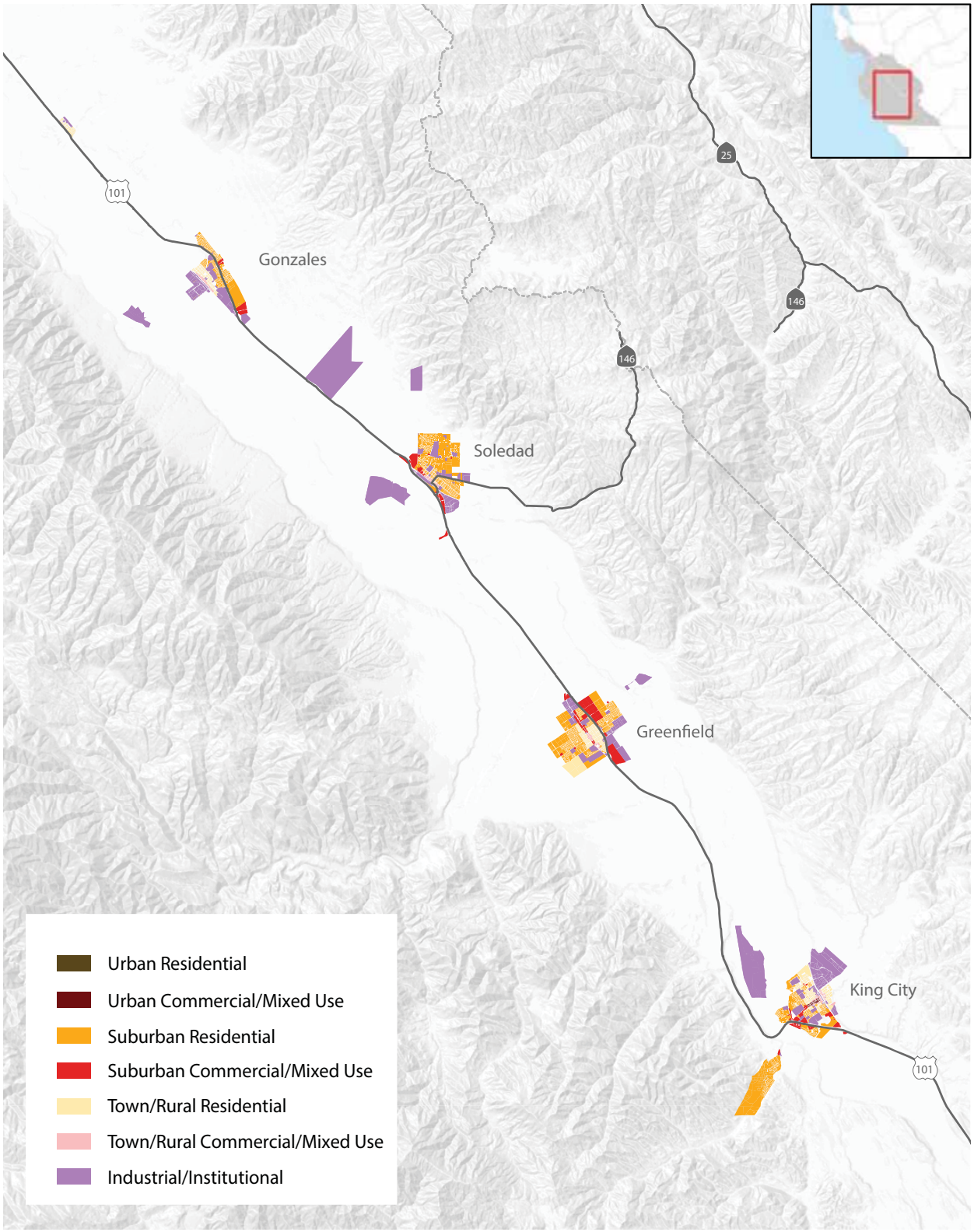
Figure 2-2



SCS Land Use
North Monterey County

Source: AMBAG, 2014

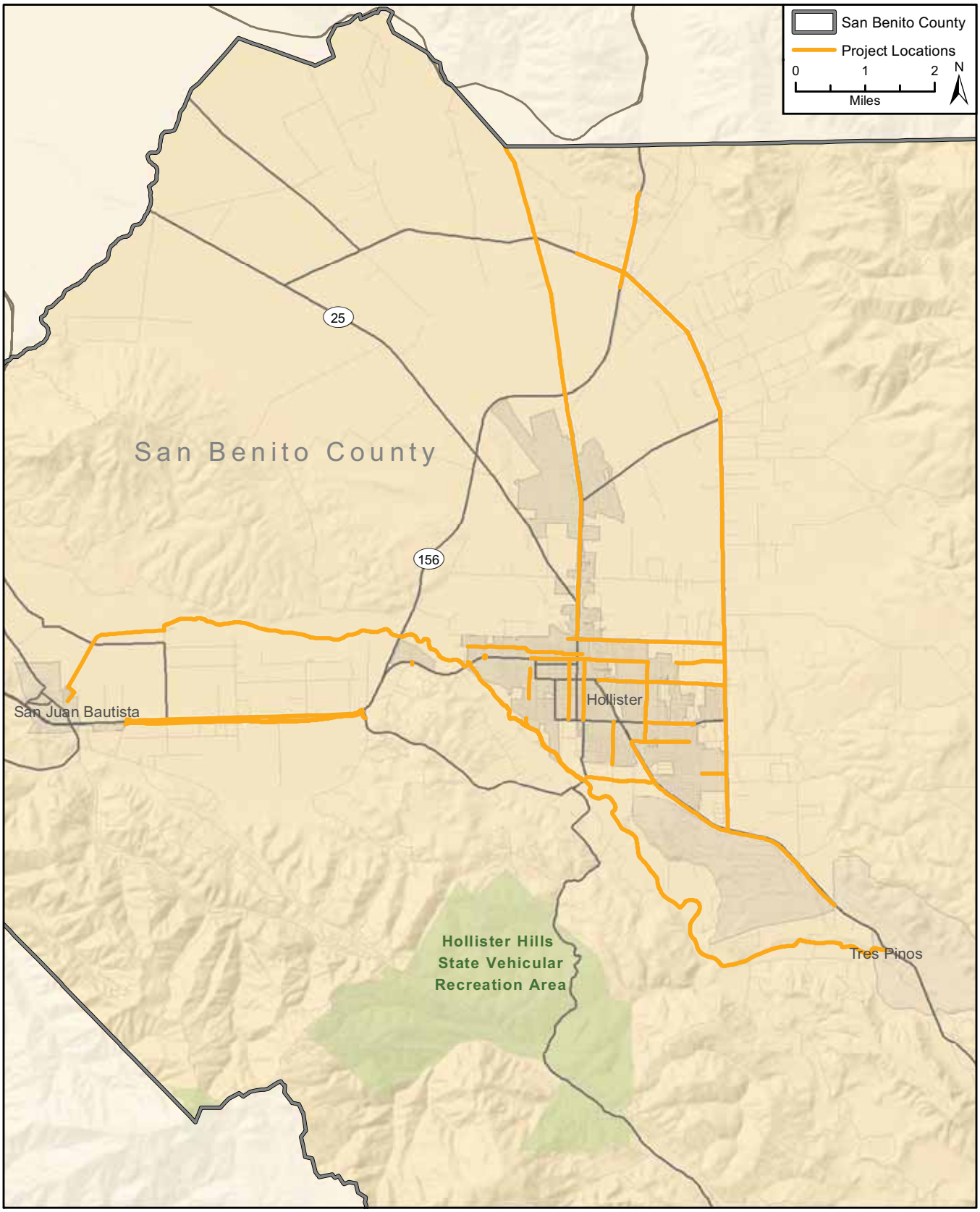
Figure 2-3



SCS Land Use
South Monterey County

Figure 2-4

Source: AMBAG, 2014



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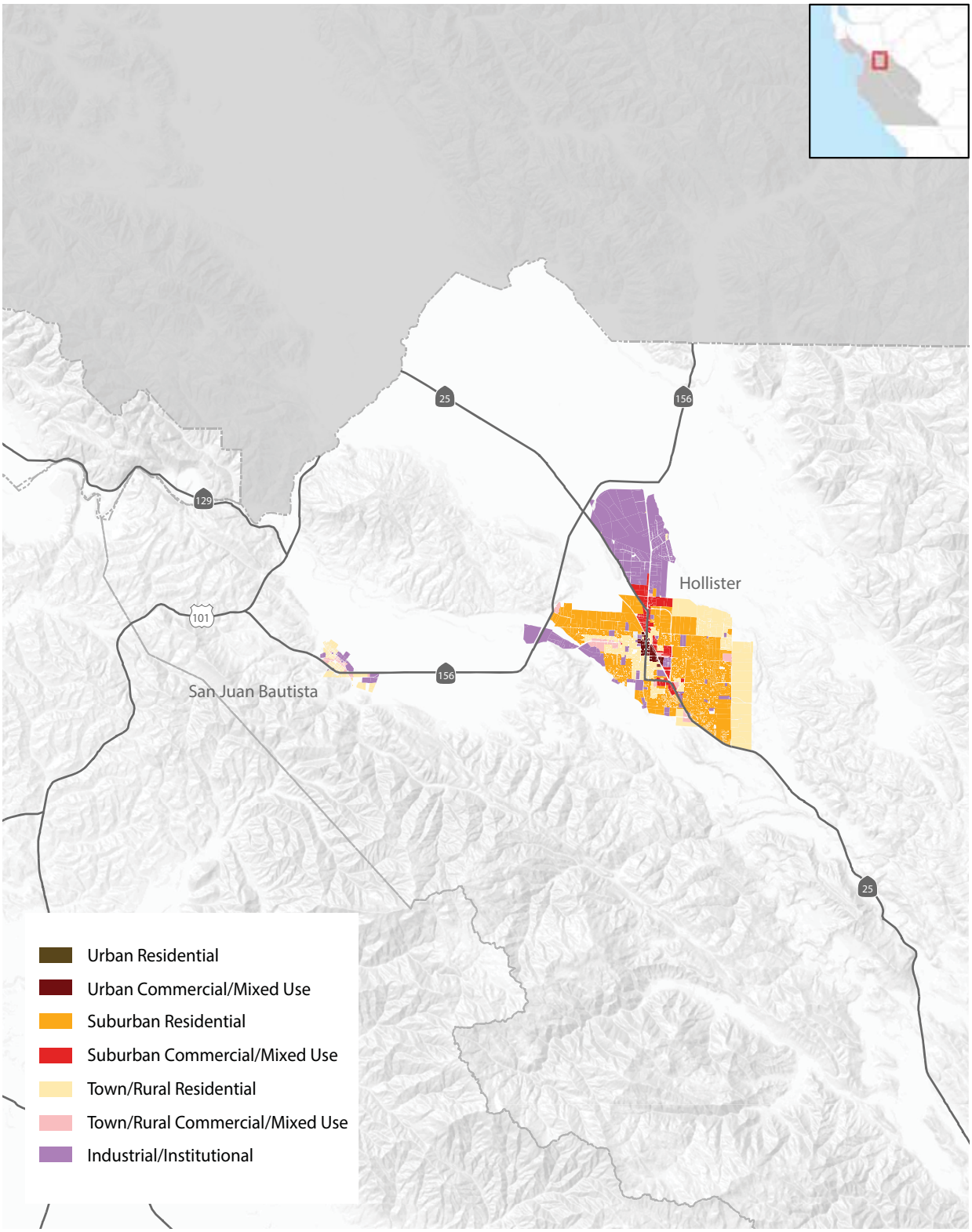
MTP Projects – San Benito County

Figure 2-5



SCS Land Use
San Benito County

Source: AMBAG, 2014

Figure 2-6

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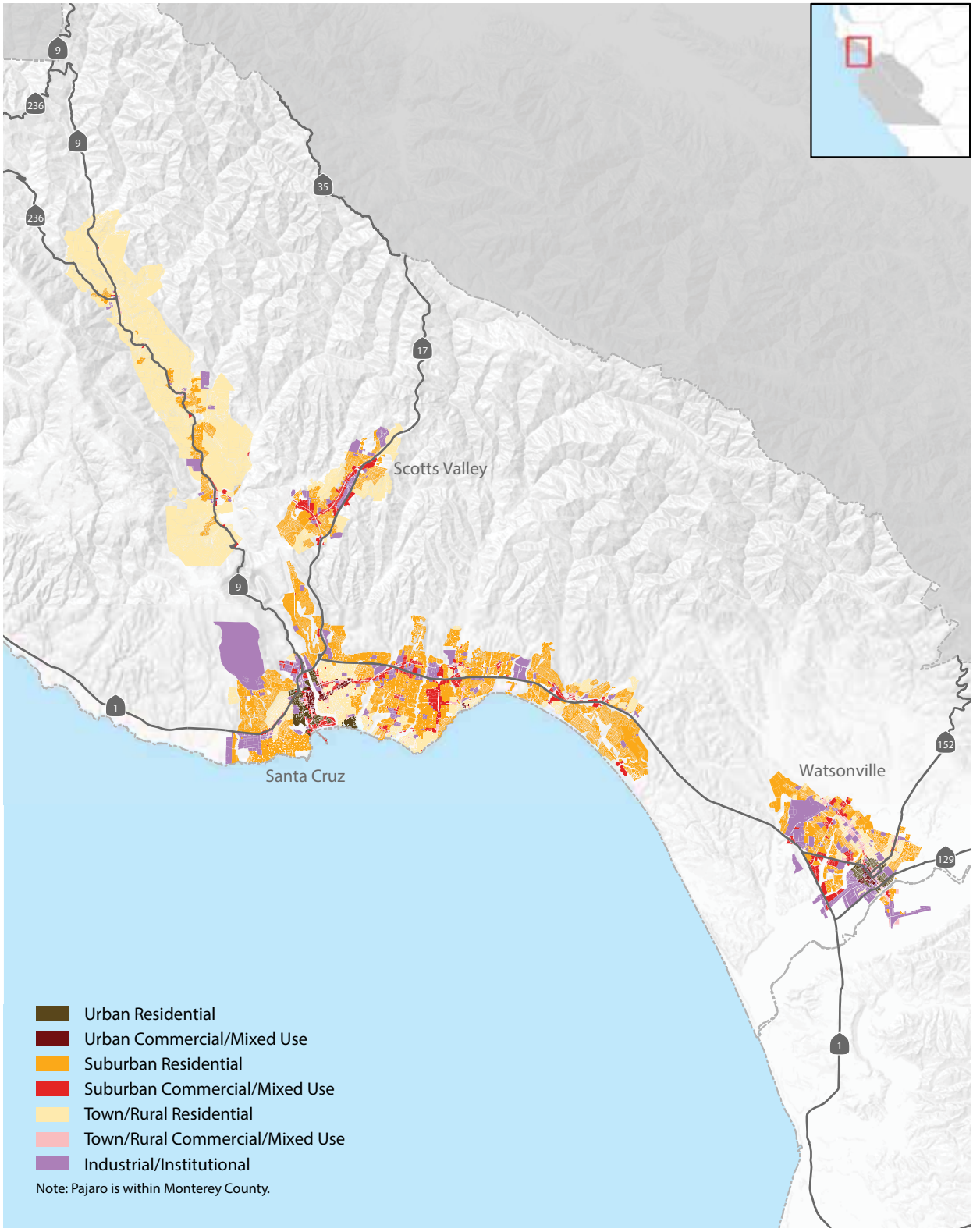
MTP Projects – Santa Cruz County

Figure 2-7



SCS Land Use
Santa Cruz County

Source: AMBAG, 2014

Figure 2-8

The following public agencies would need to review the assumptions inherent in the 2014 SBC-RTP before it could be implemented:

- Association of Monterey Bay Area Governments (AMBAG)
- California Department of Transportation (Caltrans)
- California Transportation Commission (CTC)
- San Benito County Local Transportation Authority
- Cities of: Hollister, San Juan Bautista
- County of San Benito
- Monterey Bay Unified Air Pollution Control District (MBUAPCD)

As future transportation system improvement projects identified in the 2035 MTP/SCS are planned and designed, site-specific environmental review will be conducted by the agencies responsible for implementing such projects.

Caltrans is a Responsible Agency for all projects planned within its rights-of-way. Any public agencies or private developers contemplating work within a Caltrans right-of-way are required to obtain an approved encroachment permit from Caltrans prior to beginning that work.

2.6 RELATIONSHIP WITH OTHER PLANS AND PROGRAMS

The MTP provides a sound basis for the allocation of state and federal transportation funds for transportation projects within each county over the subsequent 20-years. The RTPs and MTP follows guidelines established by the State of California Transportation Commission to:

- Describe the transportation issues and needs facing the county;
- Identify goals and policies for how AMBAG and the RTPAs will meet those needs;
- Identify the amount of money that will be available for identified projects; and
- Include a list of prioritized transportation projects to serve the county's long-term needs consistent with the funds allocated while considering environmental impacts and planning for future land use.

The 2035 MTP/SCS and the RTPs prepared by the Monterey, San Benito, and Santa Cruz RTPAs has been evaluated for consistency with the goals, policies and objectives currently being implemented by municipal and county planning agencies within the region as well as the Local Area Formation Commissions (LAFCO) for Monterey, San Benito, and Santa Cruz County. This discussion is provided in Section 5.0, ***Land Use Consistency Analysis***.

The 2035 MTP/SCS would be implemented with several other existing AMBAG programs designed to reduce adverse impacts to transportation resources, air quality, greenhouse gas (GHG) emissions, and energy. As the Metropolitan Planning Organization for the Monterey Bay Region, AMBAG strives to provide leadership in the areas of transportation, environmental, and economic planning. One of the ways AMBAG improves the transportation system, while at the same time improving air quality and stimulating the local economy, is to provide commuters with viable options to driving alone. AMBAG works closely with regional partner agencies (TAMC, SCCRTC, SBtCOG, MST, SCMETRO, and MBUAPCD) and local jurisdictions on various transportation and land use planning projects and activities. AMBAG staff provides

technical and program related assistance to partner agencies for project and/or program implementation. The following is a summary of programs that AMBAG and partner agencies support:

1. **Regional Vanpool Program:** It provides a sustainable transportation solution for the region's unique land use, demographic and employment characteristics. Moreover, the Regional Vanpool Program fills in a market niche and serves traditionally underserved population groups (including but not limited to low income and minority population, rural communities, agriculture workers, etc.). The AMBAG Regional Vanpool Program consists of the following two components:
    - Traditional employment vanpools: This initiative started due to the AMBAG rideshare program for Monterey County receiving a number of commuter inquiries regarding vanpool seats and the inability to properly match the requests with available services.
    - Agriculture employment vanpools: In 2010 AMBAG, completed the *AMBAG Vanpool Program Study* funded by Caltrans grants, which identified the existence and extent of the unmet transportation needs among the agricultural worker population in the region. The study provided valuable information about the population and areas that needed the service.
2. **AMBAG Energy Watch Program:** AMBAG and Pacific Gas and Electric Company (PG&E) partnered to deliver the AMBAG Energy Watch Program in Monterey, San Benito, and Santa Cruz counties. The program reduces energy use in our area by providing the following resources to eligible PG&E customers:
    - Energy assessments and audits
    - Direct installation of energy efficient equipment
    - Technical assistance and financial incentives for energy efficient retrofits in municipal buildings
    - Energy efficiency seminars and training courses in the region
    - Information on other PG&E energy efficiency programs and services
    - Assistance accessing 0% or 3% financing for energy efficiency projects
    - Developing Energy Action Strategies for jurisdictions
    - Compiling greenhouse gas inventories for jurisdictions
3. **Electric Vehicle Infrastructure for the Monterey Bay Area:** AMBAG conducted a suitability study identifying the best locations for electric vehicle (EV) infrastructure in the Monterey Bay Area and successfully installed four EV station as a pilot program. TAMC, SCCRTC, and other partner agency are using the EV master plan to install other charging locations under this project. AMBAG with the help of consultant, it has placed four stations in the region.

4. **Complete Streets Planning & Design Guidelines**
5. **Rideshare and Commute Alternatives, Rideshare and Emergency, developing Park & Ride Lots**

6. **Bike to School Day and Bike to Work Day Program**
7. **Safe Routes to School Program:** aims to improve the health of kids and the community by making walking and bicycling to and from school safer, easier, and more enjoyable.
8. **Regional Ecological Framework Project**
9. **Zero Emission Electric Motorcycle Pilot Project:** To reduce air pollution while contributing to the safety of the community, providing electric motorcycles to regions' police departments is an important first step in demonstrating the effectiveness of electric vehicles.
10. **Freeway Service Patrol and Motorist Assistance Program**
11. **Seniors & Accessible Transportation Services**
12. **Bicycle Signage Program**

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3.0 ENVIRONMENTAL SETTING

3.1 REGIONAL SETTING

The Monterey Bay region is comprised of Monterey, San Benito, and Santa Cruz Counties. These counties are located along the Central Coast of California and generally surround Monterey Bay. Monterey Bay is located south of the San Francisco Bay area and north of San Luis Obispo County. San Mateo and Santa Clara Counties are located to the north; Merced and Fresno Counties are located to the east. Monterey County shares a short border segment with Kings County to the southeast. The combined area encompasses approximately 3.3 million acres, incorporating the Pajaro and Salinas River Valleys, adjacent coastal lowland and surrounding mountains. Terrain within the region is varied. The Santa Cruz, Gabilan, and Santa Lucia mountain ranges and the Diablo range are located along the eastern border of the tri-county region. The highest elevation is the Junipero Serra Peak (5,860 feet above sea level), located in Monterey County. The Pajaro and Salinas valleys contain some of the most productive agricultural soils in the United States.

3.2 SUB-REGION DESCRIPTIONS

Monterey County (the area covered by the MC-RTP) covers approximately 2,127,360 acres, of which approximately 1,300,085 acres is in agricultural use (irrigated cropland, dry farming, grazing, animal husbandry and related agricultural services). San Benito County (the area covered by the SBC-RTP) covers approximately 888,924 acres, with approximately 672,281 acres in agricultural use. Santa Cruz County (the area covered by the SCC-RTP) covers approximately 282,240 acres, with approximately 38,845 acres in agricultural use (California Department of Conservation, Division of Land Resource Protection, 2013).

The California Department of Finance estimates that of each county within the tri-county region as of January 2013 as follows:

- Monterey County – 421,494;
- San Benito County – 56,669; and
- Santa Cruz County – 266,662.

The total population within the tri-county area is approximately 744,825 people. The majority of the population is concentrated within the coastal plain that extends from the Santa Cruz/ Capitola area in the north, south along the Monterey Peninsula. The largest city in Monterey County is Salinas, with an estimated population of 151,994 people or approximately 20 percent of the total population within the region (Department of Finance, 2013). Other urban population centers include the cities of Monterey, Carmel, Pacific Grove, Marina, Sand City, Seaside, and Del Rey Oaks. The cities of Gonzales, Soledad, Greenfield, and King City are located in Salinas River Valley southeast of Salinas. Monterey County contains several unincorporated communities, including Carmel Valley Village, Del Monte Forest, Pine Canyon, Castroville, Elkhorn, Las Lomas, Pajaro, and Prunedale. In San Benito County, the cities of Hollister and San Juan Bautista are the only urban centers. Within Santa Cruz County, the population is

concentrated in Capitola, Santa Cruz, Scotts Valley, and Watsonville. Unincorporated communities include Aptos, Freedom, Live Oak, and Soquel.

The tri-county economy is primarily based on agriculture. Tourism also is important particularly in Santa Cruz and Monterey during summer months. Cities such as Santa Cruz/Scotts Valley, Hollister, and unincorporated areas located in the northern portion of the region serve as bedroom communities for people working in Silicon and Santa Clara Valley to the north.

3.3 REGIONAL TRANSPORTATION SYSTEM

Monterey County

Monterey County owns and maintains approximately 1,240 miles of roads. In addition, there are 575 miles of private roads, two minor highways (Highway 25 and 146), and five major highways that include US 1, US 101, and State Highway 68, 156, and 183.

Within northern Monterey County, US 101 is a rural four-lane highway with left-turn channelization at most intersections. In southern Monterey County, US 101 is the primary north-south corridor through the Salinas Valley, between Salinas and the cities of Gonzales, Soledad, Greenfield and King City. This four-lane freeway/expressway provides connections to Routes 198 and 146 in South County.

State Route 183 is ten miles in length, beginning at the junction of US 101 in Salinas and continuing westerly to the junction of Route 1 in Castroville. Route 156 is a two-lane highway, serving as an east-west connector from US 101 to Route 1 and the Monterey Peninsula. State Route 146 is a two-lane highway beginning in Soledad and continuing to the junction of Route 25 in San Benito County. This is a primary access route to the Pinnacles National Monument.

State Route 198 is a 25.8-mile, two-lane conventional highway, beginning at Route 101 just west of San Lucas and continuing east to the Fresno County line. State Route 25 is a two-lane rural highway, beginning at the junction of Route 198 and continuing north to the San Benito County line. It primarily serves inter-regional traffic between Monterey, San Benito and Santa Clara counties.

Both passenger and freight rail service are available in Monterey County. Amtrak provides rail service twice daily via a station stop in Salinas. Four freight stations are located at Castroville, Gonzales, Salinas, and Watsonville Junction (Pajaro Community Area). Public transit services are provided by Monterey-Salinas Transit (MST) and Greyhound Lines. MST is a publicly owned and operated system providing service to the greater Monterey and Salinas areas with routes serving Carmel Valley and unincorporated areas in northern Monterey County. Greyhound provides intercity passenger service between Monterey Peninsula cities, Salinas and Salinas Valley cities as well as destinations across California and nationally.

Monterey County is served by four airports: Monterey Regional Airport, Salinas Municipal Airport, Marina Municipal Airport, and Mesa Del Rey Airport (King City). The Monterey

Regional Airport is owned and operated by the Monterey Peninsula Airport District and is served by commercial air carriers (Monterey County General Plan, October 2010).

San Benito County

Countywide there are approximately 90 miles of State highways and 306 miles of roadways under the jurisdiction of the California State Park Department. Within unincorporated San Benito County, there are approximately 384 miles of local County roadways. Caltrans maintains five state highways in San Benito County (Routes 25, 101, 129, 146, and 156). State Route 25 traverses the entire length of San Benito County from the southern county boundary at the junction of State Route 198 near King City north through Paicines, Tres Pinos, and Hollister to the northern county boundary near Gilroy, where it connects to US 101. State Route 129 extends from Santa Cruz County into the northwestern portion of San Benito County connecting to US 101 approximately 2.6 miles from the Santa Cruz-San Benito County Line. State Route 129 is a two-lane rural road providing access to Santa Cruz and Monterey County Beaches. State Route 146 in San Benito County is a two-lane minor arterial used primarily to provide access from State Route 25 to the Pinnacles National Monument. State Route 146 is eligible for official designation as a State Scenic Route; San Benito County has designated the route as a Scenic Highway. State Route 156 traverses Northern San Benito County from US 101 west of San Juan Bautista through San Juan Bautista and Hollister to the San Benito-Santa Clara County Line where it connects with State Route 152. U.S. 101 passes through the northwestern portion of San Benito County for 7.4 miles and serves primarily interregional traffic.

San Benito County Express is the primary transit provider in the county with service in Hollister and countywide via intercity connections. The County Express system currently provides three fixed routes in the City of Hollister, complementary ADA paratransit service, and a general public Dial-A-Ride. There is currently no passenger rail service in San Benito County. The County Express provides a connection to commuter and regional rail service in Gilroy which is located in south Santa Clara County. Freight rail service to Hollister and northern San Benito County is provided by the Union Pacific Hollister Branch Line.

Bicycle facilities in the county are generally concentrated in and around Hollister. Within San Juan Bautista a short section of San Juan Highway in the northern part of town has designated bike lanes. The Juan Bautista de Anza National Historic Trail traverses San Juan Bautista and the western part of the county. The cities of Hollister and San Juan Bautista generally have continuous sidewalks on most streets in their central and core areas and in newer neighborhoods. Pedestrian sidewalks in unincorporated areas of the county are generally provided in discontinuous segments or they are non-existent.

San Benito County has one public airport (Hollister Municipal Airport), one private airport (Frazier Lake Airpark) and several landing strips. Regional airport services are provided by San Jose International Airport and Monterey Peninsula Airport (San Benito County General Plan Draft Background Report, November 2010).

Santa Cruz County

There are six state highways in Santa Cruz County. State Route 1 runs north/south through the entire county. Highway 17 traverses the Santa Cruz Mountains connecting the county with the San Jose/San Francisco Bay Area. Highway 9 is a mountainous road connecting Santa Cruz to towns in the San Lorenzo Valley as well as providing another route over the Santa Cruz Mountains to Los Gatos and Saratoga in Santa Clara County. Highway 236 connects Boulder Creek to Big Basin Redwoods State Park, and Highways 152 and 129 connect Watsonville in south Santa Cruz County. There are 1,137 total miles of roadway in the county. Arterial roads comprise 15 percent of the roadway miles.

The Santa Cruz Metropolitan Transit District (or METRO) provides essential bus transit services for all local residents, including students, Highway 17 commuters, transit dependent, and choice riders. The county's network of local and express bus routes include transit centers in Felton, Scotts Valley, Santa Cruz, Capitola and Watsonville. METRO buses serve 479 miles of road throughout the county and cover the majority of arterial and collector routes. Transit to Monterey County is provided at the Watsonville Transit Center via connections with Monterey-Salinas Transit. Greyhound provides service from Santa Cruz to surrounding regions.

Freight rail service, once operated by Southern Pacific Railroad, then by Union Pacific, and now by Monterey Bay Railway (Iowa Pacific Holdings), ~~Sierra Northern Railway~~, has been a historically important form of transportation within Santa Cruz County. There are currently three rail lines in or adjacent to Santa Cruz County: The Santa Cruz Branch rail line extends from Watsonville Junction in Pajaro north to Davenport and passes through much of the county's urban area. The Felton Branch rail line is owned and operated by the private Santa Cruz Big Trees & Pacific Railway Company and primarily provides summertime and holiday excursions between Felton and the Beach Boardwalk in Santa Cruz. The line is also occasionally used for freight. The Coast Rail Route is the Union Pacific main coastal line extending from San Jose to San Diego. A stop for the proposed Amtrak Coast Daylight service is planned at the Pajaro Station located at the Watsonville Junction.

Santa Cruz County has approximately 215 miles of bikeways, 190 of them (bidirectional) bike lanes, and 25 of those are separated paths. Sidewalks and pedestrian infrastructure are located throughout the urbanized areas of the county and considered in all new project design projects.

The Watsonville Municipal Airport, developed in 1942 is the only public use airport in Santa Cruz County. There also are three private airstrips within the county, located in Bonny Doon, at the Monterey Bay Academy and Las Trancas/Big Creek. The closest scheduled air service is available at Monterey Airport and San Jose International Airport (Santa Cruz County RTP 2010).

4.0 ENVIRONMENTAL IMPACT ANALYSIS

This section discusses the possible environmental effects of the proposed project for the specific issue areas that were identified as having the potential to experience significant impacts.

"Significant effect" is defined by the *State CEQA Guidelines* §15382 as:

> *a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment, but may be considered in determining whether the physical change is significant.*

The assessment of each issue includes a discussion of the setting for that issue and an analysis of the project's impact. Within the impact analysis, the first subsection identifies the methodologies used and the "significance thresholds," which are those criteria that are adopted by AMBAG, its member agencies, or other agencies, are universally recognized, or have been developed specifically for this analysis to determine whether potential effects are significant. The next subsection describes each potential impact of the proposed project, mitigation measures for significant impacts, and the level of significance after mitigation. Each potential effect under consideration for an issue area is separately listed in bold text, with the discussion of the effect and its significance following. Each bolded impact listing also contains a statement of the significance determination for the environmental impact as follows:

> *Class I. Significant and Unavoidable: An impact that cannot be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be issued if the project is approved per §15093 of the State CEQA Guidelines.*
>
> *Class II. Significant: An impact that can be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires findings to be made under §15091 of the State CEQA Guidelines.*
>
> *Class III. Not Significant: An impact that may be adverse, but does not exceed the threshold levels and does not require mitigation measures. However, mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.*
>
> *Class IV. Beneficial: An effect that would reduce existing environmental problems or hazards.*

Following each environmental effect discussion are ~~is a listing of~~ recommended mitigation measures (when ~~if~~ required) and the residual effects or level of significance remaining after the implementation of the measures. While AMBAG and the RTPA's cannot mandate that sponsoring agencies implement the mitigation measures, ongoing interagency consultation during project specific environmental review process would ensure that mitigation contained herein is considered and implemented where applicable. Each section concludes with a

screening-level discussion of specific MTP/-SCS transportation projects that may result in identified impacts.

Information and data used to prepare the impact analyses in the 2035 MTP/SCS EIR were obtained from numerous sources as referenced in Section 8.0, References and Preparers. In addition, AMBAG provided data used during development of the 2035 MTP/SCS for incorporation where applicable in the EIR and related technical documentation. Data were obtained from the following sources as well as supporting technical manuals and methodology reports:

- AMBAG Regional Travel Demand Model
- EMFAC2011 Mobile Source Inventory Model
- UPlan Urban Growth Model
- Model Technical Documentation and Methodology Report
- 2035 MTP/SCS Performance Measures and Methodology
- Geographic Information System data for the following resources
    - land use
    - topography
    - critical habitat
    - timberland
    - waterways
    - wetlands and jurisdiction boundaries
    - roadway network
    - transit/rail routes
    - bicycle/trail network
    - airports
    - farmland including Williamson Act Lands
    - population density
    - employment density
    - housing units
    - land use typologies
    - dedicated open space
    - low income and minority communities

Cumulative Impact Analysis

Chapter 4 includes an analysis of both project-specific and cumulative impacts of the proposed project, as required by CEQA. The CEQA Guidelines require the analysis of the cumulative effects of a project in combination with other probable future projects. Section 15130 of the State CEQA Guidelines prescribes two methods for analyzing cumulative impacts: (1) use of a list of past, present, and reasonably anticipated future projects producing related or cumulative impacts; or (2) use of a summary of projections contained in an adopted general plan or related planning document.

This document is a Program EIR that analyzes the effects of cumulative buildout of the 2035 MTP/SCS and the RTPs prepared by the Monterey, San Benito, and Santa Cruz RTPAs. The proposed 2035 MTP/SCS considers the probable future projects described in method 1 above

and includes a range of specific land use and transportation projects designed to meet the plan goals and current and projected future needs, and the Draft EIR/EIS analyzes the cumulative impacts of these projects. Therefore, the cumulative effects of all probable future circulation system improvements and land use projects in the region are included in the analysis of the proposed project's impacts.

In this chapter, thresholds of significance for cumulative impacts are the same as those for direct, project-specific impacts, as authorized by CEQA case law. (See *Save Cuyama Valley v. County of Santa Barbara* (2013) 213 Cal.App.4th 1059.) When project-specific impacts are judged to be significant, they also by definition are considered "cumulatively considerable" incremental contributions to significant cumulative impacts. (See CEQA Guidelines Section 15130(a).) Mitigation measures proposed for project-specific impacts also represent potentially feasible options for mitigating the proposed project's incremental contribution to significant cumulative effects. (See CEQA Guidelines Section 15130(b)(5).)

In some cases, probable future projects outside the AMBAG region in neighboring counties would further contribute to significant cumulative impacts. These include the impacts of vehicle trips originating or terminating outside the region. The 2035 MTP/SCS and EIR traffic impact analysis accounted for impacts of trips originating and/or ending outside the AMBAG region. The impacts of these external trips are also reflected in the EIR air quality, GHG, and energy impact analyses. To qualify these trips, AMBAG with the help of professional consultants conducted an Origin Destination (OD) study using license plate video survey as well as weeklong classified traffic counts at ten (10) major external gateway locations. The OD survey results were used to account for External-External (X-X), External-Internal (X-I), and Internal-External (I-X) vehicle trips and were validated with actual traffic counts for AMBAG Model. AMBAG also consulted with Metropolitan Transportation Commission (MTC), Santa Clara Valley Transportation Authority (VTA), and San Luis Obispo Council of Governments (SLCOG) modeling staff for the verification of the future year traffic forecast for respective external gateway locations. The AMBAG Regional Travel Demand Model used this data to calibrate External-External (X-X), External-Internal (X-I), and Internal-External (I-X) vehicle trips for the base year as well as for the 2035 MTP/SCS. (Further technical details can be found in AMBAG – RTDM Technical Report, 2014, and Monterey Bay Origin Destination Study Survey Results and Data Analysis Report, March 2013.)

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4.1 AESTHETICS

4.1.1 Setting

a. Visual Character of the Region. AMBAG's planning area is predominantly rural, with urban development clustered along the Monterey Bay coastline and in agricultural inland valleys. The specific visual characteristics of Monterey, San Benito, and Santa Cruz counties are discussed below.

Monterey County. Monterey County is characterized by a scenic ocean coastline along its western and northern borders, with rugged coastal mountains inland along its eastern boundary. The most substantial visual resources are located along the County's approximately 100-mile long coastline. Monterey County includes some of the most magnificent ocean shoreline in the world along the Big Sur coast, which is bounded on the east by the very steep Santa Lucia Mountain range. Other scenic resources within Monterey County include the Fort Ord National Monument in western Monterey County, and Pinnacles National Park located east of Soledad. Elevations in Monterey County range from sea level at the coastline to nearly 5,700 feet above sea level at Junipero Serra Peak.

The Conservation and Open Space Element of the Monterey County General Plan also identifies the Salinas and Carmel Valleys and Elkhorn Slough as prominent features (Monterey County, 2010). The 130-mile long Salinas Valley stretches the length of the County and offers the greatest visual expanse within inland Monterey County which includes primarily agricultural areas. Development in the valleys originated with the agricultural industry and is located along major travel corridors such as Highway 101 (Monterey County, 2008). Cities and towns within the valleys include Castroville, Salinas (the largest city in the County), Gonzales, Soledad, Greenfield, King City, and Carmel Valley. Foreground, middleground, and background views of agriculture fields/pastures and the surrounding ranges and hills comprise the viewshed. The majority of urban development is concentrated in northern Monterey County, in the lower Salinas Valley, and around the Monterey Bay.

San Benito County. In contrast to the other two counties in the Monterey Bay region, San Benito County has no coastline. It is characterized by the Diablo and Gabilan Mountain Ranges and their associated inland agricultural valleys. Elevations range from 80 feet near Aromas in the northwest portion of the County to more than 5,200 feet at the peak of San Benito Mountain in the southeast. Prominent elements of San Benito County's scenic landscape, as defined in the General Plan Background Report, include views of mountains, undeveloped rangelands, large agricultural fields and croplands, natural ridgelines along the Diablo and Gabilan Ranges, and annual grasslands (San Benito County, 2010). Agricultural land and rangeland account for approximately 75 percent of all land in San Benito County and commonly form the foreground of scenic views. Urban development is concentrated in the City of Hollister, which is characterized by a commercial downtown with low-density residential areas to the west, south, and east, and industrial areas to the north (San Benito County, 2010).

Santa Cruz County. Santa Cruz County is characterized by scenic ocean coastlines along its western and southern borders, with rugged coastal mountains inland along its northern and eastern boundary, with visual resources generally similar to those of Monterey County

described above. One of the distinct visual features of Santa Cruz County is the extensive forest cover of the Santa Cruz Mountains in the north and northeast, including stands of coast redwoods. The Santa Cruz Mountains are the southern edge of this species' range in coastal California (Santa Cruz County, 1994). A large portion of the County's population is located in the mid-County coastal terraces, while the alluvial south County is mainly in agricultural use. The aesthetic character of urban areas in the coastal terraces between the City of Santa Cruz and Aptos is influenced by coastal vistas and stream valleys running southward from the Santa Cruz Mountains (Santa Cruz County, 2012). In the City of Santa Cruz, the built environment in the City of Santa Cruz consists of a mix of small-scale residential neighborhoods of varied scale, styles, and age; a more intensely developed downtown; and automobile-oriented commercial corridors (City of Santa Cruz, 2011). Elevations in Santa Cruz County range from sea level to more than 3,200 feet above sea level at Mt. Bielawski.

b. Primary Viewing Corridors.

Monterey County. The following roadway segments within Monterey County have been officially designated as "State Scenic Highways" under the California Scenic Highway System:

- State Highway 1 from San Luis Obispo County to State Highway 68
- State Highway 25 from State Highway 198 to the San Benito County line
- State Highway 68 from State Highway 1 in Monterey to the Salinas River
- State Highway 156 from one mile east of Castroville to U.S. 101 near Prunedale

Portions of other State highways traversing Monterey County are in the State's master plan of highways eligible for "Scenic Highway" designation. The eligible highways are:

- State Highway 1 from State Highway 68 to the San Mateo County line
- State Highway 68 from the Salinas River to U.S. 101 near Salinas
- U.S. 101 from State Highway 156 northeasterly to the San Benito County line
- State Highway 198 from U.S. 101 near San Lucas to the Fresno County line

In addition to the designated and eligible State Scenic Highways listed above, the Monterey County General Plan includes existing and proposed County Scenic Routes (Monterey County, 2010). These roadways are shown in Figures 12 through 16 of the Monterey County General Plan. The following roadways are designated as County Scenic Routes:

- Old Stage Road
- San Benancio Road
- Corral de Tierra Road
- Laureles Grade Road
- Robinson Canyon Road

The following roadways in Monterey County are proposed for designation as County Scenic Routes:

- Carmel Valley Road
- Reservation Road
- River Road
- Corral de Cielo Road
- Underwood Road
- Crazy Horse Canyon Road
- San Juan Grade Road
- San Miguel Canyon Road

San Benito County. The following roadways in San Benito County have been identified as eligible for inclusion in the California Scenic Highway System:

- State Highway 25 from the Monterey County line to State Highway 156
- State Highway 156 from the Monterey County line to the Santa Clara County line
- State Highway 198 from the Monterey County line to the Fresno County line
- State Highway 146 from Pinnacles National Monument to State Route 25
- U.S. 101 from the Monterey County line to State Highway 156

The existing San Benito County General Plan Scenic Roads and Highways Element (adopted in 1980) also designates the following roadways as Scenic Highways, and describes the widths of the associated Scenic Corridors:

- U.S. 101 (entire length within San Benito County - the Scenic Corridor width includes all land 400 feet on either side of the centerline of the road)
- State Highway 129 from its intersection with U.S. 101 to the San Benito County boundary(the Scenic Corridor width includes all land within 340 feet on either side of the centerline of the road)
- State Highway 146 between State Highway 25 and the Monterey County line (the Scenic Corridor width includes all land 340 feet on either side of the centerline of the road)

Santa Cruz County. Although no Scenic Highways have been designated in Santa Cruz County, the following roadways are eligible for designation as such:

- State Highway 1 from the Monterey to San Mateo county lines
- State Highway 9 from State Highway 1 near Santa Cruz to the Santa Clara County line
- State Highway 17 from State Highway 1 near Santa Cruz to the Santa Clara County line
- State Highway 35 from State Highway 17 to the Santa Clara County line
- State Highway 152 from State Highway 1 to the Santa Clara County line at Hecker Pass
- State Highway 236 from State Highway 9 near Boulder Creek to State Highway 9 northeast of Big Basin Redwoods State Park

c. Regulatory Setting. The general plans and zoning ordinances of the cities within the Monterey Bay area regulate design and the built environment within those communities, while the general plans for each county perform the same function within unincorporated areas. In all cases, the general plans and zoning typically prescribe visual resource policies, and in some cases, require development review of projects. In general, little direction is provided regarding the design of roadways, which are typically subject to adopted Caltrans or local engineering

standards related to safety and capacity, rather than aesthetics**.** Within the Coastal Zone, however, additional policies may apply. Pursuant to Section 30251 of the California Coastal Act of 1976, the scenic and visual qualities of coastal areas are considered a resource of public importance that requires protection; any permitted development is "to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas."

Local jurisdictions in the Monterey Bay area also have policies for the protection of scenic corridors. In the Monterey County General Plan, Policy C-5.6 requires "special scenic treatment and design within the rights-of-way of officially designated State Scenic Highways and/or County Road." San Benito County implements Policy 2 in its Scenic Roads and Highway Element (adopted in 1980) by having County staff review the visual impact of grading in designated scenic corridors and on scenic roadways (San Benito County, 2010). Projects involving grading in such areas should provide vegetative cover, preferably native to the area, and other screening devices should be provided to hide grading scars, blend with the natural landscape, and control erosion.

Compliance with provisions in the California Coastal Act (as implemented through coastal jurisdictions' certified Local Coastal Programs) would reduce long-term visual impacts on scenic corridors in the Coastal Zone. Pursuant to Section 30251, permitted development in California's Coastal Zone must be sited and designed "to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas." In addition, Section 30240 of the Coastal Act would require the protection of environmentally sensitive habitat areas, which may have scenic qualities; and in accordance with Section 30253, new development shall not "require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs." When applicable, projects in the 2035 MTP/SCS would abide by these Coastal Act requirements to preserve natural resources with scenic values.

4.1.2 Impact Analysis

a. Methodology and Significant Thresholds. Environmental assessment of a proposed project's impacts to the aesthetic and visual resources of a site begins with identification of the existing visual resources on and off that site, including the site's physical attributes, its relative visibility, and its relative uniqueness. The assessment of aesthetic impacts involves qualitative analysis that is inherently subjective in nature. Different viewers react to viewsheds and aesthetic conditions differently. This evaluation measures the existing visual resource against the proposed action, analyzing the nature of the anticipated change.

The CEQA Guidelines (Appendix G) identify the following criteria for determining whether a project's impacts would have a significant impact on the environment. Significant impacts may result if a project would:

- Have a substantial adverse effect on a scenic vista.
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

- Substantially degrade the existing visual character or quality of the site or its surroundings.
- Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

b. Project Impacts and Mitigation Measures. This section describes generalized impacts associated with proposed transportation improvements and the future land use scenario envisioned under the 2035 MTP/SCS. Table 4.1-1 in Section 4.1.2.c summarizes the specific projects that could result in aesthetic impacts.

Impact AES-1 Proposed transportation improvement projects under the ~~2014~~ 2035 MTP/~~-~~SCS, as well as the land use patterns envisioned by the 2035 MTP/SCS and the RTPs for Monterey, San Benito, and Santa Cruz Counties, may affect public views along designated scenic corridors, adjacent landscaping, and other highways or roadways considered to have high scenic qualities. This would be a Class II, *significant but mitigable* impact.

Construction of the proposed transportation improvements along scenic corridors could create potentially significant, but short-term, visual impacts. Designated corridors that may be affected include:

- State Highway 1 from San Luis Obispo County to State Highway 68
- State Highway 68 from State Highway 1 in Monterey to the Salinas River
- State Highway 156 from one mile east of Castroville to U.S. 101 near Prunedale

Additionally, the construction of transportation improvements on Old Stage Road and Laureles Grade Road, which Monterey County has designated as Scenic Routes, could result in similar visual impacts. Short-term impacts from construction on the above roadways could include blockage of views by construction equipment and staging areas, disruption of views by temporary signage, and exposure of slopes and removal of vegetation.

With regard to long-term aesthetic impacts, implementation of the 2035 MTP/SCS would generally result in modification of existing transportation facilities within existing highway, roadway, or railroad rights-of-way (Table 4.1-1 lists projects with the potential to result in adverse aesthetic impacts). The design of roadway structures would generally not lead to major impacts on visual resources, although it may result in moderate intrusions. For example, the proposed roundabout and overcrossing projects at the existing interchange of State Highway 1 and State Highway 68 would represent a moderate intrusion on the scenic character of both corridors. Further, many of the proposed projects are at-grade with the surrounding environment and are not likely to result in massive obstructions or blockages of surrounding views.

Projects implemented under the 2035 MTP/SCS would be subject to existing regulations that would help to minimize aesthetic impacts. For example, in visually sensitive areas, local land use agencies will apply development standards and guidelines to maintain compatibility with surrounding natural areas, including site coverage, building height and massing, building materials and color, landscaping, and site grading. Nevertheless, even with compliance with

these standards, specific projects identified in the 2035 MTP/SCS have the potential to adversely impact scenic resources when compared to existing conditions. Such projects include proposed increases in the dimensions of existing routes in several areas. For example, auxiliary lanes and new pedestrian crossings are proposed for State Highway 1 in the vicinity of the Cities of Santa Cruz and Capitola. Furthermore, widening projects would occur on State Highway 68 (a designated scenic highway) between Toro Park and State Highway 218, and on State Highway 156 (an eligible scenic highway) in San Benito County. These projects could change existing visual conditions of the area within which they are proposed through modification or removal of existing vegetation, the introduction of more massive road structures, or the introduction of street lighting that is out of scale with the area. Proposed overcrossings of State Highway 1 in Santa Cruz County also could obstruct scenic views from the roadway.

The future land use scenario envisioned by the 2035 MTP/SCS is intended to encourage infill development and development near existing transportation corridors. This type of development would help to avoid the loss of scenic resources overall by concentrating development within existing urbanized areas when compared to a future scenario without the 2035 MTP/SCS. However, when compared to existing conditions, the land use scenario envisioned by the 2035 MTP/SCS would intensify the built environment within existing urban areas through planned infill development. In addition, this land use scenario would concentrate development near transportation corridors in urban areas, which would further increase the visibility of future infill and transit-oriented development from these corridors and potentially impact views of background scenic resources. Additionally, increased vehicle trips and transit activities within these urban areas would generate additional noise, which may create the needs for sounds walls or barriers. Such noise mitigation features could result in aesthetic impacts.

Specific projects identified in the 2035 MTP/SCS and development facilitate by the land use scenario could adversely affect scenic corridors. Impacts would be significant but mitigable.

Mitigation Measures. For transportation projects under their jurisdiction, ~~AMBAG,~~ SCCRTC, SBtCOG, and TAMC (collectively RTPAs) shall implement and transportation project sponsor agencies can and should implement the following mitigation measures developed for the 2035 MTP/SCS program where applicable for transportation projects that result in visual impact near scenic corridors. Cities and counties in the AMBAG region can and should implement these measures, where relevant to land use projects implementing the 2035 MTP/SCS. ~~Project-specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions. These measures can and should also be implemented for future infill and transit oriented development (TOD) pursuant to the 2035 MTP/SCS that would result in visual impacts within scenic corridors.~~

AES-1(a) Where a particular 2035 MTP/SCS transportation improvement project affects adjacent landforms, the project sponsor shall ensure that re-contouring provides a smooth and gradual transition between modified landforms and existing grade. (Implementing agencies: RTPAs, transportation project sponsor agencies)

AES-1(b) The project sponsor shall ensure that landscaping is installed to restore natural features along corridors where possible after widening, interchange modifications, re-alignment, or construction of ancillary facilities. Associated landscape materials and design shall enhance landform variation, provide erosion control, and blend with the natural setting. Implementing agency shall provide a performance security equal to the value of the landscaping/irrigation installation to ensure compliance with landscaping plans. (Implementing agencies: RTPAs, transportation project sponsor agencies)

AES-1(c) The project sponsor shall ensure that a project in a scenic view corridor will have the minimum possible impact, consistent with project goals, upon foliage, existing landscape architecture, and natural scenic views. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

AES-1(d) Potential noise impacts arising from increased traffic volumes associated with adjacent land development shall be preferentially mitigated through the use of setbacks and the acoustical design of adjacent proposed structures. The use of sound walls, or any other architectural features that could block views from the scenic highways or other view corridors, shall be discouraged to the extent possible. Where use of sound walls is found to be necessary, walls shall incorporate offsets, accents, and landscaping to prevent monotony. In addition, sound walls should be complementary in color and texture to surrounding natural features. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

Significance After Mitigation. With implementation of the identified mitigation measures, impacts would be less than significant.

Impact AES-2 Development of proposed transportation improvement projects under the 2035 MTP/SCS, as well as the land use patterns envisioned by the 2035 MTP/SCS would contribute to the alteration of the Monterey Bay area's aesthetic character. This impact would be significant because the region's existing visual character or quality would be degraded. This would be a Class I, *significant and unavoidable* impact.

The 2035 MTP/SCS includes many active transportation projects that would complement the scenic character of rural areas and parkland, without substantially intensifying their level of development. In particular, the Monterey Bay Sanctuary Scenic Trail in Santa Cruz County and the San Benito River Parkway in San Benito County would provide regional multi-use trails with minimal aesthetic impacts. Numerous bikeway improvements in urban areas would have similar effects while improving urban connectivity for cyclists.

However, a substantial number of proposed transportation improvements would introduce visual features that would alter the existing rural or semi-rural character of the area in which they are proposed. As shown in Table 4.1-1, such improvements would be concentrated on the outskirts of cities in the predominantly rural and agricultural Salinas Valley. New and extended roadways would drastically change the character of agricultural areas near the cities of Salinas and Soledad, in particular, by converting farmland and introducing paved surfaces.

Furthermore, road widenings would change the character of rural country roads to that of a more suburbanized community by increasing pavement and potentially removing roadside native plant species. Ancillary facilities constructed along new or existing roads (such as lighting, bus shelters, and signs) would further contribute to the trend toward a more suburban visual character. Proposed lighting improvements on taxiways at the Monterey Regional Airport also could result in light pollution that degrades the aesthetic character of surrounding areas. A complete listing of projects with potential to alter the rural character of the Monterey Bay area is included in Table 4.1-1.

It should be noted that the majority of the projects included in the 2035 MTP/SCS would occur in developed areas or adjacent to urban environments. In addition, the land use scenario envisioned by the 2035 MTP/SCS is intended to encourage infill development and development near existing transportation corridors. This type of development would help to avoid impacts to the rural character by concentrating development within existing urbanized areas when compared to future a future scenario without the 2035 MTP/SCS. However, when compared to existing conditions, this land use scenario would intensify the built environment within existing urban areas through the implementation of infill and TOD projects, as discussed under Impact AES-1, thereby resulting in an overall change in the character of existing urbanized areas to a more dense development pattern.

Therefore, the overall visual effect of planned roadway projects and envisioned land use patterns would contribute to an incremental, but irreversible transformation in visual character from rural to more urban or suburban. This would be a significant impact.

Mitigation Measures. For transportation projects under their jurisdiction, ~~AMBAG,~~ SCCRTC, SBtCOG, and TAMC shall implement and transportation project sponsor agencies can and should implement the following mitigation measures developed for the 2035 MTP/SCS program for applicable transportation projects that result in visual character impacts. Cities and counties in the AMBAG region can and should implement these measures, where relevant to land use projects implementing the 2035 MTP/SCS. ~~Project-specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions. These measures can and should also be implemented for future infill and TOD pursuant to the 2035 MTP/SCS that would result in impacts related to visual character.~~

AES-2(a) New roadways, and extensions and widenings of existing roadways, shall avoid the removal of existing mature trees to the extent possible. The project sponsor of a particular 2035 MTP/SCS project shall replace any trees lost at a minimum 2:1 basis and incorporate them into the landscaping design for the roadway when feasible. The project sponsor also shall ensure the continued

vitality of replaced trees through periodic maintenance (see Mitigation Measure B-1(k) in Section 4.3 *Biological Resources*). (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

AES-2(b) Roadway lighting shall be minimized to the extent possible, and shall not exceed the minimum height requirements of the local jurisdiction in which the project is proposed. This may be accomplished through the use of hoods, low intensity lighting, and using a few lights as necessary to achieve the goals of the project. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

AES-2(c) Bus shelters and other ancillary facilities constructed under the 2035 MTP/SCS shall be designed in accordance with the architectural review requirements of the local jurisdiction in which the project is proposed and with local transit requirements and standards. Bus shelters shall incorporate colors and wood materials complementary of the natural surroundings. (Implementing agencies: RTPAs, transportation project sponsor agencies)

Mitigation measures AES-1(a) through AES-1(d) would also incrementally reduce potential impacts.

Significance After Mitigation. Implementation of the above mitigation measures would reduce project-specific impacts to the extent feasible. Nevertheless, the incremental alteration of the area's current rural or semi-rural character to a more suburban environment is considered a significant and unavoidable (Class I) impact.

c. Specific MTP/SCS Projects That May Result in Impacts. Table 4.1-1 identifies those projects that may create impacts as discussed in Section 4.1.2.b above. The individual projects listed could create significant aesthetic impacts but would not necessarily do so. Additional site-specific analysis will need to be conducted as the individual projects are implemented in order to determine the actual magnitude of impact. Mitigation measures discussed above could apply to these specific projects.

Table 4.1-1
MTP/SCS Projects That May Result in Aesthetic Impacts

AMBAG Project #	Project Description	Location	Impact	Description of Potential Impact
MON-CT008-UM	SR 1 - Construct one new northbound climbing lane between Rio Road and Carmel Valley Road	Carmel	AES-1	Scenic highway
MON-CT011-CT	SR 68 - Widen existing roadway to 4-lanes between existing 4 lane segment at Toro Park and Corral de Tierra Road	Toro/Monterey	AES-1, 2	Scenic highway; alteration of rural character

Table 4.1-1
MTP/SCS Projects That May Result in Aesthetic Impacts

AMBAG Project #	Project Description	Location	Impact	Description of Potential Impact
MON-CT015-CT	SR 1~~ - Widen to six lanes from Fremont Ave to at least Canyon Del Rey~~	Monterey	AES-1	Scenic highway
MON-CT017-CT	SR 68 - widening from CHOMP to SR 1	Monterey	AES-1	Scenic highway
MON-CT022-CT	SR 156 - Widening (Phase 2) at US 101	Prunedale	AES-1, 2	Scenic highway; alteration of rural character
MON-MRY027-MY	SR 68 - SR 1 ~~Roundabout~~ Interchange Improvements	Monterey	AES-1, 2	Scenic highway, alteration of rural character
MON-CT036-CT	SR 156 - West Corridor (Phase I) widening	Castroville	AES-1, 2	Scenic highway, alteration of rural character
MON-CT045-MA	SR 1 - Construct Monterey Road interchange	Seaside	AES-1	Scenic highway
MON-MYC153-UM	SR 68 - Add lanes at Corral de Tierra	Toro	AES-1,2	Scenic highway, alteration of rural character
~~MON-SOL005-SO~~	~~SR 146 - Bypass to US 101 Near Soledad~~	~~Greater Soledad~~	~~AES-2~~	~~Alteration of rural character~~
MON-SOL014-SO	SR 146 - Construct to 4 lanes from SR 146 (Metz Road) to Nestles Road	Greater Soledad	AES-2	Alteration of rural character
MON-GRN022-GR	US 101 - Pine Avenue Overcrossing at US-101	Greenfield	AES-2	Alteration of rural character
MON-GON004-GO	Alta Street from city limits to US 101 interchange	Gonzales	AES-2	Alteration of rural character
MON-GON006-GO	Harold Parkway - Roadway extension	Gonzales	AES-2	Alteration of rural character
MON-GON007-GO	La Gloria Rd Widening	Gonzales	AES-2	Alteration of rural character
MON-KCY016-CK	Bypass (So. San Antonio extension) across Bitterwater	King City	AES-2	Alteration of rural character
MON-KCY017-CK	Bypass (Lone Oak connection)	King City	AES-2	Alteration of rural character
MON-CT044-SL	US 101 - Harris Road Interchange	Greater Salinas	AES-2	Alteration of rural character
MON-SNS012-SL	Boronda Rd widening from Natividad to Williams	Salinas	AES-2	Alteration of rural character
MON-SNS044-SL	Natividad Road widening from Boronda Rd to Rogge Road	Salinas	AES-2	Alteration of rural character
MON-SNS059-SL	Williams Rd widening from Boronda to Old Stage Road	Salinas	AES-2	Alteration of rural character
MON-SNS090-SL	Russell Road extension from San Juan Grade Road to Old Stage Road	Salinas	AES-2	Alteration of rural character

Table 4.1-1
MTP/SCS Projects That May Result in Aesthetic Impacts

AMBAG Project #	Project Description	Location	Impact	Description of Potential Impact
MON-SNS092-SL	San Juan - Natividad Collector from San Juan Grade to Natividad (North of and parallel to Boronda)	Salinas	AES-2	Alteration of rural character
MON-SNS093-SL	Independence Boulevard Extension from Boronda to Russell Road	Salinas	AES-2	Alteration of rural character, loss of vegetation
MON-SNS094-SL	Hemingway Drive Extension from Boronda to Russell	Salinas	AES-2	Alteration of rural character
MON-SNS095-SL	Constitution Boulevard Extension from Boronda to Old Stage Road and from Laurel Drive to Bernal Drive extension	Salinas	AES-2	Alteration of rural character
MON-SNS096-SL	Sanborn Road Extension from Boronda to Old Stage Road	Salinas	AES-2	Alteration of rural character
MON-SNS097-SL	Williams Russell Collector from Williams Rd to Russell (Parallel and northeast of Boronda)	Salinas	AES-2	Alteration of rural character
MON-SNS098-SL	Alisal Street Extension between Alisal Street/Bardin Road intersection and the Williams-Russell Collector	Salinas	AES-2	Alteration of rural character
MON-SNS101-SL	Bernal Drive Extension from Sherwood Drive/Natividad Road intersection to Kern Street	Salinas	AES-2	Alteration of rural character
MON-SNS121-SL	McKinnon Street Extension from Boronda Rd to Rogge Road	Salinas	AES-2	Alteration of rural character
MON-MYC157-UM	CVMP - Carmel Valley Road btwn Laureles Grade and Ford Shoulder Widening	Carmel Valley	AES-2	Loss of vegetation
MON-MYC282-UM	SR 1 - Carmel Corridor between Carmel River Bridge and Carpenter St.	Carmel Valley	AES-1	Scenic highway
MON-MYC018-UM	Castroville Bicycle/Pedestrian Path and Railroad Crossing	Castroville	AES-1	Scenic highway
MON-MYC141-UM	Carmel Valley Class I Bicycle Path Project Phase IV	Carmel Valley	AES-1, 2	Scenic highway, loss of vegetation
MON-MAA020-MAA	Taxiway A, B, C, D Lighting and Signage Improvements	Monterey	AES-2	Lighting
SB-CT-A01	SR 156 Widening	San Benito County	AES-1, 2	Scenic highway, alteration of rural character
SB-CT-A17	State Route 25 Widening: Sunset Drive to Fairview Road	Hollister	AES-1, 2	Scenic highway, alteration of rural character
SB-SBC-A04	Union Road Widening (East)	Hollister	AES-2	Alteration of rural character
SB-SBC-A05	Union Road Widening (West)	Hollister	AES-2	Alteration of rural character
SB-SBC-A09	Fairview Road Widening	Hollister	AES-2	Alteration of rural character

Table 4.1-1
MTP/SCS Projects That May Result in Aesthetic Impacts

AMBAG Project #	Project Description	Location	Impact	Description of Potential Impact
SB-COH-A10	Meridian St. Extension to Fairview Road	Hollister	AES-2	Alteration of rural character
SB-SBC-A11	Union Road (formerly Crestview Drive) Construction	Hollister	AES-2	Alteration of rural character
~~SB-SBC-A12~~	~~Memorial Drive Construction - Santa Ana to Flynn Road~~	~~Hollister~~	~~AES-2~~	~~Alteration of rural character~~
SB-COH-A16	Memorial Drive Extension: Meridian Street to Santa Ana	Hollister	AES-2	Alteration of rural character
SB-COH-A18	Westside Boulevard Extension	Hollister	AES-2	Alteration of rural character
SB-SBC-A50	Hospital Road Bridge	Hollister	AES-2	Alteration of rural character
SB-SBC-A27	San Benito River Bike Trail	San Benito County	AES-1, 2	Scenic highway, alteration of rural character
SC-RTC 24e-RTC	3 - Hwy 1: Park Avenue to Bay/Porter Auxiliary Lanes	Capitola	AES-1, 2	Scenic highway, loss of vegetation
RTC 24fSC	2 - Hwy 1: 41st to Soquel Av Auxiliary Lanes and Chanticleer Bike/Ped Bridge	City of Santa Cruz	AES-1	Scenic highway
SC-RTC 24g-RTC	4 - Hwy 1: State Park Drive to Park Avenue Auxiliary Lanes	Aptos	AES-1	Scenic highway
~~WAT 01SC~~ WAT 01A	~~Hwy 1/Harkins Slough Road Interchange~~ Hwy 1/Harkins Slough Corridor Improvements	Watsonville	AES-1	Scenic highway
SC 25SC	Hwy 1/9 Intersection Modifications	City of Santa Cruz	AES-1	Scenic highway
SC-SC-P81-SCR	Hwy 1/Mission St at Chestnut/King/Union Intersection Modification	City of Santa Cruz	AES-1	Scenic highway
SC-SC 38-SCR	Hwy 1/San Lorenzo Bridge Replacement	City of Santa Cruz	AES-1	Scenic highway
SC-SC-P112-SCR	Mission (Hwy 1)/Laurel Intersection Modification	City of Santa Cruz	AES-1	Scenic highway
SC-SC-P113-SCR	Mission (Hwy 1)/Swift Intersection Modification	City of Santa Cruz	AES-1	Scenic highway
RTC30 SC	Hwy 1 Bicycle/Ped Overcrossing at Mar Vista	Aptos	AES-1	Scenic highway
SC-SC-P29-SCR	Morrissey Blvd. Bike Path over Hwy 1	City of Santa Cruz	AES-1	Scenic highway

4.2 AIR QUALITY

This section analyzes the impacts of the 2035 MTP/SCS on local and regional air quality for criteria pollutants. Both temporary impacts relating to construction activities and long-term impacts associated with population and employment growth and associated growth in vehicle traffic and energy consumption are discussed.

4.2.1 Setting

a. Local Climate and Meteorology. For criteria pollutants, air quality is affected by the rate and location of pollutant emissions, ~~and~~ by climatic conditions that influence the movement and dispersion of pollutants. Atmospheric conditions such as wind speed, wind direction, and air temperature gradients, along with local and regional topography, provide the links between air pollutant emissions and air quality.

The North Central Coast Air Basin (NCCAB) (Basin) is comprised of Monterey, Santa Cruz, and San Benito Counties. The Basin lies along the central coast of California and covers an area of 5,159 square miles. The Diablo Range marks the northeastern boundary, and together with the southern extent of the Santa Cruz Mountains forms the Santa Clara Valley which extends into the northeastern tip of the Basin. Farther south, the Santa Clara Valley transitions into the San Benito Valley which runs northwest-southeast and has the Gabilan Range as its western boundary. To the west of the Gabilan Range is the Salinas Valley, which extends from Salinas at its northwestern end to King City at its southeastern end. The western side of the Salinas Valley is formed by the Sierra de Salinas, which also forms the eastern side of the smaller Carmel Valley. The coastal Santa Lucia Range defines the western side of the Carmel Valley (Monterey Bay Unified Air Pollution Control District [MBUAPCD], February 2008).

The semi-permanent high pressure cell in the eastern Pacific is the basic controlling factor in the climate of the Basin. In the summer, the high pressure cell is dominant and causes persistent west and northwest winds over the entire California coast. Air descends in the Pacific High forming a stable temperature inversion of hot air over a cool coastal layer of air. The onshore air currents pass over cool ocean waters to bring fog and relatively cool air into the coastal valleys. The warmer air loft acts as a lid to inhibit vertical air movement (MBUAPCD, February 2008).

The generally northwest-southeast orientation of mountainous ridges tends to restrict and channel the summer onshore air currents. Surface heating in the interior portion of the Salinas and San Benito Valleys creates a weak low pressure which intensifies the onshore air flow during the afternoon and evening. In the fall, the surface winds become weak, and the marine layer grows shallow, dissipating altogether on some days. The air flow is occasionally reversed in a weak offshore movement, and the relatively stationary air mass is held in place by the Pacific High pressure cell, which allows pollutants to build up over a period of a few days. It is most often during this season that the north or east winds develop to transport pollutants from either the San Francisco Bay area or the Central Valley into the NCCAB (MBUAPCD, February 2008).

During the winter, the Pacific High migrates southward and has less influence on the air basin.

Air frequently flows in a southeasterly direction out of the Salinas and San Benito Valleys, especially during night and morning hours. Northwest winds are nevertheless still dominant in winter, but easterly flow is more frequent. The general absence of deep, persistent inversions and the occasional storm systems usually result in good air quality for the Basin as a whole in winter and early spring (MBUAPCD, February 2008).

In Santa Cruz County, coastal mountains exert a strong influence on atmospheric circulation, which results in generally good air quality. Small inland valleys such as Scotts Valley with low mountains on two sides have poorer circulation than at Santa Cruz on the coastal plain. In addition, Scotts Valley is downwind of major pollutant generating centers, and these pollutants have time to form oxidants during transit Scotts Valley. Consequently, air pollutants tend to build up more at Scotts Valley than at Santa Cruz (MBUAPCD, February 2008).

Monterey Bay is a 25-mile wide inlet, which allows marine air at low levels to penetrate the interior. The Salinas Valley is a steep-sloped coastal valley which opens out on Monterey Bay and extends southeastward with mountain ranges of two to three thousand feet elevation on either side. The broad area of the valley floor near the mouth is twenty five miles wide, narrowing to about six miles at Soledad, which is forty miles inland, and to three miles wide at King City, which is about sixty miles from the coast. At Salinas, near the northern end of the Valley, west and northwest winds occur about one-half the time during the entire year. Although the summer coastal stratus rarely extends beyond Soledad, the extended sea breeze, which consists of warmer and drier air currents, frequently reaches far down the Salinas Valley. In the southern end of the Valley, which extends into the South Central Coast Air Basin to Paso Robles, winds are generally weaker most of the year except during storm periods (MBUAPCD, February 2008).

Hollister, at the northern end of the San Benito Valley, experiences west winds nearly one-third of the time. The prevailing air flow during the summer months probably originates in the Monterey Bay area and enters the northern end of the San Benito Valley through the air gap through the Gabilan Range occupied by the Pajaro River. In addition, a northwesterly air flow frequently transports pollutants into the San Benito Valley from the Santa Clara Valley (MBUAPCD, February 2008).

b. Pollutants. Primary criteria pollutants are emitted directly from a source (e.g., vehicle tailpipe, an exhaust stack of a factory, etc.) into the atmosphere. Primary criteria pollutants include carbon monoxide (CO), reactive organic gasses (ROG), nitrogen oxides (NO_X), fine particulate matter (PM_{10} and $PM_{2.5}$), sulfur dioxide (SO_2), and lead (Pb). Secondary criteria pollutants are created by atmospheric chemical and photochemical reactions; reactive organic gasses (ROG) together with nitrogen oxides form the building blocks for the creation of photochemical (secondary) pollutants. Secondary pollutants include oxidants, ozone (O_3) and sulfate and nitrate particulates (smog). The characteristics, sources and effects of critical air contaminants are provided in Table 4.2-1 on the following page.

Table 4.2-1
Description Of Selected Air Contaminants

PHOTOCHEMICAL OXIDANT (Ox)
Characteristics - The term "photochemical oxidant" can include several different pollutants, but consists primarily of ozone (more than 90 percent) and a group of chemicals called organic peroxynitrates. Photochemical oxidants are created in the atmosphere rather than emitted directly into the air. Reactive organic gases and oxides of nitrogen are the emitted contaminants, which participate in the reaction. Ozone is a pungent, colorless toxic gas, which is produced by the photochemical process. Photochemical oxidant is a characteristic of southern California-type smog, and reaches highest concentrations during the summer and early fall. Sources - Ozone is caused by complex atmospheric reactions involving oxides of nitrogen and reactive organic gases with ultraviolet energy from sunlight. Motor vehicles are the major source of oxides of nitrogen and reactive organic gases in the basin. Effects - The common manifestations of ozone and other photochemical oxidants are damage to vegetation and cracking of untreated rubber. Ozone in high concentrations (ranging from 0.15 ppm to 0.50 ppm) can also directly affect the lungs, causing respiratory and coronary irritation and possible changes in lung functions. These health problems are particularly acute in children and elderly people exposed to these pollutants.
CARBON MONOXIDE (CO)
Characteristics - CO is a colorless, odorless, toxic gas produced through the incomplete combustion of fossil fuels. Concentrations are higher in winter when more fuel is burned for heating purposes and weather conditions favor the build-up of directly emitted contaminants. Sources -The use of gasoline-powered engines is the major source of this contaminant, with automobiles being the primary contributor. CO emissions from gasoline-powered engines are higher during winter months due to poor engine efficiency in cold temperatures. Various industrial processes also produce CO emissions through incomplete combustion of fossil fuels. Effects - CO does not irritate the respiratory tract. However, it passes through the lungs directly into the blood stream and, by interfering with the transfer of oxygen, deprives sensitive tissues of oxygen.
NITROGEN OXIDES (NO_X)
Characteristics - It primarily consists of nitric oxide (NO) (a colorless, odorless gas formed from atmospheric nitrogen and oxygen when petroleum combustion takes place under high temperatures and/or pressure) and nitrogen dioxide (NO_2) (a reddish-brown irritating gas formed by the combination of nitric oxide with oxygen). Due to the role they play as ozone precursors, oxides of nitrogen are one of the two criteria pollutants subject to federal ozone requirements. Sources - High combustion temperatures cause nitrogen and oxygen to combine and form nitric oxide. Further reaction produces additional oxides of nitrogen. Combustion in motor vehicle engines, power plants, refineries and other industrial operations are the primary sources in the region. Ships, railroads and aircraft are other significant emitters. Effects - Oxides of nitrogen are direct participants in photochemical smog reactions. The emitted compound, nitric oxide, combines with oxygen in the atmosphere in the presence of sunlight, to form nitrogen dioxide and ozone. Nitrogen dioxide, the most significant of these pollutants, can color the atmosphere at concentrations as low as 0.5 ppm on days of 21 0-mile visibility. NO_2 is an important air pollutant in the region because it is a primary receptor of ultraviolet light. The latter initiates photochemical reactions, helping to form ozone and/or particulate nitrate. It will also react in the air to form nitrate particulates.

Table 4.2-1
Description Of Selected Air Contaminants

SULFUR DIOXIDE (SO_2)
Characteristics - SO_2 is a colorless, pungent, irritating gas formed primarily by the combustion of sulfur-containing fossil fuels. In humid atmospheres, SO_2 can form sulfur trioxide and sulfuric acid mist, with some of the latter eventually reacting to produce sulfate particulates. Sources -This contaminant is the natural combustion product of sulfur or sulfur-containing fuels. Fuel combustion is the major source, while chemical plants, sulfur recovery plants, and metal processing are minor contributors. Effects - At sufficiently high concentrations, sulfur dioxide irritates the upper respiratory tract. At lower concentrations, when in conjunction with particulates, SO_2 appears able to do still greater harm by injuring lung tissues. Sulfur oxides, in combination with moisture and oxygen, can yellow the leaves of plants, dissolve marble and eat away iron and steel. Sulfur oxides can also react to form sulfates which reduce visibility.
PARTICULATES (Total Suspended Particles and PM_{10})
Characteristics - Atmospheric particulates are made up of finely divided solids or liquids, such as soot, dust, aerosols, fumes and mists. About 90 percent by weight of the emitted particles are larger than 10 microns in diameter, but about 10 percent by weight, or 90 percent of the total *number* of particulates are less than 5 microns in diameter. The aerosols formed in the atmosphere, primarily sulfate and nitrate, are usually smaller than 1 micron. In areas close to major sources, particulate concentrations are generally higher in the winter, when more fuel is burned for heating, and meteorological conditions favor the build-up of directly-emitted contaminants. However, in areas remote from major sources and subject to photochemical smog (ozone), particulate concentrations can be higher during summer months because the presence of ozone increases the potential for SO_2 and NO_2 to convert to sulfate and nitrate particulates. Sources - Particulate matter consists of particles in the atmosphere resulting from many kinds of dust and fume-producing industrial and agricultural operations, from combustion, and from atmospheric photochemical reactions. Re-entrained road dust from vehicles is a significant source of particulates. Natural activities also put particulates into the atmosphere; wind-raised dust and ocean spray are two such sources of particulates. Effects - In the respiratory tract very small particles of certain substances may produce injury by themselves, or may contain absorbed gases that are injurious. Suspended in the air, particulates less than 5 microns in diameter can both scatter and absorb sunlight, producing haze and reducing visibility. They can also cause a wide range of damage to materials.

Table 4.2-1
Description Of Selected Air Contaminants

DIESEL PARTICULATE MATTER (DPM)
Characteristics - Diesel particulate matter is part of a complex mixture that makes up diesel exhaust. Diesel exhaust is commonly found throughout the environment. Diesel exhaust is composed of two phases, either gas or particle, and both phases contribute to the risk. The gas phase is composed of many of the urban hazardous air pollutants, such as acetaldehyde, acrolein, benzene, 1,3-butadiene, formaldehyde and polycyclic aromatic hydrocarbons. Diesel exhaust has a distinct odor, which is primarily a result of hydrocarbons and aldehydes contained in diesel fuel. The particle phase also has many different types of particles that can be classified by size or composition. The size of diesel particulates that are of greatest health concern are those that are in the categories of fine and ultra fine particles. The composition of these fine and ultra fine particles may be composed of elemental carbon with adsorbed compounds such as organic compounds, sulfate, nitrate, metals and other trace elements. Sources - Diesel exhaust is emitted from a broad range of diesel engines: the on-road diesel engines of trucks, buses and cars and the off-road diesel engines that include locomotives, marine vessels and heavy-duty equipment. Effects - Acute exposure to diesel exhaust may cause irritation to the eyes, nose, throat and lungs, and some neurological effects such as lightheadedness. Acute exposure may also elicit a cough or nausea as well as exacerbate asthma. Chronic exposure in experimental animal inhalation studies have shown a range of dose-dependent lung inflammation and cellular changes in the lung and there are also diesel exhaust immunological effects. Based upon human and laboratory studies, there is considerable evidence that diesel exhaust is a likely carcinogen. Human epidemiological studies demonstrate an association between diesel exhaust exposure and increased lung cancer rates in occupational settings.
HYDROCARBONS AND OTHER ORGANIC GASES (Total Hydrocarbons, CH_4 NMHC (non-methane), AHC, NHC)
Characteristics - Any of the vast family of compounds consisting of hydrogen and carbon in various combinations are known as hydrocarbons. Fossil fuels are included in this group. Many hydrocarbon compounds are major air pollutants, and those which can be classified as olefins or aromatics are highly photochemically reactive. Atmospheric hydrocarbon concentrations are generally higher in winter because the reactive hydrocarbons react more slowly in the winter and meteorological conditions are more favorable to their accumulating in the atmosphere to higher concentration before producing photochemical oxidants. Due to the role they play as ozone precursors, reactive hydrocarbons are one of the two criteria pollutants subject to federal ozone requirements. Sources - Motor vehicles are a major source of anthropogenic hydrocarbons (AHC) in the basin. Other sources include evaporation of organic solvents and petroleum refining and marketing operations. Trees are the principal emitters of biogenic or natural hydrocarbons (NHC). Effects - Certain hydrocarbons can damage plants by inhibiting growth and causing flowers and leaves to fall. Levels of hydrocarbons currently measured in urban areas are not known to cause adverse effects in humans. However, certain members of this contaminant group are important components in the reactions which produce photochemical oxidants.

Ozone (ROG and NO_X) is the main pollutant of concern for the NCCAB. The primary sources of ROG within the planning area are on- and off-road motor vehicles, petroleum production and marketing, solvent evaporation, and prescribed burning. The primary sources of NO_X are on- and off-road motor vehicles, stationary source. In 2010, daily emissions of ROG were estimated at 63 tons per day. Of this, area-wide sources represented 49 percent, mobile sources represented 36 percent, and stationary sources represented 15 percent. Daily emissions of NO_X were estimated at 54 tons per day with 69 percent from mobile sources, 22 percent from stationary sources, and 9 percent from area-wide sources. In addition, the region is "NO_X sensitive," meaning that ozone formation due to local emissions is more limited by the availability of NO_X as opposed to the availability of ROGs (MBUAPCD, 2013).

PM_{10} is the other major pollutant of concern for the NCCAB. In the NCCAB, highest particulate levels and most frequent violations occur in the coastal corridor. In this area, fugitive dust from various geological and man-made sources combines to exceed the standard. Nearly three quarters of all NCCAB exceedances occur at these coastal sites where sea salt is often the main factor causing exceedance (MBUAPCD, 2005). In 2005 daily emissions of PM_{10} were estimated at 102 tons per day. Of this, entrained road dust represented 35 percent of all PM_{10} emission, windblown dust 20 percent, agricultural tilling operations 15 percent, waste burning 17 percent, construction 4 percent, and mobile sources, industrial processes, and other sources made up 9 percent (MBUAPCD, 2008).

An important fraction of the particulate matter emission inventory is that formed by diesel engine fuel combustion. Particulates in diesel emissions are very small and readily respirable. The particles have hundreds of chemicals adsorbed onto their surfaces, including many known or suspected mutagens and carcinogens. The California Office of Environmental Health Hazard Assessment (OEHHA) reviewed and evaluated the potential for diesel exhaust to affect human health, and the associated scientific uncertainties (California EPA, CARB, April 1998). Based on the available scientific evidence, it was determined that a level of diesel PM exposure below which no carcinogenic effects are anticipated has not been identified. The Scientific Review Panel that approved the OEHHA report determined that, based on studies to date, 3×10^{-4} $(\mu g/m^3)^{-1}$ is a reasonable estimate of the unit risk for diesel PM. This means that a person exposed to a diesel PM concentration of 1 $\mu g/m^3$ continuously over the course of a lifetime has a 3 per 10,000 chance (or 300 in one million chance) of contracting cancer due to this exposure. Based on an estimated Year 2000 statewide average concentration of 1.26 $\mu g/m^3$ for indoor and outdoor ambient air, about 380 excess cancers per one million population could be expected if diesel PM concentrations remain the same. Therefore, these particulate emissions have been determined by the California Air Resources Board (CARB) to be a toxic air contaminant (TAC).

Compared to other air toxics that the CARB has identified and controlled, diesel PM emissions are estimated to be responsible for about 70 percent of the total ambient air toxics risk. In addition to these general risks, diesel PM can also be responsible for elevated localized or near-source exposures ("hot-spots"). Depending on the activity and nearness to receptors, these potential risks can range from small to 1,500 per million or more (CARB, October 2000). Risk characterization scenarios have been conducted by the CARB staff to determine the potential excess cancer risks involved due to the location of individuals near to various sources of diesel engine emissions, ranging from school buses to high-volume freeways. The purpose of the risk characterization was to estimate, through air dispersion modeling, the cancer risk associated

with typical diesel-fueled engine or vehicle activities based on modeled PM concentration at the point of maximum impact (PMI). The study included various sources of diesel PM emissions, including idling school buses, truck stops, low and high volume freeways, and other sources. High volume freeways were estimated to cause 800-1,700 per million potential excess cancers, while low volume freeways were estimated to cause about 100 – 200 per million potential excess cancers. Please see further discussion concerning risk levels below in the Analysis Methodology section.

Besides diesel PM, several other pollutants are emitted by vehicle exhausts that are a public health concern. The U.S. Environmental Protection Agency (USEPA) has identified six pollutants of highest priority: diesel particulate matter (DPM), acrolein, acetaldehyde, formaldehyde, benzene, and 1,3-butadiene. The latter five pollutants are part of the total organic gases emitted by vehicles.

c. Local Regulatory Framework. Air Quality regulations in Monterey, San Benito, and Santa Cruz counties are subject to both federal and State standards. The 1990 Amendments to the Federal Clean Air Act mandated that the federal Environmental Protection Agency (EPA) manage and control air quality by establishing the National Ambient Air Quality Standards (NAAQS)**.** In California, the task of air quality management and regulation has been legislatively granted to the California Air Resources Board (CARB) and the local and regional air quality management districts and air pollution control districts. The CARB is responsible for research activities, the establishment of California Ambient Air Quality Standards (CAAQS) for air quality, and the regulation of mobile emission sources (i.e., motor vehicles) and to a much lesser extent, stationary sources. The CAAQS are generally more stringent than corresponding federal standards. Table 4.2-2 illustrates both the federal and State current pollutant regulations.

Table 4.2-2
Current Federal and State Ambient Air Quality Standards

Pollutant	Federal Standard	California Standard
Ozone	0.075 ppm (8-hr avg)	0.09 ppm (1-hr avg) 0.07 ppm (8-hr avg)
Carbon Monoxide	35.0 ppm (1-hr avg) 9.0 ppm (8-hr avg)	20.0 ppm (1-hr avg) 9.0 ppm (8-hr avg)
Nitrogen Dioxide	0.10 ppm (1-hr avg) 0.053 ppm (annual avg)	0.18 ppm (1-hr avg) 0.030 ppm (annual avg)
Sulfur Dioxide	0.075 ppm (1-hr avg) 0.14 ppm (24-hr avg)	0.25 ppm (1-hr avg) 0.04 ppm (24-hr avg)
Lead	1.5 $\mu g/m^3$ (calendar quarter)	0.15 $\mu g/m^3$ (3-month avg)
Particulate Matter (PM_{10})	150 $\mu g/m^3$ (24-hr avg)	50 $\mu g/m^3$ (24-hr avg) 20 $\mu g/m^3$ (annual avg)
Particulate Matter ($PM_{2.5}$)	35 $\mu g/m^3$ (24-hr avg) 12 $\mu g/m^3$ (annual avg)	12 $\mu g/m^3$ (annual avg)

ppm= parts per million
$\mu g/m^3$ = micrograms per cubic meter
Source: California Air Resources Board, www.arb.ca.gov/research/aaqs/aaqs2.pdf, *June 4, 2013*

The CARB established fourteen air basins. State law directly created local air quality management districts and air pollution control districts which have primary authority over the regulation of stationary sources. For Monterey, San Benito, and Santa Cruz counties, located within the NCCAB, air pollution control authority for stationary sources is vested with the MBUAPCD.

Emission Regulations. Mobile emission sources are regulated through the establishment of federal and State vehicle emission requirements with which auto manufacturers must comply. Motor vehicle emissions are also regulated by the State's vehicle inspection and maintenance program (the "Smog Check Program"). Indirectly, increases in motor vehicle emissions can be mitigated by agencies other than MBUAPCD or CARB through CEQA and determinations of consistency with the AQMP and other City and County General Plans. MBUAPCD's *CEQA Air Quality Guidelines* (2008) establishes MBUAPCD thresholds of significance for air pollutants, which are described in Section 4.2.2(a), Methodology and Significance Thresholds, below.

d. Current Air Quality. Monitoring of ambient air pollutant concentrations is conducted by the CARB, MBUAPCD, and industry. Monitors operated by the CARB and MBUAPCD are part of the State and Local Air Monitoring System (SLAMS). The SLAMS stations are located to provide local and regional air quality information. Ambient air quality is currently monitored at six stations in the NCCAB. The network includes five stations operated by the District and one station operated by the National Park Service at Pinnacles National Park. The Pinnacles National Park monitor is used by both CARB and EPA to designate the NCCAB as attainment or nonattainment of the ozone standards. The Pinnacles National Park monitor is also part of the Clean Air Status and Trends Network (CASTNET), a federal air quality monitoring network designed to provide data to assess trends in air quality, atmospheric deposition, and ecological effects due to changes in air pollutant emissions. Figure 4.2-2 shows the locations of all monitoring stations in the NCCAB.

The MBUAPCD is required to monitor air pollutant levels to assure that the air quality standards are met and, in the event they are not, to develop strategies to meet these standards. Depending on whether the standards are met or exceeded, the local air basin is classified as being in "attainment" or "non-attainment." As of January 2013, the NCCAB is in attainment or unclassifiable of all federal ambient air quality standards (AAQS), it is designated as non-attainment with respect to the more stringent state PM_{10} standard and the state's eight-hour ozone standard. Basin-wide historical data on the number of 1- and 8-hour State and 8-hour federal exceedances is provided in Figure 4.2-3.

e. Air Quality Management Plan (AQMP). The federal Clean Air Act Amendments (FCAAA) of 1990 set a schedule for the attainment of the NAAQS. States are required to prepare a State Implementation Plan (SIP) to develop strategies to bring about attainment of the standards. In addition, the California Clean Air Act of 1988 requires areas that exceed the California ambient air quality standards to plan for the eventual attainment of the State standards.

Figure 4.2-~~12~~1 NCCAB Air Quality Monitoring Stations (2013)

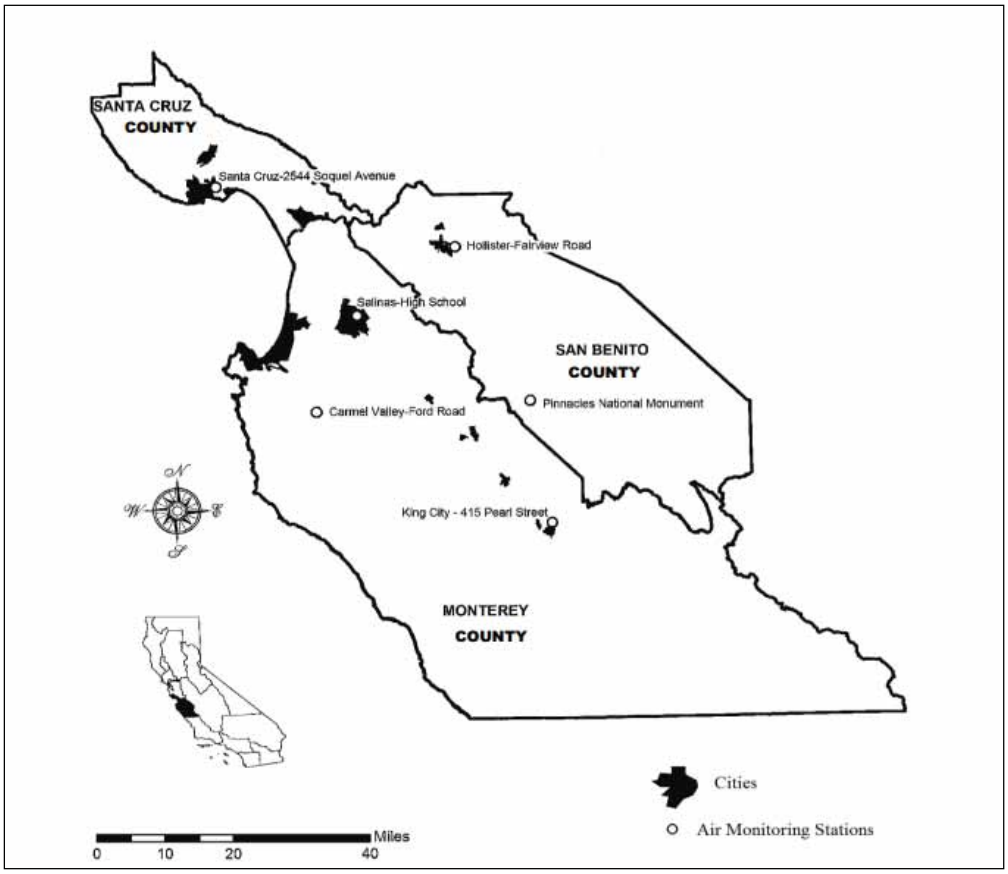
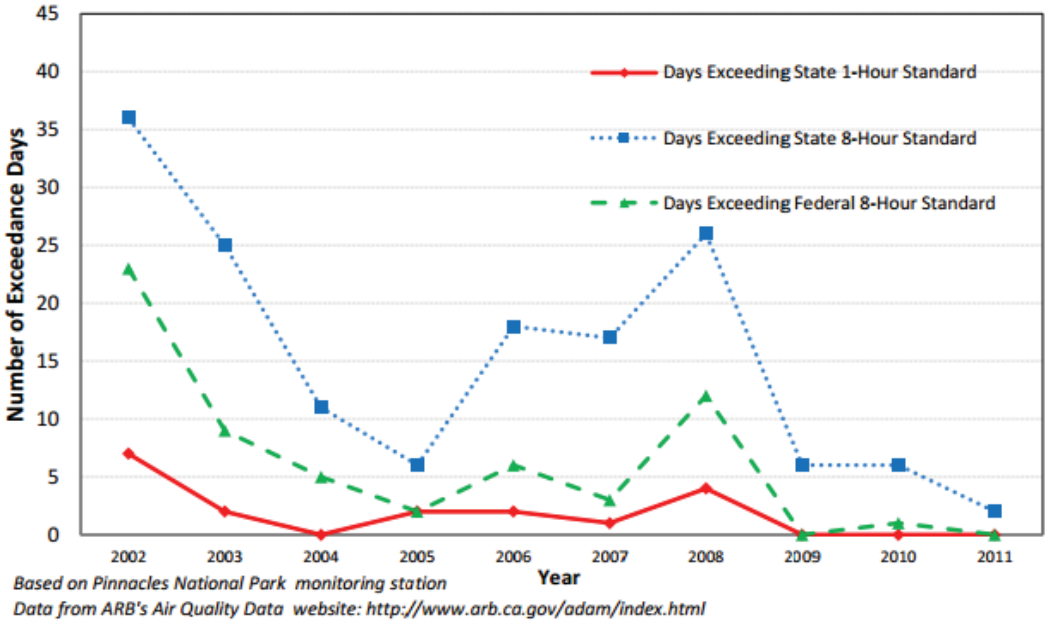


Figure 4.2-~~23~~2
Historical NCCAPCD Ozone Exceedances (2002-2011)



Source: 2012 Triennial Plan Revision, MBUAPCD, 2013

Since the passage of the 1990 Amendments to the FCAAA, seven plan updates have been adopted by MBUAPCD: 1) 1994 Federal Maintenance Plan; 2) 1998 Particulate Matter Plan; 3) 2004 Air Quality Management Plan; 4) 2005 Particulate Matter Plan; 5) 2007 Federal Maintenance Plan; 6) 2008 Air Quality Management Plan; and 7) 2012 Triennial Plan Revision. The 2012 Triennial Plan Revision was prepared to ensure continued progress towards clean air and comply with state and federal requirements. This plan builds upon the approaches taken in the 2008 AQMP, but only addresses attainment of the State ozone air quality standard since the NCCAB was designated by the EPA as attainment of the current federal 8-hour ozone standard in 2012. Tables 4.2-3 and 4.2-4 below show the emissions inventory and forecast for ROG, NO_X, and PM_{10} within the NCCAB.

Table 4.2-3
Emissions Inventory and Forecasts for ROG and NO_X

Tons/Day	1990	2000	2008	2010	2020	2035
ROG	114.39	68.83	64.39	63.38	58.05	59.61
NO_X	124.20	76.82	58.00	54.36	36.40	32.29

Source: Triennial Plan Revision, MBUAPCD, 2013

Table 4.2-4
Emissions Inventory and Forecasts for PM_{10}

Tons/Day	1990	2000	2005	2010	2015	2020
PM_{10} (All Sources)	91.67	90.28	101.99	104.55	106.67	108.93
PM_{10} (Mobile Sources)	33.70	36.16	37.95	39.61	41.26	43.11

Source: 2005 Particulate Matter Plan, MBUAPCD, 2005

4.2.2 Impact Analysis

a. Methodology and Significance Thresholds. This analysis follows the guidance and methodologies recommended in the MBUAPCD's *CEQA Guidelines*, and the CEQA Appendix G thresholds.

Pursuant to the State CEQA Guidelines, air quality impacts related to the proposed project would be significant if the project would:

- *Conflict with or obstruct implementation of the applicable air quality plan;*
- *Violate any air quality standard or contribute substantially to an existing or projected air quality violation;*
- *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative guidelines for ozone precursors);*
- *Expose sensitive receptors to substantial pollutant concentrations; and/or*
- *Create objectionable odors affecting a substantial number of people*

The MBUAPCD has issued criteria for determining the level of significance for project specific impacts within its jurisdiction in accordance with the above thresholds. Based on criteria

applied in or adapted from the MBUAPCD Guidelines, the proposed project's impacts on criteria air pollution would be significant if the project would:

- *Be inconsistent with the adopted AQMP.*
- *During construction, cause a violation of PM_{10} AAQS at nearby or upwind of sensitive receptors, based on whether the project would:*
    - *Emit greater than 82 lb/day of PM_{10} if located nearby or upwind of sensitive receptors (note: projects which require minimal earthmoving on 8.1 or more acres per day or grading and excavation on 2.2 or more acres per day are likely to exceed this threshold); or*
    - *Use equipment that is not "typical construction equipment" as specified in Section 5.3 of the MBUAPCD CEQA Guidelines.*
- *During operations:*
    - *Generate direct (area source or stationary) plus indirect (operational or mobile) emissions of either ROG or NO_X that exceed 137 lbs/day;*
    - *Generate on-site emissions of PM_{10} exceeding 82 lbs/day;*
    - *Generate direct emissions of CO exceeding 550 lbs/day; or*
    - *Generate direct emissions of SO_X exceeding 150 lbs/day.*
- *Cause or substantially contribute to a violation of a CO standard.*

The MBUAPCD's *Guidelines* indicate that the following traffic effects should be assumed to generate a significant CO impact, unless CO dispersion modeling demonstrates otherwise*:*

- *Intersections or road segments that operate at LOS D or better would operate at LOS E or F with the project's traffic, or*
- *Intersections or road segments that operate at LOS E or F where the volume-to-capacity (V/C) ratio would increase 0.05 or more with the project's traffic, or*
- *Intersections that operate at LOS E or F where delay would increase by 10 seconds or more with the project's traffic, or*
- *Unsignalized intersections which operate at LOS E or F where the reserve capacity would decrease by 50 or more with the project's traffic, or*
- *The project would generate substantial heavy duty truck traffic or generate substantial traffic along urban street canyons or near a major stationary source of CO.*

Short-Term Emissions Methodology. Emissions from construction activities represent temporary impacts that are typically short in duration, depending on the size, phasing, and type of project. Air quality impacts can nevertheless be acute during construction periods, resulting in significant localized impacts to air quality. In accordance with the MBUAPCD *CEQA Air Quality Guidelines*, construction activities (e.g., excavation, grading, on-site vehicles) which directly generate 82 pounds per day or more of PM_{10} would have a significant impact on local air quality when they are located nearby and upwind of sensitive receptors. In addition, construction projects which may cause or substantially contribute to the violation of other State or national AAQS or that could emit toxic air contaminants could result in temporary

significant impacts. Use of equipment that is not typical construction equipment[1] as specified in Section 5.3 of the MBUAPCD *CEQA Guidelines* may also result in significant air quality impacts, specifically related to ROG and NO_X.

Long-Term Emissions Methodology. The methodology for determining the significance of air quality impacts compares baseline conditions as of 2010 to the future MTP/SCS conditions in the year 2035, as required in CEQA Section 15126.2(a). The analysis of air quality also includes a comparison between the expected future conditions (2035) with the 2035 MTP/SCS and the expected future conditions if no MTP/SCS were adopted (No Project Alternative). With respect to long-term impacts, because the 2035 MTP/SCS itself does not directly generate the emissions, MBUAPCD thresholds associated with new or indirect source emissions do not apply in this case. However, State and federal clean air laws require that emissions of pollutants for which national or State ambient air quality standards are violated be reduced from current levels. Therefore, the project's long-term impacts to air quality will be considered significant if the project results in mobile source emissions that significantly exceed existing levels. In this case, the pollutants of concern are ozone precursors (NO_X and ROG) and fine particulate matter (PM_{10}), as these are the primary pollutants associated with vehicle transportation.

The long-term emissions analysis uses the 2010 on-road mobile source emissions estimate as the baseline existing conditions for determining air quality impacts. This is the most recent year for which accurate region-wide vehicle miles traveled (VMT) data is available. Baseline and future year VMT was provided by the AMBAG Regional Travel Demand Model (RTDM). Projected air emissions from mobile sources were calculated using EMFAC2011 annual emissions factors and multiplied by VMT. The EMFAC emissions factors are established by the California Air Resources Board and accommodate mobility assumptions (e.g., vehicle speed, delay times, average trip lengths, and total travel time) provided by the AMBAG ~~Regional Travel Transportation Demand Model (~~RTDM~~)~~. Projected vehicle emissions on the AMBAG transportation network for the year 2035 under the 2035 MTP/SCS were compared with 2010 existing conditions and with future conditions under the No Project Alternative in 2035. If regionwide ROG or NO_X emissions caused by the 2035 MTP/SCS do not significantly exceed the 2010 baseline, impacts to long-term air quality would not be considered significant.

In addition, the 2012 Triennial Plan Revision and 2005 Particulate Matter Plan contain a 2010 inventory baseline of the total basin-wide, on-road mobile emissions. To determine consistency with the APCD's plans, project emissions were also compared to the 2010 baseline as established by the Triennial Plan Revision and Particulate Matter Plan.

The socioeconomic growth projections used for the 2035 MTP/SCS on-road mobile source emissions analysis were based on AMBAG's 2014 Regional Growth Forecast (2014 RGF). The 2014 RGF projects regionwide population, housing, and employment growth to the year 2035. These projections reflect the latest socioeconomic planning assumptions for the region.

b. Project Impacts and Mitigation Measures. Implementation of the 2035 MTP/SCS could create both short-term and long-term impacts to air quality. Short-term air quality

[1] *Typical construction equipment includes dump trucks, scrappers, bulldozers, compactors and front-end loaders that temporarily emit precursors of ozone (i.e., ROG or NO_X). Non-typical equipment includes grinders and portable equipment (MBUAPCD, 2008).*

impacts would be generated during construction of the capital improvements listed in the 2035 MTP/SCS as well as future development facilitated by the SCS land use scenario. Long term emissions would be generated indirectly by the on-road vehicles which would utilize the capital improvements and land uses proposed.

Impact AQ-1 Construction activities associated with transportation projects under the 2035 MTP/SCS, as well as the land use patterns envisioned by the 2035 MTP/SCS would create fugitive dust and ozone precursor emissions and have the potential to result in temporary adverse impacts on air quality in the NCCAB Impacts would be Class II, *significant but mitigable.*

There are three primary sources of short-term emissions which would be generated by construction of future transportation projects under the 2035 MTP/SCS, as well as future infill development and transit oriented development (TOD) envisioned by the 2035 MTP/SCS land use scenario. These sources include: operation of the construction vehicles, (i.e., scrapers, loaders, dump trucks); the creation of fugitive dust during clearing and grading; and the use of asphalt or other oil-based substances during the final construction phases, which also generate nuisance odors. The significance of daily emissions, particularly ROG and NO_X emissions, generated by construction equipment utilized to build 2035 MTP/SCS transportation improvements and future infill development and TOD would depend on the type and quantity of equipment used and the hours of operation. The amount of ROG emissions generated by oil-based substances such as asphalt is dependent upon the type and amount of asphalt utilized. In addition, impacts related to odors associated with oil-base substances and asphalt is dependent upon the proximity of construction activities to sensitive receptors. The significance of fugitive dust ($PM_{2.5}$ and PM_{10}) emissions would depend upon the following factors: 1) the aerial extent of disturbed soils; 2) the length of disturbance time; 3) whether existing structures are demolished; 4) whether excavation is involved (including the potential removal of underground storage tanks); and, 5) whether transport of excavated materials offsite is necessary.

Intersection improvements such as signalization, re-striping or signal coordination are not expected to generate significant short-term emissions impacts. However, other 2035 MTP/SCS projects as well as future infill development and TOD under the 2035 MTP/SCS may involve grading and paving, or the construction of permanent facilities. The precise quantity of emissions would need to be determined at the time of proposed construction of a given transportation improvement or development project. Although any individual improvement or development project may not generate significant short-term emissions, it is probable that several projects would be under construction simultaneously, generating cumulative construction emissions which could impact air quality. However, with the implementation of mitigation measures for individual projects, the resulting impacts would be reduced. Impacts would be Class II, significant but mitigable.

Mitigation Measures. For transportation projects under their jurisdiction, ~~AMBAG,~~ SCCRTC, SBtCOG, and TAMC shall implement and transportation project sponsor agencies can and should implement the following mitigation measures developed for the 2035 MTP/SCS program where applicable for transportation projects that result in fugitive dust and ozone precursor emissions. Cities and counties in the AMBAG region can and should implement these measures, where relevant to land use projects implementing the 2035 MTP/SCS. ~~for~~

~~transportation projects. These measures can and should also be implemented for future infill and TOD projects developed pursuant to the 2035 MTP/SCS that would result in short-term fugitive dust and ozone precursor emissions:~~

AQ-1(a) The project sponsor shall incorporate MBUAPCD feasible mitigation measures for inhalable particles based on analysis of individual sites and project circumstances. MBUAPCD feasible mitigation measures include:

- Water all active construction areas at least twice daily. Frequency should be based on the type of operation, soil, and wind exposure.
- Prohibit all grading activities during periods of high wind (over 15 mph).
- Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).
- Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations and hydro seed area.
- Haul trucks shall maintain at least 2'0" of freeboard.
- Cover all trucks hauling dirt, sand, or loose materials.
- Plant tree windbreaks on the windward perimeter of construction projects if adjacent to open land.
- Plant vegetative ground cover in disturbed areas as soon as possible.
- Cover inactive storage piles.
- Install wheel washers at the entrance to construction sites for all exiting trucks.
- Pave all roads on construction sites.
- Sweep streets if visible soil material is carried out from the construction site.
- Post a publicly visible sign which specifies the telephone number and person to contact regarding dust complaints. This person shall respond to complaints and take corrective action within 48 hours. The phone number of the Monterey Bay Unified Air Pollution Control District shall be visible to ensure compliance with Rule 402 (Nuisance).
- Limit the area under construction at any one time.
- (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

AQ-1(b) ~~The project sponsor shall ensure that fleet owners of mobile construction equipment are subject to the California Air Resources Board Regulation for In-use Off-road Diesel Vehicles (Title 13 California Code of Regulations, Chapter 9, § 2449), the purpose of which is to reduce diesel particulate matter and criteria pollutant emissions from in-use (existing) off-road diesel-fueled vehicles.~~

The project sponsor shall ~~also~~ ensure to the maximum extent feasible, that diesel construction equipment meeting the California Air Resources Board Tier 3~~2 or higher~~ emission standards for off-road heavy-duty diesel engines is used. If use of Tier 3~~2~~ equipment it not feasible, diesel construction equipment meeting Tier 2 (of if infeasible, Tier 1) emission standards shall be used. These measures shall be noted on all construction plans and the project sponsor shall perform periodic site inspections. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

AQ-1(c) The project sponsor shall ensure that to the extent possible, construction activity utilizes electricity from power poles rather than temporary diesel power generators and/or gasoline power generators. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

AQ-1(d) In addition to performing the measures listed above, if implementation of all feasible on-site mitigation fails to reduce construction-related air quality emissions to below threshold ~~guideline~~ levels (to be determined on a project-specific basis), the project sponsor shall ensure that the implementing agency contributes monies for off-site mitigation, as necessary to reduce construction emissions below guideline levels. Monies shall be contributed to an existing fund established to implement vehicle and equipment replacement/conversion and other programs designed to reduce ROG and NO_X emissions. This mitigation shall be accomplished through the application of this condition by the responsible jurisdiction during the individual project's environmental review and shall only be applied following application of all feasible on-site mitigation. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

AQ-1(e) The project sponsor shall ensure that the removal of underground storage tanks and other project excavation is a permitted activity in accordance with MBUAPCD rules and regulations. This shall be accomplished through the issuance of MBUAPCD permits to the project sponsor prior to issuance of a grading permit. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

Significance after Mitigation. With the implementation of the above mitigation, impacts related to short-term construction emissions would be less than significant.

Impact AQ-2 Implementation of the 2035 MTP/SCS would reduce emissions of ozone precursors as compared to existing conditions as defined by the 2035 MTP/SCS 2010 baseline or the 2012 Triennial Plan Revision baseline and as compared to the future 'no project scenario.' PM_{10} emissions would slightly increase, but the increase would be less than significant. Therefore, long-term operational impacts would be Class III, *less than significant*.

Projected on-road vehicle emissions on the AMBAG transportation network for the year 2020 and 2035 with and without ('no project') implementation of the 2035 MTP/SCS and existing conditions as defined by the 2010 baseline and 2010 APCD inventory (based on the 2012 Triennial Plan Revision) were compared. The on-road vehicle source emissions estimates for the 2035 MTP/SCS were produced with the EPA-approved EMFAC2011 emission inventory model developed by the California Air Resources Board for use in California. Table 4.2-5 shows the results of the long-term emissions analysis based on annual VMT which were computed for each scenario using AMBAG's RTDM ~~regional transportation model~~.

Table 4.2-5
Regional Emissions Analysis

Scenario	Analysis Year	ROG (tons/day)	NO_X (tons/day)	PM_{10} (tons/day)[1]
2010 APCD Baseline [12]	2010	~~63.38~~ 10.58	~~54.36~~ 23.24	~~104.55~~ 39.61
2010 AMBAG Baseline	2010	~~8.72~~ 8.91	~~21.67~~ 22.41	~~1.21~~ 1,26
2035 No Project	2035	~~2.90~~ 2.99	~~6.36~~ 6.53	~~1.22~~ 1.26
2035 MTP/SCS	2035	2.94	6.44	~~1.24~~ 1.22
2035 MTP/SCS and Off Model Adjustments [3]	2035	~~2.83~~ 2.80	~~6.32~~ 6.14	~~1.18~~ 1.16

[1] *PM_{10} includes tire wear and brake wear emissions.*
[2] *2010 APCD Baseline in based on the mobile source emissions inventories in the 2012 Triennial Plan Revision and 2005 Particulate Matter Plan*
[3] *"Off Model Adjustments" are estimated at ~~a 1.95% reduction in passenger vehicle emissions with the 2035 MTP/SCS in 2020, and~~ a ~~5.85~~4.01% reduction in passenger vehicle emissions with the 2035 MTP/SCS in 2035. Refer to Section 4.12, Transportation and Circulation, for a detailed discussion of the off model adjustment methodology.*

As shown in Table 4.2-5, projected 2035 MTP/SCS emissions for ROG, NO_X, and PM_{10} would be below both 2010 AMBAG baseline and the 2010 APCD baseline conditions for the year 2035. As previously noted, the NCCAB is currently in non-attainment for the State 8-hr ozone and PM_{10} standards. As shown in Table 4.2-5, under the 2035 future 'no project scenario' and future 2035 MTP/SCS scenario, emissions levels for ozone precursors are forecast to decline between 2010 and 2035 despite projected future growth. These estimates are consistent with the state-wide continuing downward trend caused by CARB rules designed to reduce emissions from cars and trucks. NO_X emissions are primarily sourced from trucks and are lower due in part to the impact of CARB rules designed to reduce NO_X emissions from diesel trucks and buses. ROG emissions are primarily due to gasoline vehicles, and are lower due to improvements in vehicle emission rates (CARB, 2013).

As shown in Table 4.2-5, data indicates that emission levels for ozone precursors and PM_{10} would be reduced from 2035 'no project scenario' levels with the implementation of the 2035 MTP/SCS. This decrease in emissions is due to the transportation improvements and future

land use scenario envisioned by the 2035 MTP/SCS, which encourages infill and TOD. This strategy is intended to increase residential and commercial land use capacity within existing transit corridors, shifting a greater share of future growth to these corridors ultimately increasing density, improving circulation and multimodal connections. This would have a beneficial effect on air quality. Since the 2035 MTP/SCS would not exceed 2010 baseline emissions levels for ozone precursors and would reduce emissions of ozone precursors and PM_{10} as compared to both baselines, as well as the future 'no project scenario', long-term operational impacts would be less than significant.

In summary, the 2035 MTP/SCS would result in fewer emissions of ozone precursors and PM_{10} when compared to 2010 baseline emissions levels, and the future 'no project scenario.' The 2035 MTP/SCS also includes several goals and policies that would contribute to a reduction of air pollutant emissions. Therefore, impacts related to criteria pollutants are less than significant. No mitigation is required.

Mitigation Measures. None required.

Significance after Mitigation. The operational impacts of the 2035 MTP/SCS on the attainment of State and federal air quality standards are less than significant.

Impact AQ-3 The transportation improvement projects and the land use envisioned by the 2035 MTP/SCS may facilitate increased exposure of sensitive receptors to hazardous air pollutants and odorous compounds. Implementation of the 2035 MTP/SCS would not result in a significant regional increase in toxic air emissions or odorous compounds when compared to the 2010 AMBAG baseline and 2010 APCD baseline, or when compared to the future 'no project scenario.' However, localized increases may occur as a result of infill and transit oriented development facilitated by the 2035 MTP/SCS land use scenario. Impacts would be Class II, *significant but mitigable.*

Diesel particular matter is classified as the primary airborne carcinogen in the State. CARB reports that diesel particulate matter represents about 70 percent of the potential cancer risk from vehicle travel on a typical urban freeway. As discussed above, the significance threshold for long-term public health risk is set at 10 excess cancer cases in a million for cancer risk. For non-cancer risk, the significance level is set at a Hazard Index of more than one (1.0). The Hazard Index of more than one means that predicted levels of a toxic pollutant are greater than the exposure level, which is generally considered acceptable. If a formal health risk assessment shows that a significant impact results, mitigation measures to reduce the predicted levels of toxic air pollutants from the facility to a level of insignificance may be imposed by the lead agency. In addition, diesel exhaust has a distinct odor, which is primarily a result of hydrocarbons and aldehydes contained in diesel fuel. In addition to the health risks associated with diesel exhaust, the odors associated with diesel exhaust could be a nuisance to nearby receptors.

An analysis of 2020 and 2035 on-road mobile source diesel $PM_{2.5}$ and PM_{10} emissions (primary) and diesel NO_X and SO_X (as surrogates for secondary PM_{10}) is shown in Table 4.2-6. Results

indicate that for diesel $PM_{2.5}$, PM_{10} and NO_X, 2035 MTP/SCS emissions for 2035 would be less than 2010 baseline emission levels and less than or equal to emissions associated with the 2035 future 'no project scenario.' Diesel SO_X emissions associated with the 2010 baseline were insignificant (approximately 0.01 tons/day). While 2035 MTP/SCS scenario for 2035 result in a slight increase in diesel SO_X, the increase is at a magnitude of approximately 0.01 tons/day and is therefore not considered a significant increase. Therefore, impacts related to diesel particulate matter exposure and associated health risks and nuisance odors at the regional level would be less than significant.

While toxic air contaminant concentrations, health risks, and associated odors within any given distance of mobile sources in the region would generally decrease (refer to Table 4.2-6), exposure is primarily based on local parameters (e.g., average daily traffic (ADT) on local roadway segment, wind direction in relation to source and receptor) and as such, the health risks and nuisance odors adjacent to high volume roadways and transportation facilities would remain higher than regional averages.

Table 4.2-6
On-Road Mobile Source Toxics Comparison

Vehicle Activity	Diesel $PM_{2.5}$ (tons/day)	Diesel PM_{10} (tons/day)	Diesel NO_X (tons/day)	Diesel SO_X (tons/day)
2010 APCD Baseline[1]	~~N/A~~ 1.24[2]	~~N/A~~ 1.24	10.74	N/A
2010 AMBAG Baseline	~~0.27~~ 0.35	~~0.29~~ 0.46	~~10.~~15 10.68	0.01
2035 No Project	~~0.08~~ 0.17	~~0.08~~ 0.31	~~3.56~~ 3.65	0.02
2035 MTP/SCS	~~0.08~~ 0.17	~~0.08~~ 0.30	~~3.60~~ 3.61	0.02

[1] *2010 APCD Baseline in based on the 2012 Triennial Plan Revision and 2005 Particulate Matter Plan. Neither plan contains inventory data for ~~diesel $PM_{2.5}$, diesel PM_{10}, or~~ diesel SO_x.*
[2] *Per MBUAPCD guidance, it is conservatively assumed that diesel $PM_{2.5}$ emissions are equivalent to diesel PM_{10} emissions for the purpose of this analysis.*

The population residing close to freeways or busy roadways may experience adverse health effects beyond those typically found in urban areas. The CARB, in the *Air Quality and Land Use Handbook: A Community Health Perspective* (June ~~2005~~ 2011) recommends avoiding siting new sensitive land uses, such as residences, schools, daycare centers, playgrounds, or medical facilities, within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day. Additional non-cancer health risk attributable to proximity to freeways was seen within 1,000 feet and was strongest within 300 feet. California freeway studies show about a 70 percent drop-off in particulate pollution levels at 500 feet (CARB, 2005). As discussed above, proximity to freeways increases cancer risk and exposure to particulate matter. Similarly, proximity to heavily-travelled transit corridors and intersections would expose residents to higher levels of diesel particulate matter and carbon monoxide.

As described in Section 4.12, *Transportation and Circulation*, daily vehicle hours of delay would increase from the 2010 baseline by 2035 (refer to Table 4.12-7). Vehicle delay, especially along corridors near sensitive residential receptors, increases idling emissions and associated health risks for nearby receptors. This increase in delay is largely a result of population growth that is anticipated throughout the region by 2035. The 2035 MTP/SCS would reduce daily vehicle hours of delay in the regional as a whole in 2035 when compared to conditions without the 2035 MTP/SCS.

As discussed in Chapter 2, *Project Description*, as a result of 2035 MTP/SCS policies and land use scenario, the anticipated growth pattern would concentrate population adjacent to transit and other transportation facilities that could result in more people being exposed to elevated health risks and nuisance odors as compared to areas of the region more distant from such facilities. The location and pattern of the proposed 2035 MTP/SCS growth would influence travel behavior, and provide a means to determine the impact of future vehicle emissions in the proposed plan area. A compact growth pattern served by an efficient and diverse transportation system facilitates a reduction in automotive travel and increases walking, bicycling, and transit use—all of which reduce individual vehicle trips and associated vehicle delay (refer to Section 4.12, *Transportation and Circulation*). Reduced vehicle delay and vehicle trips are directly linked to reduced regional criteria air pollutant emissions and toxic air emissions from mobile sources.

It is important to note that a variety of other factors contribute to the declines in contaminant emissions compared to existing conditions, including vehicle technology, cleaner fuels, and fleet turnover. However, in order to achieve the greatest VMT reductions from a compact growth pattern, development also must necessarily be in close proximity to public transit and major roadway corridors. Although the precise location and density of such development is not known at this time, the proposed 2035 MTP/SCS may result in new sensitive receptors close to existing and new hazardous air pollutant sources, potentially resulting in the exposure to substantial hazardous air pollutant concentrations and nuisance odors. Therefore, impacts could be potentially significant. The siting of new sensitive receptors would be subject to an individual jurisdiction's land use approval processes and would be analyzed on an individual project basis and subject to mitigation measures identified below.

Mitigation Measures. ~~Consistent with the provisions contained in the *California Air Resources Board Air Quality and Land Use Handbook* (June 2005),~~ For transportation projects under their jurisdiction, ~~AMBAG,~~ SCCRTC, SBtCOG, and TAMC shall implement and transportation project sponsor agencies can and should implement the following mitigation measures developed for the 2035 MTP/SCS program where applicable for transportation projects near sensitive land uses. Cities and counties in the AMBAG region can and should implement these measures, where relevant to land use projects implementing the 2035 MTP/SCS. Consistent with the general guidance contained in the *California Air Resources Board Air Quality and Land Use Handbook* (June 2005)~~identify~~ appropriate and feasible measures shall ~~, to~~ be incorporated into project building design for residential, school and other sensitive uses located within 500 feet, or other distance as determined by the lead agency, of freeways, heavily travelled arterials, railways and other sources of diesel particulate matter, including roadway experiencing significant vehicle delays, and other known carcinogens ~~(ARB, 2005)~~. The appropriate measures shall include one or more of the following methods as applicable:

AQ-3(a) The project sponsor shall incorporate health risk reduction measures based on analysis of individual sites and project circumstances. These measures may include:

- Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day.
- Design the project to minimize exposure to roadway-related pollutants to the maximum extent feasible through inclusion

of design components including air filtration and physical barriers.

- Do not locate sensitive receptors near the entry and exit points of a distribution center.
- ~~Do not locate sensitive receptors in the same building as a perchloroethylene dry cleaning facility.~~
- Locate structures and outdoor living areas for sensitive uses as far as possible from the source of emissions. As feasible, locate doors, outdoor living areas, and air intake vents primarily on the side of the building away from the freeway or other pollution source. As feasible, incorporate dense, tiered vegetation that regains foliage year round and has a long life span between the pollution source and the project.
- Maintain a 50-foot buffer from a typical gas dispensing facility (under 3.6 million gallons of gas per year).
- Install, operate and maintain in good working order a central heating and ventilation (HV) system or other air take system in the building, or in each individual residential unit, that meets the efficiency standard of the MERV 13. The HV system should include the following features: Installation of a high efficiency filter and/or carbon filter-to-filter particulates and other chemical matter from entering the building. Either HEPA filters or ASHRAE 85% supply filters should be used. Ongoing maintenance should occur.
- Retain a qualified HV consultant or HERS rater during the design phase of the project to locate the HV system based on exposure modeling from the mobile and/or stationary pollutant sources.
- Maintain positive pressure within the building.
- Achieve a performance standard of at least one air exchange per hour of fresh outside filtered air.
- Achieve a performance standard of at least 4 air exchanges per hour of recirculation. Achieve a performance standard of .25 air exchanges per hour of in unfiltered infiltration if the building is not positively pressurized.
- Require project owners to provide a disclosure statement to occupants and buyers summarizing technical studies that reflect health concerns about exposure to highway exhaust emissions.
- Retain a qualified air quality consultant to prepare a health risk assessment (HRA) in accordance with the California Air Resources Board and the Office of Environmental Health and Hazard Assessment requirements to determine the exposure of project residents/occupants/users to stationary air quality polluters prior to issuance of a demolition, grading, or building permit. Project sponsors shall implement HRA recommendations to a level which would not result in

exposure of sensitive receptors to substantial pollutant concentrations (pursuant to the State CEQA Guidelines).

- Project sponsors shall implement feasible attenuation measures needed to reduce potential air quality impacts to sensitive receptors such as air filtration systems.
- (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

Significance after Mitigation. With the implementation of the above mitigation, impacts related to potential health risks would be less than significant.

Impact AQ-4 Re-entrained dust has the potential to increase airborne PM_{10} and $PM_{2.5}$ levels in Monterey, San Benito and Santa Cruz counties. The increase in growth expected through the 2035 MTP/SCS planning horizon would result in additional vehicle miles traveled, which would add to the PM_{10} and $PM_{2.5}$ levels in the area. However, re-entrained dust levels would be lower with the 2035 MTP/SCS than under the 'no project scenario.' In addition, with implementation of MBUAPCD control measures to reduce such emissions, impacts would be Class III, *less than significant*.

Re-entrained dust would be generated by roadway activity (i.e., roadway dust kicked up by moving vehicles on paved and unpaved roadways). In addition, dust from construction activity would add to regional dust levels. The synergistic effects of road dust (typically measured as PM_{10}) with ozone and the hazardous constituents of re-entrained road dust itself (carcinogens, irritants, pathogens) may affect human heath by contributing to respiratory illnesses such as asthma and allergies. Although motor vehicle emission control advances have allowed vehicle tailpipe emissions of some pollutants to decrease over the last 20 years, the number of vehicles in use and the amount of vehicle activity has continued to increase. This would suggest that re-entrained road dust has increased as well.

In the NCCAB, direct tailpipe emissions of particulate matter from on-road motor vehicles only represent approximately one percent of the PM_{10} inventory in 2005. Conversely, re-entrained road dust emissions are estimated to represent 32 percent of the PM_{10} planning inventory (MBUAPCD, 2005). Although on-road mobile source activity is a factor in generating re-entrained road dust emissions, this source of fine particulates is not directly addressed as part of the on-road mobile source emission inventory. Instead, paved road dust is classified as an area source by the California Air Resources Board.

Re-entrained roadway dust as well as roadway construction dust emissions are included in the estimation of criteria pollutant emissions for PM_{10} discussed in Impacts AQ-1 and AQ-2 above. As discussed in Impact AQ-2, emissions levels for PM_{10} criteria pollutants would be reduced from 2010 baseline emissions levels, as well as 2035 'no project scenario' levels with the implementation of the 2035 MTP/SCS. Increased vehicle miles travelled may contribute to an increase in re-entrained roadway dust; however, the 2035 MTP/SCS would result in fewer VMTs when compared to the 'no project scenario.' As a result, re-entrained dust emissions would be lower under the 2035 MTP/SCS when compared to the 'no project scenario.' In addition, proposed MBUAPCD fugitive dust control measures described below will further

reduce re-entrained dust from unpaved roads within the region. In 2003, the California Legislature enacted Senate Bill 656 (SB 656) to reduce public exposure of airborne particulate matter. SB 656 required the California Air Resources Board to develop and adopt by January 1, 2005 a list of readily available, feasible and cost-effective control measures that could be employed by the California Air Resources Board and local air districts (i.e., MBUAPCD) to reduce PM_{10} and $PM_{2.5}$. In response to SB 656, the MBUAPCD has identified several control measures aimed at reducing PM_{10} and $PM_{2.5}$ emissions. These measures are described in Table 4.2-7.

The most applicable measure to ~~on road vehicles~~ mobile emissions listed in Table 4.2-7 – specifically to re-entrained road dust – are D-1 and D-2. D-1 encourages the use of dust suppressants, including watering or gravel, applying non-toxic surfactants on unpaved roads and related equipment staging areas, recommending speed limits, limiting access to infrequently used unpaved roads or parking areas, and in situations involving high volumes of traffic (>100 vehicles per day), considering paving on a case by case basis. D-2 is an extension or enhancement of D-1 and evaluates the impact of vehicle speed on unpaved roads in creating fugitive dust, visibility impairment, nuisance, and dust deposition in areas along the roadway corridor.

Table 4.2-7
MBUAPCD Fugitive Dust Control Measures
(SB 656 Implementation Plan, MBUAPCD, 2005)

No.	Measure Description	Target Pollutant	Measure Type	Implementation Date
D-1	Unpaved Roads – Best Management Practices (BMPs)	Fugitive Dust	Educational and Grants	December 2006
D-2	Unpaved Roads – Speed Limit	Fugitive Dust	Educational or Regulatory	December 2006
D-3	Agricultural Tilling/Land Planning	Fugitive Dust	Policy	December 2006
D-4	Sea Salt Exemption	None	Regulatory	March 2006
D-5a	Mineral Processing	Fugitive Dust	Contingency Measure	June 2007
D-5b	Cement Manufacturing	Fugitive Dust	Regulatory	To Be Determined
D-6a	Integrate Air Quality management Plan for Ozone	Secondary PM	Regulatory	June 2007
D-6b	Integrate Smoke Management Program	Smoke	Regulatory	June 2007
D-6c	Integrate Environmental Review under CEQA	Fugitive Dust	Regulatory	October 2006
D-6d	Integrate Air Toxic Control Measure for Naturally Occurring Asbestos	Fugitive Dust	Regulatory	June 2007
D-6e	Integrate Expanded Moyer Program (AB 923)	Diesel Exhaust	Grants	June 2006
D-6f	Integrate Department of Motor Vehicles Renewal Fees (AB 2766)	PM_{10}	Educational and Grants	June 2006
D-7	Air Toxic Control Measure for Agricultural Irrigation Pumps	Diesel Exhaust	Grants	June 2007

**Based on a Board adoption date of 12/14/2005.*

Mitigation Measures. None required.

Significance after Mitigation. Impacts are Class III, less than significant with implementation of Monterey Bay Unified APCD control measures.

Impact AQ-5 Since the MBUAPCD 2012 Triennial Plan Revision was prepared before the more recent socioeconomic growth assumptions that are used in the 2035 MTP/SCS were adopted, the 2035 MTP/SCS growth assumptions and forecast horizon are not consistent with those in the Triennial Plan Revision. However, since the 2035 MTP/SCS reduces emissions of ozone precursors to levels below those identified in the Triennial Plan Revision, it would not conflict with or obstruct implementation of the Triennial Plan Revision; and therefore, impacts would be Class III, *less than significant*.

Vehicle use, energy consumption, and associated pollutant emissions are directly related to population growth. To determine consistency, several comparisons can be made to gauge the growth-inducing impacts of the 2035 MTP/SCS with the growth assumptions of the Triennial Plan Revision. Namely, these are the socioeconomic assumptions (population, housing and employment), vehicle activity assumptions (vehicle miles traveled and vehicle trips) and resulting ozone precursor emissions (ROG + NO_X).

The socioeconomic assumptions for the Triennial Plan Revision are based on AMBAG's 2008 Regional Growth Forecast (2008 RGF), while those for the 2035 MTP/SCS are based on AMBAG's 2014 RGF. The 2014 RGF includes new data and analysis of the current economy to provide a more accurate assessment of future growth. Inconsistencies in socioeconomic assumptions and forecast horizons are attributed to updated data providing more accurate assumptions for the post-recession economy and socioeconomic conditions in the region. These differences alone would not represent a significant impact regarding plan consistency According to the Triennial Plan Update, MBUAPCD will update the emissions inventory to reflect AMBAG's population forecast after final adoption in 2014 (MBUAPCD, 2013). Despite these differences, as discussed in Impact AQ-2, policies and land use patterns facilitated by the 2035 MTP/SCS are projected to reduce emissions of ozone precursors below 2010 baseline levels (see Table 4.2-3) as well as below 2035 forecast levels outlined in the Triennial Plan Revision. This decrease in emissions is due to the proposed transportation improvements and land use patterns envisioned by the 2035 MTP/SCS, which encourages infill and TOD. This strategy selectively increases residential and commercial land use capacity within high quality transit corridors, shifting a greater share of future growth to these corridors, ultimately increasing density, improving circulation and multimodal connections (refer to Section 4.12, *Transportation and Circulation*).

Another consideration of consistency is how the 2035 MTP/SCS implements and promotes the on-road mobile source emission control strategy in the AQMP and Triennial Plan Revision. The 2008 AQMP detailed transportation control measures (TCMs) contained in AMBAG's Metropolitan Transportation Improvement (MTIP). However, according to the Triennial Plan Revision, since 2008, the region has come into attainment of all NAAQS such that air quality

conformity analysis is no longer required and TCMs are no longer listed in the MTIP (Monterey Bay Air Pollution Control District, Triennial Plan Revision, 2013).

Mobile source emission reductions are primarily achieved through the District's incentive programs. To support reducing on-road vehicle emissions, the District's AB 2766 grant program focuses funding on direct emission reduction projects. The District is also evaluating whether to implement a voluntary accelerated vehicle retirement (VAVR) and/or voluntary repair of vehicles (VRV) to reduce light-duty vehicle emissions in accordance with the Carl Moyer Program; which provides funding to encourage replacement of older heavy duty motors/engines in the tri-county region.

Mitigation Measures. None required.

Significance After Mitigation. The 2035 MTP/SCS would be consistent with the Clean Air Plan (CAP).

c. Specific MTP Projects That May Result in Impacts. The proposed projects listed in Section 2.0 *Project Description*, would have the potential to result in air quality impacts. All projects that include a construction component would associate with Impact AQ-1. Projects that include roadway, rail, and transit features and/or expansions would associate with Impacts AQ-2 through AQ-4. Additional specific analysis will need to be conducted as the individual projects are designed and implemented in order to determine the actual magnitude of impact. Mitigation measures discussed above could apply to these specific projects.

4.3 BIOLOGICAL RESOURCES

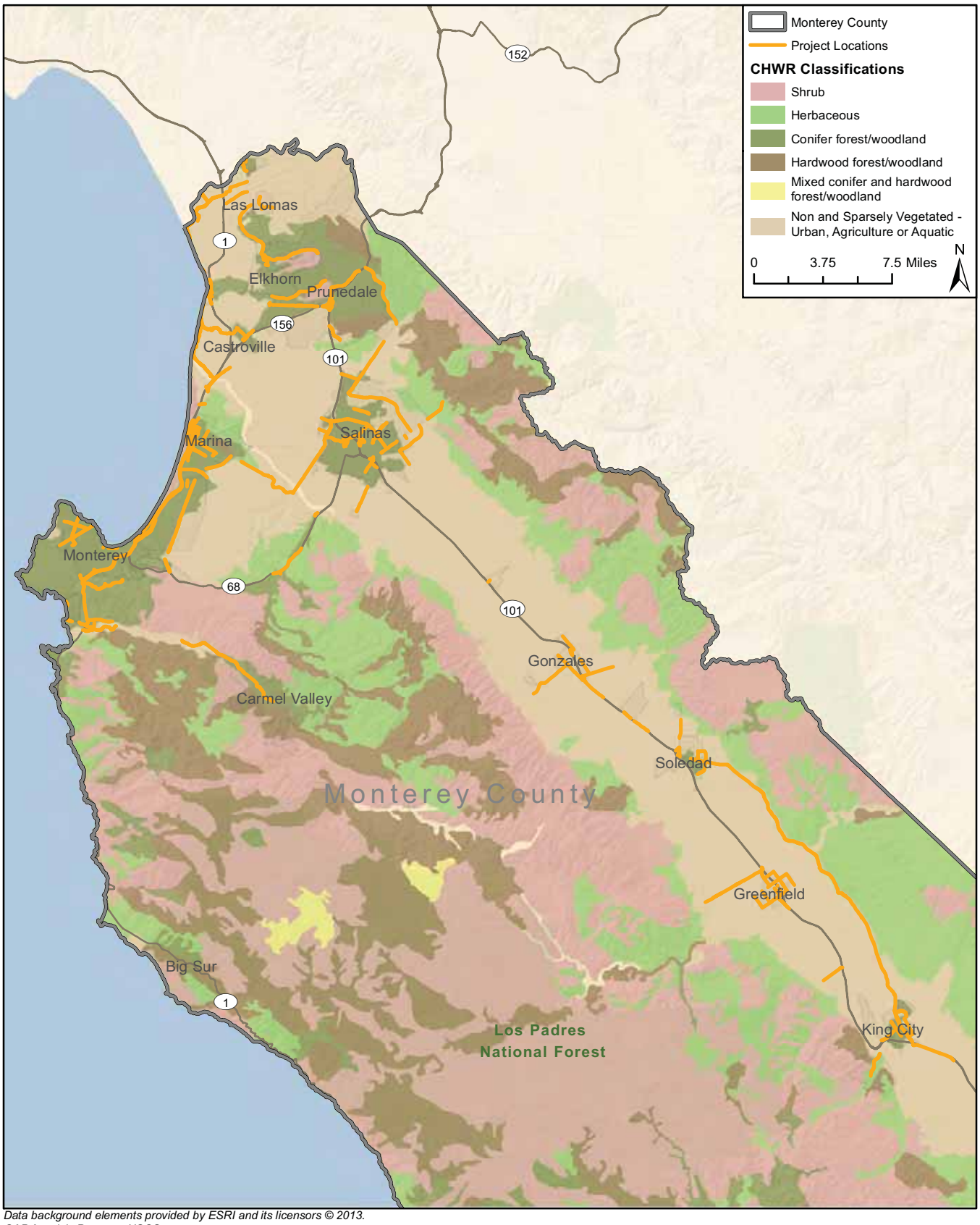
4.3.1 Setting

a. Habitats. The Counties of Santa Cruz, Monterey, and San Benito contain a wide diversity of tree (hardwood and coniferous forests, oak woodlands), shrub (chaparrals, coastal scrubs), and herbaceous (grasslands) habitat types. Some habitat types such as coast live oak woodland tend to have similar species composition and structure in most areas; however some habitats such as annual grasslands and coastal scrub will exhibit differences in species compostion and structure depending upon proximity to the coast. Thirty seven habitats are mapped using the California Department of Fish and Wildlife (CDFW; formerly referred to as the California Department of Fish and Game) California Wildlife Habitat Relationships (CWHR) habitat classification system within Santa Cruz, Monterey, and San Benito Counties (CDFW, 2008). Of those, twenty habitat types occur within three miles of construction projects outlined in the 2035 MTP/SCS (Figure 4.3-1a to c). A description of each of the habitats adapted from *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer, 1988) is presented below. The vegetation classifications from *A Manual of California Vegetation, Second Edition* (Sawyer et al., 2009) that most closely resemble those classified by the CWHR are also presented in each description. It should be noted that these habitats are generalized and that site-specific variation is likely present. Also note that the CWHR classification system maps habitats from a broad perspective and that in many areas it is expected that two or more habitats may blend with one another. Habitats which occur within populated areas can also show variation because of a greater exposure to anthropogenic influences such as the introduction of exotic plant species.

Tree-Dominated Habitats. The Counties of Santa Cruz, Monterey, and San Benito are home to a variety of hardwood, coniferous, and mixed woodlands and forests (Figure 4.3-1a to c). These tree-dominated habitats can support diverse wildlife populations. Riparian habitats are generally the terrestrial areas adjacent to fresh water bodies forming a vegetated corridor from stream edge to floodplain edge. Riparian habitats occur in and along the major rivers (e.g. Salinas, Pajaro, and San Benito Rivers), as well as along the many creeks, streams, arroyos, and ravines found in these counties. Riparian areas are rich in wildlife species, providing foraging, migration, roosting, and nesting/breeding habitat. The following are descriptions of types of tree-dominated habitats that occur within three miles of construction projects outlined in the 2035 MTP/SCS.

Closed-Cone Pine-Cypress Forest. This habitat type is typically dominated by a single species of closed-cone pines (*Pinus* sp.) or cypress (*Cupressus* sp.) and the height and canopy closure of these series are variable depending upon site characteristics including soil type, the age of the stand and the floristic composition. Closed-cone pine-cypress forests are considered fire climax or fire-dependent vegetation types. This habitat type is typically found within rocky and infertile soils along the extreme coast or on very shallow infertile soils contain stunted, wind-pruned individuals.

Montane hardwood-conifer. This habitat type includes both conifers and hardwoods often as a closed forest. Composition is comprised of at least one-third conifers and at least one-third broad-leaved tree species. The habitat often occurs in a mosaic-like pattern with small pure



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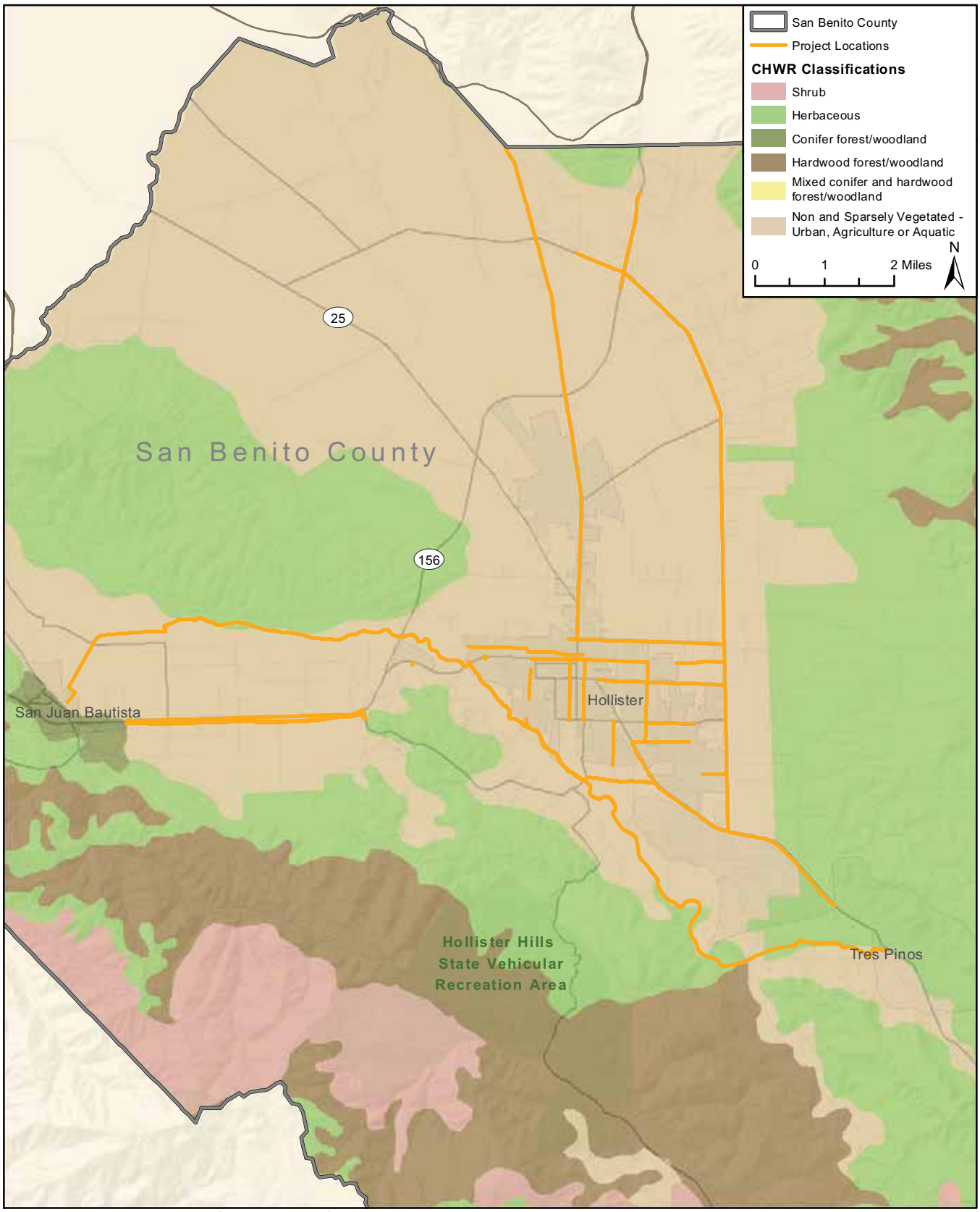
California Wildlife Habitat Relationship Classifications: Monterey County

Figure 4.3-1a



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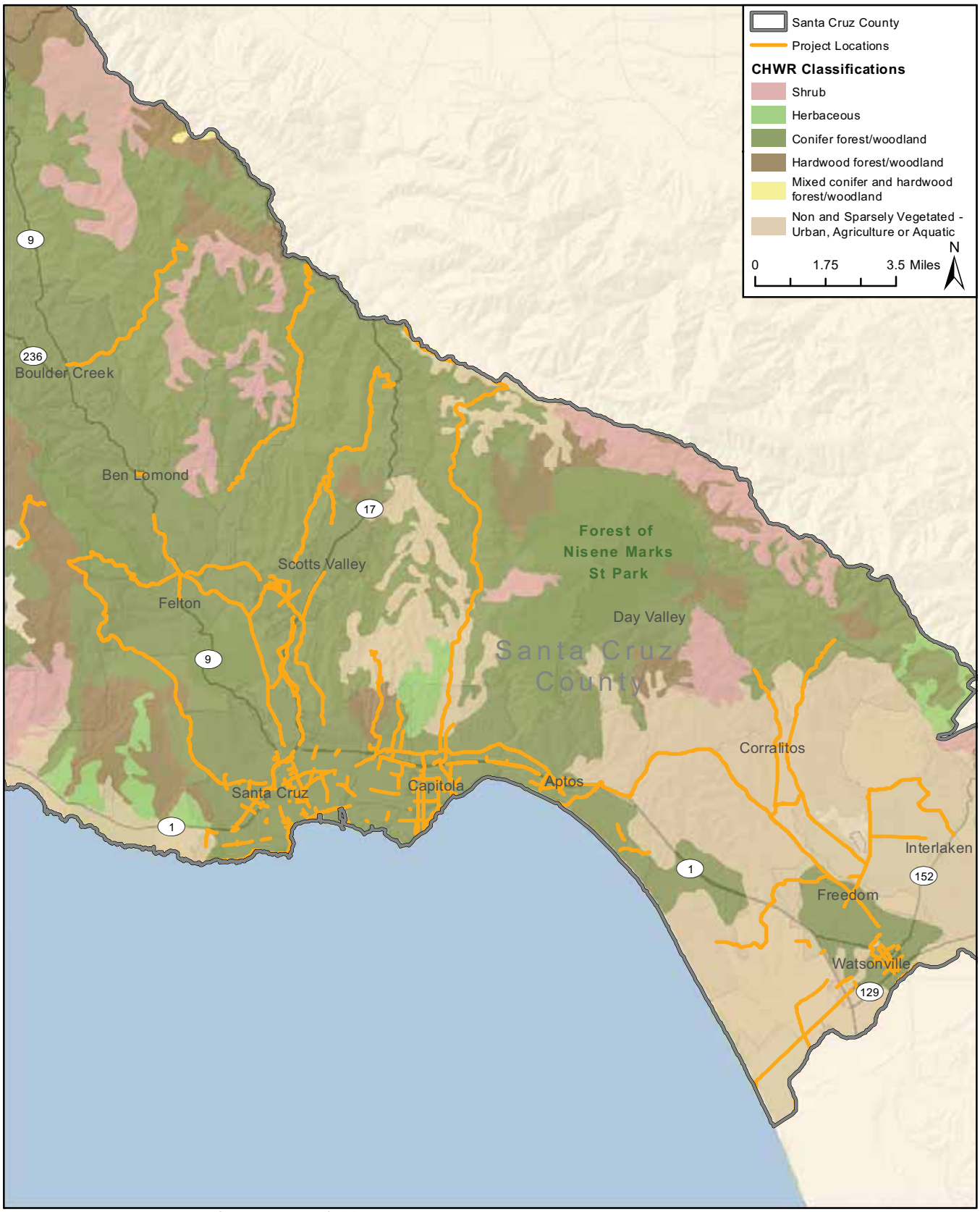
California Wildlife Habitat Relationship Classifications: San Benito County

Figure 4.3-1b



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California Wildlife Habitat Relationship Classifications: Santa Cruz County

Figure 4.3-1c

stands of conifers interspersed with small stands of broad-leaved trees. This diverse habitat consists of a broad spectrum of mixed, vigorously growing conifer and hardwood species. Most of the broad-leaved trees are sclerophyllous evergreen, but winter-deciduous species also occur. Relatively little understory occurs under canopy. Steeper slopes are normally devoid of litter; however, gentle slopes often contain considerable accumulations of leaf and branch litter.

Redwood. Second growth redwood habitats are characterized by an even-aged structure with an open park like appearance. Coast redwood (*Sequioa sempervirens*) is the dominant tree species. Understory vegetation in old-growth redwood is usually very dense and composed of tall shrubs. Redwoods are very vigorous sprouters with sprouts eventually forming the dominant canopy. Redwood and associated conifers also reproduce well by seed.

Blue Oak-foothill Pine. This habitat is typically diverse in structure both vertically and horizontally and is composed primarily of a mix of hardwoods, conifers, and shrubs. Shrub distributions tend to be clumped, with interspersed patches of annual grassland. Woodlands of this type generally tend to only have small accumulations of dead and downed woody material, compared with other tree habitats in California. Blue oak (*Quercus douglassii*) and foothill pine (*Pinus sabiniana*) typically comprise the overstory of this habitat, with blue oak usually most abundant. In the foothills of the Sierra Nevada, other tree species typically associated with this habitat are interior live oak (*Quercus wislizeni*) and California buckeye (*Aesculus californica*). In the Coast Range, associated tree species include coast live oak (*Quercus agrifolia*), valley oak (Q*uercus lobata*), and California buckeye. In rocky areas, interior live oak sometimes dominates the overstory especially on north-facing slopes at higher elevations. At lower elevations, where blue oaks make up most of the canopy, the understory tends to be primarily annual grasses and forbs. At higher elevations where foothill pines and even interior live oaks sometimes comprise the canopy, the understory usually includes patches of shrubs in addition to the annual grasses and forbs. Shrub species that can be associated with this habitat type include various buckbrush (*Ceanothus* spp.) species and manzanita (*Arctostaphylos* spp.). Other species found in this habitat type can include California coffeeberry (*Rhamnus californicus*), poison-oak (*Toxicodendron diversilobum*) and silver lupine (*Lupinus albifrons*). This habitat is generally located in the foothills of the Central Valley, between 500 and 3,000 feet in elevation. Blue oak-foothill pine typically corresponds to the *Quercus douglasii* Woodland Alliance or Pinus sabiniana Woodland Alliance as described by Sawyer et al. (2009). This habitat type is not found in Santa Cruz County.

Blue Oak Woodland. Generally these woodlands have an over story of scattered trees, although the canopy can be nearly closed. The canopy is dominated by broad-leaved trees 5 to 15 meters (16 to 50 feet) tall, commonly forming open savannah-like stands on dry ridges and gentle slopes. Blue oak (*Quercus douglasii*) is typically the dominant tree species. Shrubs such as poison oak (*Toxicodendron diversilobum*), California coffee berry (*Frangula californica*), buckbrush (*Ceanothus cuneatus*), and redberry (*Rhamnus crocea*) are often present but rarely extensive and often occur on rock outcrops. Typical understory is composed of an extension of Annual Grassland vegetation described below. Blue oak woodland typically corresponds to the *Quercus douglasii* alliance as described by Sawyer et al. (2009).

Montane Hardwood. A typical montane hardwood habitat is composed of a pronounced hardwood tree layer, with an infrequent and poorly developed shrub stratum, and a sparse herbaceous layer. In the Coast Range, canyon live oak (*Quercus chrysolepis*) often forms pure

stands on steep canyon slopes and rocky ridge tops. It is replaced at higher elevations by scattered huckleberry oak (*Quercus vacciniifolia*) amongst an overstory of various conifers including ponderosa pine (*Pinus ponderosa*), Coulter pine (*Pinus coulteri*), California white fir (*Abies concolor*), and Jeffrey pine (*Pinus jeffreyi*). At mid elevations typical associates include Douglas-fir (*Pseudotsuga menziesii*), tanoak (*Notholithocarpus densiflorus*), Pacific madrone (*Arbutus menziesii*), California black oak (*Quercus kelloggii*), and bristlecone fir (*Abies bracteata*). At lower elevations knobcone pine (*Pinus attenuata*), foothill pine, Oregon white oak (*Quercus garryana*), and coast live oak are abundant. Understory vegetation is mostly scattered woody shrubs and a few forbs. Elevations range from 300 feet near the Pacific Ocean up to 9,000 feet. Montane hardwood typically corresponds to the *Quercus chrysolepis* Forest Alliance, as described by Sawyer et al. (2009).

Valley Oak Woodland. This habitat can range in structure from savanna-like to forest-like stands. The canopies tend to be partially closed and comprised mostly of winter-deciduous, broad-leaved species such as valley oak. Dense stands typically grow in valley soils along natural drainages and decrease with the transition from lowlands to uplands. Shrubs are also associated with this habitat in lowland areas, especially along drainages. Valley oak stands with little or no grazing tend to develop a partial shrub layer of bird disseminated species, such as poison oak (*Toxicodendron diversilobum*), toyon (*Heteromeles arbutifolia*, and California coffeeberry. Ground cover consists of a well-developed carpet of annual grasses and forbs such as species of wild oat (*Avena* sp.), bromes (*Bromus* sp.), and ryegrass (*Lolium* sp.). Valley oak woodland typically corresponds to the *Quercus lobata* Woodland Alliance as described by Sawyer et al. (2009).

Valley Foothill Riparian. This habitat type is associated with drainages, particularly those with low velocity flows, flood plains, and gentle topography. This habitat is generally comprised of a sub-canopy tree layer dominated by cottonwoods (*Populus* sp.), sycamore (*Platanus racemosa*), and/or valley oak and an understory shrub layer typically consisting of willows (*Salix* spp.) and/or mulefat (*Baccharis salicifolia*). Valley foothill riparian can correspond to multiple alliances as described by Sawyer et al. (2009) depending upon the species composition. These alliances can include, but are not limited to, *Platanus racemosa* Woodland Alliance, and the various *Populus* alliances depending upon dominant species present.

Coastal Oak Woodland. Coastal oak woodlands are common to mesic coastal foothills of California. The woodlands do not form a continuous belt, but occur in a mosaic closely associated with mixed chaparral, coastal scrub and annual grasslands. In Santa Cruz, Monterey, and San Benito Counties these woodlands are commonly dominated by coast live oak (*Quercus agrifolia*). At drier sites other species such as blue oak and foothill pine (*Pinus sabiniana*) may also be interspersed. The understory of dense stands tends to be composed of shade tolerant shrubs and herbaceous plant species such as California blackberry (*Rubus ursinus*), miner's lettuce (*Claytonia perfoliata*) and toyon. In areas with more open canopies the understory may be more dominated by grassland and shrub species such as California blackberry (*Rubus ursinus*), and poison oak. Coastal oak woodland typically corresponds to the *Quercus agrifolia* alliance as described by Sawyer et al. (2009).

Eucalyptus Forest. This habitat type ranges from single-species thickets with little or no shrubby understory to scattered trees over a well-developed herbaceous and shrubby

understory. In most cases, eucalyptus forms a dense stand with a closed canopy. Blue gum eucalyptus (*Eucalyptus globulus*) and red gum eucalyptus (*E. camaldulensis*) are the most common eucalyptus species found in these stands. The understory of these areas tends to have extensive patches of leaf litter but may include species such as poison oak.

Shrub Dominated Habitats. Shrub-dominated habitats, such as chaparral and coastal scrub, are comprised primarily of woody, evergreen shrubs and occur primarily along the coastal bluffs as well as areas associated with the Coast Range within Santa Cruz, Monterey, and San Benito Counties. The following are descriptions of shrub-dominated habitats that occur within three miles of construction projects outlined in the 2035 MTP/SCS.

Chamise-Redshank Chaparral. This habitat type can range from nearly pure stands of chamise (*Adenostoma fasciculatum*) or redshank (*A. sparsifolium*) to a mixture of both. Mature Chamise-Redshank Chaparral is single layered, generally lacking well-developed herbaceous ground cover and over story trees. Shrub canopies frequently overlap, producing a nearly impenetrable canopy of interwoven branches. Redshank stands tend to be slightly taller and more open than chamise dominated stands. Fire occurs regularly in Chamise-Redshank Chaparral and influences habitat structure. Chamise-redshank chaparral typically corresponds to the *Adenostoma fasciculatum* Shrubland Alliance and *Adenostoma sparsifolium* Shrubland Alliance as described by Sawyer et al. (2009).

Coastal Scrub. This habitat type is typically dominated by shrub species with mesophytic leaves and shallow root systems. This habitat type can differ in composition depending upon proximity to the coastline. California sagebrush (*Artemisia californica*) tends to be common in all coastal scrub habitats. From Mount Diablo south to Santa Barbara County, black sage and California buckwheat (*Eriogonum fasciculatum*) become more abundant in mesic areas. Coastal scrub can correspond to multiple alliances as described by Sawyer et al. (2009) depending upon the species composition. These alliances can include, but are not limited to, *Artemisia californica* Shrubland Alliance, *Baccharis pilularis* Shrubland Alliance and the *Salvia mellifera* Shrubland Alliance.

Mixed Chaparral. Mixed Chaparral is a structurally homogeneous brushland type dominated by shrubs with thick, stiff, heavily cutinized evergreen leaves. Shrub height and crown cover vary with age since last burn, precipitation, aspect, and soil type. At maturity, cismontane Mixed Chaparral typically is a dense, nearly impenetrable thicket. On poor sites, serpentine soils or transmontane slopes, shrub cover may be considerably reduced and shrubs may be shorter. Leaf litter and standing dead material may accumulate in stands that have not burned for several decades. Mixed chaparral can correspond to multiple alliances as described by Sawyer et al. (2009) depending upon the species composition. These alliances can include, but are not limited to, *Ceanothus cuneatus* Shrubland Alliance and the *Arctostaphylos* sp. Shrubland Alliances.

Herbaceous Dominated Habitats. These habitats are generally comprised of areas dominated by grasses and other non-woody species. The majority of this habitat in Santa Cruz, Monterey, and San Benito Counties is comprised of non-native grasslands. Native perennial grasslands which are dominated by perennial bunch grasses such as purple needlegrass (*Nassella pulchra*) were historically abundant within Santa Cruz, San Benito, and Monterey Counties but are now currently patchy in distribution. The following are descriptions of the

herbaceous dominated habitats that occur within three miles of construction projects outlined in the 2035 MTP/SCS.

Annual Grasslands. This habitat type is composed primarily of non-native annual herbs and forbs and typically lacks shrub or tree cover. The physiognomy and species composition of annual grasslands is highly variable and also varies considerably on a temporal scale. Grazing is a common land use within this habitat type. Common grass species include wild oats (*Avena* sp.), soft chess brome (*Bromus hordeaceous*), ripgut brome (*Bromus diandrus*), and red brome (*Bromus madritensis*). Common forb species can include species of filaree (*Erodium* sp.), and bur clover (*Medicago* sp.). California poppy can also be quite common in this habitat type. Annual grassland can correspond to multiple alliances as described by Sawyer et al. (2009) depending upon the species composition. These alliances can include, but are not limited to, *Avena (barbata, fatua)* semi-natural stands and *Bromus (diandrus, hordeaceous) – Brachypodium distachyon* semi-natural stands.

Developed and Sparsely/Non-Vegetated Habitats. Developed and sparsely/non-vegetated habitats are abundant in Santa Cruz, Monterey, and San Benito Counties. Developed habitats are usually sparsely or non-vegetated and are associated with urban and agricultural areas and are highly disturbed. Species that occur in these areas are typically adapted to anthropogenic disturbance and/or comprised of ornamental species. Sparsely vegetated habitats also tend to be associated with rock outcrops and cliffs. The following are descriptions of developed and sparsely/non-vegetated habitats that occur within three miles of construction projects outlined in the 2035 MTP/SCS.

Cropland. This habitat type is characterized by areas in active agriculture and is an entirely man-made habitat. The structure of vegetation can vary in size, shape, and growing pattern. The dominant cropland use is row crops. Typical crops consist of grasses and forbs. Subcategories of cropland habitat classifications include, but are not limited to, *dryland grain crop*, i*rrigated hayfield crop* and i*rrigated row and field crop*.

Orchard/Vineyard. This habitat type is characterized by typically open single species tree dominated habitats. Depending on the tree type and pruning methods they are usually low, bushy trees with an open understory to facilitate harvest. Trees such as citrus, avocados, and olives are evergreen, others are deciduous. The understory is usually composed of low growing grasses and other herbaceous plants, but may be managed to prevent understory growth totally or partially, such as along tree rows. Vineyards, comprised of grape vines, also share similar characteristics. Subcategories of orchard/vineyard habitat classifications include, but are not limited to, d*eciduous orchard* and e*vergreen orchard*.

Urban. This habitat type is also a completely man-made habitat comprising residential, commercial, and industrial developed areas. Plant species within urban habitats are typically comprised of ornamental and other non-native invasive plant species, with large developed areas lacking vegetation.

Barren. This habitat type is defined by the absence of vegetation. Any habitat with less than two percent total vegetation cover and less than 10 percent cover by tree or shrub species is defined as barren. Structure and composition of the substrate is largely determined by the

region of the state as well as surrounding environment. Examples of barren habitats include areas of exposed parent rock or talus.

a. Drainages and Wetlands.

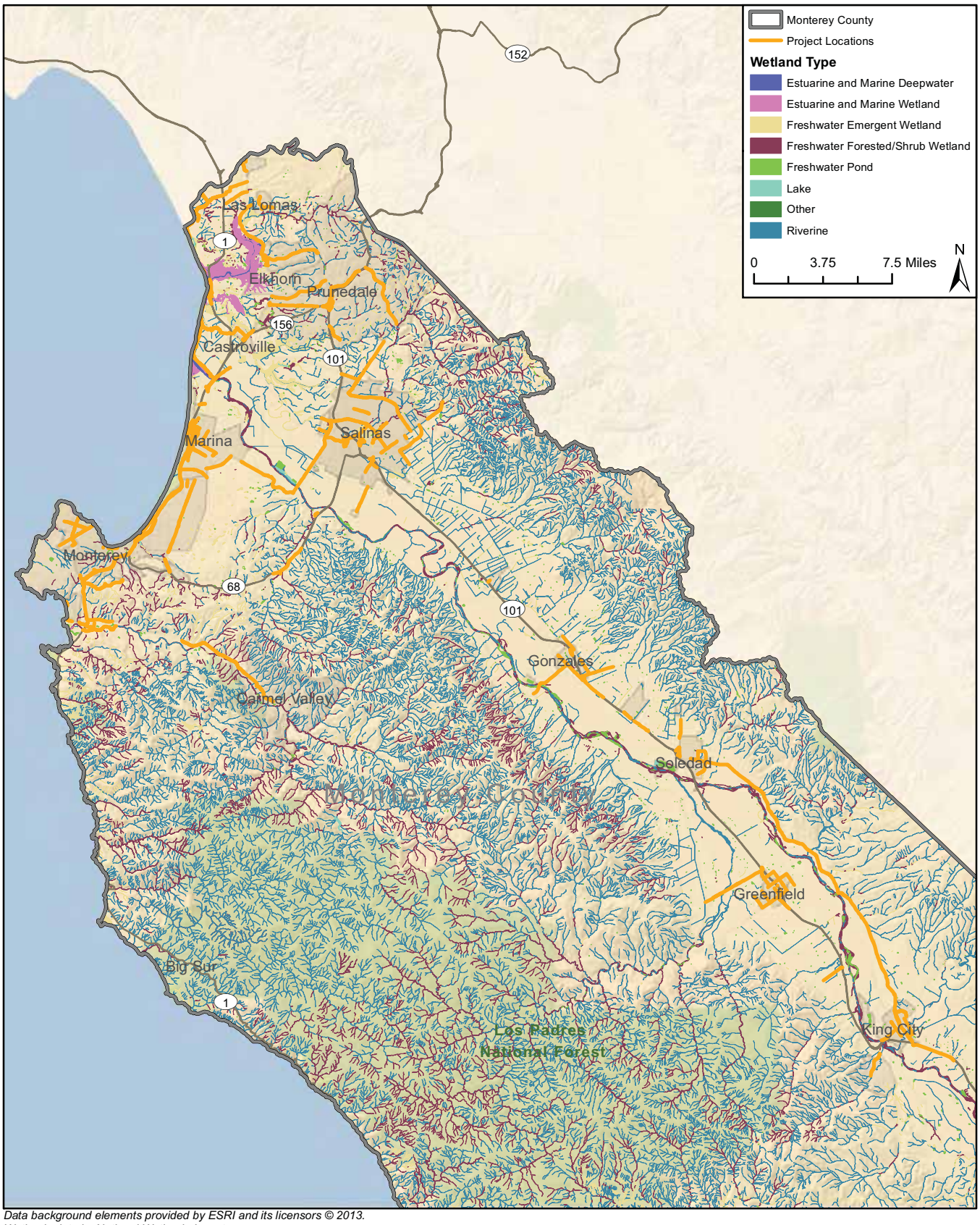
Drainages. The Monterey Bay area contains two primary watersheds: the Salinas River valley, which is the third-longest river in California and traverses the length of Monterey County, and the Pajaro River valley, the primary tributary of which begins in San Benito County and runs through southeastern Santa Cruz County (RWMG, 2013). The Salinas River originates at the Santa Margarita Reservoir in San Luis Obispo and extends approximately 155 miles northward to the Monterey Bay (RWMG, 2013). The headwaters of the Salinas River are generally undeveloped, while the remainder of the valley is predominantly agricultural with several urban areas, the largest being the City of Salinas. The majority of the Pajaro River watershed consists of undeveloped grassland and shrubland in San Benito County, although its lower reach from Hollister west to the Pacific Ocean is generally under agricultural cultivation (Pajaro, 2007).

Other rivers and their associated watersheds that occur within Santa Cruz, Monterey and San Benito Counties include: San Lorenzo River, Carmel River, Big Sur River, Little Sur River, Nacimiento River, San Antonio River, and San Benito River. Several creeks and tributaries are associated with each of these watersheds (Figures 4.3-2a to c). The drainages within these watersheds are of biological importance as they provide valuable foraging habitat, breeding habitat, and movement habitat for a wide variety of animal species, including sensitive species such as steelhead (*Oncorhynchus mykiss*), coho salmon (*Oncorhyncus kisutch*), and California red-legged frog (*Rana draytonii*). Many of these rivers and their tributaries are also Critical Habitat for salmonid species.

Wetlands. Wetlands are regarded as important biological resources both because of their rarity and because they serve a variety of functional values. Several types of wetlands exist in the subject Counties, including freshwater marshes, vernal pools, and riparian habitats.

Vernal Pools. These seasonal wetlands are small depressions that fill with water during the winter, gradually drying during the spring and becoming completely dry in the summer. These pools are found in only a few places in the world outside of California. Vernal pool vegetation is characterized by herbaceous plants that begin their growth as aquatic or semi-aquatic plants and transition to a dry land environment as the pool dries. Most vernal pool plants are annual herbs. Wildlife species supported by vernal pools include the California tiger salamander (*Ambystoma californiense*) and vernal pool fairy shrimp (*Branchinecta lynchi*).

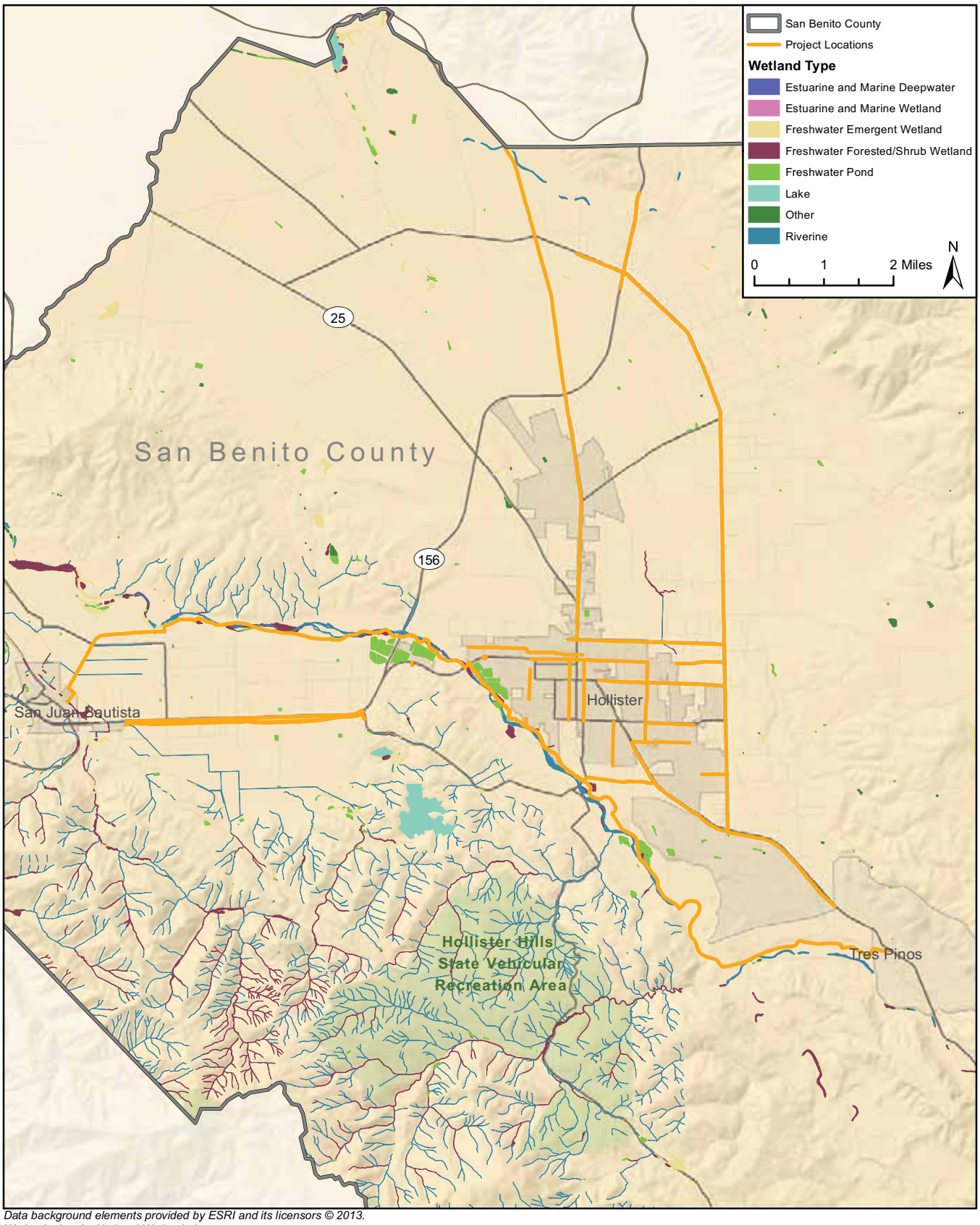
In addition to vernal pools, several areas within three miles of 2035 MTP/SCS construction projects contain wetlands mapped by the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI)(USFWS, 2013c). A general description of each of the classifications is provided below. Of those wetland types mapped by the NWI, estuarine and lacustrine (e.g. lakes and ponds) habitats are also mapped by the CWHR. It should be noted that estuarine and marine type wetlands do not occur in San Benito County.



Data background elements provided by ESRI and its licensors © 2013.
Wetlands data by National Wetlands Inventory.

National Wetlands Inventory: Monterey County

Figure 4.3-2a



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Wetlands data by National Wetlands Inventory.

National Wetlands Inventory: San Benito County

Figure 4.3-2b

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Wetlands data by National Wetlands Inventory.

National Wetlands Inventory: Santa Cruz County

Figure 4.3-2c

Estuarine and Marine Deep-Water Wetlands. These deep-water wetlands are composed of estuarine or marine systems. Estuarine systems are composed of tidal habitats and adjacent tidal wetlands that are influenced by water runoff from, and often semi-enclosed by, land. They are located along low-energy coastlines and have variable salinity. Marine systems of this type are generally open ocean and occur along high energy coastlines with salinities exceeding 30 parts per thousand (ppt) and little or no dilution except outside the mouths of estuaries.

Estuarine and Marine Wetlands. These wetlands are composed of estuarine and marine systems as described above; however, they are not deep-water. These areas can be subtidal or intertidal with a variety of vegetated and non-vegetated bottoms. Beaches, bars and flats are also included.

Freshwater Emergent Wetlands. Freshwater emergent wetlands include all non-tidal waters dominated by emergent herbaceous plant species, mosses, and/or lichens. Wetlands of this type are also low in salinity. Wetlands which lack vegetation can be included in this class if they are less than 20 acres, do not have an active wave-formed or bedrock shoreline feature, have a low water depth less than 6.6 feet. Freshwater emergent wetlands are characterized by erect, rooted herbaceous hydrophytes. Dominant vegetation is generally perennial monocots. All emergent wetlands are flooded frequently, enough so that the roots of the vegetation prosper in an anaerobic environment. The vegetation may vary in size from small clumps to vast areas covering several kilometers. The acreage of Freshwater Emergent Wetlands in California has decreased dramatically since the turn of the century due to drainage and conversion to other uses, primarily agriculture.

Freshwater Forested/Shrub Wetlands. These wetlands include non-tidal waters which are dominated by trees and shrubs, with emergent herbaceous plants, mosses and/or lichens. Wetlands which lack vegetation can be included in this class if they also exhibit the same criteria as described for freshwater emergent wetlands. The vegetation found in freshwater forested/shrub wetlands are generally dominated by woody vegetation such as shrubs and trees.

Freshwater Ponds. Freshwater ponds include non-tidal waters with vegetative cover along its edges such as trees, shrubs, emergent herbaceous plants, mosses, and/or lichens. Freshwater ponds can be man-made or natural and typically consist of an area of standing water with variable amounts of shoreline. These wetlands and deep water habitats are dominated by plants that grow on or below the surface of the water. This wetland type is also mapped by the CWHR and categorized as lacustrine habitat which includes vernal pools.

Lakes. Lakes are a lacustrine system which includes wetlands and deep water habitats that are located in a topographic depression or dammed river channel. These areas tend to be greater than 20 acres. Vegetation cover within this habitat is generally less than 30 percent and often occurs in the form of emergent or surface vegetation. Substrates are composed of at least 25 percent cover of particles smaller than stones. This wetland type is also mapped by the CWHR and categorized as lacustrine habitat which also includes vernal pools.

Riverine. Riverine habitats are a riverine system which includes all wetlands and deep water habitats contained in natural or artificial channels that contain periodically or

continuously flowing water. This system may also form a connecting link between two bodies of standing water. Substrates generally consist of rock, cobble, gravel or sand.

b. Special Status Species. For the purpose of this EIR, special status species are those plants and animals listed, proposed for listing, or candidates for listing as threatened or endangered by the USFWS under the federal Endangered Species Act; those listed or proposed for listing as rare, threatened, or endangered by the CDFW under the California Endangered Species Act (CESA); animals designated as "Species of Special Concern," "Fully Protected," or "Watch List" by the CDFW; and plants with a California Rare Plant Rank (CRPR) of 1, 2, 3, and 4, which are defined as:

- *List 1A = Plants presumed extinct in California;*
- *List 1B.1 = Rare or endangered in California and elsewhere; seriously endangered in California (over 80 percent of occurrences threatened/high degree and immediacy of threat);*
- *List 1B.2 = Rare or endangered in California and elsewhere; fairly endangered in California (20-80 percent occurrences threatened);*
- *List 1B.3 = Rare or endangered in California and elsewhere, not very endangered in California (<20 percent of occurrences threatened or no current threats known);*
- *List 2 = Rare, threatened or endangered in California, but more common elsewhere;*
- *List 3 = Plants needing more information (most are species that are taxonomically unresolved; some species on this list meet the definitions of rarity under CNPS and CESA);*
- *List 4.1 = Plants of limited distribution (watch list),seriously endangered in California;*
- *List 4.2 = Plants of limited distribution (watch list),fairly endangered in California (20-80 percent occurrences threatened); and*
- *List 4.3= Plants of limited distribution (watch list), not very endangered in California.*

Queries of the USFWS IPaC (U.S. Fish and Wildlife Service, 2013b), CNDDB (California Department of Fish and Wildlife, 2003), and CNPS *Online Inventory of Rare, Threatened, and Endangered Plants of California* (California Native Plant Society, 2013) were conducted to obtain comprehensive information regarding state and federally listed species considered to have potential to occur within Santa Cruz, San Benito, and Monterey Counties.

Sensitive Communities and Critical Habitat. Several natural communities considered sensitive by the CDFW occur within Santa Cruz, Monterey, and San Benito Counties. The CNDDB lists twenty-one natural communities that occur with these counties. Federally designated critical habitat for fifteen species also occurs in Santa Cruz, Monterey, and San Benito Counties (Figures 4.3-3a to c). Note that Final Designated Critical Habitat for the Coho Salmon – Central California coast ESU (*Oncorhyncus kisutch*) (not graphically depicted) includes all river reaches accessible to listed coho salmon from Punta Gorda in Northern California and south to the San Lorenzo River in central California listed in Table 5 of the *Designated Critical Habitat: Central California Coast and southern Oregon/Northern California Coasts Coho Salmon; Final Rile* (1999). 2035 MTP/SCS construction projects occur in federally designated critical habitats (USFWS, 2013a) for thirteen species. These sensitive communities and critical habitats are also listed in Table 4.3-1.

Table 4.3-1
Sensitive Communities and Critical Habitats Documented within Monterey, San Benito, and Santa Cruz Counties

Communities Considered Sensitive by the CDFW	County
Alkali Seep	Monterey
Coastal Brackish Marsh	Santa Cruz, Monterey
Central Dune Scrub	Santa Cruz, Monterey
Central Maritime Chaparral	Monterey
Coastal and Valley Freshwater Marsh	Santa Cruz, Monterey
Maritime Coast Range Ponderosa Pine Forest	Santa Cruz
Monterey Cypress Forest	Monterey
Monterey Pine Forest	Santa Cruz, Monterey
Monterey Pygmy Cypress Forest	Monterey
North Central Coast California Roach/Stickleback/Steelhead Stream	Santa Cruz
North Central Coast Drainage Sacramento sucker/Roach River	Santa Cruz, San Benito
North Central Coast Fall-Run Steelhead Stream	Monterey
North Central Coast Short-Run Coho Stream	Santa Cruz
Northern Bishop Pine forest	Monterey
Northern Coastal Salt Marsh	Santa Cruz, Monterey
Northern Interior Cypress Forest	Santa Cruz
Northern Maritime Chaparral	Santa Cruz
Sycamore Alluvial Woodland	Monterey
Valley Needlegrass Grassland	Monterey
Valley Oak Woodland	Monterey
Valley Sink Scrub	Monterey
Critical Habitat	
Purple amole (*Chlorogalum purpureum*)	Monterey
Zayante band-winged grasshopper (*Trimerotropis infantilis*)[1]	Santa Cruz
Marbeled murrelet (*Brachyramphus marmoratus*)[1]	Santa Cruz
Scott's Valley polygonum (*Polygonum hickmanii*)[1]	Santa Cruz
Yadon's Piperia (*Piperia yadonii*)[1]	Monterey
Monterey spineflower (*Chorizanthe pungens* var. *pungens*)[1]	Santa Cruz, Monterey
Coho Salmon – Central California coast ESU (*Oncorhynchus kisutch*)[1]	Santa Cruz
Steelhead – Central California Coast DPS (*Oncorhynchus mykiss irideus*)[1]	Santa Cruz
Steelhead – South-Central California Coast DPS (*Oncorhynchus mykiss irideus*)[1]	San Benito, Santa Cruz, Monterey
Santa Cruz tarplant (*Holocarpha macradenia*)[1]	Santa Cruz, Monterey
California red-legged frog (*Rana draytonii*)[1]	San Benito, Santa Cruz, Monterey
California tiger salamander (*Ambystoma californiense*)[1]	San Benito, Monterey
Western snowy plover (*Charadrius alexandrinus nivosus*)	Santa Cruz, Monterey
Tidewater goby (*Eucyclogobius newberryi*)[1]	Santa Cruz, Monterey
Vernal pool fairy shrimp (*Branchinecta lynchi*)[1]	San Benito, Monterey

Sources: CNDDB (CDFW, 2003); USFWS IPaC (2013)
[1]Species with Critical Habitat where MTP/SCS transportation projects are located.

Special Status Plants and Animals. Santa Cruz, Monterey, and San Benito Counties are home to several species protected by federal and state agencies. Important animal species can be found in a variety of habitats these counties host. The CNDDB (CDFW, 2003), CNPS (2013), and USFWS IPaC (USFWS, 2013b) together list 362 special status plant and animal species that occur within Santa Cruz, Monterey, and San Benito Counties. The status and habitat requirements of those species are presented in Tables 4.3-2 and 4.3-3 respectively.

Table 4.3-2
Special Status Animal Species Known to Occur or with Potential to Occur within Monterey, San Benito, and Santa Cruz Counties

Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CDFW	Habitat Requirements
Amphibians		
Ambystoma californiense California tiger salamander	FT/ST G2G3/S2S3 SSC	Vernal and seasonal pools and associated grasslands, oak savanna, woodland, and coastal scrub. Needs underground refuges (i.e., small mammal burrows, pipes) in upland areas such as grassland and scrub habitats.
Ambystoma macrodactylum croceum Santa Cruz long-toed salamander	FE/SE G5T1/S1 FP	Wet meadows near sea level in a few restricted locales in Santa Cruz and Monterey counties. Aquatic larvae prefer shallow water, using clumps of vegetation or debris for cover. Adults utilize mammal burrows.
Bufo californicus arroyo toad	FE/-- G2G3/S2S3 SSC	Semi-arid regions near washes or intermittent streams, including valley-foothill and desert riparian as well as desert wash. This species also inhabits rivers with sandy banks, willows, cottonwoods, and sycamores. In drier parts of the range loose and gravelly areas of streams can be utilized.
Rana boylii Foothill yellow-legged frog	--/-- G3/S2S3 SSC	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Need at least some cobble-sized substrate for egg-laying. Need at least 15 weeks to attain metamorphosis.
Rana draytonii California red-legged frog	FT/-- G2G3/S2S3 SSC	Semi-permanent or permanent water at least 2 feet deep, bordered by emergent or riparian vegetation, and upland grassland, forest or scrub habitats for estivation and dispersal.
Spea hammondii Western spadefoot	--/-- G3/S3 SSC	Open areas with sandy or gravelly soils, including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Rain pools that do not support bullfrogs, fish, or crayfish are required for breeding.
Taricha torosa Coast Range newt	--/-- G4/S4 SSC	Inhabits coastal drainages from Mendocino County to San Diego County. Lives in terrestrial habitats and will migrate over 1 km to breed in ponds, reservoirs, and slow moving streams.

Table 4.3-2
Special Status Animal Species Known to Occur or with Potential to Occur within Monterey, San Benito, and Santa Cruz Counties

Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CDFW	Habitat Requirements
Birds		
Accipiter cooperi Cooper's hawk	--/-- G5/S3 --	Occurs in mainly open, interrupted or marginal type woodlands. Nests mainly in riparian growths of deciduous trees, such as canyon bottoms and river flood plains.
Accipiter striatus Sharp-shinned hawk	--/-- G5/S3 --	Open deciduous woodlands, forests, edges, parks, residential areas. Migrant and winter visitor.
Agelaius tricolor Tricolored blackbird	--/-- G2G3/S2 SSC	Requires open water, protected nesting substrate, and foraging area with insect prey within a few miles of the colony.
Aquila chrysaetos Golden eagle	--/-- G5/S3 FP	Uncommon resident of mountainous and valley-foothill areas; nests on cliff ledges and overhangs or in large trees; forages in open terrain where small rodent prey is seen while soaring high above ground.
Ardea herodias Great blue heron	--/-- G5/S4 --	Colonial nester in tall trees, cliffsides, and sequestered spots in marshes. Rookery sites in close proximity to foraging areas: marshes, lake margins, tidal flats, rivers and streams, wet meadows.
Asio flammeus Short-eared owl	--/-- G5/S3 SSC	Occurs in open areas with few trees and grasslands, dunes, meadows, and irrigated croplands. Frequents saline and emergent wetlands. Nests on the ground in prairies, tundra, savannahs, or meadows with enough vegetation to conceal the incubating female.
Asio otus Long-eared owl	--/-- G5/S3 SSC	Riparian woodland, oak woodland, tamarisk woodland. Rare resident and winter visitor. Localized breeding.
Athene cunicularia Burrowing owl	--/-- G4/S2 SSC	Burrow sites in open dry annual or perennial grasslands, deserts and scrublands characterized by low growing vegetation. Also inhabits anthropogenic habitats such as campuses, golf courses, cemeteries, airports, and grazed pastures.
Brachyramphus marmoratus Marbeled murrelet	FT/SE G3G4/S1 --	Occurs in marine subtidal and pelagic habitats throughout Northern California south to Santa Barbara County. Breeding populations are known from Del Norte and Humboldt counties and San Mateo and Santa Cruz counties. Requires coastal coniferous forests with dense stands of redwoods and Douglas firs. Forages close to the shore in shallow waters and nearby inland habitats.

Table 4.3-2
Special Status Animal Species Known to Occur or with Potential to Occur within Monterey, San Benito, and Santa Cruz Counties

Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CDFW	Habitat Requirements
Buteo regalis Ferruginous hawk	--/-- G4/S3S4 --	Occurs in open grasslands, sage brush flats, desert scrub, low foothills and fringes of pinyon-juniper habitats.
Charadrius alexandrinus nivosus Western snowy plover	FT/-- G3T3/S2 SSC	Sandy beaches, salt pond levees or shores of large alkali lakes. Sandy, gravelly or friable soils required for nesting.
Charadrius montanus Mountain plover	--/-- G3/S2? SSC	Short grasslands, freshly plowed fields, newly sprouting grain fields, and sometimes sod farms. Prefers grazed areas & areas with burrowing rodents.
Circus cyaneus Northern harrier	--/-- G5/S3 SSC	Occurs in open areas, particularly in grasslands, wet meadows and marshes; requires larges areas over which to forage.
Coccyzus americanus occidentalis western yellow-billed cuckoo	FC/SE G5T3Q/S1 --/--	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian comprised of willow and often mixed with cottonwoods, with an understory of blackberry, nettles, or wild grape.
Cypseloides niger Black swift	--/-- G4/S2 SSC	Summer resident throughout most of California. Breeds only in a few isolated regions including Siskiyou, Shasta, and Trinity counties, intermittently along the east side of the Sierras, coastal sites within San Mateo and Santa Cruz counties, and southeastern San Bernardino and Riverside counties and eastern Los Angeles County. Nests behind or beside waterfalls, in sea caves, and on perpendicular cliffs near water.
Dendroica petechia brewsteri Yellow warbler	--/-- G5T3?/S2 SSC	Commonly associated with riparian plant communities. Prefers willows, cottonwoods, aspens, sycamores and alders for nesting and foraging. This species can also nest in montane shrubbery in open conifer forests.
Elanus leucurus White-tailed kite	--/-- G5/S3 FP	Occurs throughout most of California's coastal and valley regions excluding the Cascade, Sierra Nevada, Mojave Desert, and Peninsular Ranges. Grasslands, dry farmed agricultural fields, savannahs and relatively open oak woodlands, and other relatively open lowland scrublands.

Table 4.3-2
Special Status Animal Species Known to Occur or with Potential to Occur within Monterey, San Benito, and Santa Cruz Counties

Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CDFW	Habitat Requirements
Eremophila alpestris actia California horned lark	--/-- G5T3Q/S3 --	Coastal regions, chiefly from Sonoma County to San Diego County. Also occurs in San Joaquin Valley and east to foothills. Uses short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.
Falco columbarius Merlin	--/-- G5/S3 --	Seacoasts, tidal estuaries, open woodlands, savannahs, edges of grasslands and deserts, as well as farms and ranches. Clumps of trees or windbreaks are required for roosting in open country.
Falco mexicanus Prairie falcon	--/-- G5/S3 --	Inhabits dry grasslands, shrub-steppe, deserts, and other open areas up to about 10,000 feet elevation. Utilizes cliffs for nesting. Will fly far afield to forage.
Falco peregrinus anatum American peregrine falcon	DL/-- G4T4/S2 FP	Near wetlands, lakes, rivers, or other waters; on cliffs, banks, dunes, mounds, also human-made structures. Nest consists of scrape or depression or ledge in an open site.
Fratercula cirrhata Tufted puffin	--/-- G5/S2 SSC	Open-ocean bird; nests along the coast on islands, islets, or (rarely) mainland cliffs. Requires sod or earth into which the birds can burrow, on island cliffs or grassy island slopes.
Geothlypis trichas sinuosA Saltmarsh common yellowthroat	--/-- G5T2/S2 SSC	Resident of the San Francisco Bay region, in fresh and salt water marshes. Requires thick, continuous cover down to the water surface for foraging. Requires tall grasses, tule patches and willows for nesting.
Gymnogyps californianus California condor	FE/SE G1/S1 FP	Forages in open foothill grasslands and oak savannah. Roosts in large trees, dead snags, and on large cliffs. Breeds in remote mountainous areas of pine forest or chaparral with cliffs and large rock outcrops and caves.
Haliaeetus leucocephalus Bald eagle	DL/SE G5/S2 FP	Inhabits ocean shores, lake margins, and rivers for both nesting and wintering. Most nest usually occur within 1 mile of water within large old growth, or live tree with large open branches; especially ponderosa pine.
Icteria virens Yellow-breasted chat	--/-- G5/S3 SSC	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 feet of ground.

Table 4.3-2
Special Status Animal Species Known to Occur or with Potential to Occur within Monterey, San Benito, and Santa Cruz Counties

Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CDFW	Habitat Requirements
Laterallus jamaicensis coturniculus California black rail	--/SE G4T1/S1 FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about one inch that does not fluctuate during the year and dense vegetation for nesting habitat.
Pandion haliaetus Osprey	--/-- G5/S3 --	Coast, lowland lakes, rarely foothills and mountain lakes. Uncommon fall/winter resident, rare in spring and summer.
Pelecanus occidentalis californicus California brown pelican	DL/-- G4T3/S1S2 --	Colonial nester on coastal islands just outside the surf line. Nests on coastal islands of small to moderate size which afford immunity from attack by ground-dwelling predators.
Phalacrocorax auritus Double-crested cormorant	--/-- G5/S3 --	Colonial nester on coastal cliffs, offshore islands, & along lake margins in the interior of the state. Nests along coast on sequestered islets, usually on ground with sloping surface, or in tall trees along lake margins.
Progne subis Purple martin	--/-- G5/S3 SSC	Breed in coniferous woodland. Occur in coastal lowland, foothill, and mountain zones. Localized breeding.
Rallus longirostris obsoletus California clapper rail	FE/SE G5T1/S1 FP	Requires saline emergent wetland habitats. Nest primarily within the lower tidal zones of these communities where cordgrass, pickleweed, and gumweed are dominants. Will bask on driftwood and forages in highers zones along mudflat interface and along tidal creeks.
Riparia riparia Bank swallow	--/ST G5/S2S3 --	Colonial nester. Nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.
Vireo bellii pusillus Least Bell's vireo	FE/SE G5T2/S2 --	Summer resident of southern California in low riparian in vicinity of water or in dry river bottoms below 2,000 feet. Nests are built along margins of bushes or on twigs projecting into pathways.
Fish		
Eucyclogobius newberryi Tidewater goby	FE/-- G3/S2S3 SSC	Brackish water habitats along the California coast from San Diego County to Del Norte County.

Table 4.3-2
Special Status Animal Species Known to Occur or with Potential to Occur within Monterey, San Benito, and Santa Cruz Counties

Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CDFW	Habitat Requirements
Oncorhynchus kisutch Coho salmon – Central California Coast ESU	FE/SE G4/S2? --	Comprised of populations between Punta Gorda and south to the San Lorenzo River (federal listing). Populations south of Punta Gorda comprise the state listing. Requires beds of loose, silt free, coarse gravel for spawning. Also need cover, cool water and sufficient dissolved oxygen.
Oncorhynchus mykiss irideus Steelhead – Central California Coast DPS	FT/-- G5T2Q/S2 --	Fresh water, fast flowing, highly oxygenated, clear, cool stream where riffles tend to predominate pools; small streams with high elevation headwaters close to the ocean that have no impassible barriers; spawning: high elevation headwaters.
Oncorhynchus mykiss irideus Steelhead – South/Central California Coast DPS	FT/-- G5T2Q/S2 SSC	Fresh water, fast flowing, highly oxygenated, clear, cool stream where riffles tend to predominate pools; small streams with high elevation headwaters close to the ocean that have no impassible barriers; spawning: high elevation headwaters.
Spirinchus thaleichthys Longfin smelt	--/ST G5/S1 SSC	Open water of estuaries. Can be found in both the seawater and freshwater areas, typically in the middle or deeper parts of the water column.
Invertebrates		
Adela oplerella Opler's longhorn moth	--/-- G2G3/S2S3 --	Species is endemic to serpentine grassland habitat, where its larval food plant, cream cups (*Platystemon californicus*).
Branchinecta lynchi Vernal pool fairy shrimp	FT/-- G3/S2S3 --	Endemic to the grasslands of the Central Valley, Central Coast Mountains, and South Coast Mountains. Inhabits, small clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.
Calicina arida San Benito harvestmen	--/-- G1/S1 --	Known only from Panoche Road in San Benito County. Found on serpentine rocks.
Calileptoneta ubicki Ubick's leptonetid spider	--/-- G1/S1 --	Limited information regarding this species habitat requirements are available. Known only from the type locality, Arroyo Seco, Monterey County.
Chrysis tularensis Tulare cuckoo wasp	--/-- G1G2/S1S2 --	Limited information regarding this species' habitat requirements is available. Memebers this species are parasitoids. Known from one locality in Monterey County (Arroyo Seco).

Table 4.3-2
Special Status Animal Species Known to Occur or with Potential to Occur within Monterey, San Benito, and Santa Cruz Counties

Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CDFW	Habitat Requirements
Cicindela hirticollis gravida Sandy beach tiger beetle	--/-- G5T2/S1 --	Inhabits area adjacent to non-brackish water along the coast of California from San Francisco Bay to Northern Mexico. Occurs in areas with clean, dry, light-colored sand in the upper zone. Subterranean larvae prefer moist sand not affected by wave action.
Cicindela ohlone Ohlone tiger beetle	FE/-- G1/S1 --	Remnant native grasslands with California oat grass and purple needle grass in Santa Cruz County. Found on substrates including poorly-drained or sandy clay soil over bedrock of Santa Cruz mudstone. Typically occurs on level or nearly level slopes along trails adjacent to grassland habitat.
Coelus globosus Globose dune beetle	--/-- G1/S1 --	Inhabitant of coastal sand dune habitat specifically fore-dunes and sand hammocks. It burrows beneath the sand surface and is most common beneath dune vegetation.
Coelus gracilis San Joaquin dune beetle	--/-- G1/S1 --	Currently, this beetle is restricted to small isolated sand dunes (250 - 10,000 m2) along the western edge of the San Joaquin Valley.
Danaus plexippus Monarch butterfly	--/-- G5/S3 --	Roosts in wind-protected tree groves (eucalyptus, Monterey pine, cypress) with nectar and water sources nearby. Species is known to occur in several locations in Santa Cruz County and Monterey County.
Euphilotes enoptes smithi Smith's blue butterfly	FE/-- G5T1T2/S1S2 --	Occurs in inland and coastal sand dunes, serpentine grasslands, and cliffside or coastal chaparral communities. Dependent upon larval host plants; *Eriogonum parvifolium* or *E. latifolium*. Adults live approximately one week.
Euphydryas editha bayensis Bay checkerspot butterfly	FT/-- G5T1/S1 --	Restricted to serpentine grassland habitats, especially those characterized by bunch grasses; larval food plants are *Plantago erecta* and *Orthocarpus densiflorus*; adults nectar on *Layia platyglossa*, *Lomatium* sp., *Allium* sp., and *Lasthenia californica.*
Helminthoglypta sequoicola consors Redwood shoulderband	--/-- G2T1/S1 --	Limited information regarding this species habitat requirements are available. Known only from the south slope of San Juan Grade northwest of the City of Salinas.
Hubbardia idria Idria short-tailed whipscorpion	--/-- G1/S1 --	The holotype and paratype are found in oak woodland, but the microhabitat is uncertain. Most Hubbardia species occur in leaf litter and beneath rocks.

Table 4.3-2
Special Status Animal Species Known to Occur or with Potential to Occur within Monterey, San Benito, and Santa Cruz Counties

Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CDFW	Habitat Requirements
Hubbardia secoensis Arroyo Seco short-tailed whipscorpion	--/-- G1/S1 --	The holotype and paratype are found in oak woodland, but the microhabitat is uncertain. Most Hubbardia species occur in leaf litter and beneath rocks.
Idiostatus kathleenae Pinnacles shieldback katydid	--/-- G1G2/S1S2 --	Limited information regarding this species habitat requirements are available. Known only from Pinnacles National Park.
Linderiella occidentalis California linderiella	--/-- G3/S2S3 --	Seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions. Water in the pools has very low alkalinity, conductivity, and total dissolved solids (TDS).
Lytta moesta Moestan blister beetle	--/-- G2/S2 --	Central California. No habitat information available. Associated with flowers but specifics are unknown.
Lytta morrisoni Morrison's blister beetle	--/-- G1G2/S1S2 --	Meloids are frequently encountered on flowers, This species has been recorded feeding on Bird's-eyes (*Gilia tricolor*) and narrowflower flaxflower (*Linanthus liniflorus*).
Margaritifera falcate Western pearlshell	--/-- G4G5/S2S3 --	The species is found in cool and cold running streams that generally have a low to moderate gradient and are wider than 2 m; perferrable habitat is stable sand or gravel substrates. It is found in hard as well as soft water.
Meta dolloff Dolloff Cave spider	--/-- G1/S1 --	Limited to caves in the Empire Cave System and Grey Whale Ranch State Park.
Neochthonius imperialis Empire Cave pseudoscorpion	--/-- G1/S1 --	Known only from Empire Cave in Santa Cruz County. Found under rocks and wood in dark to twilight zones of the cave.
Optioservus canus Pinnacles optioservus riffle beetle	--/-- G1/S1 --	Aquatic. Found on rocks and in gravel of riffles in cool, swift, clear streams.
Philanthus nasalis Antioch specid wasp	--/-- G1/S1 --	Limited information regarding this species' habitat requirements is available. Known only in the inland sandhill in Santa Cruz County.

Table 4.3-2
Special Status Animal Species Known to Occur or with Potential to Occur within Monterey, San Benito, and Santa Cruz Counties

Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CDFW	Habitat Requirements
Polyphylla barbata Mount Hermon (=barbate) June beetle	FE/-- G1/S1 --	Limited to the Zayante sandhills. The habitat is ponderosa pine forest and chaparral with open, sandy areas forming pockets in the surrounding volcanic hills.
Protodufourea wasbaueri Wasbauer's protodufourea bee	--/-- G1/S1 --	Restricted to chaparral and arid desert scrub areas in southern California and Arizona. It is a specialist forager for pollen (oligolectic) on whisperingbells (*Emmenanthe* sp.).
Socalchemmis monterey Monterey socalchemmis spider	--/-- G1/S1 --	Limited information regarding this species' habitat requirements is available. Known only from two localities in Monterey County.
Stygobromus mackenziei Mackenzie's Cave amphipod	--/-- G1/S1 --	Known only from Empire Cave, a metamorphosed limestone cave subject to intermittent flooding.
Trimerotropis infantilis Endangered Zayante band-winged grasshopper	FE/-- G1/S1 --	Isolated sandstone deposits in the Santa Cruz Mountains (Zayante sandhills ecosystem). Occurs mostly on sand parkland habitat, but also in areas with well-developed ground cover and in sparse chaparral with grass.
Tryonia imitator mimic tryonia (=California brackishwater snail)	--/-- G2G3/S2S3 --	Inhabits coastal lagoons, estuaries and salt marshes, from Sonoma County south to San Diego County. Found only in permanently submerged areas in a variety of sediment types. Able to withstand a wide range of salinities.
Mammals		
Ammospermophilus nelson Nelson's antelope squirrel	--/ST G2/S2 --	Occurs in the western San Joaquin Valley from 200-1,200 feet elevation on dry, sparsely vegetated loam soils. Dig burrows or uses kangaroo rat burrows. Needs widely scattered shrubs, forbs & grasses in broken terrain with gullies & washes.
Antrozous pallidus Pallid bat	--/-- G5/S3 SSC	Deserts, grasslands, shrublands, woodlands, and forest. Most common in open, dry, habitats with rocky area for roosting. Roost must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.
Corynorhinus townsendii Townsend's big-eared bat	--/-- G3G4/S2S3 SSC	Mesic habitats throughout California. Requires caves, tunnels, mines, or abandon buildings for roosting.

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Special Status Animal Species Known to Occur or with Potential to Occur within Monterey, San Benito, and Santa Cruz Counties

Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CDFW	Habitat Requirements
Dipodomys ingens Giant kangaroo rat	FE/SE G2/S2 --	Occurs in annual grasslands on the western side of the San Joaquin Valley, marginal habitat in alkali scrub. Needs level terrain & sandy loam soils for burrowing.
Dipodomys venustus elephantinus Big-eared kangaroo rat	--/-- G4T2/S2 SSC	Slopes, flats, ridgetops with friable soil in mixed and chamise chaparral in oak/pine woodland zone. Typically under dense vegetation.
Dipodomys venustus venustus Santa Cruz kangaroo rat	--/-- G4T1/S1 --	Silverleaf manzanita mixed chaparral in the Zayante Sand Hills ecosystem of the Santa Cruz Mountains. Needs soft, well-drained soils.
Eumops perotis californicus Western mastiff bat	--/-- G5T4/S3? SSC	Occurs in open semi-arid to arid habitats such as coniferous and deciduous woodlands, coastal scrub and chaparral. Roosting sites are usually crevices in cliff faces, high buildings, trees, and tunnels.
Lasiurus blossevillii Western red bat	--/-- G5/S3? SSC	Roosts primarily in trees. Prefers habitat edges and mosaics with open areas for foraging and trees that are protected from above and open below.
Lasiurus cinereus Hoary bat	--/-- G5/S4? --	Roosts in dense foliage of large trees. Requires water. Prefers open habitats or habitat mosaics with access to trees for cover and open areas of habitat edge for feeding.
Myotis ciliolabrum Western small-footed myotis	--/-- G5/S2S3 --	Wide ecological range, from rock outcrops on open grasslands to canyons in the foothills to lower mountains with yellow pine woodlands. Day roosts are variable, but include cracks and crevices in cliffs, beneath tree bark, in mines and caves, and occasionally in dwellings of humans. Night roosts are under a variety of natural and human-induced structures. Hibernacula include caves, mines, and tunnels.
Myotis evotis Long-eared myotis	--/-- G5/S4? --	Occurs year-round throughout the coast and mountains of California, apparently preferring coniferous habitats; roosts in a variety of sites including buildings, crevices, snags, and under bark.
Myotis thysanodes Fringed myotis	--/-- G4/S4 --	Widespread in California in many habitats outside the Central Valley and deserts; hardwoods and mixed woodlands in foothills seem to be preferred habitats; roosts in caves, mines, buildings, and crevices.

Table 4.3-2
Special Status Animal Species Known to Occur or with Potential to Occur within Monterey, San Benito, and Santa Cruz Counties

Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CDFW	Habitat Requirements
Myotis yumanensis Yuma myotis	--/-- G5/S4? --	Optimal habitats are open forests and woodlands with sources of water to forage over. Maternity colonies are located in caves, mines, buildings or crevices.
Neotoma fuscipes annectens San Francisco dusky-footed woodrat	--/-- G5T2T3/S2S3 SSC	Inhabits forest and chaparral throughout the Bay Area; prefers a moderate canopy and brushy understory; builds conspicuous stick houses on the ground and in trees. Houses may be hundreds of years old.
Neotoma macrotis Luciana Monterey dusky-footed woodrat	--/-- G5T3?/S3? SSC	Common to abundant in forest habitats of moderate canopy and moderate to dense understory; can be abundant in chaparral habitats.
Onychomys torridus tularensis Tulare grasshopper mouse	--/-- G5T1T2/S1S2 SSC	Typically inhabit arid shrubland communities in hot, arid grassland and shrubland associations.
Perognathus inornatus psammophilus Salinas pocket mouse	--/-- G4T2?/S2? SSC	Occurs in open grassland and desert-shrub communities on alluvial sandy and wind drifted sands.
Reithrodontomys megalotis distichlis Salinas harvest mouse	--/-- G5T1/S1 --	Occurs in resh and brackish water wetlands and adjacent grasslands.
Taxidea taxus American badger	--/-- G5/S4 SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats with friable soils. Needs sufficient food, friable soils, and open uncultivated ground. Cannot live in frequently plowed fields. Preys on burrowing rodents.
Vulpes macrotis mutica San Joaquin kit fox	FE/ST G4T2T3/S2S3 --	Occurs in annual grasslands or open stages with scattered shrubby vegetation. Requires loose sandy textured soils for burrowing.

Table 4.3-2
Special Status Animal Species Known to Occur or with Potential to Occur within Monterey, San Benito, and Santa Cruz Counties

Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CDFW	Habitat Requirements
Reptiles		
Anniella pulchra nigra Black legless lizard	--/-- G3G4T2T3Q/S3 SSC	Occurs in dune scrub, coastal scrub, chaparral, pine-oak woodland, oak woodland, and riparian woodland. Requires loose soil for burrowing, moisture, warmth, and plant cover. Burrows in washes, dune sand, loose soil near bases of slopes, and near permanent or temporary streams.
Anniella pulchra pulchra *Silvery legless lizard*	--/-- G3G4T3T4Q/S3 SSC	Sandy or loose loamy soils under sparse vegetation such as coastal dune scrub, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks. Leaf litter under trees and bushes in sunny areas and dunes stabilized with bush lupine and mock heather often indicate suitable habitat.
Actinemys marmorata Pacific pond turtle	--/-- G3G4/S3 SSC	Rivers, ponds, freshwater marshes; nests in upland areas (sandy banks or grassy open fields) up to 1,640 feet from water.
Gambelia sila Blunt-nosed leopard lizard	FE/SE G1/S1 FP	Inhabits sparsely vegetated alkali and desert scrub habitats in areas of low topographic relief. Can commonly be found in washes.
Coluber flagellum ruddocki San Joaquin whipsnake	--/-- G5T2T3/S2? SSC	Occurs in open, dry habitats with little or no tree cover. Found in valley grassland & saltbush scrub in the San Joaquin Valley. Needs mammal burrows for refuge and oviposition sites.
Phrynosoma blainvillii Coast horned lizard	--/-- G3G4/S3S4 SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial and abundant supply of ants and other insects.
Thamnophis hammondii SC Two-striped garter snake	--/-- G4/S2 SSC	Occurs near pools, creeks, cattle tanks, and other water sources, often in rocky areas, within oak woodland, chaparral, scrub communities, and coniferous forest.
Thamnophis sirtalis tetrataenia San Francisco garter snake	FE/SE G5T2/S2 FP	Found in the vicinity of freshwater marshes, ponds, and slow moving streams in San Mateo County and extreme northern Santa Cruz County. Prefers dense cover and water depths of at least one foot. Also utilizes upland areas near water.

Sources: CNDDB (CDFW, 2003); USFWS (2013), CDFW Special Animals List (2011).
FT = Federally Threatened *SE = State Endangered*
FC = Federal Candidate Species *ST = State Threatened*
FE = Federally Endangered *SR = State Rare*
FS = Federally Sensitive *SS = State Sensitive*
DL = Delisted
G-Rank/S-Rank = Global Rank and State Rank as per NatureServe and CDFW's CNDDB RareFind3.
SSC = CDFW Species of Special Concern *FP = Fully Protected*

Table 4.3-3
Special Status Plant and Lichen Species Known to Occur or with Potential to Occur within Monterey, San Benito, and Santa Cruz Counties

Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CRPR	Habitat Requirements
Plants		
Abies bracteata Bristlecone fir	--/-- G2/S2 1B.3	Bloom period: N/A. Occurs in rocky areas within broadleafed upland forest, chaparral, and lower montane coniferous forest. Elevations: 600-5,294 feet.
Acanthomintha lanceolata Santa Clara thorn-mint	--/-- G3/S3.2 4.2	Bloom period: March-June. Occurs in rocky soils within chaparral (often serpentinite), cismontane (west of the Sierra Nevadas) woodland and coastal scrub. Elevations: 262-3,936 feet.
Acanthomintha obovata spp. *obovata* San Benito thorn-mint	--/-- G3?T3?/S3.2? 4.2	Bloom period: April-July. Occurs in heavy clay, alkaline and serpentinite soils within chaparral, cismontane woodland, and valley and foothill grassland. Elevations: 1,295-4,921 feet.
Acanthomintha obovata ssp. *cordata* Heart-leaved thorn-mint	--/-- G3?T3?/S3.2? 4.2	Bloom period: April-July. Occurs in clay soils within chaparral, cismontane woodland, -pinyon and juniper woodland, valley and foothill grassland. Elevations: 2,575-5,052 feet.
Agrostis blasdalei Blasdale's bent grass	--/-- G2/S2 1B.2	Bloom period: May–July. Occurs in coastal bluff scrub, coastal dunes and coastal prairie; sandy or gravelly soil close to rocks; often in nutrient poor soil with sparse vegetation. Elevations: 16-492 feet.
Agrostis lacuna-vernalis Vernal pool bent grass	--/-- G1/S1 1B.1	Bloom period: April-May. Occurs in vernal pools (mima mounds). Elevations: 337-475 feet.
Allium hickmanii Hickman's onion	--/-- G2/S2 1B.2	Bloom period: March-May. Occurs in closed-cone coniferous forest, maritime chaparral, coastal prairie, coastal scrub as well as valley and foothill grassland. Elevations: 16-656feet.
Amorpha californica var. *napensis* Napa false indigo	--/-- G4T2/S2.2 1B.2	Bloom period: April-July. Occurs in broadleafed upland forest (openings), chaparral and cismontane woodlands. Elevations: 393-6,561 feet.
Amsinckia douglasiana Douglas' fiddleneck	--/-- G3/S3.2 4.2	Bloom period: March-May. Occurs in dry Monterey Shale within cismontane woodland and valley and foothill grassland. Elevation: 0-6,397 feet.
Amsinckia furcate Forked fiddleneck	--/-- G3/S3.2 4.2	Bloom period: February-May. Occurs in cismontane woodland and valley and foothill grassland. Elevations: 164-3,280 feet.

Table 4.3-3
Special Status Plant and Lichen Species Known to Occur or with Potential to Occur within Monterey, San Benito, and Santa Cruz Counties

Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CRPR	Habitat Requirements
Amsinkia lunaris Bent-flowered fiddelneck	--/-- G2?/S2? 1B.2	Bloom period: March – June. Occurs in coastal bluff scrub, cismontane woodland and valley and foothill grassland. Elevation: 9-1,640 feet.
Androsace elongate ssp. *acuta* California androsace	--/-- G5?T3T/S3.2? 4.2	Bloom period: March-June. Occurs in chaparral, cismontane woodland, coastal scrub, meadows and seeps, pinyon and juniper woodland, as well as valley and foothill grassland. Elevations: 492-3,936 feet.
Anomobryum julaceum Slender silver moss	--/-- G4G5/S2 2.2	Bloom period: N/A (moss). Occurs on damp rock and soil outcrops within broad-leafed upland forest, lower montane coniferous forest, and north coast coniferous forest. Usually occurs on road cuts. Elevations: 328-3,280 feet.
Antirrhinum ovatum Oval-leaved snap dragon	--/-- G3/S3.2 4.2	Bloom period: May-November. Occurs in clay or gypsum soils, often alkaline within chaparral, cismontane woodland, pinyon and juniper woodland, and valley and foothill grassland. Elevations: 656-3,280 feet.
Arabis blepharophylla Coast rockcress	--/-- G3/S2? 1B.2	Bloom period: February-May. Occurs in rocky areas within broadleafed upland forest, coastal bluff scrub, coastal prairie, and coastal scrub. Elevations: 10-3,608 feet.
Arctostaphylos andersonii Anderson's manzanita	--/-- G2/S2? 1B.2	Bloom period: November-May. Occurs in openings at edges of broadleafed upland forest, chaparral, and North Coast coniferous forest. Elevations: 196-2,493 feet.
Arctostaphylos cruzensis Arroyo de la Cruz manzanita	--/-- G2/S2.2 1B.2	Bloom period: December-March. Occurs in sandy soils within broadleafed upland forest, coastal bluff scrub, closed-cone coniferous forest, chaparral, coastal scrub as well as valley and foothill grassland. Elevations: 196-1,017 feet.
Arctostaphylos edmindsii Little Sur manzanita	--/-- G2/S2.2 1B.2	Bloom period: November-April. Occurs in sandy soils within coastal bluff scrub and chaparral. Elevations: 98-344 feet.
Arctostaphylos gabilanensis Gabilan Mountains manzanita	--/-- G1/S1 1B.2	Bloom period: January. Occurs in granitic soils within chaparral and cismontane woodland. Elevations: 984-2,296 feet.
Arctostaphylos glutinosa Schreiber's manzanita	--/-- G2/S2.1 1B.2	Bloom period: November-April. Occurs in diatomaceous shale within closed-cone coniferous forest and chaparral. Elevations: 557-2,247 feet.

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Special Status Plant and Lichen Species Known to Occur or with Potential to Occur within Monterey, San Benito, and Santa Cruz Counties

Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CRPR	Habitat Requirements
Arctostaphylos hookeri ssp. *hookeri* Hooker's manzanita	--/-- G3T2?/S2? 1B.2	Bloom period: January-June. Occurs in sandy soils within closed-cone coniferous forest, chaparral, cismontane woodland, and coastal scrub. Elevations: 278-1,758 feet.
Arctostaphylos hooveri Hoover's manzanita	--/-- G3/S3.3? 4.3	Bloom period: February-June. Occurs in broadleafed upland forest, chaparral (rocky), cismontane woodland and lower montane coniferous forest. Elevations: 1,574-3,313 feet.
Arctostaphylos montereyensis Toro manzanita	--/-- G2/S2.1 1B.2	Bloom period: February-March. Occurs in sandy soils within chaparral (maritime), cismontane woodland and coastal scrub. Elevations: 98-2,395 feet.
Arctostaphylos obispoensis Bishop's manzanita	--/-- G3?/S3? 4.3	Bloom period: February-June. Occurs in serpentinite, rocky soils within closed-cone coniferous forest, chaparral, and cismontane woodland. Elevations: 492-3,215 feet.
Arctostaphylos ohloneana Ohlone manzanita	--/-- G1/S1 1B.1	Bloom period: February – March. Occurs in siliceous shale within closed-cone conifer forest and coastal scrub; on Monterey Shale. Elevations: 1,476-1,738 feet.
Arctostaphylos pajaroensis Pajaro manzanita	--/-- G2/S2.1 1B.1	Bloom period: December-March. Occurs in sandy chaparral. Elevations: 98-2,493 feet.
Arctostaphylos pilosula Santa Margarita manzanita	--/-- G3/S3 1B.2	Bloom period: December-May. Occurs sometimes in sandstone within broadleafed upland forest, closed-cone coniferous forest, chaparral and cismontane woodland. Elevations: 557-3,608 feet.
Arctostaphylos pumila Sandmat manzanita	--/-- G2/S2.2 1B.2	Bloom period: February-May. Occurs in in sandy openings within closed-cone coniferous forest, maritime chaparral, cismontane woodland, coastal dunes and coastal scrub. Elevations: 10-672 feet.
Arctostaphylos regismontana Kings Mountain manzanita	--/-- G2/S2.2 1B.2	Bloom period: January-April. Occurs in granitic or sandstone soils within broadleafed upland forest, chaparral, and North Coast coniferous forest. Elevations: 1,000-2,395 feet.
Arctostaphylos silvicola Bonny Doon manzanita	--/-- G2/S2.1 1B.2	Bloom period: February-March. Occurs in inland marine sands within closed-cone coniferous forest, chaparral, and lower montane coniferous forest. Elevations: 393-1,968 feet.
Arenaria paludicola Marsh sandwort	FE/SE G1/S1 1B.1	Bloom period: May-August. Occurs in sandy openings within marshes and swamps (freshwater brackish). Elevations: 9-557 feet.

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Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CRPR	Habitat Requirements
Aristocapsa insignis Indian Valley spineflower	--/-- G2/S2.2 1B.2	Bloom period: May-September. Occurs in cismontane woodland (sandy). Elevations: 984-1,968 feet.
Aspidotis calotte-halliae Carlotta Hall's lace fern	--/-- G3/S3.2 4.2	Bloom period: January-September. Occurs generally in serpentinite soils within chaparral and cismontane woodland. Elevations: 328-4,593 feet.
Astragalus clevelandii Cleveland's milk-vetch	--/-- G3?/S3.3? 4.3	Bloom period: June-September. Occurs in serpentinite seeps within chaparral, cismontane woodland and riparian forest. Elevations: 656-4,921 feet.
Astragalus leucolobus Big Bear Valley woollypod	--/-- G2/S2 1B.2	Bloom period: May-July. Occurs in rocky soils within lower montane coniferous forest, pebble (pavement) plain, pinyon and juniper woodland, and upper montane coniferous forest. Elevations: 5,741-9,465 feet.
Astragalus macrodon Salinas milk-vetch	--/-- G3/S3.3 4.3	Bloom period: April-July. Occurs in sandstone, shale or serpentinite soils within chaparral (openings), cismontane woodland as well as valley and foothill grassland. Elevations: 820-3,116 feet.
Astragalus nuttallii var. *nuttallii* Ocean bluff milk-vetch	--/-- G3T3/S3.2 4.2	Bloom period: January-November. Occurs in coastal bluff scrub and coastal dune habitats. Elevations: 9-393 feet.
Astragalus tener var. tener Alkali milk-vetch	--/-- G2T2/S2 1B.2	Bloom period: March-June. Occurs in alkaline soils within playas, valley and foothill grassland (adobe clay), and vernal pools. Elevations: 3-196 feet.
Astragalus tener var. *titi* Coastal dunes milk-vetch	FE/SE G2T1/S1 1B.1	Bloom period: March-May. Often occurs in vernally mesic (areas of high moisture content) areas within coastal bluff scrub (sandy), coastal dunes and coastal prairie (mesic). Elevations: 3-164 feet.
Atriplex coronata var. *coronata* Crownscale	--/-- G4T3/S3.2 4.2	Bloom period: March-October. Occurs in alkaline, often clay soils within chenopod scrub, valley and foothill grassland, and vernal pools. Elevations: 3-1,935 feet.
Atriplex joaquinensis San Joaquin spearscale	--/-- G2/S2 1B.2	Bloom period: April-October. Occurs in alkaline soils within chenopod scrub, meadows and seeps, playas as well as valley and foothill grassland. Elevations: 3-2,739 feet.
Baccharis plummerae ssp. *glabrata* San Simeon baccharis	--/-- G3T2/S2 1B.2	Bloom period: June. Occurs in coastal scrub. Elevations: 164-1,574 feet.

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Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CRPR	Habitat Requirements
Benitoa occidentalis Western lessignia	--/-- G3/S3.3 4.3	Bloom period: May-November. Occurs in clay or serpentinite soils within chaparral, cismontane woodland, coastal scrub as well as valley and foothill grassland. Elevations: 1476-3,510 feet.
Calandrinia breweri Brewer's calandrinia	--/-- G4/S3.2? 4.2	Bloom period: March-June. Occurs in sandy or loamy disturbed sites and burns within chaparral and coastal scrub. Elevations: 32-4,002 feet.
California macrophylla Round-leaved filaree	--/-- G2/S2 1B.1	Bloom period: March-May. Occurs in clay soils within cismontane woodland and valley and foothill grassland. Elevations: 49-3,937 feet.
Calochortus clavatus var. *clavatus* Club-haired mariposa lily	--/-- G4T3/S3 4.3	Bloom period: May-June. Usually occurs in serpentinite, clay and rocky soils within chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland. Elevations: 246-4,265 feet.
Calochortus fimbriatus Late-flowered mariposa-lily	--/-- G3/S3 1B.2	Bloom period: June-August. Often occurs in serpentinite soils within chaparral, cismontane woodland and riparian woodland. Elevations: 902-6,250 feet.
Calochortus umbellulatus Oakland star-tulip	--/-- G3/S3.2 4.2	Bloom period: March-May. Often occurs in serpentinite soils within broad-leafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, as well as valley and foothill grassland. Elevations: 328-2,296 feet.
Calochortus uniflorus Pink star-tulip	--/-- G4/S3 4.2	Bloom period: April-June. Occurs in coastal prairie, coastal scrub, meadows and seeps as well as North Coast coniferous forest. Elevations: 32-3,510 feet.
Calycadenia micrantha Small-flowered calycadenia	--/-- G2G3/S2S3.2 1B.2	Bloom period: June-September. Occurs on roadsides or rocky, talus, scree, sometimes serpentinite and sparsely vegetated areas within chaparral, meadows and seeps (volcanic) as well as valley and foothill grassland. Elevations: 16-4,921 feet.
Calycadenia villosa Dwarf calycadenia	--/-- G2/S2.3 1B.1	Bloom period: May-October.Rocky, fine soils within chaparral, cismontane woodland, meadows and seeps, and valley and foothill grassland. Elevations: 787-4429 feet.
Calyptridium parryi var. hesseae Santa Cruz Mountains pussypaws	--/-- G3G4T2/S2 1B.1	Bloom period: May-August. Occurs in sandy or gravelly soils in openings within chaparral and cismontane woodland. Elevations: 1,000-5,018 feet.
Calystegia collina ssp. *oxyphylla* Mt. St. Helena morning-glory	--/-- G4T3/S3.2 4.2	Bloom period: April-June. Occurs in serpentinite soils within chaparral, lower montane coniferous forest as well as valley and foothill grassland. Elevations: 915-3,313 feet.

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Special Status Plant and Lichen Species Known to Occur or with Potential to Occur within Monterey, San Benito, and Santa Cruz Counties

Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CRPR	Habitat Requirements
Calystegia collina ssp. *venusta* South Coast Range morning-glory	--/-- G4T3/S3.2 4.3	Bloom period: April-June. Occurs in serpentinite or sedimentary soils within chaparral, cismontane woodland as well valley and foothill grassland. Elevations: 1,394-4,888 feet.
Camissonia benitensis San Benito evening primrose	FT/-- G2/S2/ 1B.1	Bloom period: April-June. Occurs in serpentinite alluvium, clay or gravelly soils within chaparral, cismontane woodland as well as valley and foothill grassland. Elevations: 1,968-4,199 feet.
Camissoniopsis hardhamiae Hardham's evening-primrose	--/-- G1Q/S1 1B.2	Bloom period: March-May. Occurs in sandy, decomposed carbonate, disturbed or burned areas within chaparral and cismontane woodland. Elevations: 459-3,100 feet.
Campanula californica Swamp harebell	--/-- G3/S3 1B.2	Bloom period: June-October. Occurs in mesic areas within bogs and fens, closed-cone coniferous forest, coastal prairie, meadows and seeps, marshes and swamps (freshwater), and North Coast coniferous forest. Elevations: 3-1,328 feet.
Campanula exigua Chaparral harebell	--/-- G2/S2.2 --	Bloom period: May-June. Occurs in chaparral (rocky, usually serpentinite). Elevations: 902-4,101 feet.
Carex comosa Bristly sedge	--/-- G5/S2 2B.1	Bloom period: May-September. Occurs in coastal prairie, marshes and swamps (lake margins) as well as valley and foothill grassland. Elevations: 0-2,050 feet
Carex obispoensis San Luis Obispo sedge	--/-- G2/S2.2 1B.2	Bloom period: April-June. Often occurs in serpentinite seeps, sometimes gabbro; often on clay soils within closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, as well as valley and foothill grassland. Elevations: 32-2,690 feet.
Carex saliformis Deceiving sedge	--/-- G2/S2.2 1B.2	Bloom period: June-July. Occurs in mesic areas within coastal prairie, coastal scrub, meadow,s and seeps as well as marshes and swamps (coastal salt). Elevations: 10-754 feet.
Carlquistia muirii Muir's tarplant	--/-- G2/S2 1B.3	Bloom period: July-October. Occurs in granitic soils within chaparral (montane), as well as lower and upper montane coniferous forest. Elevations: 3,608-8,202 feet.
Castilleja ambigua var. *ambigua* Johnny –nip	--/-- G4T3T4/S3 4.2	Bloom period: March-August. Occurs in coastal bluff scrub, coastal prairie, coastal scrub, marshes and swamps, valley and foothill grassland, and vernal pools. Elevations: 0-1,427 feet.
Castilleja ambigua var. *insalutata* Pink Johnny-nip	--/-- G4T1/S1 1B.1	Bloom period: May-August. Occurs in coastal prairie and coastal scrub. Elevations: 0-328 feet.
Castilleja latifolia Monterey Coast paintbrush	--/-- G3/S3.3 4.3	Bloom period: February-September. Occurs in sandy soils within closed-cone coniferous forest, cismontane woodland (openings), coastal dunes, and coastal scrub. Elevations: 0-606 feet.

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Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CRPR	Habitat Requirements
Caulanthus lemmonii Lemmon's jewel-flower	--/-- G2/S2.2 1B.2	Bloom period: March-May. Occurs in pinyon and juniper woodland and valley and foothill grassland. Elevations: 262-4,002 feet.
Ceanothus rigidus Monterey ceanothus	--/-- G3/S3.2 4.2	Bloom period: February-June. Occurs in sandy soils within closed-cone coniferous forest, chaparral, and coastal scrub. Elevations: 10-1,804 feet.
Centromadia parryi ssp. *congdonii* Congdon's tarplant	--/-- G3T2/S2 1B.1	Bloom period: May-November. Occurs in valley and foothill grassland. Elevations: 0-754eet.
Chlorogalum purpureum var. *purpureum* Santa Lucia purple amole	FT/-- G2T2/S2 1B.1	Bloom period: April-June. Occurs in gravelly and clay soils within chaparral, cismontane woodland as well as valley and foothill grassland. Elevations: 672-1,263 feet.
Chorizanthe biloba var. *immemora* Hernandez spineflower	--/-- G3T1?/S1? 1B.2	Bloom period: May-September. Occurs in chaparral and cismontane woodland. Elevations: 1,968-2,624 feet.
Chorizanthe breweri Brewer's spineflower	--/-- G2/S2.2 1B.3	Bloom period: April-August. Occurs in serpentinite, rocky, or gravelly soils within closed-cone coniferous forest, chaparral, cismontane woodland, and coastal scrub. Elevations: 147-2,624 feet.
Chorizanthe douglasii Douglas' spineflower	--/-- G3/S3.3 4.3	Bloom period: April-July. Occurs in sandy or gravelly soils within chaparral, cismontane woodland, coastal scrub, and lower montane coniferous forest. Elevations: 180-5,249feet.
Chorizanthe palmeri Palmer's spineflower	--/-- G3?/S3.2? 4.2	Bloom period: April-August. Occurs in rocky, serpentinite soils within chaparral, cismontane woodland as well as valley and foothill grassland. Elevations: 196-2,296 feet.
Chorizanthe pungens var. *hartwegiana* Ben Lomond spineflower	FE/-- G2T1/S1 1B.1	Bloom period: April-July. Occurs in lower montane coniferous forest (maritime ponderosa pine sandhills). Elevations: 295-2,001 feet.
Chorizanthe pungens var. *pungens* Monterey spineflower	FT/-- G2T2/S2 1B.2	Bloom period: April–August. Occurs in maritime chaparral, cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland; sandy soils in coastal dunes or more inland within chaparral or other habitats. Elevations: 9-1,476 feet.
Chorizanthe rectispina Straight-awned spineflower	--/-- G1/S1 1B.3	Bloom period: April-July. Occurs in chaparral, coastal scrub and cismontane woodland. Elevations: 278-3,395 feet.

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Chorizanthe robusta var. *hartwegii* Scotts Valley spineflower	FE/-- G2T1/S1 1B.1	Bloom period: April-July. Occurs in meadows and seeps (sandy), as well as valley and foothill grassland (mudstone and Purisima outcrops). Elevations: 754-803 feet.
Chorizanthe robusta var. *robusta* robust spineflower	FE/--/1B.1	Bloom period: April–September. Occurs on sandy or gravelly substrates within maritime chaparral, openings within cismontane woodland, coastal dunes, and coastal scrub; sandy terraces and bluffs or in loose sand. Elevations: 29-3,228 feet.
Chorizanthe ventricosa Potbellied spineflower	--/-- G3/S3.3 4.3	Bloom period: May-September. Occurs in serpentinite soils within cismontane woodland as well as valley and foothill grassland. Elevations: 213-4,051 feet.
Circium occidentale var. *compactum* Compact cobwebby thistle	--/-- G3G4T2/S2.1 1B.2	Bloom period: April-June. Occurs in chaparral, coastal dunes, coastal prairie, and coastal scrub. Elevations: 16-492feet.
Circium scariosum var. *loncholepis* La Graciosa thistle	FE/ST G5T1/S1 1B.1	Bloom period: May-August. Occurs in mesic, sandy soils within cismontane woodland, coastal dunes, coastal scrub, marshes and swamps (brackish), as well as valley and foothill grassland. Elevations: 13-721 feet.
Clarkia breweri Brewer's clarkia	--/-- G3/S3.2 4.2	Bloom period: April-June. Often occurs in serpentinite within chaparral, cismontane woodland and coastal scrub. Elevations: 705-3,658 feet.
Clarkia concinna ssp. *automixa* Santa Clara red ribbons	--/-- G5?T3/S3.3 4.3	Bloom period: April-July. Occurs in chaparral and cismontane woodland. Elevations: 295-4,921 feet.
Clarkia jolonensis Jolon clarkia	--/-- G2/S2.2 1B.2	Bloom period: April-June. Occurs in chaparral, cismontane woodland, coastal scrub, and riparian woodland. Elevations: 65-2,165 feet.
Clarkia lewisii Lewis' clarkia	--/-- G3/S3.3 4.3	Bloom period: May-July. Occurs in broadleafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, and coastal scrub. Elevations: 98-2,001 feet.
Clinopodium mimuloides Monkey-flower savory	--/-- G3/S3.2 4.2	Bloom period: June-October. Occurs on streambanks and mesic areas within chaparral and North coast coniferous forest. Elevations: 1,000-5,905 feet.
Collinsia antonia San Antonio collinsia	--/-- G1/S1 1B.2	Bloom period: March-May. Occurs in chaparral and cismontane woodland. Elevations: 918-1,197 feet.

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Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CRPR	Habitat Requirements
Collinsia multicolor San Francisco collinsia	--/--/1B.2	Bloom period: March–May. Occurs in closed-cone conifer forest and coastal scrub, occasionally found on serpentine substrates; on decomposed shale (mudstone) mixed with humus. Elevations: 98-820 feet.
Convolvulus simulans Small-flowered morning-glory	--/-- G3/S3.2 4.2	Bloom period: March-July. Occurs in clay and serpentinite seeps within chaparral (openings), coastal scrub as well as valley and foothill grassland. Elevations: 98-2,296 feet.
Cordylanthus rigidus ssp. *littoralis* Seaside bird's-beak	--/SE G5T2/S2 1B.1	Bloom period: April-October. Occurs in sandy soils often in disturbed sites within closed-cone coniferous forest, maritime chaparral, cismontane woodland, coastal dunes and coastal scrub. Elevations: 0-1,394 feet.
Corethrogyne leucophylla Branching beach aster	--/-- G3Q/S3.2 3.2	Bloom period: May-December. Occurs in closed-cone coniferous forest and coastal dunes. Elevations: 10-196 feet.
Cryptantha rattanii Rattan's cryptantha	--/-- G3/S3.3 4.3	Bloom period: April-July. Occurs in cismontane woodland, riparian woodland as well as valley and foothill grassland. Elevations: 803-3,001 feet.
Cypripedium fasciculatum Clustered lady's-slipper	--/-- G4/S3.2 4.2	Bloom period: March-August. Usually occurs in serpentinite seeps and stream banks within lower montane coniferous forest and North Coast coniferous forest. Elevations: 328-7,988 feet.
Cypripedium montanum Mountain lady's-slipper	--/-- G4/S4.2 4.2	Bloom period: March-August. Occurs in broad-leafed upland forest, cismontane woodland, lower montane coniferous forest and North Coast coniferous forest. Elevations: 606-7,299 feet.
Dacryophyllum falciolium Tear drop moss	--/-- G1/S1 1B.3	Bloom period: N/A. Occurs in carbonate soils within North Coast coniferous forest. Elevations: 164-902 feet.
Deinandra halliana Hall's tarplant	--/-- G2/S2 1B.1	Bloom period: April-May. Occurs in clay soils within chenopod scrub, cismontane woodland as well as valley and foothill grassland. Elevations: 853-3,116 feet.
Delphinium californicum ssp. *interius* Hospital Canyon larkspur	--/-- G3T2?/S2? 1B.2	Bloom period: April-June. Occurs in chaparral (openings), cismontane woodland (mesic), and coastal scrub. Elevations: 639-3,591 feet.
Delphinium gypsophilum ssp. *parviflorum* Small-flowered gypsum-loving larkspur	--/-- G4T3?Q/S3? 3.2	Bloom period: March-June. Occurs in rocky clay and sometimes serpentinite soils within cismontane woodland as well as valley and foothill grassland. Elevations: 623-1,148 feet.

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Delphinium hutchinsoniae Hutchinson's larkspur	--/-- G2/S2.1 1B.2	Bloom period: March-June. Occurs in broadleafed upland forest, chaparral, coastal prairie, and coastal scrub. Elevations: 0-1,400 feet.
Delphinium recurvatum Recurved larkspur	--/-- G3/S3 1B.2	Bloom period: March-June. Occurs in alkaline soils within chenopod scrub, cismontane woodland as well as valley and foothill grassland. Elevations: 10-2,591 feet.
Delphinium umbraculorum Umbrella larkspur	--/-- G2T3/S2S3.3 1B.3	Bloom period: April-June. Occurs in cismontane woodland. Elevations: 1,312-5,249 feet.
Didymodon norrisii Norris' beard moss	--/-- G3G4/S3S4 2B.2	Bloom period: N/A. Occurs in intermittently mesic rock within cismontane woodland and lower montane coniferous forest. Elevations: 1,968-6,473 feet.
Elymus californicus California bottle-brush grass	--/-- G3/S3.3 4.3	Bloom period: May-November. Occurs in broadleafed upland forest, cismontane woodland, North Coast coniferous forest, and riparian woodland. Elevations: 49-1,541 feet.
Eriastrum hooveri Hoover's eriastrum	DL/-- G3/S3.2 4.2	Bloom period: March-July. Sometime occurs in gravelly soils within chenopod scrub, Pinyon and juniper woodland as well as valley and foothill grassland. Elevations: 164-3,001 feet.
Eriastrum luteum Yellow-flowered eriastrum	--/-- G2/S2.2 1B.2	Bloom period: May-June. Occurs in sandy or gravelly soils within broadleafed upland forest, chaparral, and cismontane woodland. Elevations: 951-3,280 feet.
Eriastrum virgatum Virgate eriastrum	--/-- G3/S3.3 4.3	Bloom period: May-July. Occurs in sandy soils within coastal bluff scrub, chaparral coastal scrub, and coastal dunes. Elevations: 147-2,296 feet.
Ericameria fasciculate Eastwood's goldenbush	--/-- G2/S2.1 1B.1	Bloom period: July-October. Occurs in sandy, openings within closed-cone coniferous forest, chaparral (maritime), coastal dunes, and coastal scrub. Elevations: 98-902 feet.
Eriogonum argillosum Clay buckwheat	--/-- G3/S3.3 4.3	Bloom period: March-June. Occurs in cismontane woodland (serpentinite or clay). Elevations: 492-2,624 feet.
Eriogonum butterworthianum Butterworth's buckwheat	--/SR G2/S2 1B.3	Bloom period: June-July. Occurs in sandy soils within chaparral (sandstone) as valley and foothill grassland. Elevations: 1919-2,427 feet.
Eriogonum eastwoodianum Eastwood's buckwheat	--/-- G1G2/S1S2.3 1B.3	Bloom period: May-September. Occurs in sandy, shale, talus, or barren clay within cismontane woodland and valley and foothill grassland. Elevations: 656-3,280 feet.

Table 4.3-3
Special Status Plant and Lichen Species Known to Occur or with Potential to Occur within Monterey, San Benito, and Santa Cruz Counties

Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CRPR	Habitat Requirements
Eriogonum elegans Elegant wild buckwheat	--/-- G3/S3 4.3	Bloom period: May-November. Usually occurs in sandy or gravelly washes and sometimes roadsides within cismontane woodland and valley and foothill grassland. Elevations: 656-5,003 feet.
Eriogonum heermannii var. *occidentale* Western Heermann's buckwheat	--/-- G5T3/S3.2 4.2	Bloom period: July-October. Occurs in cismontane woodland (clay or shale). Elevations: 1,968-3280 feet.
Eriogonum nortonii Pinnacles buckwheat	--/-- G2/S2.3 1B.3	Bloom period: May-September. Occurs in sandy soils, often on recent burns within chaparral and valley and foothill grassland. Elevations: 984-3.198 feet.
Eriogonum nudum var. *decurrens* Ben Lomond buckwheat	--/-- G5T2/S2.1 1B.1	Bloom period: June-October. Occurs in sandy soils within chaparral, cismontane woodland, lower montane coniferous forest (maritime ponderosa pine sandhills). Elevations: 164-2.624 feet.
Eriogonum nudum var. *indictum* Protruding buckwheat	--/-- G5T3/S3.2 4.2	Bloom period: May-December. Occurs in clay, serpentinite soils within chaparral, chenopod scrub, and cismontane woodland. Elevations: 492-4.799 feet.
Eriogonum temblorense Temblor buckwheat	--/-- G2/S2.2 1B.2	Bloom period: April-September. Occurs in valley and foothill grassland (clay or sandstone). Elevations: 984-3.280feet.
Eriogonum umbellulatum var. *bahiiforme* Bay buckwheat	--/-- G5T3/S3.2 4.2	Bloom period: July-September. Occurs in rocky, often serpentinite soils within cismontane woodland and lower montane coniferous forest. Elevations: 2.296-7.217 feet.
Eriogonum vestitum Idria buckwheat	--/-- G3Q/S3.3 4.3	Bloom period: April-August. Occurs in valley and foothill grassland. Elevations: 770-2.952 feet.
Eriophyllum jepsonii Jepson's woolly sunflower	--/-- G3/S3 4.3	Bloom period: April-June. Occurs sometimes in serpentinite soils within chaparral, cismontane woodland and coastal scrub. Elevations: 656-3.362 feet.
Eryngium aristulatum var. *hooveri* Hoover's button-celery	--/-- G5T1/S1 1B.1	Bloom period: July-August. Occurs in vernal pools. Elevations: 10-147 feet.
Erysimum ammophilum Sand-loving wallflower	--/-- G2/S2.2 1B.2	Bloom period: February-June. Occurs in sandy openings within chaparral (maritime), coastal dunes, and coastal scrub. Elevations: 0-196 feet.

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Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CRPR	Habitat Requirements
Erysimum franciscanum San Francisco wallflower	--/-- G3/S3.2 4.2	Bloom period: March-June. Often occurs in serpentinite or granitic soils within chaparral, coastal dunes, coastal scrub and valley and foothill grassland. Sometimes occurs on roadsides. Elevations: 0-1,804 feet.
Erysimum menziesii Menzies' wallflower	FE/SE G1/S1 1B.1	Bloom period: March-September. Occurs in coastal dunes. Elevations: 0-114 feet.
Erysimum teretifolium Santa Cruz wallflower	FE/SE G2/S2 1B.1	Bloom period: March-July. Occurs in inland marine sands within chaparral and lower montane coniferous forest. Elevations: 393-2,001 feet.
Erythranthe hardhamiae Santa Lucia monkeyflower	--/-- G1/S1 1B.1	Bloom period: March-May. Occurs in sandy, sandstone outcrops, sometimes serpentinite soils within chaparral (openings). Elevations: 984-2,395 feet.
Eschscholzia hypecoides San Benito poppy	--/-- G3/S3.3 4.3	Bloom period: March-June. Serpentinite clay. Occurs in chaparral, cismontane woodland and valley and foothill grassland. Elevations: 656-4,921 feet.
Fissidens pauperculus Minute pocket moss	--/-- G3?/S1 1B.2	Bloom period: N/A. Occurs in North Coast coniferous forest (damp coastal soils). Elevations: 32-3,359 feet.
Fritillaria agrestis Stinkbells	--/-- G3/S3.2 4.2	Bloom period: March-June. Occurs in clay, sometimes serpentinite soils within chaparral, cismontane woodland, pinyon and juniper woodland as well as valley and foothill grassland. Elevations: 32-5,101 feet.
Fritillaria falcata Talus fritillaria	--/-- G2/S2.2 1B.2	Bloom period: March-May. Occurs in serpentinite, often talus within chaparral, cismontane woodland, and lower montane coniferous forest. Elevations: 984-5,002 feet.
Fritillaria liliacea Fragrant fritillaria	--/-- G2/S2 1B.2	Bloom period: February-April. Often occurs in serpentinite soils within cismontane woodland, coastal prairie, coastal scrub and valley and foothill grassland. Elevations: 10-1,345 feet.
Fritillaria viridea San Benito fritillary	--/-- G2/S2 1B.2	Bloom period: March-May. Occurs in chaparral (serpentinite). Elevations: 656-5,003 feet.
Frittilaria ojaiensis Ojai fritillary	--/-- G2/S2 1B.2	Bloom period: February-May. Occurs in rocky soils within broadleafed upland forest (mesic), chaparral, and lower montane coniferous forest. Elevations: 984-3,274 feet.

Table 4.3-3
Special Status Plant and Lichen Species Known to Occur or with Potential to Occur within Monterey, San Benito, and Santa Cruz Counties

Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CRPR	Habitat Requirements
Galium andrewsii ssp. *gatense* Phlox-leaf serpentine bedstraw	--/-- G5T3/S3.2 4.2	Bloom period: April-July. Occurs in serpentinite, rocky soils within chaparral, cismontane woodland and lower montane coniferous forest. Elevations: 492-4,757 feet.
Galium californicum ssp. *luciense* Cone Peak bedstraw	--/-- G5T2/S2.3 1B.3	Bloom period: March-September. Occurs in broadleafed upland forest, chaparral, cismontane, woodland, and lower montane coniferous forest. Elevations: 1,312-5,003 feet.
Galium cliftonsmithii Santa Barbara bedstraw	--/-- G3/S3.3 4.3	Bloom period: May-July. Occurs in cismontane woodland. Elevations: 656-4,002 feet.
Gallium clementis Santa Lucia bedstraw	--/-- G2/S2.3 --	Bloom period: May-July. Occurs in granitic or serpentinite, rocky soils within lower montane coniferous forest and upper montane coniferous forest. Elevations: 3,707 -5,839 feet.
Gallium hardhamiae Hardham's bedstraw	--/-- G2/S2.3 1B.3	Bloom period: April-October. Occurs in serpentinite soils within closed-cone coniferous forest and chaparral. Elevations: 1,295-3,198 feet.
Gilia tenuiflora ssp. *amplifaucalis* Trumpet-throated gilia	--/-- G3G4T3/S3.3 4.3	Bloom period: March-April. Occurs in sandy soils within cismontane woodland and valley and foothill grassland. Elevations: 1,279-2,952 feet.
Gilia tenuiflora ssp. *arenaria* Monterey gilia	FE/ST G3G4T2/S2 1B.2	Bloom period: April-June. Occurs in sandy openings within chaparral (maritime), cismontane woodland, coastal dunes, and coastal scrub. Elevations: 0-147feet.
Githopsis tenella Delicate bluecup	--/-- G2/S2.3 1B.3	Bloom period: May-June. Occurs in mesic areas within chaparral and cismontane woodland. Elevations: 3,608-6,233 feet.
Grindelia hirsutula var. *maritime* San Francisco gumplant	--/-- G5T1Q/S1 3.2	Bloom period: June-September. Occurs in sandy or serpentinite soils within coastal bluff scrub, coastal scrub and valley and foothill grassland. Elevations: 49-1,312 feet.
Hesparocyparis abramsiana var. *abramsiana* Santa Cruz cypress	FE/SE G1T1/S1 1B.2	Bloom period: N/A. Occurs in sandstone or granitic soils within closed-cone coniferous forest, chaparral, lower montane coniferous forest. Elevations: 918-2,624 feet.
Hesperevax caulescens Hogwallow starfish	--/-- G3/S3.2 4.2	Bloom period: March-June. Occurs in valley and foothill grassland (mesic, clay) and vernal pools (shallow). Elevations: 0-1,656 feet.

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Special Status Plant and Lichen Species Known to Occur or with Potential to Occur within Monterey, San Benito, and Santa Cruz Counties

Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CRPR	Habitat Requirements
Hesperevax sparsiflora var. *brevifolia* Short-leaved evax	--/-- G4T2T3/S2S3 1B.2	Bloom period: March-June. Occurs in coastal bluff scrub (sandy), coastal dunes, and coastal prairie. Elevations: 0-705 feet.
Hesperocyparis goveniana Gowen cypress	FT/-- G1/S1 1B.2	Bloom period: N/A. Occurs in closed-cone coniferous forest and chaparral (maritime). Elevations: 98-984 feet.
Hesperocyparis macrocarpa Monterey cypress	--/-- G1/S1 1B.2	Bloom period: N/A. Occurs in closed-cone coniferous forest. Elevations: 32-98 feet.
Hoita strobilina Loma Prieta hoita	--/-- G2/S2 1B.1	Bloom period: May–October. Usually occurs in serpentine, mesic soils within chaparral, cismontane woodland and riparian woodland. Elevations: 98-2,821 feet.
Holocarpha macradenia Santa Cruz tarplant	FT/SE G1/S1 1B.1	Bloom period: June-October. Often occurs in clay or sandy soils within coastal prairie, coastal scrub, and valley and foothill grassland. Elevations: 32-721 feet.
Hordeum intercedens Vernal barley	--/-- G3G4/S3S4 3.2	Bloom period: March-June. Occurs in coastal dunes, coastal scrub, valley and foothill grassland (saline flats and depressions), vernal pools. Elevations: 16-3,280 feet.
Horkelia cuneata var. *sericea* Kellogg's horkelia	--/-- G4T2/S2? 1B.1	Bloom period: April-September. Occurs in openings in sandy or gravelly soils within closed-cone coniferous forest maritime chaparral, coastal dunes and coastal scrub. Elevations: 32-656 feet.
Horkelia marinensis Point Reyes horkelia	--/-- G2/S2.2 1B.2	Bloom period: May-September. Occurs in sandy soils within coastal dunes, coastal prairies, and coastal scrub. Elevations: 16-1,148 feet.
Horkelia yadonii Santa Lucia horkelia	--/-- G3/S3.2 4.2	Bloom period: April-July. Occurs in granitic and sandy soils within broadleafed upland forest, chaparral, cismontane woodland, meadows and seeps as well as riparian woodlands. Elevations: 984-6,233 feet.
Hosackia gracilis Harlequin lotus	--/-- G4/S3.2 4.2	Bloom period: March-July. Occurs in wetlands and roadsides within broadleafed upland forest, coastal bluff scrub, closed-cone coniferous forest, cismontane woodland, coastal prairie, coastal scrub, meadows and seeps, marshes and swamps, North Coast coniferous forest, as well as valley and foothill grassland. Elevations: 0-2,296 feet.
Iris longipetala Coast iris	--/-- G3/S3.2 4.2	Bloom period: March-May. Occurs in mesic soils within coastal prairie, lower montane coniferous forest, as well as meadows and seeps. Elevations: 0-1,968 feet.

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Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CRPR	Habitat Requirements
Isocoma menziesii var. *diabolica* Satan's goldenbush	--/-- G3G5T3/S3.2 4.2	Bloom period: August-October. Occurs in cismontane woodland. Elevations: 49-1,312 feet.
Juncus luciensis Santa Lucia dwarf rush	--/-- G2G3/S2S3 1B.2	Bloom period: April-July. Occurs in chaparral, great basin scrub, lower montane coniferous forest, meadows and seeps, and vernal pools. Elevations: 98-6,692 feet.
Lagophylla dichotoma Forked hare-leaf	--/-- G1/S1 1B.1	Bloom period: April-September. Sometimes occurs in clay soils within cismontane woodland as well as valley and foothill grassland. Elevations: 164-2,492 feet.
Lasthenia conjugens Contra Costa goldfields	FE/-- G1/S1 1B.1	Bloom period: March-June. Occurs in mesic soils within cismontane woodland, alkaline playas, valley and foothill grassland, and vernal pools. Elevations: 0-1,541 feet.
Lasthenia ferrisiae Ferris'goldfields	--/-- G3/S3.2 4.2	Bloom period: February-May. Occurs in vernal pools (alkaline, clay). Elevations: 65-2,296 feet.
Lasthenia leptalea Salinas Valley goldfields	--/-- G3/S3.3 4.3	Bloom period: February-April. Occurs in cismontane woodland as well as valley and foothill grassland. Elevations: 196-3,494 feet.
Layia carnosa Beach layia	FE/SE G2/S2 1B.1	Bloom period: March-July. Occurs in coastal dunes and sandy coastal scrub. Elevations: 0-196 feet.
Layia discoisea Rayless layia	--/-- G2/S2.2 1B.1	Bloom period: May. Occurs in serpentinite, talus and alluvial terraces within chaparral, cismontane woodland, and lower montane coniferous forest. Elevations: 2,608-5,200 feet.
Layia heterotricha Pale –yellow layia	--/-- G2/S2 1B.1	Bloom period: March-June. Alkaline or clay substrates within cismontane woodland, coastal scrub, pinyon and juniper woodland, and valley and foothill grassland. Elevations: 984-5,593 feet.
Legenere limosa Legenere	--/-- G2/S2.2 1B.1	Bloom period: April-June. Occurs in vernal pools. Elevations: 3-2886 feet.
Lepidium jaredii ssp. *album* Panoche pepper-grass	--/-- G2T2/S2 1B.2	Bloom period: February-June. Occurs in valley and foothill grassland (steep slopes, clay). Elevations: 606-902feet.
Leptosiphon ambiguus Serpentine leptosiphon	--/-- G3/S3.2 4.2	Bloom period: March-June. Usually occurs in serpentinite soils within cismontane woodland, coastal scrub as well as valley and foothill grassland. Elevations: 393-3,707 feet.
Leptosiphon croceus Coast yellow leptosiphon	--/-- G1/S1 1B.1	Bloom period: April-May. Occurs in coastal bluff scrub and coastal prairie. Elevations: 32-492 feet.

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Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CRPR	Habitat Requirements
Leptosiphon grandiflorus Large-flowered leptosiphon	--/-- G3/S3.2 4.2	Bloom period: April-August. Usually occurs in sandy soils within coastal bluff scrub, closed-cone coniferous forest, cismontane woodland, cismontane woodland, coastal dunes, coastal prairie, coastal scrub, as well as valley and foothill grassland. Elevations: 16-4,002 feet.
Lessingia hololeuca Woolly-headed lessingia	--/-- G3/S3 3	Bloom period: June-October. Occurs in clay and serpentinite soils within broadleafed upland forest, coastal scrub, lower montane coniferous forest, as well as valley and foothill grassland. Elevations: 49-1,000 feet.
Lessingia tenuis Spring lessingia	--/-- G3/S3.3 4.3	Bloom period: May-July. Occurs in openings within chaparral, cismontane woodland, and lower montane coniferous forest. Elevations: 984-7,053feet.
Lilium rubescens Redwood lily	--/-- G3/S3.2 4.2	Bloom period: April-September. Sometimes occurs in serpentinite soils and roadways within broadleafed upland forest, chaparral, lower montane coniferous forest, North coast coniferous forest, and upper montane coniferous forest. Elevations: 98-6,266 feet.
Lomatium parvifolium Small-leaved lomatium	--/-- G3/S3 4.2	Bloom period: January-June. Occurs in serpentinite soils within closed-cone coniferous forest, chaparral, coastal scrub, and riparian woodland. Elevations: 65-2,296 feet.
Lupinus albifrons var. *abramsii* Abrams' lupine	--/-- G1Q/S1? 3.2	Bloom period: April-June. Occurs in broadleafed upland forest and lower montane coniferous forest. Elevations: 1,476-6,561 feet.
Lupinus cervinus Santa Lucia lupine	--/-- G3/S3.3 4.3	Bloom period: May-June. Occurs in broadleafed upland forest and lower montane coniferous forest. Elevations: 1,000-4,494 feet.
Lupinus tidestromii Tidestrom's lupine	FE/SE G1/S1 1B.1	Bloom period: April-June. Occurs in coastal dunes. Elevations: 0-328 feet.
Madia radiata Showy golden madia	--/-- G2/S2 1B.1	Bloom period: March-May. Occurs in cismontane woodland and valley and foothill grassland. Elevations: 85-3,986 feet.
Malacothamnus abbottii Abbott's bush-mallow	--/-- G1/S1 1B.1	Bloom period: May-October. Occurs in riparian scrub. Elevations: 442-1,607 feet.
Malacothamnus aboriginum Indian Valley bush-mallow	--/-- G2/S2 1B.2	Bloom period: April-October. Occurs in rocky, granitic soils often in burned areas within chaparral and cismontane woodland. Elevations: 492-5,577 feet.
Malacothamnus arcuatus Arcuate bush-mallow	--/-- G2Q/S2.2 1B.2	Bloom period: April-September. Occurs in chaparral and cismontane woodland. Elevations: 49-1,164 feet.

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Malacothamnus davidsonii Davidson's bush-mallow	--/-- G2S2 1B.2	Bloom period: June-January. Occurs in chaparral, cismontane woodland, coastal scrub, and riparian woodland. Elevations: 606-2,805 feet.
Malacothamnus jonesii Jones' bush-mallow	--/-- G3/S3.3 4.3	Bloom period: May-July. Occurs in chaparral and cismontane woodland. Elevations: 820-2,723 feet.
Malacothamnus niveus San Luis Obispo County bush-mallow	--/-- G3Q/S3.3 4.3	Bloom period: May-July. Occurs in chaparral. Elevations: 1,197-2,591 feet.
Malacothamnus palmeri var. *involucratus* Carmel Valley bush-mallow	--/-- G3T2Q/S2.2 1B.2	Bloom period: May-October. Occurs in chaparral, cismontane woodland and coastal scrub. Elevations: 98-3,608 feet.
Malacothamnus palmeri var. *lucianus* Arroyo Seco bush-mallow	--/-- G3T1Q/S1 1B.2	Bloom period: April-August. Occurs in chaparral, cismontane woodland, as well as meadows and seeps. Elevations: 32-3,001 feet.
Malacothamnus palmeri var. *palmeri* Santa Lucia bush-mallow	--/-- G3T2Q 1B.2	Bloom period: May-July. Occurs in rocky chaparral. Elevations: 196-1,181 feet.
Malacothrix phaeocarpa Dusky-fruited malacothrix	--/-- G3/S3.3 4.3	Bloom period: April-June. Occurs in openings, burned or disturbed areas within closed-cone coniferous forest and chaparral. Elevations: 328-4,593 feet.
Malacothrix saxatilis var. *arachnoidea* Carmel Valley malacothrix	--/-- G5T2/S2 1B.2	Bloom period: March-December. Occurs in rocky chaparral as well as coastal scrub. Elevations: 82-3,398 feet.
Micropus amphiboles Mt. Diablo cottonweed	--/-- G2/S3.2? 3.2	Bloom period: March-May. Occurs in rocky areas within broadleafed upland forest, chaparral, cismontane woodland, and valley and foothill grassland. Elevations: 147-2,706 feet.
Microseris paludosa Marsh microseris	--/-- G2/S2.2 1B.2	Bloom period: April–July. Occurs in closed-cone conifer forest, cismontane woodland, coastal scrub, and valley and foothill grassland. Elevations: 16-984 feet.
Microseris sylvatica Sylvan microseris	--/-- G3/S3.2 4.2	Bloom period: March-June. Occurs in chaparral, cismontane woodland, great basin scrub, Pinyon and juniper woodland, as well as valley and foothill grassland (serpentinite). Elevations: 147-4,921 feet.

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Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CRPR	Habitat Requirements
Mielichhoferia elongata Elongate copper moss	--/-- G4/S2 2.2	Bloom period: N/A (moss). Occurs within cismontane woodland on very acidic, metamorphic rock or substrate; usually in higher portions of fens. Elevations: 1,640-4,265 feet.
Mimulus rattanii ssp. *decurtatus* Santa Cruz County monkeyflower	--/-- G4T3/S3.2 4.2	Bloom period: May-July. Occurs in gravelly margins within chaparral, and lower montane coniferous forest. Elevations: 1,312-1,640 feet.
Mimulus subsecundus One-sided monkeyflower	--/-- G3/S3.3 4.3	Bloom period: May-July. Occurs in lower montane coniferous forest. Elevations: 1,476-3,001 feet.
Monardella antonina ssp. *antonia* San Antonio Hills monardella	--/-- G4T3Q/S3? 3	Bloom period: June-August. Occurs in chaparral and cismontane woodland. Elevations: 1,049-3,280 feet.
Monardella antonina ssp. *benitensis* San Benito monardella	--/-- G4T3/S3.3 4.3	Bloom period: June-July. Usually occurs in serpentinite soils within chaparral, cismontane woodland, lower montane coniferous forest, as well as valley and foothill grassland. Elevations: 1,640-5,150 feet.
Monardella palmeri Palmer's monardella	--/-- G2/S2.2 1B.2	Bloom period: June-August. Occurs in serpentinite soils within chaparral and cismontane woodland. Elevations: 656-2,624 feet.
Monardella undulate Curly-leaved monardella	--/-- G3/S3.2 4.2	Bloom period: May-September. Occurs in sandy soils within closed-cone coniferous forest, chaparral, coastal dunes, coastal prairie, coastal scrub, and lower montane coniferous forest (ponderosa pine sandhills). Elevations: 0-1,000 feet.
Monolopia congdonii San Joaquin woollythreads	FE/-- G3/S3 1B.2	Bloom period: February-May. Occurs in chenopod scrub and sandy valley and foothill grassland. Elevations: 196-2,624 feet.
Monolopia gracilens Woodland wollythreads	--/-- G2G3/S2S3 1B.2	Bloom period: February – July. Occurs in broad-leafed upland forest, north coast conifer forest, and chaparral, and within cismontane woodland, and valley and foothill grassland; grassy sites, in openings; sandy to rocky soils; often seen on serpentine after burns, but affinity maybe weak. Elevations: 328-3,937 feet.
Mucronea californica California spineflower	--/-- G3/S3 4.2	Bloom period: March-August. Occurs in sandy soils within chaparral, cismontane woodland, coastal dunes, coastal scrub, as well as valley and foothill grassland. Elevations: 0-4,593 feet.
Navarretia nigelliformis ssp. *nigelliformis* Adobe navarretia	--/-- G4T3/S3.2 4.2	Bloom period: April-June. Occurs in clay and sometime serpentinite within valley and foothill grassland (vernally mesic), and sometimes vernal pools. Elevations: 328-3,280 feet.

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Special Status Plant and Lichen Species Known to Occur or with Potential to Occur within Monterey, San Benito, and Santa Cruz Counties

Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CRPR	Habitat Requirements
Navarretia cotulifolia Cotula navarretia	--/-- G3/S3 4.2	Bloom period: May-June. Occurs in adobe within chaparral, cismontane woodland, as well as valley and foothill grassland. Elevations: 13-6,003 feet.
Navarretia nigellifornis ssp. *radians* Shining navarretia	--/-- G4T2/S2 1B.2	Bloom period: April-July. Sometimes occurs in clay soils within cismontane woodland, valley and foothill grassland, and vernal pools. Elevations: 249-3,280 feet.
Navarretia prostrate Prostrate vernal pool navarretia	--/-- G2/S2 1B.1	Bloom period: April-July. Occurs in mesic soils within coastal scrub, meadows and seeps, vernal pools as well as valley and foothill grassland (alkaline). Elevations: 49-3,969 feet.
Nemacladus secundiflorus var. *robbinsii* Robbin's nemacladus	--/-- G3T2T3/S2S3 1B.2	Bloom period: April-June. Occurs in openings within chaparral and valley and foothill grassland. Elevations: 1,148-5,577 feet.
Nemacladus secundiflorus var. *secudiflorus* Large-flowered nemacladus	--/-- G3T3?/S3? 4.3	Bloom period: April-June. Occurs in gravelly opening within chaparral and valley and foothill grassland. Elevations: 656-6,561 feet.
Ophioglossum californicum California adder's tongue	--/-- G4/S3.2 4.2	Bloom period: December-June. Occurs in mesic soils within chaparral, valley and foothill grassland and vernal pools (margins). Elevations: 196-1,722 feet.
Orthotrichum kellmanii Kellman's bristle moss	--/-- G2/S2 1B.2	Bloom period: January-February. Occurs in sandstone, carbonate soils within chaparral and cismontane woodland. Elevations: 1,125-2,247 feet.
Pedicularis dudleyi Dudley's lousewort	--/SR G2/S2 1B.2	Bloom period: April – June. Occurs in chaparral (maritime), cismontane woodland, North Coast conifer forest, and valley and foothill grassland; deep shady woods of older coast redwood forests. Elevations: 196-2,952 feet.
Penstemon rattanii var. *kleei* Santa Cruz Mountains beardtongue	--/-- G4T2/S2.2 1B.2	Bloom period: May-June. Occurs in chaparral, lower montane coniferous forest, and North Coast coniferous forest. Elevations: 1,312-3,608feet.
Pentachaeta bellidiflora White-rayed pentachaeta	FE/SE G1/S1 1B.1	Bloom period: March – May. Occurs in cismontane woodland and valley and foothill grassland often in serpentine soils; open dry rocky slopes and grassy areas, often on soils derived from serpentine bedrock. Elevations: 114-2,034 feet.
Pentachaeta exilis ssp. *aeolica* San Benito pentachaeta	--/-- G5T1/S1 1B.2	Bloom period: March-May. Occurs in cismontane woodland as well as valley and foothill grassland. Elevations: 2,099-2,805 feet.

Table 4.3-3
Special Status Plant and Lichen Species Known to Occur or with Potential to Occur within Monterey, San Benito, and Santa Cruz Counties

Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CRPR	Habitat Requirements
Pentachaeta fragilis Fragile pentachaeta	--/-- G3/S3.3 4.3	Bloom period: March-June. Occurs often in openings within chaparral and lower montane coniferous forest (sandy). Elevations: 147-6,889 feet.
Perideridia gairdneri ssp. *gairdneri* Gairdner's yampah	--/-- G5T3/S3.2 4.2	Bloom period: June-October. Occurs in broadleafed upland forest, chaparral, coastal prairie, valley and foothill grassland, vernal pools. Elevations: 0-2,001 feet.
Perideridia pringlei Adobe yampah	--/-- G3/S3.3 4.3	Bloom period: April-July. Occurs in serpentinite and often clay soils within chaparral, cismontane woodland, coastal scrub, and pinyon and juniper woodland. Elevations: 984-5,905 feet.
Phacelia phacelioides Mt. Diablo phacelia	--/-- G1/S1 1B.2	Bloom period: April-May. Occurs in rocky soils within chaparral and cismontane woodland. Elevations: 1,640-4,.493 feet.
Phacelia ramosissimia var. *austrolitoralis* South coast branching phacelia	--/-- G5?T3/ S3.2 3.2	Bloom period: March-August. Occurs in sandy, sometimes rocky soils within chaparral, coastal dunes, coastal scrub, as well as marshes and swamps (coastal salt). Elevations: 16-984 feet.
Pinus radiata Monterey pine	--/-- G1/S1 1B.1	Bloom period: N/A (perennial evergreen tree). Occurs on sandy substrates within coastal bluff scrub, closed-cone conifer forest, and maritime chaparral. Elevations: 32-1,673 feet.
Piperia candida White-flowered rein orchid	--/-- G3?/S2 1B.2	Bloom period: March-September. Sometimes occurs in serpentinite soils within broadleafed upland forest, lower montane coniferous forest, and North Coast coniferous forest. Elevations: 98-4,297 feet.
Piperia leptopetala Narrow-petaled rein orchid	--/-- G3/S3.3 4.3	Bloom period: May-July. Occurs in cismontane woodland, lower montane coniferous forest, and upper montane coniferous forest. Elevations: 1,246-7,299 feet.
Piperia michaelii Michael's rein orchid	--/-- G3/S3.2 4.2	Bloom period: April-August. Occurs in coastal bluff scrub, closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub, and lower montane coniferous forest. Elevations: 10-3,001 feet.
Piperia yadonii Yadon's piperia	FE/-- G2/S2 1B.1	Bloom period: February – August. Occurs in closed-cone conifer forest, chaparral, coastal bluff scrub; on sandstone and sandy soil, but poorly drained and often dry. Elevations: 32-1,360 feet.
Plagiobothrys chorisianus var. *chorisianus* Choris' popcorn-flower	--/-- G3T2Q/S2.2 1B.2	Bloom period: March – June. Occurs in chaparral, coastal prairie and coastal scrub; mesic sites. Elevations: 49-524 feet.
Plagiobothrys chorisianus var. *hickmanii* Hickman's popcorn-flower	--/-- G3T3Q/S3.2 4.2	Bloom period: April-June. Occurs in closed-cone coniferous forest, chaparral, coastal scrub, marshes and swamps, and vernal pools. Elevations: 49-606 feet.

Table 4.3-3
Special Status Plant and Lichen Species Known to Occur or with Potential to Occur within Monterey, San Benito, and Santa Cruz Counties

Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CRPR	Habitat Requirements
Plagiobothrys diffusus San Francisco popcorn flower	--/SE G1Q/S1 1B.1	Bloom period: March–June. Occurs in coastal prairie and valley and foothill grassland; historically from grassy slopes with marine influence. Elevations: 196-1,181 feet.
Plagiobothrys glaber Hairless popcorn flower	--/-- GH/SH 1A	Bloom period: March-May. Occurs in meadows and seeps (alkaline) and marshes and swamps (coastal salt). Elevations: 49-590 feet.
Plagiobothrys uncunatus Hooked popcorn flower	--/-- G2/S2 1B.2	Bloom period: April-May. Occurs in chaparral (sandy), cismontane woodland as well as valley and foothill grassland. Elevations: 984-2,493 feet.
Pogogyne clareana Santa Lucia mint	--/SE G2/S2 1B.2	Bloom period: April-July. Occurs in intermittent streams within chaparral, cismontane woodland, and riparian woodland. Elevations: 984-2,066 feet.
Polygonum hickmanii Scotts Valley polygonum	FE/SE G1/S1 1B.1	Bloom period: May-August. Occurs in valley and foothill grassland (mudstone and sandstone). Elevations: 688-820 feet.
Potentilla hickmanii Hickman's cinquefoil	FE/SE G1/S1 1B.1	Bloom period: April-August. Occurs in coastal bluff scrub, closed-cone coniferous forest, meadows and seeps (vernally mesic) as well as freshwater marshes and swamps. Elevations: 32-488 feet.
Ranunculus lobbii Lobb's aquatic buttercup	--/-- G4/S3.2 4.2	Bloom period: February-May. Occurs in mesic soils within cismontane woodland, North Coast coniferous forest, vernal pools as well as valley and foothill grassland. Elevations: 49-1,541 feet.
Ribes sericeum Santa Lucia gooseberry	--/-- G3/S3.3 4.3	Bloom period: February-April. Occurs in broadleafed upland forest, coastal bluff scrub, and North Coast coniferous forest. Elevations: 1,000-4,002 feet.
Rosa pinetorum Pine rose	--/-- G2Q/S2.2 1B.2	Bloom period: May–July. Occurs in closed-cone conifer forest. Elevations: 6-984 feet.
Salidago guiradonis Guirado's goldenrod	--/-- G3/S3.2 4.2	Bloom period: September-October. Occurs in serpentinite soils within cismontane woodland and valley and foothill grassland. Elevations: 1,968-4,494 feet.
Sanicula hoffmannii Hoffman's sanicle	--/-- G3/S3.3 4.3	Bloom period: March-May. Often occurs in serpentinite or clay soils within broadleafed upland forest, coastal bluff scrub, chaparral, cismontane woodland, coastal scrub, and lower montane coniferous forest. Elevations: 98-984 feet.
Sanicula maritime Adobe sanicle	--/SR G2/S2.2 1B.2	Bloom period: February-May. Occurs in clay, serpentinite soils within chaparral, coastal prairie, meadows and seeps, as well as valley and foothill grassland. Elevations: 98-787 feet.

Table 4.3-3
Special Status Plant and Lichen Species Known to Occur or with Potential to Occur within Monterey, San Benito, and Santa Cruz Counties

Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CRPR	Habitat Requirements
Senecio aphanactis Chaparral ragwort	--/-- G3?/S1.2 2.2	Bloom period: January-April. Occurs in chaparral, cismontane woodland and coastal scrub. Sometime occurs in alkaline soils. Elevations: 49-2,624 feet.
Senecio astephanus San Gabriel ragwort	--/-- G3/S3 4.3	Bloom period: May-July. Occurs on rocky slopes within coastal bluff scrub and chaparral. Elevations: 1,312-4,921 feet.
Sidalcea hickmanii spp. *Hickmanii* Hickman's checkerbloom	--/-- G3T2/S2.3 1B.3	Bloom period: May-July. Occurs in chaparral (openings). Elevations: 1,099-3,937 feet.
Sidalcea malachroides Maple-leaved checkerbloom	--/-- G3G4/S3S4.2 4.2	Bloom period: March–August. Occurs in broad-leafed upland forest, coastal prairie, coastal scrub, north coast conifer forest, and riparian woodland; woodlands and clearings near coast; often in disturbed areas. Elevations: 0-2,395 feet.
Silene verecunda ssp. *verecunda* San Francisco campion	--/-- G5T2/S2.2 1B.2	Bloom period: March–August. Occurs in coastal bluff scrub, chaparral, coastal prairie, coastal scrub, and valley and foothill grassland; often on mudstone or shale; one site on serpentine. Elevations: 98-2,116 feet.
Stebbinsoseris decipiens Santa Cruz microseris	--/-- G2/S2.2 1B.2	Bloom period: April–May. Occurs in broadleaf upland forest, closed-cone conifer forest, chaparral, coastal prairie, coastal scrub, and valley and foothill grassland; open areas in loose or disturbed soil; usually derived from sandstone, shale or serpentine; on seaward slopes. Elevations: 32-1,640 feet.
Streptanthus albidus spp. *Peramoenus* Most beautiful jewel-flower	--/-- G2T2/S2.2 1B.2	Bloom period: March-October. Occurs in serpentinite soils within chaparral, cismontane woodland, as well as valley and foothill grassland. Elevations: 311-3,280 feet.
Stylocline masonii Mason's neststraw	--/-- G1/S1 1B.1	Bloom period: March-May. Occurs in sandy soils within chenopod scrub and pinyon and juniper woodland. Elevations: 328-3,937 feet.
Syntrichopappus lemmonii Lemmon's syntrichopappus	--/-- G3/S3.3 4.3	Bloom period: April-June. Occurs in chaparral, Joshua Tree woodland, as well as pinyon and juniper woodland. Elevations: 1,640-6,003feet.
Systenotheca vertriedei Vortriede's spineflower	--/-- G3/S3.3 4.3	Bloom period: May-September. Occurs in sandy or serpentinite soils within chaparral and cismontane woodland. Elevations: 1,640-5,249 feet.
Tortula californica California screw moss	--/-- G2?/S2 1B.2	Bloom period: N/A (moss). Occurs in sandy soils within chenopod scrub and valley and foothill grassland. Elevations: 32-4,790 feet.

Table 4.3-3
Special Status Plant and Lichen Species Known to Occur or with Potential to Occur within Monterey, San Benito, and Santa Cruz Counties

Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CRPR	Habitat Requirements
Toxicoscordion fontanum Marsh zigadenus	--/-- G3/S3.2 4.2	Bloom period: April-July. Occurs in vernally mesic, often serpentinite soils within chaparral, cismontane woodland, lower montane coniferous forest, meadows and seeps, as well as marshes and swamps. Elevations: 49-3,280 feet
Trichostema rubisepalum Hernandez bluecurls	--/-- G3/S3.3 4.3	Bloom period: June-August. Occurs in gravelly volcanic or serpentinite soils within broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, and vernal pools. Elevations: 984-4,708 feet.
Trifolium buckwestiorum Santa Cruz clover	--/-- G2/S2 1B.1	Bloom period: April–October. Occurs on gravelly substrates and margins within broadleaf upland forest, cismontane woodland, and coastal prairie; mesic, alkaline sites. Elevations: 344-2,001 feet.
Trifolium hydrophilum Saline clover	--/-- G2/S2 1B.2	Bloom period: April-June. Occurs in marshes and swamps, valley and foothill grassland (mesic, alkaline), and vernal pools. Elevations: 0-984 feet.
Trifolium polyodon Pacific Grove clover	--/SR G1/S1 1B.1	Bloom period: April-July. Occurs in mesic soils within. Closed-cone coniferous forest, coastal prairie, meadows and seeps, as well as valley and foothill grassland. Elevations: 16-393 feet.
Trifolium trichocalyx Monterey clover	FE/SE G1/S1 1B.1	Bloom period: April-June. Occurs in closed-cone coniferous forest within sandy, openings, burned areas. Elevations: 98-787 feet.
Triteleia ixioides ssp. *cookii* Cook's triteleia	--/-- G5T2/S2.3 1B.3	Bloom period: May-June. Occurs in serpentinite seeps within closed-cone coniferous forest and cismontane woodland. Elevations: 492-2,296 feet.
Triteleia lugens Dark-mouthed triteleia	--/-- G3/S3.3 4.3	Bloom period: April-June. Occurs in broadleafed upland forest, chaparral, coastal scrub, and lower montane coniferous forest. Elevations: 328-3,280 feet,
Tropidocarpum capparideum Caper-fruited tropidocarpum	--/-- G1/S1 1B.1	Bloom period: March-April. Occurs in valley and foothill grassland (alkaline hills). Elevations: 3-1,492 feet.

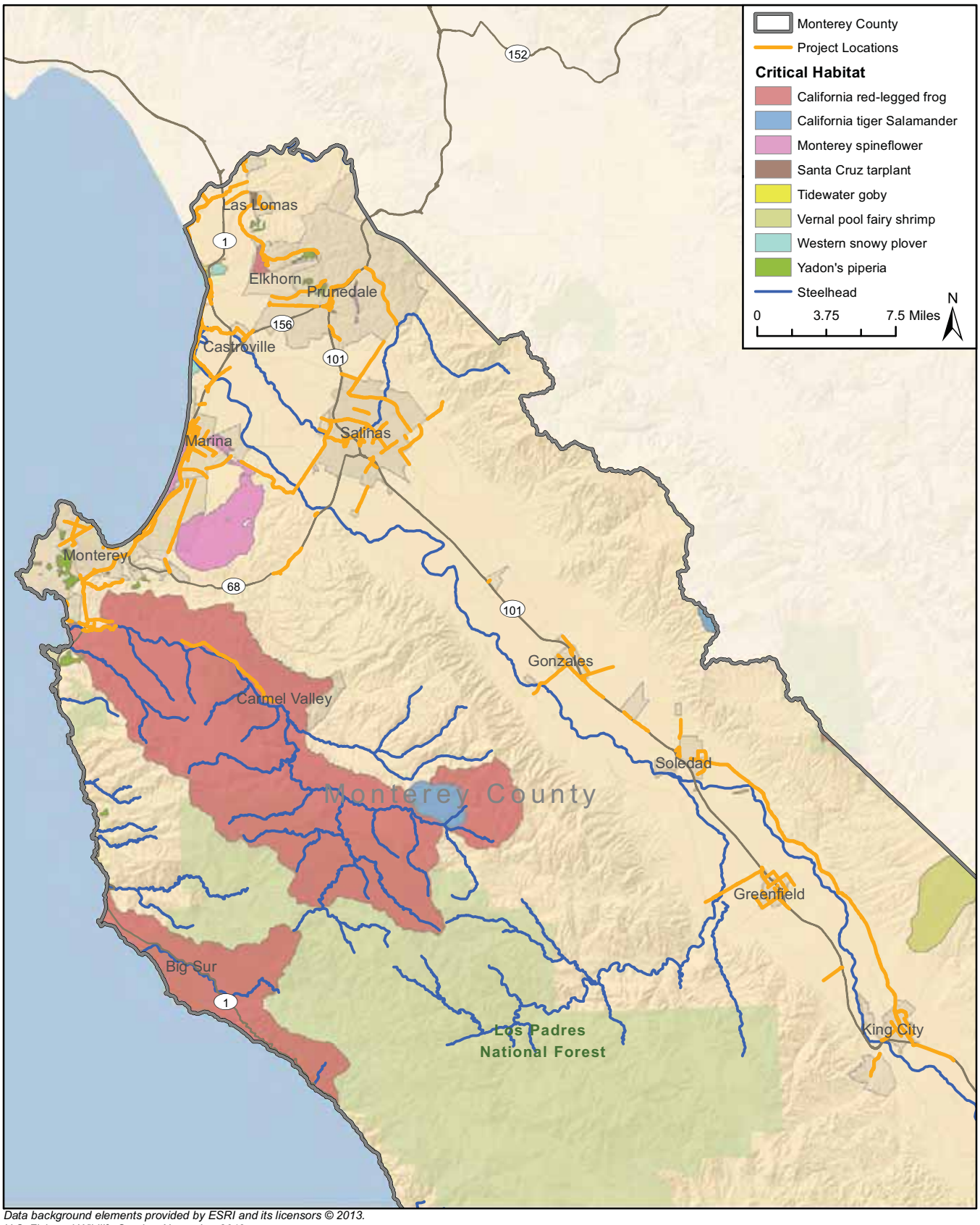
Table 4.3-3
Special Status Plant and Lichen Species Known to Occur or with Potential to Occur within Monterey, San Benito, and Santa Cruz Counties

Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CRPR	Habitat Requirements
Lichens		
Texosporium sancti-jacobi Woven-spored lichen	--/-- G3/S1 --	Bloom period: N/A (lichen). Occurs in opening within chaparral. Elevations: 951-2,165 feet.
Usnea longissima Long-beard lichen	--/-- G4/S4.2 --	Bloom period: N/A (lichen). Occurs in North Coast coniferous forest and broadleafed upland forest. Grows within the "red zone" of a variety of trees. Elevations: 0-6,561 feet.

Sources: CNDDB (CDFW, 2003); USFWS IPaC (2013), CDFW Special Plants List (2013), and CNPS Rare Plant Inventory (2013).
FE = Federally Endangered FT = Federally Threatened DL = Delisted
SE = State Endangered ST = State Threatened SR = State Rare
G-Rank/S-Rank = Global Rank and State Rank as per NatureServe and CDFW's CNDDB RareFind3.
CRPR (California Rare Plant Rank):
1A=Presumed Extinct in California
1B=Rare, Threatened, or Endangered in California and elsewhere
2=Rare, Threatened, or Endangered in California, but more common elsewhere
3=Need more information (a Review List)
4=Plants of Limited Distribution (a Watch List)
CRPR Threat Code Extension:
.1=Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2=Fairly endangered in California (20-80% occurrences threatened)
.3=Not very endangered in California (<20% of occurrences threatened)

Wildlife Movement Corridors. Wildlife movement corridors, or habitat linkages, are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as providing a linkage between foraging and denning areas, or they may be regional in nature. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then subsequently return. Others may be important as dispersal corridors for young animals. A group of habitat linkages in an area can form a wildlife corridor network.

The habitats within the link do not necessarily need to be the same as the habitats that are being linked. Rather, the link merely needs to contain sufficient cover and forage to allow temporary inhabitation by ground-dwelling species. Typically habitat linkages are contiguous strips of natural areas, though dense plantings of landscape vegetation can be used by certain disturbance-tolerant species. Depending upon the species using a corridor, specific physical resources (such as rock outcroppings, vernal pools, or oak trees) may need to be located within the habitat link at certain intervals to allow slower-moving species to traverse the link. For highly mobile or aerial species, habitat linkages may be discontinuous patches of suitable resources spaced sufficiently close together to permit travel along a route in a short period of time.



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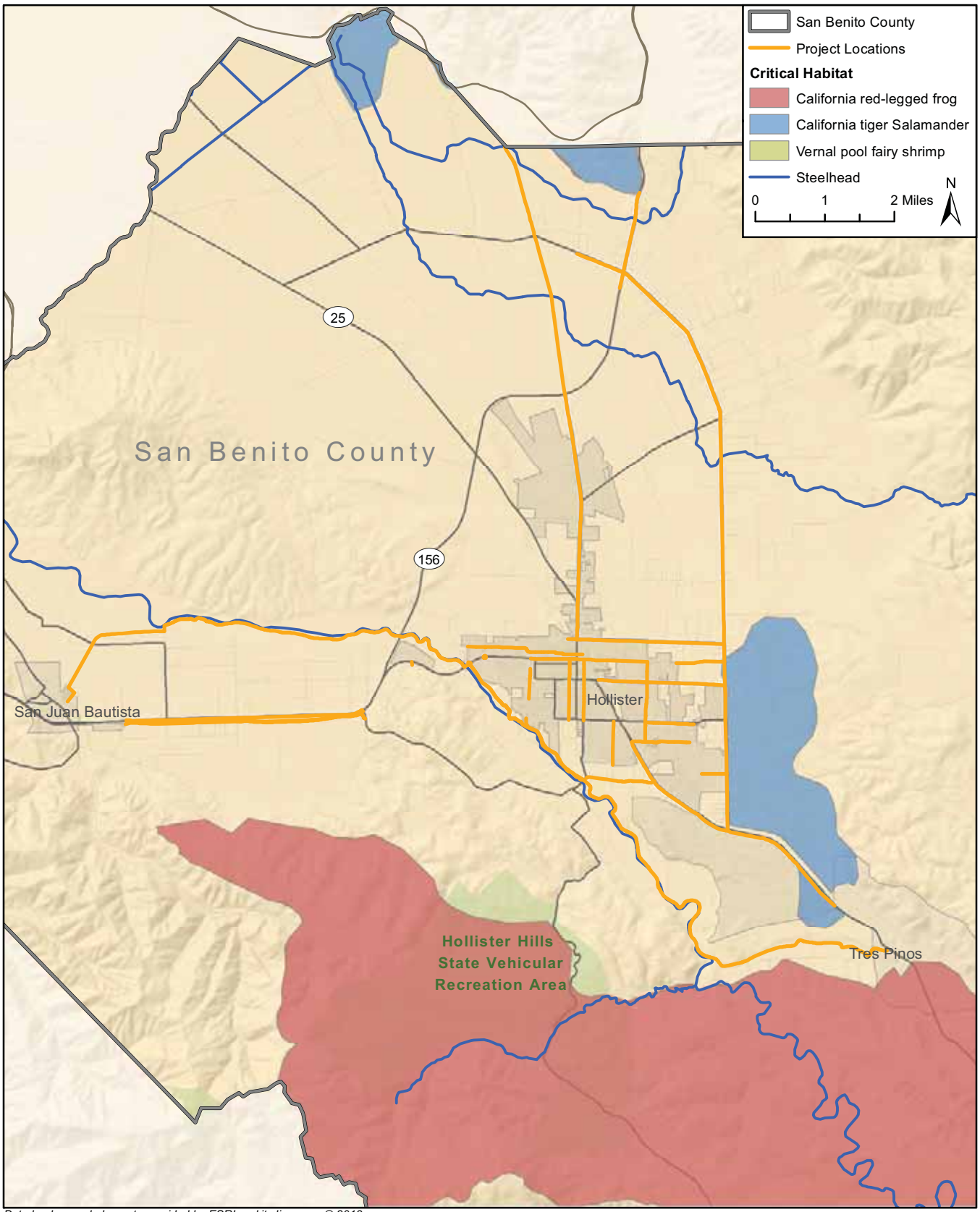
Federally Designated Critical Habitat: Monterey County

Figure 4.3-3a



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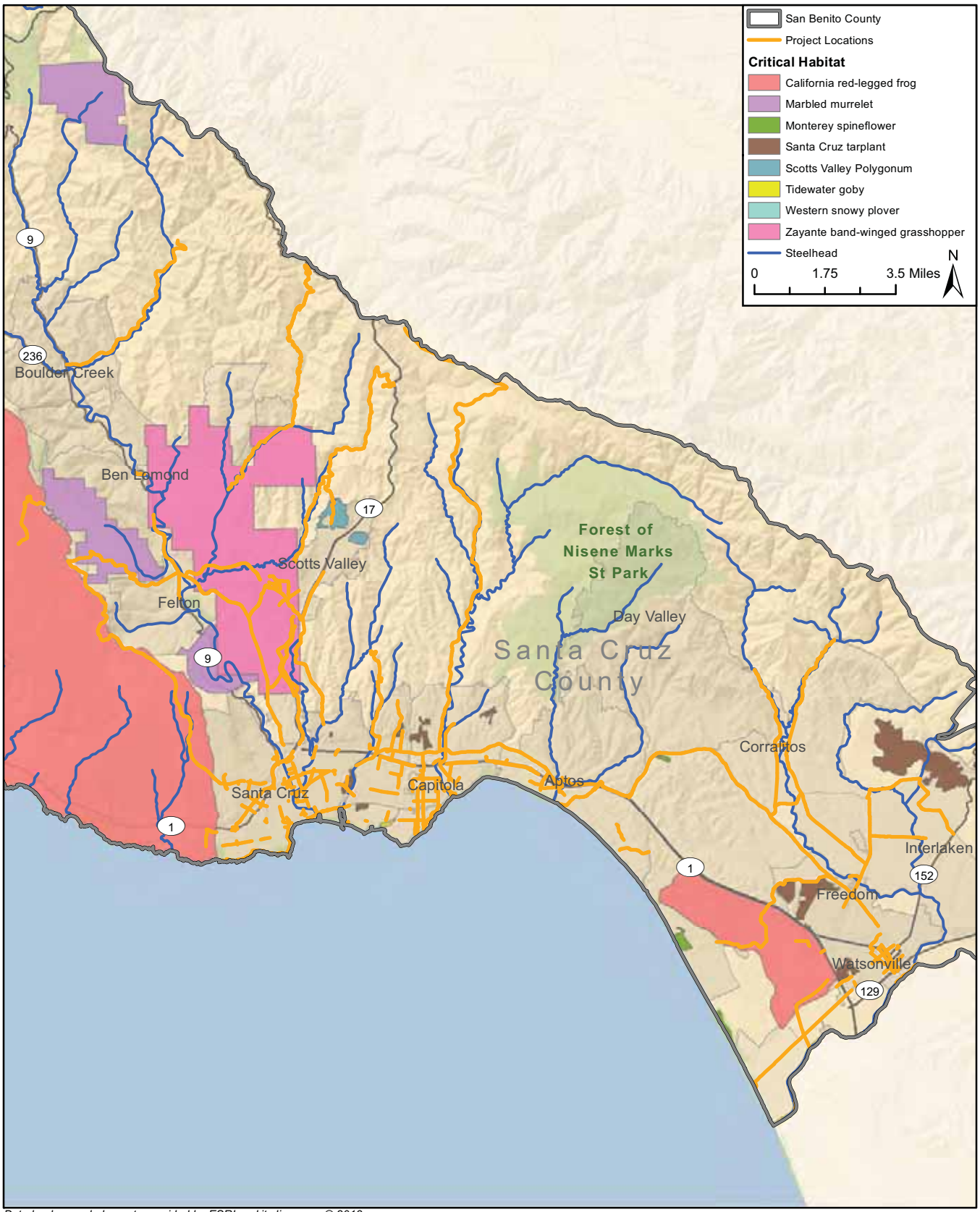
Federally Designated Critical Habitat: San Benito County

Figure 4.3-3b



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Federally Designated Critical Habitat: Santa Cruz County

Figure 4.3-3c

Wildlife movement corridors can be both large and small scale. The mountainous regions of Santa Cruz, Monterey, and San Benito Counties may support wildlife movement on a regional scale while riparian corridors and waterways, may provide more local scale opportunities for wildlife movement throughout each County. The CDFW BIOS (2013) mapped three essential connectivity areas within Santa Cruz, Monterey, and San Benito Counties. One is located throughout the inland mountainous region of Santa Cruz County. Another is located along the coastal mountainous region of Monterey County with a portion extending across the Salinas Valley and into the Diablo Range along the Monterey - San Benito County line. The last is located in the southeast portion of San Benito County and crossing into Fresno County. Fourteen important movement corridors are also identified from the report, Missing Linkages: Restoring Connectivity to the California Landscape (Penrod et al., 2001 and 2013). These movement corridors are generally associated with rivers and watercourses including the Pajaro River, and the Salinas River as well as areas within the Santa Lucia Range, Santa Cruz Mountains and Diablo Range. These areas are identified as important movement corridors for species such as San Joaquin kit fox, steelhead, riparian birds, and other small carnivores.

a. Regulatory Framework. Federal, state, and local authorities under a variety of statutes and guidelines share regulatory authority over biological resources. The primary authority for general biological resources lies within the land use control and planning authority of local jurisdictions, which in this instance is the Counties of Santa Cruz, Monterey, and San Benito as well as local jurisdictions. The CDFW is a trustee agency for biological resources throughout the State as defined in the California Environmental Quality Act (CEQA) and also has direct jurisdiction under the California Fish and Game Code (CFGC), which includes, but is not limited to, resources protected by the State of California under the California Endangered Species Act (CESA).

Federal and State Jurisdictions.

United States Fish and Wildlife Service. The USFWS implements the Migratory Bird Treaty Act (16 United States Code [USC] Section 703-711) and the Bald and Golden Eagle Protection Act (16 USC Section 668). The USFWS and National Marine Fisheries Service (NMFS) share responsibility for implementing the Federal Endangered Species Act (FESA) (16 USC § 153 *et seq.)*. The USFWS generally implements the FESA for terrestrial and freshwater species, while the NMFS implements the FESA for marine and anadromous species. Projects that would result in "take" of any federally listed threatened or endangered species are required to obtain permits from the USFWS and/or NMFS through either Section 7 (interagency consultation with a federal nexus) or Section 10 (Habitat Conservation Plan) of FESA, depending on the involvement by the federal government in permitting and/or funding of the project. The permitting process is used to determine if a project would jeopardize the continued existence of a listed species and what measures would be required to avoid jeopardizing the species. "Take" under federal definition means to harass, harm (which includes habitat modification), pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Proposed or candidate species do not have the full protection of FESA; however, the USFWS and NMFS advise project applicants that they could be elevated to listed status at any time.

National Marine Fisheries Service. The NMFS is a component of the National Oceanic and Atmospheric Administration (NOAA) and has jurisdiction over projects in which federally-listed marine or anadromous fish may be affected, including steelhead and tidewater goby.

United States Army Corps of Engineers. Under Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers (USACE) has authority to regulate activities that result in discharge of dredged or fill material into wetlands or other "waters of the United States." Perennial and intermittent creeks are considered waters of the United States if they are hydrologically connected to other jurisdictional waters. The USACE also implements the federal policy embodied in Executive Order 11990, which is intended to result in no net loss of wetlands. In achieving the goals of the Clean Water Act, the USACE seeks to avoid adverse impacts and offset unavoidable adverse impacts on existing aquatic resources. Any discharge into wetlands or other "waters of the United States" that are hydrologically connected and/or demonstrate a significant nexus to jurisdictional waters would require a permit from the USACE prior to the start of work. Typically, when a project involves impacts to waters of the United States, the goal of no net loss of wetlands is met through compensatory mitigation involving creation or enhancement of similar habitats.

California Department of Fish and Wildlife (formerly the California Department of Fish and Game). The CDFW derives its authority from the Fish and Game Code of California. The California Endangered Species Act (CESA) (Fish and Game Code Section 2050 *et. seq.)* prohibits take of State-listed threatened and endangered species. Take under CESA is restricted to direct harm of a listed species and does not prohibit indirect harm by way of habitat modification. The CDFW additionally prohibits take for species designated as Fully Protected under the CFGC under various sections.

California Fish and Game Code sections 3503, 3503.5, and 3511 describe unlawful take, possession, or destruction of birds, nests, and eggs. Fully protected birds (CFGC Section 3511) may not be taken or possessed except under specific permit. Section 3503.5 of the Code protects all birds-of-prey and their eggs and nests against take, possession, or destruction of nests or eggs. Species of Special Concern (SSC) is a category used by the CDFW for those species which are considered to be indicators of regional habitat changes or are considered to be potential future protected species. Species of Special Concern do not have any special legal status except that which may be afforded by the Fish and Game Code as noted above. The SSC category is intended by the CDFW for use as a management tool to include these species into special consideration when decisions are made concerning the development of natural lands, and these species are consider sensitive as described under the CEQA Appendix G questions. The CDFW also has authority to administer the Native Plant Protection Act (NPPA) (CFGC Section 1900 *et seq.*). The NPPA requires the CDFW to establish criteria for determining if a species, subspecies, or variety of native plant is endangered or rare. Under Section 1913(c) of the NPPA, the owner of land where a rare or endangered native plant is growing is required to notify the department at least 10 days in advance of changing the land use to allow for salvage of the plant(s).

Perennial and intermittent streams and associated riparian vegetation, when present, also fall under the jurisdiction of the CDFW. Section 1600 et seq. of the Fish and Game Code (Lake and Streambed Alteration Agreements) gives the CDFW regulatory authority over work within the stream zone (which could extend to the 100-year flood plain) consisting of, but not limited to,

the diversion or obstruction of the natural flow or changes in the channel, bed, or bank of any river, stream or lake.

Regional Water Quality Control Board. The State Water Resources Control Board (SWRCB) and each of nine local Regional Water Quality Control Boards (RWQCB) has jurisdiction over "waters of the State" pursuant to the Porter-Cologne Water Quality Control Act which are defined as any surface water or groundwater, including saline waters, within the boundaries of the State. The SWRCB has issued general Waste Discharge Requirements (WDRs) regarding discharges to "isolated" waters of the State (Water Quality Order No. 2004-0004-DWQ, *Statewide General Waste Discharge Requirements for Dredged or Fill Discharges to Waters Deemed by the U.S. Army Corps of Engineers to be Outside of Federal Jurisdiction*). The local RWQCB enforces actions under this general order for isolated waters not subject to federal jurisdiction, and is also responsible for the issuance of water quality certifications pursuant to Section 401 of the CWA for waters subject to federal jurisdiction.

California Coastal Commission. The mission of the California Coastal Commission (CCC) is to "protect, conserve, restore, and enhance environmental and human-based resources of the California coast and ocean for environmentally sustainable and prudent use by current and future generations." CCC policies, as codified under the California Coastal Act of 1976, are implemented through Coastal Development Permits issued under Local Coastal Programs administered by counties and cities that lie within the coastal zone. The California Coastal Act of 1976 contains specific policies aimed at preserving biological resources, such as wetlands, riparian habitat, and marine habitat.

California Department of Transportation - California Streets and Highways Code Section 156.3. Assessments and remediation of potential barriers to fish passage for transportation projects using State or federal transportation funds are required. Such assessments must be conducted for any projects that involve stream crossings or other alterations and must be submitted to the CDFW.

Local Jurisdiction General Plans. General Plans are created by Cities and Counties to guide the growth and land development of their communities. As such General Plans typically contain elements which address protection of biological resources. Typically these elements comprise of goals, policies and actions which protect natural resources such as environmentally sensitive habitats, special status species, native trees, creeks, wetland, and riparian habitats. Local jurisdictions approve development as long as it is consistent with those elements of the General Plan.

Monterey County. The Conservation/Open Space Element of the County of Monterey General Plan 2010 includes goals to protect the biological resources found within the county. The following goals are applicable to projects in Monterey County pursuant to the 2035 MTP/SCS:

Goal OS-4 – Protect and conserve the quality of coastal, marine, and river environments, as applied in areas not in the coastal zone.

Goal OS-5 – Conserve listed species, critical habitat, habitat and species protected in area plans; avoid, minimize and mitigate significant impacts to biological resources.

San Benito County. The Open Space and Conservation Element of the County of San Benito General Plan 1995 includes goals to protect the biological resources found within the county. The following goals are applicable to projects in San Benito County pursuant to the 2035 MTP/SCS:

Goal 1 – Preservation of Natural Resources

1. *To preserve natural wildlife habitats, including environmentally significant areas.*
2. *The protection and preservation of natural resources in the County, including prime agricultural areas, significant mineral lands, plant and animal life with emphasis on threatened or endangered species, habitat for fish and wildlife, watersheds, wetlands, and rivers.*

Santa Cruz County. The Conservation and Open Space Element of the County of San Cruz General Plan/Coastal Program 1994 includes objectives to protect the biological resources found within the county. The following objectives are applicable to projects in Santa Cruz County pursuant to the 2035 MTP/SCS:

Objective 5.1 To maintain the biological diversity of the county through an integrated program of open space acquisition and protection, identification and protection of plant habitat and wildlife corridors and habitats, low-intensity and resource compatible land uses in sensitive habitats and mitigations on projects and resource extraction to reduce impacts on plant and animal life.

Objective 5.2 To preserve, protect and restore all riparian corridors and wetlands for the protection of wildlife and aquatic habitat, water quality, erosion control, open space, aesthetics and recreational values and the conveyance and storage of flood waters.

Objective 5.3 Aquatic and Marine Habitats. To identify, preserve and restore aquatic and marine habitats; to maximize scientific research and education which emphasizes comprehensive and coordinated management consistent with the mission of the Monterey Bay National Marine Sanctuary; and to facilitate multiple use and recreation opportunities compatible with resource protection.

Local Ordinances. Some resources are afforded protection via local ordinances such as those that protect trees, riparian corridors, and environmentally sensitive habitats. The Counties of Santa Cruz, San Benito, and Monterey have municipal codes which protect natural resources and addresses compliance with environmental regulations.

4.3.2 Impact Analysis

a. Methodology and Significance Thresholds. Data used for this analysis include aerial photographs, topographic maps, the CNDDB, the CNPS online inventory of rare and endangered plants, and accepted scientific texts to identify species. Federal special status species inventories maintained by the USFWS were reviewed in conjunction with the CNDDB and CNPS online inventory. Potential areas of disturbance associated with 2035 MTP/SCS were compared to the identified biological resource occurrences to determine whether an impact may occur. Other data on biological resources were collected from numerous sources, including relevant literature, maps of natural resources, and data on special status species and sensitive habitat information obtained from the California Department of Fish and Wildlife (CDFW) (formerly referred to as the California Department of Fish and Game) California Natural Diversity Data Base (CNDDB) (2003; queried January 2013), CDFW BIOS (CDFW, 2013), the California Wildlife Habitat Relationships (CWHR) (CDFW, 2008), the California Native Plant Society (CNPS) online Inventory of Rare, Threatened, and Endangered Plants of California (2013), and the U.S. Fish and Wildlife Service (USFWS) Information, Planning and Conservation System (IPaC) (2013b). The USFWS Critical Habitat Mapper (2013a) and National Wetlands Inventory (NWI; 2013c) were also queried.

Evaluation Criteria. The following thresholds are based on Appendix G of the *State CEQA Guidelines*. Impacts would be significant if the 2035 MTP/SCS would result in any of the following:

1) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;*
2) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;*
3) *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;*
4) *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;*
5) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and/or*
6) *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.*

The following section presents a programmatic-level discussion of the potential for impacts to sensitive biological resources from implementation of the 2035 MTP/SCS. Impacts and associated mitigation measures would apply in Santa Cruz, Monterey, and San Benito counties.

b. Project Impacts and Mitigation Measures.

Impact B-1 **Implementation of transportation improvements proposed and the land use scenario envisioned by the 2035 MTP/SCS may result in substantial adverse impacts to special status plant and animal species, either directly or through habitat modification. Impacts would be Class II, *significant but mitigable*.**

For the purposes of this analysis, special status plant and animal species include those designations described under 4.3.1.c above, as well as locally important species including protected trees. Most of the capital improvements proposed under the 2035 MTP/SCS consist of minor expansions of existing facilities that would not involve construction in environmentally sensitive habitat areas. However, several projects could affect areas occupied by special status plant and animal species. As mentioned above, there are 362 special status species known to occur or with potential to occur within Santa Cruz, Monterey, and San Benito Counties. Fifty-six of these species are given high levels of protection by the federal government through listing under FESA or by the State government through listing under CESA or Fully Protected (animals only). The remaining species shown in Tables 4.3-2 and 4.3-3 are protected through CEQA and/or through local ordinances. Most special-status species have very limited ranges within the subject counties and have specific habitat requirements. Special status species may also tend to be associated with sensitive habitats, such as riparian habitats and drainages.

Because of the programmatic nature of the 2035 MTP/SCS, a precise, project-level analysis of the specific impacts of individual transportation projects on special-status species is not possible at this time. However, some special-status species are expected to be encountered at the locations where projects administered under the 2035 MTP/SCS would occur. Thus, it is assumed that some resources would not be avoided and that potentially significant impacts would occur.

Projects such as those that occur over or in the vicinity of rivers and creeks are within suitable habitat for species such as California red-legged frog (Federally Threatened and State Species of Special Concern), steelhead – South-Central California Coast DPS (Distinct Population Segment) (Federally Threatened and State Species of Special Concern), and Coho Salmon – Central California Coast ESU (Evolutionary Significant Unit) (Federally Endangered and State Endangered). Many of the creeks and rivers found within coastal counties such as Santa Cruz County and Monterey County are considered accessible by steelhead and currently support or have historically supported steelhead and Coho Salmon populations (Santa Cruz County, 2004).

In addition to the rivers and creeks that may be impacted, future transportation projects under the 2035 MTP/SCS could impact upland habitats and the sensitive species that may occupy them. For example, coast horned lizards (*Phrynosoma blainvillii*), a State Species of Special Concern, may be present in scrub, grassland and some woodland habitats near roads where projects could occur. Several special status bat species may be affected by proposed projects where they occur under bridges or similar structures, within buildings, or in native habitat adjacent to construction areas. Furthermore, the wide variety of habitats within the 2035 MTS/SCS area can support many species of nesting birds, including sensitive species such as the State Fully Protected white-tailed kite (*Elanus luecurus*) and the State Species of Special

Concern burrowing owl (*Athene cunicularia*). Disturbance of special-status plants could result in reductions in local population size, habitat fragmentation, or lower reproductive success. Direct impacts to special status species include injury or mortality occurring during implementation and/or operation of projects under the 2035 MTP/SCS. Direct impacts also include habitat modification and loss such that it results in the mortality or otherwise alters the foraging and breeding behavior substantially enough to cause injury. Indirect impacts could be caused by the spread of invasive non-native species that out-compete native species and/or alter habitat towards a state that is unsuitable for special status species. For example, the spread of certain weed species can reduce the biodiversity of native habitats, potentially eliminating special status plant species and reducing the availability of suitable forage and breeding sites for special status animal species. Indirect impacts could also result from increased access by humans and domestic animals, particularly in areas where trails may be planned. Increased human and domestic animal (especially dogs) presence foster the spread of non-native invasive plant species and disrupt the normal behaviors of animal species.

In addition to direct and indirect impacts that may result from transportation improvement projects, the 2035 MTP/SCS also contains a future land use scenario that envisions infill development and transit oriented development (TOD). This land use scenario focuses future development within existing urbanized areas. As a result, encroachment into undisturbed habitat would be reduced when compared to a land use scenario that did not focus future development with existing urbanized areas. This would limit impacts to sensitive plant and animal species. However, it is possible that sensitive plant and animal species could be located on future infill and TOD project sites. As a result, infill and TOD could impact plant and animal species that may be present on or in proximity to undeveloped infill parcels. Many special status animal species are associated with creeks even in the most densely developed urban areas. Both native and non-native trees and shrubs throughout urban areas may support nesting birds and other sensitive species such as monarch butterflies (*Danaus plexippus*). Impacts would be potentially significant.

Mitigation Measures. For transportation projects identified in Tables 4.3-4 to 4.3-6 under their jurisdiction, ~~AMBAG,~~ SCCRTC, SBtCOG, and TAMC shall implement and transportation project sponsor agencies can and should implement the following mitigation measures developed for the 2035 MTP/SCS program where applicable for transportation projects that result in impacts to special species status. Cities and counties in the AMBAG region can and should implement these measures, where relevant to land use projects implementing the 2035 MTP/SCS. ~~for transportation projects identified in Table 4.3-4 to 4.3-6. Project-specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions. These measures can and should also be implemented for future infill and TOD pursuant to the 2035 MTP/SCS that would result in impacts to special status animal and plant species.~~

B-1(a) **Biological Resources Screening and Assessment.** On a project-by-project basis, a preliminary biological resource screening shall be performed as part of the environmental review process to determine whether the project has any potential to impact biological resources. If it is determined that the project has no potential to impact biological resources, no further action is

required. If the project would have the potential to impact biological resources, prior to construction, a qualified biologist shall conduct a biological resources assessment (BRA) or similar type of study to document the existing biological resources within the project footprint plus a buffer and to determine the potential impacts to those resources. The BRA shall evaluate the potential for impacts to all biological resources including, but not limited to special status species, nesting birds, wildlife movement, sensitive plant communities/critical habitat, Essential Fish Habitat, and other resources judged to be sensitive by local, state, and/or federal agencies. Pending the results of the BRA, design alterations, further technical studies (i.e. protocol surveys) and/or consultations with the USFWS, CDFW and/or other local, state, and federal agencies may be required. The following mitigation measures [B-1(b) through B-1(k)] shall be incorporated, only as applicable, into the BRA for projects where specific resources are present or may be present and impacted by the project. Note that specific surveys described in the mitigation measures below may be completed as part of the BRA where suitable habitat is present. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

B-1(b) **Special Status Plant Species Surveys.** If completion of the project-specific BRA determines that special status plant species may occur on-site, surveys for special status plants shall be completed prior to any vegetation removal, grubbing, or other construction activity of each segment (including staging and mobilization). The surveys shall be floristic in nature and shall be seasonally-timed to coincide with the target species identified in the project-specific BRA. All plant surveys shall be conducted by a qualified biologist approved by the implementing agency no more than two years before initial ground disturbance. All special status plant species identified on-site shall be mapped onto a site-specific aerial photograph and topographic map. Surveys shall be conducted in accordance with the most current protocols established by the CDFW, USFWS, and the local jurisdictions if said protocols exist. A report of the survey results shall be submitted to the implementing agency, and the CDFW and/or USFWS, as appropriate, for review and approval. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

B-1(c) **Special Status Plant Species Avoidance, Minimization, and Mitigation.** If State listed or California Rare Plant List 1B species are found during special status plant surveys [pursuant to mitigation measure B-1(b)], then the project shall be re-designed to avoid impacting these plant species, if feasible. Rare plant occurrences that are not within the immediate disturbance

footprint, but are located within 50 feet of disturbance limits shall have bright orange protective fencing installed at least 30 feet beyond their extent, or other distance as approved by a qualified biologist, to protect them from harm. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

B-1(d) **Restoration and Monitoring.** If special status plants species cannot be avoided and will be impacted by a project implemented under the 2035 MTP/SCS, all impacts shall be mitigated at a minimum ratio of 2:1 (number of acres/individuals restored to number of acres/individuals impacted) for each species as a component of habitat restoration. A restoration plan shall be prepared and submitted to the jurisdiction overseeing the project for approval. (Note: if a state listed plant species will be impacted, the restoration plan shall be submitted to the CDFW for approval). The restoration plan shall include, at a minimum, the following components:

- Description of the project/impact site (i.e., location, responsible parties, areas to be impacted by habitat type);
- Goal(s) of the compensatory mitigation project [type(s) and area(s) of habitat to be established, restored, enhanced, and/or preserved; specific functions and values of habitat type(s) to be established, restored, enhanced, and/or preserved];
- Description of the proposed compensatory mitigation site (location and size, ownership status, existing functions and values);
- Implementation plan for the compensatory mitigation site (rationale for expecting implementation success, responsible parties, schedule, site preparation, planting plan);
- Maintenance activities during the monitoring period, including weed removal as appropriate (activities, responsible parties, schedule);
- Monitoring plan for the compensatory mitigation site, including no less than quarterly monitoring for the first year (performance standards, target functions and values, target acreages to be established, restored, enhanced, and/or preserved, annual monitoring reports);
- Success criteria based on the goals and measurable objectives; said criteria to be, at a minimum, at least 80 percent survival of container plants and 30 percent relative cover by vegetation type;
- An adaptive management program and remedial measures to address any shortcomings in meeting success criteria;
- Notification of completion of compensatory mitigation and agency confirmation; and
- Contingency measures (initiating procedures, alternative

locations for contingency compensatory mitigation, funding mechanism).
- (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

B-1(e) **Endangered/Threatened Species Habitat Assessment and Protocol Surveys**. Specific habitat assessment and survey protocol surveys are established for several federally and State Endangered or Threatened species. If the results of the BRA determine that suitable habitat may be present any such species, protocol habitat assessments/surveys shall be completed in accordance with CDFW and/or USFWS protocols prior to issuance of any construction permits. If through consultation with the CDFW and/or USFWS it is determined that protocol habitat assessments/surveys are not required, said consultation shall be documented prior to issuance of any construction permits. Each protocol has different survey and timing requirements. The applicants for each project shall be responsible for ensuring they understand the protocol requirements. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

B-1(f) **Endangered/Threatened Species Avoidance and Minimization.** The habitat requirements of endangered and threatened species throughout Santa Cruz, Monterey, and San Benito Counties are highly variable. The potential impacts from any given project implemented under the 2035 MTP/SCS are likewise highly variable. However, there are several avoidance and minimization measures which can be applied for a variety of species to reduce the potential for impact, with the final goal of no net loss of the species. The following measures may be applied to aquatic and/or terrestrial species. Project sponsors shall select from these measures as appropriate.
- Ground disturbance shall be limited to the minimum necessary to complete the project. The project limits of disturbance shall be flagged. Areas of special biological concern within or adjacent to the limits of disturbance shall have highly visible orange construction fencing installed between said area and the limits of disturbance.
- All projects occurring within/adjacent to aquatic habitats (including riparian habitats and wetlands) shall be completed between April 1 and October 31, if feasible, to avoid impacts to sensitive aquatic species.
- All projects occurring within or adjacent to sensitive habitats that may support federally and/or state Endangered/Threatened species shall have a CDFW and/or USFWS-approved biologist present during all initial ground

disturbing/vegetation clearing activities. Once initial ground disturbing/vegetation clearing activities have been completed, said biologist shall conduct daily pre-activity clearance surveys for Endangered/Threatened species. Alternatively, and upon approval of the CDFW and/or USFWS, said biologist may conduct site inspections at a minimum of once per week to ensure all prescribed avoidance and minimization measures are begin fully implemented.

- No Endangered/Threatened species shall be captured and relocated without expressed permission from the CDFW and/or USFWS.
- If at any time during construction of the project an Endangered/Threatened species enters the construction site or otherwise may be impacted by the project, all project activities shall cease. A CDFW/USFWS-approved biologist shall document the occurrence and consult with the CDFW and/or USFWS as appropriate.
- For all projects occurring in areas where Endangered/Threatened species may be present and are at risk of entering the project site during construction, exclusion fencing shall be placed along the project boundaries prior to start of construction (including staging and mobilization). The placement of the fence shall be at the discretion of the CDFW/USFWS-approved biologist. This fence shall consist of solid silt fencing placed at a minimum of 3 feet above grade and 2 feet below grade and shall be attached to wooden stakes placed at intervals of not more than 5 feet. The fence shall be inspected weekly and following rain events and high wind events and shall be maintained in good working condition until all construction activities are complete.
- All vehicle maintenance/fueling/staging shall occur not less than 100 feet from any riparian habitat or water body. Suitable containment procedures shall be implemented to prevent spills. A minimum of one spill kit shall be available at each work location near riparian habitat or water bodies.
- No equipment shall be permitted to enter wetted portions of any affected drainage channel.
- All equipment operating within streams shall be in good conditions and free of leaks. Spill containment shall be installed under all equipment staged within stream areas and extra spill containment and clean up materials shall be located in close proximity for easy access.
- If project activities could degrade water quality, water quality sampling shall be implemented to identify the pre-project baseline, and to monitor during construction for comparison to the baseline.

- If water is to be diverted around work sites, a diversion plan shall be submitted (depending upon the species that may be present) to the CDFW, RWQCB, USFWS, and/or NMFS for their review and approval prior to the start of any construction activities (including staging and mobilization). If pumps are used, all intakes shall be completely screened with wire mesh not larger than five millimeters to prevent animals from entering the pump system.
- At the end of each work day, excavations shall be secured with cover or a ramp provided to prevent wildlife entrapment.
- All trenches, pipes, culverts or similar structures shall be inspected for animals prior to burying, capping, moving, or filling.
- The CDFW/USFWS-approved biologist shall remove invasive aquatic species such as bullfrogs and crayfish from suitable aquatic habitat whenever observed and shall dispatch them in a humane manner and dispose of properly.
- If any federally and/or state protected species are harmed, the CDFW/USFWS-approved biologist shall document the circumstances that led to harm and shall determine if project activities should cease or be altered in an effort to avoid additional harm to these species. Dead or injured special status species shall be disposed of at the discretion of the CDFW and USFWS. All incidences of harm shall be reported to the CDFW and USFWS within 48 hours.
- (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

B-1(g) **Non-Listed Special Status Animal Species Avoidance and Minimization**. Several State Species of Special Concern may be impacted by projects implemented under the 2035 MTP/SCS. The ecological requirements and potential for impacts is highly variable among these species. Depending on the species identified in the BRA, several of the measures identified under B-1(f) shall be applicable to the project. In addition, measures shall be selected from among the following to reduce the potential for impacts to non-listed special status animal species:

- For non-listed special-status terrestrial amphibians and reptiles, coverboard surveys shall be completed within three months of the start of construction. The coverboards shall be at least four feet by four feet and constructed of untreated plywood placed flat on the ground. The coverboards shall be checked by a qualified biologist once per week for each week after placement up until the start of vegetation removal. All non-listed special status and common animals found under the coverboards shall be captured and placed in five-gallon buckets for transportation to relocation sites. All relocation

sites shall be reviewed by the project sponsor and shall consist of suitable habitat. Relocation sites shall be as close to the capture site as possible but far enough away to ensure the animal(s) is not harmed by construction of the project. Relocation shall occur on the same day as capture. CNDDB Field Survey Forms shall be submitted to the CFDW for all special status animal species observed.

- Pre-construction clearance surveys shall be conducted within 14 days of the start of construction (including staging and mobilization). The surveys shall cover the entire disturbance footprint plus a minimum 200 foot buffer, if feasible, and shall identify all special status animal species that may occur on-site. All non-listed special status species shall be relocated from the site either through direct capture or through passive exclusion (e.g., American badger). A report of the pre-construction survey shall be submitted to AMBAG, RTPA, and or the local jurisdiction for their review and approval prior to the start of construction.
- A qualified biologist shall be present during all initial ground disturbing activities, including vegetation removal to recover special status animal species unearthed by construction activities.
- Upon completion of the project, a qualified biologist shall prepare a Final Compliance report documenting all compliance activities implemented for the project, including the pre-construction survey results. The report shall be submitted within 30 days of completion of the project.
- If special status bat species may be present and impacted by the project, a qualified biologist shall conduct within 30 days of the start of construction presence/absence surveys for special status bats in consultation with the CDFW where suitable roosting habitat is present. Surveys shall be conducted using acoustic detectors and by searching tree cavities, crevices, and other areas where bats may roost. If active roosts are located, exclusion devices such as netting shall be installed to discourage bats from occupying the site. If a roost is determined by a qualified biologist to be used by a large number of bats (large hibernaculum), bat boxes shall be installed near the project site. The number of bat boxes installed will depend on the size of the hibernaculum and shall be determined through consultations with the CDFW. If a maternity colony has become established, all construction activities shall be postponed within a 500-foot buffer around the maternity colony until it is determined by a qualified biologist that the young have dispersed. Once it has been determined that the roost is clear of bats, the roost shall be removed immediately.

- (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

B-1(h) **Preconstruction Surveys for Nesting Birds.** For construction activities occurring during the nesting season (generally February 1 to September 15), surveys for nesting birds covered by the California Fish and Game Code and the Migratory Bird Treaty Act shall be conducted by a qualified biologist no more than 14 days prior to vegetation removal. The surveys shall include the entire segment disturbance area plus a 200 foot buffer around the site. If active nests are located, all construction work shall be conducted outside a buffer zone from the nest to be determined by the qualified biologist. The buffer shall be a minimum of 50 feet for non-raptor bird species and at least 150 feet for raptor species. Larger buffers may be required depending upon the status of the nest and the construction activities occurring in the vicinity of the nest. The buffer area(s) shall be closed to all construction personnel and equipment until the adults and young are no longer reliant on the nest site. A qualified biologist shall confirm that breeding/nesting is completed and young have fledged the nest prior to removal of the buffer. A report of these preconstruction nesting bird surveys shall be submitted to AMBAG, RTPA, and/or the local jurisdiction. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

B-1(j) **Worker Environmental Awareness Program (WEAP)**. Prior to initiation of construction activities (including staging and mobilization), all personnel associated with project construction shall attend WEAP training, conducted by a qualified biologist, to aid workers in recognizing special status resources that may occur in the project area. The specifics of this program shall include identification of the sensitive species and habitats, a description of the regulatory status and general ecological characteristics of sensitive resources, and review of the limits of construction and mitigation measures required to reduce impacts to biological resources within the work area. A fact sheet conveying this information shall also be prepared for distribution to all contractors, their employers, and other personnel involved with construction of the project. All employees shall sign a form documenting that they have attended the WEAP and understand the information presented to them. The form shall be submitted to AMBAG, RTPA, and/or the local jurisdiction to document compliance. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

B-1(k) **Tree Protection.** If it is determined that construction may impact trees protected by local agencies, the project sponsor shall procure all necessary tree removal permits. A tree protection and replacement plan shall be developed by a certified arborist as appropriate. The plan shall include, but would not be limited to, an inventory of trees to within the construction site, setbacks from trees and protective fencing, restrictions regarding grading and paving near trees, direction regarding pruning and digging within root zone of trees, and requirements for replacement and maintenance of trees. If protected trees will be removed, replacement tree plantings of like species in accordance with local agency standards, but at a minimum ratio of 2:1 (trees planted to trees impacted), shall be installed on-site or at an approved off-site location and a restoration and monitoring program shall be developed in accordance with B-1(d) and shall be implemented for a minimum of seven years or until stasis has been determined by certified arborist. If a protected tree shall be encroached upon but not removed, a certified arborist shall be present to oversee all trimming of roots and branches. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

Significance After Mitigation. Compliance with the above mitigation measures and all existing state, local and/or federal regulations would reduce impacts to a less than significant level.

Impact B-2 **Implementation of transportation improvements proposed and the land use scenario envisioned by the 2035 MTP/SCS may result in substantial adverse impacts to sensitive habitats, including federally protected wetlands. This impact would be Class II, *significant but mitigable*.**

Because of the programmatic nature of the 2035 MTP/SCS, a precise, project-level analysis of the specific impacts associated with individual transportation projects on sensitive habitats is not possible at this time. However, several of the projects that may be implemented under the 2014 MTP-SCS have the potential to impact sensitive habitats, as mapped on Figures 4.3-2(a) through 4.3-2(c) and 4.3-3(a) through 4.3-3(c). The extent and severity of the impacts is not known at this time, but some examples of potential impacts include, but are not limited to, construction and reconstruction/widening of bridges over rivers and creeks, including the Salinas River and Soquel Creek. These types of projects would have potential to impact riparian areas, as well as water bodies.

In addition, projects such as multiuse trails and bike paths may also involve development along riparian corridors. Riparian areas provide wildlife habitat, and movement corridors, enabling both terrestrial and aquatic organisms to move along river systems between areas of suitable habitat. Construction of the proposed facilities could have both direct impacts associated with the disturbance of riparian flora and fauna and indirect impacts caused by increased erosion and sedimentation. This could adversely affect downstream water quality.

Direct impacts to sensitive habitats include loss of habitat during construction of the project. Indirect impacts include habitat degradation caused by the introduction of invasive plant species incidentally from construction equipment and through selection of invasive landscape plants, as well as erosion of disturbed areas.

The future land use scenario envisioned by the 2305 MTP/SCS would encourage infill development and TOD. This land use scenario focuses future development within existing urbanized areas. As a result, future infill and TOD are likely to result in only limited impacts riparian habitat or sensitive habitat, though some parcels that have been relatively free of ground disturbance may contain remnants of sensitive native habitats such as Central Dune Scrub and Northern Maritime Chaparral. Furthermore, some areas of disturbed habitats, such as annual grasslands, may be considered sensitive due to the unique assemblage of native plants, such as areas dominated by native wildflower. Impacts would be potentially significant.

Mitigation Measures. For transportation projects under their jurisdiction, ~~AMBAG,~~ SCCRTC, SBtCOG, and TAMC shall implement and transportation project sponsor agencies can and should implement the following mitigation measures developed for the 2035 MTP/SCS program where applicable for transportation projects that result in impacts to sensitive habitats.Cities and counties in the AMBAG region can and should implement these measures, where relevant to land use projects implementing the 2035 MTP/SCS. ~~identified in Tables 4.3-4 to 4.3-6. Project-specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions. These measures can and should also be implemented for future infill and TOD pursuant to the 2035 MTP/SCS that would result in impacts to sensitive habitats. Mitigation measures B-2(c) and B-2(d) also address the potential for impacts due to invasive plant species.~~

B-2(a) **Wetland ~~Jurisdictional~~ Delineation**. If projects implemented under the 2035 MTP/SCS occur within or adjacent to wetland, drainages, riparian habitats, or other areas that may fall under the jurisdiction of the CDFW, USACE, RWQCB, and/or CCC, a qualified biologist shall complete a wetland ~~jurisdictional~~ delineation. The wetland ~~jurisdictional~~ delineation shall determine the extent of the jurisdiction for each of these agencies and shall be conducted in accordance with the requirement set forth by each agency. The result shall be a preliminary wetland ~~jurisdictional~~ delineation report that shall be submitted to the implementing agency, USACE, RWQCB, CDFW, and CCC, as appropriate, for review and approval. If jurisdictional areas are expected to be impacted, then the RWQCB would require a Waste Discharge Requirements (WDR) permit and/or Section 401 Water Quality Certification (depending upon whether or not the feature falls under federal jurisdiction). If CDFW asserts its jurisdictional authority, then a Streambed Alteration Agreement pursuant to Section 1600 *et seq.* of the California Fish and Game Code would also be required prior to construction within the areas of CDFW jurisdiction. If the USACE asserts its authority, then a permit pursuant to Section 404 of the Clean Water Act would likely be

required. The CCC would also require a coastal development permit for projects falling within its jurisdiction. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

B-2(b) **Wetland and Riparian Habitat Restored.** Impacts to jurisdictional wetland and riparian habitat shall be mitigated at a minimum ratio of 2:1 (acres of habitat restored to acres impacted), and shall occur on-site or as close to the impacted habitat as possible. A mitigation and monitoring plan shall be developed by a qualified biologist in accordance with mitigation measure B-1(d) above and shall be implemented for no less than five years after construction of the segment, or until the AMBAG/RTPA/local jurisdiction and/or the permitting authority (e.g., CDFW or USACE) has determined that restoration has been successful. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

B-2(c) **Landscaping Plan.** If landscaping is proposed for a specific project, a qualified biologist/landscape architect shall prepare a landscape plan for that project. This plan shall indicate the locations and species of plants to be installed. Drought tolerant, locally native plant species shall be used. Noxious, invasive, and/or non-native plant species that are recognized on the Federal Noxious Weed List, California Noxious Weeds List, and/or California Invasive Plant Council Lists 1, 2, and 4 shall not be permitted. Species selected for planting shall be similar to those species found in adjacent native habitats. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

B-2(d) **Invasive Weed Prevention and Management Program.** Prior to start of construction for each project, an Invasive Weed Prevention and Management Program shall be developed by a qualified biologist to prevent invasion of native habitat by non-native plant species. A list of target species shall be included, along with measures for early detection and eradication. All disturbed areas shall be hydroseeded with a mix of locally native species upon completion of work in those areas. In areas where construction is ongoing, hydroseeding shall occur where no construction activities have occurred within six (6) weeks since ground disturbing activities ceased. If exotic species invade these areas prior to hydroseeding, weed removal shall occur in consultation with a qualified biologist and in accordance with the restoration plan. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

Significance After Mitigation. Compliance with the above mitigation measures and existing State, local and/or federal regulations would reduce impacts to a less than significant level.

Impact B-3 **Implementation of transportation improvements proposed and the land use scenario envisioned by the 2035 MTP/SCS may interfere substantially with ~~impact~~ wildlife movement, including fish migration, and/or impede the use of a native wildlife nursery. This impact would be Class I, *significant and unavoidable*.**

Because of the programmatic nature of the 2035 MTP/SCS, a precise, project-level analysis of the specific impacts of individual transportation projects on wildlife movement and nurseries is not possible at this time. In general, the capital improvement projects envisioned in the 2035 MTP/SCS involve expansion of existing facilities in urbanized or already developed areas, rather than the construction of new or extension of existing infrastructure into undeveloped portions of each county. Several individual projects would; however, increase human activity in areas where sensitive biological resources could occur. In particular, proposed bridge, trail and bikeway, and new road construction projects could increase human activity in the vicinity of riparian areas, wildlife nurseries or corridors, and potentially sensitive valley habitats.

Direct impacts to wildlife include increased noise and human presence during construction, as well as increased trash which may attract predators to the project site and discourage wildlife use of surrounding natural habitat. Indirect impacts include invasion of natural habitats by non-native species and increased presence of humans and domestic animals over the long-term. In addition, transportation improvement projects could include new segments of fencing or walls that that could hinder wildlife movement.

The future land use scenario envisioned by the 2035 MTP/SCS would encourage infill development and TOD. This land use scenario focuses future development within existing urbanized areas. The majority of the future infill and TOD development projects would be on parcels that provide limited or no wildlife movement. However, even the elimination of limited wildlife movement could further isolate areas of native habitat occupied by both sensitive and common native wildlife species. Impacts related to transportation projects and impacts related to the future land use scenario envisioned by the 2035 MTP/SCS would be potentially significant.

Mitigation Measures. For transportation projects identified in Tables 4.3-4 to 4.3-6 under their jurisdiction, ~~AMBAC,~~ SCCRTC, SBtCOG, and TAMC shall implement and transportation project sponsor agencies can and should implement the following mitigation measures developed for the 2035 MTP/SCS program where wildlife movement could be substantially affected and/or use of native wildlife nurseries impeded. Cities and counties in the AMBAG region can and should implement these measures, where relevant to land use projects implementing the 2035 MTP/SCS. ~~transportation projects identified in Tables 4.3-4 to 4.3-6. Project-specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions. These measures can and should also be implemented for future infill and TOD pursuant to the 2035 MTP/SCS that would result in that would impact wildlife movement, including fish migration, and/or impede the use of native wildlife nursery.~~

B-3(a) **Fence and Lighting Design.** All projects including long segments of fencing and lighting shall be designed to minimize impacts to wildlife. Fencing shall not block wildlife movement through riparian or other natural habitat. Where fencing is required for public safety concerns, the fence shall be designed to permit wildlife movement by incorporating design features such as:

- A minimum 16 inches between the ground and the bottom of the fence to provide clearance for small animals;
- A minimum 12 inches between the top two wires, or top the fence with a wooden rail, mesh, or chain link instead of wire to prevent animals from becoming entangled; and
- If privacy fencing is required near open space areas, openings at the bottom of the fence measure at least 16 inches in diameter shall be installed at reasonable intervals to allow wildlife movement.
- If fencing must designed in such a manner that wildlife passage would not be permitted, wildlife crossing structures shall be incorporated into the project design as appropriate.
- Similarly, lighting installed as part of any project shall be designed to be minimally disruptive to wildlife. This may be accomplished through the use of hoods to direct light away from natural habitat, using low intensity lighting, and using a few lights as necessary to achieve the goals of the project.
- (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

B-3 (b) **Construction Best Management Practices.** The following construction Best Management Practices (BMPs) shall be incorporated into all grading and construction plans:

- Designation of a 20 mile per hour speed limit in all construction areas.
- All vehicles and equipment shall be parked on pavement, existing roads, and previously disturbed areas, and clearing of vegetation for vehicle access shall be avoided to the greatest extent feasible.
- The number of access routes, number and size of staging areas, and the total area of the activity shall be limited to the minimum necessary to achieve the goal of the project.
- Designation of equipment washout and fueling areas to be located within the limits of grading at a minimum of 100 feet from waters, wetlands, or other sensitive resources as identified by a qualified biologist. Washout areas shall be designed to fully contain polluted water and materials for subsequent removal from the site.
- Daily construction work schedules shall be limited to daylight hours only [consistent with mitigation measure N-1(a) (Construction Hours) in Section 4.11, Noise].

- Mufflers shall be used on all construction equipment and vehicles shall be in good operating condition.
- Drip pans shall be placed under all stationary vehicles and mechanical equipment.
- All trash shall be placed in sealed containers and shall be removed from the project site a minimum of once per week.
- No pets are permitted on project site during construction.
- (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

Significance after Mitigation. With implementation of the above mitigation measures, potential impacts to wildlife movement and nursery sites would be reduced, but disruption to wildlife movement is still anticipated. Thus, this impact would remain Class I, *significant and unavoidable*.

c. Specific MTP/SCS Projects That May Result in Impacts. Tables 4.3-4 to 4.3-6 identifies those projects that may create biological resource impacts, as discussed in Section 4.3.2.b. The individual projects listed below have potential to create significant biological impacts but would not necessarily do so. In particular, those projects that would not expand the footprint of the disturbed area are less likely to cause impacts to biological resources than those that would disturb previously undisturbed areas. A wide range of projects are considered herein as a conservative approach to identifying potential biological resources impacts associated with implementation 2035 MTP/SCS. A project ~~Additional~~ specific analysis will ~~need to~~ be conducted as ~~the~~ individual projects are planned ~~implemented~~ to determine the actual magnitude of impact. Mitigation measures discussed above could apply to these specific projects.

Table 4.3-4
2035 MTP/SCS Projects with Potential to Impact Biological Resources in Santa Cruz County

AMBAG ID	Project	Project Location	Impacts
SC-RTC24e-RTC	3 - Hwy 1: Park Avenue to Bay/Porter Auxiliary Lanes	PM 12.1 Park Avenue to PM 13.2 Bay/Porter Avenue	B1, B3
RTC 24fSC	2 - Hwy 1: 41st to Soquel Av Auxiliary Lanes and Chanticleer Bike/Ped Bridge	On State Route 1 - 41st Avenue to Soquel Avenue.	B1, B3
SC-RTC24g-RTC	4 - Hwy 1: State Park Dr. to Park Avenue. Auxiliary Lanes	On State Route 1 from State Park Dr. to Park Avenue	B1, B3
~~WAT 01SC~~ WAT 01A	~~Hwy 1/ Harkins Slough Road Interchange~~ Hwy 1/Harkins Slough Corridor Improvements	~~Hwy 1 at Harkins Slough Road. PM 2.3/2.5~~ Hwy 1/Harkins Slough Road	B1, B3
SC-CO-P26a-USC	41st Ave Improvements Phase 2 (Hwy 1 Interchange to Soquel Dr)	41st Avenue at State Route 1	B1, B3
SC 25SC	Hwy 1/9 Intersection Modifications	Hwy 1 (PM 17.5/17.7) at Hwy 9 (PM 0.0-0.2).	B1, B3
SC-SC-P81-SCR	Hwy 1/Mission Street at Chestnut/King/Union Intersection Modification	Radiates out approximately 500 ft from the intersection of Route 1 and Chestnut Streeton all approaches.	B1, B3
SC-CT-P45-CT	State Highway Preservation (bridge, roadway, roadside)	Countywide	B1, B2, B3
SC-CT-P46-CT	Collision Reduction & Emergency Projects	Countywide	B1, B3
SC-SC38-SCR	Hwy 1/San Lorenzo Bridge Replacement	Hwy 1 between Hwy 17 and Hwy 9	B1, B2, B3
SC-SC-P112-SCR	Mission (Hwy 1)/Laurel Intersection Modification	At intersection and approximately 250 south on Mission	B1, B3
SC-SC-P113-SCR	Mission (Hwy 1)/Swift Intersection Modification	At intersection and approximately 250 south on Swift	B1, B3
~~SC-CAP-P24-CAP~~	~~Pacific Cove Parking Lot expansion~~	~~Pacific Cove Parking Lot~~	~~B1, B3~~
SC-UC-P49a-UC	Coastal Marine Campus Roadway and Transit Improvements	UCSC	B1, B3
CAP 11SC ~~15SC~~	Clares Street Traffic Calming	Clares Street from Wharf Road to 41st Avenue	B1, B3
SC-CAP-P06-CAP	Citywide General Maintenance and Operations	Citywide	B1, B3
~~SC-CAP-P08-CAP~~	~~Bay Avenue/Capitola Avenue Improvements~~	~~Bay Avenue at Capitola Avenue~~	~~B1, B3~~
SC-CAP-P30-CAP	47th Avenue Traffic Calming and Greenway	Along 47th Ave from Capitola Rd to Portola Drive	B1, B3
SC-CAP-P32-CAP	Bay Avenue/Monterey Avenue Intersection Modification	Bay Avenue and Monterey Avenue Intersection	B1, B3
SC-CAP-P34-CAP	Capitola Village Enhancements: Capitola Avenue	Capitola Avenue from Stockton Avenue to Beulah Drive	B1, B3
SC-CAP-P40-CAP	46th/47th Avenue (Clares to Cliff Drive) Bike Lanes/Traffic Calming	46th/47th Avenue from Clares to Cliff Drive	B1, B3
SC-CAP-P41-CAP	Brommer/Jade/Topaz StreetBike Lanes/Traffic Calming (Western City Limit on Brommer to 47thAve)	Brommer/Jade/Topaz Streetfrom Western City Limit on Brommer to 47thAve	B1, B3
SC-CAP-P45-CAP	38th Avenue (Capitola Road to City limit to south) - Bike lanes/Traffic Calming	38th Avenue from Capitola Road to City limit to south	B1, B3
CO 62SC	Nelson Road PM 2.0 Storm Damage Repair	Nelson Road at PM 2.0	B1, B3

Table 4.3-4
2035 MTP/SCS Projects with Potential to Impact Biological Resources in Santa Cruz County

AMBAG ID	Project	Project Location	Impacts
CO 64SC	Aptos Village Plan Improvements	Soquel from 350 ft west of Aptos Creek Road to 150 ft east of Trout Gulch Road (1230 ft); Trout Gulch from Soquel to Valencia D8 Street(390 ft)	B1, B3
CO 65SC	17th Avenue Cape Seal (Brommer to East Cliff)	17th Avenue: Brommer to East Cliff (0.62mi)	B1, B3
CO 66SC	East Cliff Drive Cape Seal (12th-17th)	East Cliff Drive: 12th-17th (0.35mi)	B1, B3
CO 67SC	Empire Grade Chip Seal: City of SC limits to 130' N of Heller Drive	Empire Grade: City of SC limits to 130' N of Heller Drive (0.71mi)	B1, B3
CO 68SC	Green Valley Road Chip Seal: Devon Ln to Melody Ln (0.58 mi)	Green Valley Road: Devon Ln to Melody Ln (0.58 mi)	B1, B3
CO 69SC	Mt. Hermon Road Overlay: Graham Hill to 1000' N of Locatelli Ln	Mt. Hermon Road: Graham Hill to 1000' N of Locatelli Ln (1.34mi)	B1, B3
CO 70SC	Porter Street Overlay: Capitola Limits to 288' N/O Soquel Drive	Porter Street Overlay: City of Capitola Limits to 288' N/O Soquel Drive (0.34mi)	B1, B3
SC-CO-P02-USC	Airport Blvd Improvements (City limits to Green Valley Road)	Airport Blvd, from City of Watsonville to Green Valley Road (.57 mi)	B1, B3
SC-CO-P03-USC	Amesti Road Multimodal Improvements (Green Valley to Brown Valley Road)	Amesti Road, from Green Valley Road to Brown Valley Road (3.79 mi)	B1, B3
SC-CO-P04-USC	Bear Creek Road Improvements (Hwy 9 to Hwy 35)	Bear Creek Road from Hwy 9 to Hwy 35 (9.82 mi)	B1, B3
SC-CO-P08-USC	Corralitos Road Rehab and Improvements (Freedom Blvd to Hames Road)	Corralitos Road from Freedom Blvd to Hames Road (1.84 mi)	B1, B3
SC-CO-P09-USC	East Cliff Drive Improvements (32nd Avenue to Harbor)	East Cliff Drive, from City of Santa Cruz (harbor) to 32nd Avenue (2.03 mi)	B1, B3
SC-CO-P10-USC	Empire Grade Improvements	Empire Grade: City of SC to end (17.07 mi)	B1, B3
SC-CO-P11-USC	Freedom Blvd Multimodal Improvements (Bonita Drive to City of Watsonville)	Freedom Blvd, from Bonita Drive to city limits (8.52 miles)	B1, B3
SC-CO-P12-USC	Graham Hill Road Multimodal Improvements (City of SC to Hwy 9)	Graham Hill Road, from City of SC to State Hwy 9 (5.73 miles)	B1, B3
SC-CO-P13-USC	Green Valley Road Improvements	Green Valley Road from City of Watsonville to end (7.91mi)	B1, B3
SC-CO-P14-USC	La Madrona Drive Improvements (El Rancho Drive to City of Scotts Valley)	La Madrona Drive, from El Rancho Drive to City of Scotts Valley (2.1mi)	B1, B3
SC-CO-P17-USC	Sims Road Improvements (Graham Hill Road to La Madrona Drive)	Sims Road from Graham Hill Road to La Madrona Drive (.59mi)	B1, B3
SC-CO-P18-USC	Soquel Avenue Improvements (City of SC to Gross Road)	Soquel Avenue, from City of Santa Cruz to Gross Road (1.79mi)	B1, B3
SC-CO-P19-USC	Soquel Drive Improvements (Soquel Avenue to Freedom Blvd)	Soquel Drive., from Soquel Avenue to end/Freedom (7.33mi)	B1, B3
SC-CO-P20-USC	State Park Drive Improvements Phase 2	State Park Drive, full length	B1, B3

Table 4.3-4
2035 MTP/SCS Projects with Potential to Impact Biological Resources in Santa Cruz County

AMBAG ID	Project	Project Location	Impacts
SC-CO-P22-USC	Paul Sweet Road Improvements (Soquel Drive to end)	Paul Sweet Road from Soquel Drive to end (1.56 mi)	B1, B3
SC-CO-P24-USC	Lockwood Lane Improvements (Graham Hill Road to SV limits)	Lockewood Lane from Graham Hill Road to City of Scotts Valley	B1, B3
SC-CO-P26b-USC	Beach Road Improvements (City limits to Pajaro Dunes)	Beach Road (City limits to Pajaro Dunes)	B1, B3
SC-CO-P26d-USC	Brown Valley Road Improvements (Corralitos Road to Redwood Road)	Browns Valley Road (Corralitos Road to Redwood Road)	B1, B3
SC-CO-P26e-USC	Buena Vista Road Improvements (San Andreas to Freedom Blvd)	Buena Vista Road (San Andreas to Freedom Blvd)	B1, B3
SC-CO-P26g-USC	Casserly Road Improvements (Hwy 152 to Green Valley Road)	Casserly Road (Hwy 152 to Green Valley Road)	B1, B3
SC-CO-P26h-USC	Center Avenue/Seacliff Drive Improvements (Broadway to Aptos Beach Drive)	Center Avenue/Seacliff Drive (Broadway to Aptos Beach Drive)	B1, B3
SC-CO-P26i-USC	Chanticleer Avenue Improvements (Hwy 1 to Soquel Drive)	Chanticleer Avenue (Hwy 1 to Soquel Drive)	B1, B3
SC-CO-P26j-USC	East Zayante Road Improvements (Lompico Road to just before Summit Road)	East Zayante Road (Lompico Road to just before Summit Road [SC/SC County border)	B1, B3
SC-CO-P26k-USC	El Rancho Drive Improvements (Mt. Hermon/Hwy 17 to SC city limits)	El Rancho Drive(North Pymouth to Glenn Canyon/State Hwy 17)	B1, B3
SC-CO-P26l-USC	Eureka Canyon Road Improvements (Hames Road to Buzzard Lagoon Road)	Eureka Canyon Road (Hames Road to Buzzard Lagoon)	B1, B3
SC-CO-P26m-USC	Glen Canyon Road Improvements (Branciforte Drive to City of Scotts Valley)	Glen Canyon Road (Branciforte Drive to State Hwy 17)	B1, B3
SC-CO-P26n-USC	Glenwood Drive Improvements (Scotts Valley city limits to State Hwy 17)	Glenwood Drive. (Scotts Valley city limits to State Hwy 17)	B1, B3
SC-CO-P26p-USC	Mattison Ln Improvements (Chanticleer Avenue to Soquel Avenue)	Mattison Ln (Chanticleer Avenue to Soquel Avenue)	B1, B3
SC-CO-P26q-USC	Mt. Hermon Road Improvements (Lockhart Gulch to Graham Hill Road)	Mt Hermon Road (Lockwood Ln to Felton Empire Grade)	B1, B3
SC-CO-P26r-USC	Porter Street Improvements (Soquel Drive to Paper Mill Road)	Porter Street(Soquel Drive to Paper Mill Road)	B1, B3
SC-CO-P26s-USC	Seascape Blvd Improvements (Sumner Avenue to San Andreas Road)	Seascape Blvd (Sumner Avenue to San Andreas Road)	B1, B3
SC-CO-P26u-USC	Summit Road Improvements	Summit Road (Soquel-SJ Summit Road	B1, B3
SC-CO-P27a-USC	37th/38th Avenue (Brommer to Eastcliff) Multimodal Circulation Improvements and Greenway	38th Avenue (RR to E. Cliff Drive)	B1, B3
SC-CO-P27c-USC	Corcoran Avenue Improvements (Alice Streetto Felt St)	Corcoran Avenue (Alice Street to Felt St)	B1, B3
SC-CO-P27e-USC	Main Street Improvements (Porter Street to Cherryvale Avenue)	Main Street (Porter Street to Cherryvale Avenue)	B1, B3

Table 4.3-4
2035 MTP/SCS Projects with Potential to Impact Biological Resources in Santa Cruz County

AMBAG ID	Project	Project Location	Impacts
SC-CO-P27f-USC	Mill Street Improvements (entire length)	Mill Street (Hwy 9- Hwy 9)	B1, B3
SC-CO-P27h-USC	Paulsen Road Improvements (Green Valley Road to Whiting Road)	Paulsen Road (Green Valley Road to Casserly Road)	B1, B3
SC-CO-P27i-USC	Pinehurst Drive Improvements (entire length)	Pinehurst Drive (entire length)	B1, B3
SC-CO-P27k-USC	Spreckels Drive Improvements (Soquel Drive to Aptos Beach Drive)	Spreckels Drive (small portion off of Aptos Beach Drive)	B1, B3
SC-CO-P27l-USC	Winkle Avenue Improvements (entire length from Soquel Drive)	Winkle Avenue (entire length from Soquel Drive)	B1, B3
~~SC-CO-P28a-USC~~	~~Bean Creek Road Improvements (Scotts Valley City Limits to Glenwood Drive)~~	~~Bean Creak Road (Scotts Valley Road to Glenwood Drive)~~	~~B1, B3~~
SC-CO-P28c-USC	Commercial Way Improvements (Mission Drive. to Soquel Drive.)	Commercial Way (Mission Drive. to Soquel Drive.)	B1, B3
SC-CO-P28d-USC	Felton Empire Road Improvements (entire length to State Hwy 9)	Felton Empire Road (entire length to State Hwy 9)	B1, B3
SC-CO-P28f-USC	Pine Flat Road Improvements (Bonny Doon Road to Empire Grade Road)	Pine Flat Road (Bonny Doon Road to Empire Grade Road)	B1, B3
SC-CO-P28g-USC	Soquel-Wharf Road Improvements (Robertson Street to Porter St)	Soquel Wharf Road (Robertson Street to Porter St)	B1, B3
SC-CO-P28h-USC	Thurber Ln Improvements (entire length)	Thurber Ln (entire length)	B1, B3
SC-CO-P28i-USC ~~CO-52SC~~	Varni Road Improvements (Corralitos Road to Amesti Road)	Varni Road (Corralitos Road to Amesti Road)	B1, B3
SC-CO-P29e-USC	Maciel Avenue Improvements (Capitola Road to Mattison Ln)	Maciel Avenue.(Capitola Road to Mattison Ln)	B1, B3
SC-CO-P29f-USC	Paul Minnie Avenue Improvements (Rodriguez Street to Soquel Avenue)	Paul Minnie Avenue (Rodriguez Street to Soquel Avenue)	B1, B3
SC-CO-P30d-USC	Cabrillo College Drive Improvements (Park Avenue to Twin Lakes Church)	Cabrillo College Drive (Park Avenue to Twin Lakes Church)	B1, B3
SC-CO-P30n-USC	Rio Del Mar Blvd Improvements (Esplanade to Soquel Drive)	Rio Del Mar Blvd.(Esplanade to Soquel Drive)	B1, B3
SC-CO-P31g-USC	Opal Cliff Drive Improvements (41st Av to Captiola City Limits)	Opal Cliff Drive (41st Avenue to Capitola City Limits)	B1, B3
SC-CO-P33d-USC	Harper Street Improvements (entire length-El Dorado Avenue to ECM)	Harper Street (entire length-El Dorado Avenue to ECM)	B1, B3
SC-CO-P35-USC	Countywide General Road Maintenance and Operations	County roads as needed	B1, B3
SC-CO-P36-USC	Soquel-San Jose Road Improvements (Paper Mill Road to Summit Road)	Soquel-SJ Road (Paper Mill Road to Summit Road)	B1, B3
SC-CO-P62-USC	Soquel Drive Road Improvements (Robertson Street to Daubenbiss)	Soquel Drive between Robertson St and Daubenbiss	B1, B3

Table 4.3-4
2035 MTP/SCS Projects with Potential to Impact Biological Resources in Santa Cruz County

AMBAG ID	Project	Project Location	Impacts
SC-SC-37-SCR	Murray Street Bridge Replacement	Murray Street approx 0.20 mi east of of Seabright Avenue (at Yacht Harbor)	B1, B2, B3
SC 42SC	Soquel Avenue at Frederick Street Intersection Modifications	Soquel Avenue at Frederick	B1, B3
SC-SC-P07-SCR	Citywide Operations and Maintenance	Citywide	B1, B3
SC-SC-P100-SCR	Seabright/Murray Traffic Signal Modifications	At intersection of Seabright and Murray	B1, B3
SC-SC-P101-SCR	Swift/Delaware Intersection Roundabout or Traffic Signal	At intersection of Swift and Delaware	B1, B3
SC-SC-P104-SCR	Measure H Road Projects	Citywide	B1, B3
SC-SC-P109-SCR	Bay/High Intersection Modification	At intersection and approximately 250 feet in each direction	B1, B3
SC-SC-P110-SCR	River (Rte 9)/Fern Intersection Modification	At intersection and approximately 250 feet in each direction	B1, B3
SC-SC-P111-SCR	River (Rte 9)/Encinal Intersection Modification	At intersection and approximately 250 feet in each direction	B1, B3
SC-SC-P114-SCR	King/Laurel Intersection Modification	At intersection and approximately 100 feet in each direction	B1, B3
SC-SC-P115-SCR	North Branciforte/Water Intersection Modification	At intersection and approximately 250 feet in each direction	B1, B3
SC-SC-P116-SCR	RiverSt/River Street South Intersection Modification	At intersection and approximately 250 feet in each direction	B1, B3
SC-SC-P13-SCR	Riverside Avenue/Second Street Intersection Modification.	Intersection of Riverside and Second	B1, B3
SC-SC-P66-SCR	Ocean Street Widening from Soquel to East Cliff	Ocean Street between Soquel Avenue and San Lorenzo Blvd	B1, B3
SC-SC-P73-SCR	Neighborhood Traffic Management Improvements	citywide	B1, B3
SC-SC-P77-SCR	Bay Street Corridor Modifications	Bay Street at Mission Street to Escalona	B1, B3
SC-SC-P83-SCR	West Cliff/Bay Street Modifications	Bay Street at West Cliff Drive	B1, B3
SC-SC-P84-SCR	Ocean Street Streetscape and Intersection, Water to Soquel	Ocean Street between Water and Soquel	B1, B3
SC-SC-P86-SCR	Ocean Street Streetscape and Intersection, Plymouth to Water	Ocean Street between Plymouth and Water S	B1, B3
SC-SC-P90-SCR	High St/Moore Street Intersection Modification	Intersection of High Street and Moore Street	B1, B3
SC-SC-P91-SCR	Shaffer Road Widening and Railroad Crossing	Shaffer Road from Delaware to the intersection of the Union Pacific Railroad line and Shaffer Road	B1, B3
SC-SC-P93-SCR	Beach/Cliff Intersection Signalization	Beach Street and Cliff Street	B1, B3
SC-SC-P96-SCR	Bay/California Traffic Signals	Bay Street and California Avenue/Street	B1, B3

Table 4.3-4
2035 MTP/SCS Projects with Potential to Impact Biological Resources in Santa Cruz County

AMBAG ID	Project	Project Location	Impacts
SC-SC-P97-SCR	Laurent/High Intersection Improvements	Laurent and High Street intersection	B1, B3
SC-SC-P99-SCR	Seabright/Water Intersection Improvements	Seabright and Water intersection	B1, B3
~~SC-SV-P15-SCV~~	~~El Pueblo Road Extensions~~		~~B1, B3~~
SC-CO-P28a-USC	Bean Creek Rd Improvements (Scotts Valley City Limits to Glenwood Dr)	Bean Creak Rd (Scotts Valley Rd to Glenwood Dr)	B1, B3
SC-SV-P28-SCV	Neighborhood Traffic Calming	Countywide	B1, B3
~~SC-SV-P43-SCV~~	~~Mt. Hermon Road/Scotts Valley Drive. Intersection Operations Improvement Project~~		~~B1, B3~~
SC-SV-P45-SCV	Scotts Valley Town Center Bicycle/Pedestrian Facilities	Scotts Valley Town Center	B1, B3
SC-SV-P47-SCV	Mt Hermon/Scotts Valley - Transit Queue Jump	Mt. Herman and Scotts Valley Drive Intersection	B1, B3
SC-SV-P50-SCV	Mt Hermon/Scotts Valley - Intersection Improvements for Bicycle Treatment	Mt. Herman and Scotts Valley Drive	B1, B3
SC-SV-P51-SCV	Mt. Hermon Road/Town Center Entrance Traffic Signal	Mount Hermon Road at intersection of new Town Center entrance	B1, B3
SC-SV-P52-SCV	Kings Village Road/Town Center Entrance Traffic Signal	Intersection of Kings Village Road and new entrance to Town Center located opposite the main entrance to transit center	B1, B3
SC-UC-P59-UC	UCSC Lump Sum Roadway Maintenance	UCSC	B1, B3
SC-UC-P66-UC	Transportation-Related Stormwater Management Projects	UCSC	B1, B3
SC-UC-P68-UC	Parking Management Technology Improvements	UCSC	B1, B3
SC-VAR-P14-VAR	Lump Sum Bridge Preservation	Countywide	B1, B2, B3
SC-VAR-P26-VAR	Park and Ride Lot Development	Countywide, with emphasis on southern sections of county	B1, B3
WAT 39SC	Freedom Blvd Reconstruction (Broadis Street to Alta Vista Avenue)	Freedom Boulevard from Broadis Street to Alta Vista Avenue (0.8mi)	B1, B3
SC-WAT-P06-WAT	Citywide General Maintenance and Operations	Throughout the entire city	B1, B3
SC-WAT-P11-WAT	Freedom Blvd Improvements (Green Valley Road to Compton Terrace)	Freedom Blvd. between Green Valley Road and Compton Terrace	B1, B3
SC-WAT-P13-WAT	Neighborhood Traffic Plan Implementation	Citywide	B1, B3
SC-WAT-P15-WAT	Citywide Pedestrian Facilities	Citywide	B1, B3
WAT 38SC	Airport Blvd (Freedom Blvd to City Limits)	Airport Blvd from Freedom Boulevard to City limits	B1, B3
SC-WAT-P31-WAT	Ohlone Parkway Improvements - Phase 2 (UPRR to West Beach)	Ohlone Pkwy from UPRR to West Beach	B1, B3
SC-WAT-P35-WAT	Bridge Maintenance	Citywide	B1, B2, B3

Table 4.3-4
2035 MTP/SCS Projects with Potential to Impact Biological Resources in Santa Cruz County

AMBAG ID	Project	Project Location	Impacts
SC-WAT-P36-WAT	Alley Improvements	Citywide	B1, B3
SC-WAT-P37-WAT	Pennsylvania Drive/Clifford Street Roundabout	Pennsylvania Drive & Clifford Street intersection	B1, B3
SC-WAT-P39-WAT	East Fifth Street (Main Street to Lincoln Street)	East Fifth Street from Main Street to Lincoln Street	B1, B3
SC-WAT-P40-WAT	Main Street Modifications (500 Block: Fifth Street to East Lake Avenue)	Main Street from Fifth Street to East Lake Avenue	B1, B3
SC-WAT-P44-WAT	Green Valley Road Modifications (Struve Slough to Freedom Blvd)	Green Valley Road from Struve Slough to Freedom Blvd	B1, B2, B3
SC-WAT-P45-WAT	Green Valley Road Modifications (Freedom Blvd to City Limit)	Green Valley Road from Freedom Blvd to City Limit	B1, B3
SC-WAT-P47-WAT	Main Street Modifications (City Limit to Lake Avenue)	Main Street from City Limit to Lake Avenue	B1, B3
SC-RTC-P02-RTC	Rail Transit: Watsonville-Santa Cruz Corridor	Santa Cruz Branch Rail line	B1, B3
SC-MTD-13-MTD	Santa Cruz Metro Center/Pacific Station Renovation		B1, B3
MTD 19SC	Bus Stop Upgrades	Santa Cruz County	B1, B3
SC-MTD-P20-MTD	Bikes on Buses Expansion	Systemwide	B1, B3
SC-MTD-P46-MTD	Watsonville Transit Center Improvements	Watsonville	B1, B3
SC-RTC27a-RTC	Monterey Bay Sanctuary Scenic Trail Network - Design, Environmental Clearance, and Construction	Segments and prioritization to be determined through Master Plan. May include trail segments adjacent to the Santa Cruz Branch Rail Line. Will link to trail network in Monterey County and the California Coastal Trail	B1, B3
SC-RTC27b-RTC	Monterey Bay Sanctuary Scenic Trail Network - Maintenance	MBSST Trail Network	B1, B3
SC-RTC27c-RTC	Monterey Bay Sanctuary Scenic Trail Network - Trail Management Program	MBSST Trail Network	B1, B3
CAP 15SC	Park Avenue Sidewalks	Park Avenue - Wesley Street to McCormick Avenue	B1, B3
SC-CAP-P03-CAP	Upper Capitola Avenue Improvements	Capitola Avenue and Hill Street	B1, B3
SC-CAP-P04b-CAP	Capitola Village Multimodal Enhancements - Phase 2/3	Capitola Village along the Esplanade, Stockton Avenue, San Jose Avenue and Capitola Avenue	B1, B3
SC-CAP-P12-CAP	Monterey Avenue Multimodal Improvements	Monterey Avenue from Park Avenue to Washburn Avenue	B1, B3
SC-CAP-P16-CAP	Clares Street Pedestrian Crossing west of 40th Avenue	Clares Street 0.20 Mile west of 40th Avenue	B1, B3
SC-CAP-P27-CAP	Wheelchair Access Ramps	Citywide	B1, B3
SC-CAP-P42-CAP	Clares Street Bike Lanes/Sharrows (Capitola Road to 41st Avenue)	Clares Street from Capitola Road to 41st Avenue	B1, B3

Table 4.3-4
2035 MTP/SCS Projects with Potential to Impact Biological Resources in Santa Cruz County

AMBAG ID	Project	Project Location	Impacts
SC-CAP-P43-CAP	Clares Street/41st Avenue Bicycle Intersection Improvement	Clares Street/41st Avenue	B1, B3
SC-CAP-P44-CAP	Gross/41st Avenue Bicycle Intersection Improvement	Gross/41st Avenue	B1, B3
SC-CAP-P46-CAP	40th Avenue (at Deanes Ln) Bike/Ped connection	40th Avenue at Deanes Ln	B1, B3
SC-CAP-P47-CAP	41st Avenue (Soquel to Portola) Crosswalks	41st Avenue from Soquel Drive to Portola Drive	B1, B3
SC-CAP-P48-CAP	Capitola Mall (Capitola Road to Clares) Bike Path	Capitola Mall Parking lot from Capitola Road to Clares Road	B1, B3
SC-CAP-P51-CAP	Citywide Sidewalk Program	Citywide	B1, B3
SC-CAP-P52-CAP	Citywide Bike Projects	Citywide	B1, B3
CO 42bSC	Green Valley Road Pedestrian Safety Project	Green Valley Road from Airport Blvd to Amesti Road	B1, B3
SC-CO-P41-USC	Countywide Access Ramps	Countywide	B1, B3
SC-CO-P38-USC	Pajaro River Bike Path System	From Green Valley Road To Thurwatcher Road on Levee. Thurwatcher Road from Monterey County line to West Beach Road. Beach Road from Thurwatcher Road to Plam Beach State Park	B1, B2, B3
SC-CO-P41-USC	Countywide Sidewalks	Countywide	B1, B3
SC-CO-P46a-USC	San Lorenzo Valley Trail: Hwy 9 - Downtown Felton Bike Lanes & Sidewalks	Graham Hill Road to Henry Cowell State Park Entrance	B1, B3
SC-CO-P46b-USC	San Lorenzo Valley Trail: Hwy 9 - North Felton Bike Lanes & Sidewalks	Graham Hill Road to North Felton	B1, B3
SC-CO-P50-USC	East Cliff Drive Pedestrian Pathway (5th-7th Avenue)	E. Cliff (5th-7th)	B1, B3
SC-CO-P74-USC	Searidge Drive (Mar Vista to State Park) Bike Improvements	Searidge Drive from Mar Vista to State Park	B1, B3
SC-CO-P75-USC	Rancho Del Mar Shopping Center (Rail Line to State Park) bike/ped path	Rail Line to State Park	B1, B3
SC-CO-P79-USC	41st Avenue (Portola to Eastcliff) Bike/Ped Enhancement	41st Avenue from Portola to Eastcliff	B1, B3
SC-CO-P80-USC	Portola Avenue (26th to 41st) Bike/Ped Enhancement	Portola Avenue from 26th to 41st	B1, B3
SC-CO-P81-USC	Brommer and Portola Bike/Ped Connection (at Thompson and Vanessa Ln)	Thompson and Vanessa Lane	B1, B3
~~SC-MTD-P39-WAT~~	~~Riverside Bike Facilities~~	~~Riverside Drive from Lee to Lakeview~~	~~B1, B3~~
SC-MTD-P49-MTD	Pacific Station - Bike Station	Pacific Avenue	B1, B3

Table 4.3-4
2035 MTP/SCS Projects with Potential to Impact Biological Resources in Santa Cruz County

AMBAG ID	Project	Project Location	Impacts
SC-RTC16-RTC	Bike Parking Subsidy Program	Key destinations throughout the county which generate a high number of trips throughtout the county such as downtown areas, shopping areas, government centers, and education campuses	B1, B3
RTC 30SC	Hwy 1 Bicycle/Ped Overcrossing at Mar Vista	Over Hwy 1 at Mar Vista Drive connecting Seacliff and Aptos	B1, B3
RTC 32SC	Bicycle Route Signage Countywide	Countywide	B1, B3
~~SC-07SC~~	~~Broadway-Brommer Bike/Ped Path (Arana Gulch Multiuse Trail)~~	~~Broadway/Frederick to Brommer Street/7th Avenue. through Arana Gulch~~	~~B1, B3~~
SC-SC23-SCR	West Cliff Path Minor Widening (Lighthouse to Swanton)	Lighthouse to Swanton	B1, B3
SC 46SC	Branciforte Creek Bike/Ped Crossing	The east bank of the San Lorenzo River Pathway between Soquel Avenue and San Lorenzo Park	B1, B2, B3
SC-SC-P09-SCR	Sidewalk Program	Citywide	B1, B3
SC-SC-P105-SCR	Market Street Sidewalks and Bike Lanes	Avalon to Goss	B1, B3
SC-SC-P106-SCR	Arana Gulch Bicycle/Pedestrian Connection (at Agnes Street)	Agnes Street to Broadway-Brommer/Arana Gulch path	B1, B3
SC-SC-P118-SCR	Mott Street (at Hiawatha) Bike/Ped Connections	Cayuga Street at Hiawatha Avenue	B1, B3
SC-SC-P119-SCR	Soquel/Water (Branciforte to Morrissey) Crosswalks	Soquel/Water from Branciforte to Morrissey	B1, B3
SC-SC-P120-SCR	Ocean Street and San Lorenzo River Levee Bike/Ped Connections (Felker, Kennan, Blain, Barson Streets)	Felker, Kennan, Blain, and Barson Streets	B1, B3
SC-SC-P121-SCR	Riverside Avenue (Barson to Soquel)	Riverside Avenue from Barson to Soquel	B1, B3
SC-SC-P123-SCR	Soquel/Branciforte/Water (San Lorenzo River to Branciforte) Bike Lane Treatments	Soquel/Branciforte/Water from San Lorenzo Rivers to Branciforte	B1, B2, B3
SC-SC-P21-SCR	Brookwood Drive Bike and Pedestrian Path	Brookwood Drive between Prospect Heights Drive and Paul Sweet Road	B1, B3
SC-SC-P22-SCR	Chestnut Street Pathway	The south end of Chestnut Street to the path under West Cliff Bridge, crossing the RR tracks twice	B1, B3
SC-SC-P23-SCR	Delaware Avenue Bike Lanes	Delaware Avenue between Swift and Seaside and Woodrow and Columbia	B1, B3
~~SC-SC-P28-SCR~~	~~Mission Street Extension Pathway~~	~~Mission Street Extension between Shaffer Road and Natural Bridges Drive~~	~~B1, B3~~
SC-SC-P29-SCR	Morrissey Blvd. Bike Path over Hwy 1	The west side of the Morrissey Blvd. overpass between Fairmount Avenue and the south end of Pacheco Avenue at Morrissey Blvd/Rooney Street	B1, B3

Table 4.3-4
2035 MTP/SCS Projects with Potential to Impact Biological Resources in Santa Cruz County

AMBAG ID	Project	Project Location	Impacts
SC-SC-P30-SCR	Murray Street to Harbor Path Connection	The railroad right-of-way adjacent to the Murray Street Bridge down to the Yacht Harbor Pathways	B1, B3
SC-SC-P35-SCR	San Lorenzo River Levee Path Connection	The southern end of the east bank of the San Lorenzo River Pathway to East Cliff Drive at the Railroad Bridge	B1, B2, B3
SC-SC-P47-SCR	Chestnut Street Bike Lanes	Chestnut Street between Laurel Street to south end of Chestnut Street near Neary Lagoon Park entrance	B1, B3
SC-SC-P59-SCR	King Street Bike Lanes (entire length)	King Street between Mission Street (north end) and Mission Street (south end)	B1, B3
SC-SC-P69-SCR	Seabright Avenue Bike Lanes (Pine-Soquel)	Seabright Avenue between Pine Street and Soquel	B1, B3
SC-SC-P95-SCR	Branciforte Creek Pedestrian Path Connections	Branciforte Creek from Ocean-Lee-Market-May Streets	B1, B3
SC-SV-18A-SCV	Green Hills Road Bike Lanes	Green Hills Road (GH Estate to Sequoia)	B1, B3
SC-SV-P05-SCV	Citywide Sidewalk Program	various, as listed in the Ped Master Plan	B1, B3
SC-SV-P06-SCV	Citywide Access Ramps	Citywide	B1, B3
SC-SV-P21-SCV	Lockwood Ln Pedestrian Signal Near Golf Course	Lockewood Lane at Rolling Green driveway to 250 Lockwood Lane sidewalk	B1, B3
SC-SV-P30A-SCV	Mt Hermon Road Sidewalk Connections	Kings Village Road to Skypark Drive	B1, B3
SC-SV-P32-SCV	Bluebonnet Lane Bike Lanes	Bluebonnet (Bean Ck, through Skypark to Mt. Hermon/Lockewood)	B1, B3
SC-SV-P35-SCV	Bean Creek Road Sidewalks (SVMS to Blue Bonnet)	Bean Creek Road (Scotts Valley Middle School to Blue Bonnet)	B1, B3
SC-SV-P39-SCV	Glenwood Drive Bike Lanes	Glenwood Drive from SVHS to City limits	B1, B3
SC-SV-P40-SCV	Lockwood Lane Sidewalk and Bike Lanes	Lockwood Ln b/t Mt. Hermon and City limits	B1, B3
SC-SV-P49-SCV	Mt Hermon Road and Scotts Valley Drive - Crosswalks	Mt. Hermon Road and Scotts Valley Drive	B1, B3
SC-SV-P54-SCV	Mt Hermon Road/ Spring Hill Road Pedestrian Intersection Improvements	Mt. Hermon Road at Spring Hill Road	B1, B3
SC-UC-P33-UC	UCSC Bicycle Parking Improvements	UCSC campus	B1, B3
SC-UC-P38-UC	Pedestrian Directional Map/Wayfinding System	UCSC	B1, B3
SC-UC-P49b-UC	Coastal Marine Campus Bike Improvements	UCSC	B1, B3
SC-UC-P49c-UC	Coastal Marine Campus Pedestrian Improvements	UCSC	B1, B3
SC-UC-P60-UC	Great Meadow Bike Path Safety Improvements	UCSC	B1, B3
SC-VAR-P03-VAR	Bicycle Sharrows	Needs identified at: Clares (41st-Capitola Road), N. Pacific, Wharf Road (Cap Road-Clares)	B1, B3

Table 4.3-4
2035 MTP/SCS Projects with Potential to Impact Biological Resources in Santa Cruz County

AMBAG ID	Project	Project Location	Impacts
SC-VAR-P05-VAR	Bike-Activated Traffic Signal Program	Intersections throughout the county	B1, B3
SC-VAR-P08-VAR	Safe Paths of Travel	Countywide	B1, B3
SC-VAR-P29-VAR	Public/Private Partnership Bicycle and Pedestrian Connection Plan	Countywide	B1, B3
SC-VAR-P31-VAR	Uncontrolled Pedestrain Crossing Improvements	Countywide	B1, B3
SC-VAR-P32-VAR	Bicycle Treatments for intersection improvements (ADD)	Countywide	B1, B3
SC-WAT-P42-WAT	Pajaro Valley High School Connector Trail	Trail from Airport Blvd at Hwy 1 to Pajaro Valley High School	B1, B3
SC-WAT-P43-WAT	Upper Watsonville Slough Trail	Trail from Main St to Freedom Blvd along upper Watsonville Slough	B1, B3
SC-WAT-P46-WAT	Lower Watsonville Slough Trail	Trail from Ohlone Parkway to Hwy 1 along lower Watsonville Slough	B1, B3
SC-WAT-P49-WAT	2nd/Maple Avenue (Lincoln to Walker) Traffic Calming and Greenway	2nd/Maple Ave from Lincoln to Walker	B1, B3
SC-WAT-P50-WAT	5th St (Lincoln to Walker) - Traffic Calming and Greenway	5th St from Lincoln to Walker	B1, B3
SC-WAT-P51-WAT	Rodriguez Street (Main Street to Riverside) - Buffered Bike Lane	Rodriguez St from Freedom to Riverside	B1, B3
SC-WAT-P52-WAT	Union/Brennan (Freedom to Riverside) - Sharrows	Union/Brennan from Freedom to Riverside	B1, B3
SC-WAT-P53-WAT	Kearney/Rodriguez - Ped Crossing	Kearney/Rodriguez	B1, B3
SC-WAT-P54-WAT	Main Street - 3 HAWK Signals	Main Street	B1, B3
SC-WAT-P55-WAT	Main/Rodriguez/Union/Brennan (Freedom to Riverside) - Crosswalks	Main/Rodriguez/Union/Brennan from Freedom to Riverside	B1, B3
SC-WAT-P57-WAT	East Lake/Madison - ped crossing	East Lake/Madison	B1, B3
SC-WAT-P58-WAT	Main Street (Freedom to Riverside) Ped/Bike Enhancements	Main Street from Freedom to Riverside	B1, B3
SC-WAT-P59-WAT	Downtown Watsonville Universal Streets	Downtown Watsonville	B1, B3
SC-WAT-P61-WAT	Freedom Blvd (Green Valley Road to Lincoln) Bicycle and Pedestrian Improvements	Freedom Blvd from Green Valley Rd to Davis	B1, B3
SC-WAT-P62-WAT	Freedom Blvd Pedestrian Crossings (Airport to Lincoln)	Freedom Blvd from Airport to Lincoln	B1, B3
SC-AIR-P01-WAT	Lump Sum Watsonville Airport Capital Projects	Watsonville Municipal Airport	B1, B3
SC-AIR-P02-WAT	Watsonville Airport Operations	Watsonville Municipal Airport	B1, B3
SC-RTC-P26-VAR	Countywide Pedestrian Signal Upgrades	countywide, on most heavily traveled pedestrian corridors	B1, B3

Table 4.3-5
2035 MTP/SCS Projects with Potential to Impact Biological Resources In Monterey County

AMBAG ID	Project	Project Location	Impact
MON-CT008-UM	SR1 Operational Improvements	On SR 1 near Carmel by-the-Sea between Rio Road and Carmel Valley Road	B1, B3
MON-CT011-CT	SR 68 - Commuter Improvements	Between Toro Park and Rte 1	B1, B3
MON-CT017-CT	SR 68 - (Holman Hwy - access to Community Hospital)	SR Holman Highway 68 (between SR 1 and Community Hospital of Monterey Peninsula)	B1, B3
MON-CT022-CT	SR 156 - Widening (Phase 2)	On SR 156 at US 101 in Prunedale	B1, B3
MON-CT030-SL	US 101 - Salinas Corridor	On US 101 from South of Airport Boulevard to Boronda Road	B1, B3
MON-CT031-CT	US 101 - South County Frontage Roads	US 101 between Harris Road/Abbott Street and Soledad	B1, B3
MON-CT036-CT	SR 156 - West Corridor (Phase I)	On SR 156 West from Castroville to US 101	B1, B3
MON-CT044-SL	US 101 - Harris Road Interchange	US 101 at Harris Road.	B1, B3
MON-CT045-MA	SR 1 - Monterey Road Interchange	On SR 1 between Fremont and Lightfighter Drive near Monterey Road	B1, B3
MON-MRY027-MY	SR 68 - SR 1 ~~Roundabout~~ Interchange Improvements	On SR 68 at SR 1 in Monterey	B1, B3
MON-SOL002-SO	US 101 - North Interchange	US 101 and Front Street	B1, B3
MON-SOL003-SO	US 101 - South Interchange	US 101 and Front Street/Moranda	B1, B3
~~MON-SOL005-SO~~	~~SR 146 - Bypass to US 101~~	~~Near Soledad between Metz Road and US 101~~	~~B1, B3~~
MON-SOL014-SO	SR 146 Bypass	From SR 146 (Metz Road) to Nestles Road	B1, B3
MON-GRN006-GR	Thorne Road roadway realignment at US 101	US 101	B1, B3
MON-GRN022-GR	Pine Avenue Overcrossing at US-101	US 101 at Pine Avenue	B1, B3
MON-MYC227-UM	Pine Canyon Road Improvements	Central Salinas Valley	B1, B3
MON-MYC153-UM	SR 68 - Corral de Tierra	On SR 68 at Corral de Tierra Road	B1, B3
MON-SNS122-SL	US 101/Sanborn/Elvee	US 101/Elvee/Sanborn	B1, B3
MON-CT040-CT	State Highway Operations and Protection Program (SHOPP)	Monterey County	B1, B3
MON-GRN003B-GR	US 101 Widen Oak Road Bridge	At US 101	B1, B3
MON-KCY017-CK	Bypass (Lon Oak connection)	Connection from Bypass/San Antionio to First	B1, B3
MON-MAR084-MA	SR 1 - Reservation Road	At Reservation Road and SR 1 Ramps	B1, B3
MON-PGV010-PG	SR 68 - Bishop to Sunset	SR 68 - Bishop to Sunset	B1, B3
800	US 101/Boronda Improvements	US 101/Boronda	B1, B3
MON-SNS126-SL	US 101/Kern Street TS	US 101/Kern	B1, B3

Table 4.3-5
2035 MTP/SCS Projects with Potential to Impact Biological Resources In Monterey County

AMBAG ID	Project	Project Location	Impact
MON-MAR001-MA	Marina-Salinas Corridor	Between Marina and	B1, B3
		Salinas along Davis and Resevation Roads and Imjin Parkway in Marina	B1, B3
MON-MRY005-MY	Del Monte Corridor	Del Monte from El Estero to Sloat Avenue	B1, B3
MON-FRA003-MA	8th Street	From Hwy 1 Overpass to Inter-Garrison (Eighth Street Cutoff)	B1, B3
MON-FRA004-MA	Patton Parkway (Abrams Road)	From intersection with the Second Avenue (link to Del Monte Blvd, in Marina (see project FO#8) easterly to intersection with Crescent Court extension.--part of project 162	B1, B3
MON-FRA010-MA	Crescent Court		B1, B3
MON-FRA018-SE	Giggling Road	From General Jim Moore Blvd. Easterly to Eastside Road	B1, B3
MON-FRA023-MA	Salinas Avenue	From Reservation Road southerly to Abrams Drive.	B1, B3
MON-FRA025-MA	2nd Avenue Phase 2	On 2nd Avenue from Imjin Pkwy to Crescent Ct/Abrams Road.	B1, B3
MON-FRA026-MA	2nd Avenue Phase 3	On 2nd Avenue. from Crescent Ct/Abrams Road to Del Monte in Marina	B1, B3
MON-GON004-GO	Alta Street	From city limits to US 101 interchange -- approx 2 miles	B1, B3
MON-GON005-GO	Fano Road	In city limits to US 101	B1, B3
MON-GON006-GO	Harold Parkway - Roadway extension	From La Gloria to 5th Street	B1, B3
MON-GON007-GO	La Gloria Road Widening	From Harold to SR 101	B1, B3
MON-KCY016-CK	Bypass (So. San Antonio extension)	Bitterwater across	B1, B3
~~MON-KCY017-CK~~	~~Bypass (Lon Oak connection)~~	~~Connection from Bypass/San Antionio to First~~	~~B1, B3~~
MON-MAR114-MA	Del Monte Blvd. widening	From north of Beach Road to H/W 1 interchange	B1, B3
MON-MYC200-UM	Johnson Cyn Land - Phase I	South Monterey County	B1, B3
MON-MYC241-UM	San Juan Grade Road Improvements	Greater Salinas	B1, B3
MON-SCY015-SA	Tioga widening	Tioga and Del Monte	B1, B3
MON-SNS008-SL	Bernal Drive East Improvements	Bernal Drive between N. Main and Roasarita Drive	B1, B3
MON-SNS011-SL	Boronda - Main Improvements	Boronda Road and Main Street	B1, B3
MON-SNS012-SL	Boronda Road Widening	Boronda Road from Natividad to Williams	B1, B3
MON-SNS029-SL	John Street - US 101	John Street between Work and Wood Streets	B1, B3
MON-SNS037-SL	Main Street (North) Widening	Main Street from Market to Casentini	B1, B3

Table 4.3-5
2035 MTP/SCS Projects with Potential to Impact Biological Resources In Monterey County

AMBAG ID	Project	Project Location	Impact
MON-SNS044-SL	Natividad Road Widening	From Boronda Road to Rogge Road	B1, B3
MON-SNS048-SL	Romie Lane Widening	Romie Lane - between S. Main and California Street	B1, B3
~~MON-SNS052-SL~~	~~Sanborn Road. Widening/Reconstruction~~	~~Sanborn Road from John Street to Abbott Street~~	~~B1, B3~~
MON-SNS053-SL	San Juan Grade Widening	San Juan Grade between Boronda and Rogge	B1, B3
MON-SNS059-SL	Williams Road Widening	Williams Road from Boronda to Old Stage Road	B1, B3
MON-SNS090-SL	Russell Road Extension	From San Juan Grade Road to Old Stage Road	B1, B3
MON-SNS092-SL	San Juan - Natividad Collector	From San Juan Grade to Natividad (North of and parallel to Boronda)	B1, B3
MON-SNS093-SL	Independence Boulevard Extension	From Boronda to Russell Road	B1, B3
MON-SNS094-SL	Hemingway Drive Extension	from Boronda to Russell	B1, B3
MON-SNS095-SL	Constitution Boulevard Extension	From Boronda to Old Stage Road	B1, B3
MON-SNS096-SL	Sanborn Road Extension	From Boronda to Old Stage Road	B1, B3
MON-SNS097-SL	Williams Russell Collector	From Williams Road to Russell (Parallel and northeast of Boronda)	B1, B3
MON-SNS098-SL	Alisal Street Extension	Between Alisal Street/Bardin Road intersection and the Williams-Russell Collector	B1, B3
MON-SNS099-SL	Moffett Street Extension	From Davis Road to Western Bypass	B1, B3
MON-SNS100-SL	Rossi Street Widening	Between Main Street and Sherwood Drive	B1, B3
MON-SNS101-SL	Bernal Drive Extension	From Sherwood Drive/Natividad Road intersection to Kern Street	B1, B3
~~MON-SNS095-SL~~ MON-SNS102-SL	Constitution Boulevard Extension	From Laurel Drive to Bernal Drive extension	B1, B3
~~MON-SNS059-SL~~ MON-SNS103-SL	Williams Road Widening	Between Del Monte Avenue and Boronda Road	B1, B3
MON-SNS104-SL	Alisal Street Widening	between Williams Road and Alisal Road	B1, B3
MON-SNS108-SL	Laurel Drive Widening	Between Natividad and Constitution	B1, B3
MON-SNS121-SL	McKinnon Street Extension	From Boronda Road to Rogge Road	B1, B3
~~MON-SOL030-SO~~ MON-SNS033-SL	Intersection Improvements	Front Street and Gabilan Drive Extension	B1, B3
~~MON-SOL030-SO~~ MON-SNS038-SL	Intersection Improvements	West Street Extension and Camphora Gloria Road	B1, B3
MON-GON014-GO	US 101/5th Street Operations	US 101 at 5th Street	B1, B3

Table 4.3-5
2035 MTP/SCS Projects with Potential to Impact Biological Resources In Monterey County

AMBAG ID	Project	Project Location	Impact
MON-MYC181-UM	G12 San Miguel Canyon	Along San Miguel Canyon Road from Castroville Boulevard to Hall Road, and along Hall Road/Elkhorn Road from San Miguel Canyon Road to the Monterey County border	B1, B3
MON-CAR005-CM	Rio Road Parking Facility	Near Mission	B1, B3
MON-CAR007-CM	San Carlos Streetscaping	On San Carlos Avenue	B1, B3
MON-CAR009-CM	San Carlos Rehabilitation	In Monterey County in the City of Carmel-by-the-Sea on San Carlos Street between Ocean Avenue and 6th Avenue.	B1, B3
MON-CAR010-CM	Mission Street Rehabilitation	Mission Street from Third Avenue to Eighth Avenue	B1, B3
MON-CAR011-CM	5th Avenue Rehabilitation	5th Avenue from Junipero to Monte Verde Street	B1, B3
MON-DRO002-DR	Carlton Drive Resurfacing	On Carlton Drive. from Highland Street to its southern terminus	B1, B3
MON-DRO003-DR	Work Avenue Resurfacing	On Work Avenue from SR 218 eastward for 800'	B1, B3
MON-FRA027-DR	So. Boundary Road. Improvements	From Gen. Jim Moore to York Roads	B1, B3
MON-GON001-GO	5th Street - Fano Road	At 5th & Fano Roads.	B1, B3
MON-GON011-GO	Park and Ride Lot	To be determined	B1, B3
MON-GRN003B-GR	Oak Road Bridge over US 101	At US 101	B1, B3
MON-GRN006-GR	Thorne Road roadway realignment at US 101	US 101	B1, B3
MON-GRN007B-GR	Traffic Signal Installations	El Camino Real and Tyler, El Camino and Walnut, El Camino and Oak, El Camino and Elm	B1, B3
MON-GRN019-GR	Oak Avenue Pavement Overlay	On Oak Avenue from 3rd to 4th, and from 11th to 12th.	B1, B3
MON-GRN021-GR	Citywide Street Rehabilitation	Citywide	B1, B3
MON-GRN022-GR	Pine Avenue Overcrossing at US 101	US 101 at Pine Avenue	B1, B3
MON-KCY003-CK	Bitterwater Road	From Airport Drive to Industrial Way	B1, B3
~~MON-KCY003-CK~~	~~Bitterwater Road~~	~~First Street thru San Antonio~~	~~B1, B3~~
MON-MAR002-MA	Imjin Parkway - 3rd Avenue Signal		B1, B3
MON-MAR005-MA	2nd Avenue - 3rd St	2nd Avenue - 3rd St	B1, B3
MON-MAR006-MA	2nd Avenue - 8th St	2nd Avenue - 8th St	B1, B3
MON-MAR007-MA	2nd Avenue - 10th St		B1, B3
MON-MAR013-MA	Beach Road - Del Monte Blvd	At Railroad Grade Crossing	B1, B3
MON-MAR015-MA	Blanco Road - Golf Road Signal		B1, B3

Table 4.3-5
2035 MTP/SCS Projects with Potential to Impact Biological Resources In Monterey County

AMBAG ID	Project	Project Location	Impact
MON-MAR018-MA	California Avenue - Reservation Road	California Avenue - Reservation Road	B1, B3
MON-MAR021-MA	California Avenue - Golf Road		B1, B3
MON-MAR022-MA	California Avenue - Reindollar		B1, B3
MON-MAR025-MA	California Extension - 8th Avenue		B1, B3
MON-MAR035-MA	Del Monte Blvd - Marina Green Drive		B1, B3
MON-MAR049-MA	Lake Drive rehab	Lake Ct to Reservation	B1, B3
MON-MAR050-MA	Lake Drive - Reservation Road	Lake Drive - Reservation Road	B1, B3
MON-MAR058-MA	Palm Avenue @ TAMC RR	Palm Avenue at RR crossing	B1, B3
MON-MAR079-MA	Salinas Avenue - Reservation Road new signal	Salinas Avenue - Reservation Road	B1, B3
MON-MAR116-MA	California Avenue	From 8th Street to Imjin Pkwy	B1, B3
~~MON-MAR117-MA~~ MON-MAR120-MA	Reservation Road	Del Monte to Seacrest Avenue.	B1, B3
MON-MAR119-MA	Imjin Pkwy	3rd Avenue to Imjin Road.	B1, B3
MON-MAR117-MA	Reservation Road	Seacrest Avenue to De Forest Road	B1, B3
MON-MRY003-MY	Del Monte/Aguajito and Del Monte/El Estero Signal Improvements	Del Monte Avenue at Aguajito Road and Camino El Estero	B1, B3
MON-MRY006-MY	Fremont - Aguajito Intersection Improvements		B1, B3
MON-MRY008-MY	Lighthouse Corridor Improvements Phase II		B1, B3
MON-MRY009-MY	Mar Vista and Soledad Storm Drains		B1, B3
MON-MRY011-MY	Munras Abrego - Webster Improvements		B1, B3
MON-MRY018-MY	York Road Improvements	SR 68 to South Boundary Road	B1, B3
MON-MRY019-MY	Sloat - Mark Thomas intersection Improvements	Sloat and Mark Thomas	B1, B3
MON-MRY021-MY	Citywide Street Overlay (Phases 1-13)	Various city streets	B1, B3
MON-MRY022-MY	Citywide Street Reconstruction (Phases 1 and 2)	Various city streets	B1, B3
MON-MRY023-MY	Citywide Street Panel Replacement (Phases 1 and 2)	Various city streets	B1, B3
MON-MRY024-MY	North Freemont Storm Drain Improvements	North Fremont Avenue	B1, B3
MON-MYC043-UM	Jolon Road Overlay Safety Improvements	Along Jolon Road from North State Highway 101 to South State Hwy 101.	B1, B3
MON-MYC133-UM	Blackie Road Safety Improvements - Phase I	On Blackie Road, 0.75 miles, between MP 3.25 and MP 4.00.	B1, B3

Table 4.3-5
2035 MTP/SCS Projects with Potential to Impact Biological Resources In Monterey County

AMBAG ID	Project	Project Location	Impact
MON-MYC134-UM	Blackie Road Safety Improvements - Phase II	On Blackie Road, 0.60 miles, between MP 4.00 and MP 4.60.	B1, B3
MON-MYC136-UM	Bridge Barrier Rail Replacement	Various locations	B1, B2, B3
MON-MYC147-UM	Castroville Improvements/Blackie Road	Near Castroville between SR 156 and Blackie Road	B1, B3
MON-MYC156-UM	CVMP - Laureles Grade Paved Turnouts and Signs	Carmel Valley	B1, B3
MON-MYC157-UM	CVMP - Carmel Valley Road btwn Laureles Grade and Ford Shoulder Widening	Carmel Valley	B1, B3
~~MON-MYC158-UM~~	~~CVMP - Carmel Valley Road Channelization~~	~~Carmel Valley~~	~~B1, B3~~
~~MON-MYC292-UM~~	~~CVMP - Carmel Valley Road Passing Lanes (Front of September Ranch)~~	~~Carmel Valley~~	~~B1, B3~~
MON-MYC162-UM	CVMP - Laureles Grade at Carmel Valley Road Signalization or Widening	Carmel Valley	B1, B3
MON-MYC166-UM	CVMP - Minor Interchanges	Carmel Valley	B1, B3
MON-MYC167-UM	CVMP - Sight Distance Improvements at Dorris	Carmel Valley	B1, B3
MON-MYC188-UM	Gonzales River Road Bridge Superstructure Replace	South Monterey County	B1, B2, B3
MON-MYC191-UM	Harris Road Overlay	From City limits beyond Railroad Avenue	B1, B3
MON-MYC200-UM	Johnson Cyn Land - Phase I	South Monterey County	B1, B3
MON-MYC202-UM	Johnson Road Bridge	North Monterey County	B1, B2,B3
MON-MYC225-UM	Peach Tree Road Bridge #412 Replacement	South Monterey County	B1, B2, B3
MON-MYC227-UM	Pine Canyon Road Improvements	Central Salinas Valley	B1, B3
MON-MYC232-UM	Reservation Road Slip Out	Reservation Road near Panziera Road (E. Garrison)	B1, B3
MON-MYC234-UM	Robinson Canyon Road Slip Out	Carmel Valley	B1, B3
MON-MYC235-UM	Rogge Road Improvements	Greater Salinas	B1, B3
MON-MYC247-UM	San Miguel Cyn Road at Castroville Blvd	On San Miguel Cyn Road	B1, B3
MON-MYC260-UM	Scenic Road Protection	Carmel Valley	B1, B3
MON-MYC266-UM	Street Rehabilitation/Overlay	Countywide	B1, B3
MON-PGV001-PG	Congress - Sunset Roundabout	Intersection of Sunset and Congress	B1, B3
MON-PGV005-PG	Lighthouse Avenue Resurfacing	Lighthouse Avenue - from Fountain to Eardley	B1, B3
MON-PGV012-PG	Ocean View Blvd. Resurfacing	First Street to Asilomar Avenue.	B1, B3
MON-PGV013-PG	Pine Avenue Resurfacing	Eardley to 17 Mile Drive.	B1, B3

Table 4.3-5
2035 MTP/SCS Projects with Potential to Impact Biological Resources In Monterey County

AMBAG ID	Project	Project Location	Impact
MON-PGV014-PG	Miscellaneous Street Improvements - Various Streets	Various Streets	B1, B3
MON-PGV015-PG	Miscellaneous Drainage Improvements - Various Streets	Various Streets	B1, B3
MON-SCY003-SA	California - Playa Signal	Intersection of California and Playa	B1, B3
MON-SCY005-SA	Sand City Rehab in Old Town area	Old Town Sand City	B1, B3
MON-SCY013-SA	California Avenue Pavement Overlay	On California Avenue between Sylvan Avenue and Tioga Avenue.	B1, B3
MON-SCY014-SA	Contra Costra Realignment	Contra Costa at Del Monte	B1, B3
MON-SEA005-SE	Fremont - Broadway	Fremont/Broadway	B1, B3
MON-SEA007-SE	Hilby Avenue Rehab	Hilby Avenue	B1, B3
MON-SEA022-SE	2nd Avenue/Seaside Development Parcel	2nd Avenue/Seaside Development Parcel	B1, B3
MON-SEA023-SE	2nd Avenue/1st St Improvements	2nd Avenue/1st St improvements	B1, B3
MON-SEA026-SE	Del Monte Boulevard Improvements	Del Monte Boulevard	B1, B3
MON-SEA027-SE	Fremont Boulevard Signal Installation	Fremont Blvd. south of Broadway Avenue to Canyon Del Rey	B1, B3
MON-SEA030-SE	Update and Implement Pavement Management System - Street Maintenance	Citywide	B1, B3
MON-SNS022-SL	East Salinas, reconstruct streets	East Salinas	B1, B3
MON-SNS024-SL	Elvee Drive	Work to Elvee	B1, B3
MON-SNS033-SL	Laurel Drive Intersection Improvements	Intersections from Adams St to Main St	B1, B3
MON-SNS040-SL	Martella and Preston Streets	Martella and Preston Streets	B1, B3
MON-SNS041-SL	Maryal Drive Reconstruction	Maryal Drive	B1, B3
MON-SNS042-SL	Natividad - Laurel Intersection	Intersection of Natividad and Laurel	B1, B3
MON-SNS058-SL	Williams Road Median Island	Williams Road. between E Alisal and Bardin	B1, B3
MON-SNS106-SL	Alisal Street Improvements	On Alisal Street east of Monterey Street	B1, B3
MON-SNS107-SL	John Street Improvements	Between Abbott Street and Alisal Street	B1, B3
MON-SNS109-SL	San Juan Grade - Russell Road intersection improvements	San Juan Grade - Russell Road intersection	B1, B3
MON-SNS111-SL	Boronda Road - Natividad Road intersection improvements	Boronda Road - Natividad Road intersection	B1, B3
MON-SNS112-SL	Boronda Road -East Constitution intersection improvements	Boronda Road -East Constitution intersection	B1, B3
MON-SNS113-SL	Boronda Road - Sanborn Road intersection improvements	Boronda Road - Sanborn Road intersection	B1, B3
MON-SNS114-SL	Boronda Road - Williams Road intersection improvements	Boronda Road - Williams Road intersection	B1, B3

Table 4.3-5
2035 MTP/SCS Projects with Potential to Impact Biological Resources In Monterey County

AMBAG ID	Project	Project Location	Impact
MON-SNS115-SL	Natividad Road - Russell Road intersection improvements	Natividad Road - Russell Road intersection	B1, B3
MON-SNS116-SL	Sanborn Road - Alisal Street intersection improvements	Sanborn Road - Alisal Street intersection	B1, B3
MON-SNS117-SL	Independence Blvd - Boronda Road intersection improvements	Independence Blvd - Boronda Road intersection	B1, B3
MON-SNS124-SL	Alisal/Skyway Roundabout	Alisal/Skyway Intersection	B1, B3
MON-SNS125-SL	Bardin/Schonberg Roundabout	Bardin/Schonberg Intersection	B1, B3
MON-SNS127-SL	Boronda Road Corridor TS Coord	Boronda (from N Main to Independence Blvd)	B1, B3
~~MON-SNS133-SL~~ MON-SNS128-SL	Front Street/Sherwood/Rossi TS Coord	From Alisal Street to Rossi Street	B1, B3
MON-SOL007-SO	Street Resurfacing & Sidewalk Repair	Various locations	B1, B3
MON-SOL028-SO	Intersection Improvements	Front Street and Hector de la Rosa Street	B1, B3
MON-SOL030-SO	Intersection Improvements	Front Street and East Street	B1, B3
MON-SOL031-SO	Intersection Improvements	Front Street and Moranda Street	B1, B3
MON-SOL032-SO	Intersection Improvements	SR 146 (Metz Road) and SR 146 Bypass/Gabilan Drive Extension	B1, B3
MON-SOL033-SO	Intersection Improvements	Front Street and Gabilan Drive Extension	B1, B3
MON-SOL034-SO	Intersection Improvements	New Arterial 1 and Camphora Gloria Road	B1, B3
MON-SOL035-SO	Intersection Improvements	New Arterial 1 and Front Street Extension	B1, B3
MON-SOL036-SO	Intersection Improvements	New Arterial 1 and San Vincente Road	B1, B3
MON-SOL037-SO	Intersection Improvements	New Arterial 1 and West Street	B1, B3
MON-SOL038-SO	Intersection Improvements	West Street Extension and Camphora Gloria Road	B1, B3
MON-SOL039-SO	Intersection Improvements	West Street Extension and Front Street Extension	B1, B3
MON-SOL040-SO	Intersection Improvements	West Street Extension and San Vincente Road	B1, B3
MON-SOL042-SO	Intersection Improvements	Gabilan Drive and San Vincente Road	B1, B3
MON-MRY017-MY	Munras - Soledad intersection Improvements	Monterey	B1, B3
MON-MYC136-UM	Bridge Barrier Rail Replacement	Monterey County	B1, B2, B3
MON-MST008-MST	Salinas-Marina Multimodal Corridor	Between Salinas and Monterey along Davis and Reservation Roads, a multimodal corridor through Marina with major stops in Salinas and in Marina at CSUMB and a future Light Rail station at Eigth Sreet and SR 1	B1, B3

Table 4.3-5
2035 MTP/SCS Projects with Potential to Impact Biological Resources In Monterey County

AMBAG ID	Project	Project Location	Impact
MON-MST011-MST	Salinas Bus Rapid Transit	In Salinas on Alisal Street between Salinas Street and Williams Road and on North Main Street between Market Street and Boronda Road	B1, B3
MON-MST016-MST	Bus on Shoulder for SR 1	On State Route 1 between Del Monte Avenue in Marina and Fremont Boulevard in Seaside	B1, B3
MON-TAMC001-TAMC	Monterey Branch Line Light Rail	On the Monterey Branch Rail Line between Washington Street in Monterey and Blackie Road in Castroville	B1, B3
MON-TAMC003-TAMC	Rail Extension to Monterey County	On the Union Pacific Coast Mainline between San Jose Diridon Station and the Salinas Amtrak station	B1, B3
MON-TAMC002-TAMC	Monterey Branch Line Light Rail - Salinas River Bridge Replacement	On the Monterey Branch Line at the Salinas River between Marina and Castroville	B1, B2, B3
MON-TAMC004-TAMC	Amtrak Coast Daylight Rail Service	On the Union Pacific Coast Mainline through Monterey County	B1, B3
~~MON-KCY035-CK~~	~~Multi Modal Transportation Center~~	~~along UPRR between Bitterwter and San Lorenzo River~~	~~B1, B3~~
MON-SOL001-SO	Soledad Train Station	Adjacent to Front Street	B1, B3
MON-FRA020-MST	Fort Ord Intermodal Centers		B1, B3
MON-KCY035-CK	Multi Modal Transportation Center	Along UPRR between Bitterwter and San Lorenzo River	B1, B3
~~MON-MST018-MST~~ MON-MST016-MST	South Monterey County Regional Transit Improvements	MST Line 23 Route in Monterey County between King City and Salinas via US 101	B1, B3
MON-MST003-MST	Bus Station/Stops		B1, B3
MON-MST004-MST	Bus Support Equipment and Facilities/Intelligent Transportation Systsems (ITS)		B1, B3
MON-MST009-MST	Operations & Maintenance Facility		B1, B3
MON-CAR001-CM	Bike Kiosks		B1, B3
MON-CAR002-CM	Carmel to Pebble Beach Bike/Ped Facility	North San Antonio Road (2nd to Ocean Avenue)	B1, B3
MON-DRO002-DR	Carlton Drive Resurfacing	On Carlton Dr. from Highland St. to its southern terminus	B1, B3
MON-DRO2-DR	Gen. Jim Morre Bicycle Improvement	Gen. Jim Moore (S. Boundary - 450' North of S. Boundary)	B1, B3
MON-DRO3-DR	Canyon Del Rey Blvd (Hwy 218) Bicycle Gap	Hwy 68 - 400' North of Del Rey	B1, B3
		Gardens (Westside); Hwy 68 - General	B1, B3
		Jim Moore (Eastside)	B1, B3
MON-GON009-GO	Bike Lockers	At MST bus station	B1, B3
MON-GON010-GO	Bike Racks	At 4th and Elko	B1, B3
MON-GON012-GO	River Road Bike Lane	On River Road from Alta Street to New Industrial Park	B1, B3

Table 4.3-5
2035 MTP/SCS Projects with Potential to Impact Biological Resources In Monterey County

AMBAG ID	Project	Project Location	Impact
MON-GON013-GO	Winery - Alta Street Bike Signs	From 5th Avenue SE on Alta to Winery	B1, B3
~~MON-GRN001-GR~~	~~El Camino Real Pedestrian Crossing Improvements~~	~~El Camino Real (between Palm and Apple, Palm and Oak and Oak and Maple)~~	~~B1, B3~~
~~MON-GRN005-GR~~ MON-GRN001-GR	Apple Avenue Bridge over US 101		B1, B3
~~MON-GON009-GO~~ MON-GRN005-GR	Thorne Road Bridge over US 101		B1, B3
MON-GRN010-GR	12th Street Bike Lanes	On 12th from Walnut to Elm	B1, B3
MON-GRN011-GR	13th Street Bike Lanes	On 13th from Walnut to Elm	B1, B3
MON-GRN012-GR	2nd Avenue. Bike Lanes	On 2nd b/t Walnut and Elm	B1, B3
MON-GRN013-GR	3rd Street Bike Lanes	On 3rd b/t Pine and Elm	B1, B3
MON-GRN014-GR	7th Street Bike Lanes	On 7th b/t Elm to Apple.	B1, B3
MON-GRN015-GR	El Camino Real Exit Bike Lane	On ECR at US 101 to Walnut and Elm Street to S-101 Exit	B1, B3
MON-GRN016-GR	Elm Avenue Bike Lanes	From 13th to 3rd	B1, B3
MON-GRN017-GR	Pine Avenue Bike Lanes	From El Camino Real to 3rd	B1, B3
MON-GRN018-GR	Walnut Avenue Bike Lanes	From 10th to the El Camino Real, Highway 101 Bypass to 2nd Street, and 3rd Street to El Camino Real.	B1, B3
MON-KCY036-CK	Vanderhurst Bike Lanes	On Vanderhurst Street in King City	B1, B3
MON-KCY038-CK	1st St Bike Lanes	1st St Metz Road - Hwy 101	B1, B3
MON-KCY040-CK	Broadway Bike Lanes	Broadway (San Lorenzo Park - San Lorenzo St)	B1, B3
MON-KCY008-CK	Airport Road Bike Lane	On Airport Road. from Metz to Bitterwater	B1, B3
MON-KCY009-CK	Metz Road Bike Lane	On Metz Road. from Airport to Bitterwater	B1, B3
MON-MAR037-MA	Del Monte Blvd Sidewalks	Between Beach and Marina Green	B1, B3
MON-MAR123-MA	Carmel Avenue Bike Lanes	Carmel Avenue	B1, B3
MON-MAR009-MA	Abdy Way	Cardoza to Healy	B1, B3
MON-MAR012-MA	Beach Road	Between Del Monte and De Forest Road	B1, B3
MON-MAR020-MA	California Avenue Rehab	Carmel to Reservation Road	B1, B3
MON-MAR026-MA	Cardoza Avenue	from Abdy to Ora	B1, B3
MON-MAR027-MA	Carmel Avenue Rehab	Del Monte to Salinas Road	B1, B3
MON-MAR032-MA	De Forest Road	Between Reservation and Beach Roads	B1, B3
MON-MAR037-MA	Del Monte Blvd Sidewalks	Between Beach and Marina Green	B1, B3

Table 4.3-5
2035 MTP/SCS Projects with Potential to Impact Biological Resources In Monterey County

AMBAG ID	Project	Project Location	Impact
MON-MAR040-MA	Eucalyptus St - Reservation to Peninsula		B1, B3
MON-MAR042-MA	Healy Avenue	Between Abdy to Marina	B1, B3
MON-MAR051-MA	Marina Drive Rehab	Beach to Healy	B1, B3
MON-MAR052-MA	Marina Drive Rehab	South end to Paddon	B1, B3
MON-MAR057-MA	Palm Avenue Rehab	Sunset to Del Monte	B1, B3
MON-MAR061-MA	Redwood Drive Rehab	Reindollar to Carmel	B1, B3
MON-MAR062-MA	Reindollar Avenue Rehab	Del Monte to Redwood	B1, B3
MON-MAR066-MA	Reservation Road rehab	Del Monte to Beach	B1, B3
~~MON-CAR043-CM~~	Reservation Road Bike Lanes	From Salinas Avenue to Imjin	B1, B3
MON-MAR072-MA	Reservation Road Traffic Calming	Beach to Del Monte	B1, B3
MON-MAR077-MA	Salinas Avenue Rehab	Carmel to Reservation	B1, B3
MON-MAR080-MA	Seaside Cir - Reservation to east end		B1, B3
MON-MAR081-MA	Seaside Court	From Reservation Road to west end	B1, B3
MON-MAR087-MA	Beach Road Class II Bikelanes	Beach Road from Reservation Road to Del Monte Blvd	B1, B3
MON-MAR088-MA	Bostick Avenue Class II Bikelanes	Bostick Avenue from Carmel Avenue to Reindollar Avenue	B1, B3
MON-MAR091-MA	Cardoza Avenue Class II Bikelanes	Cardoza Avenue Reservation Road to Lakewood Drive	B1, B3
MON-MAR092-MA	Cardoza Avenue Class II Bikelanes	Cardoza Avenue from Lakewood Drive to the dead end	B1, B3
MON-MAR094-MA	De Forest Road Class II Bikelanes	De Forest Road from Reservation Road to Beach Road	B1, B3
MON-MAR100-MA	Imjin Pkwy Class II Bikelanes	Imjin Pkwy - stripe bike lanes on Imjin Pkwy in addition to Class I bikepath	B1, B3
MON-MAR101-MA	Lake Drive Class II Bikelanes	Lake Drive from Palm Avenue to Lake Court	B1, B3
MON-MAR102-MA	Lake Drive Class II Bikelanes	Lake Drive from Palm Avenue to Reservation Road	B1, B3
MON-MAR104-MA	Old Marina Class I Bikepath	Along south edge of old Marina from Del Monte Blvd to California Avenue	B1, B3
MON-MAR106-MA	Palm Avenue Class II Bikelanes	Palm Avenue from Lake Drive to Sunset Avenue	B1, B3
MON-MAR118-MA	Del Monte Blvd	Beach to Marina Greens	B1, B3
MON-MAR121-MA	Moneterey Bay Coastal Bike Path	Marina Greens to Palm Avenue	B1, B3
MON-MAR122-MA	De Forest/Beach Traffic Calming	De Forest Rd and Beach RD	B1, B3
MON-MRY001-MY	Aguajito Road		B1, B3

Table 4.3-5
2035 MTP/SCS Projects with Potential to Impact Biological Resources In Monterey County

AMBAG ID	Project	Project Location	Impact
MON-MRY002-MY	Del Monte - Washington Improvements	Del Monte Avenue at Washington Street	B1, B3
MON-MRY007-MY	North Fremont Intersection Improvements and Class II Bikeway		B1, B3
MON-MRY012-MY	Pacific Street Bike/ped Improvements	Pacific Street	B1, B3
MON-MRY013-MY	Recreation Trail Improvements		B1, B3
MON-MRY014-MY	Window on the Bay		B1, B3
MON-MRY016-MY	Lower Presidio Pedestrian Connection	Between Hawthorne Avenue and Van Buuren Street through Lower Presidio	B1, B3
MON-MRY017-MY	Munras - Soledad intersection Improvements	Munras and Soledad	B1, B3
MON-MRY020-MY	Monterey City Bikeways Program	Various locations	B1, B3
MON-MYC233-UM	Rio Road	Along Rio Rd from Atherton Dr to Hwy 1	B1, B3
MON-MYC280-UM	Rio Road - Carmel Middle School Bicycle Connection	On Rio Road in Carmel between Hwy 1 and Val Verde Drive; Val Verde Drive - Carmel Middle School.	B1, B3
	Highway 1/Carmel Intersection improvements	Hwy 1 @ Rio Road/Ocean/Carpenter	B1, B3
MON-MYC281-UM	Carmel - Monterey Bicycle Connection	Adjacent to State Route 1 between Carpenter St and Viejo Road; on Viejo Road and Soledad Drive between Viejo Road bicycle path and Munras Avenue.	B1, B3
MON-MYC282-UM	SR 1 - Carmel Corridor	On State Route 1 between Carmel River Bridge and	B1, B2, B3
		Carpenter Street	B1, B3
MON-MYC168-UM	Davis Road Bike Path	Davis Road from W Laurel to Rossi	B1, B3
MON-MYC286-UM	Calle Del Adobe/West Laurel Drive Bikelanes	On Calle Del Adobe/West Laurel Drive Bikelanes from Boronda Road to US 101	B1, B3
MON-MYC287-UM	Calle Del Adobe Bike Lanes	Calle Del Adobe	B1, B3
~~MON-MYC042-UM~~ MON-MYC001-UM	Alisal Road	Along Alisal Road from Salinas City Limits to Old Stage Road	B1, B3
~~MON-MYC045-UM~~ MON-MYC003-UM	Blackie Road	Along Blackie Road from SR 183 to US 101	B1, B3
MON-MYC018-UM	Castroville Bicycle/Pedestrian Path and Railroad Crossing	Class III bicycle route from Merritt Street along Pajaro and McDougall Streets to Salinas Street; Class I bike/ped path along Salinas Street from McDougall Street to Axtell Street; bike/ped bridge over the UP railroad crossing from Axtell Street to Collins Road; Class I bike/ped path from Collins Road to Castroville Blvd, and; crosswalk at Castroville Blvd to existing Class I bike path along Castroville Blvd.	B1, B3

Table 4.3-5
2035 MTP/SCS Projects with Potential to Impact Biological Resources In Monterey County

AMBAG ID	Project	Project Location	Impact
MON-MYC154-UM	Crazy Horse Canyon Road	Along Crazy Horse Canyon Road from San Juan Grade Road to Hwy 101	B1, B3
MON-MYC172-UM	Elkhorn Road	North Monterey County - Along Elkhorn Road, Salinas Road and Porter Drive from County Line to Castroville Blvd	B1, B3
MON-MYC029-UM	Florence Street Extension	Along Florence Street from beginning of Florence at railroad, along Florence extension to levee	B1, B3
MON-MYC188-UM	Gonzales River Rd Bridge Superstructure Replace	South Monterey County	B1, B3
MON-MYC237-UM	Salinas Rd - Hall Rd - Tarpey Rd	Along Salinas Rd from Porter Dr to San Juan Rd	B1, B3
MON-MYC045-UM	Las Lomas Drive Bicycle Lane & Pedestrian Project	Las Lomas Drive from Hall Road to Clausen Road.	B1, B3
MON-MYC078-UM	Metz Road	On Metz Road from Soledad City Limits to King City Limits.	B1, B3
MON-MYC213-UM	Monte Road	On Monte Road at Del Monte Boulevard to Nashua Road	B1, B3
MON-MYC064-UM	Pajaro River Levee Trail	Along levee from Florence Extension to proposed drainage pond	B1, B2, B3
MON-MYC235-UM	Rogge Road	On Rogge Road from Natividad Road to San Juan Grade Road	B1, B3
MON-MYC093-UM	Carmel City Limits to Carmel River State Park	From Carmel City Limits beginning at Scenic Drive east on Santa Lucia, south on San Antonio, east on 15th to Rio Park (provide bridge at River Street), Class I from Rio Park to State Park	B1, B3
MON-FRA027-DR	South Boundary Road	On South Boundary Road	B1, B3
MON-MAR117-MA	Reservation Road	Along Reservation Road from Blanco Road to State Highway 68	B1, B3
~~MON-MYC132-UM~~ MON-MYC118-UM	Williams Road	Along Williams Road from Boronda (City Limits) to Old Stage Roads.	B1, B3
MON-MYC191-UM	Harris Road Overlay	From City limits beyond Railroad Avenue	B1, B3
~~MON-GON004-GO~~ MON-MYC127-UM	Alta St/Old US Hwy 101	Along Alta St from Foletta Road to 10th St	B1, B3
MON-MYC129-UM	Arroyo Seco Road Project (CA PFH 129-1)	South Monterey County	B1, B3
MON-MYC140-UM	Blackie Road	Along Blackie Road from Castro St to Merritt St	B1, B3
MON-MYC140-UM	Carmel River Bridge	From Carmel River (N) to Carmel River (S)	B1, B2, B3
MON-MYC141-UM	Carmel Valley Class I Bicycle Path Project Phase IV	From the end of APN 157-181-001 to State Highway 1	B1, B3
MON-MYC142-UM	Carmel Valley Road	Along Carmel Valley Road from Loma del Rey to Via Contenta	B1, B3

Table 4.3-5
2035 MTP/SCS Projects with Potential to Impact Biological Resources In Monterey County

AMBAG ID	Project	Project Location	Impact
MON-MYC143-UM	Carmel Valley Road at Boronda Road Intersection	Intersection of Boronda and Rancho roads at Carmel Valley Road	B1, B3
MON-MYC144-UM	Carmel Valley Road at Country Club Drive	Intersection of Country Club Drive at Carmel Valley Road	B1, B3
MON-MYC146-UM	Castroville Boulevard	From Dolan Road along the entire length of Castroville Boulevard to San Miguel Canyon Road	B1, B3
MON-MYC154-UM	Crazy Horse Canyon Road Improvements	North County	B1, B3
MON-MYC160-UM	CVMP - Class II Bike Lanes	Carmel Valley	B1, B3
MON-MYC164-UM	CVMP - Laureles Grade Shoulder Addition	Carmel Valley	B1, B3
MON-MYC165-UM	CVMP - Left-Turn Channelization - W of Ford Drive	Carmel Valley	B1, B3
MON-MYC168-UM	Davis Road	On Davis Road from Reservation Road to Blanco Road	B1, B3
MON-MYC169-UM	Davis Road	On Davis Road from Blanco Road to Rossi Street	B1, B3
MON-MYC172-UM	Elkhorn Road	Along Elkhorn Road from Paradise Valley Road to Hall Road	B1, B3
MON-MYC190-UM	Harkins Road	Along Harkins Road from Nutting Street to 5th St (Spreckels)	B1, B3
MON-MYC204-UM	Main St	Along Main St from Grant St to Lincoln St (Chualar)	B1, B3
MON-MYC205-UM	McCoy Road	Along McCoy road to Moranda Road	B1, B3
MON-MYC207-UM	McGowan Road - MBSST	Along McGowan Road from Trafton Road to Santa Cruz Co Line	B1, B3
MON-MYC208-UM	Mead St	Along Mead St from Tembladera St to Gambetta Middle School	B1, B3
MON-MYC209-UM	Meade St (Extension)	Along Meade St from Tembladera St to Artichoke Avenue (Extension)	B1, B3
MON-MYC210-UM	Meridian Road	Along Meridian Road from Castroville Blvd to Hwy 156	B1, B3
MON-MYC211-UM	Meridian Road Path	375' S of Meridian Road, to 390' N of Meridian Road	B1, B3
MON-MYC212-UM	Mesa Verde	Along Mesa Verde from Wildhorse Canyon Road/Hwy 101 to 1st St	B1, B3
MON-MYC213-UM	Monte Road - MBSST	Along Monte Road from Nashua Road to Lapis Road	B1, B3
MON-MYC214-UM	Monterey Bay Sanctuary Scenic trail-Moss Landing	From just north of State Highway 1 Bridge to Moss Landing Road	B1, B2, B3
MON-MYC216-UM	Moss Landing Road Bike Lanes, Storm Drain, and Street Improvements	From South State Highway 1 to North State Highway 1	B1, B3
MON-MYC217-UM	Nacimiento Lake Drive Bridge No. 449	South Monterey County	B1, B2, B3
MON-MYC223-UM	Pajaro Rail Line	From Salinas Road to Pajaro River Levee	B1, B2, B3

Table 4.3-5
2035 MTP/SCS Projects with Potential to Impact Biological Resources In Monterey County

AMBAG ID	Project	Project Location	Impact
MON-MYC229-UM	Prunedale North Road	Along Prunedale North Road from San Miguel Canyon Road to 300' S of Hwy 156 overpass	B1, B3
MON-MYC230-UM	Reese Cir - Country Meadows Road	Along Reese Cir - Country Meadows Road from Blackie Road to Damian Wy	B1, B3
MON-MYC231-UM	Reservation Road Pedestrian/Bicycle Access	From Imjin Parkway to East Garriso Development	B1, B3
MON-MYC233-UM	Rio Road	Along Rio Road from Atherton Drive to Hwy 1	B1, B3
MON-MYC236-UM	Russell Road	On Russell Road from State Hwy 101 to San Juan Grade Road	B1, B3
MON-MYC237-UM	Salinas Road - Hall Road - Tarpey Road	Along Salinas Road from Porter Drive to San Juan Road	B1, B3
MON-MYC239-UM	Salinas Street	Along Salinas Street from Merritt Street to Axtell Haight Street	B1, B3
MON-MYC241-UM	San Juan Grade Road	Along San Juan Grade Road from Rogge Road to Herbert Road	B1, B3
MON-MYC242-UM	San Juan Grade Road	Along San Juan Grade Road from Russell Road to Rogge Road	B1, B3
MON-MYC244-UM	San Juan Road	Along San Juan Road	B1, B3
MON-MYC246-UM	San Juan Road to Pajaro Levee	Along rail line from San Juan Road to Pajaro River Levee	B1, B2, B3
MON-MYC248-UM	Sanctuary Scenic Trail 15A	From Elkhorn Bridge (S) to Elkhorn Bridge (N)	B1, B2, B3
MON-MYC249-UM	Sanctuary Scenic Trail Segment 10	From Neponset Road to Lapis Road	B1, B3
MON-MYC250-UM	Sanctuary Scenic Trail Segment 11	From Neponset Road to Monte Road	B1, B3
MON-MYC251-UM	Sanctuary Scenic Trail Segment 12	From Salinas River and Hwy 1 to Salinas River State Beach	B1, B2, B3
MON-MYC252-UM	Sanctuary Scenic Trail Segment 13	From Salinas River State Beach to Sanholdt Road	B1, B3
MON-MYC253-UM	Sanctuary Scenic Trail Segment 14	From Nashua Road to Potrero Road	B1, B3
MON-MYC254-UM	Sanctuary Scenic Trail Segment 14	From Mora Road to Monterey Dunes Way	B1, B3
MON-MYC255-UM	Sanctuary Scenic Trail Segment 14A	From Salinas River State Beach to Potrero Road	B1, B2, B3
MON-MYC256-UM	Sanctuary Scenic Trail Segment 17A	From Pajaro River to Trafton Road	B1, B3
MON-MYC257-UM	Sanctuary Scenic Trail Segment 17B	From Trafton Road to McGowan Road	B1, B3
MON-MYC258-UM	Sanctuary Scenic Trail Segment 7	From Lapis Road to Dunes Drive	B1, B3
MON-MYC259-UM	Sanctuary Scenic Trail Segment 9	From Lapis Road to Monte Road	B1, B3
MON-MYC261-UM	Seymour St	Along Seymour St from Salinas St to Washington St	B1, B3
MON-MYC262-UM	Sill Road	Along Sill Road from Las lass Lomas Drive to Harrington Road	B1, B3

Table 4.3-5
2035 MTP/SCS Projects with Potential to Impact Biological Resources In Monterey County

AMBAG ID	Project	Project Location	Impact
MON-MYC265-UM	Strawberry Road	Along Strawberry Road form San Miguel Canyon Road to Elkhorn Road	B1, B3
MON-MYC267-UM	Susan Ln	Along Susan Ln from El Camino Real to Espinosa Road	B1, B3
MON-MYC268-UM	Tafton Road	Along Tafton Road from Salinas Road to McGowan Road	B1, B3
MON-MYC269-UM	Tafton Road	Along Tafton Road from Bluff Road to 2nd bend in Trafton Road	B1, B3
MON-MYC270-UM	Tafton Road - MBSST	Along Tafton Road from Salinas Road to Pajaro River Trails	B1, B3
MON-MYC271-UM	Tavernetti Road	Along Tavernetti Road from Lanini Road to Soledad Prison Road	B1, B3
MON-MYC272-UM	Tavernetti Road	Along Tavernetti Road from Hwy 101 Overpass to Gloria Road	B1, B3
MON-MYC273-UM	Tavernetti Road	From Gloria Road to McCoy Road	B1, B3
MON-MYC274-UM	Teague Avenue	Along Teague Avenue from Central Avenue to Hwy 101	B1, B3
MON-MYC275-UM	Tembladero Slough	Between State Hwy 1 along Tembladero Slough	B1, B2, B3
MON-MYC276-UM	Thorne Road	Along Thorne Road from Arroyo Seco Road to El Camino Real	B1, B3
MON-MYC277-UM	Werner Road	Along Werner Road from Salinas Road to Elkhorn Road	B1, B3
MON-PG001-PG	Forest Avenue Bike Lanes	Forest Avenue	B1, B3
MON-GRN017-GR	Pine Avenue Bike Lanes	Pine Avenue	B1, B3
MON-PG002-PG	Pine Avenue Pedestrian Safety Improvements	Pine Avenue	B1, B3
MON-PG003-PG	David Avenue Bikeway	David Avenue	B1, B3
MON-PGV004-PG	Lighthouse Avenue. Corridor	Lighthouse Avenue - 12th Street - Lobos Street	B1, B3
MON-PGV006-PG	Congress Walkway	Sunset to David	B1, B3
MON-PGV008-PG	Rec. Trail Improvements	Rec Trail between Berwick Park and Eardley	B1, B3
MON-PGV011-PG	Recreational Trail Repairs	On Pacific Grove's Rec Trail between Esplanade and Sea Palm	B1, B3
MON-GON010-GO	Bike Racks	Throughout Sand City	B1, B3
MON-SCY009-SA	Bike path Lighting	From Tioga to Seaside City Limits	B1, B3
MON-SCY010-SA	Class I bike path	From Tioga to Playa Avenue	B1, B3
MON-SCY011-SA	Class I bike path along Railroad	From Contra Costa to Monterey Road	B1, B3
MON-SCY012-SA	Class III bikeways	Various location	B1, B3

Table 4.3-5
2035 MTP/SCS Projects with Potential to Impact Biological Resources In Monterey County

AMBAG ID	Project	Project Location	Impact
MON-SEA001-SE	Del Monte Bike Lanes	Del Monte Avenue in Seaside	B1, B3
MON-SEA002-SE	2nd Avenue Bike Gap	2nd Avenue (Divarty to Lightfighter)	B1, B3
MON-SNS003-SL	ADA Improvements	Citywide	B1, B3
MON-SEA008-SE	Kimball Avenue Improvements	Kimball Avenue	B1, B3
MON-SEA028-SE	West Broadway Avenue Corridor improvements	West Broadway Avenue Corridor	B1, B3
MON-SEA029-SE	Lightfighter Drive Pedestrian Improvemetns	Lightfighter Drive from First Avenue to General Jim Moore Boulevard	B1, B3
MON-SNS128-SL	Laurel Drive Bike Lanes	Laurel Drive	B1, B3
~~MON-SNS003-SL~~	~~ADA Access Ramp Installations~~	~~Citywide~~	~~B1, B3~~
MON-SNS005-SL	Alisal Road. Bikeway	Alisal Road south to City Limits	B1, B3
MON-SNS007-SL	Alvin Drive Bike Lanes	Along Alvin between McKinnon and Natividad	B1, B3
MON-SNS014-SL	Bridge Street Bike Lanes	Entire length of Bridge Street	B1, B3
MON-SNS018-SL	Davis Road Bike Lanes	Davis Road from Central to Blanco	B1, B3
MON-MYC285-UM	Davis Road Bike Path	Davis Road from W Laurel to Rossi	B1, B3
MON-SNS046-SL	Reclamation Ditch Bike System	Reclamation Ditch #1665	B1,B2, B3
MON-SNS057-SL	Williams Road Bike lanes	Williams Road	B1, B3
MON-SNS062-SL	Arcadia Way Bike route	Arcadia way from Natividad to El Dorado	B1, B3
MON-SNS063-SL	Boronda Road Class III Bikelanes	On Boronda from Westside Parkway to Rossi Street Extension	B1, B3
MON-MYC286-UM	Calle Del Adobe / West Laurel Drive Bikelanes	On Calle Del Adobe/West Laurel Drive Bikelanes from Boronda Road to US 101	B1, B3
MON-SNS065-SL	Carr Lake Bikeways	Constitution/Sherwood Place/Maderia Avenue	B1, B3
MON-SNS066-SL	East Alisal St (Future St) and Freedom Parkway (Future St) Bikelanes	Along East Alisal St- Freedom Parkway - Williams Road	B1, B3
MON-SNS071-SL	John Street Class III Bikeway	From Abbott to Wood Street	B1, B3
MON-SNS072-SL	Los Palos Drive Class III Bikelane	Along Los Palos Drive from Abbott St to Manor Drive/Grove St	B1, B3
MON-SNS073-SL	Market Street Class II Bikeway	On Market Street from E Alisal to Cross Avenue	B1, B3
MON-SNS075-SL	N Maderia/King St Class III Bikeway	On N Maderia/King St from E Alisal St to Roosevelt St	B1, B3
MON-SNS076-SL	N Maderia/Saint Edwards Avenue Class III Bikeway	On N Maderia/Saint Edwards from Circle Drive to Laurel Drive	B1, B3
MON-SNS077-SL	N Main/Espinosa Road Class II Bikelane	On new underpass at Russell/Espinosa to N Main	B1, B3

Table 4.3-5
2035 MTP/SCS Projects with Potential to Impact Biological Resources In Monterey County

AMBAG ID	Project	Project Location	Impact
MON-SNS078-SL	Natividad Creek Bike Path	From Gee St to Circle Drive	B1, B2, B3
MON-SNS080-SL	Rossi St Extension Class II Bikelanes	On Rossi St Extension from Boronda to Davis	B1, B3
MON-SNS083-SL	Russell Road Class II Bikelanes	On Russell Road from N Main to San Juan Grade Road	B1, B3
MON-SNS084-SL	San Juan Grade Class II Bikelanes	On San Jan Grade Road from Boronda Road to Cornwall St	B1, B3
MON-SNS086-SL	Station Place (ITC Bridge)	Rossi St to Amtrak Station	B1, B3
MON-SNS087-SL	Terven Avenue Class II bikelanes	on Terven Avenue from Sanborn Road to Airport Blvd	B1, B3
MON-SNS089-SL	W Laurel/US 101 Overpass/Adams St Class III Bikeway	West of US 101 to Tulane St	B1, B3
MON-SNS129-SL	Street Sidewalk Repair	Varrious Locations	B1, B3
~~MON-SNS003-SL~~ MON-SNS130-SL	ADA Access Ramp Installations	Various Locations	B1, B3
MON-SOL028-SO	Pinnacles Bike Route	Metz Road	B1, B3
MON-SOL006-SO	Bicycle Racks and Lockers	Various locations	B1, B3
MON-SOL043-SO	Pedestrian Lighting	Various City streets	B1, B3
MON-MAR013-MA	Beach Road - Del Monte Blvd	At Railroad Grade Crossing (Beach/Del Monte Blvd)	B1, B3
MON-MAR122-MA	De Forest/Beach Traffic Calming	De Forest rd and Beach Road	B1, B3
MON-MRY007-MY	North Fremont Intersection Improvements and Class II Bikeway	North Fremont Street	B1, B3
MON-CAR043-CM	Reservation Road Bicycle Lanes	On Reservation Road between Blanco Road and S. Davis Road	B1, B3
MON-SEA020-SE	1st Avenue/Lightfighter Drive improvements	1st Avenue at Lightfighter Drive	B1, B3
MON-MAA013-MAA	Runway Ends		B1, B3
MON-MAA020-MAA	Taxiway A, B, C, D Lighting and Signage Improvements		B1, B3
MON-MAA021-MAA	Taxiway A, B, C, D overlay and markings		B1, B3
~~MON-SAP030-SLA~~	~~T-Hangar Taxi Lanes~~		~~B1, B3~~
MON-MAA025-MAA	West T-Hangar Drainage Improvements		B1, B3
MON-MDR002-MDR	East Apron drainage system	King City	B1, B3
MON-MDR003-MDR	East Apron overlay	King City	B1, B3
MON-MDR004-MDR	Overlay East TW	King City	B1, B3
MON-MDR005-MDR	Overlay Runway	King City	B1, B3
MON-MDR007-MDR	Pavement management	King City	B1, B3

Table 4.3-5
2035 MTP/SCS Projects with Potential to Impact Biological Resources In Monterey County

AMBAG ID	Project	Project Location	Impact
MON-MDR008-MDR	Airport lighting and fencing replacement	King City	B1, B3
MON-MDR009-MDR	Service Road, Clear Zone	King City	B1, B3
MON-MPA005-MRA	Airport Road Extension Phase II		B1, B3
MON-MPA013-MRA	Maintenance Department		B1, B3
MON-MPA015-MRA	On-Airport Road Projects		B1, B3
MON-MPA017-MRA	Parking Lot #3 Expansion		B1, B3
MON-MPA018-MRA	Passenger lift		B1, B3
MON-MPA028-MRA	Sky Park - Fred Kane Drive connection		B1, B3
MON-MPA039-MRA	Terminal Modernization		B1, B3
MON-MPA041-MRA	Terminal Road Circulation Improvements		B1, B3
MON-MPA045-MRA	Residential Soundproofing Phase 8		B1, B3
MON-MPA046-MRA	Residential Soundproofing Phase 9		B1, B3
MON-MPA047-MRA	Residential Soundproofing Phase 10		B1, B3
MON-MPA048-MRA	Residential Soundproofing Phase 11		B1, B3
MON-MPA049-MRA	Land Acquisition Environmental Mitigation		B1, B3
MON-MPA050-MRA	New Terminal Building		B1, B3
MON-SAP022-SLA	T-Hangar Taxiways (Phase II)		B1, B3
MON-SAP025-SLA	Runway 13/31 Overlay (constr)		B1, B3
MON-SAP027-SLA	East Area Development		B1, B3
MON-SAP030-SLA	T-Hangar Taxiways (Phase I)		B1, B3
MON-SAP031-SLA	North -Hangar Twy Reconstruction (Phase I)		B1, B3
MON-SAP032-SLA	North T-Hangar Utilities Reconstruction (Phase I)		B1, B3
MON-SAP033-SLA	Airport Gate/Fencing Upgrades (Phase II)		B1, B3
MON-SAP034-SLA	North T-Hangar Taxiway Reconstruction (Phase II)		B1, B3
MON-SAP035-SLA	North T-Hangar Utilities Reconstruction (Phase II)		B1, B3
MON-SAP036-SLA	Airport Gate/Fencing Upgrades (Phase III)		B1, B3
MON-SAP037-SLA	Rehabilitate Taxiways A & C		B1, B3
MON-SAP038-SLA	Runway Safety Area/Design Stds Study		B1, B3

Table 4.3-5
2035 MTP/SCS Projects with Potential to Impact Biological Resources In Monterey County

AMBAG ID	Project	Project Location	Impact
MON-SAP040-SLA	Enhance RSA, Runway 13-31		B1, B3

Table 4.3-6
2035 MTP/SCS Projects with Potential to Impact Biological Resources In San Benito County

AMBAG ID	Project	Project Location	Impact
SB-CT-A01	SR 156 Widening	~~Caltrans~~ From Alameda to San Juan Hollister Road	B1, B3
SB-CT-A17	~~State Route 25 Widening: Sunset Drive to Fairview Road~~ Airline Highway Widening to 4-Lane Expressway	~~Caltrans~~ Between Sunset Drive to Fairview Road	B1, B3
SB-CT-A02	Highway 156/Fairview Road Intersection Improvements	~~Caltrans~~ SR 156/Fairview Road	B1, B3
SB-CT-A03	Highway 25 Operational Enhancements	~~Caltrans~~ Hwy 24 North of Hollister	B1, B3
SB-SBC-A04	Union Road Widening (East)	~~San Benito County~~ San Benito Street to Highway 25	B1, B3
SB-SBC-A05	Union Road Widening (West)	~~San Benito County~~ San Benito Street to Highway 156	B1, B3
SB-SBC-A09	Fairview Road Widening	~~San Benito County~~ Between McCloskey and State Route 25	B1, B3
SB-COH-A10	Meridian Street Extension to Fairview Road	~~City of Hollister~~ Extend Meridian East Connecting to Fairview Road	B1, B3
SB-SBC-A11	Union Road (formerly Crestview Drive) Construction	~~San Benito County~~ Extend Union Road from Calistoga to Fairview Road	B1, B3
~~SB-SBC-A12~~	~~Memorial Drive Construction - Santa Ana to Flynn Road~~	~~San Benito County~~	~~B1, B3~~
SB-SBC-A14	San Benito County Regional Park Access Road	~~San Benito County~~ Between Nash Road and San Benito Street South and East of San Benito High School	B1, B3
SB-COH-A16	Memorial Drive Extension: Meridian Street to Santa Ana	~~City of Hollister~~ Beween Merian Street and Santa Ana	B1, B3
SB-COH-A18	Westside Boulevard Extension	~~City of Hollister~~ South of Nash Road to Union Road	B1, B3
SB-COH-A19	North Street (Buena Vista)	~~City of Hollister~~ Connect North Street with Buena Vista Road Across North Hollister	B1, B3
SB-SBC-A50	Hospital Road Bridge	~~San Benito County~~ New Bridge over San Benito River	B1, B2, B3
SB-COH-A54	Lump Sum Intersection Improvements	~~City of Hollister~~ Various Locations	B1, B3
SB-COH-A45	Highway Bridge Program	~~City of Hollister~~ Various Locations	B1, B2, B3
SB-COHSBC-A49	Local Street & Road Maintenance	~~City of Hollister/San Benito County~~ Various Locations	B1, B3
SB-COH-A13	West Gateway Improvement Project	City of Hollister: Streetscape and Intersection Improvements on Fourth Street from Westside Blvd to Graf Rd.	B1, B3

Table 4.3-6
2035 MTP/SCS Projects with Potential to Impact Biological Resources In San Benito County

AMBAG ID	Project	Project Location	Impact
SB-COH-A20	Sunnyslope Road Class II Bike Lanes	~~City of Hollister~~ From Cerra Vista to Memorial Drive	B1, B3
SB-SBC-A21	Nash/Tres Pinos Road	San Benito County	B1, B3
SB-SBC-A22	Airline Highway Class I Bike Lane	~~San Benito County~~ From Sunset Drive to Existing Class I on Airline Highway (Tres Pinos Town)	B1, B3
SB-COH-A23	Ladd Lane Class II Bike Lane	~~City of Hollister~~ From Tres Pinos Rd to Existing Class I on Ladd Lane	B1, B3
SB-COH-A24	South St/Hillcrest Road Class II Bike Lane	~~City of Hollister~~ From McCray St to Proposed Class II on Hillcrest Road	B1, B3
SB-COH-A25	Central Avenue Class II Bike Lane	~~City of Hollister~~ From Bridge to East Street	B1, B3
SB-COH-A26	Memorial Drive Class II Bike Lane	~~City of Hollister~~ From Sunset Drive to Meridian Drive	B1, B3
SB-SBC-A27	San Benito River Bike Trail	~~San Benito County~~ From Hospital Road to San Juan Road Along the San Benito River	B1, B2, B3
SB-COH-A28	4th Street Class II Bike Lane	~~City of Hollister~~ From McCray Street to Westside Blvd	B1, B3
SB-COH-A29	Sally Street Class II Bike Lane	~~City of Hollister~~ From Nash Road to 4th Street	B1, B3
SB-COH-A30	Meridian Road Class II Bike Lane	~~City of Hollister~~ From Memorial Drive to McCray Street	B1, B3
SB-COH-A31	San Felipe Road Class II Bike Lane	~~City of Hollister~~ From Santa Ana Rd to Norther San Benito County	B1, B3
SB-COH-A32	Sunset Drive Class II Bike Lane	~~City of Hollister~~ From Cerra Vista Road to Airline Highway	B1, B3
SB-COH-A33	Hillcrest Road Class II Bike Lane	~~City of Hollister~~ From Vairview Raod to Proposed Class III on Hillcrest Road	B1, B3
SB-SBC-A34	Santa Ana Road/Buena Vista Road/North Street Class II Bike Lane	~~San Benito County~~ From Fairview Road to Proposed Class III on Buena Vista Road	B1, B3
SB-SBC-A35	Westside Blvd. Class II Bike Lane	~~San Benito County~~ From Apricot Lane to Jan Avenue	B1, B3
SB-COH-A36	Monterey Street Class II Bike Lane	~~City of Hollister~~ From Nash Road to 4th Street	B1, B3

4.4 CULTURAL RESOURCES

4.4.1 Setting

a. Prehistoric Background. The prehistoric populations of the Monterey Bay Area include the Esselen, Costanoan, Salinan, and Northern Valley Yokuts. Monterey County was occupied by the Esselen in the west, the Costanoan in the north, and the Salinan to the south. The northwestern portion of San Benito County was occupied by the Costanoan, the southeastern by the Northern Valley Yokuts, and the southwestern by the Salinan. Santa Cruz County was occupied by the Costanoan.

The Esselen inhabited the upper Carmel Valley in the Santa Lucia Mountains between Point Sur and Lopez Point, with the inland boundary just east of the Salinas River. The Esselen occupied seasonal villages depending on resource availability (Breschini and Haversat 2001).

Costanoan territory extends from the point where the San Joaquin and Sacramento Rivers issue into the San Francisco Bay to Point Sur, with the inland boundary most likely constituted by the interior Coast Ranges (Kroeber 1925). The Costanoan were semi-sedentary with a settlement system characterized by base camps of tule reed houses and seasonal specialized camps (Skowronek 1998). Subsistence was based on hunting, gathering, and fishing. Mussels and acorns were particularly important food resources (Kroeber 1925; Skowronek 1998).

Salinan territory ranged from Carmel Valley south to Morro Bay. They occupied permanent villages. Salinan subsistence was centered on the gathering of acorns and other edible plants and the hunting of animals such as dove, quail, rabbit, and deer (Mission San Miguel Arcangel 2013).

Northern Valley Yokuts populations were concentrated along waterways in the San Joaquin River. Settlements were typically composed of single-family dwellings, sweathouses, and ceremonial structures. Subsistence revolved around water resources in the San Joaquin Valley, with a focus on salmon and acorns (Wallace 1978).

b. Paleontological Resources Background. Paleontological resources, also known as fossils, are the remains, traces or imprints of once-living organisms preserved in rocks or sediment. Paleontological resources are commonly found in sedimentary rock units. Paleontological sites are normally discovered in cliffs, ledges, steep gullies, or along wave-cut terraces where vertical rock sections are exposed. Fossil material may be exposed by a trench, ditch, or channel caused by construction.

Paleontologists examine invertebrate fossil sites differently than vertebrate fossil sites. Invertebrate fossils in microscopic form such as diatoms, foraminifera, and radiolarians can be so prolific as to constitute major rock material in some areas. Invertebrate fossils normally are marine in origin, widespread, abundant, fairly well preserved, and predictable as to fossil sites. Therefore, the same or similar fossils can be located at any number of sites throughout central California. Vertebrate fossil sites are usually found in non-marine or continental deposits. Vertebrate fossils of continental material are usually rare, sporadic, and localized. Scattered vertebrate remains (mammoth, mastodon, horse, ground sloth, camel, and rodents) have been

identified from the Pleistocene non-marine continental terrace deposits in various locations in the Monterey Bay area.

c. Historic Background. The Monterey Coast was first visited by Europeans in 1602 by Sebastian Vizcaíno (Bean 1968). The Spanish presidio and mission, which was later moved to Carmel, were established by Captain Gaspar de Portolá in Monterey in 1770, and served as the capital of the California missions until 1803 (Bean 1968: 40; Johnson 1979:83). Mission San Antonio de Padua, in southern Monterey County, was founded in 1791. Missions Santa Cruz, located in the current city of Santa Cruz, and Nuestra Señora de la Soledad, in central Monterey County, were founded in 1791. Mission San Juan Bautista, in northwestern San Benito County, was founded in 1797 (Bean 1968: 45).

The Mission Period was characterized by the acculturation of Native American populations into the Mission system of sedentary lifestyles and cultivation (rather than hunting and gathering).

In 1791, Comandante General Pedro de Nava authorized the establishment of presidial pueblos (civilian lands around military forts) with detailed regulations for their organization (Crane 1991). The Pueblo of Monterey grew in population as Spanish soldiers married and raised families, or retired to this location. In 1796, Marques de Branciforte and Governor Diego de Borica created the Villa de Branciforte adjacent to Mission Santa Cruz lands, a pueblo to be colonized by retired soldiers and their families. However, no soldiers could be convinced to move to the Villa de Branciforte and the settlement failed (Bean 1968).

In 1822 California received word of Mexico's independence from Spain. Hallmarks of the Mexican Period in California are the secularization of mission lands, which was fully accomplished by 1836, and the issuance of large and numerous land grants to soldiers and prominent citizens.

The Treaty of Guadalupe Hidalgo was signed in 1848, ending the Mexican-American War and officially making California a territory of the United States. U.S. jurisdiction over California had really begun two years earlier, when on July 7, 1846, Commodore John D. Sloat raised the U.S. flag after the "Battle of Monterey," after 50 U.S. Marines and 100 Navy sailors landed unopposed and captured the city without firing a shot (Crane 1991). The Gold Rush brought a multitude of new settlers to California in 1848 and the construction of the transcontinental railroad in 1869 contributed further to California's population boom.

Monterey and Santa Cruz Counties were created in 1850 as two of the original counties of California. San Benito County was separated from Monterey County in 1874. Early American settlements in the area were focused around the residences of earlier Hispanic settlers and on new colony settlements.

d. Cultural Resources Inventory. To compile a listing of recognized significant historic and prehistoric resources within Monterey, San Benito, and Santa Cruz Counties, information was obtained from the State Office of Historic Preservation The statewide Historical Resources Inventory (HRI) is not available for public review according to the *California Historical Information System Information Center Rules of Operation Manual* (Section III.A). The HRI would be

consulted after the determination of an Area of Potential Effect under project-level analysis of MTP/SCS transportation projects.

Tables 4.4-1, 4.4-2, and 4.4-3 present identified cultural resources within Monterey, San Benito, and Santa Cruz Counties. Included in each table are sites listed on the National Register of Historic Places (National Register; NRHP), sites designated as a California State Landmark, sites listed in the California Register of Historical Resources (California Register, CRHR), and those that are considered California Points of Historical Interest. The NRHP, authorized by the National Historic Preservation Act (NHPA), lists the Nation's significant cultural resources. Resources listed in the NRHP are protected under the NHPA. The CRHR is maintained by the State Office of Historic Preservation and lists cultural resources important to the history of California, which are protected under CEQA. California Points of Historical Interest are resources that are of local significance.

Table 4.4-1 presents identified cultural resources in Monterey County. Within Monterey County there are 54 National Register listings, 24 California State Landmarks, one California Register Listing, and three Points of Historical Interest.

Table 4.4-1
Monterey County Historical Resources

City or Community	Resource Name	National Register	State Landmark	California Register	Point of Historical Interest
Pacific Grove	Asilomar Conference Grounds	X			
Carmel Valley	Berwick Manor and Orchard	X			
Monterey	Black, Mary C. W., Studio House	X			
Salinas	Black, Samuel M., House	X			
Salinas	Bontadelli, Peter J., House	X			
Salinas	Boronda, Jose Eusebio, Adobe	X			
Monterey	Bromfield/Berne House			X	
Pacific Grove	Buck, Frank Laverne House	X			
Carmel	Carmel Mission	X			
Monterey County	Carmel Valley Road-Boronda Road Eucalyptus Trees	X			
Monterey	Casa De Oro		X		
Castroville	Castroville Japanese Language School	X			
Pacific Grove	Centrella Hotel	X			
Pacific Grove	Chautauqua Hall		X		
Monterey	Colton Hall		X		
Gonzales	Community Church of Gonzales	X			
King City	Cueva Pintada	X			
Monterey	Custom House	X	X		
Big Sur	Deetjen's Big Sur Inn	X			
Jolon	Dutton Hotel, Stagecoach Station	X			
Monterey	El Castillo	X			

Table 4.4-1
Monterey County Historical Resources

City or Community	Resource Name	National Register	State Landmark	California Register	Point of Historical Interest
Monterey	Finch, James W., House	X			
Salinas	First and Second Filipino Regiments Monument				X
Monterey	First Theater in California		X		
Gonzales	Gabilan Lodge No. 372- Independent Order of Odd Fellows	X			
Jolon	Gil, Jose Mario, Adobe	X			
Watsonville	Glass House, Casa Materna of the Vallejos		X		
Pacific Grove	Gosby House Inn	X			
Monterey	Gutierrez Adobe		X		
Salinas	Hill Town Ferry		X		
Monterey	House of Four Winds		X		
Monterey	House of Governor Alvarado		X		
Carmel	Jeffers, Robinson, House	X			
Salinas	José Eusebio Boronda Adobe Casa		X		
King City	King City Joint Union High School Auditorium	X			
Lucia	Kirk Creek Campground	X			
Salinas	Krough House	X			
Monterey	Landing Place of Sebastian Vizcaino and Fray Junípero Serra		X		
Monterey	Larkin House		X		
Monterey	Larkin House	X			
Soledad	Los Coches Rancho	X			
Monterey	Marsh, G.T., and Sons	X			
Monterey	Merritt, Josiah, Adobe	X			
King City	Milpitas Ranch House	X			
Soledad	Mission Nuestra Señora de la Soledad		X		
King City	Mission San Antonio de Padua		X		
Carmel	Mission San Carlos Borroméo de Carmelo	X	X		
Salinas	Monterey County Jail	X			
Monterey	Monterey Old Town Historic District	X			
Salinas	Nesbitt, Sheriff William Joseph, House	X			
Monterey	Old Pacific House		X		
Pebble Beach	Olvida Penas	X			
Carmel By-the-Sea	Outlands in the Eighty Acrea	X			

Table 4.4-1
Monterey County Historical Resources

City or Community	Resource Name	National Register	State Landmark	California Register	Point of Historical Interest
Monterey	Pacific Biological Laboratories	X			
Aromas	Pajaro River				X
Monterey	Parmelee, Lou Ellen House	X			
Pacific Grove	Point Pinos Lighthouse	X			
Big Sur	Point Sur Light Station	X			
Pajaro	Porter-Vallejo Mansion				
Big Sur	Post, Joseph W., House	X			
Salinas	Rancho Las Palmas	X			
San Lucas	Rancho San Lucas	X			
Soledad	Richardson Adobe		X		
Monterey	Robert Louis Stevenson House	X	X		
Monterey	Royal Presidio Chapel	X			
Figueroa	Royal Presidio Chapel of San Carlos Borroméo		X		
Jolon	San Antonio De Padua Mission	X			
Salinas	Sargent, B. V., House	X			
Greenfield	Site Number 4 MNT 85	X			
Salinas	Site of the Battle of Natividad		X		
Monterey	Soberanes Adobe		X		
Salinas	Steinbeck, John House	X			
Monterey	Stevenson House	X			
Carmel-by-the-Sea	Sunset Center	X			
Salinas	Temporary Detention Camps for Japanese Americans-Salinas Assembly Center		X		
Jolon	Tidball Store	X			
Pacific Grove	Trimmer Hill	X			X
Monterey	Vásquez House		X		
Monterey County	Whaler's Cabin	X			

Source: California Office of Historic Preservation, website, 2013.

Table 4.4-2 presents identified cultural resources in San Benito County. Within San Benito County there are 12 National Register listings, five California State Landmarks, two Points of Historical Interest, and no California Register listings.

Table 4.4-2
San Benito County Historical Resources

City or Community	Resource Name	National Register	State Landmark	Point of Interest
San Juan Bautista	Anza House	X		
San Juan Bautista	Castro House		X	
Soledad	Chalone Creek Archaeological Sites	X		
Hollister	Downtown Hollister Historic District	X		
San Juan Bautista	Fremont Peak		X	
Hollister	Hawkins, Joel and Rena, House	X		
Hollister	Hollister Carnegie Library	X		
San Juan Bautista	Marentis House	X		
Hollister	McCallum, Roy D. House	X		
San Juan Bautista	Mission San Juan Bautista and Plaza		X	
Hollister	Monterey Street Historic District	X		
San Benito County	New Idria Mine		X	
San Juan Bautista	The Pear Tree			X
San Juan Bautista	Plaza Hotel	X	X	
San Juan Bautista	Rozas House	X		
San Juan Bautista	San Juan Bautista Congregational Church, Glad Tidings Chu			X
San Juan Bautista	San Juan Bautista Plaza Historic District	X		
San Juan Bautista	Wilcox, Benjamin, House	X		

Source: California Office of Historic Preservation, website, 2013.

Table 4.4-3 presents identified cultural resources in Santa Cruz County. Within Santa Cruz County there are 43 National Register listings, seven California State Landmarks, seven Points of Historical Interest, and no California Register listings.

Table 4.4-3
Santa Cruz County Historical Resources

City or Community	Resource Name	National Register	State Landmark	Point of Interest
Santa Cruz	Bank of Santa Cruz County	X		
Aptos	Bayview Hotel	X		
Big Basin	Big Basin Redwoods State Park		X	
Watsonville	Bockius, Godfrey M., House	X		
Santa Cruz	Branciforte Adobe	X		
Santa Cruz	Brown, Allan, Site	X		
Santa Cruz	Carmelita Court	X		
Watsonville	Castro, Jose Joaquin, Adobe	X		
Santa Cruz	Cope Row Houses	X		
Santa Cruz	Cowell Lime Works Historic District	X		
Davenport	Davenport Jail	X		

Table 4.4-3
Santa Cruz County Historical Resources

City or Community	Resource Name	National Register	State Landmark	Point of Interest
Freedom	Discovery of California Redwoods			X
Santa Cruz	Evergreen Cemetery			X
Felton	Felton Covered Bridge	X	X	
Felton	Felton Presbyterian Church	X		
Santa Cruz	Garfield Park Branch Library	X		
Santa Cruz	Glen Canyon Covered Bridge	X		
Scotts Valley	Glenwood		X	
Santa Cruz	Golden Gate Villa	X		
Santa Cruz County	Grace Episcopal Church	X		
Capitola	Hihn Building	X		
Capitola	Hihn Building, Superintendent's Office			X
Santa Cruz	Hinds, A. J., House	X		
Santa Cruz	Hotel Metropole	X		
Watsonville	Judge Lee House	X		
Watsonville	Lettunich Building	X		
Santa Cruz	Live Oak Ranch	X		
Santa Cruz	Looff Carousel and Roller Coaster on the Santa Cruz Beach Boardwalk	X		
Watsonville	Madison House	X		
Watsonville	Mansion House Hotel	X		
Santa Cruz	Mission Hill Area Historic District	X		
Scotts Valley	Mountain Charlie Big Tree			X
Santa Cruz	Neary-Rodriguez Adobe	X		
Santa Cruz	Octagon Building	X		
Capitola	Old Riverview Historic District	X		
Ben Lomond	Phillpshurst-Riverwood	X		
Santa Cruz	Rancho San Andrés Castro Adobe		X	
Watsonville	Redman House	X		
Capitola	Rispin Mansion	X		
Santa Cruz	Robinson, Elias H., House	X		
Santa Cruz County	Sand Hill Bluff Site			X
Santa Cruz	Santa Cruz Beach Boardwalk		X	
Santa Cruz	Santa Cruz County Hall of Records- Octagon Building			X
Santa Cruz	Santa Cruz Downtown Historic District	X		
Scotts Valley	Scott, Hiram D., House	X		
Santa Cruz	Site of Center of Villa de Branciforte		X	
Capitola	Six Sisters-Lawn Way Historic District	X		
Watsonville	Stoesser Block and Annex	X		

Table 4.4-3
Santa Cruz County Historical Resources

City or Community	Resource Name	National Register	State Landmark	Point of Interest
Capitola	Superintendent's Office		X	
Felton	Toll House, Toll House Resort Motel			X
Santa Cruz	US Post Office- Santa Cruz Main	X		
Aptos	Valencia Hall	X		
Capitola	Venetian Court Apartments	X		
Santa Cruz	Veterans Memorial Building	X		
Watsonville	Watsonville City Plaza	X		
Watsonville	Watsonville-Lee Road Site	X		

Source: California Office of Historic Preservation, website, 2013.

e. Regulatory Setting. A cultural resource may be designated as significant by national, State, or local authorities. In order for a resource to qualify for listing in the NRHP or the CRHR it must meet one or more identified criteria of significance. A resource may qualify for NRHP listing if it:

(A) Is associated with events that have made a significant contribution to the broad patterns of our history;
(B) Is associated with the lives of persons important in our past;
(C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
(D) Has yielded, or may be likely to yield, information important in prehistory or history.

A cultural resource is also designated as significant if it is a *unique archaeological resource*, which is defined in § 21083.2(g) as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. *Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;*
2. *Has a special and particular quality such as being the oldest of its type or the best available example of its type; or*
3. *Is directly associated with a scientifically recognized important prehistoric or historic event or person.*

CEQA Guidelines. Since Monterey, San Benito, and Santa Cruz counties have not adopted their own guidelines for the analysis of impacts to cultural resources, the State *CEQA Guidelines* are appropriate for determining the significance of impacts. According to these guidelines, a "historical resource" can be defined by one of several criteria: listing or eligibility for listing in the CRHR; listing in a local register of historic resources; or historical significance according to the four NRHP criteria described above.

4.4.2 Impact Analysis

a. Methodology and Significance Thresholds. For the purpose of this discussion, the term cultural resource broadly includes archaeological, paleontological and historic resources. The significance of a cultural resource impact is determined by whether that resource meets the criteria discussed in Section 4.4.1.e above. Where the significance of a site is unknown, it is presumed to be a significant resource for the purpose of the impact evaluation in this EIR. Listings of historical resources in Monterey, San Benito, and Santa Cruz Counties were obtained from the State Office of Historic Preservation. Potential areas of disturbance associated with the 2035 MTP/SCS projects listed in Tables 4.4-4 through 4.4-6 were then compared to the identified historical sites listed on Tables 4.4-1 through 4.4-3 to determine whether an impact may occur.

According to Appendix G of the CEQA Guidelines, a proposed project would have significant impacts on cultural resources if the project would:

- *Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5;*
- *Cause a substantial adverse change in the significant of an archaeological resource pursuant to § 15064.5;*
- *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or*
- *Disturb any human remains, including those interred outside of formal cemeteries.*

According to the CEQA Guidelines § 15126.4(b)(3), public agencies should, whenever feasible, seek to avoid damaging effects on any historical resource of an archaeological nature. The following factors shall be considered for a project involving such an archaeological site:

(A) Preservation in place (avoidance) is the preferred manner of mitigating impacts to archaeological sites. Preservation in place maintains the relationship between artifacts and the archaeological context. Preservation may also avoid conflict with religious or cultural values of groups associated with the site.

(B) Preservation in place may be accomplished by, but is not limited to, the following:

- *Planning construction to avoid archaeological sites;*
- *Incorporation of sites within parks, greenspace, or other open space;*
- *Covering the archaeological sites with a layer of chemically stable soil before building tennis courts, parking lots, or similar facilities on the site.*
- *Deeding the site into a permanent conservation easement.*

(C) When data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes provision for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Regional Information Center. Archaeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5 Health and Safety Code.

(D) Data recovery shall not be required for an historical resource if the lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the archaeological or historical resource, provided that the determination is documented and that the studies are deposited with the California Historical Resources Regional Information Center.

b. Project Impacts and Mitigation Measures. This section describes generalized impacts associated with the projects anticipated under the 2035 MTP/SCS. Table 4.4-4 in Section 4.4.2.c. summarizes the specific 2035 MTP/SCS projects that could result in the types of impacts discussed below.

Impact CR-1 Implementation of proposed transportation improvements and the land use scenario envisioned by the 2035 MTP/SCS could cause a substantial adverse change in ~~disturb~~ known and unknown cultural resources that are "historic resources" or "unique archeological resources" as defined in CEQA Guidelines Section 15064.5. Impacts to archaeological ~~and paleontological~~ resources would be Class II, *significant but mitigable* and impacts to historical resources would be Class I, *significant and unavoidable.*

Archaeological and Paleontological Resources. It is known that paleontological resources and archeological resources are present throughout the Monterey Bay area. Therefore, it is possible to encounter known and unknown archaeological and paleontological resources as a result of implementation of transportation improvement projects pursuant to the 2035 MTP/SCS. Many of the improvements proposed under the 2035 MTP/SCS consist of minor expansions of existing facilities that would not involve construction in previously undisturbed areas. However, depending on the location and extent of the proposed improvement and ground disturbance, known and/or unknown cultural resources could be impacted. Representative projects that may impact previously undisturbed areas are listed in Table 4.4-4 through 4.4-6. The projects listed were identified based on the likelihood that development of new infrastructure would impact previously undisturbed areas. It is possible that construction activities associated with some of the proposed roadway or bridge widening or extension projects in addition to those listed in Table 4.4-4 through 4.4-6 could adversely impact cultural and paleontological resources by exposing them to potential vandalism or causing displacement from the original context and integrity. Specific analysis would be required as individual projects are proposed.

In addition, the 2035 MTP/SCS also contains a future land use scenario that envisions infill and transit oriented development (TOD). This land use scenario focuses future development within existing urbanized areas. As a result, encroachment into undisturbed area would be reduced when compared to land use scenario that does not focus future development within existing urbanized areas, thereby reducing the potential for impacts to known or unknown archaeological or paleontological resources in undisturbed areas. However, it is possible that archaeological or paleontological resources could be located on or near future infill and TOD project sites. Impacts to cultural resources would be potentially significant.

Historic Resources. With regard to known significant historic resources, the location and nature of the proposed 2035 MTP/SCS projects listed in Tables 4.4-4 through 4.4-6 were evaluated relative to the location of the historic properties listed in Table 4.4-1 through 4.4-3. It has been determined that one of the proposed improvement projects (SB-COH-A36) along Monterey Street in the City of Hollister may impact the National Register listed Monterey Street Historic District. Project SB-COH-A36 is an Active Transportation project. The specific details of the scope of this project are unknown at this time, though it may include elements that could alter the integrity of the Monterey Street Historic District.

In addition, the 2035 MTP/SCS also contains a future land use scenario that envisions infill development and TOD. This land use scenario focuses future development within existing urbanized areas. There are no specific development projects pursuant to the land use scenario envisioned by the 2035 MTP/SCS identified at this time, so a site-specific evaluation is not possible at this time. However, because future infill and TOD could be located near or adjacent to existing historic structures, the integrity of such structures could be indirectly or directly impacted as a result. Moreover, if future infill or TOD would involve redevelopment/ demolition of existing structures, it is possible that such structures could have historical significance (as determined by site-specific evaluation) given the presence of structures that are over 50 years old within the Monterey Bay region, particularly within existing urbanized areas. Redevelopment or demolition could result in the permanent loss of historic structures. Similarly, while proposed transportation projects would not impact known historic structures, it is possible that such projects may require reconstruction or demolition of transportation infrastructure or other structures that are over 50 years old, and which may be considered historically significant as determined by site-specific evaluation. Such reconstruction or demolition could result in the permanent loss of historic structures. Impacts would be potentially significant in all three counties.

Summary. In conclusion, the nature of potential impacts to archeological and paleontological resources cannot be fully evaluated at this point since the specific "Area of Potential Effect" for each improvement project has not yet been defined and the location of cultural resources may be unknown. However, many of the projects included in the 2035 MTP/SCS will require an independent review at which time the significance of the impact can be precisely determined. As discussed above, the proposed transportation improvements and the land use plan envisioned by the 2035 MTP/SCS may impact known and/or unknown cultural resources. Impacts to archeological and paleontological resources would be potentially significant.

As discussed above, impacts to historic resources would be potentially significant because future transportation improvements and/or infill and TOD development could directly or indirectly impact historic structures. The nature of potential impacts cannot be fully evaluated at this point because the precise characteristics of future infill and TOD are not known. Nonetheless, the potential for historic structures to be impacted remains.

Mitigation Measures. In general, prior to commencement of any action, development or land use changes on lands subject to federal jurisdiction or for projects involving federal funding, a cultural resource survey and an environmental analysis must be prepared. Historic resources are also protected under the regulations of the National Historic Preservation Act and

the Department of Transportation Act of 1966. County and city sponsored projects would be subject to local ordinance requirements, including General Plan provisions that protect cultural resources.

To minimize impacts to cultural resources, for transportation projects under their jurisdiction, ~~AMBAG,~~ SCCRTC, SBtCOG, TAMC shall, and transportation project sponsor agencies can and should implement the following mitigation developed for the 2035 MTP/SCS program where applicable for transportation projects that result in impacts to archeological, paleontological, and historic resources. Cities and counties in the AMBAG region can and should implement these measures, where relevant to land use projects implementing the 2035 MTP/SCS. ~~for transportation projects with potential to impact cultural resources. Project-specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions. These measures can and should also be implemented for future infill and TOD pursuant to the 2035 MTP/SCS.~~

CR-1(a) The project sponsor of a 2035 MTP/SCS project involving earth disturbance, the installation of pole signage or lighting, or construction of permanent above ground structures or roadways shall ensure that the following elements are included in the project's individual environmental review:

1. Prior to individual project permit issuance, a map defining the Area of Potential Effects (APE) shall be prepared on a project by project basis for 2035 MTP/SCS improvements which involve earth disturbance, the installation of pole signage or lighting, or construction of permanent above ground structures. This map will indicate the areas of primary and secondary disturbance associated with construction and operation of the facility and will help in determining whether known archeological, paleontological or historical resources are located within the impact zone.

2. A preliminary study of each project area, as defined in the APE, shall be completed to determine whether or not the project area has been studied under an earlier investigation, and to determine the impacts of the previous project.

3. If the results of the preliminary studies indicate additional studies are necessary; development of field studies and/or other documentary research shall be developed and completed (Phase I studies). Negative results would result in no additional studies for the project area.

4. Based on positive results of the Phase I studies, a Phase II evaluation of identified resources shall be completed to determine the potential eligibility/ significance of the resources.

Phase III mitigation studies shall be coordinated with the Office of Historic Preservation (OHP), as the research design will require review and approval from the OHP. In the case of prehistoric or Native American related resources, the Native American Heritage Commission and/or local representatives of the Native American population shall be contacted for input and permitted to respond to the testing/mitigation programs. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

CR-1(b) If development of the proposed improvement requires the presence of an archaeological, Native American, or paleontological monitor, the project sponsor shall ensure that a Native American monitor, certified archaeologist, and/or certified paleontologist, as applicable, monitors the grading and/or other initial ground altering activities. The schedule and extent of the monitoring will depend on the grading schedule and/or extent of the ground alterations. This requirement can be accomplished through placement of conditions on the project by the local jurisdiction during individual project permitting. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

CR-1(c) The project sponsor shall ensure that materials recovered over the course of any given improvement are adequately cleaned, labeled, and curated at a recognized repository. This requirement can be accomplished through placement of conditions on the project by the local jurisdiction during individual project permitting. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

CR-1(d) The project sponsor shall ensure that mitigation for potential impacts to significant cultural resources includes one or more of the following:

- Realignment of the project right-of-way (avoidance, the most preferable method);
- Capping of the site and leaving it undisturbed;
- Addressing structural remains with respect to NRHP guidelines (Phase III studies);
- Relocating structures per NRHP guidelines;
- Creation of interpretative facilities; and/or
- Development of measures to prevent vandalism.

This can be accomplished through placement of conditions on the project by the local jurisdiction during individual project

permitting. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

Significance After Mitigation. Implementation of the above measures would reduce potential impacts to archeological and paleontological resources to a less than significant level. However, impacts related to historic structures could remain significant and unavoidable because redevelopment or demolition that may be required to implement transportation improvements and/or infill or TOD development, and may result in the permanent loss of historic structures. Whether this impact is significant would in part be dependent on local review and findings that determine the potential significance of historic structures that may be adversely affected by a specific project action.

c. Specific MTP/SCS Projects That May Result in Impacts. Tables 4.4-4, 4.4-5, and 4.4-6 identify projects with the potential to cause or contribute to direct or indirect impacts to cultural resources such as those discussed in Section 4.4.2.b above. These projects are representative and were selected based on their potential scope and likelihood to require disturbances within previously undisturbed areas. While many projects have the potential to impact cultural resources, those requiring substantial ground disturbance in undisturbed areas have greater potential to impact cultural resources. Projects located in urban infill or previously disturbed areas have a greater potential to impact historic built environment resources, as well as historic archaeological resources in older developed areas. Additional specific analysis will be required as individual projects are implemented to determine the actual magnitude of impact. Mitigation measures discussed above would apply to these specific projects.

Table 4.4-4
MTP Projects that May Result in Cultural Resource Impacts- Monterey County

AMBAG Project #	Project	Location	Impact
MON-CT022-CT	SR 156 - Widening (Phase 2)	On SR 156 at US 101 in Prunedale	CR-1
MON-GON006-GO	Harold Parkway - Roadway extension	From La Gloria to 5th Street	CR-1
MON-GON007-GO	La Gloria Road Widening	From Harold to SR 101	CR-1
MON-MAR114-MA	Del Monte Boulevard widening	From north of Beach Road to H/W 1 interchange	CR-1
MON-MYC191-UM	Harris Road Overlay	Greater Salinas	CR-1
MON-SNS012-SL	Boronda Road Widening	Boronda Road from Natividad to Williams	CR-1
MON-SNS037-SL	Main Street (North) Widening	Main Street from Market to Casentini	CR-1
MON-SNS044-SL	Natividad Road Widening	From Boronda Road to Rogge Road	CR-1
MON-SNS048-SL	Romie Lane Widening	Romie Lane - between South Main and California Street	CR-1
~~MON-SNS052-SL~~	~~Sanborn Rd. Widening/Reconstruction~~	~~Sanborn Road from John Street to Abbott Street~~	~~CR-1~~
MON-SNS053-SL	San Juan Grade Widening	San Juan Grade between Boronda Road and Rogge Road	CR-1
MON-SNS059-SL	Williams Road Widening	Williams Road from Boronda to Old Stage Road	CR-1
MON-SNS090-SL	Russell Road Extension	From San Juan Grade Road to Old Stage Road	CR-1
MON-SNS092-SL	Independence Boulevard Extension	From Boronda Road to Russell Road	CR-1

Table 4.4-4
MTP Projects that May Result in Cultural Resource Impacts- Monterey County

AMBAG Project #	Project	Location	Impact
MON-SNS093-SL	Hemingway Drive Extension	From Boronda to Russell	CR-1
MON-SNS094-SL	Constitution Boulevard Extension	From Boronda to Old Stage Road	CR-1
MON-SNS095-SL	Sanborn Road Extension	From Boronda to Old Stage Road	CR-1
MON-SNS098-SL	Alisal Street Extension	Between Alisal Street and Bardin Road intersection and the Williams-Russell Collector	CR-1
MON-SNS099-SL	Moffett Street Extension	From Davis Road to Western Bypass	CR-1
MON-SNS100-SL	Rossi Street Widening	Between Main Street and Sherwood Drive	CR-1
MON-SNS101-SL	Bernal Drive Extension	From Sherwood Drive/Natividad Road intersection to Kern Street	CR-1
MON-SNS095-SL	Constitution Boulevard Extension	From Laurel Drive to Bernal Drive extension	CR-1
MON-SNS059-SL	Williams Road Widening	Between Del Monte Avenue and Boronda Road	CR-1
MON-SNS104-SL	Alisal Street Widening	Between Williams Road and Alisal Road	CR-1
MON-SNS108-SL	Laurel Drive Widening	Between Natividad and Constitution	CR-1
MON-SNS121-SL	McKinnon Street Extension	From Boronda Road to Rogge Road	CR-1
MON-SOL032-SO	Intersection Improvements	SR 146 (Metz Road) and SR 146 Bypass/Gabilan Drive Extension	CR-1
MON-SOL033-SO	Intersection Improvements	Front Street and Gabilan Drive Extension	CR-1
MON-SOL034-SO	Intersection Improvements	New Arterial 1 and Camphora Gloria Road	CR-1
MON-SOL035-SO	Intersection Improvements	New Arterial 1 and Front Street Extension	CR-1
MON-SOL036-SO	Intersection Improvements	New Arterial 1 and San Vincente Road	CR-1
MON-SOL037-SO	Intersection Improvements	New Arterial 1 and West Street	CR-1
MON-SOL038-SO	Intersection Improvements	West Street Extension and Camphora Gloria Road	CR-1
MON-SOL039-SO	Intersection Improvements	West Street Extension and Front Street Extension	CR-1
MON-SOL040-SO	Intersection Improvements	West Street Extension and San Vincente Road	CR-1
MON-SOL042-SO	Intersection Improvements	Gabilan Drive and San Vincente Road	CR-1
MON-MAR121-MA	Monterey Bay Coastal Bike Path	Marina Greens to Palm Ave	CR-1
MON-MRY007-MY	North Fremont Intersection Improvements and Class II Bikeway		CR-1
MON-MRY016-MY	Lower Presidio Pedestrian Connection	Between Hawthorne Avenue and Van Buren Street through Lower Presidio	CR-1
MON-MYC029-UM	Florence Street Extension	Along Florence Street from beginning of Florence at railroad, along Florence extension to levee.	CR-1
MON-MYC162-UM	CVMP - Laureles Grade at Carmel Valley Road Signalization or Widening	Carmel Valley	CR-1
MON-MYC156-UM	CVMP - Laureles Grade Paved Turnouts and Signs	Carmel Valley	CR-1

Table 4.4-4
MTP Projects that May Result in Cultural Resource Impacts- Monterey County

AMBAG Project #	Project	Location	Impact
MON-MYC164-UM	CVMP - Laureles Grade Shoulder Addition	Carmel Valley	CR-1
MON-MYC248-UM	Sanctuary Scenic Trail 15A	From Elkhorn Bridge (S) to Elkhorn Bridge (N)	CR-1
MON-MYC249-UM	Sanctuary Scenic Trail Segment 10	From Neponset Road to Lapis Road	CR-1
MON-MYC250-UM	Sanctuary Scenic Trail Segment 11	From Neponset Road to Monte Road	CR-1
MON-MYC251-UM	Sanctuary Scenic Trail Segment 12	From Salinas River and Hwy 1 to Salinas River State Beach	CR-1
MON-MYC252-UM	Sanctuary Scenic Trail Segment 13	From Salinas River State Beach to Sanholdt Road	CR-1
MON-MYC253-UM	Sanctuary Scenic Trail Segment 14	From Nashua Road to Potrero Road	CR-1
MON-MYC254-UM	Sanctuary Scenic Trail Segment 14	From Mora Road to Monterey Dunes Way	CR-1
MON-MYC255-UM	Sanctuary Scenic Trail Segment 14A	From Salinas River State Beach to Potrero Road	CR-1
MON-MYC256-UM	Sanctuary Scenic Trail Segment 17A	From Pajaro River to Trafton Road	CR-1
MON-MYC257-UM	Sanctuary Scenic Trail Segment 17B	From Trafton Road to McGowan Road	CR-1
MON-MYC258-UM	Sanctuary Scenic Trail Segment 7	From Lapis Road to Dunes Drive	CR-1
MON-MYC259-UM	Sanctuary Scenic Trail Segment 9	From Lapis Road to Monte Road	CR-1

Table 4.4-5
MTP Projects that May Result in Cultural Resource Impacts- San Benito County

AMBAG Project #	Project	Location	Impact
SB-CT-A01	SR 156 Widening	CT	CR-1
SB-CT-A17	State Route 25 Widening: Sunset Drive to Fairview Rd.	CT	CR-1
SB-SBC-A04	Union Road Widening (East)	SBC	CR-1
SB-SBC-A05	Union Road Widening (West)	SBC	CR-1
SB-SBC-A09	Fairview Road Widening	SBC	CR-1
SB-COH-A10	Meridian Street Extension to Fairview Rd.	COH	CR-1
SB-SBC-A11	Union Road (formerly Crestview Drive) Construction	SBC	CR-1
~~SB-SBC-A12~~	~~Memorial Drive Construction - Santa Ana to Flynn Road~~	~~SBC~~	~~CR-1~~
SB-COH-A16	Memorial Drive Extension : Meridian Street to Santa Ana	COH	CR-1
SB-COH-A18	Westside Boulevard Extension	COH	CR-1
SB-COH-A19	North Street (Buena Vista)	COH	CR-1
SB-COG-A15	Bikeway and Pedestrian Master Plan Implementation	COG	CR-1
SB-COH-A20	Sunnyslope Road	COH	CR-1
SB-SBC-A21	Nash/Tres Pinos Road	SBC	CR-1
SB-SBC-A22	Airline Highway	SBC	CR-1
SB-COH-A23	Ladd Lane	COH	CR-1
SB-COH-A24	South Street/Hillcrest Road	COH	CR-1

Table 4.4-5
MTP Projects that May Result in Cultural Resource Impacts- San Benito County

AMBAG Project #	Project	Location	Impact
SB-COH-A25	Central Avenue	COH	CR-1
SB-COH-A26	Memorial Drive	COH	CR-1
SB-SBC-A27	San Benito River Bike Trail	SBC	CR-1
SB-COH-A28	4th Street	COH	CR-1
SB-COH-A29	Sally Street	COH	CR-1
SB-COH-A30	Meridian Road	COH	CR-1
SB-COH-A31	San Felipe Road	COH	CR-1
SB-COH-A32	Sunset Drive	COH	CR-1
SB-COH-A33	Hillcrest Road	COH	CR-1
SB-SBC-A34	Santa Ana Rd./Buena Vista Road/North Street	SBC	CR-1
SB-SBC-A35	Westside Boulevard	SBC	CR-1
SB-COH-A36	Monterey Street	COH	CR-1

Table 4.4-6
MTP Projects that May Result in Cultural Resource Impacts- Santa Cruz County

AMBAG Project #	Project	Location	Impact
SC-RTC 24e-RTC	3 - Highway 1: Park Avenue to Bay/Porter Auxiliary Lanes	PM 12.1 Park Avenue to PM 13.2 Bay/Porter Avenue	CR-1
RTC 24fSC	2 - Highway 1: 41st to Soquel Avenue Auxiliary Lanes and Chanticleer Bike/Ped Bridge	On State Route 1 - 41st Ave to Soquel Avenue	CR-1
SC-RTC 24g-RTC	4 - Highway 1: State Park Drive to Park Avenue Auxiliary Lanes	On State Route 1 from State Park Drive to Park Avenue	CR-1
SC-RTC 27a-RTC	Monterey Bay Sanctuary Scenic Trail Network - Design, Environmental Clearance, and Construction	Segments and prioritization to be determined through Master Plan. May include trail segments adjacent to the Santa Cruz Branch Rail Line. Will link to trail network in Monterey County and the California Coastal Trail.	CR-1
SC-CO-P46a-USC	San Lorenzo Valley Trail: Highway 9 - Downtown Felton Bike Lanes & Sidewalks	Graham Hill Road to Henry Cowell State Park Entrance.	CR-1
~~SC-P07-SC~~	~~Broadway-Brommer Bike/Ped Path (Arana Gulch Multiuse Trail)~~	~~Broadway/Frederick to Brommer Street/7th Avenue through Arana Gulch~~	~~CR-1~~
SC-WAT-P43-WAT	Upper Watsonville Slough Trail	Trail from Main Street to Freedom Boulevard along upper Watsonville Slough	CR-1
SC-WAT-P46-WAT	Lower Watsonville Slough Trail	Trail from Ohlone Parkway to Highway 1 along lower Watsonville Slough	CR-1

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4.5 ENERGY

To assure that energy implications are considered in project decisions, the California Environmental Quality Act (CEQA) requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.

4.5.1 Setting

AMBAG serves as a leader for energy efficiency, climate action planning, and a clearinghouse for other energy related activity in the Monterey County, San Benito County, and Santa Cruz County region. Energy relates directly to environmental quality. Energy use can adversely affect air quality and other natural resources. The vast majority of California's air pollution is caused by burning fossil fuels. Consumption of fossil fuels is linked to changes in global climate and depletion of stratospheric ozone. Transportation energy use is related to the fuel efficiency of cars, trucks, and public transportation; choice of different travel modes (auto, carpool, and public transit); vehicle speeds, and miles traveled by these modes. Construction and routine operation and maintenance of transportation infrastructure also consume energy. In addition, residential, commercial, and industrial land uses consume energy, typically through the usage of natural gas and electricity.

a. Energy Supply. Natural gas-fired generation has been the dominant source of electricity in California for many years. However, the two largest sources of energy produced in California are crude oil, at approximately 1,123.4 trillion (10^{12}) British Thermal Units (BTU), and renewable energy sources, at approximately 812.8 trillion (10^{12}) BTU. Other sources of energy produced in California include nuclear electric power, natural gas, and biofuel (Energy Information Administration, 2011). According to the California Department of Conservation, Division of Oil, Gas & Geothermal Resources (2012), natural gas production amounts to 1,204,142 MCF in Monterey County and 54,084 MCF in San Benito County. There is no natural gas production in Santa Cruz County.

Monterey County contains 657 active oil wells, which produced 7,433,840 barrels of oil in 2012 (or approximately 0.4 percent of California's total oil production in 2012), while San Benito County contains 18 active oil wells, which produced 5,007 barrels of oil in 2012 (or less than 0.1 percent of California's total oil production in 2012). Santa Cruz County contains no active oil wells.

b. Energy Consumption and Sources. Total energy consumption in the United States (U.S.) in 2011 is estimated at approximately 97.3 quadrillion (10^{15}) BTUs (Energy Information Administration [EIA], Annual Energy Review [AER] 2012). Petroleum provides approximately 36% of the energy used in the U.S. (AER, 2012). Coal provides approximately 20% of the energy used, natural gas provides approximately 26% of the energy used, and nuclear and total renewable sources supply the rest in roughly equal proportions. On a per capita basis, California is ranked fourth lowest of the states in terms of energy use (209.6 million [10^6] BTU per person), or about 34% less than the U.S.'s average per capita consumption of 315.9 million BTU per person (AER, 2012).

The state's major sources of energy are comprised of Natural Gas (53.4 percent), Nuclear (15.7 percent), Large Hydro (14.6 percent), Coal (1.7 percent) and Renewable sources (14.6 percent). (California Energy Commission 2013, accessed November 2013). While in-state generation resources provide the majority of California's power, California is part of a larger system that includes all of western North America. In 2011, California produced 70% of the electricity it uses and the rest was imported from outside the country. In 2011, California used 272,645 million kilowatthours (kWh) of electricity per year (California Energy Commission, Electricity and Natural Gas Division website, 2013). The state used approximately 21,540 million therms of natural gas in 2011 (U.S. Energy Information Administration, 2013) while Monterey County consumed approximately 112 million therms of natural gas in 2011 (approximately 0.5 percent of California's total natural gas consumption), San Benito consumed approximately 13 million therms of natural gas in 2011 (less than 0.1 percent of California's total natural gas consumption), and Santa Cruz consumed approximately 58 million therms of natural gas in 2011 (approximately 0.3 percent of California's total natural gas consumption) (California Energy Commission, Electricity and Natural Gas Division website, 2013).

Energy consumed by the transportation sector accounts for roughly 38.2% of California's energy demand. The highest total energy consumption in California in 2011 is natural gas consumption, estimated at approximately 2,196.6 trillion BTUs (Energy Information Administration [EIA], 2011). The transportation sector, including on-road and rail transportation, consumes roughly 16 billion gallons of gasoline and four billion gallons of diesel fuel each year. California is the third largest consumer of gasoline in the world, behind the United States (as a whole) and China (California Energy Commission, December 2009).

According to Energy Consumption Data Management System (California Energy Commission, 2011), Monterey County has a total energy consumption of 2,554.85 million kWh (approximately 0.9 percent of California's total energy consumption in 2011) , San Benito County has a total energy consumption of 313.38 million kWh (approximately 0.1 percent of California's total energy consumption in 2011), and Santa Cruz County has a total energy consumption of 1,253.02 million kWh (approximately 0.5 percent of California's total energy consumption in 2011). The three counties within AMBAG are served by one electricity provider, Pacific Gas and Electric (PG&E). AMBAG works closely with PG&E to promote reduced energy use and energy savings to these counties through the AMBAG Energy Watch Program (AMBAG Energy Watch, 2012, accessed November 6, 2013). AMBAG Energy Watch reduces energy use by providing the following resources to eligible PG&E customers:

- *Developing Energy Action Strategies for jurisdictions;*
- *Compiling greenhouse gas inventories for jurisdictions;*
- *Energy assessments and audits;*
- *Direct installation of energy efficient equipment;*
- *Technical assistance and financial incentives for energy efficient retrofits in municipal buildings;*
- *Energy efficiency seminars and training courses in the region;*
- *Information on other PG&E energy efficiency programs and services; and*
- *Assistance accessing financing for energy efficiency projects.*

In addition, AMBAG Energy Watch has developed programs that would help reduce greenhouse gas (GHG) emissions including preparing local GHG inventories, climate action

planning support services, and Energy Action Strategies. (AMBAG, Energy Watch, accessed November 6, 2013).

The California Public Utilities Commission (CPUC) regulates privately owned electric and natural gas companies. The CPUC has developed energy efficiency programs such as smart meters, low income programs, distribution generation programs, self-generation incentive programs, and a California solar initiative (California Public Utilities Commission, Energy Division, accessed November 5, 2013).

Petroleum. Petroleum-based fuels are used for 96% of the State's transportation activity. Most gasoline and diesel fuel sold in California for motor vehicles is refined in California to meet state-specific formulations required by the California Air Resources Board (CARB). Major petroleum refineries in California are concentrated in three counties: Contra Costa, Kern, and Los Angeles (California Energy Commission, Petroleum Statistics & Data website, accessed October 30, 2013).

In 2010, California residents consumed over 18 billion gallons of gasoline and diesel fuel on State roadways (California Energy Commission, Fuels & Transportation Division website, accessed October 30, 2013).

As stated in Section 4.12, *Transportation and Circulation*, approximately ~~15,233,025~~ 15,705,613 vehicle miles were traveled each day within Monterey County, San Benito County, and Santa Cruz County in 2010. This equates to approximately ~~5.56~~ 5.43 billion vehicle miles per year.

Table 4.5-1
2010 Daily and Annual VMT for the AMBAG Region

	Daily VMT	Annual VMT
Monterey County (Light Truck and Cars only)	~~8,348,613~~ 8,614,496	~~3.05 billion~~ 2.98 billion
San Benito County (Light Truck and Cars only)	~~1,252,800~~ 1,365,131	~~0.46 billion~~ 0.47 billion
Santa Cruz County (Light Truck and Cars only)	~~4,296,298~~ 4,360,974	~~1.56 billion~~ 1.51 billion
Regionwide Light Truck and Cars VMT	~~13,897,711~~ 14,340,601	~~5.07 billion~~ 4.96 billion
Total Regionwide VMT (Full Fleet)	~~15,233,025~~ 15,705,613	~~5.56 billion~~ 5.43 billion

Source: AMBAG RTDM, 2013

Approximately 220.65 million gallons of gasoline were consumed in Monterey County during 2010 (Caltrans Division of Transportation System Information, 2009), which is approximately 604,549 gallons per day or 1.46 gallons per person per day (based on a 2010 countywide population of 415,057 persons [California Department of Finance, May 2013]). Approximately 47.04 million gallons of diesel were consumed in Monterey County during 2010. Approximately 34.51 million gallons of gasoline were consumed in San Benito County during 2010 (Caltrans Division of Transportation System Information, 2009), which is approximately 945,501 gallons per day or 17.1 gallons per person per day (based on a 2010 countywide population of 55,269 persons [California Department of Finance, May 2013]). Approximately 10.29 million gallons of diesel were consumed in San Benito County during 2010. Approximately 105.75 million gallons of gasoline were consumed in Santa Cruz County during 2010 (Caltrans Division of Transportation System Information, 2009), which is approximately 289,712 gallons per day or

1.10 gallons per person per day (based on a 2010 countywide population of 262,382 persons [California Department of Finance, May 2013]). Approximately 11.42 million gallons of diesel were consumed in Santa Cruz County during 2010.

One gallon of gasoline is equivalent to approximately 114,000 British thermal units (BTUs) of energy, while one gallon of diesel is equivalent to approximately 138,700 BTUs (U.S. Environmental Protection Agency [EPA], August 1995; U.S. EIA, June 2012). As shown in Table 4.5-2, approximately 117 billion BTUs were consumed per day in 2010.

Table 4.5-2
Annual Gasoline, Diesel, and Energy Consumption in the AMBAG Region

	2010 Annual Fuel use (million gallons)[1]	2010 Annual Energy Use (billion BTUs)	2010 Daily Energy Use (billion BTUs)
Gasoline	292.2	33,319.8	91.26
Diesel	68.8	9,542.6	26.14
Total	**361**	**42,853**	**117.41**

[1] *Caltrans Division of Transportation System Information, 2009.*

Natural Gas. In 2008, California received 46% of their natural gas supply from basins located in the Southwest, 19% from Canada, 22% from the Rocky Mountains, and 13% from basins located within California (California Public Utilities Commission website, accessed October 30, 2013). Once the gas arrives in California, it is distributed by three major gas utilities – San Diego Gas & Electric, Southern California Gas Company, and Pacific Gas & Electric – that provide a collective total of 98% of the State's natural gas (California Energy Commission, Natural Gas Data and Statistics website, accessed October 30, 2013). Natural gas is provided to the three counties in the Monterey Bay Region by PG&E.

Alternative Fuels.

Hydrogen is being explored for use in combustion engines and fuel cell electric vehicles. The interest in hydrogen as an alternative transportation fuel stems from its clean-burning qualities, its potential for domestic production, and the fuel cell vehicle's potential for high efficiency (two to three times more efficient than gasoline vehicles). Currently, 9 hydrogen refueling stations are located in California; however, none are located in Monterey County, San Benito County, or Santa Cruz County (U.S. Department of Energy (DOE), "Hydrogen Basics," 2013).

Biodiesel is a renewable alternative fuel that can be manufactured from vegetable oils, animal fats, or recycled restaurant greases. Biodiesel is biodegradable and cleaner-burning than petroleum-based diesel fuel. Biodiesel can run in any diesel engine generally without alterations, but fueling stations have been slow to make it available. There is currently one biodiesel refueling station in Monterey County called Alliance Mart located at 2109 North Fremont Street in Monterey. There is also a biodiesel refueling station in Santa Cruz County called Pacific Biofuel located at 433 Ocean Street in Santa Cruz (DOE "Biodiesel" website, accessed November 6, 2013).

Electricity can be used to power electric and plug-in hybrid electric vehicles directly from the power grid. Electricity used to power vehicles is generally provided by the electricity grid and stored in the vehicle's batteries. Fuel cells are being explored as a way to use electricity generated on board the vehicle to power electric motors. Unlike batteries, fuel cells convert chemical energy from hydrogen into electricity (DOE, "Electricity Fuel Basics," 2013). There are approximately 32 electrical charging stations in Monterey County, 3 in San Benito County, and 26 in Santa Cruz County (DOE, "Alternative Fueling Station Locator," accessed November 6, 2013, AMBAG).

c. Energy and Fuel Efficiency. Petroleum-based fuels are currently used for 96% of the State's transportation needs. (California Energy Commission, Natural Gas Data and Statistics, 2013). Though the demand for gasoline and diesel fuel is rising because of population growth and limited mass transit, the increase in demand can be partially offset by efficiency improvements. Land use policies that encourage infill and growth near transit centers (e.g. Senate Bill 375), improved fuel efficiency, and replacement of older less fuel-efficient cars with new cars with improved fuel economy will all serve to reduce fuel uses. Furthermore, gasoline demand may decrease into the future as the result of increasing gasoline prices.

d. Regulatory Setting. Programs and policies at the state and national levels have emerged to bolster the previous trend towards energy efficiency, as discussed below.

Federal Regulations.

Energy Policy Conservation Act (EPCA) and CAFE Standards. The EPCA of 1975 established nationwide fuel economy standards in order to conserve oil. Pursuant to this Act, the National Highway Traffic and Safety Administration, part of the U.S. Department of Transportation, is responsible for revising existing fuel economy standards and establishing new vehicle fuel economy standards.

The Corporate Average Fuel Economy (CAFE) program was established to determine vehicle manufacturer compliance with the government's fuel economy standards. Compliance with CAFE standards is determined based on each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the United States.

National Energy Policy Act of 1992 (EPACT92). EPACT92 calls for programs that promote efficiency and the use of alternative fuels. EPACT92 requires certain federal, state, and local government and private fleets to purchase a percentage of light duty alternative fuel vehicles (AFVs) capable of running on alternative fuels each year. In addition, EPACT92 has financial incentives. Federal tax deductions will be allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the act to consider a variety of incentive programs to help promote AFVs.

Energy Independence and Security Act of 2007 (EISA). EISA is designed to improve vehicle fuel economy and help reduce U.S. dependence on oil. It expands the production of renewable fuels, reducing dependence on oil, and confronting global climate change. Specifically, it:

- Increases the supply of alternative fuel sources by setting a mandatory Renewable Fuel

- Standard (RFS) requiring fuel producers to use at least 36 billion gallons of biofuel in 2022, which represents a nearly five-fold increase over current levels; and
- Reduces U.S. demand for oil by setting a national fuel economy standard of 35 miles per gallon by 2020 – an increase in fuel economy standards of 40%.

State Regulations.

Senate Bill 1078: California Renewables Portfolio Standard Program. Senate Bill (SB) 1078 (Chapter 516, Statutes of 2002), and as expanded under SB 2, establishes a renewable portfolio standard (RPS) for electricity supply. The RPS requires that retail sellers of electricity, including investor-owned utilities and community choice aggregators, provide 20% of their supply from renewable sources by 2017. SB 2 expanded this law and required procurement from eligible renewable energy resources to 33% by 2020. In addition, electricity providers subject to the RPS must increase their renewable share by at least one percent each year. The outcomes of this legislation will impact regional transportation powered by electricity.

Other. The California Energy Commission encourages local jurisdictions to prepare and adopt an Energy Element to their General Plans. Energy Elements assume an essential role by shaping and refining broader-based State and federal policies to fit local needs.

Local Regulations. The Monterey County General Plan and Santa Cruz County General Plan address energy efficiency in their Conservation and Open Space Elements. The goals and policies of their Conservation and Open Space Elements promote energy efficiency by encouraging all energy sectors (i.e. agricultural, residential, commercial, industrial, and public building applications) to employ renewable energy sources to the maximum extent feasible (Monterey County General Plan, accessed November 12, 2013). The San Benito County General Plan addressed energy efficiency in the Land Use Element. The goals and policies of the Land Use Element encourage the County to use energy conservation and efficiency techniques in new building design, orientation, and construction (Official San Benito County Government website, accessed November 12, 2013).

AMBAG Energy Watch works to develop, adopt, and implement climate action plans by providing support services such as GHG inventories and forecasts, educational forums and technical training workshops, energy-related GHG mitigation scenario development and modeling, and peer review of climate action planning documents (AMBAG, Energy Watch, accessed November 6, 2013). The County of Monterey has developed a Municipal Climate Action Plan (MCAP). The primary goal of the MCAP is to reduce GHG emissions to 15 percent below 2005 levels (Monterey County, Municipal Climate Action Plan, 2013). The County of Santa Cruz has developed a Climate Action Strategy (CAS) that establishes a goal of reducing emissions to 59 percent below 2009 levels by 2050 (County of Santa Cruz , Climate Action Strategy, 2013).

In addition, in 2010 AMBAG and other regional entities began developing the Electric Vehicle Infrastructure for the Monterey Bay Area Plan. The Electric Vehicle Infrastructure for the Monterey Bay Area Plan includes a siting plan to identify potential charging locations and presents a framework for establishing an electric vehicle charging network in the Monterey Bay Area. The three major goals of the siting plan are to:

- *Provide charging opportunities for plug-in electric vehicle owners that lack access to home charging*
- *Extend the range of plug-in electric vehicle for intra- and interregional travel along various corridors*
- *Maximize all electric miles by providing ample opportunities for charging while minimizing the risk of stranded plug-in electric vehicles*

This study was the precursor to the Monterey Bay Plug-In Electric Vehicle Readiness Plan, a comprehensive regional plan to promote plug-in electric vehicle adoption throughout the region, which is expected to be completed in 2014. The goal of the Readiness Plan is to encourage the mass adoption of plug-in electric vehicles in the region and reduce greenhouse gas emissions by providing a toolbox of recommended approaches for public, private, and non-profit organizations. The Readiness Plan identifies specific regional targets for significantly expanding plug-in electric vehicle adoption in the Monterey Bay Area by 2015, 2020, and 2025.

4.5.2 Impact Analysis

a. **Methodology and Significance Thresholds.** CEQA sets forth a legal framework for identifying significant effects on the environment caused by discretionary actions taken by state and local governments that qualify as a "project."

Appendix F includes "a list of energy impact possibilities and potential conservation measures designed to assist in the preparation of an EIR" (CEQA Guidelines, App. F, § II.) The list included in Appendix F represents "[e]xamples of energy conservation measures" (CEQA Guidelines, § 15126.4, subd. (a)(1)(C).). In drafting the Appendix F list, the California Natural Resources Agency explained that "specific items [on the list] may not apply" to all projects (CEQA Guidelines, App. F, § II.).

The 2035 MTP/SCS EIR is a Program EIR, not a project-level EIR. Use of Appendix F and the discussion of energy impacts in this document reflect the programmatic purpose behind the 2305 MTP/SCS EIR. In Appendix F, energy conservation is described in terms of decreased per capita energy consumption, decreased reliance on natural gas and oil, and increased reliance on renewable energy sources (CEQA Guidelines, App. F, § I.) AMBAG considered the guidance provided in Appendix F both in analyzing the program's energy impacts and in developing mitigation measures to further reduce its impacts. The significance thresholds for the 2035 MTP/SCS were formulated in consideration of these factors. For the purposes of this analysis, a potential impact would occur if the project involved inefficient, wasteful and unnecessary consumption of energy.

For this analysis, the calculation of total energy consumption follows the Input-Output methodology suggested by Caltrans (Caltrans Division of Engineering Services, Office of Transportation Laboratory, Energy and Transportation Systems, July 1983). It should be noted that the Caltrans methodology provides for the calculation of the *cumulative* energy consumption. Not only does the methodology include energy consumption that would be due solely to the construction of 2035 MTP/SCS projects, it also includes energy consumption that is not due to the 2035 MTP/SCS, but rather is due to socioeconomic growth (e.g., population and employment), land use policies, and the existing transportation infrastructure.

Energy consumption from transportation projects is categorized in terms of "direct" and "indirect" energy. Direct energy is the fuel that propels vehicles – it is consumed directly by the automobile, bus, or transit vehicle. Indirect energy is all the remaining energy needed to construct, operate, and maintain the roadway and rail system and manufacture and maintain the vehicles using the roadway and rail system (Caltrans 1983). Indirect energy accounts for construction-related energy (e.g., the energy required to construct transportation improvements), which is anticipated to be consumed through the life of the plan as several transportation improvement projects may be undertaken concurrently, and is therefore characterized as a long-term, operational energy use. Indirect energy also accounts for the maintenance of a roadway over the life of a project, which is also considered a long-term, operational energy use.

Direct Energy Consumption. Direct energy is that energy used in the daily operation of the transportation system, including the propulsion of passenger vehicles (automobiles, vans, and trucks) and transit vehicles, including buses and trains. The direct energy analysis for the project is based on baseline (2010), 2020, and 2035 vehicle miles traveled (VMT) with and without the 2035 MTP/SCS (as analyzed in Section 4.12, *Transportation and Circulation*).

The 2010 gasoline and diesel fuel consumption data for Monterey County, San Benito County, and Santa Cruz County was converted to BTUs (refer to Table 4.5-2) and divided by regionwide daily VMT (refer to Table 4.5-1) to derive a regional BTU/VMT conversion factor of 7,707 BTUs per VMT.

It should be noted that the BTU/VMT factor is forecast to continue to decrease into the future as a result of improved fuel economy, particularly if the fleet-wide goal of 35 mpg by year 2020 proposed under the Energy Independence and Security Act is met. Applying the 2010-based factor to future year (2035) VMT therefore provides a reasonable worst case evaluation of energy consumption as the energy efficiency of vehicles in 2035 is anticipated to be higher than current fuel efficiency of vehicles.

Indirect Energy Consumption. Indirect energy is the energy required to construct, operate, and maintain the transportation network, as well as to manufacture and maintain on-road vehicles and transit vehicles. Therefore, construction-related impacts associated with the 2035 MTP/SCS are included in the indirect energy analysis. The indirect energy analysis was conducted using the Input-Output methodology developed by Caltrans (1983). This method converts VMT, lanes miles, or construction dollars into energy consumption based on data from other transportation projects in the United States. Table 4.5-3 shows the indirect energy consumption factors used in this analysis. It should be noted that indirect energy consumption due to production of fuel and transportation/transmission to the end users is not included in this analysis, as any such analysis would be speculative.

Table 4.5-3
Indirect Energy Consumption Factors

Mode	Factor
Manufacturing	
Passenger Vehicles	1,410 BTU/VMT
Transit Buses	3,470 BTU/VMT
Roadway (construction)	27,300 BTU/1977$
Rail (construction)	2,108 BTU/VMT
Maintenance	
Passenger Vehicles	1,400 BTU/VMT
Transit Buses	13,142 BUT/VMT
Rail	7,060 BTU/VMT

2013 dollars converted to 1977 dollars as a reasonable worst-case inflation assumption using United States Department of Labor and Statistics inflation converter. Note that transportation projects with construction costs planned further in the future would result in lower energy use relative to construction cost, due to anticipated additional future inflation.

b. Project Impacts and Mitigation Measures. This section describes generalized impacts associated with some of the projects anticipated under the 2035 MTP/SCS.

Impact E-1 **Future transportation improvement projects and implementation of the land use scenario envisioned by the 2035 MTP/SCS would increase demand for energy beyond existing conditions. However, the 2035 MTP/SCS would not result in inefficient, unnecessary, or wasteful direct or indirect consumption of energy, and would be consistent with applicable federal, state, and local energy conservation policies. As such, this impact would be considered Class III, *less than significant*.**

Daily operation of the regional transportation system uses energy in the form of fuel consumed by propulsion of passenger vehicles (automobiles, vans, and trucks) and transit vehicles (buses and trains). Some highway and roadway improvements included in the MTP would increase vehicle capacity, allowing a greater number of vehicles to use facilities in the region. However, increasing capacity and improving roadways and intersections does not necessarily result in an increase in motor vehicle trips. Increases in motor vehicle trips are primarily a combined function of population and employment growth. It should be noted that population growth and growth in VMT would occur within the region regardless of whether the 2035 MTP/SCS is implemented. As a result, energy consumption as it relates to vehicles would increase beyond the 2010 baseline in any scenario. However, many 2035 MTP/SCS projects (e.g., bikeway and pedestrian projects, rail projects, transit projects, Transportation System Management [TSM], and Transportation Demand Management [TDM] projects) would improve the availability of alternative transportation modes, help reduce congestion, and resultant harmful air quality emissions in the AMBAG region.

Construction and maintenance of the proposed 2035 MTP/SCS projects (including construction and maintenance of roadways and rail lines) would result in short-term consumption of energy

resulting from the use of construction equipment and processes. During construction activities, energy would be needed to operate construction equipment. In addition, roadway and transit construction materials, such as asphalt, concrete, surface treatments, steel, rail ballast, as well as building materials, require energy to be produced, and would likely be used in projects that involve new construction or replacement of older materials, as well as construction of future infill and transit oriented development (TOD) projects envisioned by the 2035 MTP/SCS. The California Green Building Standards Code (CALGreen Code) includes specific requirements related to recycling, construction materials, and energy efficiency standards, which would apply to construction of roadway and transit improvement projects, as well as future infill and TOD envisioned by the 2035 MTP/SCS and help to minimize waste and energy consumption. All construction and maintenance conducted pursuant to the 2035 MTP/SCS, or as a result of improvements made by the 2035 MTP/SCS, would be required to comply with the CALGreen Code.

Table 4.5-4 shows the vehicle miles traveled (VMT) and total direct and indirect energy use (BTUs) in the AMBAG region under existing (2010) conditions and under the 2035 No Project, and 2035 with the preferred 2035 MTP/SCS scenario. ~~The VMT shown in Table 4.5-4 include "off model adjustments," which are based on academic literature reviews, collaboration with other MPOs and consultation with CARB's Policies and Practices Guidelines, and capture reductions in VMT associated with transit service enhancements, transportation system management, and active transportation, transportation demand management, and other travel demand reduction programs (vanpool for agricultural works, car sharing, electric vehicle charging station plans), as well as increasing prevalence of work at home workers that are not able to be modeled. These off model adjustments are estimated at a 1.95% reduction in passenger vehicle trips with the 2035 MTP/SCS in 2020, and a 5.85% reduction in passenger vehicle trips with the 2035 MTP/SCS in 2035.~~

Table 4.5-4
Direct and Indirect Transportation Energy Use

Scenario	Analysis Year	Regionwide VMT (Daily)	Direct Energy Use (Daily Billion BTUs)	Indirect Energy Use (Daily Billion BTUs)	Total Energy Use (Daily Billion BTUs)
2010 Baseline	2010	~~15,233,025~~ 15,705,613	117.4	~~42.6~~ 42.7	~~160.0~~ 160.1
2035 No Project	2035	~~19,391,041~~ 20,008,136	~~149.5~~ 149.6	~~54.0~~ 54.1	~~203.4~~ 203.7
2035 Preferred MTP/SCS	2035	~~18,608,773~~ 19,676,799	~~143.4~~ 147.1	~~54.5~~ 54.7	~~197.9~~ 201.8

As shown in Table 4.5-4, without implementation of the 2035 MTP/SCS, energy use would increase over time as the result of regional socioeconomic (population and employment) growth. However, the 2035 MTP/SCS would result in a decrease in VMT and direct and ~~indirect~~ total energy use as compared to the No Project scenario for the 2035 analysis year. A~~n~~ decrease in VMT under the 2035 MTP/SCS would result in decreased regionwide fuel consumption. In 2035, the 2035 MTP/SCS would result in a ~~2.7~~ .09% decrease in total energy usage when compared to the No Project scenario. In addition, transportation projects implemented under the 2035 MTP/SCS would result in indirect energy use associated with ~~due to~~ construction of programmed projects.

For the purposes of this analysis, a potential impact would occur if the project involved inefficient, wasteful, and unnecessary consumption of energy. As discussed above, the 2035 MTP/SCS would result in a decrease in total energy usage when compared to the No Project scenario. In addition, the 2035 MTP/SCS includes Transportation Demand Management (TDM) and Traffic Systems Management (TSM) intended to improve the efficiency and effectiveness of the transportation system. With respect to TDM, the focus is on changing peoples' travel behavior. Regarding TSM, administrators focus on system operational and/or service improvements to facilitate traffic flow. The transportation improvements proposed under the 2035 MTP/SCS would result in a more efficient transit system. The 2035 MTP/SCS also would result in greater availability of public transit and other alternative modes of transportation, such as Complete Streets and active transportation, as well as a more energy efficient land use scenario. The reduction in overall congestion resulting from these service level improvements would reduce fuel consumption and promote fuel efficiency beyond what is accounted for in the above analysis. In addition, improvements to state fuel efficiency standards for vehicles and state mandated increases in the supply and use of alternative transportation fuels would further reduce fuel consumption, such as implementation of the Electric Vehicle Infrastructure for the Monterey Bay Area Plan. ~~electric vehicle charging station plan.~~ Therefore, the 2035 MTP/SCS would not result in inefficient, unnecessary, or wasteful consumption of gasoline or diesel fuel.

The 2035 MTP/SCS envisions a regional land use scenario that promotes mixed-use and infill development in existing commercial corridors in combination with high-quality transit service (e.g., bus service that has headways of 15 minutes or less during the peak period, Bus Rapid Transit [BRT], express bus or rail) and improved bicycle and pedestrian infrastructure. Mixed-use and infill projects would reduce VMT and energy use because they would locate people closer to existing goods and services, thereby resulting in shorter vehicle trips and/or promoting walking or biking, and they would locate people closer to existing transportation hubs, thereby encouraging the use of alternative modes of transit (e.g., buses) and resulting in fewer vehicle trips. Operation of future infill projects would increase overall demand for energy beyond existing demand; however, such development would not require unusual, unnecessary, or wasteful amounts of energy. Future mixed-use and infill projects are anticipated to be constructed using standard building practices. These projects would also be subject to the CALGreen Code and Title 24 of the California Energy Code, which set forth specific energy efficiency requirements related to design, construction methods and materials.

New transportation facilities that require energy for operation, such as signal lighting, roadway or parking lot lighting, and electronic equipment will increase energy demand. New landscaping irrigation also increases energy demand through water pumping and treatment. However, the 2035 MTP/SCS would result in a net decrease in energy use in the region, and energy consumption is not anticipated to be unnecessary or wasteful, as all lighting, signage, and irrigation systems would comply with applicable energy efficiency requirements within the California Building Code.

Consistency with Energy Conservation Policies. As discussed above, the 2035 MTP/SCS would result in greater long-term VMT (and thus greater energy consumption) when compared with the No Project scenario, and therefore would result in an overall increase in energy demand. However, the proposed 2035 MTP/SCS would result in a net decrease in energy use in the region, and would not result in energy used in an unnecessary or wasteful manner.

Accordingly, inconsistencies between the 2035 MTP/SCS and adopted plans and policies related to energy conservation have not been identified. The discussion below further examines consistency with adopted plans and policies related to energy conservation.
AMBAG monitors regulations related to fuel efficiency standards and alternative fuel vehicles. The 2035 MTP/SCS would not conflict with such regulations (e.g., *Energy Policy and Conservation Act* and *CAFE Standards*, *EPAct*, *Energy Independence and Security Act of 2007*, *AB 1493: Reduction of Greenhouse Gas Emissions*, *AB 1007: State Alternative Fuels Plan*).

The 1975 *Warren-Alquist Act* established the California Energy Resource Conservation and Development Commission, now known as the California Energy Commission (CEC), and established a State policy to reduce wasteful, uneconomical, and unnecessary uses of energy. Based on the data above, and explained in the conclusion below, the 2035 MTP/SCS would not result in wasteful, inefficient, or unnecessary use of energy. Therefore, the 2035 MTP/SCS is consistent with the *Warren-Alquist Act*.

Senate Bill (SB) 1078 as accelerated Executive Order S014-08, establishes a renewable portfolio standard for electricity supply, and requires that retail sellers of electricity, including investor-owned utilities and community choice aggregators, provide 33% of their supply from renewable sources by 2020. In addition, the California Energy Action Plan (most recently updated in February 2008) includes a set of strategies to address California's future energy needs, including policy areas such as climate change, transportation-related energy issues, and research and development activities. The proposed 2035 MTP/SCS would not conflict with these policies. Refer to Section 4.8, *Greenhouse Gas Emissions/Climate Change,* for a discussion of greenhouse gas emissions reductions related to the proposed 2035 MTP/SCS.

As discussed in Section 2.0, *Project Description*, consistent with the requirements of SB 375, AMBAG has the responsibility to prepare a Sustainable Communities Strategy (SCS) as part of the MTP. SB 375 requires each metropolitan planning organization (MPO) to demonstrate, through the development of an SCS, how its region will integrate transportation, housing, and land use planning to meet the GHG reduction targets set by the State. In addition to creating requirements for MPOs, it also creates requirements for the California Transportation Commission (CTC) and the California Air Resources Board (CARB). Some of the requirements include the following:

- *The California Transportation Commission (CTC) must maintain guidelines for the travel demand models MPOs develop for use in the preparation of their MTPs.*
- *California Air Resources Board (CARB) must develop regional GHG emission reduction targets for automobiles and light trucks for 2020 and 2035 by September 30, 2010.*
- *Each MPO must prepare an SCS as part of its MTP to demonstrate how it will meet the regional GHG targets.*
- *Each MPO must adopt a public participation plan for development of the SCS that includes informational meetings, workshops, public hearings, consultation, and other outreach efforts.*
- *If an SCS cannot achieve the regional GHG target, the MPO must prepare an Alternative Planning Strategy (APS) showing how it would achieve the targets with alternative development patterns, infrastructure, or transportation measures and policies.*
- *Each MPO must prepare and circulate a draft SCS at least 55 days before it adopts a final MTP.*
- *After adoption, each MPO must submit its SCS to the CARB for review.*

- *CARB must review each SCS to determine whether or not, if implemented, it would meet the GHG targets. CARB must complete its review within 60 days.*

The proposed 2035 MTP/SCS complies with these requirements and would not conflict with the *CTC Guidelines*.

SB 375 directed CARB to establish regional on-road GHG per capita emissions reduction targets from light-duty trucks and passenger vehicles for 2020 and 2035. For the AMBAG region, the targets set by CARB are "not to exceed 2005 emissions levels" by 2020 and a five percent reduction by 2035. As discussed in Section 4.8, *Greenhouse Gas Emissions/Climate Change*, implementation of the 2035 MTP/SCS would reduce per capita passenger vehicle GHG emissions below existing levels and what would occur under the No Project scenario. Implementation of the 2035 MTP/SCS will help the region achieve its SB 375 and AB 32 GHG emissions reduction targets; thus, the 2035 MTP/SCS is consistent with the requirements of SB 375, as well as AB 32.

In addition, many 2035 MTP/SCS projects promote air quality improvements as they support implementation of the 2010 Clean Air Plan transportation control measures including transportation demand management, transportation system management, commuter and public transit; rail, bike and pedestrian programs, among others (refer to Section 4.2, *Air Quality*).

Locally, the proposed 2035 MTP/SCS would be consistent with the 2010 Monterey County General Plan, the Santa Cruz County 1994 General Plan and Local Coastal Program, and the San Benito County General Plan. These goals encourage the use of renewable energy, energy conservation, and energy efficiency techniques in all new building design, orientation, and construction, and support of alternative transportation and fuels. As described above, the 2035 MTP/SCS includes TDM and TSM intended to improve the efficiency and effectiveness of the transportation system, reducing fuel consumption, transit and other alternative modes of transportation, such as new pedestrian and bicycle facilities, and promotes mixed-use and infill development.

In summary, the 2035 MTP/SCS would not result in wasteful or inefficient energy consumption within the region, and is generally consistent with applicable policies regarding energy conservation. Therefore, the 2035 MTP/SCS would not have a significant impact on energy. Impacts would be Class III, less than significant.

Mitigation Measures. The 2035 MTP/SCS proposes many projects that would provide greater opportunity for residents and visitors in the region to use alternatives to single occupancy vehicle trips for transportation and reduce the demand for energy used in transportation. The 2035 MTP/SCS also includes policies that encourage land use planning methods that facilitate walking, bicycling, and transit use. No mitigation is required. ~~In addition, the following measures are recommended to further minimize energy consumption:~~

~~**E-1(a)** New facilities should be designed with energy-efficient equipment and passive solar design (e.g., orientation of building to maximize natural heating and cooling, solar water heating, use of daylighting, and placement of trees to aid passive cooling, protection from prevailing winds, and maximum year-round solar access), provided that additional capital costs~~

~~are offset by estimated energy savings during the first 5 years of operation. Additional improvements with longer payback periods, such as photovoltaic solar electric systems, should be considered where applicable.~~

~~**E-1(b)** All lighting should be energy efficient and designed to use the least amount of energy to serve the purpose of the lighting. Lighting should utilize solar energy wherever feasible.~~

~~**E-1(c)** New landscaping design and irrigation systems should be water efficient.~~

Significance After Mitigation. Impacts would be less than significant without mitigation. ~~Implementation of recommended measures would further reduce energy consumption in the region.~~

Impact E-2 2035 MTP/SCS projects would not significantly impact the transportation of energy resources within the region. This impact would be Class III, *less than significant.*

Transportation is an important component of energy production. Since Monterey County contains 657 active oil wells, San Benito County contains 18 active oil wells, and Santa Cruz County contains no active oil wells. None of the active oil wells in the region are located offshore. Natural Gas Liquids (NGLs) are by-products of oil and gas production and are commonly transported by truck or rail (National Petroleum Council, 2011). NGLs burn hotter than methane because they have a higher energy content. As a result, even small quantities of NGLs in a natural gas flow can result in a larger impact on the overall energy contained in the natural gas (Independent Natural Gas Information Site, accessed November 15, 2013; Santa Barbara County Energy Division website, NGL Transportation, January 2013). Transporting NGLs has been identified as having the highest risk to public safety associated with oil and gas development. This high risk is primarily associated with the transport of these products via highway, through populated areas, combined with heightened probability of human error. Truck transportation safety is a consideration in the design of all highway and roadway construction, and all transportation improvements pursuant to the 2035 MTP/SCS would comply with federal, state, and local regulations that govern transportation safety; therefore, this impact would be less than significant.

Mitigation Measures. None required.

Significance After Mitigation. Impacts would be less than significant.

c. Specific MTP Projects That May Result in Impacts. As discussed above, the 2035 MTP/SCS would result in less than significant impacts related to energy consumption. No specific projects have been identified that would result in significant consumption of energy.

4.6 ENVIRONMENTAL JUSTICE

4.6.1 Setting

a. Overview. Environmental justice is defined in the California Government Code as "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Government Code Section 65040.12 (e). In May 2012, the California Attorney General's office released a report titled "*Environmental Justice at the Local and Regional Level – Legal Background,*" which interprets the California Environmental Quality Act (CEQA) to include considerations of environmental justice, although environmental justice is not explicitly mentioned in the CEQA guidelines. The report defines "fairness" in this context to mean that "the benefits of a healthy environment should be available to everyone, and the burdens of pollution should not be focused on sensitive populations or on communities that already are experiencing its adverse effects."

At the federal level, Executive Order 12898 *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* became effective on February 11, 1994. The Executive Order directs every federal agency to make environmental justice part of its mission by identifying and addressing the effects of all programs, policies, and activities on minority and low-income populations. Hence, the U.S. Department of Transportation (DOT) issued its own order, 5680.2, to clarify and reinforce environmental justice policies related to transportation planning. A branch of the DOT, the Federal Highway Administration (FHWA), has established policies for integrating environmental justice principles into existing operations. There are three main elements to FHWA's environmental justice policy:

- Avoid, minimize, or mitigate disproportionately high and adverse human health or environmental effects, including social and economic effects on minority and low-income populations;
- Ensure full and fair participation by all potentially affected communities in the transportation decision-making process; and
- Prevent reduction or significant delay in the receipt of benefits by minority populations and low-income groups.

Issues of environmental justice impact low-income populations and minority populations. Collectively, these populations are defined as Environmental Justice communities and are defined in greater detail below. Environmental justice issues include concerns related to human health and safety, economic development, society and culture, accessibility, and the natural environment.

As noted, evaluation of Environmental Justice impacts is not required under CEQA. However, AMBAG receives funding from federal agencies such as the Federal Highway Administration and Federal Transit Administration for some of its programs and activities. Therefore, AMBAG conducts its federally funded programs and activities in accordance with guidance issued by the federal agencies pursuant to federal laws, executive orders, and regulations (discussed above). Thus, an evaluation of the Environmental Justice impacts is included in this EIR to address potential affects to low income and minority populations associated with implementation of the 2035 MTP/SCS.

b. Demographics. Tables 4.6-1, 4.6-2, 4.6-3, and 4.6-4 summarize 2010 demographic information for the AMBAG region. For the purposes of this analysis, Environmental Justice communities were identified through analysis of demographic and socioeconomic data for minority and low-income populations based on 2010 U.S. Census data, 2007-2011 American Community Survey data, AMBAG population estimates and AMBAG employment and population projections. Since the proposed project is a metropolitan transportation plan and would affect transportation patterns, the way the region commutes to work was also analyzed.

Race/Ethnicity. Table 4.6-1 shows the total population within the study area as well as the racial and ethnic composition of the counties, cities and communities comprising the AMBAG region as of 2010. Note that "Hispanic" is defined as an ethnicity while the others listed in Table 4.6-1 are races. To prevent double counting, persons whom identified themselves as Hispanic were excluded from the racial population counts, but comprise a portion of the total minority population. Data for White and Minority populations comprise 100% of the AMBAG regional population.

In 2010, 56.4%of all residents, or 413,247 persons, within with AMBAG region were identified as being a minority race or ethnicity. The largest minority group in the AMBAG region is Hispanic (48.0%), followed by Black/African Americans. Comparatively, over half of the population in Monterey and San Benito Counties were minorities while approximately 40% of the Santa Cruz County population was minorities. Similarly, the population in Monterey and San Benito Counties were comprised of more than 50% Hispanics, while Santa Cruz County was approximately one-third Hispanic. Thus, the Counties of Monterey and San Benito are considered minority communities as minority groups comprise greater than 50% of the population within each county.

Similar to the County population, the cities and communities comprising the AMBAG region with high minority populations have high Hispanic populations. In Monterey County, more than half of the cities and communities have minority populations of more than 50%, with Hispanics being the highest occurring minority. These areas include: Boronda Census-Designated Place (CDP), Castroville CDP, Chualar CDP, Gonzales city, Greenfield city, King City, Las Lomas CDP, Marina city, Pajaro CDP, Pine Canyon CDP, Salinas city, San Ardo CDP, Sand City, San Lucas CDP, Seaside city, Soledad city, and Spreckles CDP. Areas in Monterey County with a Hispanic population of 90% or more include: Castroville, Chualar, Greenfield, and Pajaro. In Santa Benito County, areas with the highest minority populations are the cities of Hollister and San Juan Bautista. These cities have a Hispanic population of 65.7% and 48.7%, respectively. In Santa Cruz County, areas with a minority population of 50% or more include: Amesti CDP, Freedom CDP, Interlaken CDP, and Watsonville city. Hispanic persons comprise 65.4%, 70.7%, 71.9% and 81.4%, respectively, of the populations of these communities.

Table 4.6-1
Population, Race, and Ethnicity in the AMBAG Region (2010)

Location	Total Population	White, not Hispanic or Latino	Black, not Hispanic or Latino	American Indian, not Hispanic or Latino	Asian, not Hispanic or Latino	Pacific Islander, not Hispanic or Latino	Other, not Hispanic or Latino	Hispanic or Latino (may also identify with a race)	Minority
AMBAG	**732,708**	**43.6%**	**1.4%**	**0.4%**	**4.0%**	**0.2%**	**2.4%**	**48.0%**	**56.4%**
Monterey County	**415,057**	**32.9%**	**2.7%**	**0.3%**	**5.7%**	**0.5%**	2.48%	**55.4%**	**67.1%**
Aromas CDP[1]	1,358	56.6%	0.3%	0.4%	2.5%	0.1%	2.50%	37.6%	43.4%
Boronda CDP	1,710	6.4%	0.3%	0.2%	5.7%	0.4%	1.81%	85.2%	93.6%
Bradley CDP	93	86.0%	0.0%	1.1%	0.0%	0.0%	1.08%	11.8%	14.0%
City of Carmel-by-the-Sea	3,722	90.0%	0.3%	0.2%	2.8%	0.2%	1.91%	4.7%	10.0%
Carmel Valley Village CDP	4,407	87.6%	0.4%	0.2%	1.6%	0.2%	2.56%	7.4%	12.4%
Castroville CDP	6,481	5.8%	0.7%	0.1%	2.1%	0.1%	0.96%	90.1%	94.2%
Chualar CDP	1,190	1.8%	0.1%	0.2%	0.6%	0.0%	0.59%	96.7%	98.2%
Del Monte Forest CDP	4,514	84.3%	0.9%	0.2%	8.6%	0.1%	2.24%	3.7%	15.7%
City of Del Rey Oaks	1,624	76.2%	0.8%	0.4%	7.8%	0.2%	4.19%	10.4%	23.8%
Elkhorn CDP	1,565	54.9%	0.6%	0.2%	3.6%	0.2%	2.94%	37.6%	45.1%
City of Gonzales	8,187	7.9%	0.3%	0.1%	1.6%	0.1%	0.98%	88.9%	92.1%
City of Greenfield	16,330	5.7%	0.8%	0.3%	0.9%	0.1%	0.80%	91.3%	94.3%
King City	12,874	9.7%	0.4%	0.4%	1.3%	0.1%	0.69%	87.5%	90.3%
Las Lomas CDP	3,024	7.7%	0.2%	0.2%	1.2%	0.4%	1.12%	89.2%	92.3%
Lockwood CDP	379	67.3%	1.1%	1.6%	0.5%	0.0%	3.17%	26.4%	32.7%
City of Marina	19,718	36.1%	7.2%	0.3%	19.4%	2.6%	7.24%	27.2%	63.9%
City of Monterey	27,810	71.1%	2.6%	0.4%	7.8%	0.3%	4.06%	13.7%	28.9%
Moss Landing CDP	204	67.6%	3.4%	0.5%	1.0%	0.5%	4.41%	22.5%	32.4%

Table 4.6-1
Population, Race, and Ethnicity in the AMBAG Region (2010)

Location	Total Population	White, not Hispanic or Latino	Black, not Hispanic or Latino	American Indian, not Hispanic or Latino	Asian, not Hispanic or Latino	Pacific Islander, not Hispanic or Latino	Other, not Hispanic or Latino	Hispanic or Latino (may also identify with a race)	Minority
City of Pacific Grove	15,041	78.2%	1.3%	0.4%	5.7%	0.3%	3.42%	10.7%	21.8%
Pajaro CDP	3,070	3.4%	0.2%	0.2%	1.3%	0.0%	0.78%	94.1%	96.6%
Pine Canyon CDP	1,822	42.0%	1.0%	0.1%	0.8%	0.0%	2.14%	54.0%	58.0%
Prunedale CDP	17,560	50.1%	0.8%	0.5%	3.4%	0.3%	3.09%	41.7%	49.9%
City of Salinas	150,441	15.5%	1.6%	0.3%	5.8%	0.3%	1.65%	75.0%	84.5%
San Ardo CDP	517	26.9%	0.2%	0.6%	1.0%	0.0%	1.16%	70.2%	73.1%
Sand City	334	49.7%	3.9%	0.9%	3.9%	0.3%	4.49%	36.8%	50.3%
San Lucas CDP	269	8.9%	0.0%	0.0%	2.2%	0.0%	5.58%	83.3%	91.1%
City of Seaside	33,025	32.5%	7.9%	0.3%	9.4%	1.5%	4.95%	43.4%	67.5%
City of Soledad	25,738	13.3%	11.1%	0.5%	2.6%	0.4%	0.94%	71.1%	86.7%
Spreckels CDP	673	65.1%	0.0%	1.0%	3.7%	0.0%	1.49%	28.7%	34.9%
San Benito County	**55,269**	**38.3%**	**0.6%**	**0.4%**	**2.3%**	**0.1%**	1.77%	**56.4%**	**61.7%**
Aromas CDP	1,292	61.7%	0.5%	0.5%	1.1%	0.1%	4.18%	32.0%	38.3%
City of Hollister	34,928	29.1%	0.7%	0.3%	2.4%	0.1%	1.64%	65.7%	70.9%
Ridgemark CDP	3,016	73.0%	0.7%	0.2%	3.2%	0.1%	2.06%	20.7%	27.0%
City of San Juan Bautista	1,862	43.9%	0.6%	1.6%	2.5%	0.1%	2.69%	48.7%	56.1%
Tres Pinos CDP	476	72.5%	0.6%	1.7%	1.3%	0.0%	0.42%	23.5%	27.5%
Santa Cruz County	**262,382**	**59.6%**	**0.9%**	**0.4%**	**4.1%**	**0.1%**	2.92%	**32.0%**	**40.4%**
Amesti CDP	3,478	30.6%	0.3%	0.5%	2.2%	0.0%	1.15%	65.4%	69.4%

Table 4.6-1
Population, Race, and Ethnicity in the AMBAG Region (2010)

Location	Total Population	White, not Hispanic or Latino	Black, not Hispanic or Latino	American Indian, not Hispanic or Latino	Asian, not Hispanic or Latino	Pacific Islander, not Hispanic or Latino	Other, not Hispanic or Latino	Hispanic or Latino (may also identify with a race)	Minority
Aptos CDP	6,220	81.7%	0.9%	0.3%	3.8%	0.1%	3.36%	9.8%	18.3%
Aptos Hills-Larkin Valley CDP	2,381	72.7%	0.2%	0.2%	2.2%	0.0%	1.97%	22.7%	27.3%
Ben Lomond CDP	6,234	86.2%	0.5%	0.6%	1.1%	0.2%	3.22%	8.3%	13.8%
Bonny Doon CDP	2,678	88.3%	0.3%	0.3%	1.9%	0.1%	2.69%	6.3%	11.7%
Boulder Creek CDP	4,923	86.0%	0.9%	0.4%	1.6%	0.1%	3.62%	7.4%	14.0%
Brookdale CDP	1,991	84.4%	0.5%	0.5%	0.9%	0.4%	3.26%	10.1%	15.6%
City of Capitola	9,918	71.3%	1.1%	0.3%	4.1%	0.1%	3.35%	19.7%	28.7%
Corralitos CDP	2,326	71.6%	0.7%	0.2%	1.9%	0.0%	2.62%	22.9%	28.4%
Davenport CDP	408	50.5%	1.5%	0.7%	1.7%	0.0%	3.43%	42.2%	49.5%
Day Valley CDP	3,409	80.2%	0.4%	0.5%	2.3%	0.1%	2.58%	13.8%	19.8%
Felton CDP	4,057	86.6%	0.6%	0.6%	1.6%	0.2%	3.45%	7.0%	13.4%
Freedom CDP	3,070	23.6%	0.8%	0.5%	3.0%	0.0%	1.43%	70.7%	76.4%
Interlaken CDP	7,321	22.0%	0.4%	0.3%	3.5%	0.0%	1.86%	71.9%	78.0%
La Selva Beach CDP	2,843	78.3%	0.7%	0.6%	3.9%	0.1%	3.24%	13.1%	21.7%
Live Oak CDP	17,158	62.8%	1.2%	0.4%	4.4%	0.2%	2.95%	28.0%	37.2%
Lompico CDP	1,137	82.8%	0.5%	0.8%	1.8%	0.4%	3.61%	10.1%	17.2%
Mount Hermon CDP	1,037	87.6%	0.6%	0.2%	1.3%	0.1%	2.31%	8.0%	12.4%

Table 4.6-1
Population, Race, and Ethnicity in the AMBAG Region (2010)

Location	Total Population	White, not Hispanic or Latino	Black, not Hispanic or Latino	American Indian, not Hispanic or Latino	Asian, not Hispanic or Latino	Pacific Islander, not Hispanic or Latino	Other, not Hispanic or Latino	Hispanic or Latino (may also identify with a race)	Minority
Pleasure Point CDP	5,846	73.8%	0.8%	0.5%	2.3%	0.1%	2.99%	19.5%	26.2%
Pajaro Dunes CDP	144	56.3%	0.0%	0.0%	3.5%	0.0%	2.78%	37.5%	43.8%
Paradise Park CDP	389	93.1%	0.5%	0.8%	0.8%	0.0%	1.03%	3.9%	6.9%
Pasatiempo CDP	1,041	84.8%	0.5%	0.3%	3.3%	0.1%	2.88%	8.2%	15.2%
Rio del Mar CDP	9,216	83.6%	0.6%	0.3%	3.3%	0.1%	2.37%	9.8%	16.4%
City of Santa Cruz	59,946	66.7%	1.6%	0.4%	7.5%	0.2%	4.25%	19.4%	33.3%
City of Scotts Valley	11,580	80.0%	0.8%	0.3%	5.0%	0.1%	3.83%	10.0%	20.0%
Seacliff CDP	3,267	77.7%	0.7%	0.7%	2.7%	0.0%	3.40%	14.8%	22.3%
Soquel CDP	9,644	74.7%	0.8%	0.2%	3.5%	0.2%	3.87%	16.7%	25.3%
Twin Lakes CDP	4,917	69.6%	1.2%	0.7%	2.4%	0.1%	3.42%	22.6%	30.4%
City of Watsonville	51,199	13.7%	0.4%	0.3%	3.0%	0.0%	1.16%	81.4%	86.3%
Zayante CDP	705	87.1%	1.4%	0.6%	0.6%	0.0%	2.27%	8.1%	12.9%

1. CDP = Census-Designated Place.Source:
2. US Census 2006-2010 5-Year American Community Survey

Income. The poverty rate represents the percent of households who fall below the U.S. Department of Health and Human Services poverty threshold (U.S. Department of Health & Human Services, 2013). A "household" is defined as all the people who occupy a housing unit, including related and unrelated persons (U.S. Census Bureau, 2014). Households with incomes at or below the poverty threshold are considered low-income. Table 4.6-2 illustrates the median income, poverty rate by household, and unemployment rate for the counties of Monterey, San Benito and Santa Cruz, and the cities and communities within the AMBAG region as of 2010. For comparison purposes, in 2010 the national poverty rate was 15.3% and the State of California's unemployment rate was 15.8% (U.S. Census, 2010). The average poverty rate by household (based on Monterey, San Benito and Santa Cruz County data) for the AMBAG region in 2010 was 13.3%. Of the counties, Monterey had the highest poverty rate (15.1%), followed by Santa Cruz (13.7%), and San Benito (11.3%). In Monterey County, Elkhorn CDP (27.7%), Gonzales city (15.2%), Greenfield city (19.5%), King City (16.1%), Las Lomas CDP, (24.6%), Marina city (16.1%), Pajaro CDP (24.0%), Salinas city (20.0%), Sand City (29.1%), San Lucas CDP (28.1%), and Soledad city (15.8%) are above the County's poverty rate. In Santa Cruz County, Freedom CDP (28.0%), Interlaken CDP (16.2%), Pajaro Dunes CDP (20.6%), Santa Cruz city (20.2%), Twin Lakes CDP (14.5%), and Watsonville city (20.4%) have higher poverty rates than the County. In San Benito County, Hollister city (13.2%) and San Juan Bautista city (13.4%) have higher poverty rates than the County.

For comparison purposes, in 2010 the national unemployment rate was 9.6% and the State of California's unemployment rate was 12.4% (U.S. Bureau of Labor Statistics, 2013).[1] Thus, of the counties within the AMBAG region, the unemployment rate in San Benito County (11%) was higher than the State's average, but lower than the national average. Santa Cruz (8.4%) and Monterey (6.8%) County unemployment rates were below the State and national averages. Within Monterey County, several cities and communities had unemployment rates higher than the State and national averages. These include: Boronda CDP (16.7%), Castroville CDP (14.3%), Greenfield (13.7%), King City (12.8), Las Lomas CDP (18.8%), Moss Landing CDP (32.9%), Pajaro CDP (23%), Sand City (14.9%), and San Lucas CDP (15%). Santa Cruz County had fewer areas where the unemployment rate exceeded the State and national averages than Monterey County. Communities where the unemployment rate exceeded State and national averages include: Amesti CDP (13.4%), Freedom CDP (16.7%), La Selva Beach CDP (12.7%), Paradise Park CDP (16.3%), and Zayante CDP (15.2%). In San Benito County only Aromas CDP's unemployment rate (14%) was above the State and national averages.

[1] *Bureau of Labor Statistics, State unemployment rates in 2010, retrieved from http://www.bls.gov/opub/ted/2011/ted_20110301.htm on November 12, 2013.*

Table 4.6-2
Income and Poverty in the AMBAG Region (2010)

Location	Median Household Income	Poverty Rate - Households	% Unemployed
AMBAG	**$62,656**	**13.3%**	**6.7%**
Monterey County	**$59,737**	**15.1%**	**6.8%**
Aromas CDP	$91,357	5.6%	8.9%
Boronda CDP	$39,899	23.8%	16.7%
Bradley CDP	$75,625	2.7%	0.0%
City of Carmel-by-the-Sea	$76,463	7.6%	1.7%
Carmel Valley Village CDP	$82,566	8.6%	5.7%
Castroville CDP	$46,795	14.7%	14.3%
Chualar CDP	$48,654	14.3%	11.0%
Del Monte Forest CDP	$119,663	7.9%	2.3%
City of Del Rey Oaks	$76,923	4.6%	4.0%
Elkhorn CDP	$78,750	27.7%	6.9%
City of Gonzales	$52,928	15.2%	6.4%
City of Greenfield	$56,011	19.5%	13.7%
King City	$52,634	16.1%	12.8%
Las Lomas CDP	$49,750	24.6%	18.8%
Lockwood CDP	$91,316	0.0%	0.0%
City of Marina	$51,817	16.1%	5.2%
City of Monterey	$62,720	9.5%	3.7%
Moss Landing CDP	$80,385	10.3%	32.9%
City of Pacific Grove	$70,211	7.9%	4.3%
Pajaro CDP	$38,542	24.0%	23.0%
Pine Canyon CDP	$61,514	5.6%	3.9%
Prunedale CDP	$76,431	8.0%	6.8%
City of Salinas	$50,568	20.0%	7.6%
San Ardo CDP	$49,063	14.6%	10.9%
Sand City	$39,500	29.1%	14.9%
San Lucas CDP	$49,250	28.1%	15.0%
City of Seaside	$58,403	14.1%	6.9%
City of Soledad	$53,140	15.8%	5.2%
Spreckels CDP	$73,287	1.2%	0.0%
San Benito County	**$65,570**	**11.3%**	**11.0%**
Aromas CDP	$91,357	5.6%	14.0%
City of Hollister	$62,570	13.2%	11.7%
Ridgemark CDP	$90,833	6.6%	8.2%
City of San Juan Bautista	$56,897	13.4%	11.5%
Tres Pinos CDP	$83,500	5.8%	12.1%
Santa Cruz County	**$66,030**	**13.7%**	**5.5%**
Amesti CDP	$45,696	6.1%	13.4%
Aptos CDP	$76,862	12.7%	6.8%
Aptos Hills-Larkin Valley CDP	$76,743	5.0%	1.6%
Ben Lomond CDP	$87,300	7.2%	10.9%
Bonny Doon CDP	$90,147	8.0%	9.0%
Boulder Creek CDP	$81,111	6.1%	7.1%
Brookdale CDP	$98,333	6.3%	1.2%
City of Capitola	$50,696	10.4%	9.6%
Corralitos CDP	$78,427	10.2%	11.7%
Davenport CDP	$61,563	4.8%	8.0%
Day Valley CDP	$87,969	9.4%	11.5%

Table 4.6-2
Income and Poverty in the AMBAG Region (2010)

Location	Median Household Income	Poverty Rate - Households	% Unemployed
Felton CDP	$75,250	4.1%	6.1%
Freedom CDP	$48,958	28.0%	16.7%
Interlaken CDP	$59,335	16.2%	9.9%
La Selva Beach CDP	$76,589	11.1%	12.7%
Live Oak CDP	$61,515	10.6%	7.6%
Lompico CDP	$83,375	8.1%	9.4%
Mount Hermon CDP	$57,951	4.7%	1.9%
Pajaro Dunes CDP	$90,938	20.6%	0.0%
Paradise Park CDP	$42,266	7.7%	16.3%
Pasatiempo CDP	$115,938	4.7%	10.4%
Pleasure Point CDP	$64,139	9.5%	9.2%
Rio del Mar CDP	$88,620	7.5%	5.6%
City of Santa Cruz	$63,110	20.2%	7.5%
City of Scotts Valley	$99,076	3.5%	7.5%
Seacliff CDP	$57,450	10.1%	7.9%
Soquel CDP	$69,676	7.8%	7.0%
Twin Lakes CDP	$49,335	14.5%	11.7%
City of Watsonville	$46,073	20.4%	10.2%
Zayante CDP	$64,028	11.7%	15.2%

Source: U.S. Census 2006-2010 5-Year American Community Survey.

Concentrations of Minority and Low-Income Groups. The concentration of low-income and minority groups were determined by correlating data presented in Tables 4.6-1 and 4.6-2. The minority population groups of the AMBAG region comprised 56.4% of the total population. The AMBAG region's minority population is comprised of 47.1% Hispanic, 1.9% non-Hispanic Black/African-American and 0.3% non-Hispanic Asian populations. In the AMBAG region, the median household income is $62,656 and 41%, or 234,454 households are considered to be low-income. Generally, areas with high concentrations of minority populations also have high concentrations of low-income households.

In the AMBAG region, 13.3% of the population, or 94,450 persons live at or below the poverty level (as defined by the federal government as annual income for one individual of $11,490 or less) (U.S. Department of Health & Human Services, 2013 Poverty Guidelines, 2013). These individuals are concentrated in the northern portion of Monterey County, in and around the City of Salinas, Hollister CDP, and City of Santa Cruz.

High concentrations of minority populations and low-income households in the AMBAG region are located in the northern portion of Monterey County, in and around Hollister in San Benito County and the middle and southern portion of Santa Cruz County. For an area to qualify as both a low-income and minority area, the poverty rate must be higher than the AMBAG regional average and the minority population must be over 50%. With the exception of Elkhorn and Moss Landing CDPs, areas where there is a high incidence of low-income household concentrations are generally the same areas with high concentrations of minority groups. Concentrations of minorities and low-income populations are present throughout Boronda CDP, Castroville CDP, Greenfield city, King City, Las Lomas CDP, Pajaro CDP, Salinas city, Sand City, San Lucas CDP, and Soledad city in Monterey County. In San Benito County, the

cities of Hollister and San Juan Bautista have high concentrations of low-income and minority groups. A high concentration of low-income and minority populations in Santa Cruz County are located in Freedom and Interlaken CDPs, and Watsonville city.

Mobility. Mobility refers to the movement of people via multiple modes, including individual cars, transit, walking, and cycling, among others. Mobility can be an important indicator of quality of life as mobility is correlated with accessibility which is the ease with which individuals can reach their destinations. Low-mobility populations are limited in their ability to access needed goods and services or the means by which they reach their destination are expensive or inconvenient. Auto-oriented cities and communities with few safe or reliable transportation alternatives are mobility-limiting as residents have few transportation options. Low-income populations may have restricted mobility if they do not have access to a private vehicle. Elderly populations are frequently limited in individual mobility in auto-oriented transportation systems. As aging populations lose their ability to drive privately-owned vehicles, it is increasingly important to address multiple modes of transportation to prevent isolation, economic hardship, or reduced quality of life within the expanding senior population.

Table 4.6-3 shows the distribution of transportation modes within the AMBAG region. All counties in the AMBAG region have roughly similar commuting patterns, with single occupancy vehicles being the most common choice, followed by people who carpool, walk, and take public transportation. The three counties have a similar percentage of the population that is 65 years old and above. Within Monterey County, the areas with the highest elderly concentrations include: the City of Carmel-by-the-Sea, Del Monte Forest CDP, and Lockwood CDP. In San Benito County, Ridgemark CDP has the highest elderly population, as does the City of Capitola in Santa Cruz County. Thus, these areas may have a slightly greater need for alternative modes of transportation to serve the elderly. In addition, Monterey County has the highest percentages of households without a vehicle (3.1%), which increases the demand for alternative modes of transportation. In Monterey County, areas with the highest percentage of households without a vehicle are King City (12.2%), Los Lomas CDP (11.3%), and Sand City (23.3%). In San Benito County, the area with the highest percentage of households without a vehicle is San Juan Bautista (1.8%). In Santa Cruz County, areas with the highest percentage of households without a vehicle include Ben Lomond CDP (3.8%), Live Oak CDP (3.1%) and the City of Santa Cruz (3.2%).

Table 4.6-3
Transportation Modes to Work in the AMBAG Region (2010)

Location	No Vehicle	Drive Alone	Carpool	Public Transit	Walk	Other	Work at Home
AMBAG	**6.0%**	**70.6%**	**13.3%**	**2.4%**	**3.6%**	**4.5%**	**5.6%**
Monterey County	**3.1%**	**69.9%**	**14.3%**	**2.2%**	**3.5%**	**5.0%**	**5.1%**
Aromas CDP	0.0%	79.1%	9.3%	0.0%	0.8%	2.3%	8.4%
Boronda CDP	0.0%	81.6%	12.0%	0.0%	1.9%	0.0%	4.5%
Bradley CDP	0.0%	67.7%	25.8%	0.0%	0.0%	6.5%	0.0%
City of Carmel-by-the-Sea	1.7%	59.1%	10.0%	2.2%	12.5%	3.0%	13.3%
Carmel Valley Village CDP	0.5%	67.2%	17.4%	0.5%	1.4%	1.9%	11.6%
Castroville CDP	0.9%	80.2%	15.6%	2.4%	0.7%	0.7%	0.4%
Chualar CDP	0.0%	70.7%	23.4%	0.0%	1.4%	4.6%	0.0%
Del Monte Forest CDP	0.0%	72.9%	10.1%	0.9%	1.2%	0.0%	14.9%
City of Del Rey Oaks	0.3%	81.2%	7.7%	1.3%	0.0%	3.3%	6.4%
Elkhorn CDP	4.0%	77.1%	7.4%	0.0%	5.1%	9.3%	1.1%
City of Gonzales	2.4%	69.8%	21.0%	0.9%	3.2%	3.6%	1.5%
City of Greenfield	1.9%	68.1%	21.6%	1.5%	3.8%	3.1%	1.8%
King City	12.2%	53.0%	37.6%	0.0%	4.7%	2.2%	2.4%
Las Lomas CDP	11.3%	49.6%	43.2%	2.4%	0.0%	0.9%	3.8%
Lockwood CDP	0.0%	74.7%	17.5%	0.0%	0.0%	0.0%	7.8%
City of Marina	2.0%	73.4%	14.7%	3.9%	2.4%	1.9%	3.7%
City of Monterey	4.8%	56.8%	10.1%	4.4%	15.3%	5.6%	7.8%
Moss Landing CDP	0.0%	85.6%	11.7%	0.0%	2.7%	0.0%	0.0%
City of Pacific Grove	1.4%	75.9%	7.3%	1.1%	4.6%	4.4%	6.7%
Pajaro CDP	5.3%	65.7%	24.3%	3.1%	0.2%	5.9%	0.7%
Pine Canyon CDP	5.9%	72.0%	23.6%	0.0%	0.0%	0.0%	4.4%
Prunedale CDP	2.5%	81.5%	12.0%	0.7%	0.2%	2.3%	3.4%
City of Salinas	3.4%	70.8%	13.4%	1.5%	1.6%	8.9%	3.8%
San Ardo CDP	0.0%	66.3%	18.9%	0.0%	14.8%	0.0%	0.0%
Sand City	23.3%	51.4%	23.3%	0.0%	5.5%	11.6%	8.2%
San Lucas CDP	3.7%	86.4%	11.1%	0.0%	2.5%	0.0%	0.0%
City of Seaside	3.6%	64.4%	16.3%	7.2%	3.4%	3.9%	4.8%
City of Soledad	2.3%	71.5%	20.0%	2.3%	2.0%	1.9%	2.3%
Spreckels CDP	0.0%	68.3%	0.0%	0.0%	0.0%	0.0%	31.7%
San Benito County	**0.9%**	**73.9%**	**17.1%**	**0.9%**	**1.4%**	**1.7%**	**5.0%**
Aromas CDP	0.0%	79.1%	9.3%	0.0%	0.8%	2.3%	8.4%
City of Hollister	1.2%	74.7%	17.3%	0.7%	1.4%	2.0%	3.9%
Ridgemark CDP	0.0%	81.9%	6.2%	2.5%	1.4%	0.5%	7.5%
City of San Juan Bautista	1.8%	75.7%	14.9%	1.1%	5.1%	0.3%	2.9%
Tres Pinos CDP	0.0%	94.8%	1.3%	0.0%	3.9%	0.0%	0.0%
Santa Cruz County	**1.9%**	**70.9%**	**11.1%**	**3.1%**	**4.2%**	**4.4%**	**6.3%**
Amesti CDP	0.0%	81.4%	13.6%	0.0%	0.8%	1.1%	3.1%
Aptos CDP	1.7%	79.0%	3.9%	0.7%	0.3%	4.0%	12.1%
Aptos Hills-Larkin Valley CDP	0.0%	60.0%	28.0%	2.4%	0.8%	4.2%	4.7%
Ben Lomond CDP	3.8%	78.6%	8.6%	1.8%	4.2%	1.0%	5.8%
Bonny Doon CDP	0.5%	73.6%	12.8%	0.0%	0.5%	3.5%	9.7%
Boulder Creek CDP	1.8%	85.2%	4.3%	2.5%	1.4%	1.2%	5.4%
Brookdale CDP	0.0%	67.0%	8.4%	0.0%	11.2%	0.9%	12.5%
City of Capitola	1.1%	75.5%	7.2%	4.6%	4.6%	4.2%	3.9%

Table 4.6-3
Transportation Modes to Work in the AMBAG Region (2010)

Location	No Vehicle	Drive Alone	Carpool	Public Transit	Walk	Other	Work at Home
Corralitos CDP	0.0%	76.8%	14.9%	0.0%	0.0%	1.3%	7.0%
Davenport CDP	0.0%	55.6%	8.0%	0.0%	16.7%	2.5%	17.3%
Day Valley CDP	1.6%	74.1%	6.9%	3.4%	0.0%	2.6%	13.0%
Felton CDP	0.4%	81.6%	8.1%	1.7%	2.6%	0.0%	6.0%
Freedom CDP	0.8%	64.9%	20.0%	7.1%	1.8%	3.3%	2.9%
Interlaken CDP	2.9%	72.9%	19.4%	0.8%	0.8%	3.6%	2.5%
La Selva Beach CDP	0.0%	75.2%	9.1%	0.0%	5.4%	3.6%	6.7%
Live Oak CDP	3.1%	72.8%	9.4%	5.0%	4.1%	2.9%	5.8%
Lompico CDP	0.0%	85.2%	6.6%	0.0%	0.0%	1.8%	6.4%
Mount Hermon CDP	0.0%	75.4%	10.2%	0.2%	3.9%	0.0%	10.2%
Pajaro Dunes CDP	0.0%	81.6%	8.7%	0.0%	0.0%	0.0%	9.7%
Paradise Park CDP	0.0%	95.1%	4.9%	0.0%	0.0%	0.0%	0.0%
Pasatiempo CDP	0.0%	80.4%	2.6%	0.0%	0.0%	2.9%	14.1%
Pleasure Point CDP	1.2%	73.8%	11.3%	4.2%	1.8%	2.4%	6.6%
Rio del Mar CDP	0.0%	73.6%	12.9%	0.6%	1.0%	1.5%	10.3%
City of Santa Cruz	3.2%	59.7%	8.3%	7.1%	8.7%	10.3%	5.9%
City of Scotts Valley	0.3%	81.5%	7.7%	0.7%	2.1%	1.3%	6.8%
Seacliff CDP	2.6%	80.0%	7.8%	1.3%	2.7%	2.9%	5.3%
Soquel CDP	0.4%	83.3%	6.1%	1.2%	2.1%	3.1%	4.2%
Twin Lakes CDP	0.4%	74.0%	9.2%	2.5%	2.3%	5.4%	6.6%
City of Watsonville	2.7%	68.7%	20.0%	1.8%	3.7%	3.8%	2.0%
Zayante CDP	0.0%	86.3%	7.0%	0.0%	2.0%	0.0%	4.7%

Source: U.S. Census 2006-2010 5-Year American Community Survey

Concentrations of Low-Mobility Populations. Low-mobility populations are defined by the availability of a vehicle. Groups without access to a vehicle tend to rely on alternative modes of transportation such as walking or public transportation. In the AMBAG region, approximately 6% of households, or 14,067 households, do not have access to a vehicle. Households without access to a vehicle are concentrated in the northern portion of the City of Monterey, the City of Salinas, Hollister CDP, Santa Cruz city, Ben Lomond CDP, Seacliff CDP, the City of Watsonville, Live Oak CDP, and Interlaken CDP.

Environmental Justice Communities. To be considered an environmental justice community, the area needs to either have a 50% or greater minority population or have a higher poverty rate than the national average. Based on the above discussion, two counties and 27 areas are considered areas of environmental justice concern given their high concentrations of low income or minority populations generally including Monterey and San Benito Counties and more specifically, Boronda CDP, Castroville CDP, Chualar CDP, Elkhorn CDP, City of Gonzales, City of Greenfield, King City, Las Lomas CDP, City of Marina, Pajaro CDP, Pine Canyon CDP, Prunedale CDP, City of Salinas, San Ardo CDP, Sand City, San Lucas CDP, City of Seaside, City of Soledad, City of Hollister, City of San Juan Bautista, Amesti CDP, Davenport CDP, Freedom CDP, Interlaken CDP, Pajaro Dunes CDP, City of Santa Cruz, and City of Watsonville.

Community Outreach. For a discussion of community outreach efforts (such as publishing the Notice of Preparation and public comment periods) see Section 1.0, Introduction.

c. Regulatory Framework

Federal Regulations. As discussed, AMBAG receives funding from federal agencies such as the Federal Highway Administration and Federal Transit Administration for some of its programs and activities. Therefore, AMBAG conducts its federally funded programs and activities in accordance with guidance issued by the federal agencies pursuant to federal laws, executive orders, and regulations (discussed above).

State Regulations.

California Government Code Section 65040.12. Senate Bill 115 of 1999 and Senate Bill 89 of 2000 (Section 65040.12 of the Government Code) required the California Office of Planning and Research (OPR) to:

- Consult with the Secretaries of the California Environmental Protection Agency, the Resources Agency, and the Business, Transportation, and Housing Agency, the Working Group on Environmental Justice established pursuant to Section 72002 (now Section 71113) of the Public Resources Code, any other appropriate State agencies, and all other interested members of the public and private sectors in this State.
- Coordinate OPR's efforts and share information regarding environmental justice programs with the Council on Environmental Quality, the United States Environmental Protection Agency, the General Accounting Office, the Office of Management and Budget, and other federal agencies.
- Review and evaluate any information from federal agencies that is obtained as a result of their respective regulatory activities under federal Executive Order 12898, and from the Working Group on Environmental Justice established pursuant to Section 72002 of the Public Resources Code.

SB 89 also required the formation of an advisory committee Environmental Justice Advisory Committee (CEJAC), to provide information and assistance to the Secretary of the California Environmental Protection Agency (Cal EPA) and Interagency Working Group on Environmental Justice (IWG) in establishing and implementing an intra-agency strategy to achieve environmental justice. In 2004, the Cal EPA released its Environmental Justice Strategy and Action Plan based on the IWG recommendations for identifying and addressing any gaps in existing programs, policies, or activities that may impede the achievement of environmental justice and suggested procedures for collecting, maintaining, analyzing, and coordinating information relating to its environmental justice strategy.

California Government Code Section 11135. California Government Code Section 11135 states that no person in the State of California shall, on the basis of race, national origin, ethnic group identification, religion, age, sex, sexual orientation, color, or disability, be unlawfully denied full and equal access to the benefits of, or be unlawfully subjected to discrimination under, any program or activity that is conducted, operated, or administered by the State or by any State agency, is funded directly by the State, or receives any financial assistance from the State.

4.6.2 Impact Analysis

a. Methodology and Significance Thresholds. A significant impact is defined as "a substantial or potentially substantial adverse change in the environment" (CEQA Section 21068). Based on the information provided above, an impact is significant if it would cause disproportionately high and adverse environmental and public health effect and interrelated difficult social and/or economic effect for minority or low-income populations. Therefore, the 2035 MTP/SCS would have a significant impact on a community of concern if:

- Implementation of the 2035 MTP/SCS would lead to disproportionately high and adverse human health or environmental impacts to the minority populations, low-income populations, low community engagement populations and/or populations with low mobility in the AMBAG region.

- The mobility benefits derived from the 2035 MTP/SCS in terms of travel times and accessibility by transit (percent of population within ½ mile of a high quality transit stop) and/or single occupancy vehicle would be substantially less for minority populations, low-income populations, low community engagement populations and/or populations with low mobility in the AMBAG region. For the purpose of this evaluation, mobility benefits are defined as proportional investments in areas with low income and/or minority populations.

b. Project Impacts and Mitigation Measures.

Impact EJ-1 Implementation of the 2035 MTP/SCS may cause adverse effects on a minority or low income population; however, these potential impacts would not be disproportionately high as per Executive Order 12898 regarding environmental justice. This would be a Class III, *less than significant* impact.

Temporary Impacts. During construction of some transportation improvement projects and future infill and mixed use development under the 2035 MTP/SCS, some minority and/or low-income populations may be affected (see discussion of Environmental Justice communities below and list of 2035 MTP/SCS projects that may result in impacts to these communities). These improvement projects may have temporary air quality, noise, and traffic (refer to Sections 4.2 *Air Quality* and 4.11 *Noise* and 4.12 *Transportation and Circulation*) impacts on surrounding communities. Specific air quality impacts could include exposure to dust resulting from operation of construction vehicles (e.g., scrapers, loaders, dump trucks), and clearing and grading activities. Other air quality impacts include temporary exposure to hazardous air emissions, including diesel emissions from construction equipment. Construction noise impacts from clearing, grading, and laying asphalt could expose nearby receptors to levels up to 88 decibels at 50 feet from the source depending on the type of equipment used. Minority populations may be exposed to these impacts; however, such impacts would be mitigated to a less than significant level through implementation of the mitigation measures listed in Sections 4.2 *Air Quality* and 4.11 *Noise*. Temporary traffic impacts include delays during road closures or other disturbances caused by construction activities; however, because they are temporary, impacts related to traffic delay would not be considered significant. Since the 2035 MTP/SCS projects are located throughout the populated areas of the AMBAG region, areas with high concentrations of environmental justice

populations would not be disproportionately affected. Thus, these impacts are considered Class III, less than significant.

Long-Term Impacts. Overall, the AMBAG region qualifies as an environmental justice region of concern because the minority population is greater than 50% and the poverty rate is higher than State and national levels. Minority populations and households at or below the poverty rate are concentrated in certain areas generally including Monterey and San Benito Counties and more specifically, Boronda CDP, Castroville CDP, Chualar CDP, Elkhorn CDP, City of Gonzales, City of Greenfield, King City, Las Lomas CDP, City of Marina, Pajaro CDP, Pine Canyon CDP, Prunedale CDP, City of Salinas, San Ardo CDP, Sand City, San Lucas CDP, City of Seaside, City of Soledad, City of Hollister, City of San Juan Bautista, Amesti CDP, Davenport CDP, Freedom CDP, Interlaken CDP, Pajaro Dunes CDP, City of Santa Cruz, and City of Watsonville.

Minority populations located in proximity to major highways, particularly Highway 101, may be exposed to hazardous criteria pollutants. However, as discussed in Section 4.2 *Air Quality*, diesel $PM_{2.5}$, $PM_{10,}$ and NOx emissions under the 2035 MTP/SCS would be lower than both existing conditions and future conditions without the proposed 2035 MTP/SCS. As a result, impacts to minority populations that may occur in proximity to major freeways would be Class III, less than significant. Ambient noise throughout the region, particularly in urbanized areas, would increase as a result of an overall increase in vehicle activity. Mitigation measures identified in Section 4.11 *Noise,* would reduce potential impacts to less than significant.

It is important to note that while some minority or low income populations may be exposed to these conditions, there are many non-minority populations that may experience long term impacts, particularly those living along Highway 1 in Sand City, Marina, and between King City and Gonzalez. Projects included in the 2035 MTP/SCS are dispersed throughout the region (see Figures 2-2, 2-4, and 2-6 in Section 2.0 *Project Description)*. One example includes the Marina-Salinas Corridor expansion project (MON-CT017-CT), which would occur between Marina and Salinas along Davis and Reservation Roads and Imjin Parkway in Marina. A variety of demographic groups and residents with various income levels reside along this corridor. Therefore, minority populations would not be disproportionately affected.

Specific 2035 MTP/SCS projects that may result in impacts to the above mentioned environmental justice communities are listed in subsection (c) below. These communities contain various minority populations and may be affected by the 2035 MTP/SCS projects; however, many of the projects within these communities would improve access to other parts of the region as well as access to alternative modes of transportation. The 2035 MTP/SCS projects would not disproportionately impact environmental justice populations as other non-minority populations would be similarly impacted by 2035 MTP/SCS projects.

In addition to transportation projects, the 2035 MTP/SCS contains land use goals and policies intended to reduce greenhouse gas emissions. The 2035 MTP/SCS envisions a land use scenario that encourages infill development, a mix of uses in existing commercial corridors and increased high quality transit service, or bus or rail service that has headways of 15 minutes or less, bicycle lanes, and pedestrian facilities (such as trails, sidewalks, and crosswalks). The proposed land use scenario would locate people closer to existing goods and services, as well as transportation hubs. As a result, the SCS land use scenario would locate people closer to areas with increased light and

glare, increase concentrations of air pollutants, and elevated noise levels. These specific impacts are discussed in Sections 4.1 *Aesthetics*, 4.2 *Air Quality* and 4.11 *Noise*, respectively. While future residents within infill and mixed use projects could include minority populations, this land use scenario would not disproportionately affect minority populations as future infill and mixed use projects would serve a wide array of the population and would be dispersed throughout urbanized areas, particularly in the cities of Monterey, Capitola, Hollister, Salinas, Santa Cruz, and Watsonville.

The transportation system improvements and the land use scenario envisioned by the 2035 MTP/SCS would increase the ease of access and public transit transferability, thereby providing greater mobility for all residents in the AMBAG region, including low-income and minority groups. In addition to the 2035 MTP/SCS improvements and to more specifically address equity and health and safety in the 2035 MTP/SCS in compliance with Executive Order 1289, AMBAG has outlined goals, policies, objectives, and performance measures, such as:

- *Access and Mobility* – Provide convenient, accessible, and reliable travel options while maximizing productivity for all people and goods in the region.
- *System Preservation and Safety* – Preserve and ensure a sustainable and safe regional transportation system.
- *Healthy Communities* –Protect the health of our residents; foster efficient development patterns that optimize travel, housing, and employment choices and encourage active transportation.
- *Social Equity* – Provide an equitable level of transportation services to all segments of the population.

Therefore, based on the analysis above and proposed goal, the 2035 MTP/SCS would not disproportionately expose minority populations, low-income population or low-mobility populations to adverse environmental impacts. Impacts would be Class III, less than significant.

Mitigation Measures. None required in addition to those recommended to address impacts to Air Quality, Noise and Transportation referenced above.

Significance after Mitigation. Impacts would be less than significant without mitigation.

Impact EJ-2 The mobility benefits derived from the 2035 MTP/SCS related to travel accessibility by transit, single occupancy vehicles, bicycling or walking will not be less for minority populations and low income populations in the AMBAG region than for the population as a whole. This impact would be Class III, *less than significant.*

The 2035 MTP/SCS identifies several performance measures to evaluate the effectiveness of the 2035 MTP/SCS at achieving AMBAG's planning goals and objectives. Performance measures related to social equity and mobility include:

- Percent of minority/low income population within 1/2 mile of a high quality transit stop; and

- Distribution of MTP/SCS Investments within environmental justice communities.

2035 MTP/SCS transit projects are likely to improve the overall accessibility to high quality transit within the AMBAG region. Proposed transit projects are distributed throughout the AMBAG region and are focused around the higher populated and urbanized areas of the region. No projects are proposed in sparsely-populated areas such as the southern portion of San Benito County, which has fewer than 1,300 residents.

Of the 2,311 2035 MTP/SCS transit projects, 1,178 projects (or 51%) are located within Environmental Justice communities and would benefit 465,021 residents (or 64% of the AMBAG population). These communities comprise 3% of total AMBAG area and 47.2% of the populated area in the AMBAG region. Thus, the 2035 MTP/SCS transit projects are equally distributed among the populated areas of the AMBAG region. As such, the 2035 MTP/SCS projects would increase the ability of the Environmental Justice communities to use public transit to travel to other parts of the AMBAG region. Based on the evaluation of the transportation improvement projects and future land use patterns envisioned by the 2035 MTP/SCS, mobility benefits would not be significantly less for low-income or minority populations. Overall, the 2035 MTP/SCS would improve mobility for minority populations and Environmental Justice communities, as well as non-minority populations. Impacts would be Class III, less than significant.

Mitigation Measures. None required.

Significance after Mitigation. Impacts would be less than significant without mitigation.

c. Projects That May Result in Impacts. The 2035 MTP/SCS projects are listed in Appendix B. Some may create specific impacts, as discussed under Impact EJ-1. These are identified in Table 4.6-4.Overall, the 2035 MTP/SCS is expected to improve access and mobility throughout the AMBAG region, including to/from and within the Environmental Justice communities. For example, a multimodal corridor between Salinas and Monterey along Davis and Reservation Roads through Marina with major stops in Salinas and in Marina at California State University Monterey Bay and a future Light Rail station at Eighth Street and Highway 1 would improve mobility to and from Salinas, an Environmental Justice community.

Additionally, individual projects could impact Environmental Justice communities, but would not necessarily do so disproportionately when compared to the overall population.

Table 4.6-4
2035 MTP/SCS Projects That May Result in Environmental Justice Impacts

AMBAG Project #	Project	Location	Impact	Description of Impact
MON-MYC147-UM	Castroville Improvements/Blackie Road	Castroville	EJ-1	Potential impacts could affect nearby minority or low-income populations
MON-MYC181-UM	San Miguel Canyon Road from Castroville Boulevard to Hall Road, and along Hall Road / Elkhorn Road from San Miguel Canyon Road to the Monterey County border.	Castroville, Elkhorn CDP	EJ-1	Potential impacts could affect nearby minority or low-income populations
MON-MYC204-UM	Main Street Bikeway - from Grant St to Lincoln St	Chualar	EJ-1	Potential impacts could affect nearby minority or low-income populations
MON-GON009-GO	Bike Lockers	Gonzales	EJ-1	Potential impacts could affect nearby minority or low-income populations
MON-GON010-GO	Bike Racks	Gonzales	EJ-1	Potential impacts could affect nearby minority or low-income populations
MON-GON012-GO	River Rd. Bike Lane	Gonzales	EJ-1	Potential impacts could affect nearby minority or low-income populations
MON-GON013-GO	Winery - Alta St. Bike Signs	Gonzales	EJ-1	Potential impacts could affect nearby minority or low-income populations
MON-GRN001-GR	Apple Avenue Bridge over US 101	Greenfield	EJ-1	Potential impacts could affect nearby minority or low-income populations
MON-GRN005-GR	Thorne Road Bridge over US 101	Greenfield	EJ-1	Potential impacts could affect nearby minority or low-income populations
MON-GRN010-GR	12th St. Bike Lanes	Greenfield	EJ-1	Potential impacts could affect nearby minority or low-income populations
MON-GRN011-GR	13th St. Bike Lanes	Greenfield	EJ-1	Potential impacts could affect nearby minority or low-income populations
MON-GRN012-GR	2nd Ave. Bike Lanes	Greenfield	EJ-1	Potential impacts could affect nearby minority or low-income populations
MON-GRN013-GR	3rd St. Bike Lanes	Greenfield	EJ-1	Potential impacts could affect nearby minority or low-income populations
MON-GRN014-GR	7th St. Bike Lanes	Greenfield	EJ-1	Potential impacts could affect nearby minority or low-income populations
MON-GRN015-GR	El Camino Real Exit Bike Lane	Greenfield	EJ-1	Potential impacts could affect nearby minority or low-income populations
MON-GRN016-GR	Elm Ave. Bike Lanes	Greenfield	EJ-1	Potential impacts could affect nearby minority or low-income populations
MON-GRN017-GR	Pine Ave. Bike Lanes	Greenfield	EJ-1	Potential impacts could affect nearby minority or low-income populations

Table 4.6-4
2035 MTP/SCS Projects That May Result in Environmental Justice Impacts

AMBAG Project #	Project	Location	Impact	Description of Impact
MON-GRN018-GR	Walnut Ave. Bike Lanes	Greenfield	EJ-1	Potential impacts could affect nearby minority or low-income populations
MON-KCY036-CK	Vanderhurst Bike Lanes	King City	EJ-1	Potential impacts could affect nearby minority or low-income populations
MON-KCY038-CK	1st St Bike Lanes	King City	EJ-1	Potential impacts could affect nearby minority or low-income populations
MON-KCY040-CK	Broadway Bike Lanes	King City	EJ-1	Potential impacts could affect nearby minority or low-income populations
MON-KCY008-CK	Airport Rd. Bike Lane	King City	EJ-1	Potential impacts could affect nearby minority or low-income populations
MON-KCY009-CK	Metz Rd. Bike Lane	King City	EJ-1	Potential impacts could affect nearby minority or low-income populations
MON-MYC045-UM	Las Lomas Dr Bicycle Lane & Pedestrian Project	Las Lomas CDP	EJ-1	Potential impacts could affect nearby minority or low-income populations
MON-MAR001-MA	Salinas – Marina Corridor	Marina	EJ-1	Potential impacts could affect nearby minority or low-income populations
MON-CT022-CT	SR 156 - Widening (Phase 2)	Prunedale CDP	EJ-1	Potential impacts could affect nearby minority or low-income populations
MON-MYC018-UM	Castroville Bicycle/Pedestrian Path and Railroad Crossing	Castroville CDP, Salinas city	EJ-1	Potential impacts could affect nearby minority or low-income populations
MON-CT030-CT	US 101 - Salinas Corridor	Salinas	EJ-1	Potential impacts could affect nearby minority or low-income populations
MON-SCY0~~1~~5-SA	Sand City Rehab in Old Town area	Sand City	EJ-1	Potential impacts could affect nearby minority or low-income populations
MON-SOL001-SO	Soledad Train Station	Soledad	EJ-1	Potential impacts could affect nearby minority or low-income populations
SB-COH-A10	Meridian St. Extension to Fairview Rd.	Hollister	EJ-1	Potential impacts could affect nearby minority or low-income populations
~~SC-CO-P27b-USC~~	~~Beach Road Improvements~~	~~Pajaro Dunes~~	~~EJ-1~~	~~Potential impacts could affect nearby minority or low-income populations~~

Table 4.6-4
2035 MTP/SCS Projects That May Result in Environmental Justice Impacts

AMBAG Project #	Project	Location	Impact	Description of Impact
SC-MTD-P13-MTD	UCSC Bus Service Expansion	Santa Cruz	EJ-1	Potential impacts could affect nearby minority or low-income populations
WAT 39SC	Freedom Blvd Reconstruction (Broadis St to Alta Vista Ave)	Freedom CDP	EJ-1	Potential impacts could affect nearby minority or low-income populations
SC-WAT-P38-WAT	Freedom Blvd Undergrounding	Freedom CDP	EJ-1	Potential impacts could affect nearby minority or low-income populations

4.7 GEOLOGY AND SOILS

4.7.1 Setting

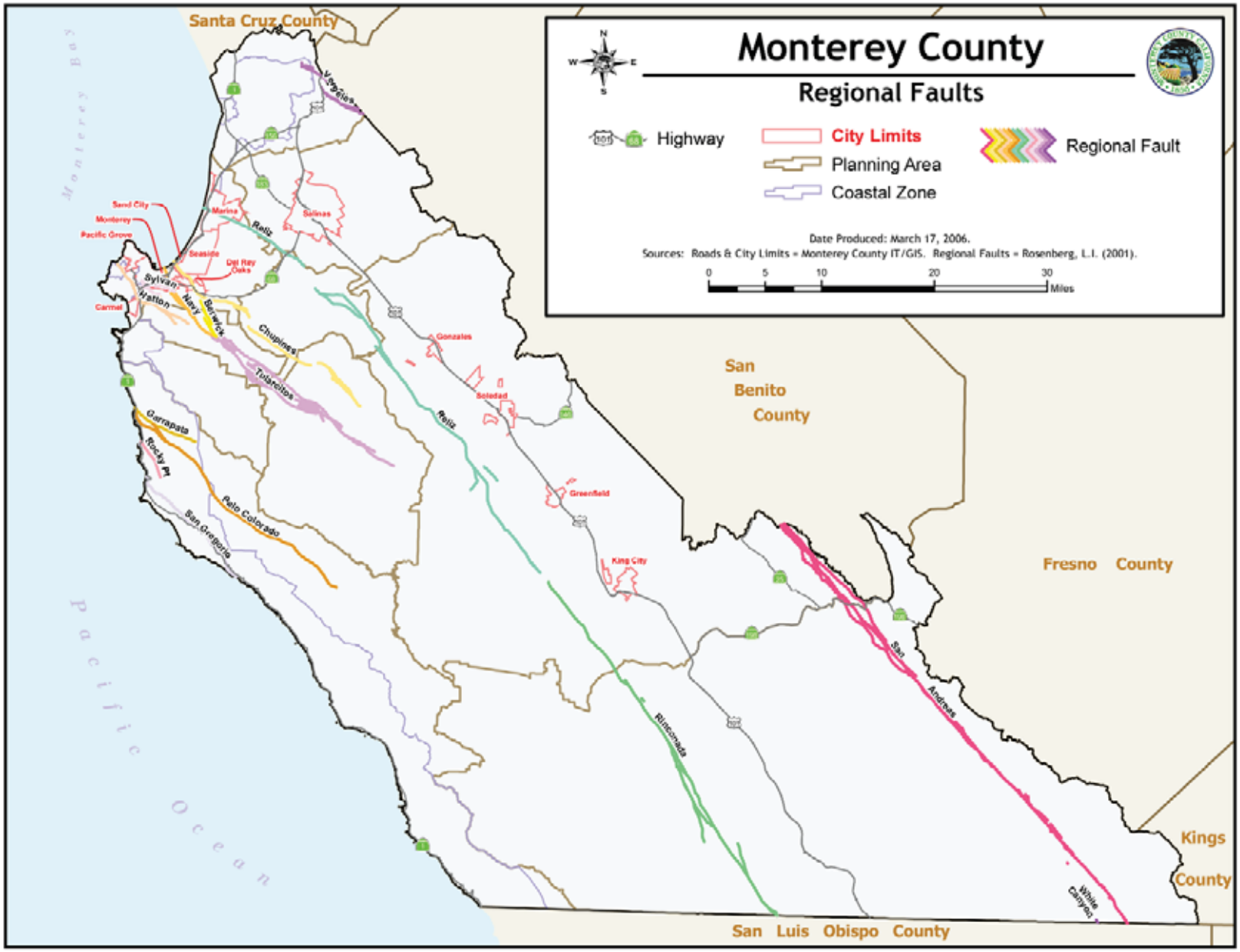
All three counties in the Monterey Bay area are part of the Coast Ranges geomorphic province, a region dominated by active tectonics at the margin of the Pacific and North American tectonic plates (Monterey County, 2008). Existing geologic, soils, and flooding conditions for each county is briefly summarized below. Figures 4.7-1a through 4.7-1c show known active faults in each county; Figures 4.7-2a through 4.7-2c show 100-year flood zones in each county.

a. Monterey County. At the southwestern portion of AMBAG's planning area, Monterey County has approximately 100 miles of coastline, two coastal ranges (the Santa Lucia and Gabilan Mountain Ranges), and two valleys (the Salinas and Carmel Valleys).

Geologic Formations. The interaction between Pacific and North American tectonic plates has created the primary geologic formations in Monterey County, as uplift along faults is largely responsible for the formation of the Coast Ranges, including the Santa Lucia and Gabilan Ranges. These granitic and metamorphic mountain ranges trend in a northwest-southeast direction, with the Santa Lucia Range along the coast and the Gabilan Range along Monterey County's eastern border (RWMG, 2013). Located between the Santa Lucia and Gabilan mountain ranges is the Salinas Valley, a broad basin filled with several thousand feet of sediment. This valley is 130 miles long and generally 10-20 miles wide. The northern part of Monterey County, between the Salinas River mouth and the Pajaro Valley, has a more undulating topography and wide sandy beaches at the coastline.

Earthquake Groundshaking and Fault Rupture. According to the Monterey County Multi-Jurisdictional Hazard Mitigation Plan, several active faults run through the County (Monterey County, 2007). These faults include but are not limited to the San Andreas, Reliz, Chupines, Tularcitos, Berwick, Navy, Sylvan, Hatton, and Vergeles faults (see Figure ~~4-11~~ 4.7-1a). Historically, most of the earthquakes that have occurred in Monterey County originated from movement along the San Andreas Fault system, which runs through the southeastern portion of the county for approximately 30 miles. This fault system is the most active in California and, in its entirety, runs 800 miles along the California coastline. Fault rupture can occur during severe earthquakes and produce ground surface displacements (vertical or horizontal offsets) ranging in severity. Where these faults cross structures (roads, bridges, buildings), substantial damage can occur which can cause injury to occupants or users. The highest potential for fault rupture is directly on the active faults.

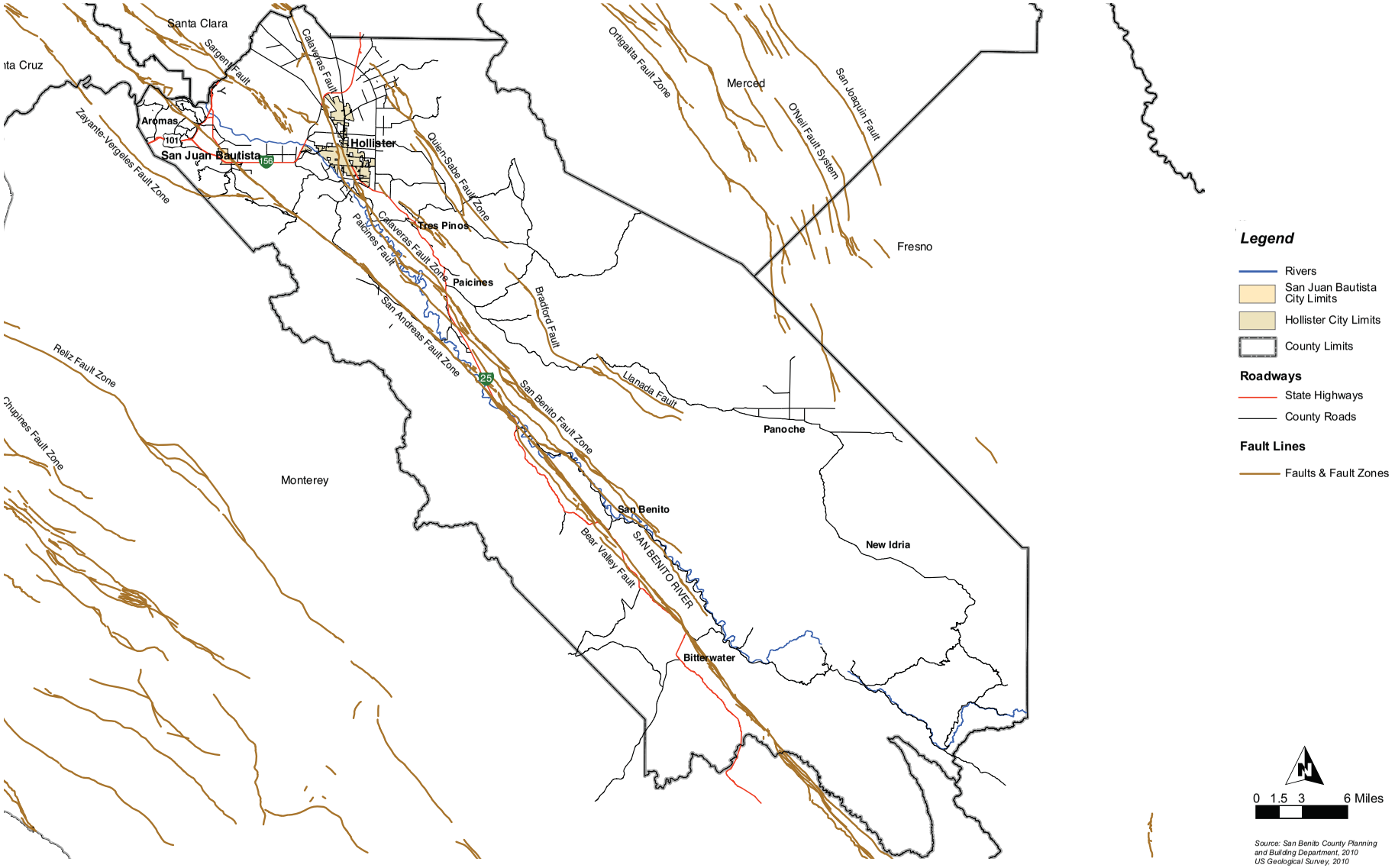
Monterey County also is susceptible to high levels of groundshaking due to the numerous active faults which pass through or border the area. The portions of Monterey County with the highest susceptibility to ground-shaking are the lower Salinas Valley (northward from the City of Gonzales), the peninsula~~r~~ area from Carmel to the Santa Cruz County line, and in the southeast around Parkfield.



Source: Monterey County General Plan Draft EIR, Exhibit 4.4.1, 2008.

Geologic and Seismic Features - Monterey County

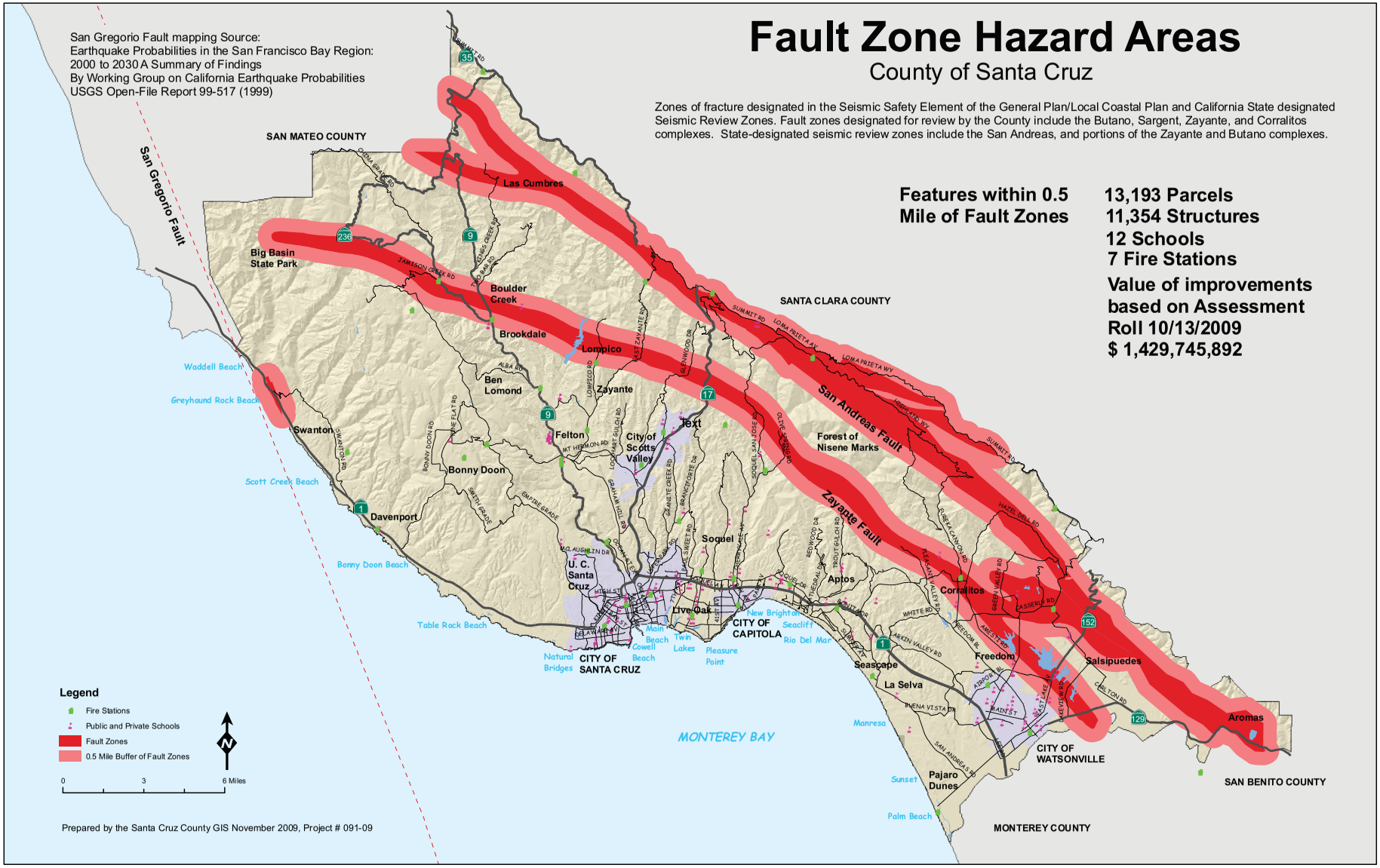
Figure 4.7-1a



Source: San Benito County, General Plan Background Report, Figure 11-1-2, 2010.

Geologic and Seismic Features - San Benito County

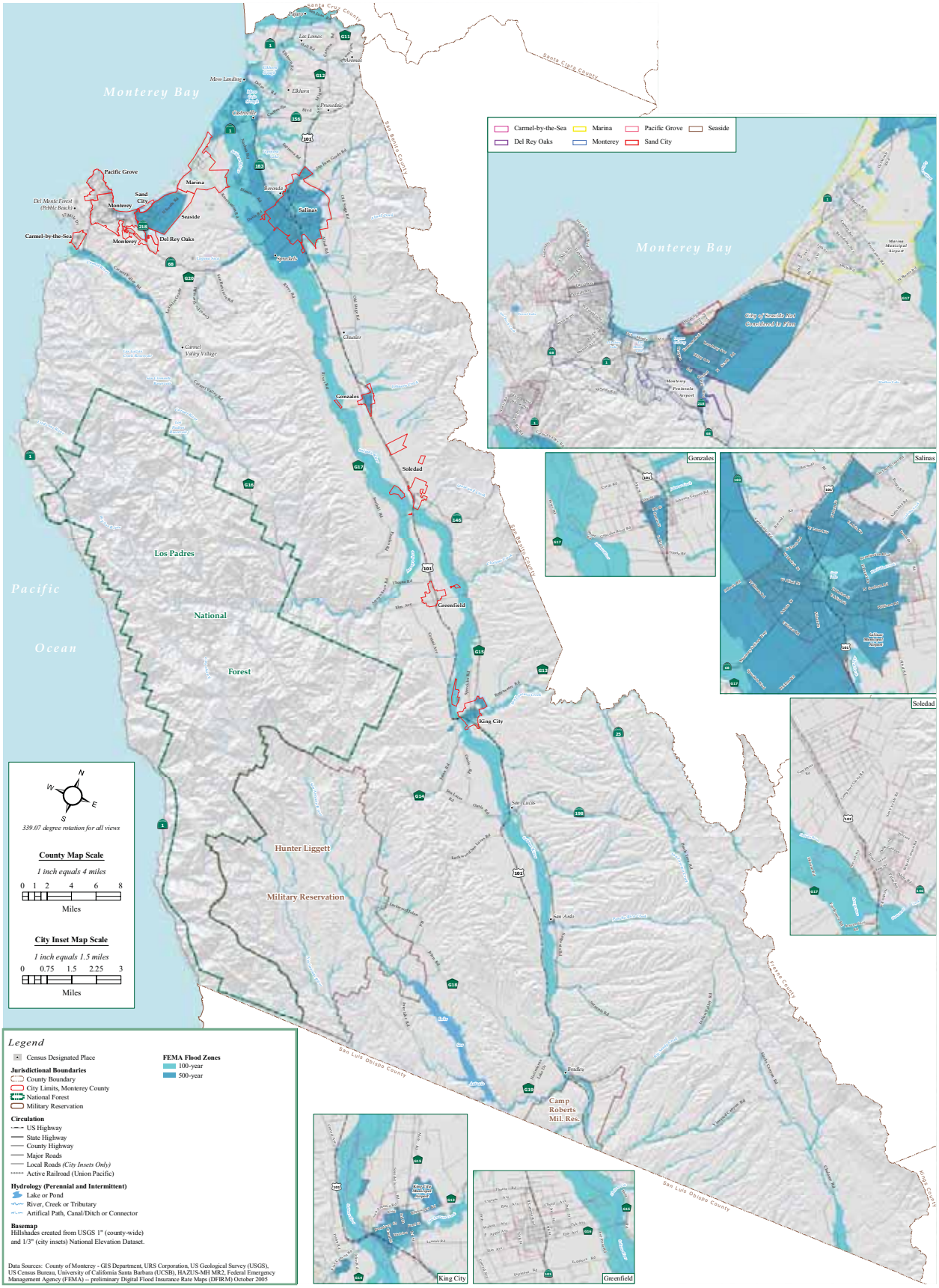
Figure 4.7-1b



Source: Santa Cruz County GISWeb, 2012

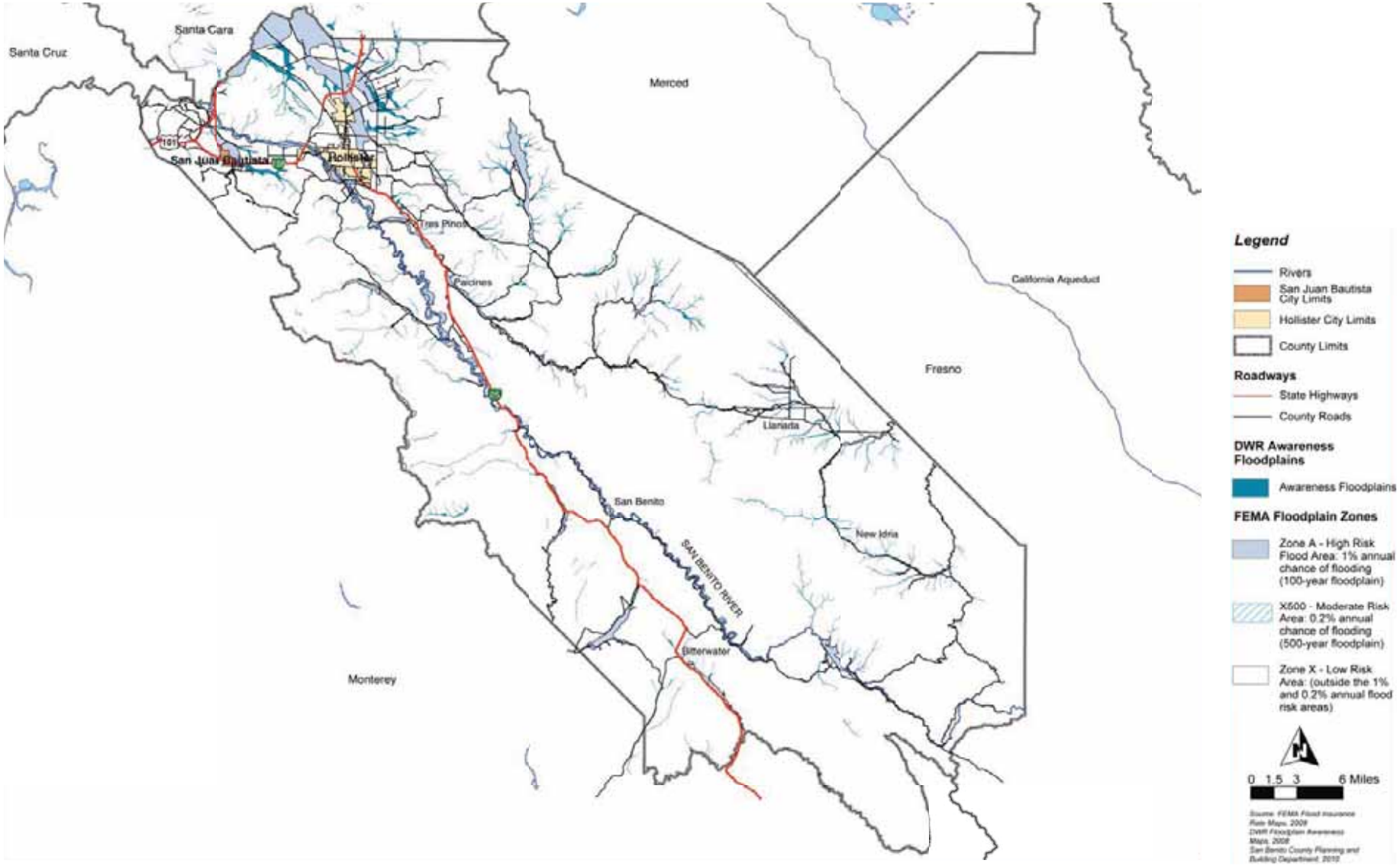
Geologic and Seismic Features - Santa Cruz County

Figure 4.7-1c



Source: Monterey County General Plan, Figure #8b, 2010.

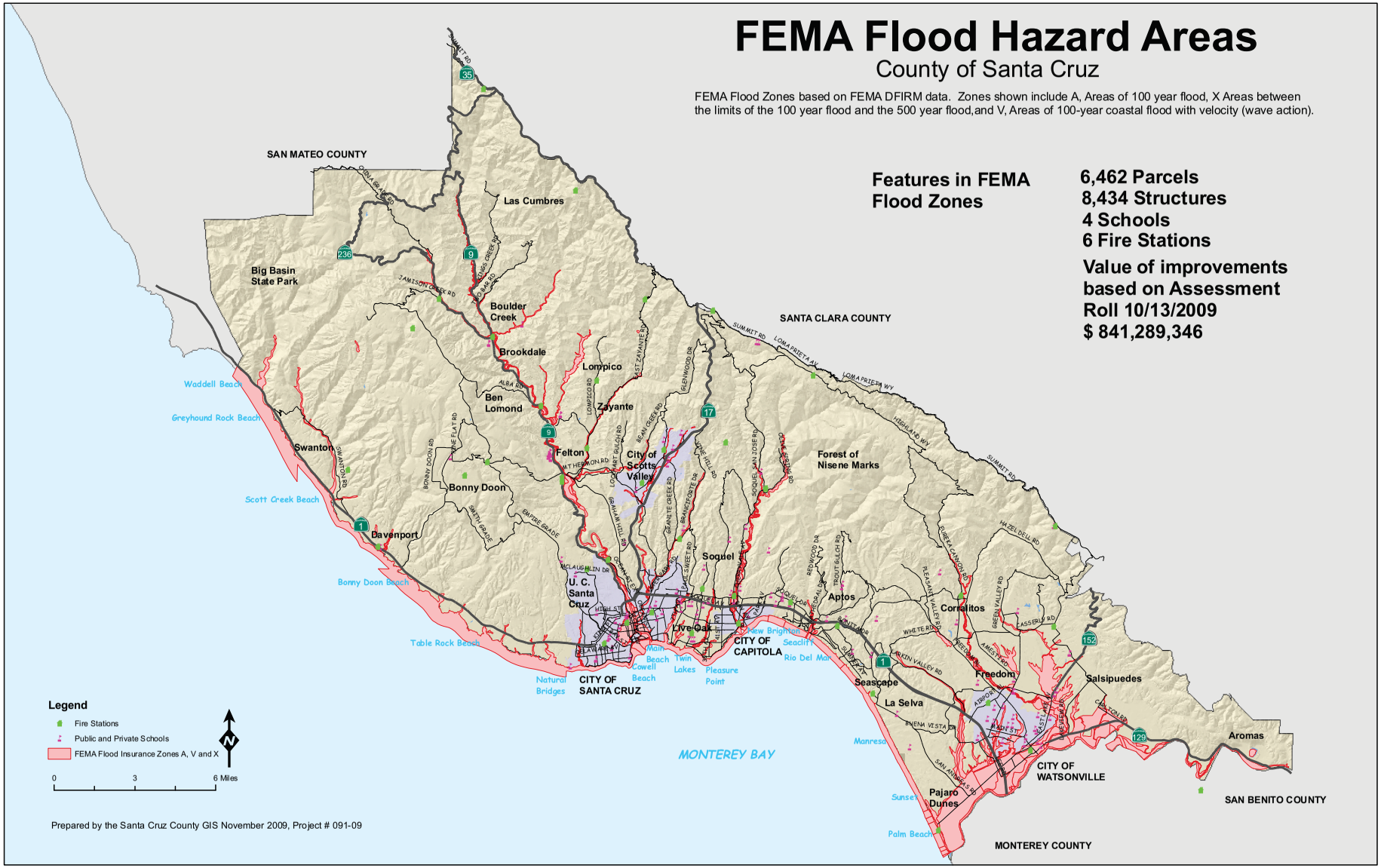
100-Year Floodplains - Monterey County Figure 4.7-2a



Source: San Benito County, General Plan Background Report, Figure 11-7, 2010.

100-Year Floodplains - San Benito County

Figure 4.7-2b



Source: Santa Cruz County GISWeb, 2012.

100-Year Floodplains - Santa Cruz County

Figure 4.7-2c

Liquefaction. Liquefaction (the loss of soil bearing strength during a strong earthquake) is a potential occurrence in areas with younger soils as well as in areas where the groundwater table is less than 50 feet deep. Specifically in areas of loose sand and silt that is saturated with water, soils can behave like liquid during earthquakes. Liquefaction can cause serious damage to foundations and bases of structures (USGS). In Monterey County, this condition occurs mainly along the Salinas River and floodplain, the Moss Landing and Elkhorn Slough areas, the Carmel River and floodplain, the San Antonio and Lockwood Valleys, and the Peachtree and Cholame Valleys (Monterey County, 2008). The severity of ground deformation due to liquefaction is dependent on the density and depth of the liquefied material. Shallower materials experience the most severe effects.

Slope Stability. Landslides and surficial slope failures are most likely to occur in areas of greater than 25 percent slope (hillside areas) and along steep bluffs. Landslides also occur due to specific events, such as loss of vegetation after fires or earthquakes adding loads to barely stable slopes. Monterey County is vulnerable to slope instability in the Santa Lucia Mountain Range and fault zones, especially after prolonged rainfalls. In general, mountainous areas and steeply sloped streambanks are most susceptible to landslides or mudflows when soils are wet, particularly adjacent to areas of unstabilized cut or fill. As shown in Exhibit 4.4.4 in the Monterey County General Plan EIR, high susceptibility to earthquake-induced landslides does not generally occur in the urbanized areas of Monterey County, including cities in the Salinas Valley or along the Monterey Peninsula (Monterey County, 2008).

Expansive Soils. Soils with relatively high clay content are expansive because the clay absorbs water and swells (expands). Because the bedrock and soils contain relatively high amounts of clay, the potential for soil expansion occurs throughout the County. However, the Monterey County Multi-Jurisdictional Hazard Mitigation Plan does not identify substantial risks from expansive soils and states that no historic events related to this hazard have occurred in the County (Monterey County, 2007).

Tsunami/Seiche. With approximately 100 miles of Pacific Ocean coastline, Monterey County is subject to the hazard of tsunamis (sea waves that result from seismic activity). These sea waves can occur at any time of the year. In the last 200 years, eight observed tsunamis have affected Monterey County (Monterey County, 2007). Almost all of these tsunamis were produced by earthquakes and resulted in wave run-ups of 1 meter or less. Coastal low-lying areas and riverine valleys in northern Monterey County are highly susceptible to tsunamis. For example, areas as far inland as Castroville are susceptible to a moderate tsunami run-up (less than 21 feet), and areas as far inland as downtown Salinas and Castroville are susceptible to extreme tsunami run-ups (21 feet to 50 feet). The Monterey County Multi-Jurisdictional Hazard Mitigation Plan does not identify hazards from seiches, or standing waves in enclosed bodies of water.

Flooding. Flooding can occur during periods of excessive rainfall or as a result of wave run-up along the coast (Monterey County, 2007). Flooding in steep, mountainous areas is usually confined to the stream channel and adjacent floodplain. Larger rivers typically have longer, more predictable flooding sequences and broad floodplains. Significant wave run-up can take place during storms in the Pacific Ocean between November and February, in conjunction with high tides and strong winds. The areas most susceptible to flooding are the

Salinas Valley, the City of Seaside, the City of Monterey, and the Elkhorn Slough area (see Figure ~~4-14~~ 4.7-2a).

Dam Inundation. Inundation may be caused by dam failure or overtopping resulting from heavy precipitation. Dams may also fail as a result of structural damage caused by seismic events, erosion, structural design flaws, rapidly rising floodwater or landslides flowing into a reservoir. Populated areas below dams may be exposed to flood hazards resulting from dam failure. Dam failure could also pose a risk to roads, highways, public facilities, agricultural crops or other land uses within the inundation zone. Four major dams and reservoirs, as well as several small dams, are located in and within the vicinity of Monterey County (Monterey County, 2007). According to the Monterey County Multi-Jurisdictional Hazard Mitigation Plan, the four largest dams (Nacimiento, San Antonio, San Clemente, and Los Padres dams) have never failed or been subject to substantial damage.

Dam inundation maps show that the greatest risk from dam failure is in Carmel Valley, where failure of either the Los Padres or San Clemente Dam would cause inundation of urbanized areas (Monterey County, 2007). It should be noted that the San Clemente Dam is scheduled for removal. Dam failure in Salinas Valley would also cause substantial inundation, whether caused by the failure of San Antonio or Nacimiento Reservoir. Studies reveal that either failure would overflow the 100-year floodplain in Salinas Valley. However, the risk would predominately be to agricultural land.

b. San Benito County. Located in the eastern portion of AMBAG's planning area, San Benito County topography is dominated by the Diablo and Gabilan mountain ranges and the valleys between these ranges.

Geologic Formations. In the north-central portion of San Benito County lie the relatively flat San Juan, Hollister, and Santa Ana valleys, which are composed of alluvium. The Diablo and Gabilan Ranges are located to the east and west of these valleys, respectively. According to Chapter 11, *Safety*, in the San Benito County General Plan Background Report, the Diablo and Gabilan Ranges consist of highly deformed and metamorphosed sedimentary and igneous rocks (San Benito County, 2010). These rock formations have been intensely deformed during the collision of the North American Plate and the Pacific Plate, and have undergone low grades of metamorphism. The low grade metamorphism has resulted in the alteration of ultramafic rocks to asbestos-containing formations.

Earthquake Groundshaking and Fault Rupture. Several well-known geologic features traverse San Benito County. The most substantial is the San Andreas Fault Zone, a principal active fault identified by the Alquist-Priolo Earthquake Fault Zoning Act. The fault is a right lateral strike slip fault and runs the length of the county (San Benito County, 2010). Other notable faults in San Benito County include the Calaveras (principal active fault), Sargent, Paicines, Bear Valley, Zayante-Vergeles, and Quien-Sabe Faults. In San Benito County, the highest ground-shaking potential occurs in the north-central valley region, including the Cities of Hollister and San Juan Bautista (see Figure ~~4-12~~ 4.7-1b).

Liquefaction. Although San Benito County is not subject to any recognized hazard areas for liquefaction, the risk of liquefaction is considered highest near Quaternary alluvial deposits

where soil saturation is close to the land surface. Specifically in areas of loose sand and silt that is saturated with water, soils can behave like liquid during earthquakes. Liquefaction can cause serious damage to foundations and bases of structures (USGS). The Santa Clara Valley may be vulnerable, and liquefaction has been reported from historical earthquakes near San Juan Bautista and Hollister (San Benito County, 2010).

Slope Stability. Slope instability occurs in areas with steep topography, as well as near Hollister, Tres Pinos, and Paicines, and along faults (see Figure ~~4-12~~ 4.7-1b).Landslides also occur due to specific events, such as loss of vegetation after fires or earthquakes adding loads to barely stable slopes.

Flooding. The San Juan and Hollister valleys in northern San Benito County are most susceptible to 100-year floods. In addition, flooding may occur from landslide blockage of canyons and, as discussed below, from dam failure (see Figure ~~4-15~~4.7-2b).

Dam Inundation. San Benito County may be subject to dam inundation from three surface reservoirs within the County (Hernandez, Paicines, and San Justo), and from the Leroy Anderson Dam in neighboring Santa Clara County to the north (San Benito County, 2010). The San Justo and Leroy Anderson Dam are located near urban areas. In the event of complete dam failure, water could inundate the San Juan Valley; however, the probability of such an occurrence is low.

Other Geologic Hazards. County documents do not indicate the presence of geologic hazards from expansive soils or seiche. As an inland area separated from the Pacific Ocean by the Coast Range, San Benito County is not vulnerable to tsunamis.

c. Santa Cruz County. Santa Cruz County is bounded to the north by San Mateo County, to the east by the crest of the Santa Cruz Mountains, to the south by the Pajaro River, and to the west by the Pacific Ocean. The County is characterized by steep coastal bluffs, deep mountain canyons, redwood, oak and madrone forests, open meadows, and beaches.

Geologic Formations. The Santa Cruz Mountains consist of predominantly marine sedimentary rocks of Paleocene to Pliocene age and non-marine sediments of Pleistocene and Holocene age, which overlay a granitic and metamorphic basement from the Cretaceous period or older (SCCRTC, 2013).

Earthquake Groundshaking and Fault Rupture. Southwest of the San Andreas fault, the older sedimentary rocks in the Coast Ranges are moderately to strongly deformed, with steep-limbed folds and several generations of faults associated with uplift of the Santa Cruz Mountains (SCCRTC, 2013). The San Andreas Fault is the most important. Along the coast, the ongoing tectonic activity is most evident in the gradual uplift of the coastline, as indicated by the series of uplifted marine terraces that sculpt the coastline (City of Santa Cruz, Draft General Plan EIR, 2011). In addition to the San Andreas fault, the Zayante-Vergeles and San Gregorio faults and the Monterey Bay – Tularcitos fault zone are associated with Holocene activity (movement in the last 11,000 years) and are considered to be active (SCCRTC, 2013) (see Figure ~~4-13~~4.7-1c).

Although a map of ground-shaking hazards is not available for Santa Cruz County, the County of Santa Cruz Local Hazard Mitigation Plan 2010-2015 states that based on historical evidence, the entire County is vulnerable to ground-shaking from earthquakes (Santa Cruz County, 2010). The epicenter of the Loma Prieta earthquake in October 1989, which was the most intense to strike California since 1906, was located on the San Andreas Fault, approximately 10 miles east-northeast of the City of Santa Cruz.

Liquefaction. Liquefaction potential in Santa Cruz County is high in lowland areas of the City of Santa Cruz, the Soquel Valley, and the Pajaro River Valley (Santa Cruz County, 2010). Specifically in areas of loose sand and silt that is saturated with water, soils can behave like liquid during earthquakes. Liquefaction can cause serious damage to foundations and bases of structures (USGS).

Slope Stability. Areas subject to the hazard of landslides are widely dispersed across inland portions of Santa Cruz County (Santa Cruz County, 2010). Landslides also occur due to specific events, such as loss of vegetation after fires or earthquakes adding loads to barely stable slopes.

Expansive Soils. Expansive soils occur in southeastern Santa Cruz County and along the coast, especially in the City of Santa Cruz and in Capitola (Santa Cruz County, 2010).

Tsunami/Seiche. Minimal damage associated with tsunamis has occurred along the Santa Cruz County coastline (Santa Cruz County, 2010). Like Monterey County, the Santa Cruz County coastline could be impacted during a tsunami event. Areas most susceptible as referenced in the Santa Cruz County Local Hazard Mitigation Plan are located in proximity to the Pajaro River mouth and low-lying coastal areas between the cities of Santa Cruz and Capitola. Seiches are not identified as a geologic hazard in Santa Cruz County.

Flooding. The Pajaro and San Lorenzo river valleys are subject to flooding (Santa Cruz County, 2010). The Pajaro River and adjacent floodplain runs through agricultural lands within the Pajaro Valley and, downstream, through downtown Watsonville. The San Lorenzo River runs through the heavily populated San Lorenzo Valley and into downtown Santa Cruz (see Figure ~~4-16~~4.7-2c). A levee was constructed along the San Lorenzo River in Santa Cruz in 2002 which has substantially reduced the flood risk for downtown residents, merchants, and landowners (Santa Cruz County, 2010).

Dam Inundation. Given their location, a major dam failure at either the Bay Street Reservoir or Newell Creek Dam could result in extensive property damage or loss of life in the San Lorenzo Valley and the City of Santa Cruz (Santa Cruz County, 2010). A dam failure at either the Mill Creek, Oak Site or Sempervirens dams could affect people and property in northern Santa Cruz County, to the east of the community of Boulder Creek. Soda Lake is a storage facility for fine-grained material or "fines" from the Wilson Quarry in San Benito County. Failure of the Soda Lake levees could potentially release this material and impact one or more nearby residences and encroach upon Highway 129. Although located in neighboring counties, a failure of the Elmer J Chesbro, Uvas, or San Justo dams could potentially impact people and properties along the Pajaro River in Santa Cruz County. Given the monitoring

protocol at the Newell Creek and Bay Street reservoirs, the probability of dam failure is very low (Santa Cruz County, 2010).

d. Regulatory Setting. The Alquist-Priolo Earthquake Fault Zoning Act, California's Alquist-Priolo Act (PRC 2621 et seq.), originally enacted in 1972 as the Alquist-Priolo Special Studies Zones Act and renamed in 1994, is intended to reduce the risk to life and property from surface fault rupture during earthquakes. The Alquist-Priolo Act prohibits the location of most types of structures intended for human occupancy across the traces of active faults and strictly regulates construction in the corridors along active faults (Earthquake Fault Zones). It also defines criteria for identifying active faults, giving legal weight to terms such as "active," and establishes a process for reviewing building proposals in and adjacent to Earthquake Fault Zones. Under the Alquist-Priolo Act, faults are zoned, and construction along or across them is strictly regulated if they are "sufficiently active" and "well-defined." A fault is considered sufficiently active if one or more of its segments or strands shows evidence of surface displacement during Holocene time (defined for the purposes of the act as within the last 11,000 years). A fault is considered well-defined if its trace can be clearly identified by a trained geologist at the ground surface or in the shallow subsurface, using standard professional techniques, criteria, and judgment (Hart and Bryant, Fault Rupture Hazard Zones in California, California Division of Mines and Geology, 1997).

Like the Alquist-Priolo Act, the Seismic Hazards Mapping Act of 1990 (PRC 2690–2699.6) is intended to reduce damage resulting from earthquakes. While the Alquist-Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including strong ground shaking, liquefaction, and seismically induced landslides. Its provisions are similar in concept to those of the Alquist-Priolo Act: the State is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other corollary hazards, and cities and counties are required to regulate development within mapped Seismic Hazard Zones. At the present time, the State has mapped only Alameda, Los Angeles, Orange, San Francisco, and Ventura counties.

The California Building Standards Code is based on the Uniform Building Code (International Code Council 1997), which is used widely throughout United States (generally adopted on a state-by-state or district-by-district basis) and has been modified for California conditions with numerous, more detailed or more stringent regulations. The CBSC provides standards for various aspects of construction, including (i.e., not limited to) excavation, grading, and earthwork construction; fills and embankments; expansive soils; foundation investigations; and liquefaction potential and soil strength loss. In accordance with California law, proponents of specific projects would be required to comply with all provisions of the CBSC for certain aspects of design and construction.

The California Department of Transportation (Caltrans) has Seismic Design Criteria (SDC) which contain new and currently practiced seismic design and analysis methodologies for the design of new bridges in California. The SDC adopts a performance based approach specifying minimum levels of structural system performance, component performance, analysis, and design practices for ordinary standard bridges. The SDC has been developed with input from the Caltrans Offices of Structure Design, Earthquake Engineering and Design Support, and Materials and Foundations. Memo 20-1 outlines the bridge category and classification, seismic

performance criteria, seismic design philosophy and approach, seismic demands and capacities on structural components and seismic design practices that collectively comprise Caltrans' seismic design methodology.

4.7.2 Impact Analysis

a. Methodology and Significance Thresholds. In accordance with the State CEQA Guidelines, a project would result in a significant impact if it would:

- *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, including liquefaction, or landslides;*
- *Result in substantial soil erosion or the loss of topsoil;*
- *Result in the loss of a unique geologic feature;*
- *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse;*
- *Be located on expansive soil, creating substantial risks to life or property;*
- *Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater;*
- *Be subject to inundation by seiche, tsunami, or mudflow; or*
- *Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.*

Because the location of each proposed improvement can be different in geologic character, the determination of impact significance and identification of mitigation measures is based on a project specific study at the time of the project design and environmental review. Therefore, for the purposes of this EIR, proposed transportation modifications that are located in areas of moderate to high geologic, soil or flood hazard shall be considered significant.

b. Project Impacts and Mitigation Measures. This section describes generalized impacts associated with the 2035 MTP/SCS. Table 4.7-1 in Section 4.7.2.c summarizes the specific projects that could result in the impacts discussed in this section. Due to the programmatic nature of the 2035 MTP/SCS, a precise, project-level analysis of the specific impacts associated with individual transportation and land use projects on seismic hazards is not possible at this time. In general, however, implementation of proposed transportation improvements and future projects under the land use scenario envisioned by the 2035 MTP/SCS could be exposed to impacts caused by geology/soil conditions as described in the following sections.

Impact G-1 **Implementation of proposed transportation improvements and future projects facilitated by land use scenario envisioned in the 2035 MTP/SCS could be subject to seismic hazards, including fault rupture and groundshaking, that could expose people or structures to potential substantial effects. This would be a Class II, *significant but mitigable* impact.**

Fault rupture can occur along or immediately adjacent to faults during an earthquake. Fault rupture is characterized by ground cracks and displacement which could endanger life and property. Damage is typically limited to areas close to the moving fault.

Groundshaking effects are also the result of an earthquake, but the impacts can be much more widespread. Although a function of earthquake intensity, groundshaking effects can be greatly magnified by the underlying soils and geology, which may amplify shaking at great distances. It is difficult to predict the magnitude of groundshaking following an earthquake, as shaking can vary widely within a relatively small area.

As indicated by Table 4.7-1, transportation projects across the AMBAG region may be vulnerable to fault rupture. Roadway projects that traverse faults in Monterey County include the Salinas-Marina Multimodal Corridor. In San Benito County, the proposed widening of SR 156 may be vulnerable to the San Andreas and Calaveras faults, while the proposed Union Road widening would cross the Calaveras fault.

Regional trail projects, due to their length, are especially likely to be affected by faults. The proposed 20-mile-long San Benito River Bike Path would cross the Calaveras fault zone. In addition, the Monterey Bay Sanctuary Scenic Trail Network, which would traverse coastal Santa Cruz County, would be vulnerable to the San Gregorio Fault in its northern reach (SCCRTC, 2013).

Whereas vulnerability to fault rupture is site-specific, the entire planning area would be vulnerable to ground-shaking associated with fault ruptures. Thus, all projects under the 2035 MTP/SCS would be subject to some level of groundshaking. Transportation projects in the urbanized areas of northern Monterey County and lower Santa Cruz County (near the epicenter of the Loma Prieta earthquake) would be particularly susceptible to ground-shaking (Monterey County Multi-Jurisdictional Hazard Mitigation Plan, Figure E-6, 2007). Bridge-type structures are most susceptible to earthquake groundshaking and fault rupture, although residential and commercial structures, as well as roadways, may also be damaged by either phenomenon. Seismic impacts are potentially significant.

Mitigation Measures. For transportation projects under their jurisdiction, ~~AMBAG,~~ SCCRTC, SBtCOG, and TAMC shall implement and transportation project sponsor agencies can and should implement the following mitigation measures developed for the 2035 MTP/SCS program where applicable for applicable transportation projects that could expose people or structures to substantial adverse effects due to seismic hazards. Cities and counties in the AMBAG region can and should implement these measures, where relevant to land use projects implementing the 2035 MTP/SCS. ~~Project-specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions. These measures can and should also be implemented for future infill and transit-oriented development (TOD) pursuant to the 2035 MTP/SCS that would result in impacts related to seismic activity.~~

G-1(a) If a 2035 MTP/SCS project is located in a zone of high potential groundshaking intensity, the project sponsor shall ensure that the structure is designed and constructed to the latest geotechnical standards. In most cases, this will necessitate site-specific geologic

and soils engineering investigations conducted by a qualified geotechnical expert. Any investigations shall comply with the California Geological Survey's *Guidelines for Evaluating and Mitigating Seismic Hazards in California.* (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

G-1(b) 2035 MTP/SCS projects shall be placed in areas outside of fault rupture zones whenever feasible, in accordance with State and local provisions. If avoidance is not possible, detailed geologic and seismic studies must be conducted by a qualified geotechnical expert to locate active or potentially active fault traces. Structures shall then be placed outside of an appropriate setback distance. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

Significance After Mitigation. Implementation of the above measures would reduce potential impacts to a less than significant level.

Impact G-2 Implementation of proposed transportation improvements and future projects facilitated by the land use scenario envisioned in the 2035 MTP/SCS could be located on potentially unstable soils, or in areas of high liquefaction potential. This would be a Class II, *significant but mitigable* impact.

Implementation of proposed transportation improvements and future projects under the land use scenario envisioned by the 2035 MTP/SCS could be prone to slope stability, soil, and liquefaction hazards. Representative projects that could be subject to these hazards are listed in Table 4.7-1. Because of the programmatic nature of this EIR, project-level analyses of the specific impacts of individual transportation and land use projects on seismic hazards are not possible at this time. However, the general nature of these hazards, and their potential impacts, are described below.

Liquefaction. Transportation improvements and infill and TOD development projects envisioned in the 2035 MTP/SCS may be vulnerable to liquefaction in areas with younger soils and with high groundwater tables. In the Monterey Bay area, these areas include the Salinas River valley in Monterey County; greater Hollister area in San Benito County; and the City of Santa Cruz, the Soquel Valley, and the Pajaro River Valley in Santa Cruz County.

Expansive Soils. As shown in Table 4.7-1, potential impacts related to expansive soils may occur in coastal areas of southern Santa Cruz County and in the Pajaro River valley. Transportation improvement projects in the 2035 MTP/SCS which may be affected include the Buena Vista/ Calabasas/Freedom Connection in greater Watsonville. Impacts would be potentially significant for 2035 MTP/SCS projects in these areas.

Landslide and Mudflow. Roadway projects in mountainous areas or along steeply sloped streambanks are most susceptible to landslide or mudflows, especially when soils are

wet and in areas adjacent to unstabilized cut or fill. Few projects proposed under the 2035 MTP/SCS are located in such areas.

Mitigation Measures. For transportation projects under their jurisdiction, ~~AMBAG,~~ SCCRTC, SBtCOG, and TAMC shall implement and transportation project sponsor agencies can and should implement the following mitigation measures developed for the 2035 MTP/SCS program where applicable for transportation projects that could be located on unstable soils or in areas of high liquefaction potential. Cities and counties in the AMBAG region can and should implement these measures, where relevant to land use projects implementing the 2035 MTP/SCS. ~~as applicable for individual projects as determined by project-specific geotechnical analyses. Project-specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions. These measures can and should also be implemented for future infill and TOD pursuant to the 2035 MTP/SCS that would result in impacts related to soils and geologic hazards.~~

G-2(a) If a 2035 MTP/SCS project is located in an area of moderate to high liquefaction potential, the project sponsor shall ensure that these structures are designed based upon site specific geology, soils, and earthquake engineering studies. Possible design measures include deep foundations, removal of liquefiable materials, and dewatering. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

G-2(b) If a 2035 MTP/SCS project requires cut slopes over 20 feet in height or is located in areas of bedded or jointed bedrock, the project sponsor shall ensure that Hillside Stability Evaluations and/or specific slope stabilization studies are conducted. Possible stabilization methods include buttresses, retaining walls, and soldier piles. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

G-2(c) If a 2035 MTP/SCS project is located in an area of highly expansive soils, the project sponsor shall ensure that a site-specific geotechnical investigation is conducted. The investigation will identify hazardous conditions and recommend appropriate design factors to minimize hazards. Such measures could include concrete slabs on grade with increased steel reinforcement, removal of highly expansive material and replacement with non-expansive import fill material, or chemical treatment with hydrated lime to reduce the expansion characteristics of the soils (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

G-2(d) If a 2035 MTP/SCS project involving deep foundations or underground areas is located in an area of high groundwater potential, the project sponsor shall ensure that appropriate

construction techniques (such as de-watering, special water proofing, and deeper foundations) are implemented to minimize the potential for liquefaction. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

Significance After Mitigation. Implementation of the above measures would reduce potential impacts to a less than significant level.

Impact G-3 Implementation of proposed transportation improvements and future projects facilitated by the land use scenario envisioned in the 2035 MTP/SCS could be subject to flood hazards due to storm events and/or dam failure, resulting in exposing people or structures to a significant risk of loss, injury, or death. Impacts are considered Class II, *significant but mitigable*.

Implementation of proposed transportation improvements and future projects under the land use scenario envisioned by the 2035 MTP/SCS could be subject to flooding hazards due to storm events and/or dam failure. The transportation projects with potentially significant impacts are listed in Table 4.7-1. Due to the programmatic nature of the 2035 MTP/SCS, a precise, project-level analysis of the specific impacts of individual transportation projects on flooding hazards is not possible at this time. However, the general nature of these hazards, and their potential impacts, are described below.

Flooding. Proposed transportation improvements and future projects under the land use scenario envisioned by the 2035 MTP/SCS in low-lying areas and in proximity to waterways and/or dam inundation zones may be subject to flood hazards. The effects of flooding could include temporary inundation of a facility that impedes its use, or causes long-term damage to the facility. Flooding may also cause immediate damage to roadways, bikeways, and bridges, particularly during high-velocity flood events that wash away or erode facilities. Such damage would typically occur adjacent to rising rivers or streams. Erosion caused by flooding can damage paved facilities, and bridge supports can be undermined or washed away. Flood hazards can also endanger occupants of habitable structures.

In the Monterey Bay area, transportation improvements and future projects under the land use scenario of the 2035 MTP/SCS would be most susceptible to flooding in the following areas: the Salinas Valley, the City of Seaside, and the Elkhorn Slough area in Monterey County; the San Juan and Hollister valleys in San Benito County; and the Pajaro and San Lorenzo River valleys in Santa Cruz County. Representative projects that could be subject to flooding are listed in Table 4.7-1. Impacts from flooding are potentially significant.

Tsunami and Seiche. Low-lying coastal areas in northern Monterey County and southern Santa Cruz County are susceptible to impacts from tsunamis. As shown in Table 4.7-1, specific transportation projects programmed in the 2035 MTP/SCS for these areas include the Branciforte Creek Bike/Ped Crossing and the Monterey Bay Sanctuary Scenic Trail Network. Therefore, despite the low probability of occurrence, impacts from a tsunami are potentially significant. As described above, seiches are not identified as a hazard in the AMBAG region. Therefore, no impacts related to seiches would result.

Mitigation Measures. For transportation projects under their jurisdiction, ~~AMBAG,~~ SCCRTC, SBtCOG, and TAMC shall implement and transportation project sponsor agencies can and should implement the following mitigation measures developed for the 2035 MTP/SCS program where ~~for~~ applicable for transportation projects that could be exposed to significant flood risks. Cities and counties in the AMBAG region can and should implement these measures, where relevant to land use projects implementing the 2035 MTP/SCS. ~~Project-specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions. These measures can and should also be implemented for future infill and TOD pursuant to the 2035 MTP/SCS that would result in impacts related to flooding, dam inundation, and tsunami hazards.~~

G-3(a) If a 2035 MTP/SCS project is located in an area with high flooding potential due to a storm event or dam inundation or sea level rise due to climate change, the project sponsor shall ensure that the structure is elevated at least one foot above the 100-year flood zone elevation and that bank stabilization and erosion control measures are implemented along creek crossings. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

G-3(b) In areas subject to tsunami effects, the project sponsor shall ensure that 2035 MTP/SCS projects involving the construction of new roadways or other structures are elevated above the 10-foot elevation by an appropriate margin. In addition, the project sponsors shall ensure that early warning systems and evacuation plans for tsunami events are developed and implemented. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

Significance After Mitigation. Implementation of the above measures would reduce potential impacts to a less than significant level.

c. Specific 2035 MTP/SCS Projects That May Result in Impacts. Table 4.7-1 identifies projects that may result in geologic and soils impacts as discussed in Section 4.7.2.b above. Given the large number of projects proposed across the tri-county area in the 2035 MTP/SCS, Table 4.7-1 shows a representative rather than comprehensive list of potentially impacted projects. Listed projects are representative of the types of geologic impacts and the types of transportation projects that could be affected in different localities.

The individual projects listed could result in significant geologic or flooding impacts but would not necessarily do so. Additional site-specific analysis will need to be conducted as the individual projects are implemented in order to determine the actual magnitude of impact. Mitigation measures discussed above would apply to these specific projects.

Table 4.7-1
2035 MTP/SCS Projects that May Result in Geologic/Flooding Impacts

AMBAG Project #	Project	Location	Impact	Description of Impact
MON-CT017-CT	SR 68 - (Holman Hwy - access to Community Hospital)	Monterey	G-1	Potential impacts from ground shaking
MON-CT022-CT	SR 156 - Widening (Phase 2) at US 101	Prunedale	G-1	Potential impacts from ground shaking
MON-CT031-CT	US 101 - Salinas Corridor from South of Airport Boulevard to Boronda Road.	Salinas	G-1	Potential impacts from ground shaking
MON-CT036-CT	SR 156 - West Corridor (Phase I) from Castroville to US 101	Greater Castroville	G-1, G-3	Potential impacts from ground shaking, flooding
MON-CT045-CT	SR 1 - Monterey Rd Interchange	Seaside	G-1	Potential impacts from ground shaking
MON-FRA003-MA	8th Street from Hwy 1 Overpass to Inter-Garrison (Eighth Street Cutoff)	Marina	G-1, G-3	Potential impacts from ground shaking, flooding
MON-GON005-GO	Fano Road in city limits to US 101	Gonzales	G-1, G-3	Potential impacts from ground shaking, flooding
MON-MYC200-UM	Johnson Cyn Land - Phase I	South Monterey County	G-1, G-3	Potential impacts from ground shaking, flooding
~~MON-MYC041-UM~~	~~San Juan Road Improvements~~	~~North Monterey County~~	~~G-1, G-3~~	~~Potential impacts from ground shaking, flooding~~
MON-SCY015-SA	Tioga widening	Sand City	G-1	Potential impacts from ground shaking
MON-SNS012-SL	Boronda Rd. Widening from Natividad to Williams	Salinas	G-1, G-3	Potential impacts from ground shaking, flooding
MON-MST008-MST	Salinas-Marina Multimodal Corridor along Davis and Reservation Roads	Marina to Salinas	G-1, G-2, G-3	Potential impacts from fault rupture, ground shaking, liquefaction, flooding
MON-TAMC002-TAMC	Monterey Branch Line Light Rail - Salinas River Bridge Replacement	Between Marina and Castroville	G-1, G-3	Potential impacts from ground shaking, flooding
MON-MYC251-UM	Sanctuary Scenic Trail Segment 12	From Salinas River and Hwy 1 to Salinas River State Beach	G-1, G-3	Potential impacts from ground shaking, flooding
SB-CT-A01	SR 156 Widening	San Benito County	G-1, G-2, G-3	Potential impacts from fault rupture, ground shaking, liquefaction, flooding
SB-CT-A17	Airline Highway: Widening to a 4 lane expressway ~~State Route 25 Widening:~~ Sunset Drive to Fairview Rd.	Hollister	G-1, G-2	Potential impacts from ground shaking, liquefaction
SB-SBC-A04	Union Road Widening (East)	San Benito County	G-1, G-3	Potential impacts from fault rupture, ground shaking, flooding
SB-SBC-A27	San Benito River Bike Trail	San Benito County	G-1, G-3	Potential impacts from fault rupture, ground shaking, flooding
SC-RTC24e-RTC	3 - Hwy 1: Park Avenue to Bay/Porter Auxiliary Lanes	Capitola	G-1, G-2	Potential impacts from ground shaking, expansive soil

Table 4.7-1
2035 MTP/SCS Projects that May Result in Geologic/Flooding Impacts

AMBAG Project #	Project	Location	Impact	Description of Impact
~~WAT-01SC~~ WAT 01A	~~Hwy 1/ Harkins Slough Road Interchange~~ Hwy 1/Harkins Slough Corridor Improvements	Watsonville	G-1, G-2	Potential impacts from ground shaking, liquefaction, expansive soils
SC-RTC27a-RTC	Monterey Bay Sanctuary Scenic Trail Network - Design, Environmental Clearance, and Construction	Santa Cruz County	G-1, G-2, G-3	Potential impacts from fault rupture, ground shaking, liquefaction, expansive soils, flooding, tsunami
SC 46SC	Branciforte Creek Bike/Ped Crossing	Santa Cruz	G-1, G-2, G-3	Potential impacts from ground shaking, liquefaction, flooding, tsunami

4.8 GREENHOUSE GAS EMISSIONS/CLIMATE CHANGE

This section discusses potential impacts related to greenhouse gas emissions and climate change. Air quality impacts are discussed in Section 4.2 *Air Quality*.

4.8.1 Setting

a. Climate Change and Greenhouse Gases. Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period of time. The term "climate change" is often used interchangeably with the term "global warming," but "climate change" is preferred to "global warming" because it helps convey that there are other changes in addition to rising temperatures. The baseline against which these changes are measured originates in historical records identifying temperature changes that have occurred in the past, such as during previous ice ages. The global climate is continuously changing, as evidenced by repeated episodes of substantial warming and cooling documented in the geologic record. The rate of change has typically been incremental, with warming or cooling trends occurring over the course of thousands of years. The past 10,000 years have been marked by a period of incremental warming, as glaciers have steadily retreated across the globe. However, scientists have observed acceleration in the rate of warming during the past 150 years. Per the United Nations Intergovernmental Panel on Climate Change (IPCC), the understanding of anthropogenic warming and cooling influences on climate has led to a high confidence (90 percent or greater chance) that the global average net effect of human activities since 1750 has been one of the causes of accelerated warming. The prevailing scientific opinion on climate change is that most of the observed increase in global average temperatures, since the mid-20th century, is likely due to the observed increase in anthropogenic greenhouse gas concentrations (IPCC, 2007).

Gases that absorb and re-emit infrared radiation in the atmosphere are called greenhouse gases (GHGs). GHGs are present in the atmosphere naturally, are released by natural and anthropogenic sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO_2), methane (CH_4), nitrous oxides (N_2O), and fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

GHGs are emitted by both natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas CH_4 results from off-gassing associated with agricultural practices and landfills. Man-made GHGs, many of which have greater heat-absorption potential than CO_2, include fluorinated gases and SF_6 (California Environmental Protection Agency [CalEPA], 2006). Different types of GHGs have varying global warming potentials (GWPs). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as "carbon dioxide equivalent" (CO_2E), and is the amount of a GHG emitted

multiplied by its GWP. CO_2 has a GWP of one. By contrast, CH_4 has a GWP of 21, meaning its global warming effect is 21 times greater than CO_2 on a molecule per molecule basis (IPCC, 1997).

The accumulation of GHGs in the atmosphere regulates the earth's temperature. Without the natural heat trapping effect of GHG, Earth's surface would be about 34° C cooler (CalEPA, 2006). However, it is believed that emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations. The following discusses the primary GHGs of concern.

Carbon Dioxide. The global carbon cycle is made up of large carbon flows and reservoirs. Billions of tons of carbon in the form of CO_2 are absorbed by oceans and living biomass (i.e., sinks) and are emitted to the atmosphere annually through natural processes (i.e., sources). When in equilibrium, carbon fluxes among these various reservoirs are roughly balanced (United States Environmental Protection Agency [USEPA], April 2012). CO_2 was the first GHG demonstrated to be increasing in atmospheric concentration, with the first conclusive measurements being made in the last half of the 20th century. Concentrations of CO_2 in the atmosphere have risen approximately 40 percent since the industrial revolution. The global atmospheric concentration of CO_2 has increased from a pre-industrial value of about 280 parts per million (ppm) to 391 ppm in 2011 (IPCC, 2007; National Oceanic and Atmospheric Association [NOAA], 2010). The average annual CO_2 concentration growth rate was larger between 1995 and 2005 (average: 1.9 ppm per year) than it has been since the beginning of continuous direct atmospheric measurements (1960–2005 average: 1.4 ppm per year), although there is year-to-year variability in growth rates (NOAA, 2010). Currently, CO_2 represents an estimated 82.8 percent of total GHG emissions (Department of Energy [DOE] Energy Information Administration [EIA], August 2010). The largest source of CO_2, and of overall GHG emissions, is fossil fuel combustion.

Methane. Methane (CH_4) is an effective absorber of radiation, though its atmospheric concentration is less than that of CO_2 and its lifetime in the atmosphere is limited to 10 to 12 years. It has a global warming potential (GWP) approximately 21 times that of CO_2. Over the last 250 years, the concentration of CH_4 in the atmosphere has increased by 148 percent (IPCC, 2007), although emissions have declined from 1990 levels. Anthropogenic sources of CH_4 include enteric fermentation associated with domestic livestock, landfills, natural gas and petroleum systems, agricultural activities, coal mining, wastewater treatment, stationary and mobile combustion, and certain industrial processes (USEPA, April 2012).

Nitrous Oxide. Concentrations of nitrous oxide (N_2O) began to rise at the beginning of the industrial revolution and continue to increase at a relatively uniform growth rate (NOAA, 2010). N_2O is produced by microbial processes in soil and water, including those reactions that occur in fertilizers that contain nitrogen, fossil fuel combustion, and other chemical processes. Use of these fertilizers has increased over the last century. Agricultural soil management and mobile source fossil fuel combustion are the major sources of N_2O emissions. The GWP of N_2O is approximately 310 times that of CO_2.

Fluorinated Gases (HFCS, PFCS and SF_6). Fluorinated gases, such as HFCs, PFCs, and SF_6, are powerful GHGs that are emitted from a variety of industrial processes. Fluorinated gases are used as substitutes for ozone-depleting substances such as chlorofluorocarbons (CFCs),

hydrochlorofluorocarbons (HCFCs), and halons, which have been regulated since the mid-1980s because of their ozone-destroying potential and are phased out under the Montreal Protocol (1987) and Clean Air Act Amendments of 1990. Electrical transmission and distribution systems account for most SF_6 emissions, while PFC emissions result from semiconductor manufacturing and as a by-product of primary aluminum production. Fluorinated gases are typically emitted in smaller quantities than CO_2, CH_4, and N_2O, but fluorinated gases ~~these compounds~~ have much higher GWPs. SF_6 is the most potent GHG the IPCC has evaluated.

b. Statewide Greenhouse Gas Emissions Inventory. Worldwide anthropogenic emissions of GHGs were approximately 40,000 million metric tons (MMT) CO_2E in 2004, including ongoing emissions from industrial and agricultural sources, but excluding emissions from land use changes (i.e., deforestation, biomass decay) (IPCC, 2007). CO_2 emissions from fossil fuel use accounts for 56.6 percent of the total emissions of 49,000 MMT CO_2E (includes land use changes) and CO_2 emissions from all sources account for 76.7 percent of the total. Methane emissions account for 14.3 percent of GHGs and N_2O emissions account for 7.9 percent (IPCC, 2007).

Total U.S. GHG emissions were 6,821.8 MMT CO_2E in 2009 (USEPA, April 2012). Total U.S. emissions have increased by 10.5 percent since 1990; emissions rose by 3.2 percent from 2009 to 2010 (USEPA, April 2012). This increase was primarily due to (1) an increase in economic output resulting in an increase in energy consumption across all sectors; and (2) much warmer summer conditions resulting in an increase in electricity demand for air conditioning. Since 1990, U.S. emissions have increased at an average annual rate of 0.5 percent. In 2010, the transportation and industrial end-use sectors accounted for 32 percent and 26 percent of CO_2 emissions from fossil fuel combustion, respectively. Meanwhile, the residential and commercial end-use sectors accounted for 22 percent and 19 percent of CO_2 emissions from fossil fuel combustion, respectively (USEPA, April 2012).

Based upon the California Air Resources Board (CARB) California Greenhouse Gas Inventory for 2000-2011, California produced 448 MMT CO_2E in 2011 (CARB, August 2013). The major source of GHG in California is transportation, contributing 38 percent of the state's total GHG emissions. Industry is the second largest source, contributing 21 percent of the state's GHG emissions (CARB, October 2013). California emissions are due in part to its large size and large population compared to other states. However, a factor that reduces California's per capita fuel use and GHG emissions, as compared to other states, is its relatively mild climate. CARB has projected statewide unregulated GHG emissions for the year 2020 will be 507 MMT CO_2E (CARB, August 2013). These projections represent the emissions that would be expected to occur in the absence of any GHG reduction actions.

c. Potential Effects of Climate Change. Globally, climate change has the potential to affect numerous environmental resources through potential impacts related to future air temperatures and precipitation patterns. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. Scientists have projected that the average global surface temperature could rise by1.0-4.5°F (0.6-2.5°C) in the next 50 years, and the increase may be as high as 2.2-10°F (1.4-5.8°C) in the next century. In addition to these projections, there are identifiable signs that global warming is currently taking place, including substantial ice loss in the Arctic (IPCC, 2007).

According to the CalEPA's *2010 Climate Action Team Biennial Report*, potential impacts of climate change in California may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (CalEPA, April 2010). Below is a summary of some of the potential effects that could be experienced in California as a result of climate change.

Sea Level Rise. According to *The Impacts of Sea Level Rise on the California Coast*, prepared by the California Climate Change Center (CCCC) (May 2009), climate change has the potential to induce substantial sea level rise in the coming century. The rising sea level increases the likelihood and risk of flooding and coastal erosion. The study identifies a sea level rise on the California coast over the past century of approximately eight inches. Based on the results of various climate change models, sea level rise is expected to continue. The California Climate Adaptation Strategy (December 2009) estimates a sea level rise of up to 55 inches by the end of this century.

Ocean Acidification. The ocean covers over 70% of the earth's surface and acts as a major carbon sink in the global carbon cycle. As the concentration of CO_2 in the atmosphere increases, so does the concentration of carbon in the ocean. The reaction of dissolved CO_2 with seawater results in the creation of carbonic acid (H_2CO_3), carbonate, bicarbonate, and hydrogen ions, which lowers pH causing higher seawater acidity. Higher acidity in seawater affects many aquatic animals ability to fix calcium for body structure, which could have significant negative effects across the entire food chain. The effects of ocean acidification may impact the success of California's $318 million per year fishing industry and $17 billion per year tourism/recreation industry (National Ocean Economics Program [NOEP], Center for the Blue Economy, Market database. www.oceaneconomics.org, 2014)

Air Quality. Higher temperatures, which are conducive to air pollution formation, could worsen air quality in California. Climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and therefore its indirect effects, are uncertain. If higher temperatures are accompanied by drier conditions, the potential for large wildfires could increase, which, in turn, would further worsen air quality. However, if higher temperatures are accompanied by wetter, rather than drier conditions, the rains would tend to temporarily clear the air of particulate pollution and reduce the incidence of large wildfires, thereby ameliorating the pollution associated with wildfires. Additionally, severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state (CEC, March 2009).

Water Supply. Analysis of paleoclimatic data (such as tree-ring reconstructions of stream flow and precipitation) indicates a history of naturally and widely varying hydrologic conditions in California and the west, including a pattern of recurring and extended droughts. Uncertainty remains with respect to the overall impact of climate change on future water supplies in California. However, the average early spring snowpack in the Sierra Nevada decreased by about 10 percent during the last century, a loss of 1.5 million acre-feet of snowpack storage. ~~During the same period, sea level rose eight inches along California's coast.~~ California's temperature has risen 1°F, mostly at night and during the winter, with higher elevations experiencing the highest increase. Many Southern California cities have experienced their lowest recorded annual precipitation twice within the past decade. In a span of only two

years, Los Angeles experienced both its driest and wettest years on record (California Department of Water Resources [DWR], 2008; CCCC, May 2009).

This uncertainty complicates the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well understood. The Sierra snowpack provides the majority of California's water supply by accumulating snow during wet winters and releasing it slowly during California's dry springs and summers. Based upon historical data and modeling DWR projects that the Sierra snowpack will experience a 25 to 40 percent reduction from its historic average by 2050. Climate change is also anticipated to bring warmer storms that result in less snowfall at lower elevations, reducing the total snowpack (DWR, 2008).

Hydrology. As discussed above, climate change could potentially affect: the amount of snowfall, rainfall, and snow pack; the intensity and frequency of storms; flood hydrographs (flash floods, rain or snow events, coincidental high tide and high runoff events); sea level rise and coastal flooding; coastal erosion; and the potential for salt water intrusion. Sea level rise may be a product of climate change through two main processes: expansion of sea water as the oceans warm and melting of ice over land. A rise in sea levels could jeopardize California's water supply due to salt water intrusion. Increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events.

Agriculture. California has a $30 billion agricultural industry that produces half of the country's fruits and vegetables. Higher CO_2 levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, water demand could increase; crop-yield could be threatened by a less reliable water supply; and greater air pollution could render plants more susceptible to pest and disease outbreaks. In addition, temperature increases could change the time of year certain crops, such as wine grapes, bloom or ripen, and thereby affect their quality (CCCC, 2006).

Ecosystems and Wildlife. Climate change and the potential resulting changes in weather patterns could have ecological effects on a global and local scale. Increasing concentrations of GHGs are likely to accelerate the rate of climate change. Scientists project that the average global surface temperature could rise by 1.0-4.5°F (0.6-2.5°C) in the next 50 years, and 2.2-10°F (1.4-5.8°C) in the next century, with substantial regional variation. Soil moisture is likely to decline in many regions, and intense rainstorms are likely to become more frequent. Rising temperatures could have four major impacts on plants and animals: (1) timing of ecological events; (2) geographic range; (3) species' composition within communities; and (4) ecosystem processes, such as carbon cycling and storage (Parmesan, 2004; Parmesan, C. and H. Galbraith, 2004).

d. Regulatory Setting. The following regulations address both climate change and GHG emissions.

International and Federal Regulations. The United States is, and has been, a participant in the United Nations Framework Convention on Climate Change (UNFCCC) since it was produced by the United Nations in 1992. The UNFCCC is an international environmental treaty with the objective of, "stabilization of GHG concentrations in the atmosphere at a level that

would prevent dangerous anthropogenic interference with the climate system." This is generally understood to be achieved by stabilizing global GHG concentrations between 350 and 400 ppm, in order to limit the global average temperature increases between 2 and 2.4°C above pre-industrial levels (IPCC 2007). The UNFCCC itself does not set limits on GHG emissions for individual countries or enforcement mechanisms. Instead, the treaty provides for updates, called "protocols," that would identify mandatory emissions limits.

Five years later, the UNFCCC brought nations together again to draft the *Kyoto Protocol* (1997). The Kyoto Protocol established commitments for industrialized nations to reduce their collective emissions of six GHGs (CO_2, CH_4, N_2O, SF_6, HFCs, and PFCs) to 5.2 percent below 1990 levels by 2012. The United States is a signatory of the Kyoto Protocol, but Congress has not ratified it and the United States has not bound itself to the Protocol's commitments (UNFCCC, 2007). The first commitment period of the Kyoto Protocol ended in 2012. Governments, including 38 industrialized countries, agreed to a second commitment period of the Kyoto Protocol beginning January 1, 2013 and ending either on December 31, 2017 or December 31, 2020, to be decided by the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol at its seventeenth session (UNFCCC, November 2011).

The United States is currently using a voluntary and incentive-based approach toward emissions reductions in lieu of the Kyoto Protocol's mandatory framework. The Climate Change Technology Program (CCTP) is a multi-agency research and development coordination effort (led by the Secretaries of Energy and Commerce) that is charged with carrying out the President's National Climate Change Technology Initiative (USEPA, December 2007). However, the voluntary approach to address climate change and GHG emissions may be changing. The United States Supreme Court in *Massachusetts et al. v. Environmental Protection Agency et al.* ([2007] 549 U.S. 05-1120) held that the USEPA has the authority to regulate motor-vehicle GHG emissions under the federal Clean Air Act.

EPA and the National Highway Traffic Safety Administration (NHTSA) are taking coordinated steps to enable the production of a new generation of clean vehicles with reduced GHG emissions and improved fuel efficiency from on-road vehicles and engines. This will be done through coordination of the GHG emission limits and the NHTSA Corporate Average Fuel Economy (CAFE) standards. In May 2010, the final combined EPA and NHTSA standards that comprise the first phase of this national program were promulgated regarding passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The CAFE standards require these vehicles to meet an estimated combined average emissions level of 250 grams of CO_2 per mile, equivalent to 35.5 miles per gallon (mpg) if the automobile industry were to meet this CO_2 level solely through fuel economy improvements. In October 2010, the agencies each proposed complementary GHG and CAFE standards under their respective authorities covering medium and heavy-duty trucks for the model years 2014-2018. In August 2012, new emissions limits and CAFE standards for the 2017 to 2025 model years were promulgated, increasing fuel economy to the equivalent of 54.5 mpg for cars and light-duty trucks.

In October 2009, the USEPA issued a Final Rule for mandatory reporting of GHG emissions for facilities that emit more than 25,000 metric tons (MT) CO_2E per year. This Final Rule applies to fossil fuel suppliers, industrial gas suppliers, direct GHG emitters, and manufacturers of heavy-

duty and off-road vehicles and vehicle engines, and requires annual reporting of emissions. The first annual reports for these sources were due in March 2011. Additionally, the reporting of emissions is required for owners of SF_6- and PFC-insulated equipment when the total nameplate capacity of these insulating gases is above 17,280 pounds.

On May 13, 2010, the USEPA issued a Final Rule that took effect on January 2, 2011, setting a threshold of 75,000 MT CO_2E per year for GHG emissions. New and existing industrial facilities that meet or exceed that threshold will require a permit after that date. On November 10, 2010, the USEPA published the "PSD and Title V Permitting Guidance for Greenhouse Gases." The USEPA's guidance document is directed at state agencies responsible for air pollution permits under the Federal Clean Air Act to help them understand how to implement GHG reduction requirements while mitigating costs for industry.

On January 2, 2011, the USEPA implemented the first phase of the Tailoring Rule for GHG emissions Title V Permitting. Under the first phase of the Tailoring Rule, all new sources of emissions are subject to GHG Title V permitting if they are otherwise subject to Title V for another air pollutant and they emit at least 75,000 MT CO_2E per year. Under Phase 1, no sources were required to obtain a Title V permit solely due to GHG emissions. Phase 2 of the Tailoring Rule went into effect July 1, 2011. At that time new sources were subject to GHG Title V permitting if the source emits 100,000 MT CO_2E per year, or they are otherwise subject to Title V permitting for another pollutant and emit at least 75,000 MT CO_2E per year.

On July 3, 2012 the USEPA issued the final rule that retains the GHG permitting thresholds that were established in Phases 1 and 2 of the GHG Tailoring Rule. These emission thresholds determine when Clean Air Act permits under the New Source Review Prevention of Significant Deterioration (PSD) and Title V Operating Permit programs are required for new and existing industrial facilities.

State Regulations. CARB is responsible for the coordination and oversight of state and local air pollution control programs in California. Various statewide and local initiatives to reduce the state's contribution to GHG emissions have raised awareness about climate change and its potential for severe long-term adverse environmental, social, and economic effects.

Assembly Bill (AB) 1493 (2002), referred to as "Pavley," requires CARB to develop and adopt regulations to achieve "the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles." On June 30, 2009, USEPA granted the waiver of Clean Air Act preemption to California for its GHG emission standards for motor vehicles beginning with the 2009 model year. Pavley I took effect for model years starting in 2009 to 2016 and Pavley II, which is now referred to as "LEV (Low Emission Vehicle) III GHG" will cover 2017 to 2025. In January 2012, CARB approved a new emissions-control program combining the control of smog, soot causing pollutants and GHG emissions into a single coordinated package of requirements for passenger cars and light trucks model years 2017 through 2025. The Advanced Clean Cars program coordinates the goals of the Low Emissions Vehicles (LEV), Zero Emissions Vehicles (ZEV), and Clean Fuels Outlet programs and would provide major reductions in GHG emissions. By 2025, when the rules would be fully implemented, new automobiles would emit 34 percent fewer GHGs. Statewide CO_2E emissions would be reduced by 3 percent by 2020 and

by 12 percent by 2025. The reduction increases to 27 percent in 2035 and even further to a 33 percent reduction in 2050 (CARB, 2013). [1]

In 2005, former Governor Schwarzenegger issued Executive Order (EO) S-3-05, establishing statewide GHG emissions reduction targets. EO S-3-05 provides that by 2010, overall GHG emissions shall be reduced to 2000 levels; by 2020, emissions shall be reduced to 1990 levels; and by 2050, emissions shall be reduced to 80 percent of 1990 levels (CalEPA, 2006). In response to EO S-3-05, CalEPA created the Climate Action Team (CAT), which in March 2006 published the Climate Action Team Report (the "2006 CAT Report") (CalEPA, 2006). The 2006 CAT Report identified a recommended list of strategies that the state could pursue to reduce GHG emissions. These are strategies that could be implemented by various state agencies to ensure that the emission reduction targets in EO S-3-05 are met and can be met within the existing authority of the state agencies. The strategies include the reduction of passenger and light duty truck emissions, the reduction of idling times for diesel trucks, an overhaul of shipping technology/infrastructure, increased use of alternative fuels, increased recycling, landfill methane capture, etc.

California's major initiative for reducing GHG emissions is outlined in Assembly Bill 32 (AB 32), the "California Global Warming Solutions Act of 2006," signed into law in 2006. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 (essentially a 15 percent reduction below 2005 emission levels; the same requirement as under S-3-05), and requires CARB to prepare a Scoping Plan that outlines the main state strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions.

After completing a comprehensive review and update process, CARB approved a 1990 statewide GHG level and 2020 limit of 427 MMT CO_2E. The Scoping Plan was approved by CARB on December 11, 2008, and includes measures to address GHG emission reduction strategies related to energy efficiency, water use, recycling and solid waste, among other measures. The Scoping Plan includes a range of GHG reduction actions that may include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms.

In early 2013, CARB initiated activities to update the AB 32 Scoping Plan. The 2013 Scoping Plan update (Public Review Draft, October 2013) defines CARB's climate change priorities and lays the groundwork to reach post-2020 goals set forth in EO S-3-05. The update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan (2008). It also evaluates how to align the state's longer-term GHG reduction strategies with other state policy priorities, such as for water, waste, natural resources, clean energy, transportation, and land use.

EO S-01-07 was enacted on January 18, 2007. The order mandates that a Low Carbon Fuel Standard ("LCFS") for transportation fuels be established for California to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020.

[1] *Percent reductions are from 2008 baseline emissions levels.*

Senate Bill (SB) 97, signed in August 2007, acknowledges that climate change is an environmental issue that requires analysis in California Environmental Quality Act (CEQA) documents. In March 2010, the California Resources Agency (Resources Agency) adopted amendments to the State CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted guidelines give lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts.

CARB Resolution 07-54 establishes 25,000 metric tons of GHG emissions as the threshold for identifying the largest stationary emission sources in California for purposes of requiring the annual reporting of emissions. This threshold is just over 0.005 percent of California's total inventory of GHG emissions for 2004.

Senate Bill 375 (SB 375), signed in August 2008, enhances the state's ability to reach AB 32 goals by aligning transportation planning and funding, land use planning and State housing mandates at the Metropolitan Planning Organization (MPO) level in order to reduce transportation-related GHG emissions. As discussed in Section 2.0, *Project Description*, as mandated by CARB, AMBAG must reduce 2005 levels of per capita GHG emissions from passenger vehicles in order to meet the SB 375 target. For the AMBAG region, the targets set by CARB are not to exceed 2005 levels by 2020 and to reduce 2005 levels five percent by 2035. The SB 375 target is discussed further in the methodology section below.

Executive Order S-13-08, signed in November 2008, called on state agencies to develop California's first strategy to identify and prepare for the expected impacts from sea level rise, increased temperatures, shifting precipitation and extreme weather events The order requires that prior to release of the final Sea Level Rise Assessment Report from the NAS, all state agencies that are planning construction projects in areas vulnerable to future sea level rise shall, for the purposes of planning, consider a range of sea level rise scenarios for the years 2050 and 2100 in order to assess project vulnerability and, to the extent feasible, reduce expected risks and increase resiliency to sea level rise. This requirement is applicable to state agencies (such as Caltrans). Regional and local agencies (including AMBAG, SCCRTC, SBtCOG, and TAMC) may choose to assess such impacts, but are not required to do so.

In early 2010, CARB adopted a regulation for reducing SF_6 emissions from electric power system gas-insulated switchgear (17 CCR 95350). The regulation requires owners of such switchgear to: (1) annually report SF_6 emissions; (2) determine the emission rate relative to the SF_6 capacity of the switchgear; (3) provide a complete inventory of all gas-insulated switchgear and their SF_6 capacities; (4) produce a SF_6 gas container inventory; and (5) keep all information current for CARB enforcement staff inspection and verification. Changes to relevant facilities owned by PG&E and any gas insulated switchgear associated with the project would be subject to this regulation.

The California Renewables Portfolio Standards (RPS) pursuant to SB 1038, SB 1078, SB 1250, and SB 107 previously required investor-owned utilities, electric service providers, and community choice aggregators to increase the portion of energy that comes from renewable sources to 20 percent by 2010. Subsequently, in April 2011, Governor Brown signed SB 2X requiring California to generate 33 percent of its electricity from renewable energy by 2020.

For more information on the Senate and Assembly bills, Executive Orders, and reports discussed above, and to view reports and research referenced above, please refer to the following websites: www.climatechange.ca.gov and www.arb.ca.gov/cc/cc.htm.

Local Regulations and CEQA Requirements. Pursuant to the requirements of SB 97, the Resources Agency has adopted amendments to the State CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted CEQA Guidelines provide general regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents, but contain no suggested thresholds of significance for GHG emissions. Instead, they give lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts. The general approach to developing a Threshold of Significance for GHG emissions is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted for the purpose of reducing statewide GHG emissions sufficiently to move the state towards climate stabilization. If a project would generate GHG emissions above the threshold level, its contribution to cumulative impacts would be considered significant. To date, the Bay Area Air Quality Management District (BAAQMD), the South Coast Air Quality Management District (SCAQMD), the San Luis Obispo Air Pollution Control District (SLOAPCD), and the San Joaquin Air Pollution Control District (SJVAPCD) have adopted quantitative significance thresholds for GHGs. However, in March 2012 the Alameda County Superior Court (California Building Industry Association v. Bay Area Air Quality Management District) issued a judgment finding that the BAAQMD had failed to comply with CEQA when it adopted the thresholds contained in the BAAQMD's 2010 CEQA Guidelines.[2]

MBUAPCD. The MBUAPCD is currently in the process of developing GHG emissions thresholds for evaluating projects under CEQA. According to an informational report MBUAPCD recommends a threshold of 10,000 MT of CO_2E per year for stationary source projects and a threshold of 2,000 MT CO_2E per year for land use projects or compliance with an adopted GHG Reduction Plan/Climate Action Plan; however no thresholds have been evaluated for transportation projects which impact mobile sources. MBUAPCD is currently evaluating a percentage-based threshold option (MBUAPCD, 2013).

Local Climate Action Plans. Five of AMBAG's member jurisdictions have adopted or pending climate action plans that set goals and targets for the reduction of GHG emissions, and outline policies to help achieve those goals. These cities are Capitola, Monterey, and Santa Cruz, as well as Monterey County and Santa Cruz County. All of AMBAG's jurisdictions have conducted baseline emissions inventories, which establish a reference point for GHG emissions reduction. However, only five jurisdictions are also updating their General Plan. Baseline and projected 2020 GHG emissions from jurisdictions with Climate Action Plans are shown in Table 4.8-1 below.

[2] *In August 2013, the First District Court of Appeal overturned the trial court and held that the thresholds of significance adopted by the BAAQMD were not subject to CEQA review. However, no guidance by the BAAQMD as to the use of the adopted thresholds has been issued as of October 25th, 2013.*

Table 4.8-1
Existing and Projected Emissions Reported in Greenhouse Gas Emissions Studies and Plans in the Proposed 2035 MTP/SCS Plan Area

Jurisdiction	Type	Annual Baseline Emissions (MT CO_2E)	Projected 2020 Business-as-Usual Annual Emissions (MT CO_2E)	Status
Monterey County	Municipal Climate Action Plan	2005: 20,230	21,636	Final Completed June 2013
Monterey	Climate Action Plan	2005: 227,032	227,032[1]	Completed March 2011
Capitola	Climate Action Plan	2005: 76,020	In Progress	In Progress
Santa Cruz County	Climate Action Strategy	2005: 1,907,037 2009: 791,278	827,076	Draft January 2013
Santa Cruz	Climate Action Plan	1990: 427,280	NA	Completed October 2012
Gonzales	Climate Action Plan	2005: 26,847	42,546	Adopted February 2013
Watsonville	Climate Action Plan	2005: 219,773	214,340	Draft Released April 2014

[1] *In contrast to State and National trends, the population of Monterey is decreasing and new development is limited by inadequate supplies of fresh water. Therefore, the business as usual model for Monterey is expected to remain consistent at 2005 levels (City of Monterey Climate Action Plan, 2011).*
[2] *Emissions from the Davenport cement plant accounted for about half of the 2005 inventory total. The 2009 emissions inventory shows a very dramatic reduction in the commercial and industrial sector, which reflects the closure of the cement plant in Davenport.*

The completed climate action planning documents in the area address similar issues related to emissions produced by transportation, energy usage, and other operational emissions such as water supply and conveyance, wastewater treatment, and solid waste disposal. The types and quantity of emissions produced in the AMBAG region vary among jurisdictional boundaries.

However, for most jurisdictions, transportation and energy usage produce a majority of GHG emissions. Climate action planning policies in the region establish a framework for improved circulation networks and energy conservation. Transportation policies aim to reduce vehicle miles traveled (VMT) by offering more opportunities for alternative transportation modes, including bicycling, walking, and transit use. In addition, many of the documents include policies to promote transit oriented development (TOD) and land use policies which encourage a greater diversity of land use in closer proximity to one another. In order to reduce emissions caused by energy usage, jurisdictions have established policies that will facilitate and encourage energy efficiency for both residential and commercial land uses. Cities and counties include programs to improve energy efficiencies in old and new buildings and decrease the use of fossil fuels by providing incentives for use of renewable energy.

4.8.2 Impact Analysis

a. Methodology and Significance Thresholds. Pursuant to the requirements of SB 97, the Resources Agency adopted amendments to the *State CEQA Guidelines* for the feasible mitigation of GHG emissions or the effects of GHG emissions in March 2010. These guidelines are used in evaluating the cumulative significance of GHG emissions from the proposed project. According to the adopted *CEQA Guidelines*, impacts related to GHG emissions from the proposed project would be significant if the project would:

- *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; and/or*
- *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.*

The vast majority of individual projects do not generate sufficient GHG emissions to create a project specific impact through a direct influence to climate change; therefore, the issue of climate change typically involves an analysis of whether a project's contribution towards an impact is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines, Section 15355).

For future projects, the significance of GHG emissions may be evaluated based on locally adopted quantitative thresholds, or consistency with a regional or state GHG reduction plan (such as a Climate Action Plan). To date, Monterey County, San Benito County, nor Santa Cruz County have~~s~~ developed or adopted permanent GHG significance thresholds. The City of Gonzales' Climate Action Plan does contain a quantitative metric for determining compliance with the City's GHG emission reduction goals. As discussed above, MBUAPCD is in the process of developing GHG emissions thresholds, however, none have been adopted to date. Prior to development of District thresholds, MBUAPCD had previously recommended use of the San Luis Obispo Air Pollution Control District (SLOAPCD) Greenhouse Gas Thresholds, as adopted in April 2012. However, the SLOAPCD GHG thresholds are intended to encompass project emissions from all sectors, including transportation, residential, commercial, water, etc. Since the 2035 MTP/SCS will primarily result in transportation-related emissions, the SLOAPCD thresholds are not applicable for the purposes of this analysis. As a result, this section uses three thresholds of significance: increase in per capita GHG emissions compared to baseline conditions (defined as the emissions inventory for 2010), conflict with AB 32 or SB 375 GHG emission reduction targets, and conflict with applicable local GHG reduction plans. These thresholds are also consistent with the CEQA Guidelines.

For the greenhouse gas emissions impacts resulting from the 2035 MTP/SCS, this analysis evaluates potential impacts against both (1) a forecast future baseline condition and (2) current, existing baseline conditions, controlling for impacts caused by population growth and other factors that would occur whether or not the 2035 MTP/SCS is adopted. The 2010 baseline is used as a threshold for comparison with existing conditions. While the baseline for analysis is commonly determined by the date in which the Notice of Preparation of the EIR is released (June 2013), complete and accurate data for this year was not available (refer to Section 1.0 *Introduction*, for a discussion of baseline approach). The data that is available for 2010 generally represents existing conditions, as the data has remained largely unchanged. If regionwide per capita GHG emissions associated with the 2035 MTP/SCS do not significantly exceed the 2010 baseline, impacts related to GHG emissions will not be considered significant.

The SB 375 based threshold is also included as it demonstrates AMBAG's achievement of CARB-specified targets and consistency toward achieving the goals of AB 32. For the AMBAG region, the targets set by CARB are not to exceed 2005 emissions levels by 2020 and to reduce GHG emissions five percent from 2005 levels by 2035. In 2005, GHG emissions from passenger vehicles in the AMBAG region were approximately 15.4 pounds of CO_2 per capita. Therefore,

AMBAG must maintain these levels in order to meet the 2020 target and reduce these levels in order to meet the 2035 target. If regionwide GHG emissions associated with the 2035 MTP/SCS do not exceed 15.4 pounds CO_2 per capita in 2020 and 14.62 ~~14.49~~ pounds CO_2 per capita in 2035, the MTP/SCS would meet the mandate of SB 375 and be consistent with the overall emission reduction targets of AB 32.

The 2050 Executive Order S-3-05 emissions reduction target was not used as a threshold of significance because the Executive Order is stated as a "goal" rather than an adopted GHG reduction plan within the meaning of CEQA Guidelines Section 15064.4(b)(2), and furthermore, the 2050 target is well beyond the horizon year (2035) of the 2035 MTP/SCS. Although the Attorney General has advised that the Executive Order 2050 target can *inform* CEQA analysis, there is no requirement to use it as a threshold of significance. Further, the 2035 MTP/SCS, in meeting its SB 375 target, is in line with the goals of the Executive Order. The 2035 MTP/SCS was developed to meet the goals of SB 375, which require that AMBAG is not to exceed 2005 emissions levels by 2020 and to reduce 2005 emissions levels by five percent by 2035. In the future when the 2035 MTP/SCS has a planning horizon to 2050 or beyond, compliance with S-3-05 will be evaluated.

Construction Emissions. Although construction activity is addressed in this analysis, the California Air Pollution Control Officier Association (CAPCOA) does not discuss whether any of the suggested threshold approaches adequately address impacts from temporary construction activity. As stated in the *CEQA and Climate Change* white paper, "more study is needed to make this assessment or to develop separate thresholds for construction activity" (CAPCOA, 2008). Additionally, MBUAPCD does not include any GHG construction-related standards. Nevertheless, MBUAPCD recommends estimating construction-related GHG emissions. Construction-related emissions are speculative at the 2035 MTP/SCS level because such emissions are dependent on the characteristics of individual development projects. However, because construction of projects in the 2035 MTP/SCS would generate temporary GHG emissions primarily due to the operation of construction equipment and truck trips, a qualitative analysis is provided below.

AMBAG Methodology for Estimating GHG Emissions. Two basic quantities are required to calculate a given emissions estimate: an emission factor and an activity factor. In general, the emission factor is the amount of emissions generated by a certain amount of motor vehicle activity. The regionwide on-road mobile source emission estimate was calculated by summing the product of the vehicle activity (VMT) generated by the land use pattern and transportation projects for passenger vehicles and light duty trucks envisioned in the SCS (the preferred land use and transportation scenario as modeled by AMBAG) and the emissions factors contained in the California Air Resources Board's Emission Factors (EMFAC) 2011. The EMFAC 2011 model generates an output of carbon dioxide (CO_2) emissions, which were used as the overall indicator of greenhouse gas emissions, per the recommendations of the CARB SB 375 Regional Targets Advisory Committee. In order to calculate the CO_2 emissions within EMFAC 2011, VMT by speed class distributions were extracted from the regional travel demand model (RTDM) for the baseline (2010) and each of the target years (2020 and 2035) based on the preferred and No Build transportation/land use scenarios for passenger vehicles and light duty trucks. This extracted information was then entered into the EMFAC 2011 model. The CO_2 emissions associated with vehicle starts are accounted for in the EMFAC 2011 model based on the distribution of vehicle starts by vehicle classification, vehicle technology class, and operating mode. EMFAC 2011 adds these vehicle starts to the running emissions to compute

total on-road mobile source emissions. The CO_2 emissions for the vehicle classes were then extracted from the EMFAC 2011 output and reported. Per capita emissions rates were calculated by dividing total CO_2 emissions for each scenario by the region's population forecast ~~(provided by AMBAG)~~ in each respective year.

b. Project Impacts and Mitigation Measures. Implementation of the 2035 MTP/SCS could generate GHG emissions which could exceed existing levels and potentially conflict with applicable plans and policies.

Impact GHG-1 Construction of the transportation improvement projects and future land use patterns envisioned by the 2035 MTP/SCS would generate temporary short-term GHG emissions that may have a significant effect. Impacts would be Class II, *significant but mitigable*.

Construction activities associated with transportation improvement projects and future land use patterns envisioned by the 2035 MTP/SCS would generate temporary short-term GHG emissions primarily due to the operation of construction equipment and truck trips. Construction-related emissions are speculative at the 2035 MTP/SCS level because such emissions are dependent on the characteristics of individual development projects. However, GHG emissions would be emitted from travel to and from the worksite and the operation of construction equipment such as graders, backhoes, and generators. Site preparation and grading typically generate the greatest amount of emissions due to the use of grading equipment and soil hauling. The precise construction timing and construction equipment for individual projects is not specifically known at this time. Nonetheless, construction activities would result in GHG emissions. Impacts would be potentially significant.

Mitigation Measures. For all transportation projects under their jurisdiction, ~~AMBAG,~~ SCCRTC, SBtCOG, and TAMC shall implement and transportation project sponsor agencies should implement the following mitigation measures developed for the 2035 MTP/SCS program where applicable for transportation projects generating construction GHG emissions. Cities and counties in the AMBAG region can and should implement these measures, where relevant to land use projects implementing the 2035 MTP/SCS. ~~contained in the 2035 MTP/SCS. Project specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions. These measures can and should also be implemented for future infill and TOD projects developed pursuant to the 2035 MTP/SCS that would result in short-term GHG emissions:~~

GHG-1 The project sponsor shall ensure that applicable GHG-reducing diesel particulate and NO_X emissions measures for off-road construction vehicles are implemented during construction. The measures shall be noted on all construction plans and the project sponsor shall perform periodic site inspections. Applicable GHG-reducing measures include the following.

- Use of diesel construction equipment meeting CARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines, and comply with the State Off-Road Regulation;

- Use of on-road heavy-duty trucks that meet the CARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines, and comply with the State On-Road Regulation;
- All on and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in the designated queuing areas and or job sites to remind drivers and operators of the 5 minute idling limit;
- Use of electric powered equipment in place of diesel powered equipment when feasible;
- Substitute gasoline-powered in place of diesel-powered equipment, where feasible; and
- ~~•~~ Use of alternatively fueled construction equipment, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel, in place of diesel powered equipment for 15 percent of the fleet; and ~~on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel~~
- Use of materials sources from local suppliers; and
- Recycling of at least 50 percent of construction waste materials.
- (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

Significance after Mitigation. With the implementation of the above mitigation, impacts related to short-term GHG emissions would be less than significant.

Impact GHG-2 Implementation of the 2035 MTP/SCS would not result in a significant increase in per capita GHG emissions from the transportation sector compared to both 2010 baseline and future 'no project' conditions. In addition, the 2035 MTP/SCS would not result in a significant increase in total GHG emissions from the transportation sector compared to future 'no project' conditions. Impacts would be Class III, *less than significant*.

Projected per capita GHG emissions on the AMBAG transportation network for the years 2020 and 2035 under the 2035 MTP/SCS were compared to the 2010 baseline and with the GHG emissions projected under the future 'no project scenario,' a scenario in which the transportation improvements identified in the 2035 MTP/SCS are not implemented. As discussed above, GHG emissions for the proposed 2035 MTP/SCS were calculated using the CARB's EMFAC 2011 model based on the VMT that would be generated as a result of the proposed plan (refer to Section 4.12, *Transportation and Circulation*). Table 4.8-2 summarizes the plan's per capita transportation-related emissions from all vehicles classes.

As shown ~~above~~ below, without the Scoping Plan strategies described below, the 2010 GHG per capita emissions were estimated for the plan area to be ~~22.28~~ 23.01 pounds per day. With the proposed 2035 MTP/SCS, the 2020 GHG per capita emissions were modeled for the plan area to

be ~~23.43~~ 23.54 pounds per day, an increase of ~~five~~ two percent from 2010, and the 2035 emissions levels were modeled to be ~~24.64~~ 24.41 pounds per day, an increase of ~~10.6~~ six percent from 2010. In addition, as shown in Table 4.8-2, GHG emissions under the 'no project scenario' would be higher when compared to GHG emissions under the 2035 MTP/SCS. It is important to note that transportation-related GHG emissions would continue to occur throughout the region regardless of whether the 2035 MTP/SCS is adopted. Implementation of the proposed 2035 MTP/SCS would not result in an increase in GHG emissions greater than the 'no project' scenario.

Table 4.8-2
Per Capita Carbon Dioxide Emission Comparison: All Vehicle Classes

Scenario	CO_2 Emissions (lbs/day)	CO_2 Emissions with Pavley and LCFS (lbs/day)
2010 Baseline	~~22.28~~ 23.01	~~22.20~~ 22.93
2020 No Project Scenario	~~23.33~~ 24.14	~~18.09~~ 18.70
2020 MTP/SCS	~~23.43~~ 23.54	~~18.17~~ 18.24
2035 No Project Scenario	~~25.20~~ 25.84	~~18.04~~ 18.49
2035 MTP/SCS	~~25.49~~ 25.43	~~18.24~~ 18.20
2035 MTP/SCS and Off Model Adjustments [1]	~~24.64~~ 24.41	~~17.64~~ 17.47

[1] *"Off Model Adjustments" are estimated at a ~~5.85~~ 4.01% reduction in passenger vehicle emissions with the 2035 MTP/SCS in 2035. The projected 2035 MTP/SCS GHG were revised by applying off model adjustments for transit service improvements and TDM/TSM strategies. These "off model adjustments" are based on academic literature reviews, collaboration with other MPOs and consultation with CARB's Policies and Practices Guidelines. The adjustments capture reductions in GHG associated with transit service enhancements, transportation system management, active transportation, transportation demand management, and other travel demand reduction programs (vanpool for agricultural works, car sharing, etc.) not reflected in the transportation modeling. The growing prevalence of work at home employees was also considered. Including the off model adjustments, it is estimated to result in a 4.01% reduction in GHG beyond what is forecast in the AMBAG modeling for 2035 with implementation of the 2035 MTP/SCS.*
~~*Refer to Section 4.12, Transportation and Circulation, for a detailed discussion of the off model adjustment methodology.*~~

As previously discussed, the AB 32 Scoping Plan outlines the main State strategies for reducing GHGs to meet the 2020 target. Many of these strategies contribute to reductions from transportation-related emissions at the regional and local levels. The projections discussed above do not include any additional measures from the Scoping Plan to further reduce GHG emissions and are, therefore, overly conservative. Application of Pavley fuel efficiency standards and Low Carbon Fuel Standards (LCFS), both Scoping Plan measures, are anticipated to reduce levels even further to ~~18.17~~ 18.24 pounds per day in 2020 and ~~17.64~~ 17.47 pounds per day in 2035 with implementation of the 2035 MTP/SCS (including off-model adjustments, described above). As such, the 2035 MTP/SCS would contribute to a reduction in per capita transportation-related GHG emissions compared to both existing conditions and to future no project conditions.

Also, total GHG emissions (for all vehicle classes) without Pavley and LCFS, as calculated using CARB's EMFAC 2011 model, under the proposed 2035 MTP/SCS would result in fewer GHG emissions (10,802 tons/day, including off model adjustments) as compared to the 2035 "No Project" (11,436 tons/day). Application of Pavley and LCFS are anticipated to reduce GHG emissions even further. Therefore, when considering total emissions, the 2035 MTP/SCS would not result in a significant increase in GHG emissions compared to no project conditions.

In addition to the vehicle GHG emissions shown in Table 4.8-2, infill, mixed use, and ~~transit oriented development (~~TOD~~)~~ projects envisioned by the 2035 MTP/SCS would also result in GHG emissions due to electricity and natural gas consumption. However, it is important to note the residential and commercial growth is not directly attributed to the 2035 MTP/SCS. This growth is anticipated to occur in the region regardless of whether the 2035 MTP/SCS is adopted. The 2035 MTP/SCS redistributes growth within the region to focus growth within existing urban areas. As a result, this land use scenario would result in fewer vehicle trips and smaller residential units, which would result in fewer overall GHG emissions when compared to a traditional land use pattern that does not emphasize infill, mixed use, and TOD. Therefore, impacts would be less than significant.

Mitigation Measures. None required.

Significance after Mitigation. Impacts are less than significant.

Impact GHG-3 Implementation of the 2035 MTP/SCS would not interfere with the GHG emissions reduction goals of AB 32 or SB 375. Impacts would be Class III, *less than significant*.

One of the goals of SB 375 is to reach the GHG emissions reduction targets for passenger vehicles set by CARB through an integrated land use, transportation, and housing plan. Achievement of this goal is an objective of the proposed 2035 MTP/SCS. For the AMBAG region, the targets set by CARB are not to exceed 2005 per capita emissions levels by 2020 and a five percent reduction below 2005 per capita emissions levels by 2035. Table 4.8-3 summarizes the plan's per capita transportation-related emissions from passenger vehicles.

Table 4.8-3
Per Capita Carbon Dioxide Emission Comparison: Passenger Vehicles

Scenario	Population	Per Capita CO_2 Emissions (lbs/day)	Percent change from 2005
2005 RTDM Auto Only All Trips ~~Includes XI-IX~~	740,048	~~15.4~~ 19.26	N/A
2005 RTDM Auto Only External Trips Reduction[1]	740,048	15.4	N/A
2010 Baseline	732,708	~~18.1~~ 18.69	~~+17.5%~~ -2.92%
2020 No Project Scenario	800,000	~~18.3~~ 19.00	~~+18.8%~~ -1.31%
2020 MTP/SCS External Trips Reduction[1]	800,000	~~15.1~~ 14.86	~~-1.9%~~ -3.47%
2035 No Project Scenario	885,000	~~19.4~~ 19.87	~~+26.0%~~ +3.20%
2035 No Project Scenario External Reductions[1]	885,000	~~15.9~~ 15.49	~~+3.2%~~ +0.64%
2035 MTP/SCS External Reductions and Off Model Adjustments [1, 2]	885,000	~~14.5~~ 14.49	-5.85%

[1] *"External Reduction" For the purposes of modeling GHG emissions for the 2035 MTP/SCS, AMBAG subtracted all emissions from through trips (X-X and ½ of all emissions from trips that either begin or end within the region but travel to/from neighboring regions (X-I and I-X).*
[2] *"Off Model Adjustments" are estimated at a ~~1.95% reduction in passenger vehicle emissions with the 2035 MTP/SCS in 2020, and a 5.85%~~ 4.01% reduction in passenger vehicle emissions with the 2035 MTP/SCS in 2035. Refer to Section 4.12, Transportation and Circulation, for a detailed discussion of the off model adjustment methodology.*

As shown in Table 4.8-3, the 2005 GHG per capita emissions from passenger vehicles were estimated to be 15.4 pounds per day for the plan area. With the proposed 2035 MTP/SCS, the 2020 GHG per capita emissions from passenger vehicles were modeled to be ~~15.1~~ 14.86 pounds per day for the plan area, a reduction of ~~nearly two~~ three percent from 2005, and the 2035 emissions levels were modeled to be ~~14.5~~ 14.49 pounds per day, a nearly six percent decrease from 2005.

These projections do not include any additional measures from the Scoping Plan to further reduce passenger vehicle GHG emissions and are, therefore, conservative. As such, the 2035 MTP/SCS would contribute to an overall reduction in per capita passenger vehicle-related GHG emissions. Since SB 375 is consistent with the goals of AB 32 and intended to achieve the AB 32 goals under the CARB Scoping Plan, a plan that would not conflict with SB 375 emission targets would also not conflict with the AB 32 goals. Implementation of the 2035 MTP/SCS would help the region achieve its SB 375 and AB 32 GHG emissions reduction targets. Therefore, impacts would be less than significant.

Mitigation Measures. None required.

Significance after Mitigation. Impacts are less than significant.

Impact GHG-4 Implementation of the 2035 MTP/SCS would not interfere with the goals of applicable GHG reduction plans and policies, including the adopted climate action plans for Monterey County, the City of Monterey, the City of Santa Cruz, and the City of Gonzales, as well as AB 32 and SB 375. Impacts would be Class III, *less than significant*.

The County of Monterey, the City of Monterey, ~~and~~ the City of Santa Cruz, and the City of Gonzales have adopted climate action plans that set goals and targets for the reduction of GHG emissions, and outlines policies to help achieve those goals. The County of Santa Cruz, the City of Watsonville, ~~-~~and the City of Capitola are in the process of developing climate action plans. These local GHG reduction plans have been adopted or are in progress in an effort to comply with the GHG emissions reduction goals recommended for local governments in the AB 32 Scoping Plan.

As discussed in Impact GHG-3 above, the 2035 MTP/SCS was determined to be consistent with the goals of AB 32. The projects, policies, and land use scenarios identified in the 2035 MTP/SCS are designed to align transportation and land use planning to reduce transportation-related GHG emissions. Implementation of the 2035 MTP/SCS would help the region achieve its SB 375 GHG emissions reduction target, therefore contributing to the State's overall GHG emissions reduction goals identified in AB 32. Since the 2035 MTP/SCS is consistent with the goals of AB 32, it would not conflict with the goals of local reduction plans designed to meet the same state goals. Impacts would be less than significant.

Mitigation Measures. None required.

Significance after Mitigation. Impacts are less than significant.

c. ~~b.~~ Specific MTP/SCS Projects That May Result in Impacts. All proposed projects listed in Section 2.0 *Project Description* would have the potential to result in GHG emissions. However, the 2035 MTP/SCS as a whole is designed to reduce per capita transportation-related GHG emissions in accordance with SB 375 and AB 32. Since plan level emissions meet AMBAG's SB 375 targets, all planned 2035 MTP/SCS projects remain below the thresholds of significance.

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4.9 HYDROLOGY AND WATER RESOURCES

4.9.1 Setting

The Monterey Bay area contains two primary watersheds: the Salinas River valley, which is the third-longest river in California and traverses the length of Monterey County, and the Pajaro River valley, the primary tributary of which begins in San Benito County and runs through southeastern Santa Cruz County (Regional Water Management Group [RWMG], 2013). In addition, a number of smaller watersheds are located between the western face of the Coast Range mountains and the Pacific Ocean in both Monterey and Santa Cruz counties.

The Salinas River originates at the Santa Margarita Reservoir in San Luis Obispo, just to the south of AMBAG's planning area, and extends approximately 155 miles northward to the Monterey Bay (RWMG, 2013). The headwaters of the Salinas River are generally undeveloped, while the remainder of the valley is predominantly agricultural with several urban areas, the largest being the City of Salinas.

Based on the geographic coverage of integrated regional water management plans in the Monterey Bay area, the following discussion of hydrology and water resources is divided into four areas: (1) greater Monterey County, (2) the Monterey Peninsula area, (3) the Pajaro River watershed, and (4) northern Santa Cruz County. Greater Monterey County generally includes the entire Salinas River watershed north of the San Luis Obispo County line, all of the Gabilan and Bolsa Nueva watersheds in the northern part of the County, and all of the coastal watersheds of the Big Sur coastal region within Monterey County. The Monterey Peninsula area lies between the Salinas River and the Big Sur coast, from Pt. Lobos on the south to Sand City on the north. The majority of the Pajaro River watershed consists of undeveloped grassland and shrubland in San Benito County, although its lower reach from Hollister west to the Pacific Ocean is generally under agricultural cultivation (Pajaro Valley Water Management Agency [PVWMA] et al., 2007). The northern Santa Cruz County region encompasses all of Santa Cruz County except for the Pajaro River watershed (Kestral, 2005).

a. Water Supply.

Greater Monterey County. Local groundwater and surface water provide the water supply for the greater Monterey County region. The primary source of water for most users in the planning area is groundwater, which is largely extracted from the Salinas Valley Groundwater Basin (RWMG, 2013). In 2010, an estimated total of 460,443 acre-feet (AF) was pumped from this groundwater basin, including 416,421 AF for agriculture and 44,022 AF for urban areas. In general, groundwater supplies are limited in terms of the annual amount of water that can be withdrawn without causing a long-term drop in water levels ("Safe Yield") and in the total storage of a basin that can be removed without substantial environmental effects ("Available Yield"). Despite groundwater recharge from infiltration in river beds and from deep percolation of rainfall, the Greater Monterey County Integrated Regional Water Management Plan found an overdraft of groundwater by 17,000 acre-feet per year (AFY) in 1995 and projected an overdraft of 14,700 AFY in 2030.

Monterey Peninsula Area. The total usable storage of water in the Monterey Peninsula area is estimated at 37,500 AF (MPWMD, 2007). Groundwater from the Carmel River and Seaside Basins comprise the majority of this water supply, while two reservoirs on the Carmel River account for less than five percent of total storage. In the Carmel River Basin, which provides about 70 percent of the area's domestic water supply, pumping of wells causes substantial declines in groundwater levels during the dry season and leads to decreased surface flows in the Lower Carmel River along as much as nine river miles. Complete recharge of this aquifer generally occurs quite rapidly after winter rains commence and the Carmel River begins flowing into the dry reaches.

To meet municipal demand above the level that can be supplied from the Carmel River Basin, water is pumped from a well field in the Seaside Groundwater Basin (MPWMD, 2007). The Seaside Groundwater Basin underlies a hilly coastal plain that slopes northward toward the Salinas Valley and westward toward Monterey Bay. Groundwater extraction near the coast increased markedly beginning in 1995, resulting in declining water levels and depletion of groundwater storage. Although sustainable yield from the Seaside Basin is estimated at 2,880 acre-feet per year, basin-wide groundwater withdrawals in recent years have been on the order of 5,600 acre-feet per year. In 2006, a Final Decision was rendered that adjudicated the basin and set a three-year goal aimed at reducing annual extractions to 3,000 AFY, which is termed the "natural safe yield."

Beyond the groundwater supply, desalination could be combined with aquifer storage and recovery in the Seaside Groundwater Basin to meet the Monterey Peninsula's potable water supply needs. A proposed desalination plant at Marina ~~oss Landing~~ could provide between 6.4 and 9.6 million gallons of water per day (Johnson, 2013). For the purposes of this analysis, the desalination plant is considered speculative.

Pajaro River Watershed. The water supply in the Pajaro River watershed primarily consists of groundwater, with an estimated sustainable yield of 97,700 AFY (PVWMA et al., 2007). In the coastal portion of the watershed, groundwater has routinely been pumped above the safe yield level. Users in the lower Pajaro Valley pump nearly twice the sustainable yield of the Valley's groundwater basin annually (Pacific Institute, 2013). In addition to groundwater, imported water from the Central Valley Project (CVP) is delivered to the watershed from the San Luis Reservoir. CVP deliveries total 34,800 AFY (PVWMA et al., 2007). Local recycled water and surface water also supply 17,100 AFY. After accounting for these water resources, the Pajaro River Watershed Integrated Regional Water Management Plan projects a supply gap of 70,300 AFY to meet anticipated demand in the year 2025. In response to water shortage, the use of recycled water is increasing. A Recycled Water Facility in Watsonville delivered 1,600 AFY to users in 2010, its first full year of operation, and has a capacity of 6,000 AFY (Pacific Institute, 2013).

Northern Santa Cruz County. Local groundwater and surface water contribute to the water supply of northern Santa Cruz County. Four primary groundwater basins occur in this area: the Santa Margarita-Lompico Basin to the west of Scotts Valley, the Purisima Basin under Capitola and to the north, the Aromas Basin to the southeast, and the Pajaro Valley Alluvium Basin in the Watsonville area (Kestral, 2005). Current water needs exceed available supplies in large parts of each of the four basins of the region. The two primary aquifers that comprise the

Santa Margarita-Lompico Basin are both in overdraft. Aquifers underlying the Soquel–Aptos area are also in overdraft. Additional water is not available from these sources to support current levels of demand or even modest future growth. For the City of Santa Cruz, approximately 95 percent of its water supply comes from surface sources, such as the San Lorenzo River, augmented by three wells which pump from the Purisima aquifer (Cross, 2013).This aquifer also serves the Soquel Creek Water District, the Central Water District, several smaller water systems, and hundreds of private wells (City of Santa Cruz, 2013). Water demand for the City of Santa Cruz in the year 2020 is anticipated to exceed the safe yield of its supply by approximately 5,500 AFY (Kestral, 2005).

b. Water Quality. Water quality is a concern because of its potential effect on human health, enterprise, aquatic organisms, and ecosystem conditions. Quality is determined by factors such as native condition of groundwater and surface water, sources of contamination (natural and human induced), and extent of seawater intrusion.

Surface Water. In the Monterey Bay area, polluted stormwater and urban runoff discharges have degraded the water quality of creeks, rivers, sloughs, reservoirs, and the Pacific Ocean. Runoff pollutants can include pesticides, fertilizers, green waste, animal waste, human waste, petroleum hydrocarbons (gasoline, motor oil), trash, and other constituents. Due to the prevalence of agriculture in the Salinas River valley and the lower Pajaro valley, pesticide-laden runoff is one of the primary sources of surface water contamination, as shown below in Table 4.9-1. In addition, stormwater flowing over roadways and other transportation facilities carries urban pollutants through natural drainage systems or man-made storm drain facilities to a body of surface water. Such discharges from farmland and transportation facilities are referred to as "non-point" sources because the pollutants are generated from multiple locations rather than a single source and location. These discharges are mostly unregulated, resulting in untreated pollutants entering waterways. Pollutants contained within urban runoff primarily include suspended solids, oil, grease, pesticides, pathogens, and air pollutants.

The State Water Resources Control Board (SWRCB), in compliance with the Clean Water Act (CWA), Section 303(d), has prepared a list of impaired water bodies in the State of California. Table 4.9-1 shows the major water bodies in Monterey Bay area that are listed as impaired by the State Water Resources Control Board.

The impairments listed in Table 4.9-1 indicate that the Pajaro River and lower Salinas River experience the broadest array of water quality issues, primarily due to pesticides and other substances in agricultural runoff. It is also worth noting that polluted runoff has impaired the ocean as well as inland waterways. The Northern Santa Cruz County IRWMP states that urban runoff has degraded water quality at moderate levels in coastal lagoons and at ocean beaches. Sewer leaks and overflows contribute to this problem (Kestral, 2005). All urban lagoons in this planning region are posted as unsafe for swimming year round due to high bacteria levels. Furthermore, local beaches are frequently posted as unsafe for human contact in response to elevated bacteria. Santa Cruz County has had 50-100 beach-days of posting every year since AB 411 reporting began in 1999.

To address surface water quality impairments, the Central Coast Regional Water Quality Control Board (RWQCB) has prescribed total maximum daily loads (TMDLs) in the Pajaro

River watershed for nitrates, sediment, and pathogens TMDL, and mercury (PVWMA et al., 2007). The nitrate and sediment TMDLs, completed in 2005, have identified irrigated agriculture as a substantial anthropogenic source of both nitrate and sediment loading.

Table 4.9-1
Major Water Bodies Listed as Impaired

Water Body	Impairment Constituent
Arroyo Seco River	Fecal Coliform, Temperature
Elkhorn Slough	Low Dissolved Oxygen, Pesticides, Sedimentation/Siltation, Total Coliform, pH
Harkins Slough	Chlorophyll-a, Low Dissolved Oxygen, Pathogens
Monterey Harbor	Metals, Sediment Toxicity
Moss Landing Harbor	Chlorpyrifos, Diazinon, Los Dissolved Oxygen, Nickels, Pathogens, Pesticides, Sediment Toxicity, Sedimentation/Siltation, pH
Pacific Ocean (Point Año Nuevo to Soquel Point)	Dieldrin
Pacific Ocean at Capitola Beach	Enterococcus
Pajaro River	Boron, Chlordane, Chloride, Chlorpyrifos, DDD (Dichlorodiphenyldichloroethane), Dieldrin, *E. coli*, Fecal Coliform, Low Dissolved Oxygen, Nitrate, Nutrients, PCBs (Polychlorinated Biphenyls), Sedimentation/Siltation, Sodium, Turbidity, pH
Salinas River (lower, estuary to near Gonzales Rd crossing)	Chlordane, Chloride, Chlorpyrifos, DDD, Diazinon, Dieldrin, Electrical Conductivity, Enterococcus, *E. coli*, Fecal Coliform, Nitrate, PCBs, Pesticides, Sodium, Total Dissolved Solids, Toxaphene, Turbidity, Unknown Toxicity, pH
Salinas River (middle, near Gonzales Rd crossing to confluence with Nacimiento River)	*E. coli*, Fecal Coliform, Pesticides, Temperature, Turbidity, Unknown Toxicity, pH
Salinas River Lagoon (North)	Nutrients, Pesticides
Salinas River Refuge Lagoon (South)	Turbidity, pH
San Antonio Reservoir	Mercury
San Antonio River (below reservoir)	*E. coli*, Fecal Coliform
San Benito River	Boron, Electrical Conductivity, *E. coli*, Fecal Coliform, Sedimentation/Siltation, Unknown Toxicity, pH
San Lorenzo River	Chlordane, Chlorpyrifos, Nutrients, PCBs, Pathogens, Sedimentation/Siltation,
San Lorenzo Lagoon	Pathogens
Watsonville Slough	Low Dissolved Oxygen, Pathogens, Pesticides, Turbidity

Source: State Water Resources Control Board, 2010 Integrated Report, 303(D) Listed Waters. http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml

Groundwater.

Greater Monterey County. Nitrogen in the lower Salinas Valley watershed, in the form of nitrate, is the primary contaminant of the Salinas Valley Groundwater Basin (RWMG, 2013). Nitrate contamination in the Salinas Valley results primarily from the use of nitrogen-based synthetic fertilizers for irrigated agriculture and commonly occurs in the unconfined and semi-confined aquifers that underlie areas of intense agricultural activity. However, nitrate contamination can also be caused from septic system failures, from wastewater treatment ponds located in floodplains that convey sewage during flood events and from livestock waste. All of

the Salinas Valley cities have had to replace domestic water wells because nitrate levels have exceeded drinking water standards.

The intrusion of seawater poses another threat to groundwater quality in the Salinas Valley Groundwater Basin (RWMG, 2013). As both irrigated agriculture and urban development have increased during the past several decades, groundwater demand has exceeded available recharge. Seawater intrusion was first observed in a few wells in the Castroville area in 1932. It is estimated that the Salinas Valley Groundwater Basin has an average annual non-drought overdraft of approximately 50,000 AF, although during a recent drought the annual overdraft was estimated at 150,000–300,000 AFY. As a result of this consistent overdraft, groundwater levels in the Salinas Valley Groundwater Basin have dropped below sea level, allowing seawater to intrude from Monterey Bay into aquifers located 180 and 400 feet below ground surface. Since the mid-1990s, recycled water distributed by the Castroville Seawater Intrusion Project within the "front area" of seawater intrusion has reduced groundwater pumping there, slowing the advance of seawater. However, sea level rise is expected to increase the pressure of saltwater on the coastal Salinas Valley Groundwater Basin aquifers, causing increased seawater intrusion.

Monterey Peninsula Area. Recent monitoring of groundwater in the Carmel River and Seaside basins has focused on the potential for seawater intrusion and other contaminants (MPWMD, 2007). This monitoring effort has not indicated substantial changes in water quality or revealed any evidence of seawater intrusion in either groundwater basin (MPWMD, 2007).

Northern Santa Cruz County. As with the Salinas Valley, nitrate pollution affects groundwater in northern Santa Cruz County. Although nitrate levels are generally low across the region, groundwater in the middle San Lorenzo Watershed is contaminated (Kestral, 2005). In unincorporated areas, potential sources of nitrate pollution include septic systems, livestock, and agricultural operations. On a more localized level, leakage and spills from gas stations, dry cleaners and other hazardous materials sites has caused groundwater contamination. The Northern Santa Cruz County Integrated Regional Water Management Plan identifies priority areas for groundwater nitrate pollution to be addressed in Scotts Valley within the San Lorenzo Watershed, and in the Soquel and Aptos watersheds. Groundwater underlying the Watsonville Sloughs Watershed also has substantial nitrate contamination.

Where the elevation of groundwater is below sea level, seawater intrusion poses a threat to water quality. In agricultural areas along Highway 1, groundwater levels are about 100 feet below sea level, although intrusion has not yet been observed (Kestral, 2005). In the coastal Purisima Formation, seawater threatens wells in the City of Santa Cruz and Soquel Creek Water District. Due to intrusion at the Soquel Point Well, the City of Santa Cruz plans to break ground on a new well farther inland (Cross, 2013). In the Seascape area, a seawater wedge is moving slightly inland, threatening several Soquel Creek Water District wells (Kestral, 2005). Groundwater underlying the Watsonville Sloughs Watershed also has experienced seawater intrusion.

Pajaro River Watershed. Groundwater in the Pajaro River watershed is affected by several contaminants: seawater intrusion along the coast, perchlorate plumes in San Martin and Hollister, and salinity in the upper watershed (PVWMA et al., 2007). Seawater intrusion

contributes to salt contamination of groundwater up to three miles inland, which renders groundwater unusable for growing many high-value crops in this agricultural area (Pacific Institute, 2013). The landward movement of seawater into the aquifer averages 200 feet per year. Other water quality concerns include nitrates, manganese, and methyl tertiary butyl ether (MTBE) from leaking underground storage tanks with gasoline (PVWMA et al., 2007).

4.9.2 Impact Analysis

a. Methodology and Significance Thresholds. Appendix G of the CEQA Guidelines considers a project to have significant impacts if a project would:

- Violate any water quality standards or waste discharge requirements;
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
- Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;
- Otherwise substantially degrade water quality.

As described in Section 4.13, *Less than Significant Environmental Factors*, the 2035 MTP/SCS would not change the drainage pattern of an area or result in flooding due to the alteration of a stream or river, as the 2035 MTP/SCS does not propose such actions. The majority of projects would occur within existing rights-of-way and would not generate significant new surface water runoff that could exceed the capacity of stormwater infrastructure. Therefore, additional project analysis with respect to these thresholds is not provided in this section.

Potential impacts related to the placement of structures within 100-year flood hazard areas, are discussed separately in Section 4.7, *Geology and Soils*.

b. Project Impacts and Mitigation Measures. This section describes generalized impacts associated with some of the projects anticipated under the 2035 MTP/SCS.

Impact W-1 **Implementation of proposed transportation improvements and future projects facilitated by the land use scenario envisioned in the 2035 MTP/SCS would incrementally increase water above and beyond existing use in the Monterey Bay region, potentially requiring new or expanded water supplies, entitlements, or facilities. Such impacts would be Class II, *significant but mitigable*.**

Implementation of proposed transportation improvements and future projects facilitated by land use scenario envisioned in the 2035 MTP/SCS would result in both short-term and long-term impacts to the Monterey Bay area's water supply. Due to the programmatic nature of the 2035 MTP/SCS, a precise, project-level analysis of the specific impacts of individual transportation and land use projects on water supply is not possible at this time. However, the general nature of water supply impacts is described below.

During grading and general construction activities, water would be needed to suppress fugitive dust generated by construction equipment. Given the current state of overdraft of many groundwater basins in the Monterey Bay area, and the likelihood that more than one project would be constructed simultaneously in areas with overdrafted basins, the short-term water impact of the proposed 2035 MTP/SCS is potentially significant.

Projects that require long-term commitments of water, whether from irrigation for landscaping or from development facilitated by the proposed land use scenario, also could generate impacts on water supplies in the AMBAG region. The majority of proposed transportation improvements involve modification of existing facilities and would not result in a substantial increase in landscaped areas that require irrigation. However, multiple streetscaping projects proposed in the 2035 MTP/SCS could require water for landscaping. Furthermore, new and extended roadways could include tree and shrub plantings. In addition, future transit projects envisioned by the 2035 MTP/SCS would require potable water, although the size and type of these projects is not known at this time. It is likely that projects involving landscaping and infill development would be located in urban areas served by overdrafted groundwater basins, including the City of Salinas and the City of Santa Cruz.

Major 2035 MTP/SCS projects, particularly new and extended roadways, and parking facilities, could also affect groundwater supplies by incrementally reducing groundwater recharge potential. This reduction in groundwater recharge could occur because the impermeable surfaces associated with the proposed improvements would increase surface water runoff within existing rights-of-way at the expense of natural infiltration. The magnitude of impacts associated with individual 2035 MTP/SCS projects cannot be accurately determined at this programmatic stage of analysis. Nevertheless, given the overdrafted nature of many of the Monterey Bay area's groundwater basins, the reduction in groundwater recharge is potentially significant.

Mitigation Measures. For transportation projects under their jurisdiction, ~~AMBAG,~~ SCCRTC, SBtCOG, and TAMC shall implement and transportation project sponsor agencies can and should implement the following mitigation measures developed for the 2035 MTP/SCS program where ~~for~~ applicable for transportation projects that have water supply impacts. Cities and counties in the AMBAG region can and should implement these measures, where relevant to land use projects implementing the 2035 MTP/SCS. ~~Project-specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions. These measures can and should also be implemented for future infill and transit oriented development (TOD) pursuant to the 2035 MTP/SCS that would result in impacts to water supply.~~

W-1(a) The sponsor of a 2035 MTP/SCS project shall ensure that, where economically feasible and available, reclaimed and/or desalinated water is used for dust suppression during construction activities. This measure shall be noted on construction plans and shall be spot checked by the local jurisdiction. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

W-1(b) The sponsor of a 2035 MTP/SCS project shall ensure that low water use landscaping (i.e., drought tolerant plants and drip irrigation) is installed. When feasible, native plant species shall be used. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

W-1(c) The sponsor of a 2035 MTP/SCS project shall ensure that, if feasible, landscaping associated with proposed improvements is maintained using reclaimed and/or desalinated water. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

W-1(d) The sponsor of a 2035 MTP/SCS project shall ensure that porous pavement materials are utilized, where feasible, to allow for groundwater percolation. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

W-1(e) The sponsor of a 2035 MTP/SCS project that requires potable water service shall coordinate with water supply system operators to ensure that the existing water supply systems have the capacity to handle the increase. If the current infrastructure servicing the project site is found to be inadequate, infrastructure improvements for the appropriate public service or utility should be provided by the project sponsor. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

W-1(f) The sponsor of a 2035 MTP/SCS project shall ensure that bioswales are installed, where feasible, to facilitate groundwater recharge using stormwater runoff from the project site while improving water quality. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

Significance After Mitigation. Implementation of the above measures would reduce potential impacts to a less than significant level.

Impact W-2 Implementation of proposed transportation improvements and future projects facilitated by the land use scenario envisioned in the 2035 MTP/SCS could result in substantial eroded sediments and contaminants in runoff, which could degrade surface and ground water quality. This impact is considered Class II, ***significant but mitigable.***

Implementation of proposed transportation improvements and future projects facilitated by the land use scenario envisioned in the 2035 MTP/SCS would result in both short-term and long-term impacts to water quality. Because of the programmatic nature of the 2035 MTP/SCS, a precise, project-level analysis of the specific impacts of individual transportation and land use projects on water quality is not possible at this time. However, the general nature of water quality impacts is described below.

Certain transportation improvements, such as new and expanded roadways, road widenings, and transit, as well as infill and TOD projects, would increase overall impervious surface area throughout the Monterey Bay area. These projects may generate significant adverse impacts to surface water quality. Pollutants and chemicals associated with urban activities would run off new roadways and other impervious surfaces flowing into nearby bodies of water during storm events. These pollutants would include, but are not limited to: heavy metals from auto emissions, oil, grease, debris, and air pollution residues. Such contaminated urban runoff may remain largely untreated; thus, resulting in the incremental long-term degradation of water quality.

Short-term adverse impacts to surface water quality may also occur during the construction periods of individual improvement projects because areas of disturbed soils would be highly susceptible to water erosion and downstream sedimentation. This impact is of particular concern where projects are located on previously contaminated sites. Without effective erosion and storm water control, contaminated soils exposed during construction activities may result in surface water contamination. In addition, grading and vegetation removal in proximity to creeks for construction, widening and repair of bridges could result in an increase in erosion and sedimentation of creek banks. This could affect both water quality and the stability of slopes along the creeks. Regulations under the federal Clean Water Act require that a National Pollutant Discharge Elimination System (NPDES) storm water permit be obtained for projects that would disturb greater than an acre. Acquisition of the General Construction permit is dependent on the preparation of a Storm Water Pollution Prevention Plan (SWPPP) that contains specific actions, termed Best Management Practices (BMPs) to control the discharge of pollutants, including sediment, into the local surface water drainages. Many 2035 MTP/SCS projects, especially new and extended roadways in the Salinas Valley, would disturb more than one acre and would be subject to these regulations.

Mitigation Measures. For transportation projects under their jurisdiction, ~~AMBAG,~~ SCCRTC, SBtCOG, and TAMC shall implement and transportation project sponsor agencies can and should implement the following mitigation measures developed for the 2035 MTP/SCS program where ~~for~~ applicable for transportation projects that result in substantial eroded sediments and contaminants in runoff. Cities and counties in the AMBAG region can and should implement these measures, where relevant to land use projects implementing the 2035 MTP/SCS. ~~. Project-specific environmental documents may adjust these mitigation measures as~~

~~necessary to respond to site-specific conditions. These measures can and should also be implemented for future infill and TOD pursuant to the 2035 MTP/SCS that would result in impacts to water quality. In addition, Mitigation Measure W-1(f) would serve to improve the water quality of runoff from 2035 MTP/SCS projects with the installation of bioswales.~~

W-2(a) The sponsor of a 2035 MTP/SCS project shall ensure that fertilizer/pesticide application plans for any new right-of-way landscaping are prepared to minimize deep percolation of contaminants. The plans shall specify the use of products that are safe for use in and around aquatic environments. (Implementing agencies: RTPAs, transportation project sponsor agencies)

W-2(b) The sponsor of a 2035 MTP/SCS project involving construction of a new roadway, or widening or extension of an existing roadway, shall ensure that the improvement directs runoff into subsurface percolation basins and traps which would allow for the removal of urban pollutants, fertilizers, pesticides, and other chemicals. (Implementing agencies: RTPAs, transportation project sponsor agencies)

W-2(c) For a 2035 MTP/SCS project that would disturb at least one acre, a SWPPP shall be developed prior to the initiation of grading and implemented for all construction activity on the project site. Consistent with requirements in the Clean Water Act, the SWPPP shall include specific BMPs to control the discharge of material from the site and into the creeks and local storm drains. BMP methods may include, but would not be limited to, the use of temporary retention basins, straw bales, sand bagging, mulching, erosion control blankets and soil stabilizers. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

Significance After Mitigation. Implementation of the above measures would reduce potential impacts to a less than significant level.

c. Specific MTP/SCS Projects That May Result in Impacts. All 2035 MTP/SCS projects that require new construction or landscaping may result in impacts as discussed in Section 4.9.2.b above; and therefore, are not specifically identified in table format here. All 2035 MTP/SCS projects are referenced in Section 2.0 *Project Description (*see Appendix B*)*. Additional specific analysis will need to be conducted as the individual projects are implemented in order to determine the actual magnitude of impact. Mitigation measures discussed above would apply to these specific projects.

4.10 LAND USE

4.10.1 Setting

a. Land Use Patterns. The AMBAG region is comprised of Monterey, San Benito, and Santa Cruz Counties. These counties are located along the Central Coast of California and generally surround Monterey Bay. Monterey Bay is located south of the San Francisco Bay area and north of San Luis Obispo County. San Mateo and Santa Clara Counties are located to the north; Merced and Fresno Counties are located to the east. Monterey County shares a short border segment with Kings County to the southeast.

The combined area encompasses approximately 3.3 million acres, incorporating the Pajaro and Salinas River Valleys, adjacent coastal lowland and surrounding mountains. Terrain within the region is varied. The Santa Cruz, Gabilan and Santa Lucia mountain ranges and the Diablo range are located along the eastern border of the tri-county region. The highest elevation is the Junípero Serra Peak (5,860 feet above sea level), located in Monterey County. AMBAG's planning area is predominantly rural with urban development clustered along the Monterey Bay coastline and in agricultural inland valleys. A summary of the land use setting for each county is described below.

Monterey County. Monterey County encompasses 2.12 million acres and is predominantly rural with the exception of ten incorporated cities; Carmel, Monterey, Pacific Grove, Seaside, Marina, Salinas, Soledad, Gonzales, Greenfield, and King City. Agriculture is the largest land use in Monterey County representing approximately 60 percent (1.27 million acres) of the total land area. The second largest land use consists of public and quasi-public land uses such as parks, military facilities, recreational and community facilities, which makes up 24 percent (about 508,800 acres) of the total land area. Approximately five (5) percent (about 106,000 acres) of Monterey County, including the incorporated cities, is developed with residential, commercial, and industrial land use categories. The remaining 11 percent (about 233,200 acres) is in resource conservation or other miscellaneous land uses. Most of the urban development is concentrated in the northern one-third of the county, near the incorporated cities of Salinas, Marina and Monterey (Monterey County, 2008).

Santa Cruz County. Santa Cruz County encompasses 285,713 acres and is predominantly rural with the exception of four incorporated cities: Scotts Valley, Santa Cruz, Capitola, and Watsonville and the surrounding urbanized unincorporated area. Agriculture represents approximately 14 percent of the total land area (40,000 acres). Residential land is approximately 4 percent (11,428) of the land area; developed non-residential uses comprise approximately 1.5 percent (4,285). Parks, recreation and open space comprise 1.4% (4,000 acres); miscellaneous uses comprise 3.6 percent (10,286 acres) of the land area. The remaining acreage is undeveloped (Santa Cruz County website, 2013).

San Benito County. San Benito County encompasses 889,386 acres and is predominantly rural except the incorporated cities of San Juan Bautista and Hollister. Agriculture, which includes grazing, is the predominate land use in San Benito County, totaling approximately 739,969 acres (83.2 %). Of the remainder, 80,044 acres (9%) is owned by city, state, and federal

governments. Residential accounts for only 9,783 acres (1.1 %) of existing land use (San Benito County, 2010). Remaining lands are undeveloped.

b. Agricultural Land Uses. California is the leading state in agricultural production in the United States, and the greater AMBAG region is one of the most productive areas in the state, particularly for fruits and vegetables. Figure 4.10-1: Agricultural Lands and Lands under Williamson Act shows the distribution of prime agricultural land and land under Williamson Act contracts in Monterey County, Santa Cruz County, and San Benito County.

Monterey County. As of 2010, 234,671 acres of agricultural land were identified as Important Farmland and 1,000,494 are identified as grazing land by the California Department of Conservation (Department of Conservation, 2010). As of 2013, 78,170 acres of agricultural land in Monterey County were protected under Williamson Act contracts.

Santa Cruz County. As of 2010, 21,828 acres were identified as Important Farmland and 17,952 acres are identified as grazing land by the California Department of Conservation (Department of Conservation, 2010). As of 2013, 19,227 acres are protected under the Williamson Act contracts.

San Benito County. As of 2010, 60,921 acres are identified as Important Farmland and 612,455 acres are identified as grazing land by the California Department of Conservation (Department of Conservation, 2010). As of 2013, 287 acres of agricultural land in San Benito County were protected under the Williamson Act contracts.

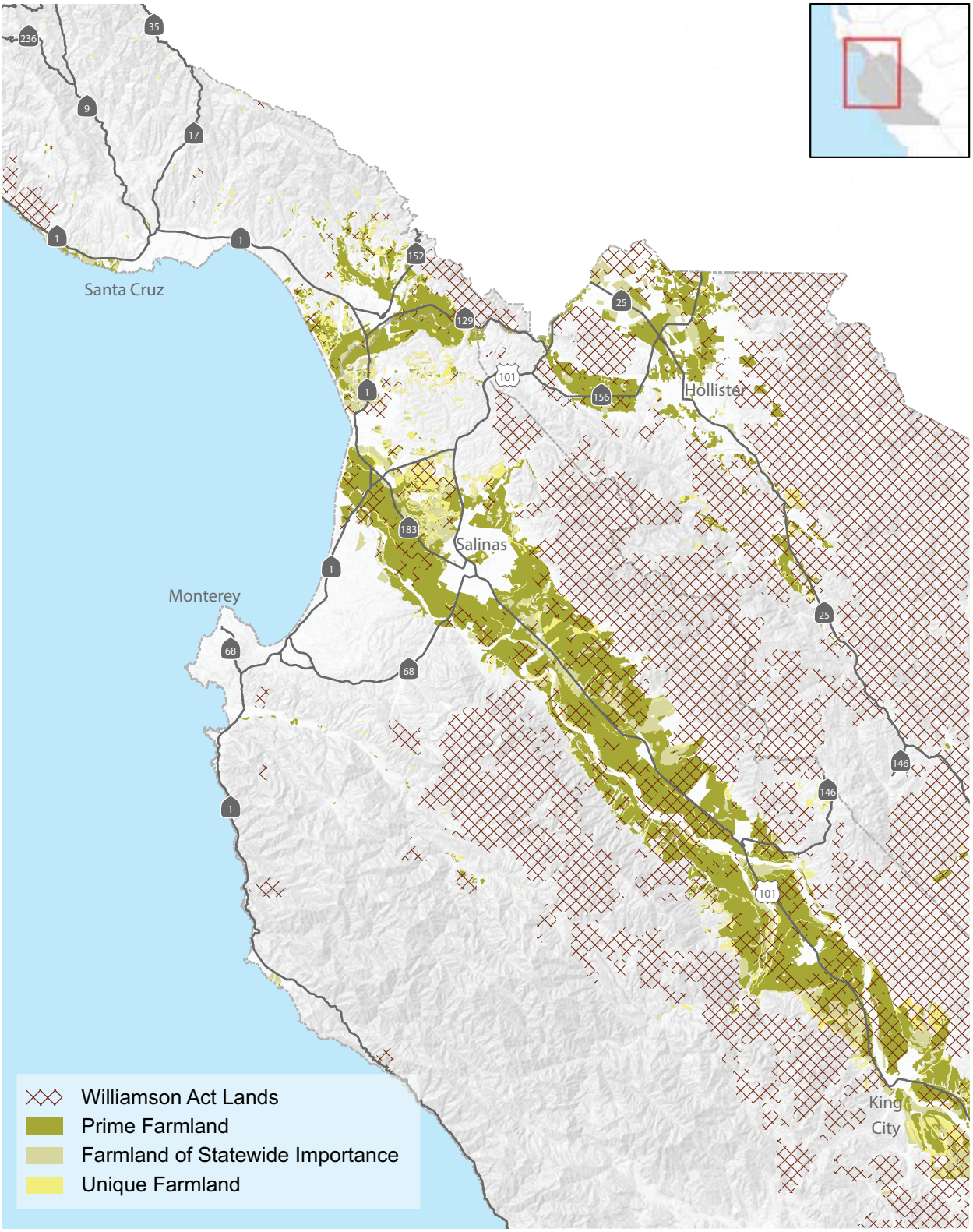
c. Population and Housing. The California Department of Finance estimates that the total population within the AMBAG area as of January 2013 is approximately 744,825 people distributed by each county as follows:

- Monterey County – 421,494
- San Benito County – 56,669
- Santa Cruz County – 266,662

The majority of the population is concentrated within the coastal plain that extends from the Santa Cruz/Capitola area in the north, south along the Monterey Peninsula.

Monterey County. Most of the county's population is concentrated in the incorporated cities located in the northern one-third of the county. A quarter of the county residents live in the unincorporated communities of Prunedale, Castroville, Carmel Valley, Del Monte Forest, and Pajaro (Monterey County, 2008).

Between 2000 and 2010, Monterey County grew at the same rate as the region. As a result of the closure of Fort Ord, Monterey County experienced a population decline in the middle of the 1990s, yet population growth rebounded later in the decade. The County grew by 13 percent (an increase of 46,100) between 1990 and 2000. California State University Monterey Bay (CSUMB) and Salinas Valley Prison opened in the 1990s which contributed to the population growth.



Agricultural Land & Land Under Williamson Act

Figure 4.10-1

Source: AMBAG, 2013

While the County as a whole grew, six of the thirteen jurisdictions experienced population loss during the 1990s. Conversely, the population of Salinas grew by nearly 34,000 during the decade. Growth during the following decade was slower with an increase of less than 13,000 (3 percent) between 2000 and 2010. Five jurisdictions lost population (Carmel-by-the-Sea – at 9 %, Del Rey Oaks at – 2 %; Monterey at - 6 %, Pacific Grove at – 3 %, and unincorporated Monterey County at – 1 %). The City of Seaside population remained virtually unchanged.

The City of Salinas and Soledad continued growing at 5 percent and 12 percent respectively. Gonzales, Greenfield, King City, and Marina also grew between 2000 and 2010. Sand City recorded a rapid rate of population growth due to its small size, but added only 73 people (AMBAG, 2013).

Santa Cruz County. The population of Santa Cruz County grew at a rate faster than the AMBAG region in the 1970s and 1980s, but grew more slowly every other decade from 1940 to 2010. Santa Cruz County grew by more than 25,800 people (11%) between 1990 and 2000. The fastest growing jurisdiction in Santa Cruz County between 1990 and 2000 was Watsonville (42%) followed by Scotts Valley (31%). Capitola's population fell during the decade (-1%).

The County's growth slowed considerably, adding just under 6,800 people (3%) between 2000 and 2010. The fastest growing jurisdiction in Santa Cruz County between 2000 and 2010 was Watsonville (16%, including the annexation area) followed by the City of Santa Cruz (10%). Scotts Valley, which grew rapidly during the 1990s, showed only two percent growth during the decade (AMBAG, 2013).

San Benito County. While San Benito County grew at a rate much slower than the AMBAG region prior to the 1970s, the county experienced rapid population growth in the 1970s, 1980s, and 1990s. San Benito County added more than 16,500 people (45 percent) between 1990 and 2000. During this decade the City of Hollister nearly doubled in population (78%) while the population of San Juan Bautista declined (-1%). This trend was reversed between 2000 and 2010 when San Benito County's population growth rate slowed to four percent (2,000 people). During this same time, Hollister grew by only one percent while San Juan Bautista increased by 20 percent (AMBAG, 2013).

d. Regulatory Setting. There are numerous federal, State, and local laws, regulations, policies, programs, plans, codes, and ordinances that regulate land use in the Monterey Bay area. Local land use issues are regulated by the general plans, specific plans, and zoning ordinances of the counties of Monterey, San Benito, and Santa Cruz and the various incorporated cities within each county. City and unincorporated county land which lies within the California coastal zone is subject to provisions outlined in each jurisdiction's Local Coastal Program (LCP) as mandated by the California Coastal Act. The Coastal Zone generally consists of all land 1,000 yards inland from the mean high tide line. The LCPs consist of coastal land use plans, zoning, and other implementing actions needed to comply with the Coastal Act and include land use regulations related to housing, coastal access, public works, and all types of transportation infrastructure and facilities.

As noted above, some agricultural lands are under statewide protection pursuant to the Williamson Act, or Land Conservation Act (LCA). Agricultural land under LCA contract cannot be converted to urban uses during the contract period, typically a minimum of 10 years. The

contracts are entered into voluntarily by property owners in exchange for tax incentives. Property owners may file a notice of non-renewal to terminate the contract. Such lands retain their LCA status for 9 years prior to termination of the contract.

The Moving Ahead for Progress in the 21st Century Act (MAP-21) is a funding and authorization bill, passed in 2012, that governs United States federal surface transportation spending. The Sustainable Communities Strategy and Climate Protection Act, SB 375, is a law passed in 2008 by the California legislature that requires each MPO to demonstrate, through the development of an SCS, how its region will integrate transportation, housing, and land use planning to meet the greenhouse gas (GHG) reduction targets set by the State. The details of MAP-21 and SB 375 are discussed in Section 2.0 *Project Description*. Related to SB 375, California's major initiative for reducing greenhouse gas emissions is outlined in Assembly Bill 32 (AB 32), the "California Global Warming Solutions Act of 2006," signed into law in 2006. AB 32 codifies the state-wide goal of reducing GHG emissions to 1990 levels by 2020.

Caltrans Smart Mobility 2010: A Call to Action for the New Decade. The California Department of Transportation (Caltrans) notes that the State faces demographic, environmental, economic, and quality of life challenges that influence transportation policy. The Caltrans Smart Mobility plan provides a new approach to implementation and sets the framework for an expanded State Transportation Planning Program. The focus is on the role of mobility in meeting state transportation challenges. The Plan addresses:

- **The State mandate to find solutions to climate change**. Achieving the State's goals for reduction of greenhouse gas (GHG) emissions requires a positive and integrated approach to our transportation future.
- **The need to reduce per capita vehicle miles traveled.** Reduced per capita auto use will lower emissions of GHG gas and conventional pollutants, reduce petroleum consumption and associated household transportation costs, and minimize negative impacts on air quality, water quality, and noise environments.
- **Demand for a safe transportation system that gets people and goods to their destinations.** Smart Mobility must be achieved with vigilant attention to serving the safety and reliability needs of the State's people and businesses. The Call to Action endorses the application of land use strategies and the use of transit, carpool, walk, and bike travel to satisfy travel needs through a shift away from higher-polluting modes.
- **The commitment to create a transportation system that advances social equity and environmental justice.** Caltrans' California Transportation Plan (CTP) already sets forth a commitment to equity, the environment, and the economy. Smart Mobility integrates social equity concerns into transportation decisions and investments.

4.10.2 Impact Analysis

a. Methodology and Significance Thresholds. Pursuant to the State CEQA guidelines, potentially significant impacts would result if the project would:

- *Physically divide an established community.*
- *Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal*

program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.
- *Conflict with any applicable habitat conservation plan or natural community conservation plan.*

Impacts are also considered potentially significant if a specific transportation improvement or land use change would displace homes or businesses or result in significant population growth. No habitat conservation plans or natural community conservation plans applicable to the study area were identified in Section 4.3, *Biological Resources.* Thus, this issue is not discussed further in this EIR.

Regarding agriculture resource impacts, pursuant to the State CEQA guidelines, potentially significant impacts would result if the project would:

- *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use;*
- *Conflict with existing zoning for agricultural use, or a Williamson Act contract;*
- *Conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timber Production;*
- *Result in the loss of forest land or conversion of forest land to non-forest use; or*
- *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use.*

Potential impacts to agricultural lands are addressed herein. The 2035 MTP/SCS projects are not expected to occur within or in proximity to forest/timber lands or otherwise impact forest/timber resources. Thus, forest/timber resources are not discussed further in this EIR.

b. Project Impacts and Mitigation Measures. Land use conflict impacts were assessed based upon the level of physical impact anticipated in the various issues that can affect compatibility related to air quality, noise, and light and glare. This section describes generalized impacts associated with the transportation improvement projects and the land use scenario envisioned by the 2035 MTP/SCS.

Impact LU-1 Implementation of proposed transportation improvements and the land use scenario envisioned by the 2035 MTP/SCS could result in land use conflicts with existing sensitive land uses. This is impact would be Class II, *significant but mitigable.*

Based on the long-term programmatic nature of the 2035 MTP/SCS, a precise project-level analysis of the specific land use conflicts is not possible at this time. However, implementation of the 2035 MTP/SCS would generally result in modification of existing transportation facilities within existing highway, roadway, or railroad rights-of-way.

Proposed transportation improvement projects and the land use scenario envisioned by the 2035 MTP/SCS could result in land use conflicts with existing and future nearby sensitive land uses. The proposed transportation improvements would result in temporary impacts related to air quality, noise, and visual character changes during construction. Nearby sensitive receptors could be temporarily exposed to such impacts. Long-term land use conflicts related to proposed

transportation improvements include impacts related to air quality, light and glare, and noise. As roadways, railways and other transportation projects are widened, expanded or otherwise improved, this would result in localized increases in toxic air emissions (primarily diesel and re-entrained dust emissions), ambient noise, and potentially light and glare. Nearby sensitive receptors, including existing and future residential land uses would be exposed to these impacts. Light and glare impacts would be minimized by implementing applicable provisions of local dark sky ordinances.

In addition, the 2035 MTP/SCS encourages infill development and development near existing transportation corridors. This has the potential to expose people to toxic air contaminants (primarily diesel emissions), re-entrained dust (contaminated particulate matter), increased light and glare, and increased noise levels. Impacts would be most pronounced in residential areas or in areas with schools, parks, or other land uses with large numbers of children or elderly people, who are most sensitive to noise and safety impacts. As discussed in Sections 4.1 A*esthetics*, 4.2 *Air Quality* and 4.11 *Noise* these impacts would be reduced to a less than significant level after implementation of mitigation measures recommended therein.

In general, the 2035 MTP/SCS aims to implement roadway projects and transportation improvements that decrease traffic congestion, increase mobility, and improve alternative transportation infrastructure. However, construction and implementation of new transportation facilities or expansion of existing facilities could divide established communities both in the short- and long-term. Short-term construction impacts would include physical barriers that limit access to a community or restrict movement within a community as the result of road or sidewalk closures or other temporary construction-related inconveniences. Long-term impacts could result from the construction of widened or expanded roadways or transit facilities in existing communities. For example, a widened roadway could be perceived by pedestrians as too great a distance to cross; increased traffic volumes could discourage pedestrian and bicycle use because of safety risks or elevated noise levels.

The 2035 MTP/SCS is intended to improve the system for all modes of transit so vehicles and non-motorized transit can use the streets simultaneously and safely. As a result, while roads may be expanded and widened under the 2035 MTP/SCS, these and/or other planned projects would include improvements to bicycle and pedestrian facilities as well which would limit the potential to divide a community and improve overall pedestrian safety.

The land use scenario envisioned by the 2035 MTP/SCS would encourage infill, mixed use, and transit oriented development (TOD) within existing urbanized areas. This type of development would not divide a community; rather it would promote the development of existing vacant or underutilized properties. This would locate people closer to existing employment, goods and services within established communities. Impacts related to dividing an established community would be less than significant.

Mitigation Measures. Environmental impacts causing land use conflicts would be minimized through several mitigation measures. Mitigation measures listed under Impact AES-1 and AES-2 in Section 4.1 *Aesthetics* would reduce potential aesthetic, light, and glare impacts. Mitigation measures listed under Impact AQ-1 and AQ-3 in Section 4.2, *Air Quality,* would reduce localized air quality impacts. Mitigation measures listed under Impact N-1, N-2, N-3,

and N-4 in Section 4.11, *Noise,* would reduce potential noise impacts. No specific mitigation is required to address impacts related to dividing established communities.

Significance After Mitigation. Land use compatibility impacts related to aesthetics, air quality and noise impacts would be less than significant with implementation of mitigation measures referenced above. Impacts related to dividing established communities would be less than significant without mitigation.

Impact LU-2 The 2035 MTP/SCS would be consistent with applicable adopted State and local goals, policies, and regulations. This impact would be Class III, *less than significant.*

Federal and State-level policies applicable to the 2035 MTP/SCS include MAP-21, Caltrans Smart Mobility 2010, California Transportation Commission 2010 Regional Transportation Plan Guidelines, SB 375, and AB 32. The vision for the 2035 MTP/SCS is built on a set of integrated policies, strategies, and investments to maintain and enhance the transportation system to meet the diverse needs of the region through 2035. AMBAG began developing the 2035 MTP/SCS by adopting the following goals and policy objectives:

1. *Access and Mobility*. Provide convenient, accessible, and reliable travel options while maximizing productivity for all people and goods in the region.
2. *Economic Vitality*. Raise the region's standard of living by enhancing the performance of the transportation system.
3. *Environment*. Promote environmental sustainability to protect the natural environment.
4. *Healthy Communities*. Protect the health of our residents; foster efficient development patterns that optimize travel. Housing, and employment choices and encourage active transportation.
5. *Social Equity*. Provide an equitable level of transportation services to all segments of the population.
6. *System Preservation and Safety*. Preserve and ensure a sustainable and safe regional transportation system.

The 2035 MTP/SCS is organized according to the following topic areas:

- Vision – includes a discussion about a sustainable future and goals and policies.
- Transportation Investments – addresses strategic system expansion for all modes of travel, transportation management programs, and freight and goods movement.
- Financial Plan – addresses revenue and expenditure categories, and both a revenue constrained.
- Sustainable Communities Strategy – discusses the SCS planning process, the regional growth forecast, the land use planning process and proposed 2035 land use plan, transportation system and programs, meeting GHG targets and other miscellaneous topics.
- Performance Measures – discusses how the plan meets each of the performance measures and outcomes.
- Public Participation – describes the public participation plan and engagement strategies with the community and location jurisdictions.

The 2035 MTP/SCS encourages a multimodal transportation network with emphasis on non-motorized transportation and land use patterns to reduce the distance between trip destinations. This approach is consistent with the general provisions of MAP-21, and the Caltrans Smart Mobility 2010 framework.

The 2035 MTP/SCS will help the region reach its GHG emission reduction targets established by the California Air Resource Board (CARB) under AB 32 and SB 375, as discussed in Section 4.8 *Greenhouse Gas Emissions/Climate Change*. The 2035 RTP-SCS encourages infill and TOD development to reduce automobile traffic and commute trip lengths. The 2035 MTP/SCS would meet the CARB-established goal of a net zero per capita increase in GHG emissions from passenger vehicles and light trucks in 2020 and a 5 percent reduction in 2035 (see Section 4.8, *Greenhouse Gas Emissions/Climate Change*).

At the local level, the 2035 MTP/SCS builds on and incorporates regional and local planning efforts completed by the Regional Transportation Planning Agencies, and local agencies through the general plan process. Other key regional and local examples include:

- Fort Ord Reuse Authority Base Reuse Plan;
- UCSC Long Range Development Plan;
- CSUMB Master Plan;
- Monterey Bay Sanctuary Scenic Trail Master Plan project; and
- Regional Transportation Plans.

The land use scenario envisioned in the 2035 MTP/SCS was developed in close coordination with AMBAG member agency planning staff, the Local Area Formation Commission (LAFCO) within each of the three counties, and builds on the RTPA's, current local general plans and general plan updates in process. This involved close coordination with each RTPA's Technical Advisory Committee, a Planning Director's Forum, and a Regional Advisory Committee.

The land use scenario envisioned by the 2035 MTP/SCS was modeled using UPlan. UPlan allocates the future population increase across generalized UPlan land use categories. These generalized UPlan land use categories are the result of condensing the land use types from various local general plans into seven calibrated categories. The result is a spatial projection of future, allowable urbanization within each land use type that is broadly consistent with adopted local general plans.

In planning for projected growth in the region, the 2035 MTP/SCS represents a voluntary growth strategy that retains local government land use autonomy. Neither SB 375 nor any other law requires local member agency general plans or land use regulation to implement the land use policies in the 2035 MTP/SCS. Thus, implementation of the 2035 MTP/SCS is dependent on local government policy decisions and voluntary action. The proposed 2035 MTP/SCS includes a list of planned and programmed projects including local and regional capital improvements that have been anticipated or accounted for in:

- Local General Plans;
- Federal Transportation Improvement Plan (FTIP), including Federal Transit Administration (FTA) grant allocations;

- Statewide Transportation Improvement Plan (STIP); and
- The Regional Transportation Improvement Program (RTIP).

In summary, the objective of the 2035 MTP/SCS is to provide for a comprehensive transportation system of facilities and services that meets public need for the movement of people and goods, and that is consistent with the social, economic, and environmental goals and policies of the region.

Improvements included in the 2035 MTP/SCS have been proposed by the various jurisdictions that comprise the AMBAG region along with Caltrans. The 2035 MTP/SCS and associated programmed or planned projects are generally consistent with local and regional plans and policies. Additionally the 2035 MTP/SCS includes policies for encouraging consistency with other State, regional, and local policies. Impacts regarding consistency with applicable plans and policies would be Class III, less than significant.

Mitigation Measures. None Required

Significance after Mitigation. Impacts are less than significant.

LU-3 **Implementation of proposed transportation improvements and the land use scenario envisioned by the 2035 MTP/SCS could result in the conversion of prime or non-prime agricultural lands into non-agricultural use. The overall impact to agriculture could be Class I, *significant and unavoidable*.**

Transportation improvement projects under the 2035 MTP/SCS adjacent to existing agricultural areas may have direct and indirect impacts on agricultural productivity. Although incorporated cities in Monterey, San Benito, and Santa Cruz County are fairly urbanized, many cities border prime agricultural land. These include the City of Watsonville in Santa Cruz County, the cities of Salinas, Soledad, Gonzales, Greenfield and King City in Monterey County, and the cities of San Juan Bautista and Hollister in San Benito County. Transportation improvement projects that involve roadway widening have the potential to affect narrow segments of agricultural land located immediately along the existing right-of-way of proposed improvements.

Some projects, particularly those requiring new right of way, have the potential to impact prime agricultural land and/or land under a Williamson Act contract. Areas of sensitivity include those in the Salinas Valley in Monterey County; around the City of Watsonville in Santa Cruz; and around the City of San Juan Bautista and City of Hollister in San Benito County. Both irrigated agriculture and grazing could be affected by 2035 MTP/SCS improvement projects. It is important to note that the General Plans and related environmental documentation for each local jurisdiction identify potential impacts to agricultural resources that could occur as a result of Plan implementation. The 2035 MTP/SCS was developed consistent with the applicable General Plans; thus, no impacts that are new or different from what was disclosed are expected to occur.

The 2035 MTP/SCS envisions infill development and development near existing transportation corridors, which are generally located in urbanized areas of cities and unincorporated communities in the county. Such land use development within urbanized areas would not be

expected to result in agricultural resource impacts since they would be located within existing urban areas.

Much of the Salinas Valley in Monterey County, northeastern San Benito County, and the Pajaro Valley in Santa Cruz County is underlain by prime agricultural soils, as defined by both the State Important Farmlands Inventory and the Natural Resources Conservation Service. A number of transportation improvement projects throughout the AMBAG planning area could encroach on prime agricultural soils, or soils that could support high quality agricultural production.

Areas with prime agricultural soils are generally considered most important for farming. A determination of the impacts to prime agricultural soils would need to be made on a case-by-case basis as individual projects are implemented. In all likelihood, many individual projects would not create significant impacts, particularly those that involve only minor widening along existing rights-of-way or that would affect non-prime grazing lands. Nevertheless, because the actual magnitude of impacts from individual projects cannot be determined at this time, the overall impact to agriculture is assumed to be significant.

Mitigation Measures. ~~No measures are available to mitigate the loss of agricultural lands, short of eliminating proposed roadways or other improvements that would impact areas containing prime soils. However,~~For transportation projects under their jurisdiction, ~~AMBAG,~~ SCCRTC, SBtCOG, and TAMC shall implement and transportation project sponsor agencies can and should implement the following mitigation measures developed for the 2035 MTP/SCS program where applicable for transportation ~~and land use~~ projects that ~~may~~ result ~~in impacts to~~ agricultural lands conversion. ~~and existing agricultural production.~~ Cities and counties in the AMBAG region can and should implement these measures, where relevant to land use projects implementing the 2035 MTP/SCS. ~~Project-specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions.~~

LU-3(a) When new roadway extensions or widening projects are planned, the project sponsor shall assure that project-specific environmental reviews consider alternative alignments that reduce or avoid impacts to agricultural lands. (Implementing agencies: RTPAs, transportation project sponsor agencies)

LU-3(b) Rural roadway alignments shall follow property lines to the extent feasible, to minimize impacts to the agricultural production value of any specific property. Farmers shall be compensated for the loss of agricultural production at the margins of lost property, based on the amount of land deeded as road right-of-way, as a function of the total amount of production on the property. (Implementing agencies: RTPAs, transportation project sponsor agencies)

LU-3(c) Project sponsors should ~~consider~~ implement corridor realignment, buffer zones, setbacks, and fencing when feasible to reduce conflict between agricultural lands and neighboring uses. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

LU-3(d) Farmland Conservation Easements. Prior to approval of 2035 MTP/SCS projects that may adversely impact prime farmland, the project sponsor shall, when the following mitigation measures are feasible, require that a farmland conservation easement, a farmland deed restriction, or other farmland conservation mechanism be granted in perpetuity to the municipality in which the project is proposed, or an authorized agent thereof. The easement shall provide conservation acreage at a minimum ratio of 1:1 for direct impacts. The conservation area shall be located within the county where the project is proposed in reasonable proximity to the project area. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

Significance After Mitigation. Although the above measures would reduce impacts to agriculture lands, the potential conversion of agricultural lands cannot be mitigated. Impacts from individual projects will be addressed on a case-by-case basis; however, because impacts to individual agricultural properties cannot be assumed to be less than significant, agricultural impacts are considered **significant and unavoidable**.

Impact LU-4 Implementation of proposed transportation improvements and the land use scenario envisioned by the 2035 MTP/SCS could temporarily and permanently displace or disrupt existing residences and businesses. This would be a Class II, *significant but mitigable* impact.

During construction of transportation improvements, as well as future infill development, residents or businesses may be temporarily disrupted by temporary road or lane closures or blocked access to parking. The majority of transportation improvements would occur within existing roadway rights-of-way and would not be expected to displace residents or businesses. However, it is possible that future transportation projects, particularly widening or expansion projects, could encroach onto private property, potentially requiring the removal of existing structures. In addition, future infill development projects could displace residents if redevelopment of existing residential structures occurs. The intent of infill development projects is to develop on vacant or highly under-utilized properties. As a result, significant numbers of people are not expected to be displaced.

Nonetheless, it is possible that some people may be displaced as a result of development envisioned in the SCS land use scenario. Access and disruption impacts associated with construction would occur to varying degrees with all construction projects, but would be most acute in urban areas with high volumes and traffic and businesses that depend upon ease of vehicular access. Impacts would be potentially significant.

Mitigation Measures. For transportation projects under their jurisdiction, ~~AMBAG,~~ SCCRTC, SBtCOG, and TAMC shall implement and transportation project sponsor agencies can and should implement the following mitigation measures developed for the 2035 MTP/SCS program where ~~for~~ applicable for transportation ~~and land use~~ projects that could ~~may result in~~ displace~~ment or disruption of~~ substantial residences and~~or~~ businesses. Cities and counties in

the AMBAG region can and should implement these measures, where relevant to land use projects implementing the 2035 MTP/SCS. ~~Project-specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions.~~

LU-4(a) The project sponsors of 2035 MTP/SCS projects with the potential to displace residences or businesses shall assure that project-specific environmental reviews consider alternative alignments and developments that avoid or minimize impacts to nearby residences and businesses. (Implementing agencies: RTPAs, transportation project sponsor agencies)

LU-4(b) Where project-specific reviews identify displacement or relocation impacts that are unavoidable, the project sponsor shall ensure that all applicable local, State, and federal relocation programs are used to assist eligible persons to relocate. In addition, the local jurisdiction shall review the proposed construction schedules to ensure that adequate time is provided to allow affected businesses to find and relocate to other sites. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

LU-4(c) For all 2035 MTP/SCS projects that could result in temporary lane closures or access blockage during construction, a temporary access plan shall be implemented to ensure continued access to affected cyclists, businesses, and homes. Appropriate signs and safe access shall be guaranteed during project construction to ensure that businesses remain open. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

Significance After Mitigation. Implementation of the above mitigation measures would reduce impacts relating to temporary disturbance and long-term displacement to a less than significant level.

Impact LU-5 **Implementation of proposed transportation improvements and the land use scenario envisioned by the 2035 MTP/SCS could redistribute residential and commercial development; however, 2035 MTP/SCS projects that are included in local General Plans would not significantly induce growth beyond that already anticipated, as the primary purpose of proposed improvements is to accommodate projected growth. This is a Class III, *less than significant,* impact.**

Some improvements in the 2035 MTP/SCS are located within rural areas. Transportation improvements located in rural areas can be perceived as removing an obstacle to growth by either creating additional traffic capacity (in the case of widenings) or improving access to undeveloped areas (in the case of road extensions). However, transportation improvement projects are anticipated within applicable general plans and proposed improvements have been

coordinated with the applicable local jurisdiction. These improvements are designed and intended to accommodate the anticipated growth. The improvements would be phased to respond to land development as it occurs under adopted general plans. New roadways would be funded, in part, by fees generated by new development. If roadways were to be constructed in advance of land development (because of Caltrans or other outside funding), the local general plans would still control the ultimate extent of urban expansion in an area.

As shown in Figures 4.10-2 through 4.10-4, the land use pattern envisioned by the 2035 MTP/SCS would generally result in modification of existing transportation facilities within existing highway roadway, or railroad rights-of-way and would encourage infill development and development near existing transportation corridors. Infill projects would not necessarily result in significant new population growth within these jurisdictions; rather they would accommodate anticipated growth and concentrate it within existing urban cores instead of on the periphery of urban areas or within rural or semi-rural areas. Therefore, population growth impacts would be less than significant.

Mitigation Measures. No mitigation measures are required.

Significance After Mitigation. Impacts would be less than significant.

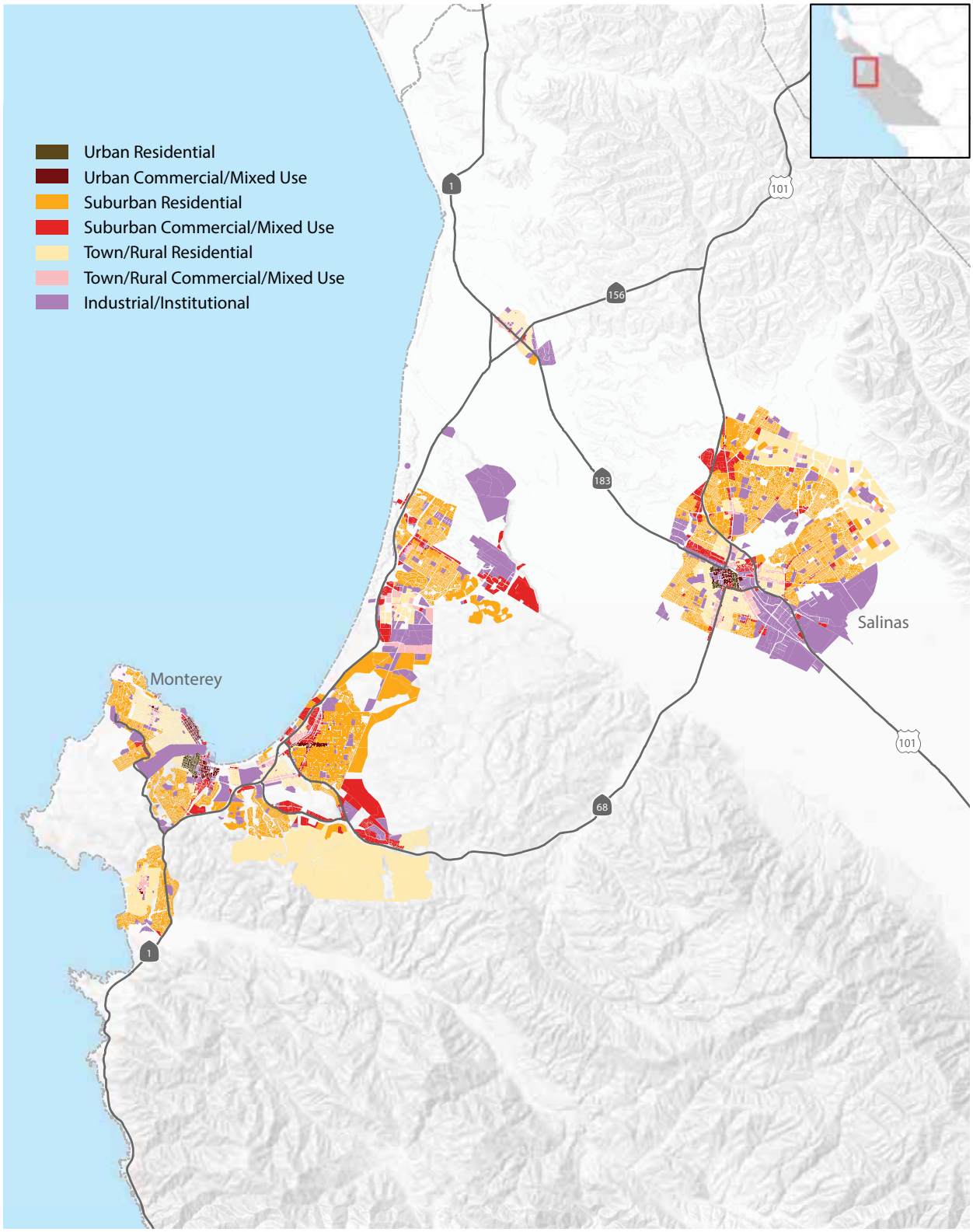
c. Specific 2035 MTP/SCS Projects That May Result in Impacts. All proposed projects listed in Section 2.0 Project Description would associate with Impacts LU-1, LU-2, LU-4, and LU-5. Table 4.10-1 lists projects that have the potential impact agricultural resources, as described in Impact LU-3.

Table 4.10-1
MTP/SCS Projects that May Result in Agricultural Impacts

AMBAG Project #	Project Description	Location	Impact	Description of Impact
MON-GON006-GO	Harold Parkway – Roadway Extension	Gonzales	LU-3	Potential impacts to nearby agricultural lands
MON-GON007-GO	La Gloria Road Widening	Gonzales	LU-3	Potential impacts to nearby agricultural lands
MON-GON012-GO	River Road Bike Lane	Gonzales	LU-3	Potential impacts to nearby agricultural lands
MON-GRN003B-GR	US 101 – Oak Road Bridge	Greenfield	LU-3	Potential impacts to nearby agricultural lands
MON-GRN006-GR	Thorne Road Realignment at US 101	Greenfield	LU-3	Potential impacts to nearby agricultural lands
~~MON-GRN009-GR~~MON-GRN005B-GR	New On-Ramp at US 101 and Thorne Road	Greenfield	LU-3	Potential impacts to nearby agricultural lands
MON-GRN022-GR	Pine Avenue Overcrossing at US 101	Greenfield	LU-3	Potential impacts to nearby agricultural lands
MON-KCY003-CK	Bitterwater Road	King City	LU-3	Potential impacts to nearby agricultural lands
MON-MYC043-UM	Jolon Road Overlay Safety Improvements	Monterey County	LU-3	Potential impacts to nearby agricultural lands
MON-MYC045-UM	Las Lomas Drive Bicycle Lane and Pedestrian Project	Monterey County	LU-3	Potential impacts to nearby agricultural lands

Table 4.10-1
MTP/SCS Projects that May Result in Agricultural Impacts

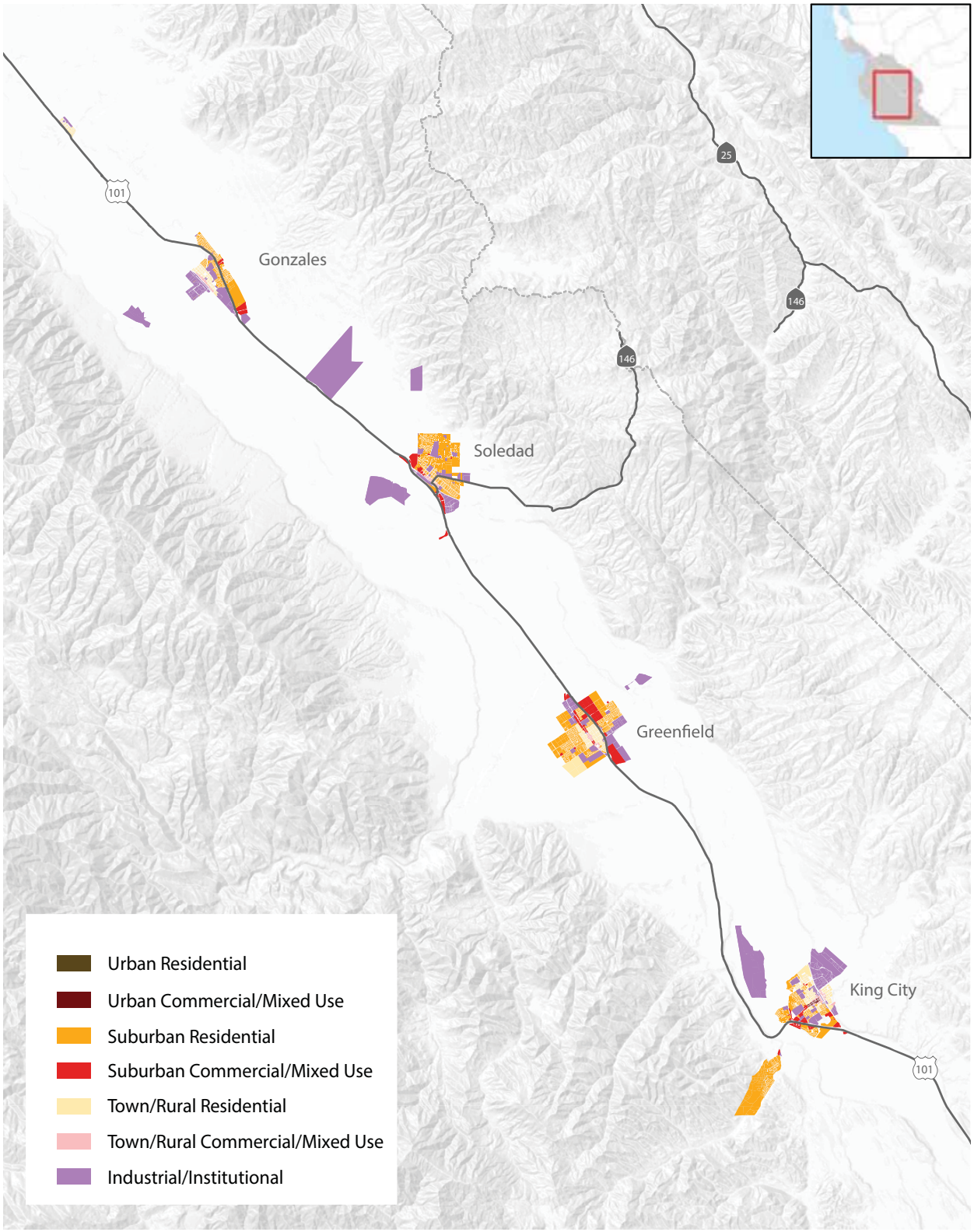
AMBAG Project #	Project Description	Location	Impact	Description of Impact
MON-MYC227-UM	Pine Canyon Road Improvements	Monterey County	LU-3	Potential impacts to nearby agricultural lands
MON-MYC241-UM	San Juan Grade Road Improvements	Monterey County	LU-3	Potential impacts to nearby agricultural lands
MON-SNS011-SL	Boronda-Main Improvements	Salinas	LU-3	Potential impacts to nearby agricultural lands
MON-SNS012-SL	Boronda Road Widening	Salinas	LU-3	Potential impacts to nearby agricultural lands
MON-SNS042-SL	Natividad-Laurel Intersection	Salinas	LU-3	Potential impacts to nearby agricultural lands
MON-SNS044-SL	Natividad Road Widening	Salinas	LU-3	Potential impacts to nearby agricultural lands
MON-SNS053-SL	San Juan Grade Road Widening	Salinas	LU-3	Potential impacts to nearby agricultural lands
MON-SNS059-SL	Williams Road Widening	Salinas	LU-3	Potential impacts to nearby agricultural lands
MON-SNS108-SL	Laurel Drive Widening	Salinas	LU-3	Potential impacts to nearby agricultural lands
~~MON-SOL028-SO~~	Pinnacles Bike Route	Soledad	LU-3	Potential impacts to nearby agricultural lands
MON-MYC181-UM	G12 San Miguel Canyon	Monterey County	LU-3	Potential impacts to nearby agricultural lands
SB-CT-A17	Airline Highway: Widening to a 4 lane expressway~~State Route 25 Widening~~: Sunset Drive to Fairview	San Benito County	LU-3	Potential impacts to nearby agricultural lands
SB-SBC-A09	Fairview Road Widening	San Benito County	LU-3	Potential impacts to nearby agricultural lands
SB-SBC-A12	Memorial Drive Construction – Santa Ana to Flynn Road	San Benito County	LU-3	Potential impacts to nearby agricultural lands
SB-CT-A01	State Route 156 Widening	San Benito County	LU-3	Potential impacts to nearby agricultural lands could occur as defined in the SR 156 West Corridor Project EIR (January, 2013).
SB-SBC-A04	Union Road Widening (East)	San Benito County	LU-3	Potential impacts to nearby agricultural lands
SB-SBC-A05	Union Road Widening (West)	San Benito County	LU-3	Potential impacts to nearby agricultural lands



Land Use 2035
Monterey County Coast

Source: AMBAG, 2014

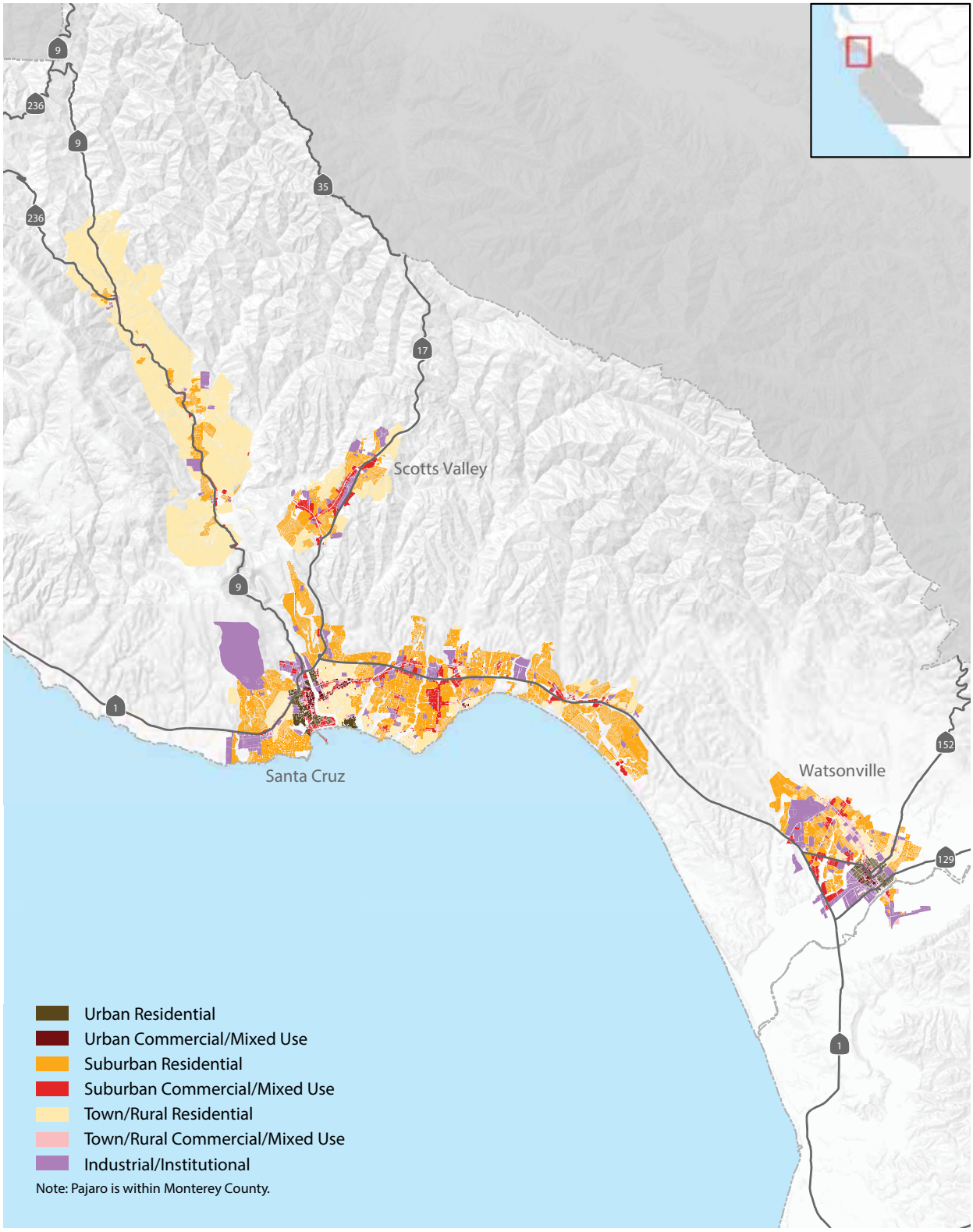
Figure 4.10-2a



Land Use 2035
Monterey County Inland

Source: AMBAG, 2014

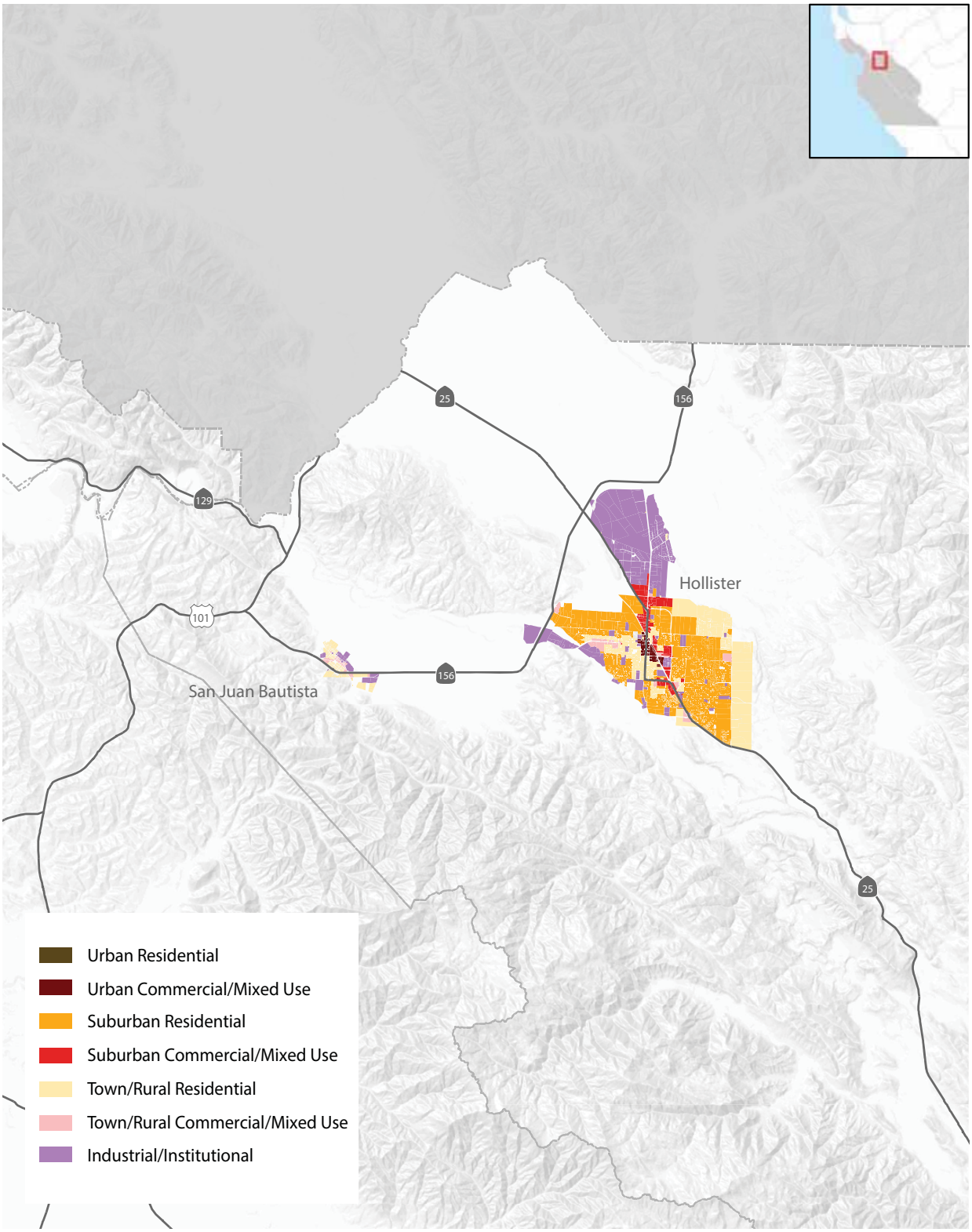
Figure 4.10-2b



Land Use 2035
Santa Cruz County

Source: AMBAG, 2014

Figure 4.10-3



Land Use 2035
San Benito County

Source: AMBAG, 2014

Figure 4.10-2

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4.11 NOISE

4.11.1 Setting

a. Overview of Noise and Vibration. The following discussion describes the characteristics of noise and vibration. These characteristics are used to assess potential impacts at sensitive land uses. Noise- and vibration-sensitive land uses include locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, senior facilities, schools, hospitals, guest lodging, libraries, and some passive recreation areas are examples of typical noise- and vibration-sensitive land uses.

Noise. Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound power levels to be consistent with that of human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz). In addition to the actual instantaneous measurement of sound levels, the duration of sound is important since sounds that occur over a long period of time are more likely to be an annoyance or cause direct physical damage or environmental stress. One of the most frequently used noise metrics that considers both duration and sound power level is the equivalent noise level (Leq). The Leq is defined as the single steady A-weighted level that is equivalent to the same amount of energy as contained in fluctuating levels of sound over a period of time. Typically, Leq is summed over a one-hour period.

Sound pressure is measured on a logarithmic scale with the 0 dB level based on the lowest detectable sound pressure level that people can perceive (an audible sound that is not zero sound pressure level). Based on the logarithmic scale, a doubling of sound energy is equivalent to an increase of 3 dB and a sound that is 10 dB less than the ambient sound level has no effect on ambient noise. Because of the nature of the human ear, a sound must be about 10 dB greater than the reference sound to be judged as twice as loud. In general, a 3 dBA change in community noise levels is noticeable, while 1-2 dBA changes generally are not perceived. Quiet suburban areas typically have noise levels in the range of 40 to 50 dBA, while noise levels along arterial streets are generally in the 50 to 60+ dBA range. Normal conversational levels are in the 60-65 dBA range and ambient noise levels greater than that can interrupt conversations.

Noise levels typically attenuate at a rate of 6 dBA per doubling of distance from point sources such as industrial machinery. Noise from roads typically attenuates at a rate of about 4.5 dBA per doubling of distance over absorptive ground surfaces (e.g., grass). Noise from roads typically attenuates at about 3 dBA per doubling of distance over reflective ground surfaces (e.g., pavement).

The actual time period in which noise occurs is also important since noise that occurs at night tends to be more disturbing than that which occurs during the daytime. To evaluate community noise on a 24-hour basis, the day-night average sound level was developed (Ldn). Ldn is the time average of all A-weighted levels for a 24-hour period with a 10 dB upward adjustment added to those noise levels occurring between 10:00 PM and 7:00 AM to account for the general increased sensitivity of people to nighttime noise levels. The Community Noise Equivalent

Level (CNEL) is identical to the Ldn with one exception. The CNEL adds 5 dB to evening noise levels (7:00 PM to 10:00 PM). Thus, both the Ldn and CNEL noise measures represent a 24-hour average of A-weighted noise levels with Ldn providing a nighttime adjustment and CNEL providing both an evening and nighttime adjustment.

Vibration. Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Vibration can be a serious concern, causing buildings to shake and rumbling sounds to be heard. In contrast to noise, vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads.

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings and is usually measured in inches per second. The root mean square (RMS) amplitude is most frequently used to describe the effect of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (VdB) is commonly used to measure RMS. The decibel notation acts to compress the range of numbers required to describe vibration.

High levels of vibration may cause physical personal injury or damage to buildings. However, groundborne vibration levels rarely affect human health. Instead, most people consider groundborne vibration to be an annoyance that can affect concentration or disturb sleep. In addition, high levels of groundborne vibration can damage fragile buildings or interfere with equipment that is highly sensitive to groundborne vibration (e.g., electron microscopes).

In contrast to noise, groundborne vibration is not a phenomenon that most people experience every day. The background vibration velocity level in residential areas is usually 50 RMS or lower which is well below the threshold of perception for humans (human perception is around 65 RMS). Most perceptible indoor vibration is caused by sources within buildings, such as operation of mechanical equipment, movement of people, or slamming of doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If the roadway is smooth, the vibration from traffic is rarely perceptible.

b. Noise and Vibration Sources. Many principal noise generators within the AMBAG region are associated with transportation (i.e., airports, freeways, arterial roadways, and railroads). Local collector streets are not considered significant noise sources as traffic volume and speeds are generally much lower than for freeways and arterial roadways. Generally, transportation-related noise is the dominant source within urban environments.

Similar to the environmental setting for noise, the vibration environment is typically dominated by traffic from nearby roadways and activity on construction sites. Heavy trucks can generate groundborne vibrations that vary depending on vehicle type, weight, and pavement conditions. Heavy trucks typically operate on major streets. Nonetheless, vibration levels adjacent to roadways are typically not perceptible.

Motor Vehicle Traffic. Motor vehicles, including cars/light trucks, buses, and various types of trucks, are the most significant source of noise in most of the AMBAG region. This can be attributed to the extensive network of major, primary, and secondary arterials, as well as the large number of vehicle trips that occur each day. Within Monterey County, US 101 and Highway 1 have the largest vehicle volumes and the highest noise levels. In 2010, daily traffic volumes on Highway 1 ranged from 8,697 vehicles on the Carmel South segment to 85,170 vehicles on the Seaside segment. US 101 daily traffic volumes in Monterey County ranged from 19,392 on the King City South segment to 60,830 on the Salinas north segment. Within Santa Cruz County, Highway 1 generates the highest noise level. In 2010, daily traffic on Highway 1 ranged from 7,823 vehicles on the Davenport segment. Approximately 88,855 vehicles use the on the Santa Cruz East Segment. The noisiest single road corridor in San Benito County is U.S. 101, although it traverses only seven miles though a relatively undeveloped portion of the County. In 2010, daily traffic on U.S. 101 in San Benito County was 20,093 vehicles.

Additionally, the region has many arterial roadways. Typical arterial roadways have one or two lanes of traffic in each direction. Noise from these sources can be a significant environmental concern where buffers (e.g., buildings, landscaping, etc.) are inadequate to reduce noise levels or where the distance from centerline to sensitive uses is relatively small. Given typical daily traffic volumes of 10,000 to 40,000 vehicle trips, noise levels along arterial roadways can typically range from Ldn 65 to 70 dBA at a distance of 50 feet from the roadway centerlines.

Aircraft Operation. There are 14 public-use airports in the Central Coast Region, the planning region for the California Aviation System Plan. This plan considers the following Monterey Bay Area airports to be the highest priority facilities for enhancement:

- Hollister
- Watsonville
- Mesa Del Rey
- Salinas
- Marina

The Monterey Bay area has six publicly-owned civil aviation airports. These airports are identified as follows:

- Monterey Regional
- Salinas Municipal
- King City Municipal (Mesa del Rey)
- Marina Municipal
- Watsonville Municipal
- Hollister Municipal

Of these, only the Monterey Regional Airport has scheduled air carrier service. In addition to the publicly-owned airports, several private airports operate in the region. Of these, the Frazier Lake Airpark is the only one that allows public use. The remaining privately owned airports are used to support the agricultural industry or are used for other business purposes.

The State Aeronautics Act (Public Utilities Code, Section 21670 et seq.) requires the preparation of an Airport Land Use Compatibility Plan (ALUCP) for nearly all public-use airports in the State (Section 21675). The intent of the ALUCP is to encourage compatibility between airports and the various land uses that surround them. ALUCPs typically include the development of noise contours to identify excessive airport-related noise levels and measures to reduce noise levels. For example, Monterey Regional Airport encourages noise abatement procedures related to quiet departure techniques.

In addition, there are currently two operational military airfields in the Monterey Bay area:

- Camp Roberts Army Airfield and Heliport
- Fort Hunter-Liggett Army Heliport

Railroad Operations. Rail lines for goods movement (e.g., agricultural materials) are located throughout the AMBAG region. The only regular rail passenger service currently operating in the region is provided by Amtrak, the most popular long distance passenger train in the United States. The Coast Starlight, which connects Los Angeles to Seattle, stops in Salinas, the only Amtrak rail station in the region. In the future Amtrak is planning to expand the Coast Starlight services by adding stops at new stations in Soledad and King City in addition to the existing stop in Salinas.

The Transportation Agency for Monterey County (TAMC) and the Santa Cruz County Regional Transportation Commission (SCCRTC) are working to bring rail service to Monterey and Santa Cruz Counties. The following two projects are being planned to enhance rail service within Monterey County:

- Capitol Corridor Extension to Monterey County – An extension of commuter rail service from Santa Clara County to Salinas; and
- Monterey Branch Line Light Rail – Passenger light rail service in the Monterey Peninsula

The Monterey Branch Line will connect to the planned commuter rail service in Castroville and also provide local transit service to stations in Monterey, Seaside, Sand City, Marina/CSUMB, and Castroville.

In 2012, SCCRTC purchased a rail line extending almost 32 miles from Davenport south to Pajaro. The Santa Cruz Branch Rail Line project would offer passenger rail and expanded freight service between Santa Cruz and Watsonville using this rail segment.

Railroad operations generate high, relatively brief, intermittent noise events. These noise events are an environmental concern for sensitive uses located along rail lines and near sidings and switching yards. Locomotive engines and the interaction of steel wheels and rails are one primary sources of rail noise. The latter creates rolling noise which is caused by continuous rolling contact, impact noise when a wheel encounters a rail joint, turnout or crossover, and squeal generated by wheel/rail friction on tight curves. For very high speed rail vehicles, air turbulence can be a significant source of noise. Air horns and crossing bell gates are another primary source of rail noise.

It is important to distinguish noise levels from various types of rail activity. Heavier commuter or freight trains, that are diesel-powered, generate more noise than electrically-powered light rail vehicles. According to the Federal Transit Administration (FTA), six commuter trains in one hour traveling at 50 miles per hour with a horn blowing generate a noise level of 81 dBA Leq at 50 feet. This same activity without a horn generates a noise levels of 68 dBA Leq at 50 feet. In comparison, 12 light rail transit trains in one hour traveling 40 miles per hour generate a noise level of 65 dBA Leq at 50 feet. These same light rail transit trains generate a noise level of 57 dBA Leq at 20 miles per hour at 50 feet.

Industrial, Manufacturing, and Construction. Noise from industrial complexes, manufacturing plants and construction sites are characterized as stationary or point sources even though they may include mobile sources like heavy construction equipment. Local governments typically regulate noise from industrial, manufacturing and construction equipment and activities through enforcement of noise ordinance standards, implementation of general plan policies, and imposition of conditions of approval for building or grading permits. Industrial complexes and manufacturing plants are generally located away from sensitive land uses, and, as such, noise generated from these sources generally has less effect on surround properties. In contrast to industrial and manufacturing facilities, construction sites are located throughout the AMBAG region and often within, or adjacent to, residential areas. In general, construction activities generate high, intermittent noise on and adjacent to construction sites, and related noise impacts are short-term occurring primarily on week days and during daylight hours. The dominant source of noise from most construction equipment is the diesel engine. During pile driving or pavement breaking events, impact noise is the dominant source. Construction equipment operates in two modes, stationary and mobile. Stationary equipment operates in one location for one or more days at a time and can generate a constant noise level (e.g., pumps, generators and air compressors) or variable noise levels (e.g., pile drivers and pavement breakers). Mobile equipment moves around the construction site. Noise levels vary depending on the power cycle being used. Mobile equipment such as trucks, move to and from the site using adjacent streets/roads.

c. Regulatory Framework. Various federal agencies have set standards for transportation-related noise and vibration sources that are closely linked to interstate commerce, such as aircraft, locomotives, and trucks. The State sets noise standards for those noise sources that are not preempted from regulation, such as automobiles, light trucks, and motorcycles. Noise and vibration sources associated with industrial, commercial, and construction activities are generally subject to local control through noise ordinances and general plan policies.

Federal Regulations. Relevant federal regulations include those established by the Federal Highway Administration (FHWA), FTA, Federal Aviation Administration (FAA), and Department of Housing and Urban Development (HUD).

Federal Highway Administration. Federal regulations for railroad noise are contained in 40 CFR Part 201 and 49 CFR Part 210. The regulations set noise limits for locomotives and are implemented through regulatory controls on locomotive manufacturers.

Federal regulations also establish noise limits for medium and heavy trucks (more than 4.5 tons, gross vehicle weight rating) under 40 CFR Part 205, Subpart B. The federal truck passby noise standard is 80 dB at 15 meters from the vehicle pathway centerline. These controls are implemented through regulatory controls on truck manufacturers. The FHWA regulations for noise abatement must be considered for federal or federally-funded projects involving the construction of a new highway or significant modification of an existing freeway when the project would result in a substantial noise increase or when the predicted noise levels approach or exceed the Noise Abatement Criteria (NAC).

Title 23 of the Code of Federal Regulations (23 CFR § 772) provides procedures for preparing operational and construction noise studies and evaluating noise abatement for federal and federal-aid highway projects. Under 23 CFR § 772.7, projects are categorized as Type I or Type II projects. FHWA defines a Type I project as a proposed federal or federal-aid highway project for the construction of a highway on a new location or the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment, or increases the number of through-traffic lanes. A Type II project is a noise barrier retrofit project that involves no changes to highway capacity or alignment.

Type I projects include those that create a completely new noise source, increase the volume or speed of traffic or move the traffic closer to a receiver. Type I projects include the addition of an interchange, ramp, auxiliary lane, or truck-climbing lane to an existing highway, or the widening an existing ramp by a full lane width for its entire length. Projects unrelated to increased noise levels, such as striping, lighting, signing, and landscaping projects, are not considered Type I projects.

Under 23 CFR § 772.11, noise abatement must be considered for Type I projects if the project is predicted to result in a traffic noise impact. In such cases, 23 CFR § 772 requires that the project sponsor “consider” noise abatement before adoption of the environmental document. This process involves identification of noise abatement measures that are reasonable, feasible, and likely to be incorporated into the project as well as noise impacts for which no apparent solution is available.

Traffic noise impacts, as defined in 23 CFR § 772.5, occur when the predicted noise level in the design year approach or exceed the NAC specified in 23 CFR § 772, or a predicted noise level substantially exceeds the existing noise level (a “substantial” noise increase). A "substantial increase” is defined as an increase of 12 dB Leq during the peak hour of traffic. For sensitive uses, such as residences, schools, churches, parks, and playgrounds, the NAC for interior and exterior spaces is Leq 57 and 66 dB, respectively, during the peak hour of traffic noise. Table 4.11-1 summarizes NAC corresponding to various land use activity categories. Activity categories and related traffic noise impacts are determined based on the actual land use in a given area.

Table 4.11-1
Noise Abatement Criteria

NAC, Hourly A-Weighted Noise Level	Description of Activities
57 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
67 (Exterior)	Picnic areas, recreation areas, playgrounds, active sport areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
72 (Exterior)	Developed lands, properties, or activities not included in above.
52 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Source: California Department of Transportation, Technical Noise Supplement, November 2009.

FHWA. Aircraft operated in the U.S. are subject to federal requirements regarding noise emissions levels. These requirements are set forth in Title 14 CFR, Part 36. Part 36 establishes maximum acceptable noise levels for specific aircraft types, taking into account the model year, aircraft weight, and number of engines

Federal Transit Administration. The FTA has developed guidance to evaluate noise impacts from operation of surface transportation modes (i.e. passenger cars, trucks, buses, and rail) in the 2006 FTA *Transit Noise Impact and Vibration Assessment*. All mass transit projects receiving federal funding must use these guidelines to predict and assess potential noise and vibration impacts. As ambient levels increase, smaller increments of change are allowed to minimize community annoyance related to transit operations.

Housing and Urban Development. The mission of HUD includes fostering "a decent, safe, and sanitary home and suitable living environment for every American." Accounting for acoustics is intrinsic to this mission as safety and comfort can be compromised by excessive noise. To facilitate the creation of suitable living environments, HUD has developed a standard for noise criteria. The basic foundation of the HUD noise program is set out in the noise regulation 24 CFR Part 51 Subpart B, Noise Abatement and Control.

HUD's noise policy clearly require noise attenuation measures be provided when proposed projects are to be located in high noise areas. Within the HUD Noise Assessment Guidelines, potential noise sources are examined for projects located within 15 miles of a military or civilian airport, 1,000 feet from a road or 3,000 feet from a railroad.

HUD exterior noise regulations state that 65 dBA Ldn noise levels or less are acceptable for residential land uses and noise levels exceeding 75 dBA Ldn are unacceptable. HUD's regulations do not contain standards for interior noise levels. Rather a goal of 45 decibels is set forth and the attenuation requirements are focused on achieving that goal. It is assumed that with standard construction methods and materials, any building will provide sufficient attenuation so that if the exterior level is 65 dBA Ldn or less, the interior level will be 45 dBA Ldn or less.

State Regulations. Relevant federal noise regulations include those established by the California Department of Health Services and the California Department of Transportation (Caltrans), as well as standards in the California Code of Regulations. There are no adopted State policies or standards for ground-borne vibration. However, Caltrans recommends that extreme care be taken when sustained pile driving occurs within 7.5 meters (25 feet) of any building, 15 to 30 meters (50 to 100 feet) of a historic building or near a building in poor condition.

California Department of Health Services. The State Office of Noise Control established guidelines to provide a noise environment deemed to be generally acceptable. Where a land use is denoted as "normally acceptable" for the given Ldn noise environment, the highest noise level in that range should be considered the maximum desirable for conventional construction that does not incorporate any special acoustic treatment. The acceptability of noise environments classified as "conditionally acceptable" or "normally unacceptable" will depend on the anticipated amount of time that will normally be spent outside the structure and the acoustic treatment to be incorporated in structural design.

With regard to noise-sensitive residential uses, the recommended exterior noise limits are 60 dBA CNEL for single-family residences and 65 dBA CNEL for multi-family residences. The recommended maximum interior noise level is 45 dBA CNEL, which could normally be achieved using standard construction techniques if exterior noise levels are within the levels described above.

California's Airport Noise Standards. The State of California has the authority to establish regulations requiring airports to address aircraft noise impacts near airports. The State of California's Airport Noise Standards, found in Title 21 of the California Code of Regulations, identify a noise exposure level of 65 dB CNEL as the noise impact boundary around airports. Within the noise impact boundary, airport proprietors are required to ensure that all land uses are compatible with the aircraft noise environment or the airport proprietor must secure a variance from the California Department of Transportation.

The Aeronautics Division of the California Department of Transportation has published the California Airport Land Use Handbook. The purpose of the California Airport Land Use Planning Handbook is to provide guidance for conducting airport land use compatibility planning. This handbook includes a section related to noise and states, "The basic strategy for achieving noise compatibility in the vicinity of an airport is to prevent or limit development of land uses that are particularly sensitive to noise. Common land use strategies are ones that either involve few people (especially people engaged in noise-sensitive activities) or generate significant noise levels themselves (such as other transportation facilities or some industrial uses)."

California Department of Transportation. The State of California establishes noise limits for vehicles licensed to operate on public roads. For heavy trucks, the State passby standard is consistent with the federal limit of 80 dB. The State passby standard for light trucks and passenger cars (less than 4.5 tons gross vehicle rating) is also 80 dB at 15 meters from the centerline. For new roadway projects, Caltrans uses the NAC discussed above in connection

with FHWA. In addition, Caltrans has published the *Traffic Noise Analysis* for assessing noise levels associated with roadway projects.

Section 216 of the California Streets and Highways Code relates to the noise effects of a proposed freeway project on public and private elementary and secondary schools. Under this code, a noise impact occurs if, as a result of a proposed freeway project, noise levels exceed 52 dBA Leq in the interior of public or private elementary or secondary classrooms, libraries, multipurpose rooms, or spaces. If a project results in a noise impact under this code, noise abatement must be provided to reduce classroom noise to a level that is at or below 52 dBA Leq. If the noise levels generated from roadway sources exceed 52 dBA Leq prior to the construction of the proposed freeway project, then noise abatement must be provided to reduce the noise to the level that existed prior to construction of the project.

California Noise Insulation Standards. The California Noise Insulation Standards found in Title 24 of the California Code of Regulations set requirements for new multi-family residential units, hotels, and motels that may be subject to relatively high levels of transportation-related noise. For exterior noise, the noise insulation standard is Ldn 45 dB in any habitable room and requires an acoustical analysis demonstrating how dwelling units have been designed to meet this interior standard where such units are proposed in areas subject to noise levels greater than Ldn 60 dB.

Local Regulations. To identify, appraise, and remedy noise and vibration problems in local communities, each county and city in the AMBAG region is required to adopt a noise element as part of its General Plan. Each noise element is required to analyze and quantify current and projected noise levels associated with local noise sources, including, but not limited to, highways and freeways, primary arterials and major local streets, rail operations, air traffic associated with the airports; local industrial plants, and other ground stationary sources that contribute to the community noise environment. Beyond statutory requirements, local jurisdictions are free to adopt their own goals and policies in their noise elements, although most jurisdictions have chosen to adopt noise/land use compatibility guidelines that are similar to those recommended by the State. The overlapping Ldn ranges indicate that local conditions (existing noise levels and community attitudes toward dominant noise sources) should be considered in evaluating land use compatibility at specific locations.

In addition to regulating noise through noise element policies, local jurisdictions regulate noise through enforcement of local ordinance standards. These standards generally relate to noisy activities (e.g., use of loudspeakers and construction) and stationary noise sources and facilities (e.g., air conditioning units and industrial activities).

As discussed above, the State Aeronautics Act (Public Utilities Code, Section 21670 et seq.) requires the preparation of an Airport Land Use Compatibility Plan (ALUCP) for nearly all public-use airports in the State (Section 21675). The intent of the ALUCP is to encourage compatibility between airports and the various land uses that surround them. Some of the actions that airport operators have been allowed to take to address local community noise concerns include runway use and flight routing changes, aircraft operational procedure changes and engine run-up restrictions. These actions generally are subject to approval by the FAA, which has the authority and responsibility to control aircraft noise sources, implement and

enforce flight operational procedures and manage the air traffic control system. Airport operators may also consider limitations on airport use but such restrictions can be overridden by the FAA if it is determined that they unjustly discriminate against any user, impede the federal interest in safety and management of the air navigation system or unreasonably interfere with interstate commerce.

4.11.2 Impact Analysis

a. Methodology and Significance Thresholds. The analysis of noise impacts considers the effects of both temporary construction-related noise and long-term noise associated with proposed transportation system improvements. Temporary construction noise was estimated based upon levels presented in the FTA *Transit Noise and Vibration Impact Assessment*. Long-term traffic-related noise was estimated using a modification of the Federal Highway Traffic Noise Model (TNM).

Pursuant to the State CEQA guidelines, potentially significant impacts would result if the project would result in:

- *Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;*
- *Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels;*
- *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or*
- *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.*

The analysis of potential impacts should include an assessment of all applicable standards, including those established by local jurisdictions, counties, the State of California, and federal agencies, where appropriate.

Since this document analyzes noise impacts on a program level only, project-level analyses for various projects within the 2035 MTP/SCS will be necessary in the future. The project proponent or local jurisdiction shall be responsible for ensuring adherence to the mitigation measures prior to construction.

b. Project Impacts and Mitigation Measures. This section describes generalized impacts associated with some of the projects anticipated in the 2035 MTP/SCS.

Impact N-1 **Construction activity associated with transportation improvement projects, and infill and transit oriented development envisioned by the 2035 MTP/SCS would create temporary noise and vibration level increases in discrete locations throughout the AMBAG region. Impacts would be Class II, *significant but mitigable.***

Noise. The operation of equipment during the construction of roadway infrastructure, as well as infill and transit-oriented development (TOD) projects would result in temporary increases in noise in the immediate vicinity of individual construction sites. As shown in Table 4.11-2, average noise levels associated with the use of heavy equipment at construction sites can range from about 76 to 89 dBA at 50 feet from the source, depending upon the types of equipment in operation at any given time and the phase of construction. The highest noise levels generally occur during excavation and foundation development, which involve the use of equipment such as backhoes, bulldozers, shovels, and front-end loaders.

Table 4.11-2
Typical Construction Noise Levels (in dBA)

Equipment	Typical Level 25 Feet from the Source	Typical Level 50 Feet from the Source	Typical Level 100 Feet from the Source	Typical Level 200 Feet from the Source	Typical Level 800 Feet from the Source
Air Compressor	87	81	75	69	57
Backhoe	86	80	74	68	56
Concrete Mixer	91	85	79	73	61
Grader	91	85	79	73	61
Paver	95	89	83	77	65
Saw	82	76	70	64	52
Scraper	95	89	83	77	65
Truck	94	88	82	76	64

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006.

Noise generated by construction activity would be variable depending on the project and intensity of equipment use. Roadway widening projects would likely require the operation of many pieces of heavy-duty equipment that generate high noise levels. Alternatively, pedestrian trail improvements would typically be less intense requiring minimal, if any, use of heavy equipment. There are instances where activities that typically generate lower noise levels would generate relatively high noise levels. For example, a pedestrian trail improvement may include bridge pilings or require heavy equipment to clear vegetation. This conservative analysis assesses construction noise based on the operation of heavy-duty equipment. Noise levels from point sources such as construction sites typically attenuate at a rate of about 6dBA per doubling of distance. Therefore, areas within 800 feet of construction site with heavy-duty equipment may be exposed to noise levels exceeding 65 dBA. Mitigation Measures N-1(a) through N-1(e) would reduce impacts from traffic noise. Impacts would be less than significant.

Vibration. Construction-related vibration has the potential to damage structures, cause cosmetic damage (e.g., crack plaster), or disrupt the operation of vibration sensitive equipment. Vibration can also be a source of annoyance to individuals who live or work close to vibration-generating activities. Heavy construction operations can cause substantial vibration near the source. As shown in Table 4.11-3, the highest impact caused by equipment such as pile drivers or large bulldozers can generate vibrations of 1.518 to 0.089 inches per second PPV at a distance of 25 feet. Similar to construction noise, vibration levels would be variable depending on the type of construction project and related equipment use.

Table 4.11-3
Construction Equipment Vibration Levels

Equipment		PPV at 25 Feet (Inches per Second)	RMS at 25 Feet (Vdb)
Pile Driver (Impact)	Upper Range	1.518	112
	Typical	0.644	104
Pile Driver (Sonic)	Upper Range	0.734	105
	Typical	0.170	93
Vibratory Roller		0.210	95
Clam Shovel Drop (Slurry Wall)		0.202	94
Hydrol Mill (Slurry Wall)	In Soil	0.008	66
	In Rock	0.017	75
Large Bulldozer		0.089	87
Caisson Drilling		0.089	87
Loaded Trucks		0.076	86
Jackhammer		0.035	79
Small Bulldozer		0.003	58

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, 2006.

Typical project construction activities, such as the use of jackhammers, other high-power or vibratory tools, compactors, and tracked equipment, may also generate substantial vibration (i.e., greater than 0.2 inches per second PPV) in the immediate vicinity, typically within 15 feet of the equipment. Through the use of scheduling controls, typical construction activities would be restricted to hours with least potential to affect nearby properties. Thus, perceptible vibration can be kept to a minimum and not result in human annoyance or structural damage.

Some specific construction activities result in higher levels of vibration. Pile driving has the potential to generate the highest vibration levels and is the primary concern for structural damage when it occurs within 50 feet of structures. Vibration levels generated by pile driving activities would vary depending on project conditions, such as soil conditions, construction methods and equipment used. Depending on the proximity of existing structures to each construction site, the structural soundness of the affected buildings and construction methods, vibration caused by pile driving or other foundation work with a substantial impact component such as blasting, rock or caisson drilling, and site excavation or compaction may be high enough to be perceptible within 100 feet and damage existing structures within 50 feet. Mitigation Measures N-1(a) through N-1(f) would reduce impacts from construction-related vibration. Impacts would be less than significant.

Mitigation Measures. ~~Local noise and vibration ordinance requirements would apply to construction activity associated with 2035 MTP/SCS implementation. In addition,~~ For transportation projects under their jurisdiction, ~~AMBAG,~~ SCCRTC, SBtCOG, and TAMC shall implement and transportation project sponsor agencies can and should implement the following mitigation measures developed for the 2035 MTP/SCS program where applicable for transportation projects that result in construction noise impacts. Cities and counties in the AMBAG region can and should implement these measures, where relevant to land use projects implementing the 2035 MTP/SCS. Pr~~oject-specific environmental documents may adjust these~~

~~mitigation measures as necessary to respond to site-specific conditions. These measures can and should also be implemented for future infill and transit oriented development (TOD) pursuant to the 2035 MTP/SCS that would result in construction noise impacts.~~

N-1(a) Project sponsors of 2035 MTP/SCS projects shall ensure that, where residences or other noise sensitive uses are located within 800 feet of construction sites, appropriate measures shall be implemented to ensure consistency with local ordinance requirements relating to construction noise and vibration. Specific techniques may include, but are not limited to, restrictions on construction timing, use of sound blankets on construction equipment, and the use of temporary walls and noise barriers to block and deflect noise. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

N-1(b) If a particular project within 800 feet of sensitive receptors requires pilings, project sponsors of 2035 MTP/SCS projects shall require caisson drilling or sonic pile driving as opposed to impact pile driving, where feasible. This shall be accomplished through the placement of conditions on the project during its individual environmental review. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

N-1 (c) Project sponsors of 2035 MTP/SCS projects shall ensure that equipment and trucks used for project construction utilize the best available noise and vibration control techniques (including mufflers, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds). (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

N-1(d) Project sponsors of 2035 MTP/SCS projects shall ensure that impact equipment (e.g., jack hammers, pavement breakers, and rock drills) used for project construction be hydraulically or electrically powered wherever feasible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatically powered tools is unavoidable, use of an exhaust muffler on the compressed air exhaust can lower noise levels from the exhaust by up to about 10 dBA. When feasible, external jackets on the impact equipment can achieve a reduction of 5 dBA. Whenever feasible, use quieter procedures, such as drilling rather than impact equipment operation. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

N-1(e) Project sponsors of 2035 MTP/SCS projects shall locate stationary noise and vibration sources as far from sensitive receptors as feasible. Stationary noise sources that must be located near existing receptors will be adequately muffled. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

N-1(f) As necessary, project sponsors of 2035 MTP/SCS projects shall retain a structural engineer or other appropriate professional to determine threshold levels of vibration and cracking that could damage any adjacent historic or other structure subject to damage, and design means and construction methods to not exceed the thresholds. (Implementing agencies: RTPAs, transportation project sponsor agencies, cities and counties for land use projects)

Significance After Mitigation. With implementation of local noise control requirements and proposed mitigation, impacts would be reduced to a less than significant level.

Impact N-2 Implementation of the 2035 MTP/SCS would potentially expose existing and future sensitive receptors to significant mobile source noise levels. This is considered a Class II, *significant but mitigable* impact.

Traffic Noise. The increase in traffic volumes over time would increase noise along roadways in the AMBAG region. Mobile noise levels were estimated on representative roadway segments in each county. Peak hour noise levels were modeled using the Federal Highway Administration Traffic Noise Model (TNM).TNM generates peak hour Leq noise levels. According to the Caltrans *Technical Noise Supplement* (November 2009), the Ldn for a roadway segment is typically within 2 dBA of the peak hour Leq, and the CNEL is typically 0.5 dBA higher than the Ldn. Therefore, the CNEL is approximately 2.5 dBA higher than the peak hour Leq.

The projected increase in noise levels on various roadway segments in each county are shown in Table 4.11-4. Noise levels are worst-case and do not account for the attenuating effects of topography, buildings, walls, and other barriers. Many areas along freeway and roadway corridors are at least partially shielded from traffic noise. As shown, noise levels (2010) currently exceed 65 dBA CNEL along four of the six roadway segments evaluated.

Each segment would experience an increase in noise levels associated with population growth and new vehicle trips if the 2035 MTP/SCS were not implemented. In fact in most cases, the project would not change noise levels from future year baseline conditions. The greatest overall noise increase (2.6 dBA) would occur along the Highway 101 – Santa Clara County Line segment in San Benito County. While this increase is less than what would typically be perceived by individuals (i.e., 3 dBA or greater), the noise level would exceed normally acceptable limits for residential areas. The general plan noise element guidelines generally discourage residential development within these areas; however, if new development is proposed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design. Conventional construction methods and

materials are typically sufficient to achieve the required attenuation. Impacts to existing residences would not be significant as these uses would not perceive a change in mobile source noise and existing noise levels are conditionally acceptable. Mitigation Measures N-2(a) and N-2(b) would reduce, minimize, or avoid traffic noise impacts. Impacts would be Class III, *less than significant*.

Table 4.11-4
Current and Future Traffic Noise Levels

Roadway Segment	Noise Level at Nearest Receptor (dBA L_{eq})			Noise Level Change Without MTP/SCS (2010 to 2035)	Noise Level Change With MTP/SCS (2010 to 2035)	Noise Level Change as a Result of MTP/SCS
	2010	Noise Level Without MTP/SCS (2010 to 2035	Noise Level With MTP/SCS (2010 to 2035)			
Highway 25 – Hollister North	71.1	73.5	73.5	+2.4	+2.4	**0**
Highway 68 – Monterey	64.8	65.4	65.3	+0.6	+0.5	**-0.1**
Highway 101 – Santa Clara County Line (San Benito County)	68.8	71.4	71.4	+2.6	+2.6	**0**
Highway 1 – Seaside	63.5	64.2	64.4	+0.7	+0.9	**+0.2**
Highway 17 – Summit	65.7	66.8	66.8	+1.1	+1.1	**0**
Highway 1 – Watsonville North	72.9	73.5	73.5	+0.6	+0.6	**0**

Note: All noise levels assume no attenuation due to topography or other barriers. In reality, noise levels are likely somewhat lower than presented herein.

Other Highways and Roadways. Overall traffic levels on highways and roadways in the AMBAG region are projected to increase as a result of regional growth through the year 2035 (refer to Section 4.12, *Transportation and Circulation*). The 2035 MTP/SCS includes some roadway modification projects that would increase roadway capacity for automobiles. These projects, including those funded by the Surface Transportation Assistance Act, are not expected to introduce new traffic but rather are intended to relieve current or projected traffic congestion or safety concerns. Although many of the planned widening and extension projects are in areas where sensitive noise receptors would not be affected, several would move traffic closer to noise-sensitive land uses. The implementation of Mitigation Measures N-2(a) and N-2(b) would reduce impacts from traffic noise.

Airports. The 2035 MTP/SCS includes airport improvements at Watsonville Municipal Airport and Monterey Regional Airport. It is not anticipated that proposed capital improvements to the Watsonville Municipal Airport would substantially change aircraft activity and associated noise levels. Regarding Monterey Regional Airport, proposed projects include an Airport Land Use Plan update, runway improvements, terminal improvements, and residential soundproofing. It is not anticipated that Monterey Regional Airport projects would directly change the type of aircraft using the airport or flight patterns. In addition, soundproofing projects may reduce existing noise impacts and approval of the Airport Land Use Plan would include a detailed noise assessment.

Rail Operations. The 2035 MTP/SCS includes investments in passenger rail. According to the FTA *Transit Noise and Vibration Impact Assessment* guidance document, vehicle propulsion

rail units generate: (1) whine from electric control systems and traction motors that propel rapid transit cars, (2) diesel-engine exhaust noise from locomotives, (3) air-turbulence noise generated by cooling fans, and (4) gear noise. Additional noise of motion is generated by the interaction of wheels/tires with their running surfaces. The interaction of steel wheels and rails generates three types of noise: (1) rolling noise due to continuous rolling contact, (2) impact noise when a wheel encounters a discontinuity in the running surface, such as a rail joint, turnout or crossover, and (3) squeal generated by friction on tight curves.

When comparing electric- and diesel-powered trains, speed dependence is strong for electric-powered transit trains because wheel/rail noise dominates, and noise from this source increases strongly with increasing speed. On the other hand, speed dependence is less for diesel-powered commuter rail trains, particularly at low speeds where the locomotive exhaust noise dominates. As speed increases, wheel-rail noise becomes the dominant noise source and diesel- and electric-powered trains will generate similar noise levels. For transit vehicles in motion, close-by sound levels also depend upon other parameters, such as vehicle acceleration and vehicle length, plus the type/condition of the running surfaces. For very high-speed rail vehicles, air turbulence can also be a significant source of noise. In addition, the guideway structure can also radiate noise as it vibrates in response to the dynamic loading of the moving vehicle.

Transit vehicles are equipped with horns and bells for use in emergency situations and as a general audible warning to track workers and trespassers within the right-of-way as well as to pedestrians and motor vehicles at highway grade crossings. Horns and bells on the moving transit vehicle, combined with stationary bells at grade crossings can generate noise levels considered to be extremely annoying to nearby residents.

Noise is generated by transit vehicles even when they are stationary. For example, auxiliary equipment often continues to run even when vehicles are stationary - equipment such as cooling fans on motors, radiator fans, plus hydraulic, pneumatic and air-conditioning pumps. Noise is also generated by sources at fixed-transit facilities. Such sources include ventilation fans in transit stations, in subway tunnels, and in power substations, equipment in chiller plants, and many activities within maintenance facilities and shops.

The FTA has developed a screening procedure to determine to identify locations where a rail project may cause a noise impact. The screening distances for requiring noise assessments for various types of projects is presented in Table 4.11-5.

Rail transits projects included in the 2035 MTP/SCS would be located in urban areas to facilitate ridership. Sensitive land uses would be located within proximity to new rail corridors, and would potentially be exposed to noise levels that exceed acceptable standards. Mitigation Measure N-2(a) would reduce or minimize impacts from rail noise by requiring detailed project-specific assessments, and, if necessary, the identification and implementation of local mitigation measures.

The 2035 MTP/SCS also includes new facilities that encourage more efficient intermodal transport using rail. The number of freight trains currently operating each day is dependent upon the demands of the industries using rail services and can vary greatly from day to day. While increases in freight rail transport would increase the number of freight trains, these trains

would likely operate as-needed rather than on a fixed schedule. Therefore, noise levels and frequency of passby trips would continue to vary daily. Overall, however, an increase in train volumes would cause an increase in noise levels adjacent to rail corridors. Mitigation Measure N-2(a) would reduce or minimize impacts from freight rail noise.

Table 4.11-5
Screening Distances for Noise Assessments - Rail Transit Projects

Type of Project		Screening Distance (Feet)	
		Unobstructed	Intervening Buildings
Commuter Rail Mainline		750	375
Commuter Rail Station	With Horn Blowing	1,600	1,200
	Without Horn Blowing	250	200
Commuter Rail -Highway Crossing with Horns and Bells		1,600	1,200
Rail Rapid Transit		700	350
Rail Rapid Transit Station		200	100
Light Rail Transit		350	175
Access Roads		100	50
Low- and Intermediate-Capacity Transit	Steel Wheel	125	50
	Rubber Tire	90	40
	Monorail	175	70
Yards and Shops		1,000	650
Parking Facilities		125	75
Access Roads		100	50
Ventilation Shafts		200	100
Power Substations		250	125

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006.

Bus Operations. The 2035 MTP/SCS includes projects to expand transit bus service. Transit services along new routes may expose sensitive receptors to bus noise. The FTA has developed a screening procedure to determine to identify locations where a bus project may cause a noise impact. The screening distances for requiring noise assessments for various types of projects is presented in Table 4.11-6.

Table 4.11-6
Screening Distances for Noise Assessments - Bus Transit Projects

Type of Project		Screening Distance (Feet)	
		Unobstructed	Intervening Buildings
Busway		500	250
BRT on Exclusive Roadway		200	100
Bus Facilities	Access Roads	100	50
	Transit Mall	225	150
	Transit Center	225	150
	Storage and Maintenance	350	225
	Park and Ride Lots with Buses	225	150

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006.

Increased frequency of bus service along existing corridors would also increase noise exposure. However, the addition of local buses and shuttles is unlikely to increase noise by significant levels as bus routes would be in urban areas with high ambient noise levels. In addition, the 2035 MTP/SCS also includes projects to replace older diesel buses with new compressed natural gas buses that produce less noise. Overall, sensitive land uses would be located within close proximity to new bus activity, and would potentially be exposed to noise levels that exceed acceptable standards. Mitigation Measure N-2(a) would reduce or minimize impacts from bus noise by requiring detailed project-specific assessments, and, if necessary, local mitigation measures.

Mitigation Measures. For transportation projects under their jurisdiction, ~~AMBAG,~~ SCCRTC, SBtCOG, and TAMC shall implement and transportation project sponsor agencies can and should implement the following mitigation measures developed for the 2035 MTP/SCS program where applicable for transportation projects that result in significant mobile source noise levels.~~operational noise impacts. Project-specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions. These measures can and should also be implemented for future infill and transit oriented development (TOD) pursuant to the 2035 MTP/SCS that would result in operational noise impacts~~.

N-2(a) Sponsor agencies of 2035 MTP/SCS projects shall complete detailed noise assessments using applicable guidelines (e.g., Federal Transit Administration Transit Noise and Vibration Impact Assessment for rail and bus projects and the California Department of Transportation Traffic Noise Analysis Protocol for roadway projects). The project sponsor shall ensure that a noise survey is conducted to determine potential alternate alignments which allow greater distance from, or greater buffering of, noise-sensitive areas. The noise survey shall be sufficient to indicate existing and projected noise levels, to determine the amount of attenuation needed to reduce potential noise impacts to applicable State and local standards. (Implementing agencies: RTPAs, transportation project sponsor agencies)

N-2(b) Where new or expanded roadways, rail, or transit projects are found to expose receptors to noise exceeding normally acceptable levels, the project sponsor shall consider various sound attenuation techniques. The preferred methods for mitigating noise impacts will be the use of appropriate setbacks and sound attenuating building design, including retrofit of existing structures with sound attenuating building materials where feasible. In instances where use of these techniques is not feasible, the use of sound barriers (earthen berms, sound walls, or some combination of the two) will be considered. Long expanses of walls or fences should be interrupted with offsets and provided with accents to prevent monotony. Landscape pockets and pedestrian access through walls should be provided. Whenever possible, a combination of elements should be used, including

solid fences, walls, and landscaped berms. (Implementing agencies: RTPAs, transportation project sponsor agencies)

Significance After Mitigation. Implementation of the recommended programmatic measures would reduce potential impacts to less than significant.

Impact N-3 **The proposed 2035 MTP/SCS land use scenario would encourage infill development and TOD, which may place sensitive receptors in areas with unacceptable noise levels. This is a Class II, *significant but mitigable,* impact.**

The 2035MTP/SCS is based on a land use and transportation scenario which defines a pattern of future growth and transportation system investment for the region emphasizing TOD and infill approach to land use and housing. Population and job growth is allocated principally within existing urban areas near public transit and existing transit corridors. New noise-sensitive development in infill and transit oriented development (TOD) areas could be exposed to noise levels exceeding the 65 dBA Ldn standard for residential land uses. Potential sources of noise exposure include traffic, rail and/or bus operations, commercial activity, and industrial activity. New development in infill and TOD areas may also expose existing noise-sensitive uses to noise levels exceeding local noise thresholds. Impacts are potentially significant. Implementation of Mitigation Measure N-3 would reduce potential impacts to less than significant.

Mitigation Measures. Cities and counties in the AMBAG region can and should implement the following measures, where relevant to land use projects implementing the 2035 MTP/SCS. ~~The following mitigation measure can and should be implemented for future infill and TOD pursuant to the 2035 MTP/SCS that would result in impacts related noise exposure. Project-specific environmental documents may adjust the mitigation measure as necessary to respond to site-specific conditions.~~

N-3 If a 2035 MTP/SCS project is located in an area with exterior ambient noise levels above local noise standards, the project sponsor shall ensure that a noise study is conducted to determine the project's contribution to projected noise levels. If deemed significant in the project-specific analysis, feasible attenuation measures shall be used to reduce noise levels below local standards. Such measures may include, but are not limited to: dual-paned windows, solid core exterior doors with perimeter weather stripping, air conditioning system so that windows and doors may remain closed, and situating exterior doors away from roads. This shall be accomplished during the project's individual environmental review. (Implementing agencies: cities and counties for land use projects)

Significance After Mitigation. Implementation of the recommended programmatic measures would reduce potential impacts to a less than significant level.

Impact N-4 **The proposed 2035 MTP/SCS could expose sensitive receptors to excessive vibration levels. This impact is Class II, *significant but mitigable*.**

The primary vibration sources associated with transportation system operations include heavy truck and bus traffic along roadways and train traffic along rail lines. However, vehicle traffic, including heavy trucks traveling on a highway, rarely generate vibration amplitudes high enough to cause structural or cosmetic damage, except in rare cases (e.g., where heavy truck traffic passes near fragile older buildings). Heavy trucks traveling over potholes or other pavement irregularities can cause vibration high enough to result in complaints from nearby residents. These conditions are commonly addressed by smoothing the roadway surface. Based on vibration measurements throughout California by Caltrans, worst-case traffic vibrations were shown to drop below the threshold of perception at distances of 150 feet or greater. Given that sensitive receptors are located within 150 feet of transportation facilities affected by the 2035 MTP/SCS, it is anticipated that significant impacts related to vibration associated with truck traffic could occur.

While Caltrans is not usually involved in rail projects, the effects of train activity on a Caltrans facility can be a concern. Thus, Caltrans conducted several measurements of train activity throughout the State and measured a peak vibration level of 0.36 inches per second PPV at ten feet from the track. Based on this reference vibration level, vibrations from train activity would drop below the threshold of perception at distances greater than 250 feet. The 2035 MTP/SCS includes the development of additional railway facilities along existing tracks. Thus, the number of daily events would increase. The highest peak vibration level would also increase relative to existing conditions. In general, additional trains passing at the same point may expose nearby sensitive receptors to a substantial increase in vibration levels relative to the existing condition.

Mitigation Measures. For transportation projects under their jurisdiction, ~~AMBAG,~~ SCCRTC, SBtCOG, and TAMC shall implement and transportation project sponsor agencies can and should implement the following mitigation measures developed for the 2035 MTP/SCS program where applicable for transportation projects that could generate excessive ~~result in~~ vibration impacts. Project-specific environmental documents may adjust these mitigation measures as necessary to respond to site-specific conditions. These measures can and should also be implemented for future infill and TOD pursuant to the 2035 MTP/SCS that would result in vibration impacts.

N-4 Project sponsors of 2035 MTP/SCS projects shall comply with all applicable local vibration and groundborne noise standards, or in the absence of such local standards, comply with FTA vibration and groundborne noise standards. Methods than can be implemented to reduce vibration and groundborne noise impacts include but are not limited to:

- maximizing the distance between tracks and sensitive uses;
- conducting rail grinding on a regular basis to keep tracks smooth;
- conducting wheel truing to re-contour wheels to provide a smooth running surface and removing wheel flats;

- providing special track support systems such as floating slabs, resiliently supported ties, high-resilience fasteners, and ballast mats; and
- implementing operational changes such as limiting train speed and reducing nighttime operations.
- (Implementing agencies: RTPAs, transportation project sponsor agencies)

Significance After Mitigation. Implementation of the recommended programmatic measures would reduce potential impacts to a less than significant level.

c. Projects That May Result in Impacts. The 2035 MTP/SCS projects are listed in Appendix B. Some may create noise impacts, as discussed herein. Table 4.11-7 provides a sample of specific projects that could result in noise or vibration impacts, such as auxiliary lane and rail projects.

Table 4.11-7
2035 MTP/SCS Projects that May Result in Noise/Vibration Impacts

AMBAG Project #	Project	Location	Impact	Description of Impact
MON-CT022-CT	SR 156 - Widening (Phase 2) at US 101	Prunedale	N-1, N-2, N-4	Potential impacts from construction and operational noise and vibration
MON-CT030-SL	US 101 - Salinas Corridor from South of Airport Boulevard to Boronda Road.	Salinas	N-1, N-2, N-4	Potential impacts from construction and operational noise and vibration
MON-CT036-CT	SR 156 - West Corridor (Phase I) from Castroville to US 101	Greater Castroville	N-1, N-2, N-4	Potential impacts from construction and operational noise and vibration
MON-CT045-CT	SR 1 - Monterey Rd Interchange	Seaside	N-1, N-2, N-4	Potential impacts from construction and operational noise and vibration
MON-MRY027-MY	SR 68 ~~Roundabout at CHOMP in Monterey~~ Interchange Improvements	Monterey	N-1, N-2, N-4	Potential impacts from construction and operational noise and vibration
MON-FRA003-MA	8th Street from Hwy 1 Overpass to Inter-Garrison (Eighth Street Cutoff)	Marina	N-1, N-2, N-4	Potential impacts from construction and operational noise and vibration
MON-GON005-GO	Fano Road in city limits to US 101	Gonzales	N-1, N-2, N-4	Potential impacts from construction and operational noise and vibration
MON-MYC241-UM	San Juan Road Improvements	North Monterey County	N-1, N-2, N-4	Potential impacts from construction and operational noise and vibration
MON-SCY015-SA	Tioga widening	Sand City	N-1, N-2, N-4	Potential impacts from construction and operational noise and vibration

Table 4.11-7
2035 MTP/SCS Projects that May Result in Noise/Vibration Impacts

AMBAG Project #	Project	Location	Impact	Description of Impact
MON-SNS012-SL	Boronda Rd. Widening from Natividad to Williams	Salinas	N-1, N-2, N-4	Potential impacts from construction and operational noise and vibration
MON-MST008-MST	Salinas-Marina Multimodal Corridor along Davis and Reservation Roads	Marina to Salinas	N-1, N-2, N-4	Potential impacts from construction and operational noise and vibration
MON-TAMC002-TAMC	Monterey Branch Line Light Rail - Salinas River Bridge Replacement	Between Marina and Castroville	N-1, N-2, N-4	Potential impacts from construction and operational noise and vibration
SB-CT-A01	SR 156 Widening	San Benito County	N-1, N-2, N-4	Potential impacts from construction and operational noise and vibration
SB-CT-A17	Airline Highway: Widening to a 4 lane expressway ~~State Route 25 Widening:~~ Sunset Drive to Fairview Rd.	Hollister	N-1, N-2, N-4	Potential impacts from construction and operational noise and vibration
SB-SBC-A04	Union Road Widening (East)	San Benito County	N-1, N-2, N-4	Potential impacts from construction and operational noise and vibration
SC-RTC 24e-RTC	3 - Hwy 1: Park Avenue to Bay/Porter Auxiliary Lanes	Capitola	N-1, N-2, N-4	Potential impacts from construction and operational noise and vibration
~~RTC 01SC~~ RTC 24fSC	41st to Soquel Ave. Auxiliary Lanes and Chanticleer Bike/Pedestrian Bridge	Santa Cruz County	N-1, N-2, N-4	Potential impacts from construction and operational noise and vibration
SC-RTC-24g-RTC	Hwy 1: State Park Dr. to Park Ave. Auxiliary Lanes	Santa Cruz County	N-1, N-2, N-4	Potential impacts from construction and operational noise and vibration
~~WAT 01SC~~ WAT 01A	~~Hwy 1/ Harkins Slough Road Interchange~~ Hwy 1/Harkins Slough Corridor Improvements	Watsonville	N-1, N-2, N-4	Potential impacts from construction and operational noise and vibration
MON-MST011-MST	Salinas Bus Rapid Transit	Salinas	N-1, N-2, N-4	Potential impacts from construction and operational noise and vibration
MON-TAMC001-TAMC	Monterey Branch Line Light Rail	Castroville	N-1, N-2, N-4	Potential impacts from construction and operational noise and vibration
MON-TAMC003-TAMC	Rail Extension to Monterey County	Monterey County	N-1, N-2, N-4	Potential impacts from construction and operational noise and vibration
MON-TAMC004-TAMC	Amtrak Coast Daylight Rail Service	Monterey County	N-1, N-2, N-4	Potential impacts from construction and operational noise and vibration

Table 4.11-7
2035 MTP/SCS Projects that May Result in Noise/Vibration Impacts

AMBAG Project #	Project	Location	Impact	Description of Impact
SC-RTC-P02-RTC	Rail Transit: Watsonville-Santa Cruz Corridor	Santa Cruz County	N-1, N-2, N-4	Potential impacts from construction and operational noise and vibration
SC-RTC-P25-VAR	Transit Oriented Development Grant Program	Regional	N-1, N-2,N-3, N-4	Potential impacts from construction and operational noise and vibration

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4.12 TRANSPORTATION AND CIRCULATION

4.12.1 Setting

The existing transportation system in the region consists of a complex network of state and federal highways, local streets and roads, transit services, a series of bicycle paths and pedestrian walkways, railroad lines, and a number of aviation facilities.

a. Roadway Network. The following discussion summarizes material provided in the Monterey, San Benito, and Santa Cruz County General Plans as referenced in Section 3.0, *Environmental Setting*, of this EIR. The roadway network within the region totals approximately 4,400 ~~nearly 4,300~~ centerline miles. Approximately 171 centerline miles are classified in the 2035 MTP/SCS as "Freeway/Expressway," 217 centerline miles as "Other Principal ~~Primary~~ Arterial," 329 centerline miles as "Minor Arterial," 852 centerline miles as "Collector," and 2,842 centerline miles as "Local." Of the regional centerline mileage, over half (53.3 percent) is under the jurisdiction of a County in the region, while approximately 21.8 percent is under the jurisdiction of a City within the region. An estimated 11.7 percent is under Caltrans jurisdiction, while the remainder is under various state and federal jurisdictions, as follows: California Department of Parks and recreation (9.2 percent); U.S. Forest Service (2.9 percent); Bureau of Land management (0.8 percent); National Park Service (0.2 percent); and the California Department of Forestry (0.1 percent).

Within the region, the designated routes in the national highway system are all state or federal highways (Highway 101 for its entire length through the region, Highway 156 from Highway 101 to Highway 1, and Highway 1 from Highway 17 in Santa Cruz to Highway 68 in Monterey). Vehicle travel served by these highways includes all trip lengths and trip purposes, ranging from external trips to and from the region, external trips traveling through the region (e.g. from San Jose to Los Angeles on Highway 101), and internal travel between points within the region.

The three counties and 18 incorporated cities within the region are responsible for an extensive network of city and county roads. Major highway routes through the region include Highway 101 (a north-south route primarily serving Monterey County, and connecting through San Benito County and the San Jose/San Francisco Bay area), Highway 1 (which closely follows the Pacific coastline and is the single longest highway in the region, attracting substantial recreational/tourist traffic), Highway 17 (which connects Santa Cruz and the San Jose Area, carrying a high volume of both commuter and recreational traffic), Highway 68 and Highway 183 in Monterey County, Highway 25 and Highway 156 in San Benito County, and Highway 9 and Highway 129 in Santa Cruz County. These highways and other expressways, arterials and collectors not only serve local traffic, but provide access and mobility for trips beginning and/or ending outside the region.

Table 4.12-1 identifies the major roadways in the region and current roadway congestion issues. The location of these and other roadways are shown in Figure 4.12-1.

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2035 Regional Highway Network

Figure 4.12-1

Table 4.12-1
Route Descriptions and Congestion Issues

Route	Length	Details
State Route 1	139.8 miles	Highway 1 (SR 1) is one of two routes that traverse the entire region, connecting the Monterey Bay Area to its north and south neighbors. This important highway provides the primary access to the region's coastal areas, as well as serving the needs of residents and visitors to much of the region's urbanized areas, and assisting with agricultural commodity movement. SR 1 is designated a California State Scenic Highway from the intersection with State Route 68 southward to the San Luis Obispo County Line. At the Santa Cruz and San Mateo County border, SR 1 is designated a California State Scenic Highway as it travels north towards San Francisco. SR 1 changes in character as it snakes down the Pacific Coast, from a rural, undivided two lane highway, to a four lane arterial, to a four lane divided highway, and finally to a six lane divided highway.
State Route 9	25.7 miles	Highway 9 is a two-lane rural highway as it enters the region from San Mateo County in the Santa Cruz Mountains. It is a slow but scenic 27-mile forested route between the cities of the Santa Clara Valley and Santa Cruz at its junction with Highway 1. Highway 9 serves communities in the San Lorenzo Valley, including Boulder Creek, Ben Lomond, and Felton, and is a heavily used commuter and recreational travel route.
State Route 17	12.5 miles	Highway 17 is a four-lane freeway/expressway providing the shortest travel distance between the Santa Clara Valley and Santa Cruz County. Travelers to and from the San Francisco Bay area and Santa Cruz County use Highway 17. The route is heavily used for recreational travel on weekends and for commuter travel on weekdays and is therefore subject to delay. Starting at the Santa Clara/Santa Cruz County line near Summit Road, Route 17 is a rolling to mountainous route, with slopes from 4-6%. Segments along this route are narrow, do not have shoulders, or have a narrow median with guard rail. Highway 17 reached its design capacity of 40,000 vehicles per day in 1968. Although this route has no signalized intersections, there are several unsignalized intersections with acceleration/deceleration lanes as well as t-intersections with local roads. Just south of Scotts Valley, Highway 17 becomes a freeway with shoulders. The freeway portion terminates at the interchange with Highway 1 in the City of Santa Cruz. The program Safe on 17 has been an effective collaboration between Caltrans, the CHP, and local and elected officials to encourage motorists to slow down and use caution on Route 17.
State Route 25	72.1 miles	State Route 25 enters the region in the north about two miles south of its interchange with U.S. 101 in Santa Clara County. Although only a two lane undivided highway, it provides the most direct connection between U.S. 101 and the City of Hollister, as well as being the sole north-south highway route for the rest of San Benito County. Highway 25 is mainly a two lane undivided roadway from the Santa Clara/San Benito County line and the intersection with Highway 198 in southern Monterey County. In this section, Highway 25 provides direct access to the East Entrance to Pinnacles National Park. Due, in part, to both differences between housing market costs and a jobs/housing imbalance, increasing commute travel from residents from San Benito County to Santa Clara County has substantially impacted the operation of Highway 25, especially from Hollister to the Santa Clara County line.

Table 4.12-1
Route Descriptions and Congestion Issues

Route	Length	Details
State Route 68	22 miles	State Highway 68 begins at Asilomar State Beach in the City of Pacific Grove, and is the only highway access from Pacific Grove to Highway 1. At Highway 1, the routes merge for about three miles, then Highway 68 continues easterly past the Laguna Seca Recreation Area and Monterey County's Toro Regional Park and on into Salinas, where it connects to US 101. Highway 68 is the most direct highway link between the Monterey Peninsula and the City of Salinas and is heavily used by commuters and visitors. State Highway 68 is a designated California State Scenic Highway from its intersection with State Route 1 in Monterey to the Salinas River. From Asilomar State Beach to State Route 1, Highway 68 is a steep two-lane highway with narrow shoulders, many curves and signalized intersections. From Highway 1 eastbound, Highway 68 is a four-lane divided road for less than a mile before narrowing to a two-lane undivided rural highway (with signalized intersections), to Toro Park, where it becomes a four-lane freeway to the Spreckels interchange. From here to Blanco Road in the City of Salinas it is a four-lane expressway, where it becomes a signalized arterial (South Main Street and John Street) through Salinas to Highway 101. Motorists experience substantial delay on Highway 68 due to its heavy use and signalized intersections.
U.S. Route 101	107.6 miles	The only federal highway in the region, US 101 enters the region at the northwest corner of San Benito County as a four-lane freeway/expressway. US 101 is the main north-south route for the region, used heavily by residents of the region, and for external trips to and through the region. It is an important truck route along its entire length. Near Prunedale travel demand significantly outpaces capacity. This section is characterized by at-grade intersections trying to serve increasing commuter, recreational and truck traffic. At the northern boundary of the City of Salinas, US 101 has been improved to a freeway through the urbanized area, and then it continues as an expressway southward toward the Monterey/San Luis Obispo line, with alternating segments of four lane divided expressway and freeway.
State Route 129	14.1 miles	Highway 129 starts in Watsonville at Highway 1, running east to terminate at US 101 in San Benito County. Route 129 traverses hilly terrain with sharp curves and steep grades. It provides the shortest route between the agriculture center of Watsonville and US 101, and therefore carries a large volume of heavy trucks; especially since SR 152 is off limits for semitrailer trucks over 45 feet in length. Highway 129 is a four-lane facility from Highway 1 to the Watsonville City limits, where it narrows to a two-lane rural road with narrow or no shoulders. The terrain it traverses, and the resulting roadway characteristics place severe limits on speeds and volume.
State Route 146	18.3 miles	SR 146 is two separate rural two-lane roads, one from US 101 in Monterey County east, and the other from Highway 25 in San Benito County west. These roads do not connect for travel across the Gabilan Mountains, but do provide access to Pinnacles National Park via its western and eastern entrances, respectively.
State Route 152	11.4 miles	SR 152 begins in Santa Cruz County at its intersection with Highway 1, then traverses Hecker Pass between Watsonville and Gilroy in Santa Clara County. SR 152 is primarily a two-lane undivided highway from Highway 1 to US 101. At Highway 1, SR 152 is a four lane divided expressway to Elkhorn Road in Pajaro. Leaving Watsonville, the highway enters hilly terrain, resulting in a very winding road up over Hecker Pass (Mt. Madonna) near the Santa Cruz/Santa Clara County line. Due to safety concerns, the Santa Cruz County Regional Transportation Commission requested and received prohibitions for trucks over 45 feet in length on the Hecker Pass portion of Highway 152. These trucks are diverted to Highway 129 and other routes.

Table 4.12-1
Route Descriptions and Congestion Issues

Route	Length	Details
State Route 156	23.9 miles	SR 156, like SR 129 and SR 152, is a major route connecting US 101 and Highway 1. Starting from its interchange with Highway 1 and SR 183 in Castroville, the highway merges with US 101 in Prunedale, then becomes a separate route again near San Juan Bautista, where it continues easterly north of Hollister to the Santa Clara County line just south of its terminus with Highway 152. SR 156 is a California State Scenic Highway from one mile east of Castroville to its intersection with U.S. 101 near Prunedale. Like SR 129, SR 156 begins as a four-lane divided facility then becomes a two-lane undivided highway. It is considered a bottleneck between Highway 1 and US 101 during peak periods and weekends. At San Juan Bautista SR 156 begins as a four-lane divided expressway, but after 3 miles becomes a two-lane, undivided highway to approximately one mile east of Hollister. SR 156 is a two-lane expressway as it bypasses Hollister and maintains that configuration to the Santa Clara County line. Business Route 156 is a two-lane rural highway from SR 156 (Bypass) to north of Hollister, where it becomes a four-lane expressway from San Felipe Road to the end of the Bypass.
State Route 183	10.1 miles	SR 183 is a rural two-lane highway connecting Castroville and Salinas. In Castroville, SR 183 is known as Merritt Street and begins at an at-grade interchange with Highway 1. SR 183 from Highway 1 to Davis Road in the City of Salinas is congested, particularly during commute hours on weekdays. It also experiences high rates of agricultural truck traffic movement. In the City of Salinas, the highway becomes two four-lane divided arterials on Market and North Main Streets. SR 183 terminates at the US 101 on-ramp south of Bernal/North Main Street.
State Route 198	26.2 miles	SR 198 is a two-lane conventional highway beginning at US 101 just west of San Lucas in South Monterey County and continuing east to the Fresno County line. Traffic volumes are low and are primarily interregional.
State Route 236	16.4 miles	SR 236 is a two-lane rural road that provides access from SR 9 at Boulder Creek west to Big Basin Redwoods State Park. Passing through the park, Highway 236 first heads north and then east to reconnect with SR 9 approximately 8 miles north of Boulder Creek.

Source: California Department of Transportation, Transportation Planning Fact Sheets, 2013.

Operations. A variety of performance measures are used to assess transportation systems. Depending on the type of performance evaluation required, performance measures may be very specific and focus on intersections or roadway segments, or performance measures may be aggregated to evaluate the overall operation of a regional transportation system. A regional travel model typically only contains information on the number of lanes and link capacity on roadway segments and lacks information detailed enough to calculate accurate intersection information.

Because of the programmatic nature of the proposed 2035 MTP/SCS, the performance measures discussed herein are aggregated by county and as a region to evaluate the overall performance of the transportation system. Transportation performance measures that address performance goals include:

- Total daily hours of vehicle delay;
- Peak period ~~hour~~ and total congested vehicle miles traveled;
- Percent of work trips that are 30 minutes or less by transit during peak period;

- Average work trip travel time during peak period; and
- Percent of jobs within ½ mile of a high quality transit stop.

Daily vehicle hours of delay is calculated by determining the difference between the estimated travel time under actual (often congested) conditions and under uncongested conditions, for each highway and roadway segment and each ~~hour~~ period of the day. These ~~hourly~~ delays per vehicle are multiplied by the ~~annual~~ average ~~hourly~~ traffic for each period ~~hour~~, and summed to get total daily vehicle hours of delay. Table 4.12-2 shows the existing vehicle hours of delay for each county in the AMBAG region, and the region as a whole.

Table 4.12-2
Existing Vehicle Hours of Delay (2010)*

County	Total Daily Vehicle Hours of Delay
Monterey	~~14,426~~ 15,193
Santa Cruz	~~25,148~~ 15,668
San Benito	~~4,683~~ 3,206
AMBAG Region	~~44,257~~ 34,067

**Excludes external connectors*

VMT increases are associated with regional growth that would occur with or without the 2035 MTP/SCS. Thus, the data may not reflect deficient traffic operations. Congested Vehicle Miles Traveled (CVMT) measures the number of vehicle miles traveled in the AMBAG region in congested conditions. CVMT is defined as the total daily number of vehicle miles traveled on roadway networks ~~(on freeways and/or roadways)~~ in conditions with a volume-to-capacity (V/C) ratio greater or equal to 1.0 during peak periods (6:00 ~~7:00~~ A.M. -9:00 A.M. and 4:00 P.M. – ~~6:00~~ 7:00 P.M.).

Table 4.12-3 shows the V/C ratio standards which are used to determine performance of a transportation system. When the V/C ratio of a given transportation system is less than 1.0, the system performs acceptably. When the V/C ratio is greater or equal to 1, the capacity of the system has been exceeded and is considered congested.

Table 4.12-3
V/C Performance Standards

V/C Ratio	Performance Standard	
< 1.0	Below Capacity	Acceptable
≥ 1.0	Exceeds Capacity	Congested

Table 4.12-4 shows the existing total daily CVMT for freeways, principal arterials, all other roadways and total roadways for the AMBAG region.

Other metrics used to evaluate current and future operations include the percent of work trips that are 30 minutes or less by transit during peak period. This measures the general effectiveness of improvements focused on increasing transit use as the mode of choice for work trips. The average work trip travel time during the peak period is a general comparison of

overall commute time reductions associated with transportation improvements. Linking transit access with employment centers is another measure of effectiveness. Specifically, the 2035 MTP/SCS focuses on increasing the percentage of jobs within ½ mile of a high quality transit stop. A high quality transit corridor is defined as a corridor that contains transit service with 15 minute frequencies during peak period ~~hours~~ or a corridor that contains a rail stop. In 2010, 16.4 percent of jobs in the AMBAG region were within ½ mile of a high quality transit stop. Improvements to transit service and access is intended, in part, to reduce the average work trip travel time during the peak period. Baseline conditions show the average work trip travel time is ~~15.49~~ 15.7 minutes.

Table 4.12-4
Existing Daily Congested VMT (2010)*

Functional Class	Total CVMT A.M. (6:00 ~~7:00~~-9:00)	Total CVMT P.M. (4:00-7:00 ~~6:00~~)	Total CVMT Mid-Day (9:00 A.M.– 4:00 P.M.)	Total CVMT Nighttime (7:00 P.M. to 6:00 A.M. ~~9:00 P.M.~~)	Total Daily CVMT
Freeways or Expressways	~~7,098~~ 0	~~47,095~~ 63,115	~~183,639~~ 233,660	0	~~237,832~~ 296,775
Principal Arterials	~~21,853~~ 1,960	~~61,525~~ 62,608	~~115,165~~ 211,019	0	~~198,543~~ 275,587
Minor Arterial, Minor Collector, Major Collector, and ~~or~~ Local Roadways	~~127~~ 0	~~1,087~~ 780	~~5,582~~ 4,370	0	~~6,796~~ 5,150
Total Freeways and Roadways	~~29,078~~ 1,960	~~109,707~~ 126,503	~~304,386~~ 449,049	0	~~443,171~~ 577,512

*Excludes ramps, external connectors, and centroid connectors

b. Transit Service. Fixed route transit service is provided in Monterey County by Monterey-Salinas Transit (MST), in San Benito County by San Benito County Express and in Santa Cruz County by the Santa Cruz Metropolitan Transit District (METRO).

Monterey County. MST serves Monterey County Cities of Carmel, Del Rey Oaks, Marina, Monterey, Pacific Grove, and Seaside, the City of Salinas, as well as the South County communities of Chualar, Gonzales, Soledad, Greenfield, and King City. MST also provides public transit service in areas of unincorporated Monterey County, including the communities of Castroville, Pajaro, Prunedale, Moss Landing, Toro Park, Carmel Valley, Carmel Highlands, and Big Sur. To assist inter-regional connections, MST serves the Watsonville Transit Center in Santa Cruz County as well as the Gilroy Caltrain station in Santa Clara County. MST had 4,081,520 unlinked trips (fixed route system) in Fiscal Year 2012-2013.

Santa Cruz County. METRO provides essential bus transit services for all local residents, including students, Highway 17 commuters, transit dependent, and choice riders. The county's network for local and express bus routes includes transit centers in Felton, Scotts Valley, Santa Cruz, Capitola, and Watsonville. METRO buses serve 479 miles of road throughout the County and cover the majority of arterial and collector routes. Transit to Monterey County is provided at the Watsonville Transit Center via connections with MST. Greyhound provides service from Santa Cruz to surrounding regions. Santa Cruz Metro had 5,477,976 unlinked trips (fixed route system) in Fiscal Year 2012-2013.

San Benito County. San Benito County Express is the primary transit provider in the county of San Benito with service in Hollister and countywide via intercity connections. The County Express system currently provides three fixed routes in the City of Hollister, complementary Americans with Disability Act (ADA) Paratransit service and a general public Dial-A-Ride. San Benito County Express had 29,240 unlinked trips in Fiscal Year 2012-2013 within the City of Hollister. During this same period, intercounty ridership was 40,910 unlinked trips which includes services to Gilroy and Gavilan Community College.

c. Air Transportation. The AMBAG region has six publicly-owned civil aviation airports: the Monterey Peninsula Airport; the Salinas Municipal Airport; the King City Municipal Airport (Mesa Del Rey); the Watsonville Municipal Airport; the Hollister Municipal Airport; and the Marina Municipal Airport. Of these airports, only the Monterey Regional Airport provides scheduled air carrier service.

In addition to the six publicly-owned airports, there are several private airports in the region. Of these, the San Ardo and Frazier Lake airports allow public use. The remainder of the privately owned airports are used primarily for agricultural or business purposes.

Several civil aviation helipads are maintained for helicopter use in the region, including the Mee Hospital helipad in King City, a Texaco helipad in San Ardo, the Soledad Correctional Training Facility helipad, the Watsonville Community Hospital helipad, the Alta Vista helipad near Watsonville, the Dominican Hospital helipad, the Hollister Municipal Airport helipad, and the Hazel Hawkins Memorial Hospital helipad in Hollister.

Currently, there are two operational military airfields in the region: Camp Roberts Army Airfield and Heliport and the Hunter-Liggett Army Airfield.

d. Marine Transportation. Marine transportation activities along the coastal land areas are related to recreation and commercial fishing. There are no general cargo or passenger ship terminals in the region. Public use marine facilities on the Monterey Bay include the Monterey Harbor and the Moss Landing Harbor in Monterey County and the Santa Cruz Harbor in Santa Cruz County.

e. Rail Transportation. The rail network within the region includes all rail lines or other facilities currently served by a railroad for passenger or freight movement, rail lines used for recreational service, rail lines not currently in use, and abandoned rail lines or facilities (either with or without track). With the exception of Watsonville Junction, all of the region's rail lines are single track. Some of the abandoned rail lines have been converted to bicycle/pedestrian trail use.

Passenger Rail. Amtrak provides the only commercial intercity passenger rail transportation available in the Monterey Bay region. Amtrack trains share the Union Pacific Railroad main line tracks. There is one passenger rail station located in the City of Salinas at 30 Railroad Avenue in the City of Salinas.

Monterey County. Both passenger and freight rail service are available in Monterey County. Amtrak provides rail service twice daily via a station stop in Salinas. Four freight

stations are located in Castroville, Gonzales, Salinas, and Watsonville Junction (Pajaro Community Area). Monterey County is currently planning new rail service along the Monterey Branch Line and an extension of the Capital Corridor to Salinas.

Santa Cruz County. Freight rail service, once operated by Southern Pacific Railroad and then by Union Pacific and nowMonterey Bay Railway ~~(by Iowa Pacific Holdings)~~ has been a historically important form of transportation within Santa Cruz County. There are currently three rail lines in or adjacent to Santa Cruz County: The Santa Cruz Branch rail line extends from Watsonville junction in Pajaro north to Davenport and passes through much of the county's urban area. The Felton Branch line is owned and operated by the private Santa Cruz Big Trees and Pacific Railway Company. It primarily provides summertime and holiday excursions between Felton and the Beach Boardwalk in Santa Cruz and is also occasionally used for freight. The Coast Rail Route is Union Pacific main coastal line extending from San Jose to San Diego. The Santa Cruz Branch line was purchased by the County in ~~2010~~2012. The County is currently identifying rail service opportunities on the Santa Cruz Branch rail line. A stop for the proposed Amtrak Coast Daylight service is planned at the Pajaro Station at the Watsonville Junction.

San Benito County. There is currently no passenger rail service in San Benito County. The County Express provides a connection to commuter and regional rail service in Gilroy, which is located in southern Santa Clara County.

Rail Freight. The majority of rail freight service in the region is provided by the Union Pacific Railroad Company with a small section in Santa Cruz County operated by Iowa Pacific. Agricultural produce and construction materials are the principal rail freight shipments in the region. Freight service is provided (although currently it is seldomly used) along the Coast Line, the rail line between Watsonville Junction and the City of Santa Cruz, the Davenport branch line and the Hollister spur.

Rail freight service to Hollister and northern San Benito County is provided by the Union Pacific Hollister Branch line. All rail facilities in San Benito County are owned and operated by the Union Pacific Railroad.

f. Bicycle/Pedestrian Facilities. ~~As shown in Figure 4.12-2: 2035 Regional Bicycle Network, T~~the AMBAG region has approximately ~~1,068~~ 1,446 miles of bikeways. There are several major bike routes through the region including the Monterey Bay Sanctuary Scenic ~~Coastal~~ Trail.

Monterey County. Monterey County has ~~714~~ 887 miles of bikeways. One of the major continuous bikeways in the county is the Monterey Bay Coastal Bike Trail, which is approximately 29 miles long stretching from Castroville to the Monterey Peninsula and parts of Pebble Beach. The Monterey Bay Costal Bike Path runs adjacent to the Fort Ord Dunes State Park located between the cities of Seaside and Marina. The state park also has its own bike path that is accessible on on both ends of the Fort Ord Dunes Park from the Monterey Costal Bike Path.The planned Monterey Bay Sanctuary Scenic Trail Network would merge a bicycle/pedestrian trail along the rail line that includes coastal alignments and neighborhood spurs that link a county-wide bicycle network. The trail will serve transportation, recreation and interpretive uses for walkers, joggers and bicyclists.

Santa Cruz County. Santa Cruz County has approximately ~~216~~ 366 miles of bikeways that comprise an extensive network of resources linking cities throughout the County. Many of the County's major collector and arterial roadways have been established as Class II bikeways (bike lanes). There are few Class I bikeways (bike paths) in the County. Sidewalks and pedestrian infrastructure are located throughout the urbanized areas of the county and considered in all new project design projects.

San Benito County. San Benito County has approximately ~~140~~ 193 miles of bikeways. Bicycle facilities in San Benito County are generally concentrated in and around Hollister. Within the City of San Juan Bautista a short section of San Juan Highway is in the northern part of town has designated bike lanes. The Juan Bautista de Anza National Historic Trail traverses San Juan Bautista and the western part of the county. The cities of Hollister and San Juan Bautista generally have continuous sidewalks on most streets in their central and core areas and in newer neighborhoods. Pedestrian sidewalks in unincorporated areas of the county are generally provided in discontinuous segments or they are non-existent.

g. Transportation Demand Management/Transportation System Management. Transportation Demand Management (TDM) refers to all ~~non-construction~~ programs and strategies which are intended to reduce the number of trips required over the transportation network or shift the distribution of trips between time periods across the network. Transportation System Management (TSM) represents a variety of management techniques designed to improve the efficiency and effectiveness of the transportation system. These techniques improve operations and/or services ~~prior to building new capacity~~ of existing and future transportation networks.

Traffic Congestion Management. The Department of Energy's (DOE) Fuel Efficient Traffic Signal Management (FETSIM) Program has assisted in increasing the number of synchronized traffic signals within the region to promote free flowing traffic conditions, less use of vehicle fuel and decreased pollution due to less congestion. In the past, some jurisdictions within the region have implemented minor design improvements to the existing transportation infrastructure in lieu of costly capital construction or reconstruction. In the future, signalization, channelization and the construction of acceleration and deceleration lanes with ramp metering at key interchanges are expected to achieve traffic flow improvements.

Intermodal Transportation. Traffic engineers and transportation planners in the AMBAG region have employed one or more of the following methods of enhancing intermodality to increase the use of the existing transportation capacity more efficiently:

- Coordinate transit routes and schedules with those of inter-city rail and bus service;
- Provide amenities and facilities for bicycle and pedestrian access to transit stops;
- Facilitate and encourage access to the regional air carrier airport by paratransit, and transit; taxi and bicycle; and
- Provide park and ride facilities with bicycle, pedestrian and transit access amenities.

Ridesharing. Rideshare programs help reduce congestion and improve traffic flow. AMBAG, with grant assistance from MBUAPCD, has successfully implemented a subsidized vanpool program for traditional users as well as agriculture workers. Rideshare and carpool

programs exist throughout the Monterey Bay region to facilitate ridesharing. To support ridesharing programs, there are fifteen formal, informal and joint use park and ride lots in the Monterey Bay region. Santa Cruz County has two formal park and ride lots and four joint use lots. San Benito County has two formal park and ride lots, while Monterey County commuters have four formal park and ride lots from which to choose.

Preferential Transit/Carpool Treatment. Methods employed by local jurisdictions to encourage people to reduce their use of single-occupant vehicles include: preferential parking for carpools and vanpools; subsidized transit passes; use of agency vans for vanpooling and provision of an on-site transportation coordinator. Regional transit agencies strive to ensure that the major developments within their service areas are transit accessible, and that transit stops are located to promote transit use.

Parking Management. Parking management refers to programs that result in more efficient use of parking resources and can either provide an incentive or disincentive to single occupant vehicle use. Parking facilities that are shared between multiple users and destinations are found within the region. Park-and-ride lots are a form of off-site shared parking facilities. Park-and-ride lots within the region have been placed in locations where people can easily meet and form carpool trips. In an effort to encourage ridesharing, there are fifteen formal, informal, and joint use park and ride lots in the Monterey Bay region. Of the six park and ride lots that serve Santa Cruz County commuters, four are publically owned and two are shared use by agreement with local churches. San Benito County has two formal park and ride lots, while Monterey County commuters have four formal park and ride lots from which to choose. Parking garages are frequently associated with shared parking in the Monterey Area and are located near destinations attracting a large number of visitors. Parking regulations which control when and how long vehicles may park and the cost of the parking in a location is another form of parking management in the region.

4.12.2 Impact Analysis

a. Methodology and Significance Thresholds. Thresholds of significance to determine whether implementation of the 2035 MTP/SCS would result in significant traffic/circulation impacts were chosen in part by determing which effects of the 2035 MTP/SCS can be measured by available modeling tools. The thresholds of significance outlined in this section are consistent with the policies and performance standards detailed in the 2035 MTP/SCS.

Traffic Performance Standards and Thresholds. Traffic projections for the 2035 MTP/SCS were generated by AMBAG's Rregional Ttravel Ddemand Mmodel (RTDM). Regional travel demand models typically do not have sufficient network detail to allow prediction of intersection turning volumes and delays when estimating travel time and transportation system performance. A regional travel model typically only contains information on the number of lanes and link capacity on roadway segments and lacks information detailed enough to calculate accurate intersection information. Because regional travel demand models provide link volumes on freeways and main arterials, as well as all links ~~the majority of~~ collectors, these link volumes are used for computational efficiency to calculate freeway and roadway segment V/C ratios. As such, performance standards related to total delay and CVMT

are based on V/C ratios of freeway and roadway segments throughout the AMBAG region and do not reflect delay that may be associated with intersections.

The RTDM ~~travel demand model~~ allows AMBAG to obtain an understanding of the transportation network performance characteristics (e.g., vehicle speeds, volume to capacity relationships, travel time, vehicle miles of travel) and estimate how socioeconomic changes (e.g., population increases, land use development) will impact travel demand. AMBAG applies CARB's EMFAC 2011 model to compute air quality information such as fuel consumption and vehicle emissions). The regional model allows for comparisons of different scenarios. Furthermore, consequences of future changes or absence of change to the transportation system itself (e.g., building new facilities, improving existing facilities, or doing nothing at all) can be analyzed.

The 2035 MTP/SCS established several performance indicators for the overall regional transportation system based on model outputs of the RTDM ~~travel model~~. As discussed above, the following performance indicators are used to determine potential impacts to the transportation system associated with implementation of the 2035 MTP/SCS:

- Total daily hours of vehicle delay (VHD);
- Peak periods ~~hour~~ and total congested vehicle miles traveled (CVMT);
- Percent of work trips that are 30 minutes or less by mode during peak period;
- Average work trip travel time during peak period; and
- Percent of jobs within ½ mile of a high quality transit stop

It is important to emphasize that population growth, urbanization and volume of average daily traffic generated in the AMBAG region will increase by 2035, with or without implementation of the 2035 MTP/SCS. This increase is expected to occur as a result of a range of demographic and economic factors independent of policy and land use decisions by AMBAG and its member agencies. In light of this, the analysis below describes operational changes relative to both a current (2010) baseline and a year 2035 baseline scenario (No Project). The evaluation describes the full effect of the proposed 2035 MTP/SCS in combination with future growth that would occur as compared to existing baseline conditions. However, impacts and mitigation measures are based on the increment of physical change resulting from the 2035 MTP/SCS, rather than the future regional growth that would occur regardless of whether the plan is adopted and implemented.

The criteria for determining whether the 2035 MTP/SCS would have significant environmental impacts related to transportation and traffic were based in part on the environmental checklist in Appendix G of the State CEQA Guidelines (14 CCR 15000 et seq.) and performance measures established by AMBAG. According to the State CEQA Guidelines, significant impacts to transportation and traffic would occur if the plan would:

- *Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways pedestrian and bicycle paths, and mass transit;*
- *Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways; or*
- *Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.*

In addition to the above thresholds, CEQA requires projects be evaluated relative to the following thresholds:

- *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;*
- *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or*
- *Result in inadequate emergency access.*

These additional criteria are related to project specific analyses that would occur in the future as projects within the 2035 MTP/SCS undergo environmental review. Thus, they are not used herein to determine whether significant traffic/transportation impacts would occur as a result of the 2035 MTP/SCS.

Transit Performance Standards. The three major transit providers in the AMBAG planning area have transit performance standards. These service standards are used by AMBAG to evaluate transit service and identify transit deficiencies in past regional transit studies. The standards that could be quantified, and against which existing data could be measured, were selected as transit performance standards for this analysis. The transit performance standards for each transit operator are described below:

Monterey Salinas Transit. Different geographic regions in the MST service area have different levels of service frequency, which affects overall performance. Levels of service categories and service frequency goals are described in Table 4.12-5, MST Service Frequency Characteristics.

Table 4.12-5
MST Service Frequency Characteristics

Service	Frequency	Characteristics
BRT	10 minutes in peak 15 minutes off-peak	The JAZZ line is a 6.75-mile BRT service extends from the Sand City Station, along Fremont in Seaside and North Monterey, through downtown Monterey and along the visitor-intensive Lighthouse Avenue corridor, and turns around for a return trip stopping by the Monterey Bay Aquarium.
Neighborhood/ DART	60 minutes	Connects low-density residential areas with trunk service or transit centers.
Local	30 minutes	Connects residential areas with major traffic generators and transit centers.
Primary	15 minutes	Connects major traffic generators and transit centers during peak periods. Frequencies less than 15 minutes operated during peak hours as needed.
Regional	30 – 60 minutes	Connects urban areas and outlying rural areas with major traffic generators.
Seasonal/ Special Events	Frequency and routing characteristics determined by demand.	

Source: MST Business Plan & Short Range Transit Plan (2005) and personal communication with Hunter Harvath, MST, December 13, 2013.

Santa Cruz METRO. Santa Cruz METRO strives to strike a balance between frequency of service and span of service. As such, during the early morning and late evening, service headways are longer to provide a minimum level of service. Service operates in rural areas every 30 minutes during peak hours and every 90 minutes during off-peak hours. Rural transit routes are designed and intended to serve populations in rural unincorporated areas. These transit routes may start within an incorporated city and must end within the same incorporated city of which it started. Also the majority of their mileage must be in a rural unincorporated area. Service operates on intercity lines every 15 minutes during peak hours and every 30 minutes during off-peak hours. Intercity routes are defined as a category of transit routes that are designed to travel between incorporated cities and may travel through rural areas and/or unincorporated areas. The headways defined in these service standards are for having a transit option traveling along a given corridor, not headways of a single route.

Local service operates in local areas every 60 minutes during peak and off-peak hours. Local service is defined as a category of transit routes that are designed to travel within and/or around an incorporated city.

University (UCSC) service operates every 10 minutes during peak hours and every 30 minutes during non-peak hours, with the caveat that this service standard is defined as having a trip leaving the transit center for UCSC every 10 minutes during peak hours rather than having a 10 minute headway. University service is defined as a trip serving the University during the school term. When classes are not in session, these trips will be modified to meet local ~~Local~~ service standards.

Highway 17 commuter bus service operates every 15 minutes during peak hours and every 60 minutes during off-peak hours and offers free wi-fi and connecting major employment centers to reduce long distance work trips as well as helping to reduce congestion on Highway 17 and improves safety. Service characteristics are summarized in Table 4-12.6).

Table 4-12.6
Service Characteristics – Santa Cruz METRO

Service	Frequency	Characteristics
Rural	Every 30 minutes during peak and 90 minutes during off peak.	Routes serve unincorporated areas and both start and end in the same city.
Intercity	Every 15 minutes during peak and 30 minutes during off peak.	Routes travel between incorporated cities. Headways are defined for a specific corridor.
Local	Every 60 minutes during peak and off peak.	Routes travel within or around incorporated cities.
University of Santa Cruz	Every 10 minutes during peak and 30 minutes during off peak.	Routes serve UCSC during the school term.
Highway 17	Every 15 minutes during peak and every 60 minutes off peak.	Reduces congestion and long distance work trips on Highway 17.

Santa Cruz METRO Draft Short Range Transit Plan, December 2013.

San Benito County Express. The County Express service includes four fixed routes in the City of Hollister. The primary service area is bounded by Graf Road on the west, Fourth Street on the north, El Toro Drive on the east, and Sunset Drive on the south; although the ~~Business District~~ Red Line extends northward along San Felipe Road. Two intercounty routes provide a critical link on weekdays between Hollister, San Juan Bautista and destinations in neighboring Santa Clara County. A third intercounty route operates on Saturday and Sunday only. Each route originates in Hollister at Veteran's Memorial Park and stops at the downtown transfer point at Fourth Street and San Benito Street. The adopted performance standard for fixed routes is every 30 minutes. The performance standard for intercounty routes is 45 minutes to two hours, depending on the transit route.

Intercounty services are widely used because of their variety of destinations and transfer opportunities to other transit services. Approximately 30 percent of County Express riders patronize the Intercounty services.

If transit service with implementation of the 2035 MTP/SCS projects meets these standards, the 2035 MTP/SCS will be considered to have no significant transit impacts. If transit service does not meet these standards, the 2035 MTP/SCS will be considered to have a significant adverse impact if new or expanded transit facilities are required that result in a significant adverse physical change.

Bicycle and Pedestrian Facilities Standards. An extensive bicycle network exists, particularly in the urbanized portions of Santa Cruz County. Although there is a general lack of continuity in bike lanes striped on the region's state or county major highway and street network, progress has been made in planning and funding bikeway improvements. TAMC and SCCRTC are developing a Monterey Bay Sanctuary Trail. Continued emphasis on improving bicycle routes that safely connect employment centers and residential locations will increase commuter bicycle use.

The three RTPAs have developed and adopted a Complete Streets Guidebook that is included in the 2035 MTP/SCS. Most jurisdictions in the AMBAG region have adopted bicycle and/or pedestrian plans. The 2035 MTP/SCS will be considered to have no significant impacts to bicycle and pedestrian facilities if it is consistent with the aforementioned adopted plans. If the

2035 MTP/SCS is inconsistent with these plans, the 2035 MTP/SCS will be considered to have significant adverse impacts if new or expanded facilities that result in a significant adverse physical change are required to ensure consistency.

Regional Plan Consistency. AMBAG prepares transportation plans and programs for the tri-county region. The 2012 Metropolitan Transportation Improvement Program (MTIP) is a four-year programming/ funding document that consists of transportation projects for the region. It identifies transportation improvement projects including public mass transit, highway bridge, local road, bicycle and pedestrian projects proposed based on anticipated available federal, state and local funding over a four year period. All projects that receive federal funds are subject to a federally required action or are regionally significant need to be included in the MTIP. The MTIP must be financially constrained and must be updated at least every four years.

Transportation improvement projects identified in the MTIP are consistent with the (current) 2010 MTP, the Short Range Transit Plans prepared by each of the three public transit operators, Regional Transportation Improvement Programs (RTIPs) prepared by the three regional transportation planning agencies, and the Caltrans 2012 State Transportation Improvement Program (STIP) and 2012 State Highway Operation and Protection Program (SHOPP).

Because the 2035 MTP/SCS is the guiding document for improvements to tri-county transportation system, it was developed to ensure consistency with the requirements in the MTIP and related transportation planning studies described above.

b. Project Impacts and Mitigation Measures.

Impact T-1 **Implementation of the 2035 MTP/SCS would improve total vehicle miles traveled, overall delay as defined by total and peak period ~~hour~~ congested vehicle miles traveled, when compared to 2035 conditions without the 2035 MTP/SCS. Impacts would be Class III, *less than significant*.**

Two VMT forecasts were generated for the 2035 MTP/SCS: the 2035 without the MTP/SCS scenario, which accounts for future growth without implementation of the 2035 MTP/SCS ('No Build') and the 2035 'with project' scenario, which accounts for future growth and all transportation projects and the land use scenario envisioned by the 2035 MTP/SCS.

The 2035 total VMT would increase above 2010 conditions. Total systemwide VMT in the AMBAG region in 2035 assuming implementation of the 2035 MTP/SCS would be ~~19,652,667~~ 19,676,799, compared to ~~15,233,025~~ 15,705,613 in 2010. This increase is largely the result of anticipated population and employment growth. Growth projections indicate that population in the AMBAG region would increase by 152,292 people between 2010 and 2035. As such, the increase in VMT is not necessarily attributed to the 2035 MTP/SCS.

Other transportation projects proposed in the 2035 MTP/SCS include Transportation Demand Management (TDM) and Traffic Systems Management (TSM) projects which are intended to improve the efficiency and effectiveness of the transportation system overall. With respect to TDM, the focus is on changing travel behavior or changing the distribution of trips between time periods and across the network. Regarding TSM, the focus is on system operational

and/or service improvements that facilitate traffic flow. Further, transportation improvements proposed under the 2035 MTP/SCS would result in a more efficient transit system; greater availability of public transit and other alternative modes of transportation, as well as a more efficient land use scenario. While the VMT would be higher, the reduction in overall congestion resulting from the 2035 MTP/SCS improvements would result in greater operational efficiency relative to 2035 No Build conditions.

The 2035 MTP/SCS envisions a regional land use scenario that promotes mixed use and infill development along existing commercial corridors in combination with high-quality transit service (e.g., bus service that has headways of 15 minutes or less during the peak period and/or increased passenger rail service) and improved bicycle and pedestrian infrastructure with a transit feeder system consistant with Bus Rapid Transit/Light Rail Transit. Mixed use and infill projects would reduce overall congestion because they would locate people closer to goods and services, thereby eliminating trips, reducing trip length and/or promoting walking or biking for trips. Additional transit oriented development (TOD) projects would locate people closer to existing transportation hubs, thereby encouraging the use of alternative modes of transit (e.g., buses and passenger rail) which would contribute to a reduction in vehicle trips/vehicle miles travelled. Table 4.12-7 summarizes VMT by scenario. The 2035 MTP/SCS VMT would be lower than 2035 No Project conditions.

~~The projected 2035 MTP/SCS VMT were revised by applying off model adjustments for transit service improvements and TDM/TSM strategies. These "off model adjustments" are based on academic literature reviews, collaboration with other MPOs and consultation with CARB's Policies and Practices Guidelines. The adjustments capture reductions in VMT associated with transit service enhancements, transportation system management, active transportation, transportation demand management, and other travel demand reduction programs (vanpool for agricultural works, car sharing, etc.) not reflected in the transportation modeling. The growing prevalence of work at home employees was also considered. Including the off model adjustments, it is estimated to result in a 5.85 percent reduction in VMT beyond what is forecast in the AMBAG modeling for 2035 with implementation of the 2035 MTP/SCS. Table 4.12-7 summarizes VMT by scenario and shows VMT assuming off model adjustments. With the off model adjustments, the 2035 MTP/SCS VMT would be lower than 2035 No Project conditions.~~

Table 4.12-7
Vehicle Miles Traveled by Scenario

2010 Baseline	2035 No Project	2035 MTP/SCS	~~2035 MTP/SCS w/ VMT Reduction~~
~~15,233,025~~ 15,705,613	~~19,391,041~~ 20,008,136	~~19,652,667~~ 19,676,799	~~18,502,986~~

Table 4.12-8 compares daily vehicle hours or delay for existing (2010) conditions, and 2035 conditions both with and without implementation of the 2035 MTP/SCS, for each county and the AMBAG region as a whole.

Table 4.12-8
Daily Vehicle Hours of Delay Under Existing 2010, 2035 Baseline, and 2035 Conditions with the 2035 MTP/SCS*

County	2010 Daily Vehicle Hours of Delay	2035 Daily Vehicle Hours of Delay without 2035 MTP/SCS	2035 Daily Vehicle Hours of Delay with 2035 MTP/SCS
Monterey	~~14,426~~ 15,193	~~30,627~~ 31,362	~~29,442~~ 26,563
San Benito	~~4,683~~ 3,206	~~60,632~~ 14,379	~~59,006~~ 11,979
Santa Cruz	~~25,148~~ 15,668	~~174,640~~ 36,061	~~174,129~~ 32,733
AMBAG Region	~~44,257~~ 34,067	~~265,899~~ 81,802	~~262,576~~ 71,275

**Excludes external connectors*

As shown in Table 4.12-8, the 2035 daily vehicle hours of delay would substantially increase above 2010 conditions in all three counties. This increase is largely a result of population growth that is anticipated throughout the region by 2035 as described above. As such, the increase daily vehicle hours of delay is not necessarily attributed to the 2035 MTP/SCS when compared to existing conditions. The 2035 MTP/SCS would reduce daily vehicle hours of delay in all three counties and the regional as a whole in 2035 when compared to conditions without the 2035 MTP/SCS. The vehicle hours of delay is expected to further reduce due to the implementation of TDM/TSM/ITS projects as well as implementation of efficient and effective transit system.

Table 4.12-9 compares daily CVMT by functional class for existing (2010) conditions, and 2035 conditions both with and without implementation of the 2035 MTP/SCS.

Table 4.12-9
Systemwide Daily CVMT Under Existing 2010, 2035 Baseline, and 2035 Conditions with the 2035 MTP/SCS*

	2010 CVMT	2035 CVMT without 2035 MTP/SCS	2035 CVMT with 2035 MTP/SCS
Highways	~~237,832~~ 296,775	~~574,445~~ 680,653	~~572,700~~ 611,337
Principal Arterials	~~198,543~~ 275,587	~~1,325,744~~ 1,376,849	~~1,186,831~~ 1,214319
Local Roadways	~~6,796~~ 5,150	~~12,550~~ 11,898	~~15,173~~ 16,036
Total Freeways and Roadways	~~443,171~~ 577,512	~~1,912,739~~ 2,069,399	~~1,774,704~~ 1,841,691

**Excludes ramps, external connectors, and centroid connectors*

As shown in Table 4.12-9, the 2035 daily CVMT would increase above 2010 conditions. As noted, this increase is largely a result of population and employment growth anticipated throughout the region by 2035 as described above. As such, the increase in CVMT is not necessarily attributed to the 2035 MTP/SCS when compared to existing conditions. Most of the TDM/TSM projects as included in the 2035 MTP/SCS will help improve operation of local roads and would further reduce local road CVMT as compared to that forecasted by the travel demand model. Implementation of the 2035 MTP/SCS would increase CVMT on local roadways in 2035 compared to conditions without the 2035 MTP/SCS, likely as a function of increased infill and TOD development in urban areas. However, the 2035 MTP/SCS would

reduce CVMT on freeways, expressways, and principal arterials and would result in an overall systemwide reduction in CVMT in 2035 when compared to conditions without the 2035 MTP/SCS.

Tables 4.12-10 and 4.12-11 compare morning (6:00 ~~7:00~~ A.M. – 9:00 A.M.) and evening (4:00 P.M. – 7:00 ~~6:00~~ P.M.) peak period ~~hour~~ total CVMT by functional class for existing (2010) conditions, and 2035 conditions both with and without implementation of the 2035 MTP/SCS.

As with total systemwide CVMT, the 2035 peak period ~~hour~~ CVMT would increase above 2010 conditions, largely as a result of population growth anticipated throughout the region by 2035 as described above. As such, the increase in peak period ~~hour~~ CVMT is not necessarily attributed to the 2035 MTP/SCS when compared to existing conditions. Implementation of the 2035 MTP/SCS would increase morning ~~and evening~~ peak period ~~hour~~ CVMT on highways and local roadways in 2035 compared to conditions without the 2035 MTP/SCS, likely as a function of increased infill and TOD development in urban areas. However, the 2035 MTP/SCS would reduce total peak period ~~hour~~ CVMT on freeways, expressways and principal arterials and would result in an overall systemwide reduction in peak period ~~hour~~ CVMT in 2035 when compared to conditions without the 2035 MTP/SCS. The CVMT data are an output of the regional travel demand model and do not include the benefits of TDM/TSM/ITS projects. Additionally, actual CVMT on local roadways will likely be less than the regional model forecast given its lack of sensitivity to transit, bicycle, and pedestrian infrastructure.

Table 4.12-10
Systemwide Morning Peak Period ~~Hour~~ CVMT Under Existing 2010, 2035 Baseline, and 2035 Conditions with the 2035 MTP/SCS*

	2010 Total CVMT A.M.	2035 CVMT A.M. without 2035 MTP/SCS	2035 CVMT A.M. with 2035 MTP/SCS
Highways	~~7,098~~ 0	~~24,228~~ 29,469	~~31,143~~ 34,749
Principal Arterials	~~21,853~~ 1,960	~~200,942~~ 161,074	~~185,356~~ 141,231
Local Roadways	~~127~~ 0	~~625~~ 115	~~769~~ 156
Total Freeways and Roadways	~~29,078~~ 1,960	~~225,795~~ 190,658	~~217,268~~ 176,157

**Excludes ramps, external connectors, and centroid connectors*

Table 4.12-11
Systemwide Evening Peak Period ~~Hour~~ CVMT Under Existing 2010, 2035 Baseline, and 2035 Conditions with the 2035 MTP/SCS*

	2010 Total CVMT P.M.	2035 CVMT P.M. without 2035 MTP/SCS	2035 CVMT P.M. with 2035 MTP/SCS
Highways	~~47,095~~ 63,115	~~127,077~~ 163,706	~~109,576~~ 128,905
Principal Arterials	~~61,525~~ 62,608	~~307,219~~ 392,566	~~283,650~~ 311,913
Local Roadways	~~1,087~~ 780	~~2,652~~ 2,500	~~2,823~~ 2,000
Total Freeways and Roadways	~~109,707~~ 126,503	~~436,947~~ 558,772	~~396,049~~ 442,818

**Excludes ramps, external connectors, and centroid connectors*

Overall, the 2035 MTP/SCS would result in many performance improvements in the overall transportation system compared to a future no project baseline. See Section 4.12.2.a for discussion of why a future no project baseline is supported by substantial evidence. For Impact T-1, a future no project baseline was used as the sole baseline because use of an existing conditions baseline would have been uninformative and misleading. An existing conditions baseline would not have included reasonably foreseeable traffic growth and transportation network improvements that would occur in the absence of the 2035 MTP/SCS. However for informational purposes, Tables 4.12-7 through 4.12-12 include a comparison of future traffic conditions to existing conditions. See Section 1.5, *EIR Baseline and Approach for Impact Analysis* for more information on EIR baseline analysis.

Thus, impacts would be ***Class III, less than significant.***

Mitigation Measure. No mitigation measures are required for transportation operations.

Significance After Mitigation. Impacts related to transportation operations would be Class III, less than significant.

Impact T-2 The 2035 MTP/SCS would generally be consistent with applicable alternative transportation plans and policies. This is a Class III, *less than significant* impact.

Transit. The 2035 MTP/SCS transit projects would be consistent with applicable plans and policies because the proposed transit improvements, including the expansion of transit services, would support the use of alternative modes of transportation. Each of the transit providers are currently attempting to meet the transit performance standards related to transit infrastructure and service parameters outlined in the performance measures. Specifically, these focus on reducing ~~peak hour~~ transit trip length and increasing transit service within ½ mile of employment centers. Additional transit vehicles and facility improvements identified in the 2035 MTP/SCS would help transit operators meet these standards. As indicated in Table 4.12-12, the 2035 MTP/SCS would improve overall transit availability in proximity to employment centers and and reduce overall transit time when compared to 2035 conditions without the 2035 MTP/SCS and baseline conditions. However, the average work trip travel time during the peak period ~~hour~~ would not noticeably change with the 2035 MTP/SCS relative to baseline and no project conditions.

The transit performance results for the 2035 MTP/SCS shown in Table 4.12-12 are likely low given the lack of sensitivity to transit within the regional travel model. It is common practice to calibrate models to observe conditions within the region. Currently the region has low transit ridership; however, it also has very few BRT services and no passenger rail. Further, the region does not have a wide spread practice of TOD development. Thus, the model is not sensitive to premium transit service or land use changes near those services and underestimates the total ridership gains that would be realized with the introduction of new types of infrastrucuture. Improvements would result from both the SCS land use scenario emphasis on infill and TOD development, and implementation of additional transit services and facilities. These improvements would be consistent with the general performance standards of the various transit authorities. Impacts would be less than significant.

Table 4.12-12
General Transit Performance Indictors

	2010 (Observed)	2035 Without the MTP/SCS	2035 With the MTP/SCS
Transit Ridership	~~54,079~~ 33,500	~~59,934~~ 61,277	~~60,558~~ 49,897
Percent of Peak Hour Work Trips by Transit that Are 30 Minutes or Less	~~15.7%~~ 15.4%	~~16.56%~~ 16.97%	~~16.98%~~ 17.1%
Percent of Jobs within ½ Mile of a High Quality Transit Stop	~~16.40%~~ 17.5%	~~16.42%~~ 27.2%.	~~65.61%~~ 57.3%
Average Work Trip Travel Time in Peak ~~Hour~~ Period	~~15.49~~ 15.7 minutes	~~15.58~~ 15.7 minutes	~~15.65~~ 15.7 minutes

Bicycle and Pedestrian Facilities. The 2035 MTP/SCS is intended to improve the system for all modes of transit so vehicles and non-motorized transit can use the streets simultaneously and safely. The 2035 MTP/SCS includes goals and policies to support bicycle and pedestrian facilities. Bicycle and pedestrian improvement projects identified in the 2035 MTP/SCS are aimed primarily at improving bicycle and pedestrian safety and expanding facilities such as bike lanes. The 2035 MTP/SCS is generally consistent with applicable plans and policies. In addition, AMBAG consulted with member agencies during preparation of the 2035 MTP/SCS to ensure consistency with local plans. Impacts would be less than significant.

Rail Transportation. The 2035 MTP/SCS is intended to encourage the use of alternative modes of transportation, including rail. The only regular rail passenger service is provided by Amtrak. The Coast Starlight, which connects Los Angeles to Seattle, stops in Salinas, the only Amtrak rail station in the region. This route operates one train in each direction daily. TAMC is planning to introduce three new rail services to Monterey County, namely; a Community Rail Extension to Salinas, a Monterey Peninsula Service, and an extension to the coastal rail service - the Coast Daylight. As of October 12, 2012, the Santa Cruz Branch Rail Line is in public ownership and is being managed by the SCCRTC. Potential uses include increased freight rail service, seasonal passenger rail service in the short term and a bicycle and pedestrian path where feasible in conjunction with rail services and possibly passenger transit service in the longer term. Implementation of the 2035 MTP/SCS would be consistent with TAMC and SCCRTC goals and policies to expand such rail services and therefore impacts would be less than significant.

Aviation. Implementation of the aviation-related improvement projects identified in the 2035 MTP/SCS is intended to accommodate projected growth in regional air traffic. This projected growth in regional air traffic would not represent a change produced by the 2035 MTP/SCS, but would occur as a result of population growth within the region even without such projects. These projects would generally not be expected to result in any significant changes in air traffic patterns which would result in substantial safety risks. Impacts would be less than significant.

Ridesharing/Carpooling. A key component of the 2035 MTP/SCS is reducing the number of vehicle trips by providing ridesharing and carpooling opportunities.

Mitigation Measures. No mitigation measures are required.

Significance After Mitigation. Impacts would be less than significant without mitigation.

d. Induced Travel. Induced travel is vehicle activity resulting from new trip generation as a response to new highway capacity. In other words, induced travel is new trips or diversion of existing trips to new, farther, destinations, generated in response to increased highway capacity. Trips that are generated by socioeconomic growth and trips that do not result in a net increase in trips (e.g., trips that are diverted from one roadway to another as a result of roadway improvements) are not induced travel.

The theory behind induced travel and increased travel demand is that increased highway capacity (i.e., a new or widened roadway) reduces the "cost" of travel (i.e., travel time), thereby increasing the demand for travel. Induced travel, however, is only one potential component of increased travel demand. Schiffer, Steinvorth, & Milam (2004) notes that travelers may respond to reduced travel time in several different ways: route diversion, mode change, destination change, schedule change, trip consolidation, and possibly new trips.

The relationship between increases in highway capacity and traffic is very complex, involving various travel behavior responses, residential and business location decisions, and changes in regional population and economic growth." Schiffer et al. (2003, p. 5) reach similar conclusions from their literature review: "[t]he statistical relationship between road supply and traffic is not the result of a simple, one-way, causal link" and it is "[d]ifficult to disentangle the many contributors to increased travel."

As Parthasarathi et al. (2003, p. 1335) state, "considerable controversy has existed over the existence and importance of the response of demand to supply." Schiffer et al. (2003, p. 4) conclude that "the research of induced travel is still evolving and that researchers are just beginning to unravel the complex relationships between investments in roadway capacity and the resulting travel demand effects." Induced travel may occur, but "[t]o what degree and under what circumstances these increases occur is a matter of debate" (Schiffer et al., 2003, p. 4).

In *Generated Traffic and Induced Travel: Implications for Transport Planning*, Litman (2009, Abstract) argues that adding capacity to a roadway increases "generated traffic," which "fills a significant portion of capacity added to [a] congested urban road." Litman, however, defines "generated traffic" as "diverted traffic (trips shifted in time, route and destination), and induced vehicle travel (shifts from other modes, longer trips and new vehicle trips)" (Abstract). Similarly, although Noland (2001, Abstract) finds "that added lane mileage can induce significant additional travel," his definition of induced travel includes "mode shifts, route shifts, redistribution of trips, generation of new trips, and long run land use changes that create new trips and longer trips."

When the types of travel demand are clearly differentiated, most studies conclude that trips related to socioeconomic growth and trips diverted from other facilities account for the majority of increased travel demand experienced along major highways. *Effects of Increased Highway Capacity on Travel Behavior* (CARB by Dowling and Associates, 1995) and *Expanding Metropolitan Highways, Implications for Air Quality and Energy* (Transportation Research Board Report 245) conclude that if new highway capacity does fill up, it is due *not to* induced travel, but rather to

travelers diverting from other facilities or time periods in the short term, and to socioeconomic growth in the long term.

Other literature confirms the prominence of diverted trips in the short-term. The Atlanta Regional Commission (2006), in *ARC Analysis of Induced Travel Effects and VMT Diversion*, explains that the change in VMT compared to the change in lane-miles "inherently contains several different changes in travel demand. Probably the most important is the change of path, whereas a trip which used to use an arterial now is re-routed to the freeway" (p. 5). *The South Coast Highway 101 Deficiency Plan* generalizes the findings from *Effects of Increased Highway Capacity on Travel Behavior* (CARB by Dowling and Associates, 1995) and *Expanding Metropolitan Highways, Implications for Air Quality and Energy* (Transportation Research Board Report 245) as follows: "Most of the increase in peak period traffic observed (90+ percent) when capacity of a congested highway is increased is the result of shifts in traffic from other routes or time periods rather than new increases in highway system use." The FHWA (2007) states: "While some of these [traveler] responses [to increased highway capacity] do represent new trips, much of the observed increase in traffic comes from trips that were already being made before the increase in highway capacity, or reflect predictable traveler behavior that is accounted for in travel demand forecasts."

Another complication in drawing conclusions from the literature is that many studies have not differentiated between the impacts of new roads versus widened roads and roads in urban/developed areas versus roads in rural/undeveloped areas. Schiffer et al. (2003) found in their literature review that "[i]nduced travel effects for constructing new roadways versus widening existing roadways were not definitive" and "[u]rban versus rural differences in induced travel are unknown" (p. 5). Those who have specifically studied the differentiations have confirmed that they are important. The results of a study by Parthasarathi, Levinson, & Karamalaputi (2003) "indicate that larger stable jurisdictions do not produce a change in VKT [vehicle kilometers traveled], while growing MCDs [Minor Civil Divisions] do" (p. 1345). The same study highlights "the importance of separating new construction from the expansion of existing links" (Summary). The authors found that most previous studies had not made the differentiation between new roads and widened roads, and, not surprisingly, their results showed that any impacts from widening would likely be less than any impacts from new roads.

Major transportation projects in the 2035 MTP/SCS, such as ~~the SR 156 widening in San Benito County and~~ the construction of auxiliary lanes on Highway 1 from 41st to Soquel Avenue, involve the widening of an existing roadway rather than the construction of a new roadway. Therefore, it is likely that any potential induced travel impacts from the 2035 MTP/SCS would not be as great as the studies cited above would suggest.

The complexities of the topic of induced travel have led to a variety of conclusions in the literature. "Depending upon methodologies and data sources, analyses of induced travel provide differing results" (Strathman et al., 2000, p. 5). The wide variety of values calculated for the elasticity of travel demand highlights this problem.

The FHWA (2007) defines demand elasticity as "the percentage change in the quantity demanded for a good, divided by the associated percentage change in the price of the good." In

the case of travel, the "demand" is usually VMT and the "price" (or "supply") is usually lane-miles. There are several ways to calculate elasticities; the most commonly used equation is:

$$Elasticity = \frac{\Delta\ VMT}{\Delta\ Lane\ Miles}$$

An elasticity of 0.0 means that any increase in lane-miles does not cause any increase in VMT, while an elasticity of 1.0 means that every percentage increase in lane-miles causes an equal percentage increase in VMT. Schiffer et al. (2003, p. 5) found that "As measured by the increase in VMT with respect to an increase in lane-miles, short-term effects have an elasticity range from near zero to about 0.40, while long-term elasticities range from about 0.50 to 1.00." Similarly, Noland (2001, Abstract) found elasticities "of about 0.3—0.6 in the short run and between 0.7 and 1.0 in the long run." The ARC (2006) found the elasticity for increasing freeway capacity to be approximately 0.40.

The FHWA (2007) further advises that "extreme caution should be used when interpreting the results of these studies to make inferences about the magnitude of induced travel. …despite the large number of empirical studies involving travel demand elasticities, there is very little agreement among researchers or transportation planning professionals on acceptable values of demand elasticities to use in estimating induced travel. …indiscriminate application of demand elasticities can significantly over-estimate induced travel impacts."

Conclusion**.** Travel demand in the AMBAG region may increase in the future, but local data indicate demand will be driven primarily by socioeconomic growth. If any induced travel does occur, it will likely be insignificant. Although an induced effect can occur if certain conditions are present it is typically not significant; i.e., one to three percent of new traffic growth.

Improvements in the 2035 MTP/SCS make it speculative to quantify exact induced travel increases. However, based on the preceding analysis, there would not be a significant impact on infrastructure, services or congestion relating to induced travel.

f. Specific 2035 MTP/SCS Projects That May Result in Impacts. The analysis within this section discusses the potential transportation and circulation related impacts associated with the transportation improvement projects and the land use scenario envisioned by the 2035 MTP/SCS. The projects that comprise the program are evaluated herein in their entirety and all are intended to improve traffic circulation rather than cause adverse impacts. No specific projects that are likely to have an adverse impact on traffic/transportation system would be implemented; thus, none are specificied within this section.

4.13 LESS THAN SIGNIFICANT ENVIRONMENTAL FACTORS

Section 15128 of the California Environmental Quality Act (CEQA) Guidelines requires an EIR ~~to~~ briefly describe any possible ~~significant~~ effects that were determined not to be significant. The environmental factors discussed below are those ~~represent the remainder of~~ checklist questions ~~as~~ listed in Appendix G of the CEQA Guidelines that were not discussed in the other impact sections of the EIR.

4.13.1 Agriculture and Forestry

The 2035 MTP/SCS would neither conflict with existing zoning for forest land nor result in the loss of forest land as no projects would occur on lands with the forest designation~~ed as such. Forest lands occur within the Santa Cruz Mountains s~~Specifically~~, no construction projects are proposed within the Santa Cruz Mountains on~~ Highways 9, 17, and ~~or~~ 236; however, no projects that could potentially impact forestland are proposed for this area. Further, urban infill and TOD projects envisioned in the SCS are not planned within areas containing forest resources or designated for forest uses. Therefore, impacts related to forest land would be less than significant.

4.13.2 Biological Resources

There are no approved Habitat Conservation Plans, Natural Community Conservation Plans or other approved local, regional or state habitat conservation plans within the regional affected by the 2035 MTP/SCS. Thus, t~~T~~he 2035 MTP/SCS would not conflict with ~~conflict with an adopted Habitat Conservation~~ a Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plans. ~~, as there are no adopted habitat or natural community conservation plans in the region.~~ Therefore, impacts would be less than significant.

4.13.3 Geology and Soils

The 2035 MTP/SCS does not include projects that would require the use of septic tanks or alternative waste water disposal systems. Future infill and transit oriented development (TOD) development including transit facilities would be anticipated to connect to existing wastewater infrastructure. The expansion and/or improvement of streets, highways, transit facilities, airports, and related transportation infrastructure is not anticipated to include elements that would require wastewater treatment or otherwise necessitate the development of septic systems. Therefore, impacts related to having soils incapable of adequately supporting the use of septic tanks would be less than significant.

4.13.4 Hazards and Hazardous Materials

Transportation improvement projects under the 2035 MTP/SCS could facilitate the transport of hazardous materials on roadways or railways in the tri-county region but would not directly result in a transport-related hazard. Compliance with existing laws and regulations, such as the federal Resource Conservation and Recovery Act (RCRA) and the State Hazardous Waste Control Act and California Vehicle Code, would ensure that the transport of hazardous

materials, the handling of acute hazardous substances within proximity to schools and the release of hazardous materials would be adequately controlled such that impacts would be less than significant. With respect to hazardous materials sites listed under Government Code Section 65962.5, the majority of planned transportation improvements would ~~involve~~ modify ~~ication of~~ or expand existing facilities~~,~~ rather than construct~~ion of~~ new facilities. The expansion of existing transportation infrastructure would be evaluated for the presence of hazardous materials as part of the planning and design process. ~~, and would not occur on known hazardous sites.~~ With regard to future projects that would develop new infill or TOD facilities, because of the programmatic nature of the 2035 MTP/SCS ~~project,~~ it is not possible to determine with accuracy whether future projects located on previously undisturbed land would contain hazardous materials. However, as noted above, such projects would be required to identify and evaluate ~~address~~ any on-site environmental issues, including ~~any~~ potential hazardous materials and mitigate such impacts accordingly. Impacts would be less than significant.

Some projects under the 2035 MTP/SCS may be located within an airport safety zone or on airport property; however, projects within the 2035 MTP/SCS would not directly expose people to, or create a new airport safety hazard. Project would be required to be consistent with applicable Airport Land Use Plans.

The 2035 MTP/SCS would not expose people to new wildland fire hazards, as future infill and TOD projects resulting from 2035 MTP/SCS implementation would occur in existing urbanized areas rather than, ~~not~~ adjacent to wildlands. Finally, the 2035 MTP/SCS would have no adverse impact on adopted emergency response plans or emergency evacuation plan; rather, by improving circulation in the region ~~County~~, it could have beneficial impact on emergency response and evacuation. Impacts would be less than significant.

4.13.5 Hydrology and Water Resources

The 2035 MTP/SCS would not change the drainage pattern of an area or result in flooding due to the alteration of a stream or river, as the 2035 MTP/SCS does not contain projects that result in this outcome. ~~propose such actions.~~ Development may increase stormwater flows, resulting in increased volume and/or velocity. Such increases raise the potential for on-or off-site flooding, or substantial erosion of siltation. However, t~~T~~he majority of projects would occur within existing rights-of-way and would not be large enough to generate significant new surface water runoff that we~~o~~uld exceed the capacity of stormwater infrastructure. Transportation and land use development projects that would increase runoff would be designed with the appropriate drainage and treatment systems to avoid on- and off-site flooding, in accordance with existing local, state, and federal regulations for construction and non-construction and non-construction runoff prevention, and avoidance of flood hazards. Impacts would be less than significant.

4.13.6 Land Use

As discussed in Section 4.13.3, the 2035 MTP/SCS would not conflict with an adopted Habitat Conservation Plan, Natural Community Conservation Plan~~,~~ or other approved local, regional, or

state habitat conservation plan, as there are no adopted conservation plans in the region ~~where proposed improvements would occur~~. Therefore, impacts would be less than significant.

4.13.7 Mineral Resources

The 2035 MTP/SCS primarily involves modifications to existing roadways, including improvements related to intersections, safety, and widening, as well as alternative transportation projects. ~~In addition, f~~Future infill and TOD would be located within existing urbanized areas. These projects would not be located on sites with known mineral resources or locally important mineral resources. In addition, local jurisdictions have policies to manage mineral resources through general plans, and are required to respond to mineral resource recovery areas that have been designated MRZ-2 locations under the state's Surface Mining and Reclamation Act (SMARA), indicating that significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists, thus reducing the impact to a designated mineral resource. Impacts would be less than significant.

4.13.8 Noise

Any future infill or TOD project under the 2035 MTP/SCS located within an airport land use compatibility plan boundary and/or applicable noise contour would be subject to the policies of the Airport Land Use Commission pertaining to noise exposure, which would ensure that noise attenuation features are implemented into the development project as necessary. Impacts would be less than significant.

4.13.9 Public Services

Transportation projects within the 2035 MTP/SCS would not generate demand for police or fire services, schools, parks, or other public facilities. Future infill and TOD projects would accommodate projected population growth; and thus, may increase demand on public services such as fire and police protection, schools, parks, or other public facilities. Depending on the growth and housing patterns, some school, library, social service, and parks and recreation facilities may become overused. Public service standards, performance measures, and related policies are usually set in city and county general plans. ~~However, this T~~These projects would be evaluated individually as well as cumulatively as they are proposed to assess demand for public services within the ~~would not exceed that already anticipated by the~~ respective areas in which these projects would be located. ~~This is primarily because the 2035 MTP/SCS would not result in new population growth; rather it would redistribute future populations within existing urban cores. In addition,~~ Sponsor ~~local member~~ agencies would address any public service demand issues as development is proposed. This may ~~which may~~ require the reallocation of resources and/or augmentation of service areas. Infill and TOD may have a beneficial impact on police and fire protection services because the travel distance within the urban area would be shorter thereby improving emergency response times. Impacts would be less than significant.

4.13.10 Recreation

Transportation projects identified within the ~~under the~~ 2035 MTP/SCS would not generate demand for parks or recreation resources. ~~land.~~ Future infill and TOD projects occurring as a result of the SCS may increase localized demand on parkland. This is primarily because the 2035 MTP/SCS would not directly result in new population growth; rather it would concentrate future population within existing urban cores. ~~However, this d~~Demand would be evaluated on a project specific basis for consistency with ~~not exceed that already anticipated by the respective~~ General Plans and related planning documents covering the areas within which these projects would be located. ~~This is primarily because the 2035 MTP/SCS would not result in new population growth; rather it would redistribute future populations to existing urban cores. In addition,~~ Sponsoring ~~local member~~ agencies would address any parkland demand issues as new development is proposed. Impacts would be less than significant.

4.13.11 Transportation and Circulation

The 2035 MTP/SCS would improve the overall efficiency of the regional transportation network including transit active transportation systems. The 2035 MTP/SCS does not contain projects that would ~~not~~ impact air traffic patterns in proximity to airports located in the region. All projects would be designed consistent with applicable industry standards and methods; thus ~~create a~~ traffic hazards resulting from ~~a~~ design features would not occur no would project designs ~~or~~ adversely impact emergency access. Impacts would be less than significant.

4.13.12 Utilities and Service Systems

The 2035 MTP/SCS transportation improvements would not lead to the construction of projects that would create demand for wastewater treatment. Thus, transportation projects within the 2035 MTP/SCS would not exceed wastewater treatment requirements, require construction or expansion of wastewater treatment facilities, require a determination by a wastewater treatment provider, or conflict with regulations pertaining to solid waste. Construction activities may generate solid waste that would need to be disposed at local landfills. However, impacts would be temporary ~~in nature~~ and reduced by compliance with the California Green Building Code, which requires that construction operations recycle a minimum of 50 percent of waste generated.

Future infill and TOD projects occurring within urbanized areas would ~~need to~~ connect to existing sewer services, which may increase demand for -wastewater treatment. In addition, sewer connections may need to be upgraded and resized to accommodate additional flow. ~~The necessary i~~Improvements would be determined by local ~~member~~ agencies and utility providers at the time such projects are proposed. It is expected that improvements ~~Improvements~~ would generally occur within existing utility easements which would avoid or minimize environmental impacts. ~~and would not create new environmental impacts.~~ Similarly, urban infill and TOD ~~such~~ projects would generate solid waste~~,~~. This ~~which~~ may increase demand for landfill capacity. However, ~~this~~ demand is not expected to ~~would not~~ exceed that ~~already~~ anticipated ~~by the respective areas~~ as part of the regional and local planning process as the ~~in which these projects would be located. This is primarily because the~~ 2035 MTP/SCS would not result in new population growth~~,~~. Rather ~~rather~~ it would ~~re~~distribute future population~~s~~ to existing urban cores. Impacts would be less than significant.

5.0 CONSISTENCY ANALYSIS

The purpose of the 2035 MTP/SCS is to coordinate and facilitate the planning and programming of transportation facilities and services within the tri-county Monterey Bay region through 2035 in accordance with State and Federal regulations. In developing the 2035 MTP/SCS, AMBAG considered the following seven planning and strategy areas from MAP-21:

- *Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;*
- *Increase the safety and security of the transportation system for motorized and non-motorized users;*
- *Increase the accessibility and mobility options available to people and freight;*
- *Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;*
- *Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;*
- *Promote efficient system management and operation; and*
- *Emphasize the preservation of the existing transportation system.*

The Policy Element of the 2035 MTP/SCS states that AMBAG's goals are to ensure that the transportation system planned for the Monterey Bay region accomplishes the following:

- *Access and Mobility: Provide convenient, accessible, and reliable travel options while maximizing productivity for all people and goods in the region;*
- *Economic Vitality: Raise the region's standard of living by enhancing the performance of the transportation system*
- *Environment: Promote environmental sustainability and protect the natural environment*
- *Healthy Communities: Protect the health of our residents; foster efficient development patterns that optimize travel, housing, and employment choices and encourage active transportation*
- *Social Equity: Provide an equitable level of transportation services to all segments of the population*
- *System Preservation and Safety: Preserve and ensure a sustainable and safe regional transportation system*

In preparation for drafting the 2035 MTP/SCS, AMBAG considered the above referenced strategy areas and goals while collaborating with local jurisdictions to identify a common set of land use placetypes. Placetypes were developed in order to provide a common definition of density and character across the 21 jurisdicitons in the region. These placetype designations are consistent with the general plans for each of the 18 cities and three counties comprising the AMBAG region and generally match the respective land use policies and objectives contained therein. The placetypes were then used to establish an existing as well as a future land use pattern. The future land use pattern concentrates more growth in commercial and mixed use corridors with high quality transit rather than in rural areas.

This EIR qualitatively evaluates local and subregional planning efforts and potential impacts of the 2035 MTP/SCS on related policies pertaining to infrastructure improvements intended to

improve the regional transportation system. Specific projects proposed within the 2035 MTP/SCS that may support and encourage land use changes were identified early in the process and avoided to minimize potential conflicts with the following:

- General Plan policies and development controls that require voter approval (such as those set by initiative);
- General Plan policies and development controls that are based on joint-powers agreements (such as regional open space reserves, buffers between communities, or urban service boundaries and urban limit lines); or
- General Plan policies and development controls reflecting infrastructure or potentially significant environmental constraints.

Local jurisdictions are responsible for adopting land use policies as part of their general and community plans and implementing them through local ordinance. As a result, AMBAG has no direct control over local land use planning. Nevertheless, regional efforts are being made by AMBAG to assist local jurisdictions in aligning local land use policies with the proposed 2035 MTP/SCS. Such programs could assist local jurisdictions via technical support and funding. Examples include but are not limited to creating economic development forums to address needed increases in jobs, funding transit, bicycle and pedestrian infrastructure that supports the increased use of alternative modes, and working with local jurisdictions to update their General Plans with policies that are consistent with the 2035 MTP/SCS were appropriate.

As demonstrated in this chapter, per CEQA Guidelines Section 15125(d), the 2035 MTP/SCS has no inconsistencies with applicable general plans and regional plans. Consistency with regional plans such as the "AMBAG Blueprint" and General Plans prepared for Monterey, Santa Cruz, and San Benito Counties is addressed herein. Consistency with transportation planning documents, including regional and local bicycle and pedestrian plans, transit plans, and roadway improvement plans are addressed in Section 4.12 *Transportation and Circulation* and summarized in this section. In addition, Local Coastal Programs (LCP) consistency is discussed for Monterey and Santa Cruz County as projects may occur within the coastal zone. No Natural Community Conservation Plans or Habitat Conservation Plans pertain to project areas defined in the 2035 MTP/SCS.

The Blueprint

In June 2011, AMBAG completed a regional vision plan entitled *Envisioning the Monterey Bay Area: A Blueprint for Sustainable Growth and Smart Infrastructure.* This document is commonly referred to as "the Blueprint." The Blueprint supports a sustainable growth pattern and the expansion of opportunities for alternative forms of travel. It includes policies to improve housing, neighborhood, and transportation choices while conserving natural resources. The Blueprint presents a vision for how the region might start to achieve the GHG reduction targets specified by the California Air Resources Board (CARB) through what is called the "Sustainable Growth Patterns" scenario. The GHG reduction target is a zero percent per capita increase in GHG emissions based on 2005 levels by 2020 and a five percent reduction by 2035.

While the Blueprint does not demonstrate compliance with the GHG reduction targets, it serves as a basis from which many of the major goals and policies within the current 2035 MTP/SCS

were developed as part a collaborative process across the AMBAG region. As discussed within Section 4.8, *Greenhouse Gas Emissions*, the 2035 MTP/SCS would meet GHG reduction targets through 2035. Thus, the Blueprint and 2035 MTP/SCS are consistent relative to the overall objective which is to expand and improve the efficiency of the regional transportation network and achieve GHG reduction targets.

Monterey County General Plan/Local Coastal Program

The Monterey County General Plan/Local Coastal Program includes policies that address the existing and future land use for rural areas within the County that are used predominately for agricultural purposes as well as developed areas within incorporated cities and unincorporated communities. One of the land use planning challenges within Monterey County is that higher quality farmlands are located in the valleys where cities have also been established. On the other hand, foothills lining the valleys have unique scenic and environmental characteristics. These conditions require goals and policy statements that strike a balance between providing for growth and development while preserving significant resources countywide.

Monterey County's Land Use Element establishes policies to designate the general distribution and intensity of residential, commercial, industrial, agricultural, public facilities, and open space uses. The primary vision of this Element is to create a general framework that encourages growth within or near developed/developing areas as a way to reduce impacts to agricultural production, natural resources and avoid impacting public services that currently serve these areas. Areas where development is encouraged include incorporated cities and designated community areas where existing services are available. These areas are subject to additional planning by each incorporated city and within community plans/specific plans adopted by the Board of Supervisors for unincorporated community areas.

The proposed 2035 MTP/SCS encourages urban infill and transit oriented development (TOD) development and the development of transportation infrastructure that would support these uses as well the overall efficiency of the existing regional transportation network. Projects identified by TAMC that comprise the RTP for Monterey County focuses on improving existing highway infrastructure, transit services, and related measures that focus potential impacts within existing urbanized areas. This would be consistent with policies within the Land Use Element that avoid or reduce impacts to agricultural production, natural resources and existing public services within rural areas of Monterey County.

As an element of the Gereral Plan, local coastal programs (LCPs) are intended to demonstrate consistency with the Coastal Act for the portion of the statewide coastal zone located within Monterey County. Each LCP includes both a land use plan (LUP) and an implementation plan (IP) that together distill statewide Coastal Act coastal resource policies to the local level.

The primary transportation emphasis of the Coastal Act is to preserve highway capacity for coastal access and coastal dependent land uses. The coastal zone within Monterey County is dividied into four LUP's; North County, Del Monte Forest, Carmel Area, and Big Sur Coast. Projects in the 2035 MTP/SCS that support or facilitate coastal access while meeting other provides of the Coastal Act would be consistent with the Monterey County LCP. A consistency

evaluation would be performed by Monterey County as part of a project specific environmental review for each project advanced to the development phase.

San Benito County General Plan

San Benito County is currently updating their general plan. The draft San Benito County General Plan includes policy statements that address sustainability and include environmental protection, economic expansion and diversification. The plan has been developed in part by input received by stakeholders including residents, businesses, land owners, and decision-makers. The Vision and Guiding Principles chapter of the General Plan update identify the following objectives as they relate to land use and community character:

1. Encourage new growth in existing unincorporated communities, new communities, or clustered developments to preserve prime farmland and rangeland, protect natural habitats, and reduce the financial, social, and environmental impacts of urban sprawl;
2. Ensure that there is a mix of residential, commercial, employment, park, open space, school, and public land uses to create a sense of place by supporting condensed, pedestrian accessible, and transit-oriented development;
3. Promote higher residential densities in existing unincorporated urban areas and new communities while encouraging mixed use development;
4. Ensure new development complements and preserves the unique character and beauty of San Benito County; and
5. Establish defined boundaries to separate cities and unincorporated communities from prime agricultural land and important natural resources, using such features as agriculture buffers, greenbelts, open space, and parks.

The 2035 MTP/SCS is consistent with the land use objectives as both encourage urban infill, high residential densities and TOD witin existing urban centers. Because the 2035 MTP/SCS is focused in part on projects within existing urban infill areas, it supports policies within the San Benito County General Plan that are intended to preserve prime farmland and rangeland; protect natural habitats and provide a mix of urban development areas that support pedestrian accessibility and transit oriented development.

Santa Cruz County General Plan

The Santa Cruz County General Plan/Local Coastal Plan was adopted by the Santa Cruz County Board of Supervisors in 1994. Land Use and facilities maps and diagrams, resource and constraints maps, and the ordinances contained in the Santa Cruz County Code, define when and where urban development should and should not occur. The intent is to regulate the quality of development, control the pace of development consistent with the availability of public services while protecting the natural resources that maintain and enhance the County's unique environment.

A basic land use policy focuses on separating urban and rural areas. This Urban/Rural boundary encourages new development within existing urban areas while preserving agricultural land and natural resources in the rural areas. The Urban/Rural Boundary is

defined according to the Urban Services Line (USL) and the Rural Services Line (RSL) established around each incorporated city.

Within Santa Cruz County, there are existing enclaves in rural areas which are developed at urban densities. Generally, these enclaves boundaries are defined by a Rural Services Line. Some urban services are available within these areas. County policy allows the provision of full urban services, including public sanitation facilities, to serve these communities. In areas outside of the Urban Services Line or beyond the Rural Services Line established for these enclave areas, the "Rural Density Matrix" provides for parcel-specific determination of allowable densities based on the availability of services, environmental and site specific constraints and resource protection factors required by the Growth Management System and the General Plan and LCP Land Use Plan.

Because commute patterns can have a negative impact on traffic, energy consumption, air quality and related environmental resources, the relationship between jobs and housing is an important topic in the General Plan. The General Plan recognizes the various types of commute behavior and includes policies to provide adequate housing opportunities and encourage an employment base that supports a diversity of income levels.

The 2035 MTP/SCS is generally consistent with the broad goals and policies of the Santa Cruz County General Plan/LCP in that both clearly support focused development within existing urban boundaries to preserve natural habitats and agricultural resources. Further, both documents address the importance of maintaining a job/housing balance by in part, diversifying transportation options as well as supporting efforts focused to reducing regional traffic congestion. Projects occurring within the Santa Cruz County coastal zone would be evaluated for consistency with the LCP as part of project-specific environmental review.

Monterey Bay Area Transit Agency Plans

a. **Monterey Salinas Transit Business Plan and Short-Range Transit Plan.** Last adopted in 2005, the business plan is Monterey-Salinas Transit's (MST) primary planning document. The plan describes the role of public transit in the community including ongoing and anticipated service needs throughout the existing service area as well as in new growth areas that will need transit service in the coming years. The 2035 MTP/SCS includes projects in Monterey County that would address transit operations, rehabilitation of existing facilities, improvements to American's with Disabilites Act (ADA) service and infrastructure and other benefits including replacement of existing buses and related equipment. As discussed, the 2035 MTP/SCS contains the TAMC RTP which was developed in consultation with Monterey-Salinas Transit District.

As shown in the performance measures developed for the 2035 MTP/SCS, access to transit service and overall performance of the transit systems is expected to improve with implementation of the 2035 MTP/SCS and related projects. Thus, the 2035 MTP/SCS is considered consistent with the existing Short-Range Transit Plan.

b. Santa Cruz METRO Short-Range Transit Plan. The Santa Cruz METRO Draft Short-Range Transit Plan update was released in November, 2013. This update includes an assessment of the strengths and weaknesses of the existing service design for both fixed-route

and ParaCruz services; a forecast of future financial and capital needs and an updated marketing plan. Regarding existing service, the plan notes that Santa Cruz METRO has an excellent route system with heavy ridership. Several recommendations are included that build upon the success of the current system and focus on the use of existing resources to simplify services. These include the following:

- Simplifying service frequencies between downtown Santa Cruz and UCSC;
- Improving speed for more riders in the Watsonville – Cabrillo corridor;
- Consolidating routes to simplify service in Santa Cruz and Mid-County; and
- Create Transit Emphasis Corridors where service frequencies are at least every 15-minutes during peak times and capital enhancements can be prioritized.

As shown in the performance measures developed for the 2035 MTP/SCS, access to transit service and overall performance of the transit systems is expected to improve with implementation of the 2035 MTP/SCS and related projects. Specifically within the Santa Cruz METRO service area, project SC-MTD-P46-MTD would involve improvements to the Watsonville Transit Center. This may enhance the overall level of service for riders within the Watsonville-Cabrillo corridor as noted above in the short-range plan recommendations. Based on these findings, the 2035 MTP/SCS would be considered consistent with the Santa Cruz METRO Short-Range Transit Plan.

c. San Benito County Express Short-Range Transit Plan. Adopted in 2008, the Short-Range Transit Plan concluded that there is a great need for fixed route services in San Benito County. In response, a capital and financial plan was developed that included a fleet replacement and marketing plan to ensure fleet sustainability and attract and retain new ridership. Bus stop amenities are also discussed in the capital portion of the plan. The San Benito County Local Transporation Authority is currently updating the 2008 Short Range Transit Plan in addition to preparing a Long Range Transit Plan. The Plans will include the following elements:

- Assess existing and planned County Express and specialized transportation services, operational characteristics, capital equipment, and maintenance procedures.
- Prepare a comprehensive needs analysis and identify key findings.
- Analyze the current level of services and fares and provide recommendations for appropriate service levels, fares, routes, time schedules, and fare structure.
- Develop a detailed implementation plan of the preferred strategies categorized as high, medium, and low priority. Identify the responsible agency for implementation, estimated costs and timeframe for implementation, potential funding sources, and other information necessary for program implementation.
- Analyze planned capital and service projects.
- Identify current and potential high-quality transit corridors.
- Develop performance measures that meet the requirements of MAP-21, the Federal Transportation Bill.

As demonstrated in the performance measures developed for the 2035 MTP/SCS, access to transit service and overall performance of the transit systems is expected to improve with implementation of the 2035 MTP/SCS and related projects. The 2035 MTP/SCS includes

projects in San Benito County that would in part address needs identified in the short-range transit plan. Based on these findings, the 2035 MTP/SCS would be considered consistent with the San Benito Short-Range Transit Plan.

Local Agency Formation Commission of Monterey County

The Local Agency Formation Commission of Monterey County is an independent countywide body created by the State Legislature. The Commission makes decisions about the boundaries and services of cities and special districts. Statutory purposes are to encourage the orderly formation and development of local governments; preserve agricultural and open space lands; discourage urban sprawl, and ensure the efficient delivery of government services.

As a regulatory agency, the Commission forms new cities and special districts, approves changes in boundaries (annexations, consolidations, mergers, dissolutions, etc.), and allows cities or special districts to provide services outside their boundaries. As a planning agency, LAFCO determines and updates the Spheres of Influence of each city and district, conducts studies of the public services provided by local agencies, and may initiate proposals to change boundaries based upon the Spheres of Influence or special studies. LAFCO implements the Cortese-Knox-Hertzberg Local Government Reorganization Act, the California Environmental Quality Act, open meeting laws, the Revenue and Taxation Code, and local policies and procedures.

As part of the review and decision making process for matters subject to LAFCO approval, staff follow procedures and protocol contained in the document entitled "Policies and Procedures Relating to Spheres of Influence and Changes of Organization and Reorganization" adopted February 25, 2013. Within this document are procedural guidelines that direct the scope and content of the supporting material prepared to assist LAFCO in the decision-making process when formal applications requiring LAFCO review are submitted. The LAFCO Policies and Procedures do not directly apply to AMBAG's 2035 MTP/SCS; rather, they are "intended to guide LAFCO's review and consideration of requests for Sphere of Influence amendments and changes in organization and reorganization" (page 3).

The projects and policies comprising the 2035 MTP/SCS were developed in consultation with municipalities and other sponsoring agencies within Monterey, Santa Cruz, and San Benito Counties. Spheres of Influence were considered by the local municipalities when providing MTP/SCS input to AMBAG. Future implementation of projects requiring decisions by LAFCO or subject to LAFCO oversight would be required to follow and be consistent with LAFCO procedural guidelines and policies referenced above.

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6.0 LONG-TERM EFFECTS

6.1 GROWTH-INDUCING IMPACTS

Section 15126.2(g) of the *State CEQA Guidelines* requires a discussion of a proposed project's potential to induce growth. Specifically, an EIR must discuss the ways in which the proposed project could foster economic or population growth. Included in this category are projects that would remove obstacles to population growth. In addition, the EIR must discuss how the project may encourage and/or facilitate other activities that could significantly affect the environment. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment. Economic and population growth does not necessarily cause significant physical changes to the environment. However, depending upon the type, magnitude, and location of growth, it can result in significant environmental effects. A project's growth-inducing potential is therefore considered significant if growth generated by the project could result in significant effects in one or more environmental issue areas.

6.1.1 Employment, Household, and Population Growth

The AMBAG Board is scheduled to adopt the 2014 Regional Growth Forecast with the 2035 MTP/SCS in June 2014. The purpose of the *Regional Growth Forecast* is to provide a consistent economic and population growth forecast to the year 2035 for use in long-range comprehensive planning. The forecast serves as input towards the development of the 2035 MTP/SCS. AMBAG has no land use authority and cannot directly affect population growth. AMBAG growth forecasts are projections used to plan for public infrastructure, housing, and employment throughout the region. The 2035 projections indicate that population in the AMBAG region is expected to grow from 732,708 in 2010 to 885,000 by 2035; an increase of 17%. Employment within the region is expected to grow by 65,600 jobs over the same period, an increase of approximately 17%. As discussed in Section 4.10, *Land Use*, the proposed projects under the 2035 MTP/SCS are designed and intended to accommodate anticipated growth up to the year 2035. The projects under the 2035 MTP/SCS would be phased to respond to growth as it occurs under adopted local general plans. As a result, the 2035 MTP/SCS would not induce growth beyond that anticipated by 2035; rather, it is intended to accommodate growth in a way that will help meet SCS objectives. Employment, population and household growth would occur within the AMBAG region regardless of whether the 2035 MTP/SCS is implemented. The land use scenario envisioned by the 2035 MTP/SCS would facilitate the development of infill and transit oriented development (TOD) projects within existing urbanized areas; and therefore, may redistribute growth patterns. The location of infill and TOD projects would generally be on properties that have been identified as vacant or underutilized within applicable local jurisdictions. Infill and TOD projects would not necessarily result in significant new population growth within these jurisdictions; rather the 2035 MTP/SCS would accommodate anticipated growth and concentrate it within existing urban cores instead of on the periphery of urban areas or within rural or semi-rural areas. Therefore, growth-inducing population growth impacts would be less than significant.

Implementation of the 2035 MTP/SCS would create short-term economic growth in the region as a result of construction-related job opportunities. The 2035 MTP/SCS implementation would

also generate additional employment opportunities for roadway, vehicle, and landscape maintenance, and transportation facility clean-up. The potential employment increase may subsequently increase the demand for support services and utilities, which could generate secondary employment opportunities. This additional economic growth would likely raise the existing revenue base within the region. Although such growth may incrementally increase economic activity in the county, significant physical effects are not expected to result from economic growth generated by the 2035 MTP/SCS.

6.1.2 Removal of an Impediment to Growth

The majority of 2035 MTP/SCS transportation improvements are located in existing urbanized areas such as Salinas, Monterey, Hollister, and Santa Cruz; however, projects are also located in rural or semi-rural areas. Such transportation improvements can be perceived as removing an obstacle to growth by either creating additional traffic capacity (in the case of road widening projects) or providing new or better access to undeveloped areas (in the case of road extensions). New infrastructure may also serve to accelerate or shift planned growth or encourage and intensify unplanned growth.

However, these improvements would not necessarily remove obstacles to growth. Rather, the 2035 MTP/SCS transportation improvements are designed to fully support compact development approach outlined in the SCS and fully support the complementary transportation needs of the growing population. The SCS is designed to accommodate growth by encouraging infill and TOD development. The 2035 MTP/SCS transportation improvement projects are intended and designed to support the land use patterns established in the SCS. Therefore, the 2035 MTP/SCS is consistent with projected and planned growth. Further, all transportation improvement projects are anticipated by the general plans of the applicable local jurisdictions, as all improvements have been coordinated with the applicable local jurisdiction.

6.2 IRREVERSIBLE EFFECTS

Section 15126.2(c) of the CEQA Guidelines requires a discussion of significant irreversible environmental changes that would occur as a result of a proposed project.

The 2035 MTP/SCS update would have an indefinite life span, assuming regular maintenance of the proposed improvements and long-term occupancy of infill and TOD projects. The proposed improvements would be located primarily in areas where transportation facilities already exist, where transportation facilities are already planned, or where transportation facilities are needed to support the new land use patterns identified in the SCS. Therefore, most proposed transportation projects are not generally expected to dramatically alter development patterns in the tri-county area and projects would support planned future development patterns. The 2035 MTP/SCS would provide a foundation for local, regional, and State officials in making decisions aimed at achieving a coordinated and balanced transportation system.

In the absence of the programmed and planned capital improvements under the 2035 MTP/SCS, traffic conditions throughout the study area would worsen as the population grows; see Section 4.12 *Transportation and Circulation*. The increasing traffic may also worsen safety problems on some roads. However, implementation of the project would involve certain trade-

offs as it would create impacts in other issue areas that would not occur without the planned improvements.

Many of the potential adverse impacts that could occur from implementation of the 2035 MTP/SCS are short-term in nature resulting primarily from construction of the proposed transportation projects, urban infill and TOD projects. Typical construction-related impacts can involve the following issues: noise, air quality, aesthetics, and exposure to hazardous materials. In addition, though such materials would not be used in a wasteful manner, all construction activity would involve the use of non-renewable energy sources, potable water and building materials (see Section 4.5 *Energy*). The use of these resources during construction would increase demand and impact supplies across the Monterey Bay region.

Long-term irreversible environmental impacts are associated with increased asphalt or concrete paving and related direct and cumulative impacts to geology/soils, biological and cultural resources (historic resources); traffic circulation and hydrology/water quality, as discussed in their respective sections of this EIR. In addition, the 2035 MTP/SCS would result in an overall increase in the urbanized character of the region. This would increase demand for potable water, electricity and other resources. The supply versus demand for these resources is evaluated by service/utility providers; thus, potential impacts would be determined during project specific review and as part of the overall planning process addressing regional growth. Mitigation measures have been prescribed to minimize these impacts. However, in certain instances (aesthetics, cultural resources, biological resources, and transportation and circulation) could remain potentially significant with implementation of mitigation measures.

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7.0 ALTERNATIVES

As required by Section 15126(d) of the *State CEQA Guidelines,* this EIR examines a reasonable range of alternatives to the proposed project that could feasibly achieve similar objectives. A primary objective is to achieve a coordinated and balanced regional transportation system while reducing GHG emissions from passenger vehicles and light trucks to meet the regional GHG reduction targets set by the California Air Resources Board (CARB). The analysis of alternatives focuses on the various land use and transportation scenarios that incorporate different assumptions regarding the combinations of future land uses and transportation system improvements. The 2035 MTP/SCS is specifically intended for the AMBAG region; therefore, an alternative location for the 2035 MTP/SCS as a whole is not possible. However, within the AMBAG region, the 2035 MTP/SCS considers different patterns of land use and transportation investments to accommodate ~~forecast~~ future growth and regional housing needs.

The alternative land use and transportation scenarios modeled and analyzed by AMBAG, are described in Appendix E and the preferred scenario is described in detail within Chapter 2, Transportation Investments and Chapter 4, the *Sustainable Communities Strategy*, of the 2035 MTP/SCS. Scenarios were based on policies and goals adopted by the AMBAG Board of Directors and the RTPA Board of Directors. Performance measures were then developed in coordination with the RTPA's to measure the effectiveness of any given scenario in meeting the goals and objectives for the region. The policies and goals are described in Chapter 1 of the 2035 MTP/SCS whereas the performance measures are described in Chapter 5. Performance measure include, among others, congested vehicle miles traveled, air quality, mode share, percent of jobs and population within ½ mile of high quality public transit and percentage of low income and/or minority populations served by the regional transportation system. Scenarios also were selected based on their ability to meet GHG reduction targets required by SB 375. The performance measures were calculated for each scenario using AMBAG's land use model and recently updated regional travel demand model (RTDM), as well as the EMFAC 2011 emission factor model. This alternatives analysis includes the following alternatives to the proposed 2035 MTP/SCS:

- **Alternative 1: No Project Alternative**: The No Project Alternative is comprised of a land use pattern that reflects existing land use trends and a transportation network comprised of transportation projects that are currently in construction or are funded in the short range Metropolitan Transportation Improvement Program~~lan~~ (MTIP).

- **Alternative 2: Intensified Land Use and Transit Alternative:** The Intensified Land Use and Transit Alternative includes a land use pattern that further concentrates forecasted population and employment growth in urban areas with a focus on infill, mixed use, and transit oriented development in and around commercial corridors. The transportation network under this alternative includes transit investments in addition to other alternative modes of transportation to serve a more concentrated growth pattern. Specifically, active transportation investments such as bicycle facilities, sidewalks, traffic calming measures and intersection safety improvements would be prioritized in this alternative. A greater level of investment would be focused on closing transit gaps by expanding local transit, rather than interregional or long distance services.

- **Alternative 3: Business As Usual Alternative:** The Business As Usual Alternative includes a land use pattern comprised of existing land use plans and a transportation network that includes more traditional congestion relief and roadway projects focused on mobility and safety. A greater level of investment is focused on capacity increasing projects are combined with investment in long distance transit service options to reduce congestion and increase mobility within the region. Operations and maintenance projects are included to improve safety on the region's local streets and roads also are given a higher priority.

Each alternative is described and analyzed below to determine whether environmental impacts would be similar to, less than, or greater than those of the preferred alternative in the 2035 MTP/SCS. As required by CEQA, this section also includes a discussion of the "environmentally superior alternative" among those studied.

The State CEQA Guidelines require that an EIR identify any alternatives that were considered but rejected as infeasible during the scoping process and a brief explanation justifying the determination. During the development of the 2035 MTP/SCS, AMBAG received extensive public comment and participation in developing the alternatives analyzed in this draft EIR. During this process, all comments and recommendations for transportation improvements were considered and integrated into the alternatives developed and discussed herein.

7.1 ALTERNATIVE 1: NO PROJECT ALTERNATIVE

7.1.1 Description

The No Project Alternative is defined as a land use pattern comprised of existing land use trends. In other words it assumes that current subregional growth trends would continue, but it updates the total growth to be consistent with the updated 2014 Regional Growth Forecast. Rather than focusing on coordinating transportation projects that serve infill and transit oriented development, the transportation network would be comprised of committed transportation projects included in the MTIP.

While some transportation benefits may occur by implementing programmed improvements, relative to the 2035 MTP/SCS, AMBAG performance measures show that Alternative 1 would not perform as well as the 2035 MTP/SCS in a number of other areas. Specifically Alternative 1 results in ~~approximately 75 percent~~ fewer jobs within ½ mile of a high quality transit stop due to less investment in BRT and regional transit services. ~~Further, the percent of work trips by transit, bicycle or walking would be less as would the percentage of the households living within ½ mile of a high quality transit stop.~~ In addition, projects comprising Alternative 1 would result in a smaller percentage of low income/minority communities being served by transportation improvements.

7.1.2 Impact Analysis

a. Aesthetics. Implementation of this alternative would result in fewer visual impacts as compared to the proposed project, because many of the proposed interchanges, bridges, and roadway extensions, as well as transit, and rail facilities would not be constructed.

Nevertheless, many capital improvements would be constructed, and the gradual transformation toward a more urban/suburban character would occur in many parts of the AMBAG region. Therefore, overall aesthetic impacts associated with implementation of this alternative may be less than the proposed project, but would result in similar types of impacts and require all mitigation measures discussed in Section 4.1, *Aesthetics*.

b. Air Quality. Implementation of this alternative would result in reduced air quality impacts due to construction activity. However, it would result in greater air quality impacts due to congestion. The net result would be worse air quality in the long term with slightly better air quality in the short term. Furthermore, as shown in Table 4.2-5, in Section 4.2, *Air Quality*, emissions of PM_{10}, ROG, and NO_X would be higher under this alternative than emissions anticipated with implementation of the 2035 MTP/SCS. As stated in Section 4.2, *Air Quality,* the reduction in emissions would result from transportation improvements and the future land use scenario envisioned by the 2035 MTP/SCS, which encourages infill, mixed use, and TOD. The SCS is intended to increase residential and commercial land use capacity within existing transit corridors which would shift a greater share of future growth to these corridors, ultimately increasing density and~~,~~ improving circulation and multimodal connections. While the performance measures indicate the regional VMT would be ~~less~~ more under this alternative than the proposed project, other performance measures show an improvement with the 2035 MTP/SCS in the overall efficiency of the transportation network including a reduction in CVMT (defined as V/C of greater than or equal to 1.0). If this alternative were selected, improvements in the transportation infrastructure anticipated under the 2035 MTP/SCS would not occur. Thus, overall air quality impacts would be greater under this alternative when compared to the 2035 MTP/SCS. All mitigation measures identified in Section 4.2 *Air Quality* would still be required to reduce or avoid potentially significant impacts.

c. Biological Resources. Implementation of this alternative may result in less impact to biological resources as fewer roadway extensions, widening projects and creek crossings would occur under this alternative. This would result in less ground disturbance and fewer impacts to special status plants, animals, wetlands and/or riparian habitat outside developed urban areas than anticipated if the 2035 MTP/SCS were implemented. Impacts related to wildlife movement may be reduced; however, projects constructed under this alternative would have similar potential to impact wildlife movement in locations where wildlife movement occurs. While impacts to sensitive plant and animal species and wetlands may be reduced under this alternative, impacts would remain significant, but mitigable (Class II) and all related mitigation measures referenced in Section 4.3, *Biological Resources* would apply.

d. Cultural Resources. Implementation of this alternative would involve less ground disturbance than would occur under the 2035 MTP/SCS; and therefore, would reduce the potential to impact unknown cultural resources. However, some ground disturbance would still occur and impacts related to unknown cultural resources would remain significant but mitigable (Class II) and all related mitigation measures referenced in Section 4.4, *Cultural Resources*, would apply. Because this alternative would include less infill, mixed use, and TOD than the 2035 MTP/SCS, potential impacts to historic structures from infill and TOD projects may be reduced. However, the expansion of urban areas into undeveloped land that may occur under this alternative could result in potential impacts to cultural resources. These impacts may be greater that what would occur if development were concentrated in already disturbed urban

areas. Overall, impacts related to cultural resources would be similar or greater under this alternative than what could occur as a result of 2035 MTP/SCS.

e. Energy. Because future construction would be less under this alternative, energy use associated with construction activities is expected to be less than under the proposed project. However, this alternative would not include many of the capital improvements envisioned under the proposed 2035 MTP/SCS that would improve transportation efficiency and reduce regional energy demand. As shown in Table 4.5-4, Section 4.5, *Energy*, without implementation of the 2035 MTP/SCS, energy use would increase over time, as the result of regional socioeconomic (population and employment) growth. The 2035 MTP/SCS would result in higher direct and indirect energy use as compared to the No Project scenario for the 2035 analysis year.

For the purposes of this discussion, one alternative would have a greater energy impact than another if it involved inefficient, wasteful, and unnecessary consumption of energy. The 2035 MTP/SCS includes Transportation Demand Management (TDM) and Traffic Systems Management (TSM) intended to improve the efficiency and effectiveness of the transportation system. Further, the transportation improvements proposed under the 2035 MTP/SCS would result in a more efficient transit system, greater availability of public transit and other alternative modes of transportation, as well as a more energy efficient land use scenario than the No Project alternative. The reduction in overall CVMT resulting from these improvements would reduce fuel consumption and promote fuel efficiency. Thus, in comparison to the 2035 MTP/SCS, the No Project Alternative would result in less efficient use of energy resources across the AMBAG region; and therefore, would have a greater impact to energy resources than the proposed project. Mitigation measures identified in Section 4.5, *Energy*, would be applicable.

f. Environmental Justice. Because this alternative would not include many of the capital improvements defined within the 2035 MTP/SCS, it would likely result in fewer direct impacts to minority and/or low income populations relative to air quality, noise and traffic. Like the proposed project, these impacts would remain less than significant (Class III). However, this alternative would not involve the implementation of transportation projects or infill and TOD development projects that would improve mobility for low income and minority populations and communities of concerns. As shown in the performance measures, the proposed project would provide greater access to transportation services for low income and/or minority populations than the No Project alternative. Therefore, environmental justice impacts with respect to mobility benefits would be greater under the No Project alternative than the 2035 MTP/SCS.

g. Geology and Soils. Because this alternative does not include as many new interchanges, bridges, roads, and fixed facilities, there would be less exposure of new structures to hazardous conditions, including liquefaction, expansive soils, landslides, ground-shaking, and flooding. Conversely, if inadequate structures are not replaced, the potential for these existing structures and people using these structures to be harmed by geologic hazards could be greater than under the proposed 2035 MTP/SCS. Therefore, the overall impact of this alternative would be similar to that expected under the proposed project and impacts would remain significant, but mitigable (Class II). All related mitigation measures referenced in Section 4.7, *Geology,* would be required.

h. Greenhouse Gas Emissions/Climate Change. Implementation of this alternative would result in fewer impacts associated with GHG emissions during construction activities as fewer projects would be constructed under this alternative. However, this alternative would not include the SCS component of the MTP; and therefore, would not reduce GHG emissions as required by SB 375. As shown in Table 4.8-34, of Section 4.8, *Greenhouse Gas Emissions/Climate Change*, GHG emissions under the No Project alternative (i.e., baseline) would be higher when compared to GHG emissions with the 2035 MTP/SCS. This is primarily a result of the transportation efficiency benefits associated with the 2035 MTP/SCS that wouldn't occur under the No Project alternative. As long-term emissions of GHGs would be higher under this alternative, the overall impact of this alternative would be greater than what would occur under the 2035 MTP/SCS.

i. Hydrology and Water Resources. Because the amount of future construction activity would be reduced under this alternative, the amount of water needed for dust suppression activities and the potential for water quality impacts resulting from erosion would be reduced as would the amount of new landscaped areas requiring irrigation. Further, under this alternative, the increase in impermeable, paved surfaces would likely be less than anticipated under the 2035 MTP/SCS. Overall, incremental increases in water quality and supply impacts, as well as incremental reductions in groundwater recharge, would be less than the proposed 2035 MTP/SCS but would still occur as planned projects are developed. As such, impacts would remain significant but mitigable (Class II) and all related mitigation measures referenced in Section 4.10, *Hydrology and Water Resources*, would be required.

j. Land Use. The number of infill or TOD projects would be less under the No Project alternative than the 2035 MTP/SCS. Consequently, anticipated land use conflicts related to air quality, light and glare and noise may be less under the No Project alternative when compared to a more concentrated development pattern anticipated under the proposed project. Similar to the 2035 MTP/SCS, it is likely that impacts would be less than significant (Class III); however, this alternative would be inconsistent with SB 375 because GHG reduction targets would not be met.

Because fewer projects would be implemented, temporary disruptions to residents and businesses associated with temporary road or lane closures or impacts to parking access would be less. However, impacts would still occur to a certain extent and would remain significant but mitigable (Class II) under the No Project alternative. Related mitigation measures referenced in Section 4.11, *Land Use* would apply.

This alternative would cause fewer impacts to agriculture and agricultural land as a result of direct conversion caused by the implementation of transportation projects; however, overall impacts may be greater because a more dispersed urban land use pattern would occur relative to the proposed project. Impacts to agriculture would remain significant and unavoidable (Class I) and related mitigation measures referenced in Section 4.11, *Land Use,* would apply. Overall, land use impacts under the No Project alternative would be ~~greater~~ similar to or less than the proposed project.

k. Noise. Because noise is a site specific issue, noise studies would be prepared for each project to determine whether impacts would occur. From a program perspective, fewer projects would result in less construction activity. This would reduce temporary noise impacts throughout the AMBAG region. However, construction noise would still occur and impacts may be significant and mitigable. All related mitigation measures specified in Section 4.11, *Noise*, would be required.

Although the number of transportation projects would be reduced as compared to the proposed project, the increase in traffic volumes resulting from regional growth would likely occur. Whether noise impacts would be greater or less remains dependent on project specific studies. Regionally, the difference in VMT between the No Project alternative and the 2035 MTP/SCS is not enough to noticeably change noise levels. Because a number of rail and transit improvements planned under the 2035 MTP/SCS would not be implemented in this alternative, the potential for increased rail and transit noise, while site specific, overall would be less than the 2035 MTP/SCS. Overall, noise impacts would be similar to or less than the proposed project.

l. Transportation and Circulation. This alternative would not include many of the projects envisioned under the proposed 2035 MTP/SCS, including new highway and intersection projects, new bikeway and pedestrian projects (active transportation), new railroad projects, new transit projects, new intelligent transportation system/transportation demand management projects and aviation projects. Many of these projects are intended to address traffic congestion, and in many cases would serve as mitigation measures to reduce potential impacts associated with planned long-term development.

Overall, VMT within the AMBAG region would increase as a result of regional population growth. As discussed in Section 4.12 *Transportation and Circulation*, overall VMT would be less under the No Project alternative than the proposed project. However, CVMT, also defined as VMT in congested conditions (see ~~Table 4.12-8~~ Table 4.12-9 in Section 4.12, *Transportation*), would be less under the 2035 MTP/SCS than the No Project alternative. This is due to the capacity increases planned in the 2035 MTP/SCS as well as infill and TOD projects. Capacity increasing projects work to reduce congestion on major arterials and highways, while infill development results in shorter travel distances and better access to transit services and other alternative modes of transportation. Without capacity increasing projects VMT would still increase, ~~but~~ and roads would be more congested resulting in higher congested VMT.

Under the No Project alternative, fewer transit projects would be implemented. As indicated in ~~Table 4.12-10~~ Table 4.12-12, transit performance, as defined by average transit time, would be ~~worse~~ comparable under the No Project scenario when compared to transit performance with the 2035 MTP/SCS. ~~As a result, impacts to public transit would be greater under this alternative when compared to the 2035 MTP/SCS. Thus, overall~~ Overall, impacts to transportation and circulation would be greater under the No Project alternative than the proposed project.

7.2 ALTERNATIVE 2: INTENSIFIED LAND USE AND TRANSIT ALTERNATIVE

7.2.1 Description

As described above, the Intensified Land Use and Transit Alternative includes a land use pattern similar to the preferred alternative, but that is even more concentrated in urban areas with a focus on mixed use and infill development along and adjacent to existing commercial corridors. The proposed 2035 MTP/SCS land use scenario emphasizes infill and TOD projects that would locate both residents and jobs closer to existing and planned high quality transit, thereby encouraging the use of alternative modes of transit, walking and bicycling. Improvements that would occur under Alternative 2 would serve a similar purpose; however, the density and intensity of infill development along commercial corridors would be increased regardless of whether or not there is high quality transit. The transportation network in this alternative includes additional transit investments in alternative modes intended to serve shorter, local trips given the more concentrated growth pattern. Specifically, active transportation investments such as bicycle facilities, sidewalks, traffic calming measures and intersection safety improvements would be prioritized. Under this alternative, investment would be focused on closing transit gaps by enhancing local transit service rather than interregional or long distance services. In addition, active transportation projects such as bicycle facilities, trails and pedestrian improvements are programmed throughout the region under this alternative. Projects that would be eliminated or reprioritized include aviation, highway, regional transit, and various TDM/TSM improvements.

While some transportation benefits may occur, specifically a reduction in overall VMT, relative to the 2035 MTP/SCS, AMBAG performance measures show that Alternative 2 would perform poorly in a number of other areas. Specifically Alternative 2 results in approximately 30 percent fewer jobs within ½ mile of a high quality transit stop due to less investment in BRT and regional transit services. Further, percent of work trips by transit, bicycle or walking would be less as would the percentage of the households living within ½ mile of a high quality transit stop. In addition, projects comprising Alternative 2 would result in a smaller percentage of low income/minority communities being served by transportation improvements.

7.2.2 Impact Analysis

This alternative would result in less or similar impacts to those described for the 2035 MTP/SCS for most environmental issue areas. Because improvements would be concentrated within existing commercial corridors, impacts related to aesthetics, biological resources, cultural resources, environmental justice, geology and soils, hydrology and water quality; and land use are anticipated to be less or similar to the 2035 MTP/SCS. Because this alternative would include a greater transit emphasis focusing on enhanced local transit rather than regional service, this alternative would result in ~~less~~ more VMT when compared to the 2035 MTP/SCS~~, as it would likely result in less single occupant vehicle use for shorter trips served by transit.~~ This alternative would result in 20,138,795 VMT annually, whereas the 2035 MTP/SCS would result in ~~19,652,667~~ 19,676,799 VMT. Additionally, CVMT would be more under Alternative 2 than the proposed project. As a result, this alternative would generate more ozone precursor and particulate matter emissions as well as GHG emissions. Energy consumption, noise, and

traffic congestion would likely also be higher than the 2035 MTP/SCS. Further, a smaller percentage of the low income/minority population would be served relative to the proposed project. Thus, potential environmental justice impacts would be greater than the 2035 MTP/SCS.

a. Aesthetics. Alternative 2 would result in compact urban development patterns similar to the proposed project as it emphasizes infill and TOD and enhanced local transit service along existing commercial corridors. To the extent that infill and TOD is visually consistent with the surrounding urbanized environment, this alternative would result in impacts similar to those described for the 2035 MTP/SCS. Projects within suburban or rural areas would not occur to the extent proposed in the 2035 MTP/SCS; thus, visual/aesthetic impacts in these areas would be less. However, similar to the 2035 MTP/SCS, many capital improvements would be constructed and the gradual transformation toward a more urban/suburban character throughout the AMBAG region would continue. Overall, aesthetic impacts under this alternative would be less than or similar and all mitigation measures discussed in Section 4.1, *Aesthetics* would be required.

b. Air Quality. Implementation of this alternative would result in similar short-term air quality impacts compared to the proposed 2035 MTP/SCS because urban construction activities would expose higher numbers of people to construction-related air emissions. Accordingly, overall air pollutant emissions (including diesel particulates from construction equipment) would be similar under this alternative when compared to the 2035 MTP/SCS.

The overall VMT would be more in Alternative 2 even though there would be a greater number of non-work related shorter distance trips and those trips would likely be made using enhanced local transit services or by walking and bicycling rather than the single occupant vehicle. Overall, air quality impacts would be similar or greater under this alternative when compared to the 2035 MTP/SCS. All mitigation measures identified in Section 4.2 *Air Quality* would be required.

c. Biological Resources. Under this alternative, a greater number of improvements would be concentrated along existing commercial corridors within urban areas than anticipated by the 2035 MTP/SCS. These projects may have little or no impact on biological resource; however, like the 2035 MTP/SCS, projects that do occur along the urban edge could impact biological resources. Because the majority of improvements are expected to be concentrated along urban corridors, this alternative may result in less ~~than or similar~~ impacts to special status plants and animals, and sensitive habitats, as compared to the 2035 MTP/SCS. Impacts related to wildlife movement would be similar under this alternative because transportation projects that could potentially impact wildlife movement could be included under Alternative 2. Impacts to sensitive plant and animal species would remain significant but mitigable (Class II) and all related mitigation measures would apply. Potential impacts related to wildlife movement would remain potentially significant and unavoidable and all related mitigation measures defined in Section 4.3, *Biological Resources*, would apply.

d. Cultural Resources. This alternative would result in similar overall construction activity and ground disturbance as the proposed project; however, improvements would be focused along existing commercial corridors. Like the 2035 MTP/SCS, projects that do occur along the urban edge could impact cultural resources; however, because the majority of

improvements are expected to be concentrated along urban corridors, this alternative may result in less than or similar impacts to cultural resources. Impacts related to unknown cultural resources would remain significant but mitigable (Class II) and all related mitigation measures would apply. Because this alternative would include more infill development and TOD along existing commercial corridors, potential impacts to historic structures could be greater than the proposed project. Overall, impacts related to cultural resources would be less than or similar under this alternative when compared to the 2035 MTP/SCS. All related mitigation measures defined in Section 4.4, Cultural *Resources*, would apply.

e. Energy. As discussed in Section 4.5, *Energy*, the proposed 2035 MTP/SCS land use scenario emphasizes infill and TOD projects that would locate both residents and jobs closer to existing and planned high quality transit, thereby encouraging the use of alternative modes of transit (e.g. buses), walking and bicycling. Improvements that would occur under Alternative 2 would serve a similar purpose; however, the density and intensity of infill development along commercial corridors would be increased regardless of whether or not there is high quality transit.

As discussed above, one alternative would have a greater energy impact than another if it involved inefficient, wasteful, and unnecessary consumption of energy. The 2035 MTP/SCS includes TDM and TSM measures intended to improve the efficiency and effectiveness of the transportation system. Further, the transportation improvements proposed under the 2035 MTP/SCS would result in a more efficient transit system overall, greater access to public transit and other alternative modes of transportation. However, as shown in the performance measures, this alternative would result in more VMT as compared to the proposed project (i.e., 20,138,795 versus ~~19,652,667~~ 19,676,799) and more CVMT (i.e., ~~510,426~~ 667,487 versus ~~377,858~~ 618,875). More vehicle trips would require more direct and indirect energy consumption. There is no evidence to indicate energy consumption under Alternative 2 would be inefficient or wasteful; thus, in comparison to the 2035 MTP/SCS, Alternative 2 would result in similar or greater impact to energy resources. Mitigation measures identified in Section 4.5, *Energy*, would be applicable.

f. Environmental Justice. This alternative would result in similar impacts to minority or low income populations related to air quality, noise and traffic; however, these impacts are expected to remain less than significant (Class III). This alternative would result in greater infill and TOD development along existing commercial corridors; however, the performance measures developed by AMBAG indicate that fewer low income/minority communities would be served relative to the 2035 MTP/SCS. Thus, while transit improvements anticipated under Alternative 2 may ~~would~~ improve mobility for minority populations and communities located within higher density urban areas, fewer populations within rural areas would experience improved access to transit ~~of concern~~ relative to existing conditions. Thus, the overall benefit would be less than under the 2035 MTP/SCS. Therefore, environmental justice impacts as they relate to mobility benefits would be greater than the proposed project.

g. Geology and Soils. This alternative would include the same type of transportation projects as the 2035 MTP/SCS; and therefore, would result in similar impacts related to hazardous conditions. However, impacts ~~Impacts~~ may be focused in developed urban areas as fewer projects would occur in suburban or rural areas. The overall impact of this alternative would be less than or similar to that expected under the proposed project and impacts would

remain significant but mitigable (Class II). All related mitigation measures included in Section 4. 7, *Geology*, would be required.

h. Greenhouse Gas Emissions/Climate Change. Construction-related GHG emissions under this alternative would be similar to the proposed 2035 MTP/SCS because the number and types of projects constructed would be similar. However, during operation, both the VMT and CVMT would be greater than the proposed project. Thus, GHG emissions under this alternative would be higher in comparison to GHG emissions under the proposed 2035 MTP/SCS. Because long-term emissions of GHGs would be higher under this alternative, the overall impact would be greater. This alternative is expected to meet the GHG emission reduction requirements associated with SB 375 assuming post processing for increased transit and other measures. GHG-related impacts would be similar to or greater than the proposed project. All mitigation measures included in Section 4. 8, *Greenhouse Gas Emissions/Climate Change*, would be applicable.

i. Hydrology and Water Resources. Because the amount of future construction activity would be similar under this alternative, water needed for construction dust suppression activities and the potential for water quality impacts resulting from erosion would be similar. Because a greater development concentration would occur within urban areas along existing commercial corridors, the amount of new landscaping requiring irrigation is expected to be less than the proposed project. Further, the amount of new impermeable surfaces would not increase as much as expected for the 2035 MTP/SCS as Alternative 2 would focus improvements on shorter distance trips. Overall, impacts to water quality and water supply, as well as reductions in groundwater recharge associated with Alternative 2 would be less than the 2035 MTP/SCS. However, impacts may remain significant but mitigable (Class II) and all related mitigation measures identified in Section 4.9, *Hydrology and Water Quality*, would be required.

j. Land Use. This alternative would include greater infill and TOD along existing commercial corridors in comparison to the 2035 MTP/SCS. As such, anticipated land use conflicts related to air quality, light and glare, and noise may be greater than expected with a less concentrated development pattern, but would remain less than significant (Class III). Because a greater number of infill and TOD projects would be implemented along existing commercial corridors, more temporary disruptions to residents and businesses related to road/lane closures and/or impacts to parking access may occur relative to the proposed project. These impacts would also occur to a certain extent under the proposed project. Those impacts that are potentially significant (Class II) could be mitigated. All related mitigation measures associated with the proposed project as identified in Section 4.10, *Land Use*, would apply. This alternative would result in less impact to agriculture land because more projects would occur in existing urban areas. However, any impacts to agriculture occurring under this alternative would remain significant and unavoidable (Class I) and related mitigation measures would apply.

k. Noise. Overall construction activities would be similar under Alternative 2 as described for the 2035 MTP/SCS and may result in temporary noise impacts. Impacts may be less under this alternative as fewer projects would occur along the urban edge; however, any impact may be significant but mitigable (Class II). As discussed, the overall VMT would be greater under this alternative than the proposed project; thus, Alternative 2 could result in

greater overall noise associated with long-term traffic/transit operation, particularly in suburban or rural areas. Impacts could remain significant but mitigable (Class II) and all related mitigation measures defined within Section 4.11, *Noise*, would be required.

l. Transportation and Circulation. Alternative 2 would include a similar range of transportation improvement projects as identified for the proposed 2035 MTP/SCS, with greater priority given to bicycle, pedestrian, and local transit connections. Many are intended to address traffic congestion identified by local agencies in the RTPs, and in many cases would mitigate potential impacts associated with planned long-term development projects. However, others are intended to support improvements along commercial corridors to facilitate access to alternative transportation modes. Thus, this alternative would result in shorter average trip lengths but more VMT when compared to the proposed 2035 MTP/SCS. Further, CVMT would be more under Alternative 2.

Nonetheless, both VMT and CVMT would increase when compared to existing (2010) baseline conditions, which is primarily a result of population and employment growth anticipated to occur throughout the AMBAG region in any scenario. Based on VMT, potential impacts to transportation and circulation could be greater under Alternative 2 and those impacts that do occur may be focused in urban areas rather than suburban or rural areas. Regardless, potential impacts could remain significant and unavoidable. All mitigation measures included in Section 4.12, *Transportation*, would be applicable to Alternative 2.

7.3 ALTERNATIVE 3: BUSINESS AS USUAL ALTERNATIVE

7.3.1 Description

The Business As Usual Alternative incorporates the 2014 Regional Growth Forecast and includes a land use pattern comprised of existing General Plans and a transportation network that includes more traditional capacity enhancement and congestion relief roadway projects focused on mobility and safety. This alternative also includes aviation projects at Monterey and Watsonville Airports, as does the preferred. Specifically, more emphasis is given to capacity increasing projects and long distance transit service options to increase mobility within the region. These include express bus service on Highway 17 in Santa Cruz County, bus rapid transit service between Watsonville and Santa Cruz; regional express transit support services in San Benito County, and a new Salinas-Marina Multimodal Center in Monterey County. The alternative would also include many operations and maintenance projects that are intended to improve safety on the region's local streets and roads.

7.3.2 Impact Analysis

a. Aesthetics. Implementation of this alternative would result in similar visual impacts as compared to the proposed project. This alternative would result in less compact development patterns than the proposed 2035 MTP/SCS, which emphasizes infill development and TOD. To the extent that infill and TOD projects are developed under this alternative, they are likely to be visually consistent with the surrounding urbanized built environment. This would cause a similar visual impact to what is anticipated for the 2035 MTP/SCS. With this alternative, as with the proposed 2035 MTP/SCS, many capital improvements would be constructed, and the

gradual transformation toward a more urban/suburban character would continue. Overall, aesthetic impacts under this alternative would be similar and all mitigation measures discussed in Section 4.1, *Aesthetics* would be required.

b. Air Quality. Implementation of this alternative would result in similar short-term construction-related air quality impacts as compared to the proposed 2035 MTP/SCS because a similar amount of overall land development and associated construction activity would occur. Since the future land use scenario envisioned by the 2035 MTP/SCS would not be implemented with this alternative, and overall VMT would be less, potential air quality impacts under this alternative would be less when compared to the 2035 MTP/SCS. Accordingly, overall toxic air emissions (diesel particulates) would be less under this alternative as would emissions of PM_{10}, ROG, and NO_X. Overall, air quality impacts would be less under this alternative when compared to the 2035 MTP/SCS. All mitigation measures identified in Section 4.2 *Air Quality* would be required.

c. Biological Resources. This alternative would result in similar overall construction activity and ground disturbance because a similar amount of land development would occur. Thus, the alternative may result in similar potential impacts to special status plants and animals, and sensitive habitats, as compared to the 2035 MTP/SCS. Impacts related to wildlife movement would be similar under this alternative, since the same transportation projects that could potentially impact wildlife movement would be included. Impacts to sensitive plant and animal species would remain significant but mitigable (Class II). Potential impacts related to wildlife movement would remain potentially significant and unavoidable and all related mitigation measures discussed in Section 4.3, *Biological Resources,* would apply.

d. Cultural Resources. This alternative would result in similar overall construction activity as the 2035 MTP/SCS because a similar amount of overall land development would occur. Potential impacts related to unknown cultural resources would remain significant but mitigable (Class II) and all related mitigation measures identified in Section 4.4, *Cultural Resources,* would apply. Since this alternative would include less infill development and TOD than anticipated under the 2035 MTP/SCS, potential impacts to historic structures from infill and TOD projects may be reduced. However, overall, impacts related to cultural resources would be similar under this alternative when compared to the 2035 MTP/SCS.

e. Energy. As discussed in Section 4.5, *Energy*, the proposed 2035 MTP/SCS land use scenario emphasizes infill and TOD projects that would reduce VMT and related energy use. Infill, mixed use, and TOD projects would locate people closer to high quality transit, thereby encouraging the use of alternative modes of transit and resulting in fewer vehicle trips. Alternative 3 would not emphasize infill or TOD development; and therefore, would result in longer average vehicle trips and reduce access to alternative transportation. However, overall VMT would be slightly less than the 2035 MTP/SCS. Thus, overall energy impacts would be less with this alternative when compared to the proposed project. Mitigation measures identified in Section 4.5, *Energy*, would be applicable.

f. Environmental Justice. This alternative would result in similar impacts to minority or low income populations related to air quality, noise and traffic, and impacts would remain less than significant (Class III). Transportation improvements would occur under Alternative 3; however, AMBAG performance measures indicate they would serve fewer low

income/minority communities than those associated with the 2035 MTP/SCS. Thus, while Alternative 3 would provide some mobility benefits for minority populations and communities of concern relative to existing conditions, the overall benefit would be less than under the 2035 MTP/SCS. Therefore, environmental justice impacts as they relate to mobility benefits would be greater than those of the proposed project as fewer low income/minority populations would be served.

g. Geology and Soils. This alternative would include the same type of transportation projects as discussed in the 2035 MTP/SCS; and therefore, would result in similar impacts related to hazardous conditions. Therefore, the overall impact of this alternative would be similar to that expected under the 2035 MTP/SCS and potential impacts would remain significant but mitigable (Class II). All related mitigation measures defined in Section 4.7, *Geology*, would be required.

h. Greenhouse Gas Emissions/Climate Change. Construction-related emissions of GHGs with this alternative would be similar as compared to those associated with the 2035 MTP/SCS because a similar amount of overall land development is anticipated. Implementation of this alternative would result in a slightly lower VMT when compared to the proposed 2035 MTP/SCS; however, because this alternative includes more road capacity investments, it would not benefit from post processing GHG emissions and would not meet the GHG emission reduction requirements of SB 375.

i. Hydrology and Water Resources. Because the amount of future construction activity would be similar under this alternative, water needed for construction dust suppression activities and the potential for water quality impacts resulting from erosion would be similar to the 2035 MTP/SCS. The amount of new landscaped areas requiring irrigation would also be similar as would any increases in impermeable, paved surfaces. Overall, incremental increases in water quality impacts and water supply impacts, as well as incremental reductions in groundwater recharge would still occur under this alternative when compared to the 2035 MTP/SCS. As such, impacts would remain significant but mitigable (Class II) and all related mitigation measures included in Section 4.9, *Hydrology and Water Quality*, would be required.

j. Land Use. This alternative would include less infill and TOD when compared to the proposed 2035 MTP/SCS. As such, anticipated land use conflicts related to air quality, light and glare, and noise would be reduced as the concentration of development would be less. Impacts would be less than significant (Class III). However, this alternative would be inconsistent with the SCS and SB 375 as it would not meet established GHG reduction targets.

Under Alternative 3, fewer infill and TOD projects would be implemented; and therefore, fewer temporary disruptions to residents and businesses would occur. Fewer disruptions associated with temporary road or lane closures or impacts to parking access would occur. However, these impacts would occur to a certain extent and impacts would remain significant but mitigable (Class II). Related mitigation measures identified in Section 4.10, *Land Use*, would apply.

This alternative would result in greater impacts to agriculture and agricultural land because more projects would occur on urban fringes near agriculturally designated lands, as opposed to existing urban cores as envisioned in the 2035 MTP/SCS. Impacts to agriculture would remain

significant and unavoidable (Class I) and related mitigation measures identified in Section 4.11, *Land Use*, would apply.

k. Noise. Overall construction activities would be similar and result in noise impacts similar to those described for the 2035 MTP/SCS. Impacts would be significant but mitigable (Class II). Since overall VMT would be less, this may result in similar or less long-term traffic related noise. Consequently, impacts would remain significant but mitigable (Class II) and all related mitigation measures identified in Section 4.11, *Noise*, would be required.

l. Transportation and Circulation. Alternative 3 would involve a similar range of transportation improvement projects as compared to the 2035 MTP/SCS. However, there is a greater emphasis on roadway improvements in this alternative. Many of these projects would expand capacity and relieve traffic congestion, and in many cases are intended as mitigation measures to reduce potential impacts associated with planned long-term development. Therefore, Alternative 3 would have similar transportation benefits, particularly related to highway/street operations as envisioned under the 2035 MTP/SCS. This alternative does not involve modifications to land use patterns; and therefore, would result in less compact development than the 2035 MTP/SCS. However, this alternative would result in slightly less VMT when compared to the proposed 2035 MTP/SCS. As discussed, total VMT in 2035 under Alternative 3 would be 19,179,610, whereas total VMT in 2035 with the 2035 MTP/SCS would be ~~19,652,667~~ 19,676,799. Congested VMT would be less for Alternative 3 than the 2035 MTP/SCS which is consistent with improvements focused on capacity enhancement and congestion relief. Both VMT and CVMT would increase when compared to existing (2010) baseline conditions which is primarily a result of population and employment growth anticipated to occur throughout the region in any scenario. Therefore, impacts would remain significant and unavoidable. All mitigation measures provided in Section 4.12, *Transportation*, would be applicable.

7.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

This section compares the impacts of the three alternatives under consideration to those of the proposed project. Table 7-1 shows whether each alternative would have impacts that are less than, similar to or greater than the proposed project for each of the issue areas studied.

The No Project Alternative (Alternative 1) could be considered environmentally superior overall, as it would entail the fewest projects; and therefore, result in the fewest construction-related impacts and impacts associated with ground disturbance. However, many of the transportation improvements and infill/TOD projects envisioned in the 2035 MTP/SCS would not be developed. Thus the performance measures developed by AMBAG would not be achieved. Further, the No Project Alternative does not include the SCS component of the MTP; and therefore, implementation would not reduce GHG emissions as required by SB 375.

Under Alternative 2, land use patterns would further concentrate forecasted population and employment growth in urban areas with a focus on infill, mixed use and transit oriented development in and around commercial corridors. Alternative 2 ~~would not~~could be considered environmentally superior to the Project ~~to the proposed 2035 MTP/SCS~~ primarily because impacts to aesthetics, biological resources, cultural resources, geology, and land use would be

less than or similar to the proposed 2035 MTP/SCS. ~~overall VMT would be higher. This~~However, Alternative 2 would result in more severe air quality, GHG, energy, and transportation impacts. Further, it would have a greater impact to low income and minority populations as fewer people within these communities would be served by transportation improvements than anticipated for the 2035 MTP/SCS.

Alternative 3 would not be considered environmentally superior to the proposed 2035 MTP/SCS even though VMT is slightly less than the 2035 MTP/SCS Alternative 3 would result in greater GHG and land use impacts. Further, it would have a greater impact to low income and minority populations as fewer people within these communities would be served by transportation improvements than anticipated for the 2035 MTP/SCS.

Table 7-1
Alternative Comparison

Issue	Alternative 1: No Project Alternative	Alternative 2: Intensified Land Use and Transit Alternative	Alternative 3: Business as Usual Alternative
Aesthetics	=	-/=	=
Air Quality	+	+	-
Biological Resources	=-	= -	=
Cultural Resources	=	-/=	=
Energy	+	+	-
Environmental Justice	+	+	+
Geology	=	= -	=
Greenhouse Gases	+	=/+	+
Hydrology	-	-	=
Land Use	+ -	-/=	+
Noise	-	+	=
Transportation and Circulation	+ -	+	=
Overall	**+/= -/=**	**+/= -/=**	**+/=**

- impacts would be less than the 2035 MTP/SCS
= impacts would be similar to the 2035 MTP/SCS
+ Impacts would be greater than the 2035 MTP/SCS

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8.1 REFERENCES

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Persons Contacted

Hunter Harvath, Monterey-Salinas Transit (MST), personal communication, December 13, 2013.

8.2 LIST OF PREPARERS

This EIR was prepared by Rincon Consultants, Inc. under contract to the Association of Monterey Bay Area Governments. Persons involved in data gathering analysis, project management, and quality control include:

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Appendix A

Notice of Preparation and Responses

ASSOCIATION OF MONTEREY BAY AREA GOVERNMENTS

Notice of Preparation for an Environmental Impact Report

2014 Metropolitan Transportation Plan/Sustainable Communities Strategy
2014 Regional Transportation Plans for San Benito, Santa Cruz, and Monterey Counties

Notice is hereby given that the Association of Monterey Bay Area Governments (AMBAG) will be the lead agency in partnership with San Benito County Governments (SBtCOG), the Santa Cruz County Regional Transportation Commission (SCCRTC), and the Transportation Agency for Monterey County (TAMC), who are responsible parties, for the preparation of an Environmental Impact Report for the 2014 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS). SBtCOG, SCCRTC, and TAMC are the lead agencies for the development of the 2014 Regional Transportation Plan for San Benito County, 2014 Regional Transportation Plan for Santa Cruz County, and 2014 Regional Transportation Plan for Monterey County.

Pursuant to section 15082 of the California Environmental Quality Act (CEQA), AMBAG is soliciting views from your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed MTP/SCS and affected RTP. AMBAG also will accept written comments concerning the scope and content of the EIR from interested persons and organizations concerned with the project. The Draft EIR will be a Program EIR. A Program EIR is an EIR that may be prepared on a series of actions that can be characterized as one large project and acts as the first tier of environmental review. The EIR will serve as the Program EIR for the AMBAG 2014 MTP/SCS and as the EIR for the Regional Transportation Plans prepared by the RTPAs for San Benito, Santa Cruz, and Monterey counties.

The project description, location, environmental review requirements, and probable environmental issues to be addressed in the EIR are discussed below. An Initial Study is not attached and is not required, in accordance with State CEQA Guidelines Section 15060(d).

The 2014 MTP/SCS will guide the development of the Regional and Federal Transportation Improvement Programs as well as other transportation programming documents and plans throughout San Benito, Santa Cruz and Monterey counties. The 2014 MTP/SCS outlines the region's goals and policies for meeting current and future mobility needs, providing a foundation for transportation decisions by local, regional, and State officials that are ultimately aimed at achieving a coordinated and balanced transportation system. The Regional Transportation Plans for the Counties of San Benito, Santa Cruz, and Monterey are developed for each of the counties to provide a sound basis for the allocation of state and federal transportation funds to transportation projects within each county over a long-range timeframe through 2035. The RTPs address all forms of transportation, and includes the priorities and actions embodied in the plans prepared by each of the county's cities and unincorporated areas.

The SCS component of the MTP/SCS is required by California Senate Bill 375, the Sustainable Communities and Climate Protection Act of 2008 ("SB 375"). SB 375 mandates regional greenhouse gas ("GHG") reduction targets for passenger vehicles and, pursuant to that law, the California Air Resources Board (CARB) has established 2020 and 2035 GHG reduction targets for each region covered by one of the state's metropolitan planning organizations (MPOs). AMBAG is required to

prepare an SCS that demonstrates how GHG reduction targets could be met through integrated land use, housing, and transportation planning. If the SCS is unable to meet the GHG reduction targets, then an Alternative Planning Scenario must be prepared.

Mail comments to Heather Adamson at AMBAG, **445 Reservation Road, Suite G, Marina, California 93933** or e-mail comments to hadamson@ambag.org no later than **July 24, 2013.**

For more information, visit **www.movingfowrwardmb.org** or call (831) 883-3750.

AMBAG will host a series of EIR Scoping Meetings/Public Workshops. The purpose of the meetings is to solicit input on the scope and content of the environmental analysis that will be included in the Draft EIR, to inform the public of the 2014 MTP/SCS, as well as solicit public input on the 2014 MTP/SCS. The date, time and location of the meetings are as follows:

- **In Monterey on July 15, 2013** from 6:00 PM to 7:30 PM at the Monterey City Hall Council Chambers, 580 Pacific Street
- **In Greenfield on July 16, 2013** from 6:00 PM to 7:30 PM at the City of Greenfield Council Chambers, 599 El Camino Real
- **In Hollister on July 17, 2013** from 6:00 PM to 7:30 PM at the City of Hollister Council Chambers, 375 Fifth Street
- **In Watsonville on July 18, 2013** from 6:00 PM to 7:30PM at the City of Watsonville Community Room, 275 Main Street, 4th Floor
- **In Santa Cruz on July 22, 2013** from 6:00 PM to 7:30 PM at the Santa Cruz Police Department Community Room, 155 Center Street
- **In Salinas on July 23, 2013** from 6:00 PM to 7:30 PM at the Salinas Agricultural Center, 1432 Abbott Street.

PROJECT DESCRIPTION AND SCOPE OF ENVIRONMENTAL ANALYSIS

Project Title

AMBAG 2014 Metropolitan Transportation Plan/Sustainable Communities Strategy, SBtCOG 2014 Regional Transportation Plan, SCCRTC 2014 Regional Transportation Plan and TAMC 2014 Regional Transportation Plan

Project Location

The geographical extent of the proposed 2014 MTP/SCS includes San Benito, Santa Cruz and Monterey counties, and all incorporated cities and unincorporated areas contained therein. Capital improvement projects identified in the 2014 MTP/SCS are located on state highways, county and city roads, and locally owned streets, as well as on airport property, and transit district property. The geographical extent for each RTPA's Regional Transportation Plan is the boundary for each respective county, including its incorporated and unincorporated areas.

Project Description

As the MPO for the tri-county region of Monterey, San Benito, and Santa Cruz counties, AMBAG is charged with developing a 2014 MTP/SCS. The 2014 MTP/SCS is the metropolitan long-range transportation plan for Monterey, San Benito, and Santa Cruz counties. The Council of San Benito County Governments (SBtCOG), the Santa Cruz County Regional Transportation Commission (SCCRTC), and the Transportation Agency for Monterey County (TAMC) are the state-designated Regional Transportation Planning Agencies (RTPAs) for San Benito, Santa Cruz and Monterey counties, respectively. Each RTPA prepares a county-level long-range Regional Transportation Plan,

which will be evaluated in this EIR. The 2014 MTP/SCS is used to guide the development of the Regional and Federal Transportation Improvement Programs, as well as other transportation programming documents and plans. The MTP outlines the region's goals and policies for meeting current and future mobility needs, providing a foundation for transportation decisions by local, regional, and State officials that are ultimately aimed at achieving a coordinated and balanced transportation system. The 2014 MTP/SCS sets forth actions, programs, and projects to address these needs consistent with adopted policies and goals. The 2014 MTP/SCS also documents the financial resources needed to implement the plan. The EIR will serve as the Program EIR for the AMBAG 2014 MTP/SCS as well as the Regional Transportation Plans prepared by the RTPAs for San Benito, Santa Cruz, and Monterey counties.

The Sustainable Communities and Climate Protection Act of 2008 (SB 375, Steinberg) enhances California's ability to reach its AB 32 greenhouse gas emissions reduction goals by promoting coordinated planning with the goal of creating more sustainable communities. SB 375 mandates regional greenhouse gas emission reduction targets for passenger vehicles. Pursuant to SB 375, the California Air Resources Board (CARB) established targets for 2020 and 2035 for each region covered by one of the State's 18 metropolitan planning organizations (MPOs). AMBAG, as the regional MPO, must prepare a SCS that demonstrates how the region will meet its greenhouse gas reduction target through integrated land use, housing, and transportation planning. AMBAG is currently preparing the 2014 MTP/SCS for the region. The 2014 MTP/SCS EIR will analyze the plan's impacts on the physical environment and identify strategies to avoid or mitigate significant environmental effects. It also will be an informational document intended to inform public decisionmakers, responsible or interested agencies, and the general public of the potential environmental effects of a project.

If the targets established by CARB cannot be feasibly met, an Alternative Planning Strategy (APS) will be prepared by AMBAG to show how the targets would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies. AMBAG's intent is to achieve these targets with the 2014 MTP/SCS.

The transportation component of the SCS will include the network of road and transit networks, non-motorized transportation, and transportation strategies and policies. Furthermore, SB 375 requires that the SCS shall identify general land uses, residential densities, and building intensities as well as areas to house future residents (see California Government Code Section 65080(b)(2)(B) for the full list of SB 375 requirements).

The Regional Transportation Plans for the Counties of San Benito, Santa Cruz, and Monterey are developed for each of the counties to provide a sound basis for the allocation of state and federal transportation funds to transportation projects within each county over a long-range timeframe through 2035. The RTPs address all forms of transportation, and includes the priorities and actions embodied in the plans prepared by each of the county's cities and unincorporated areas.The RTPs follows guidelines established by the State of California's Transportation Commission (CTC) to describe the transportation issues and needs facing each county; identify goals and policies for how each county will meet its needs; identify the amount of money that will be available for needed projects; and include a list of prioritized transportation projects to serve each county's long-term needs within the projected "budget" of transportation revenues with consideration towards environmental impacts, land use, and special transportation needs.

Issues to Be Addressed in the EIR

AMBAG, with input from the RTPAs for San Benito, Santa Cruz, and Monterey Counties, is currently evaluating several SCS scenarios to assess how future land use and transportation changes could achieve a coordinated and balanced regional transportation system while reducing GHG emissions from passenger vehicles and light trucks to meet the regional GHG reduction targets set by the

California Air Resources Board (CARB). Following public review and input, the AMBAG Board of Directors will select a preferred SCS scenario. The EIR will evaluate the environmental effects of the preferred SCS scenario in detail.

The impact categories listed below have been preliminarily identified for analysis in the 2014 MTP/SCS EIR.

- Aesthetics/Visual Resources
- Agricultural Resources
- Air Quality and Health Impacts/Risks
- Biological Resources
- Climate Change/Greenhouse Gases
- Cultural and Historic Resources
- Energy
- Environmental Justice/Social Equity
- Geology/Soils
- Hazards and Hazardous Materials
- Hydrology/Water Quality
- Land Use
- Mineral Resources
- Noise
- Population and Housing
- Recreation
- Traffic and Circulation
- Utilities/Regional Water Supply

The EIR also will address cumulative impacts, growth inducing impacts, and other issues required by CEQA.

Preliminary Project Alternatives Scenarios

In addition, the EIR also will evaluate the environmental impacts of alternative scenarios. The analysis of alternatives will focus on various land use and transportation scenarios that make different assumptions regarding the combinations of future land uses and transportation system improvements. The following preliminary MTP/SCS project alternatives may be addressed in the EIR:

- **No Project Alternative** – The No Project Alternative is required by CEQA. For this EIR, the No Project Alternative is defined as a land use base comprised of existing land use plans and a transportation network of comprised of committed transportation projects.
- **Intensified Land Use Alternative** – The Intensified Land Use Distribution Alternative will analyze a land use pattern that further concentrates the forecasted population and employment growth in areas identified for more intensified use. The transportation network will be modified to accommodate this projected concentration of future growth.

CEQA Streamlining

SB 375 contains CEQA incentives, or streamlining provisions, to encourage coordinated land use and transportation planning. Certain types of development projects (i.e., transit priority projects or residential/mixed use residential projects, as defined by the statute) may qualify for CEQA streamlining as long as the requisite criteria are met. Generally, this means that the proposed project seeking to utilize the CEQA incentives is determined to be consistent with an approved SCS. Consistency will be determined by the local jurisdiction that is the lead agency for each project to be streamlined. AMBAG's

primary role is to include appropriate information in the SCS, such as land use information as required by SB 375 and/or guidance to aid in interpreting land use information that will allow a jurisdiction to make a consistency determination with respect to appropriate streamlining options on a project by project basis.


2014 MTP/SCS Location Map
County Boundaries
City Boundaries
Highways
Santa Cruz
Scotts Valley
Santa Cruz
Capitola
Watsonville
Hollister
San Juan Bautista
Marina
Seaside
Sand City
Monterey
Pacific Grove
Salinas
San Benito
Carmel
Del Rey Oaks
Gonzales
Soledad
Greenfield
Monterey
King City
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JUL 01 2013

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

Notice of Preparation

June 25, 2013

To: Reviewing Agencies

Re: AMBAG 2014 Metropolitan Transportation Plan/Sustainable Communities Strategy, SBtCOG 2014 Regional Transportation Plan, SCCRTC 2014 Regional Transportation Plan
SCH# 2013061052

Attached for your review and comment is the Notice of Preparation (NOP) for the AMBAG 2014 Metropolitan Transportation Plan/Sustainable Communities Strategy, SBtCOG 2014 Regional Transportation Plan, SCCRTC 2014 Regional Transportation Plan draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Heather Adamson
Association of Monterey Bay Area Governments
445 Reservation Road, Suite G
Marina, CA 93933-0838

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

Document Details Report
State Clearinghouse Data Base

SCH# 2013061052
Project Title AMBAG 2014 Metropolitan Transportation Plan/Sustainable Communities Strategy, SBtCOG 2014 Regio Transportation Plan, SCCRTC 2014 Regional Transportation Plan
Lead Agency Association of Monterey Bay Area Governments

Type NOP Notice of Preparation

Description The Regional Transportation Plans for the Counties of San Benito, Santa Cruz, and Monterey are developed for each of the counties to provide a sound basis for the allocation of state and federal transportation funds to transportation projects within each county over a long-range timeframe through 2035. The RTPs address all forms of transportation, and includes the priorities and actions embodied in the plans prepared by each of the county's cities and unincorporated areas. The RTPs follows guidelines established by the State of CA's Transportation Commission (CTC) to describe the transportation issues and needs facing each county; identify goals and policies for how each county will meet its needs; identify the amount of money that will be available for needed projects; and include a list of prioritized transportation projects to serve each county's long-term needs within the projected "budget" of transportation revenues with consideration towards environmental impacts, land use, and special transportation needs.

Lead Agency Contact

Name Heather Adamson
Agency Association of Monterey Bay Area Governments
Phone 831 883 3750 **Fax**
email
Address 445 Reservation Road, Suite G
City Marina **State** CA **Zip** 93933-0838

Project Location

County Monterey, San Benito, Santa Cruz
City Unincorporated
Region
Cross Streets
Lat / Long
Parcel No.
Township **Range** **Section** **Base**

Proximity to:

Highways
Airports
Railways
Waterways
Schools
Land Use

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Biological Resources; Other Issues; Economics/Jobs; Geologic/Seismic; Soil Erosion/Compaction/Grading; Toxic/Hazardous; Water Quality; Landuse; Minerals; Noise; Population/Housing Balance; Housing; Recreation/Parks; Traffic/Circulation; Water Supply

---

Reviewing Agencies Resources Agency; Department of Parks and Recreation; Department of Fish and Wildlife, Region 3; Department of Fish and Wildlife, Region 4; Native American Heritage Commission; Caltrans, Division of Transportation Planning; Office of Emergency Management Agency, California; Department of Housing and Community Development; Caltrans, District 4; Caltrans, District 5; Air Resources Board, Transportation Projects; Department of Toxic Substances Control; Regional Water Quality Control Board, Region 3

Document Details Report
State Clearinghouse Data Base

Date Received 06/25/2013 *Start of Review* 06/25/2013 *End of Review* 07/24/2013

NOP Distribution List

County: San Benito, Santa Cruz, Monterey **SCH#** 2013061052

Resources Agency

- [x] **Resources Agency**
  Nadell Gayou
- [ ] **Dept. of Boating & Waterways**
  Nicole Wong
- [ ] **California Coastal Commission**
  Elizabeth A. Fuchs
- [ ] **Colorado River Board**
  Gerald R. Zimmerman
- [ ] **Dept. of Conservation**
  Elizabeth Carpenter
- [ ] **California Energy Commission**
  Eric Knight
- [ ] **Cal Fire**
  Dan Foster
- [ ] **Central Valley Flood Protection Board**
  James Herota
- [ ] **Office of Historic Preservation**
  Ron Parsons
- [x] **Dept of Parks & Recreation**
  Environmental Stewardship Section
- [ ] **California Department of Resources, Recycling & Recovery**
  Sue O'Leary
- [ ] **S.F. Bay Conservation & Dev't. Comm.**
  Steve McAdam
- [ ] **Dept. of Water Resources** Resources Agency
  Nadell Gayou

Fish and Game

- [ ] **Dept. of Fish & Wildlife**
  Scott Flint
  Environmental Services Division
- [ ] **Fish & Wildlife Region 1**
  Donald Koch
- [ ] **Fish & Wildlife Region 1E**
  Laurie Harnsberger
- [ ] **Fish & Wildlife Region 2**
  Jeff Drongesen
- [x] **Fish & Wildlife Region 3**
  Charles Armor
- [x] **Fish & Wildlife Region 4**
  Julie Vance
- [ ] **Fish & Wildlife Region 5**
  Leslie Newton-Reed
  Habitat Conservation Program
- [ ] **Fish & Wildlife Region 6**
  Gabrina Gatchel
  Habitat Conservation Program
- [ ] **Fish & Wildlife Region 6 I/M**
  Brad Henderson
  Inyo/Mono, Habitat Conservation Program
- [ ] **Dept. of Fish & Wildlife M**
  George Isaac
  Marine Region

Other Departments

- [ ] **Food & Agriculture**
  Sandra Schubert
  Dept. of Food and Agriculture
- [ ] **Depart. of General Services**
  Public School Construction
- [ ] **Dept. of General Services**
  Anna Garbeff
  Environmental Services Section
- [ ] **Dept. of Public Health**
  Jeffery Worth
  Dept. of Health/Drinking Water
- [ ] **Delta Stewardship Council**
  Kevan Samsam

Independent Commissions,Boards

- [ ] **Delta Protection Commission**
  Michael Machado
- [ ] **Cal EMA (Emergency Management Agency)**
  Dennis Castrillo
- [x] **Native American Heritage Comm.**
  Debbie Treadway
- [ ] **Public Utilities Commission**
  Leo Wong
- [ ] **Santa Monica Bay Restoration**
  Guangyu Wang
- [ ] **State Lands Commission**
  Jennifer Deleong
- [ ] **Tahoe Regional Planning Agency (TRPA)**
  Cherry Jacques

Business, Trans & Housing

- [ ] **Caltrans - Division of Aeronautics**
  Philip Crimmins
- [x] **Caltrans - Planning**
  Terri Pencovic
- [x] **California Highway Patrol**
  Suzann Ikeuchi
  Office of Special Projects
- [x] **Housing & Community Development**
  CEQA Coordinator
  Housing Policy Division

Dept. of Transportation

- [ ] **Caltrans, District 1**
  Rex Jackman
- [ ] **Caltrans, District 2**
  Marcelino Gonzalez
- [ ] **Caltrans, District 3**
  Gary Arnold
- [x] **Caltrans, District 4**
  Erik Alm
- [x] **Caltrans, District 5**
  David Murray
- [ ] **Caltrans, District 6**
  Michael Navarro
- [ ] **Caltrans, District 7**
  Dianna Watson
- [ ] **Caltrans, District 8**
  Dan Kopulsky
- [ ] **Caltrans, District 9**
  Gayle Rosander
- [ ] **Caltrans, District 10**
  Tom Dumas
- [ ] **Caltrans, District 11**
  Jacob Armstrong
- [ ] **Caltrans, District 12**
  Marlon Regisford

Cal EPA

Air Resources Board

- [ ] Airport/Energy Projects
  Jim Lerner
- [x] Transportation Projects
  Douglas Ito
- [ ] Industrial Projects
  Mike Tollstrup
- [ ] **State Water Resources Control Board**
  Regional Programs Unit
  Division of Financial Assistance
- [ ] **State Water Resources Control Board**
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- [ ] **State Water Resouces Control Board**
  Phil Crader
  Division of Water Rights
- [x] **Dept. of Toxic Substances Control**
  CEQA Tracking Center
- [ ] **Department of Pesticide Regulation**
  CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

- [ ] **RWQCB 1**
  Cathleen Hudson
  North Coast Region (1)
- [ ] **RWQCB 2**
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- [x] **RWQCB 3**
  Central Coast Region (3)
- [ ] **RWQCB 4**
  Teresa Rodgers
  Los Angeles Region (4)
- [ ] **RWQCB 5S**
  Central Valley Region (5)
- [ ] **RWQCB 5F**
  Central Valley Region (5)
  Fresno Branch Office
- [ ] **RWQCB 5R**
  Central Valley Region (5)
  Redding Branch Office
- [ ] **RWQCB 6**
  Lahontan Region (6)
- [ ] **RWQCB 6V**
  Lahontan Region (6)
  Victorville Branch Office
- [ ] **RWQCB 7**
  Colorado River Basin Region (7)
- [ ] **RWQCB 8**
  Santa Ana Region (8)
- [ ] **RWQCB 9**
  San Diego Region (9)

- [ ] **Other** _____

_____

_____

- [ ] _____
  Conservancy

Last Updated 01/08/2013

July 19, 2013

Ms. Heather Adamson
Association of Monterey Bay Area Governments
445 Reservation Road, Suite G
Marina, CA 93933

Re: AMBAG MTP/SCS NOP

Dear Ms. Adamson:

This letter is in response to Association of Monterey Bay Area Government's (AMBAG's) 2014 Metropolitan Transportation Plan (MTP) / Sustainable Communities Strategy (SCS) Notice of Preparation (NOP). Thank you for the opportunity to comment.

First, we would like to acknowledge the on-going discussions we have been involved in regarding the Salinas Rail Extension to Monterey County and the Coast Daylight Service projects. We understand both projects are important to your region.

The following are our comments on the NOP and reflect evolving discussions with the project sponsors:

- **Salinas Rail Extension to Monterey County Project**
  We are supportive of Transportation Agency for Monterey County's (TAMC's) discussions with the Capital Corridor Joint Powers Authority (CCJPA) in advancing this project. We will continue to work with TAMC and the CCJPA to understand and address the operational and capital requirements of the project as they related to affected passenger and freight services operating on JPB owned and dispatched tracks.

- **Coast Daylight Service Project**
  We are supportive of advancing this effort in a manner that does not impact Caltrain commuter rail service. We want to ensure that this project is compatible with the future electrified Caltrain/high-speed rail blended system in the peninsula corridor. We are currently working with the Coast Rail Coordinating Council (CRCC) to assess the operational feasibility of the proposed service and capital improvement requirements.

We look forward to supporting your region with the preparation of your environmental document and continuing to coordinate on these particular projects. If you need any information from us, please do not hesitate to contact us. I can be reached at 650-622-7843 or leem@samtrans.com.

Sincerely,

Marian Lee
Executive Officer, Caltrain Modernization Program

PENINSULA CORRIDOR JOINT POWERS BOARD
1250 San Carlos Ave.- P.O. Box 3006
San Carlos, CA 94070-1306 650.508.6269

Comment Sheet

Please let us know your concerns so we can address them in the Environmental Impact Report.

Name:_____
Date: _____

Affiliation:_____
(resident, businessperson, agency representative, community group member)

Address:_____
_____
_____

Phone:_____

Email:_____

Comments:

Want all documents in Spanish.

Educate people on how to improve the city in which they live.

Improve streets
+
put landscape
+
clean streets
↓

Moving Forward

AMBAG

nadamson@ambag.org

Comment Sheet

Please let us know your concerns so we can address them in the Environmental Impact Report.

Name: REED SEARLE

Date: 7/22/13

Affiliation: ~~com~~ Community group member

(resident, businessperson, agency representative, community group member)

Address: 114 SWIFT ST. Santa Cruz - 95060

Phone:

Email: HRSEARLE@SBCGLOBAL.NET

Comments:

Please consider the potential ad-vantages of Personal Rapid Transit Both on the rail corridor if ~~Trains~~ Trains are not feasible -- and as connectors between activity centers. -

Please submit by July 24, 2013 to:
Heather Adamson, Principal Planner
Association of Monterey Bay Area Governments
445 Reservation Road, Suite G
Marina, CA 93933
hadamson@ambag.org

Comment Sheet

Please let us know your concerns so we can address them in the Environmental Impact Report.

Name: Tim Goncharoff
Date: 7/22/13

Affiliation: Resident
(resident, businessperson, agency representative, community group member)

Address: 222 Columbia St

Phone: 295-0959

Email: timgonch@ydaw.com

Comments:

Look at impact on greenhouse gas and other air pollution of moving garbage and other local freight by rail rather than low-mileage vehicles.

Please submit by July 24, 2013 to:
Heather Adamson, Principal Planner
Association of Monterey Bay Area Governments
445 Reservation Road, Suite G
Marina, CA 93933
hadamson@ambag.org

Comment Sheet

Please let us know your concerns so we can address them in the Environmental Impact Report.

Name: Christine Moss
Date: July 23, 2013

Affiliation: STAFF to A 3-county health collaborative
(resident, businessperson, agency representative, community group member)

Address: 1085 Highlander
Seaside, CA 93955

Phone: 831-393-1272

Email: MOSSCD@co.Monterey.CA.US

Comments:

Please submit by July 24, 2013 to:
Heather Adamson, Principal Planner
Association of Monterey Bay Area Governments
445 Reservation Road, Suite G
Marina, CA 93933
hadamson@ambag.org

DEPARTMENT OF TRANSPORTATION
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3101
FAX (805) 549-3329
TTY 711
http://www.dot.ca.gov/dist05/

Flex your power!
Be energy efficient!

July 23, 2013

Heather Adamson, Principle Planner
Association of Monterey Bay Area Governments
445 Reservation Road, Suite G
Marina, CA 93933-0809

Dear Ms. Adamson:

AMBAG 2014 Metropolitan Transportation Plan/Sustainable Communities Strategy
SCH: 2013061052

The California Department of Transportation (Caltrans) appreciates the opportunity to review the Notice of Preparation for the AMBAG *2014 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS)*. We commend AMBAG for developing a sustainable strategy document that is to be fully integrated with the transportation system network. The MTP/SCS is consistent with federal and state planning guidance, and supports MAP-21, which emphasizes system performance, safety, livability, sustainability and maintenance. Further, we commend the continued multi-agency collaboration to meet the mobility needs of all users, and would like to acknowledge AMBAG's ongoing effort in this process.

Please note that because of the programmatic-nature of the MTP/SCS, identifying specific mitigation measures for transportation projects should be avoided. This would include projects that have not yet been scoped or analyzed for environmental impacts or related studies. We recommend the discussion of mitigation measures in terms of a non-exclusive menu of options and strategies that lead agencies could incorporate when feasible.

Caltrans also acknowledges that local public agencies have discretionary authority to approve and carry-out development proposals consistent with CEQA. Clear language in the document that identifies the roles of lead, responsible, and commenting agencies could alleviate potential concerns and promote ongoing support.

We value our partnership with AMBAG, and look forward to reviewing the Draft EIR. If you have any questions, please contact Mark McCumsey at (805) 549-3963 or Mark.McCumsey@dot.ca.gov.

Sincerely,

JOHN J. OLEJNIK
Acting Branch Chief
Transportation Planning-North

DEPARTMENT OF TRANSPORTATION
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3101
FAX (805) 549-3329
TTY 711
http://www.dot.ca.gov/dist05/

Flex your power!
Be energy efficient!

July 24, 2013

Heather Adamson, Principle Planner
Association of Monterey Bay Area Governments
445 Reservation Road, Suite G
Marina, CA 93933-0809

Dear Ms. Adamson:

AMBAG 2014 Metropolitan Transportation Plan/Sustainable Communities Strategy
SCH: 2013061052

The California Department of Transportation (Caltrans) appreciates the opportunity to review the Notice of Preparation for the AMBAG *2014 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS)*. We commend AMBAG for developing a sustainable strategy document that is to be fully integrated with the transportation system network. The MTP/SCS is consistent with federal and state planning guidance, and supports MAP-21, which emphasizes system performance, safety, livability, sustainability and maintenance. Further, we commend the continued multi-agency collaboration to meet the mobility needs of all users, and would like to acknowledge AMBAG's ongoing effort in this process.

Please note that because of the programmatic-nature of the MTP/SCS, identifying specific mitigation measures for transportation projects should be avoided. This would include projects that have not yet been scoped or analyzed for environmental impacts or related studies. We recommend the discussion of mitigation measures in terms of a non-exclusive menu of options and strategies that lead agencies could incorporate when feasible.

Caltrans also acknowledges that local public agencies have discretionary authority to approve and carry-out development proposals consistent with CEQA. Clear language in the document that identifies the roles of lead, responsible, and commenting agencies could alleviate potential concerns and promote ongoing support.

Additional comments for your consideration are in the attached Memorandum from our adjacent Caltrans District 4 Planning Division. We value our partnership with AMBAG, and look forward to reviewing the Draft EIR. If you have any questions, please contact Mark McCumsey at (805) 549-3963 or Mark.McCumsey@dot.ca.gov.

Sincerely,

JOHN J. OLEJNIK
Acting Branch Chief
Transportation Planning-North

Attachment: CT District 4 Memorandum (7/24/13)

cc: Josh Pulverman (CT HQ)
Erik Alm (CT District 4)
Brandy Rider (D5)
Mark McCumsey (D5)

ATTACHMENT

State of California
DEPARTMENT OF TRANSPORTATION

Business, Transportation and Housing Agency

Memorandum

Flex your power!
Be energy efficient!

To: JOHN OLEJNIK
ACTING BRANCH CHIEF
D05 LD-IGR

Date: July 24, 2013

File: SCL000104

From: ERIK ALM
BRANCH CHIEF
D04 LD-IGR

Subject: **DRAFT COMMENTS FOR THE D05 AMBAG 2014 METROPOLITAN TRANSPORTATION PLAN/SCS, RTP NOP, SC# 2013061052**

After a review of the Association of Monterey Bay Area Governments 2014 Metropolitan Transportation Plan/Sustainable Communities Strategy, SBtCOG 2014 Regional Transportation Plan, SCCRTC 2014 Regional Transportation Plan Notice of Preparation, District 4 LD-IGR staff have identified the following concerns for the AMBAG and its constituent members to address:

We support the County's use of Travel Demand Management tools to offset increases in traffic volumes on State routes as a means of reducing the necessary investment in highway improvements. In particular, we support the County's effort to balance jobs with housing and to assess traffic impact or user fees to mitigate for the increase in travel demand created by commuter traffic.

We request that any large new residential developments with the potential to impact Interstate, US or State routes in neighboring jurisdictions be assessed an equitable-share fee for regional and interregional traffic impacts or be granted the authority to fund mitigation improvements outside the jurisdiction of origin. We request that any impacts from major developments to the State Highway System outside of the originating County's jurisdiction include mitigation obligations within that jurisdiction's Capital Improvement Program.

In order to support the targets within the RTP, the plan should show the proportion of funding that will be available for supporting pedestrian, bicycle and transit mobility.

For the titles of projects that may include either the word "improve" or "improvements" throughout the document, please note that an improvement for one mode could result in the degradation of facilities or service for another mode. We suggest, instead, that the words "improve" or "improvement" be replaced with more specific description of the project purpose, such as "roadway widening" or "realignment," where those details are known.

The DEIR for the AMBAG 2014MTP/SCS, RTP should address freight mobility/goods movement. The importance of freight to AMBAG cannot be overlooked per "Moving Ahead for

Progress in the 21st Century" (MAP-21). The EIR should discuss strategies to enhance the regional transportation system for increasing freight mobility and fostering economic growth.

MAP-21 encourages each state to develop a State Freight Plan. Caltrans is developing the California Freight Mobility Plan and has formed the California Freight Advisory Committee (CFAC), which includes a representative from AMBAG. The CFAC held a kick-off meeting in April of this year and is scheduled to conclude their planning efforts in 2014. The AMBAG document should acknowledge this effort and discuss strategies to enhance the regional transportation for increasing freight mobility and fostering economic growth. Providing additional means of shipping local products to markets in the eastern US is critical to the competitiveness of the region's agricultural industry and the quality of life of the region's residents.

Fwd Comments on EIR preparation for 2014 MTP
From: Jack Nelson <nelsontrio@cruzio.com>
Sent: Thursday, July 25, 2013 12:00 AM
To: Megan Jones
Subject: Fwd: Comments on EIR preparation for 2014 MTP

Hello Megan:

I spoke with you briefly at the July 22 meeting sponsored by AMBAG. Here are the EIR scoping comments which I emailed to Heather Adamson. Her reply email says she is out of the office until July 29.

Thanks,

Jack Nelson

Begin forwarded message:

From: Jack Nelson <nelson333@baymoon.com>
Date: July 24, 2013 11:53:55 PM PDT
To: hadamson@ambag.org
Subject: Comments on EIR preparation for 2014 MTP

Hello Heather Adamson at AMBAG:

I have the following comments to offer regarding preparation of the Draft EIR for the 2014 Metropolitan Transportation Plan and the related 2014 Regional Transportation Plan for Santa Cruz County.

My foremost concern is that the EIR be of service in providing truly useful analysis as to how these transportation plans can maximize reduction of greenhouse gas emissions (GHGs), because our future is at stake. I have in mind that every major scientific body that has analyzed and reported on the question of climate change, has warned of the need for humanity to dramatically reduce GHG emissions or face a great risk of fundamental changes to humanity's life support systems.

For example most recently, there is a May 2013 report, titled "Scientific Consensus on Maintaining Humanity's Life Support Systems in the 21st Century: Information for Policy Makers," signed by more than 500 scientists from 44 nations, scientists who carry on related research. This recently released scientists' consensus report to policy makers, states that Earth is fast approaching a tipping point in forces causing climate change, and that humans are damaging their ecological life support systems in other ways as well, generating changes which may act synergistically with climate change.

Governor Jerry Brown joined in a summit at NASA Ames in Mountain View on May 23, 2013 in order to help call attention to the release of this report.

The core portion of the report is condensed to 20 pages, intended to translate

scientific lingo into
an easy to understand message, and calls for action by policy makers. I believe this report is
very relevant to the planning processes and EIR preparation which AMBAG and the SCCRTC
are currently engaged in.

Here is the web link to download a pdf of the report, which I ask AMBAG and the EIR consultants to use as an important scientific context for the EIR preparation:

http://mahb.stanford.edu/wp-content/uploads/2013/05/Consensus-Statement-For-Web-6-02-
13.pdf

I know the California Environmental Quality Act calls for EIRs to use sound scientific
information and analysis, and to provide the details of the scientific basis for assumptions and
conclusions.

I am not the only interested person who understands that the existing underwhelming GHG
reduction targets for the AMBAG region are a result of politics and bureaucratic limitations,
rather than a reflection of what's really needed based on the climate science, especially for a
region that should be providing leadership on such matters.

On to a few other comments:

If the EIR presumes that there will be future population growth in the AMBAG 3-county region
similar to past periods of rapid population growth, what is the scientific basis for that, and what
are the relative chances that a quite different trend will develop? I would like to know more than
"the Department of Finance in Sacramento said so."

If the EIR presumes that vehicle miles traveled will grow in the future similar to the past, how
much may that be due to a premature presumption of continued, lopsided transportation
expenditures on roads and highways compared to greater opportunities to use other
transportation modes?

I would be very concerned about any EIR conclusion that future roadway capacity expansion
would reduce congestion and therefore reduce GHG emissions due theoretically to achieving
more fuel-efficient travel speeds. Any analysis of this question should look at a decades-long
timeframe and include the impact of generated traffic leading to renewed congestion at a larger
scale in a larger system. Predictive transportation system computer modeling, which is only as
good as the assumptions wired into it, should not be the sole source of scientific analysis on this,
especially if the modeling is not equipped to fully account for generated traffic.

While absolutely conclusive, ground-truthed evidence about the relationship of roadway capacity
expansion and traffic congestion is not easy to come by, I would like to point out a remarkable

study-of-studies on the question of generated traffic, titled "Generated Traffic and Induced Travel: Implications for Transport Planning," prepared by the independent and nonprofit Victoria Transport Policy Institute (Victoria, British Columbia), updated on September 10, 2012. This study may be accessed at http://www.vtpi.org/gentraf.pdf. The study includes nine pages of references to the related literature, including many internet links to studies and reports. How does it add up? The study's abstract begins with this statement: Traffic congestion tends to maintain equilibrium. Congestion reaches a point at which it constrains further growth in peak-period trips. If road capacity increases, the number of peak-period trips also increases until congestion again limits further traffic growth.

With that as a consideration, what alternative transportation plans (and land use plans) might better address transportation needs while moving toward sustainability and livable, healthy communities?

I know there are many examples, some found in other countries, of successful remixing of transportation priorities, with much greater utilization of bicycling, walking, transit, jobs/housing balance, telecommuting, and so on.

I would like to see really visionary project alternatives analyzed in the EIR.

With the EIR as a tool, policy makers, planners, and the public need to see: how can this planning process for future transportation and land use lead to a sustainable future?

Thank you for the opportunity to comment on the EIR preparation.

Sincerely,

Jack Nelson
127 Rathburn Way
Santa Cruz CA 95062
(831) 429-6149

member:
Campaign for Sensible Transportation, Santa Cruz
Citizens Climate Lobby, Santa Cruz County Chapter
Sierra Club, Ventana Chapter

LandWatch
monterey county

Post Office Box 1876, Salinas, CA 93902
Email: LandWatch@mclw.org
Website: www.landwatch.org
Telephone: 831-759-2824
FAX: 831-759-2825

July 18, 2013

Heather Adamson at AMBAG,
445 Reservation Road, Suite G
Marina, California 93933
hadamson@ambag.org

SUBJECT: NOP FOR AN EIR FOR THE 2014 MTG/COMMUNITIES STRATEGY AND 2014 RTPS FOR SAN BENITO, SANTA CRUZ AND MONTEREY COUNTIES

Dear Ms. Adamson:

LandWatch Monterey County has reviewed the NOP for the referenced project and has the following comments:

Only two alternatives to the proposed project are proposed for analysis: No Project and Intensified Land Use Alternative. We note the following applicable provisions of the CEQA Guidelines:

> Section 15126.6. Consideration and Discussion of Alternatives to the Proposed Project.
> (a) Alternatives to the Proposed Project. An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives...
>
> (b) Purpose. Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.
>
> (c) Selection of a range of reasonable alternatives. The range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the

significant effects...

All alternatives that would substantially meet the project's objectives and avoid or lessen the project's impacts should be evaluated.

Thank you for the opportunity to comment on the NOP.

Sincerely,

Amy L. White
Executive Director

MONTEREY COUNTY
RESOURCE MANAGEMENT AGENCY

Benny J. Young, Director
Carl P. Holm, AICP, Deputy Director
Michael A. Rodriguez, C.B.O., Chief Building Official
Michael Novo, AICP, Director of Planning
Robert K. Murdoch, P.E., Director of Public Works

168 W. Alisal Street, 2nd Floor
Salinas, CA 93901
http://www.co.monterey.ca.us/rma

July 24, 2013

Ms. Heather Adamson
AMBAG
445 Reservation Road, Suite G
Marina, CA 93933

Subject: Comments on Notice of Preparation for 2014 Metropolitan Transportation Plan/Sustainable Communities Strategy (REF130056)

Dear Ms. Adamson:

The Monterey County Resource Management Agency has reviewed the Notice of Preparation for the 2014 Metropolitan Transportation Plan/Sustainable Communities Strategy and has the following comments.

The project to be analyzed by the EIR includes the 2014 MTP/SCS and Regional Transportation Plans (RTPs) for each of the three member jurisdictions in the AMBAG region. With regard to the RTPs, no specific information has been provided on the proposed content of the plans. For example, are major new transportation facilities planned or are major changes in policy proposed that would result in environmental effects? This basic level of information and information on any associated potential environmental effects are necessary to make a meaningful response to the Notice of Preparation. We understand that timelines may preclude you from re-circulating the NOP once more detail is available, so the following comments are offered.

1. From discussions over the last few weeks, AMBAG staff is expecting that a "hybrid" scenario, choosing the best components from the existing scenarios, will be adopted. The EIR should evaluate the selected "hybrid" scenario as the project description. The other presented scenarios should be analyzed either as co-equal projects or as part of the alternatives analysis.
2. The whole of the action needs to be analyzed. The implications of the SCS are that the transportation components of the selected scenario will be included in the RTPs. These transportation plans will lead to construction of transportation projects that need to be analyzed in the context of all the jurisdictions' adopted General Plans, which are reasonably foreseeable indicators of where, and what types of, growth will occur. To put this another way, if the SCS/RTP process leads to transportation investment in certain specific areas, but jurisdiction's General Plans may anticipate growth in other areas that also need regional transportation infrastructure. The EIR should analyze the environmental impacts of those actions.
3. The project description should provide a short-term scenario utilizing existing adopted spheres of influence as the baseline and as indicators of reasonably foreseeable growth patterns. The Regional Housing Needs Assessment (RHNA) allocations should be included as part of the baseline condition and for impact analysis. Adopted General Plans should be considered as longer-term plans for reasonably foreseeable growth.

4. Mitigation measures should only include recommendations for feasible changes to jurisdiction General Plans, if impacts are identified in the EIR. but the EIR should also recommend alternative mitigation strategies as the General Plans are not under the jurisdiction of the lead agency for the EIR. Modifying the General Plans of so many jurisdictions is unlikely and, therefore, potentially infeasible.
5. The EIR should analyze the transportation impacts (e.g., conflict with adopted congestion management plan) of any alternative that would result, directly or indirectly, in the re-programming of transportation improvement funds away from areas that have adopted spheres of influence containing substantial room for urban growth.
6. The EIR should comprehensively analyze consistency with plans, programs and policies adopted by the other jurisdictions.

One of our primary suggestions is that this SCS/RTP process needs to be reviewed in the context of the other related factors that affect growth patterns. Each jurisdiction has an adopted General Plan based on opportunities and constraints for that jurisdiction. The jurisdictions are working with AMBAG on the next RHNA allocation process. Traffic impact fee programs and Capital Improvement Programs have been adopted to fund local and regional transportation infrastructure. This process needs to dovetail with that work, not require that all that other work be modified to fit this process.

Thank you for this opportunity to comment on the Notice of Preparation.

Sincerely,

Mike Novo, AICP
Director of Planning
Resource Management Agency

cc: Robert Murdoch, Director, Monterey County RMA-Public Works
Marti Noel, Assistant Director, Monterey County RMA

File (REF130056)

LAFCO *of Monterey County*

LOCAL AGENCY FORMATION COMMISSION OF MONTEREY COUNTY

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July 24, 2013

Heather Adamson, AICP, Principal Planner
Association of Monterey Bay Area Governments
445 Reservation Road, Suite G
Marina, CA 93933

RE: Notice of Preparation for the 2014 Metropolitan Transportation Plan/ Sustainable Communities Strategy (MTP/SCS) Environmental Impact Report (EIR)

Dear Heather:

Thank you for this opportunity to comment on the subject Notice of Preparation. The Local Agency Formation Commission of Monterey County (LAFCO) is a CEQA Responsible Agency, with regulatory authority for future local government boundary and service applications in the study area. It is in this role that LAFCO is commenting on the Notice of Preparation.

In order to comply with the deadline for commenting on the Notice of Preparation, I am providing the following comments in draft form. This letter is subject to review and authorization at the next regular meeting of the Local Agency Formation Commission on August 26. I appreciate that you will attend that meeting to brief the Commission on the status of this AMBAG planning and environmental review process, and to address any questions pertaining to the Notice of Preparation.

AUTHORITY

Pursuant to the California Environmental Quality Act, LAFCO serves as a Responsible Agency with regard to the subject Notice of Preparation. A Responsible Agency is defined as any public agency, other than the lead agency, which has the responsibility for approving the project where more than one public agency is involved. As a Responsible Agency, LAFCO is available to the lead agency (AMBAG) for early consultation on a project to provide guidance on applicable issues and requirements.

LAFCO's statutory authority to regulate local government boundaries and services is derived from the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Government Code section 56000, et seq.) as amended. Among the purposes of the Local Agency Formation Commission are discouraging urban sprawl, preserving open space and prime agricultural lands, efficiently providing government services, and encouraging the orderly formation, growth and development of local agencies based upon local conditions and circumstances (Government Code section 56301).

The Cortese-Knox-Hertzberg Act further provides that "In order to carry out its purposes and responsibilities for planning and shaping the logical and orderly development and coordination of local governmental agencies to advantageously provide for the present and future needs of the county and its communities, *the [LAFCO] commission shall develop and determine the sphere of influence of each local governmental agency within the county and enact policies designed to promote the logical and orderly development of areas within the sphere* (Government Code section 56425a; emphasis added).

The 2014 Metropolitan Transportation Plan, and its Sustainable Communities Strategy component, may provide a basis for future regional decisions including transportation planning and funding; local land use decisions, patterns and forms enabled by regional transportation plans; and water, sewer and other public service infrastructure that are necessary to support those land uses. Many of these local decisions will involve action by LAFCO.

As such, there are direct links between the current AMBAG planning process and the legislative authority of LAFCO to study and regulate local government boundaries and services. Links between sustainable community strategies and spheres of influence are further emphasized in Senate Bill (SB) 375. The law requires that *"In preparing a sustainable communities strategy, the metropolitan planning organization shall consider spheres of influence that have been adopted by the local agency formation commission within its region"* [Government Code Section 65080(b)(2)(G)]. SB 375 aims to reduce per-capita vehicle miles traveled and related greenhouse gases through preparation of coordinated land use and transportation plans.

COMMENTS ON PROJECT DESCRIPTION

It is our understanding that there is no specific project description, maps or figures to comment on at this time. The Notice of Preparation describes several different planning scenarios relating to land use, transportation and greenhouse gas emission targets. It does not identify any one project as the preferred scenario for analysis in the Environmental Impact Report (EIR). We understand that AMBAG intends to identify a preferred scenario after the close of the comment period for the Notice of Preparation, and will analyze that scenario in the Draft Environmental Impact Report.

LAFCO comments on the Project Description are as follows:

1. Please anticipate that LAFCO will submit additional, specific comments during the circulation period for the Draft EIR.

2. We request that AMBAG analyze all of the planning scenarios as alternatives in the EIR.

3. Pursuant to the California Government Code, the SCS preferred planning scenario and all alternative scenarios to be analyzed in the EIR should be designed to reflect only the adopted Spheres of Influence for each city. This methodology would be consistent with the final methodology used in AMBAG's recent Regional Blueprint Planning Process, and supported by LAFCO of Monterey County. This recommendation is also consistent with informal concerns identified by LAFCO representatives participating in AMBAG's Planning Directors Group and Regional Advisory Committee for the 2014 MTP/SCS process. Specifically, the representatives have expressed concern about several iterations of draft SCS scenarios that depict potential urban development scenarios on unincorporated agricultural lands outside of adopted city Spheres of Influence. We continue to recommend that AMBAG's study of potential SCS scenarios, and final selection of a preferred scenario, only include scenarios in which future development takes place wholly with the cities' adopted Spheres of Influence. The statutory basis for this recommendation is the requirement of SB 375 that the metropolitan planning organization shall consider Spheres of Influence that have been adopted by the local agency formation commissions within its region [Government Code Section 65080(b)(2)(G)].

COMMENTS ON POTENTIAL ENVIRONMENTAL EFFECTS

As authorized by the Cortese-Knox-Hertzberg Act, LAFCO of Monterey County has adopted local "*Policies and Procedures Relating to Spheres of Influence and Changes of Organization and Reorganization.*" In considering applications for local government boundaries or services, LAFCO considers both the State law and the adopted local policies and procedures. The State law and local policies are available on the LAFCO website at http://www.monterey.lafco.ca.gov/. The local policies are attached to this letter for ease of reference.

The Cortese-Knox-Hertzberg Act and LAFCO's *Policies and Procedures* are germane to the Notice of Preparation. The proposed MTP/SCS project will result in outcomes or recommendations whose implementation would require LAFCO consideration or approvals (such as annexations or Sphere of Influence amendments) in the future. Cities, independent special districts, dependent special districts, the County of Monterey and regional agencies within Monterey County may rely on the EIR analysis for the MTP/SCS as a basis for their own plans and actions. LAFCO will be requested to consider applications for Spheres of Influence, boundaries and services, and to prepare municipal service reviews and other required studies for cities, special districts and the County of Monterey.

As discussed in the Project Description Comments above, the EIR should analyze a preferred SCS scenario that relies on adopted Spheres of Influence. In addition, the EIR should evaluate the proposed project, as well as project alternatives in the EIR, for consistency with all relevant sections of the Cortese-Knox-Hertzberg Act and LAFCO *Policies and Procedures.* Listed below are some of the local LAFCO policies that should be addressed in this consistency analysis:

1. "LAFCO intends that its Sphere of Influence determinations will serve as a master plan for the future organization of local governments within the County. The spheres shall be used to discourage urban sprawl; limit proliferation of local governmental agencies; encourage efficiency, economy and orderly changes in local government; promote compact, community centered urban development; and minimize adverse impacts on lands classified as prime agriculture." [LAFCO *Policies and Procedures*, section C.II.1]

   We note that all cities, independent special districts and dependent special districts in Monterey County have adopted Spheres of Influence. The spheres are often tied to the capability to provide public services. AMBAG's long-range planning processes and the current EIR should analyze not only the potential environmental effects of future urban development within the adopted Spheres of Influence of cities, but also the effect of that development on the ability of special districts that provide a wide range of municipal services. If the final 2014 MTP/SCS encourages future urban development outside of the cities' adopted Spheres of Influence, the resulting "ripple effect" of such development could adversely impact the ability of special districts to efficiently provide public services.

2. "LAFCO shall discourage proposals that would have adverse financial impacts on the provision of governmental services or would create a relatively low revenue base in relationship to the cost of affected services. Applications shall describe related service and financial impacts (including revenues and expenditures) on the County, cities, and/or special districts and provide feasible measures which would mitigate such adverse impacts." [LAFCO *Policies and Procedures*, section D.VII.1]

3. "LAFCO discourages proposals which will facilitate development that is not in the public interest due to topography, isolation from existing developments, premature intrusion of urban-type developments into a predominantly agricultural area, or other pertinent economic or social reason." [LAFCO *Policies and Procedures*, section D.VII.6]

4. "LAFCO, in furtherance of its objectives of preserving prime agricultural land, containing urban sprawl, and in providing a reasonable assurance of a city/district's ability to provide services shall consider the appropriateness of phasing annexation proposals which include territory that is not within a city/district's urban service area and has an expected build-out over a period longer than five to seven years." [LAFCO *Policies and Procedures*, section D.VIII.1]

5. "It is the policy of LAFCO to encourage and to seek to provide for planned, well-ordered, efficient urban development pattern while at the same time remaining cognizant of the need to give appropriate consideration to the preservation of open space and agricultural land within such patterns." [LAFCO *Policies and Procedures*, section D.IX.1]

6. "For annexations and Sphere of Influence applications, Monterey County LAFCO shall consider as part of its decision whether the city in which the annexation or Sphere of Influence amendment is proposed has included certain goals, policies, and objectives into its General Plan that encourage mixed uses, mixed densities, and development patterns that will result in increased efficiency of land use, and that encourages and provides planned, well-ordered, efficient urban development patterns." [LAFCO *Policies and Procedures*, section D.XIII.1]

7. Regarding potential impacts to agricultural lands:
    - "A Proposal must discuss how it balances the State interest in the preservation of open space and prime agricultural land against the need for orderly development." [LAFCO *Policies and Procedures*, section E.II.1]
    - "A Proposal must discuss its effect on maintaining the physical and economic integrity of agricultural lands." [LAFCO *Policies and Procedures*, section E.II.2]
    - "A Proposal must discuss whether it could reasonably be expected to induce, facilitate, or lead to the conversion of existing open-space land to uses other than open-space uses." [LAFCO *Policies and Procedures*, section E.II.3]
8. Regarding jobs and housing:
    - "Proposals must demonstrate through both quantitative and qualitative methods the relationship between the Proposal and the surplus or deficiency of local and county-wide housing supply and demand, and employment availability and creation." [LAFCO *Policies and Procedures*, section F.II]
    - "Additionally, the Proposal must demonstrate how its pattern of land use and transportation complements local and regional objectives and goals for the improvement of air quality and reduction of greenhouse gas (GHG) emissions and local vehicle miles traveled (VMT)." [LAFCO *Policies and Procedures*, section F.II]

We appreciate this opportunity to provide comments on the Notice of Preparation, subject to Commission authorization on August 26, and look forward to your presentation at that time. I would be pleased to meet with AMBAG staff and consultants for more detailed discussions.

Sincerely,

Kate McKenna, AICP
Executive Officer

Attachment: LAFCO *Policies and Procedures Relating to Spheres of Influence and Changes of Organization and Reorganization*, as Adopted by the Local Agency Formation Commission of Monterey County, February 25, 2013

LAFCO\2013\Agency Correspondence\AMBAG MTP SCS NOP comment letter final

LAFCO *of Monterey County*

LOCAL AGENCY FORMATION COMMISSION OF MONTEREY COUNTY

POLICIES AND PROCEDURES

Relating to Spheres of Influence
and Changes of Organization and Reorganization

As Adopted
by the Local Agency Formation Commission of Monterey County
on February 25, 2013

LAFCO *of Monterey County*

LOCAL AGENCY FORMATION COMMISSION OF MONTEREY COUNTY

POLICIES AND PROCEDURES
RELATING TO SPHERES OF INFLUENCE AND CHANGES OF ORGANIZATION AND REORGANIZATION

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PART A. INTRODUCTION

This document is intended to guide LAFCO's review and consideration of requests for Sphere of Influence amendments and changes in organization or reorganization.

These policies are based on the provisions of the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000, as amended, which is included in section 56000, et seq., of the California Government Code.

Section 56300 of the Government Code requires that LAFCO establish written policies and procedures and exercise its powers consistent with these policies and procedures. The State Legislature's intent is for these policies and procedures to encourage planned, well-ordered, efficient urban development patterns with appropriate consideration of preserving open-space and agricultural lands within those patterns.

The Policies and Procedures relating to Spheres of Influence and Changes of Organization and Reorganization are a compilation of policies that LAFCO of Monterey County has adopted over the last 25 years. The wording of these policies has been updated in order to be consistent with existing State law and current practices. There are two significant changes to the document: 1) The section on Preliminary Sphere of Influence Reviews (Section C.VI.) was updated to clarify LAFCO's authority to initiate preliminary reviews and 2) a new policy on Housing and Jobs (Part F) was created.

The Policies and Procedures have been divided into six parts:

A. An **Introduction** which is intended to create a context for the document;

B. **Definitions** where the meaning of words used in the Policies and Procedures are listed. Additional definitions related to LAFCO can be found in Government Code section 56010, et seq.;

C. **Sphere of Influence Policies and Criteria** which provides guidance for LAFCO's consideration of applications for Sphere of Influence updates and amendments;

D. **Standards for the Evaluation of Proposals for a Change of Organization or Reorganization**, which provides guidance for LAFCO's consideration of proposals for changes of organization and reorganization, including annexations, city incorporations, district formations, detachments, consolidations, mergers, disincorporations and dissolutions, and the exercise of new or different functions or classes of services by a special district;

E. **Preservation of Open-Space and Agricultural Lands** which outlines preservation policies applying to LAFCO's review and consideration of both Spheres of Influence and changes of organization and reorganization, and

F. **Housing and Jobs** which outlines policies relating to job availability and creation, housing supply and demand, air quality, greenhouse gas emissions, and local vehicle miles traveled. This part applies to LAFCO's review and consideration of both Spheres of Influence and changes of organization and reorganization.

G. **General Provisions** which contains provisions for the termination of Inactive Applications.

State law includes additional requirements that are followed by LAFCO regarding Spheres of Influence and Changes of Organization and Reorganization. While it is LAFCO's intent that these Policies and Procedures are consistent with State law, if a conflict exists State law will have precedence.

Policy Sources

This policy document is based on, and replaces, the following stand-alone policies:

- LAFCO Adoption of State Guidelines for the California Environmental Quality Act (CEQA) on July 22, 1986 (Resolution 86-9);
- General Policies and Criteria for the Development and Determination of Spheres of Influence, originally adopted on November 30, 1988, and which provide the basis of Parts B and C of these Policies and Procedures;
- Standards for the Evaluation of Proposals, originally adopted on November 25, 1986. This provides the basis for Part D;
- The Fort Ord Policies adopted by minute order on August 25, 1992;
- The Minor Sphere of Influence Amendment Criteria adopted by minute order on March 25, 2002;
- The Preliminary Sphere of Influence Evaluation Program adopted on December 2, 2002 (Resolution 02-19);
- State Incorporation Guidelines adopted on June 24, 2003 (Resolution 03-18);
- The Regional Traffic Impact and Efficient Development Standards adopted on October 23, 2006 (Resolutions 06-15 and 06-16);
- Administrative Procedure for Compliance with Requirement to Update Spheres of Influence by January 1, 2008, adopted by minute order on September 24, 2007;
- The Policy on Preservation of Open-Space and Agricultural Lands, which was adopted on January 25, 2010 (Resolution 10-01), is included as Part E and replaces the "Agricultural Lands Preservation Policy" adopted through Resolution 79-30 on November 27, 1979, and
- Housing and Jobs, a new policy adopted on April 25, 2011, is included in these Policies and Procedures as Part F.
- Part G. General Provisions, including a new policy on the termination of Inactive Applications, was adopted on February 25, 2013.

Statutory References

Unless otherwise indicated, all statutory references are to the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000, as amended. (Gov. Code section 56000, et seq.)

PART B. DEFINITIONS [1]

1. **Act:** The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000, as amended (Section 56000, et seq.)

2. **Agricultural Lands**: Land currently used for the purpose of producing an agricultural commodity for commercial purposes, land left fallow under a crop rotational program, or land enrolled in an agricultural subsidy or set-aside program. (Section 56016.)

3. **Agricultural Preserve**: Lands subject to an existing land conservation agreement established pursuant to the California Land Conservation Act of 1965. (the Williamson Act, Government Code section 51200, et seq.)

4. **Annexation:** The inclusion, attachment, or addition of territory to a city or district. (Section 56017.)

5. **Change of Organization:** Any of the following:

    a. A city incorporation.
    b. A district formation.
    c. An annexation to a city.
    d. An annexation to a district.
    e. A detachment from a city.
    f. A detachment from a district.
    g. A disincorporation of a city.
    h. A district dissolution.
    i. A consolidation of cities.
    j. A consolidation of special districts.
    k. A merger of a city and a district.
    l. Establishment of a subsidiary district.
    m. The exercise of new or different functions or classes of services, or divestiture of the power to provide particular functions or classes of services, within all or part of the jurisdictional boundaries of a special district. (Section 56021.)

6. **Consolidation:** The uniting or joining of two or more cities located in the same county into a single new successor city or two or more districts into a single new successor district. (Section 56030.)

7. **County**: Monterey County.

[1] Part B, "Definitions," was previously Section II. of the "Sphere of Influence Policies and Criteria." Additional definitions of relevance to LAFCO are contained in the Act (Section 56010, et seq.)

8. **Detachment:** The detachment, deannexation, exclusion, deletion, or removal from a city or district of any portion of the territory of that city or district. (Section 56033.)

9. **Disadvantaged Unincorporated Community:** Inhabited territory, as defined in Section 56046, or as determined by Commission policy, that constitutes all or a portion of a community with an annual median household income that is less than 80 percent of the Statewide annual median household income. (Section 56033.5)

10. **Disincorporation:** The dissolution, extinguishment, or termination of the existence of a city and the cessation of its corporate powers, except for the purpose of winding up the affairs of the city. (Section 56034.)

11. **Dissolution:** The disincorporation, extinguishment, or termination of the existence of a district and the cessation of all its corporate powers, except as the commission may otherwise provide pursuant to Section 56886 or for the purpose of winding up the affairs of the district. (Section 56035.)

12. **Essential Services**: Those basic services necessary to protect the health, safety, and general well-being of a community, including but not limited to police, fire, water, sanitation, etc.

13. **Executive Officer:** The person appointed as Executive Officer by a commission. (Section 56038.)

14. **Formation:** The creation of a district. (Section 56039.)

15. **Future Study Area**: Territory outside of an adopted Sphere of Influence that may warrant inclusion in the sphere in future years. Further study would have to be completed prior to inclusion.

16. **General Purpose Government**: A city or county government.

17. **Incorporation:** The creation or establishment of a city. Any area proposed for incorporation as a city shall have at least 500 registered voters residing within the affected territory at the time the proposal is initiated. (Section 56043.)

18. **LAFCO**: Local Agency Formation Commission of Monterey County.

19. **Local Agency**: A city, county or district. (Section 56054.)

20. **Merger:** The termination of the existence of a district when the responsibility for the functions, services, assets, and liabilities of that district are assumed by a city as a result of proceedings taken pursuant to this division. (Section 56056.)

21. **Open Space**: Any parcel or area of land or water which is substantially unimproved and devoted to open space use as defined in Government Code section 65560. (Section 56059.)

22. **Planning Concern Area**: An area established by the Local Agency Formation Commission with the assistance of the appropriate cities and the County designating a general area of concern of a city for which planning decisions and other governmental actions of the County may have an impact on the city. A "Planning Concern Area" will usually be larger than the adopted Sphere of Influence boundary and may take into consideration the planning area of the city as identified within their local general plans.

23. **Prime Agricultural Land**: An area of land, whether a single parcel or contiguous parcels, that has not been developed for a use other than agriculture and that meets any of the following qualifications:

    a. Land that qualifies, if irrigated, for rating as Class I or II in the USDA Natural Resources Conservation Service land-use capacity classification, whether or not the land is actually irrigated, provided that irrigation is feasible;
    b. land that qualifies for rating 80 through100 Storie Index Rating;
    c. land that supports livestock used for the production of food and fiber and that has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the United States Department of Agriculture in the National Range and Pasture Handbook, Revision 1, December 2003;
    d. land planted with fruit or nut-bearing trees, vines, bushes, or crops that have a non-bearing period of less than five years and that will return during the commercial bearing period on an annual basis from the production of unprocessed agricultural plant production not less than four hundred dollars ($400) per acre; and
    e. Land that has returned from the production of unprocessed agricultural plant products an annual gross value of not less than four hundred dollars ($400) per acre for three of the previous five calendar years. (Section 56064.)

24. **Regional Agencies**: Association of Monterey Bay Area Governments (AMBAG), Regional Water Quality Control Board, Monterey Bay Unified Air Pollution Control District, etc.

25. **Reorganization:** Two or more changes of organization contained within a single proposal. (Section 56073.)

26. **Sphere of Influence**: A plan for the probable physical boundaries and service area of a local agency, as determined by LAFCO. (Section 56076.) The area around a local agency eligible for annexation and extension of urban service within a twenty-year period.

27. **Sphere of Influence Boundary**: Boundary, adopted by the Local Agency Formation Commission, which delineates the limits beyond which a local governmental agency will not annex territory.

28. **Urban Services**: Those services which are provided to an urban area including, but not limited to, police, structural fire protection, non-agricultural water, sewer, drainage, street lighting, streets and roads.

29. **Urban Service Area**: Developed, undeveloped, or agricultural land, either incorporated or unincorporated, within the Sphere of Influence of a city, which is served by urban facilities, utilities, and services or which are proposed to be served by urban facilities, utilities, and services during the first five years of an adopted capital improvement program of the city if the city adopts that type of program for those facilities, utilities, and services. The boundary around an urban area shall be called the "urban service area boundary" and shall be developed in cooperation with a city and adopted by LAFCO pursuant to policies adopted by LAFCO in accordance with Sections 56300, 56301, and 56425. (Section 56080.)

30. **Urban Service Districts**: Special districts which are authorized to provide public sanitary sewer services or domestic water distribution services.

31. **Urban Transition Area**: Area within the Sphere of Influence boundary of a city or an urban service district which is not programmed for urban facilities or utility extensions within the next five years. This area will most likely be used for urban expansion within approximately five to twenty years.

PART C. SPHERE OF INFLUENCE POLICIES AND CRITERIA[2]

I. LEGISLATIVE AUTHORITY

The State Legislature has provided local agency formation commissions (LAFCO's) with the following directions in the preparation of Spheres of Influence:

1. In creating local agency formation commissions the State Legislature found "that the logical formation and determination of local agency boundaries is an important factor in promoting orderly development and in balancing that development with sometimes competing state interests of discouraging urban sprawl, preserving open-space and prime agricultural lands, and efficiently extending government services" and "that providing housing for persons and families of all incomes is an important factor in promoting orderly development." (Section 56001.) Additionally "one of the objects of the commission is to make studies and to obtain and furnish information which will contribute to the logical and reasonable development of local agencies in each county and to shape the development of local agencies so as to advantageously provide for the present and future needs of each county and its communities." (Section 56301.)

2. "In order to carry out its purposes and responsibilities for planning and shaping the logical and orderly development and coordination of local governmental agencies subject to the jurisdiction of the Commission to advantageously provide for the present and future needs of the County and its communities, the commission shall develop and determine the Sphere of Influence of each city and each special district, as defined by Section 56036, within the County and enact policies designed to promote the logical and orderly development of areas within the sphere." (Section 56425 a.)

3. "In determining the Sphere of Influence of each local governmental agency, the commission shall consider and prepare a written statement of its determinations with respect to each of the following:

    a. The present and planned land uses in the area, including agricultural and open space lands.
    b. The present and probable need for public facilities and services in the area.
    c. The present capacity of public facilities and the adequacy of public services which the agency provides or is authorized to provide.
    d. The existence of any social or economic communities of interest in the area if the commission determines that they are relevant to the agency.

[2] Part C of the Policies and Procedures is based on the "General Policies and Criteria for the Development and Determination of Spheres of Influence" originally adopted on November 30, 1988, and subsequently amended. Portions of this Part which were derived from other LAFCO policy documents are referenced as such.

e. For an update of a Sphere of Influence of a City or Special District that provides public facilities or services related to sewers, municipal and industrial water, or structural fire protection, on or after July 1, 2012, the present and probable need for those public facilities and services of any disadvantaged unincorporated communities within the existing Sphere of Influence." (Section 56425 e.)

4. "Every determination made by a commission regarding … [proposals for changes of organization or reorganization] … shall be consistent with the Spheres of Influence of the local agencies affected by those determinations." (Section 56375.5.)

5. "In determining a Sphere of Influence, the commission may assess the feasibility of governmental reorganization of particular agencies and recommend reorganization of those agencies when reorganization if found to be feasible and if reorganization will further the goals of orderly development and efficient and affordable service delivery." (Section 56425 h.)

II. POLICY GUIDELINES FOR SPHERES OF INFLUENCE[3]

LAFCO will generally apply the following policy guidelines in the Spheres of Influence program, in addition to the local conditions and circumstances of each local agency. The Local Agency Formation Commission of Monterey County will consider the particular local conditions and circumstances of each agency and community.

1. LAFCO intends that its Sphere of Influence determination will serve as a master plan for the future organization of local government within the County. The spheres shall be used to discourage urban sprawl; limit proliferation of local governmental agencies; encourage efficiency, economy and orderly changes in local government; promote compact, community centered urban development; and minimize adverse impacts on lands classified as prime agriculture.

2. The Sphere of Influence lines shall be a declaration of policy which shall be a primary guide to LAFCO in the decision on any proposal under its jurisdiction. Every determination made by LAFCO shall be consistent with the Spheres of Influence of the agencies affected by those determinations.

3. Any proposal which is inconsistent with an agency's adopted Sphere of Influence shall not be approved until LAFCO, at a noticed public hearing, has considered an amendment or revision to that agency's Sphere of Influence.

[3] The former Section II ("Definitions") of the "Sphere of Influence Policies and Criteria" has been removed from this document and made into "Part B" of the combined Policies and Procedures.

4. Inclusion within an agency's Sphere of Influence does not assure annexation to that agency. LAFCO shall evaluate boundary change proposals as they relate to all of the relevant factors listed in the Act.

5. When possible, a single larger general purpose agency, rather than a number of adjacent smaller ones, established for a given service in the same general area will be preferred. Where an area could be assigned to the Sphere of Influence of more than one agency providing a particular needed service, the following hierarchy shall apply dependent upon ability to serve:

   a. Inclusion within a city Sphere of Influence.
   b. Inclusion within a multi-purpose district Sphere of Influence.
   c. Inclusion within a single-purpose district Sphere of Influence.

   In deciding which of two or more equally ranked agencies shall include an area within its Sphere of Influence, LAFCO shall consider the agencies' service and financial capabilities, social and economic interdependence, topographic factors, and the effect that eventual service extension will have on adjacent agencies.

6. Duplication of authority to perform similar functions in the same territory will be avoided. Sphere of Influence boundaries shall not create islands or corridors unless it can be demonstrated that the irregular boundaries represent the most logical and orderly service area of an agency.

7. The adopted Sphere of Influence shall reflect city and County General Plans, plans of regional agencies, growth management policies, annexation policies, resource management policies, and any other policies related to ultimate boundary or service area of an affected agency unless those plans or policies conflict with the legislative intent of the Act.

   Where inconsistencies between plans exist, LAFCO shall rely upon that plan which most closely follows the Legislature's directive to discourage urban sprawl, direct development away from prime agricultural land and open-space lands, and encourage the orderly formation and development of local governmental agencies based upon local conditions and circumstances.

8. Extension of urban type services promotes urban development and such development belongs in cities or areas of development concentration in the unincorporated area of Monterey County. In evaluating proposals involving urban development requiring an urban level of governmental services, LAFCO will discourage the formation of new special districts or premature annexation of territory within existing city Spheres of Influence or logical expansion area. LAFCO will discourage boundary change proposals involving urban development outside adopted city Spheres of Influence that have the

potential to negatively impact prime agriculture or open space lands, public service capacity, existing local agencies, or generally represents illogical growth patterns.

9. LAFCO, in recognition of the mandated requirements for considering impacts on open space lands and agricultural lands, will develop and determine Spheres of Influence for Cities and urban service districts in such a manner as to promote the long-term preservation and protection of this County's "Resources." LAFCO believes the public interest will be best served by considering "Resources" in a broad sense to include open space, recreational opportunities, wildlife, and agricultural land. Sphere of Influence determinations must conform with LAFCO's Policy on Preservation of Open-Space and Agricultural Lands adopted on January 25, 2010 (Section E of this Policy Document).

10. LAFCO recognizes the many inter-relationships and impacts which one agency's land use, planning, and governmental decisions may have on other agencies even though they may be outside of the Sphere of Influence of the secondary agency. Consequently, LAFCO, when necessary, will seek to establish and identify Areas of Planning Concern for each city within the County. The "Planning Concern Area" will seek to identify those areas which in a broad sense affect the city in terms of planning and land use decisions. Such "Planning Concern Areas" will be established with the assistance and guidance of the affected cities and the County. The "Planning Concern Area" normally will extend beyond the adopted Sphere of Influence of the city. Once established, LAFCO will solicit the cooperation and involvement of the affected cities and the County to jointly involve one another in planning decisions for these areas.

III. PROCEDURAL GUIDELINES

1. LAFCO will designate a Sphere of Influence for each local agency representing the agency's probable physical boundary within a zero to twenty year period.

2. LAFCO may establish an urban service area within an adopted Sphere of Influence to discourage urban sprawl and to promote compact growth patterns. Urban service areas consist of territory now served by urban facilities, utilities and services or proposed to be served within the next five years, and may include the following:

   a. Urbanized Areas. This includes all existing areas, either incorporated or unincorporated, developed to urban densities.
   b. Urban Expansion Areas. This consists of vacant land, either incorporated or unincorporated, which is capable of holding urban growth expected within the next five years.

   The territory included within urban service areas will be considered by LAFCO to be eligible for annexation within five years. Consideration will be given to the capability of

a city and special district to provide needed services with related time schedules for planned expansion of services. Cities and special districts are encouraged to develop Capital Improvement Programs and other plans for the phased extension of services to assist LAFCO in determining logical urban service area boundaries.

3. LAFCO may establish urban transition areas within adopted Spheres of Influence to discourage premature pressure for development. Transition areas consist of the residual lands between designated urban service areas and the ultimate Sphere of Influence boundary. This land will most likely be used for urban expansion within approximately five (5) to twenty (20) years. Territory included within urban transition areas, but not within urban service areas, generally will not be considered eligible for annexation to receive urban services within five years.

4. LAFCO may adopt a zero Sphere of Influence encompassing no territory for an agency. This occurs where LAFCO determines that the public service functions of the agency are either non-existent, no longer needed, or should be reallocated to some other agency of government.

   The local agency which has been assigned a zero Sphere of Influence should ultimately be dissolved. Special districts that lie substantially within the boundary or Sphere of Influence of a general purpose government which is capable of assuming the public service responsibilities and functions of that special district may be allocated a zero Sphere of Influence designation.

5. Territory not in need of urban services, including open space, agriculture, recreational, rural lands or residential rural areas, shall not be assigned to an agency's Sphere of Influence unless the area's exclusion would impede the planned, orderly and efficient development of an area.

6. LAFCO may adopt a Sphere of Influence that excludes territory currently within that agency's boundaries. This occurs where LAFCO determines that the territory consists of agricultural lands, open space lands or agricultural preserves whose preservation would be jeopardized by inclusion within the agency's Sphere of Influence. Exclusion of these areas from an agency's Sphere of Influence indicates that detachment is appropriate.

7. Two or more local agencies providing the same service(s) may be allocated a consolidated Sphere of Influence to include the areas served by both agencies. This would be the case where LAFCO determines that the particular service(s) should be provided to the entire area by a single local agency.

8. LAFCO may establish future study areas outside of adopted Spheres of Influence. These areas indicate territory which may ultimately be appropriate for inclusion within an agency's sphere upon future study or modified conditions.

IV. SPHERE OF INFLUENCE UPDATE, AMENDMENT AND SERVICE REVIEW

1. LAFCO shall adopt, update, amend or revise Sphere of Influence determinations following the procedural steps set forth in the Act.

2. LAFCO shall review Sphere of Influence determinations not less than every five years. If a local agency or the County desires amendment or revision of an adopted Sphere of Influence, the local agency by resolution may file such a request with the Executive Officer. The request shall state the nature of the proposed amendment and the reasons for the request, include a map of the proposed amendment, and contain additional data and information as may be required by the Executive Officer.

3. LAFCO encourages any private individual desiring a revision of an adopted Sphere of Influence to request that the affected local agency initiate sphere reconsideration by resolution to promote consultation between the parties.

4. Prior to submitting an application to LAFCO for a determination of a new Sphere of Influence, or to update an existing Sphere of Influence for a city, the city shall complete the requirement to meet with the County to discuss the proposed new boundaries of the sphere and explore methods to reach agreement on development standards and planning and zoning requirements as contained in Section 56425. If an agreement is reached between the city and county the agreement shall be forwarded to LAFCO. LAFCO shall consider and adopt a Sphere of Influence for the city consistent with the policies adopted by LAFCO, and LAFCO shall give great weight to the agreement, to the extent that it is consistent with LAFCO policies, in its final determination of the city sphere.

5. When adopting, amending, or updating a Sphere of Influence for a special district, LAFC:

    a. May require existing districts to file written statements with LAFCO specifying the functions or classes of services provided by those districts, and
    b. Shall establish the nature, location, and extent of any functions or classes of services provided by existing districts. (Section 56425 i and j.)

6. In order to prepare and to update Spheres of Influence in accordance with Section 56425, LAFCO shall conduct a service review of the municipal services provided in the county or other appropriate area designated by LAFCO in accord with the requirements of Section 56430.

7. In conducting a service review, LAFCO shall comprehensively review all of the agencies that provide the identified service or services within the designated geographic area. (Section 56430 b.)

8. LAFCO shall conduct a service review before, or in conjunction with, but no later than, the time it is considering an action to establish a Sphere of Influence in accordance with Section 56425 or Section 56426.5 or to update a Sphere of Influence pursuant to Section 56425.

9. Individuals desiring LAFCO to initiate revision or amendment of an existing sphere of influence shall file a written request with the Executive Officer. The request shall state the nature of the proposed amendment and the reasons for the request, include a map of the proposed amendment area, and contain additional data and information as may be required by the Executive Officer.

10. The Executive Officer shall review each request for amendment, prepare a report and recommendation, and place the request on the agenda of the next meeting of LAFCO for which notice can be given after determining conformance with the California Environmental Quality Act. Copies of the Executive Officer report shall be provided to the person(s) making the request, each affected local agency, and each person who has filed a request for a report.

11. Any local agency or private individual making such a request shall reimburse LAFCO for the actual and direct costs incurred by LAFCO. LAFCO may waive such requirement if it finds that the request may be considered as part of its periodic review of Spheres of Influence.

12. The Local Agency Formation Commission shall adopt, amend, or revise Spheres of Influence after a public hearing called and held for that purpose. At least 21 days prior to the date of any such hearing, the Executive Officer shall give mailed notice of the hearing to each affected local agency and the County, and to any interested party who has filed a written request for such notice with the Executive Officer. In addition, at least 21 days prior to the date of any such hearing, the Executive Officer shall cause notice of the hearing to be published in a newspaper of general circulation which is circulated within the territory affected by the Sphere of Influence proposed to be adopted or amended.

    LAFCO may continue from time to time any Sphere of Influence hearing. At any Sphere of Influence hearing, LAFCO shall hear and consider oral or written testimony presented by any affected local agency or any interested person who wishes to appear.

13. On the date and time set for hearing and provided in the notice, LAFCO may, without further notice, consider the amendments to a Sphere of Influence or set a future date for the hearing on the request.

14. For annexations and Sphere of Influence applications, Monterey County LAFCO shall consider as part of its decision whether the proposal mitigates its regional traffic impacts by, for example, monetary contribution to a regional transportation improvement fund as established by the Transportation Agency of Monterey County or otherwise.[4]

15. For annexations and Sphere of Influence applications, Monterey County LAFCO shall consider as part of its decision whether the city in which the annexation or Sphere of Influence amendment is proposed has included certain goals, policies, and objectives into its General Plan that encourage mixed uses, mixed densities, and development patterns that will result in increased efficiency of land use, and that encourages and provides planned, well-ordered, efficient urban development patterns.[5]

16. Except as allowed in Section VI (below) for Minor Sphere of Influence Amendments, as part of the package of LAFCO forms and procedures given to every applicant, LAFCO will screen each application for an annexation change to ensure that there is a current Sphere of Influence (within the last five years), or that the application includes a concurrent Sphere update for affirmation by LAFCO. If the screening process identifies that a Sphere update is needed, the application package already identifies the information needed for the four standard determinations by LAFCO, and informs the applicant of the City-County consultation process required by State law. This administrative procedure will result in a current Sphere of Influence for every annexation change. This procedure does not change or affect other LAFCO procedures and policies that encourage comprehensive Sphere updates with 20-year horizons, and the staggering of Sphere and annexation proposals[6]

V. MINOR SPHERE OF INFLUENCE AMENDMENT

1. LAFCO shall conduct a service review before, or in conjunction with, but no later than the time it is considering an action to establish a Sphere of Influence in accordance with Section 56425 or Section 56426.5 or to update a Sphere of Influence pursuant to Section 56425. (Section 56430 c.) The only exceptions [7] to the need for a service review are for the approval of the following minor sphere amendments:

    a. An amendment that would be necessary to correct an immediate health and safety problem, as supported by the Monterey County Division of Environmental Health. *(LAFCO has often annexed territory to districts or cities to correct failing septic or*

[4] Subsection IV.14 was added through Resolution 06-15, October 23, 2006.
[5] Subsection IV.15 was added through Resolution 06-16, October 23, 2006.
[6] This section was added by Commission Minute Order on September 24, 2007.
[7] Consistent with the Municipal Service Review Guidelines prepared by the State Office of Planning and Research, these exceptions were approved by the Commission by Minute Order on March 25, 2002.

water systems. In some of those cases, a sphere amendment was necessary. This provision would allow LAFCO to continue to process these types of applications without conducting an extensive service review.)

b. An amendment that would be necessary for any project that meets the provisions of the Categorical Exemptions in section 15319 in the California Environmental Quality Act Guidelines (CEQA) for annexations of existing facilities and lots for exempt facilities. (*The Guidelines contain exceptions for the construction of small structures and existing facilities. LAFCO has processed small annexations and sphere amendments for such projects and the use of this provision would shorten the process for those types of proposals that do not have area-wide service implications.)*

c. An amendment to add any small portion of territory to a request, otherwise located wholly in the existing Sphere of Influence, in order to maintain logical boundaries. (*Some sphere boundaries around cities and districts do not necessarily conform to existing natural or parcel boundaries. This provision would be used in those cases where it makes sense to include a small portion of additional territory to make a more logical boundary. The amendment would proceed without the need to complete a service review.)*

d. Any request for a Sphere of Influence amendment that appears to be beyond the scope of the criteria or has area-wide service impacts will be brought to LAFCO for a determination. If the staff and the applicant have agreed to process the amendment with a service review this determination will not be necessary.

VI. PRELIMINARY SPHERE OF INFLUENCE REVIEWS[8]

1. **INTRODUCTION:** The State Legislature, through the Cortese – Knox – Hertzberg Local Government Reorganization Act (the "Act"), California Government Code section 56000, et seq., has declared that it is the policy of the State to "encourage orderly growth and development which are essential to the social, fiscal, and economic well-being of the State." Government Code section 56001 (unless otherwise indicated, all statutory references are to the Government Code). In the Act, the Legislature further finds that the policy of orderly growth and development "should be effected by the logical formation and modification of the boundaries of local agencies, with a preference granted to accommodating additional growth within, or through the expansion of, the boundaries of those local agencies which can best accommodate and provide necessary governmental services and housing for person and families of all incomes in the most efficient manner feasible." *Id.*

[8] Section VI was originally added through Resolution 94-04 on February 22, 1994 and expanded to apply to cities as well as special districts through Resolution 02-19, December 2, 2002. It was further amended on April 25, 2011.

In order to carry out its duties with respect to orderly growth and development, a local agency formation commission is charged with the responsibility to, amongst other things, "develop and determine the Sphere of Influence of each local agency within the county and enact policies designed to promote the logical and orderly development of areas within the sphere" (a Sphere of Influence being defined as "a plan for the probably physical boundaries and service area of a local agency"). Sections 56076 and 56425 (a). A local agency formation commission is charged with reviewing and updating spheres of influence as necessary every five (5) years. Section 56425 (g).

One of the purposes of a local agency formation commission is "to make studies and to obtain and furnish information which will contribute to the logical and reasonable development of local agencies . . . and to shape the development of local agencies so as to advantageously provide for the present and future needs of [the] county and its communities." Section 56301. In addition to its other powers and duties, a local agency formation commission may undertake studies of existing local agencies. Section 56378. The authority to conduct studies is broad, and all local, regional and State agencies, and their officers and employees are required to cooperate in the undertaking of the study, and to provide land use information, studies and plans. In addition, officers and employees of local, regional, and State agencies shall provide the executive officer any records or information in their possession that are necessary to assist the local agency formation commission or its executive officer. Section 56386.

The Local Agency Formation Commission of Monterey County ("LAFCO") believes that it is beneficial for a city or special district undertaking or contemplating certain actions affecting its Sphere of Influence to receive from LAFCO preliminary guidance on the state of that Sphere of Influence without the formality of a formal review, update or modification of the Sphere of Influence. Such actions could include when a city is considering an update to a general plan, or prior to a formal application for a change to a Sphere of Influence. LAFCO believes that preliminary guidance will assist the local agency in the timely and efficient completion of the actions for which such preliminary guidance is appropriate. LAFCO further believes that the appropriateness of such preliminary guidance need not result in a comprehensive review or study, and that any review be conducted accordingly.

In order to implement the intent and purposes of the Act with respect to the development and determination of spheres of influence, and to provide public agencies within its jurisdiction with guidance from time to time concerning the state of an agency's Sphere of Influence, LAFCO adopts the following policy.

2. **POLICY:** It is the policy of LAFCO that, consistent with sections 56300 (a), 56301, 56378, and 56425 (a) of the Act, LAFCO may initiate preliminary Sphere of Influence reviews ("Preliminary Review") for any local agency. Such Preliminary Reviews shall be in

addition to, and not a substitute for, the periodic Sphere of Influence reviews authorized in section 56425 (g) of the Act. Preliminary Reviews shall be designed to provide guidance to affected public agencies with respect to issues affecting spheres of influence, and shall not be comprehensive in nature. A Preliminary Review may be initiated, without limitation, when a city is updating or amending its general plan in a manner that may affect the city's current Sphere of Influence; a district is providing, or considering providing, services outside its jurisdictional boundaries; or, a local agency is contemplating an application to change its Sphere of Influence, and guidance from LAFCO would be beneficial.

A Preliminary Review may be initiated by LAFCO and performed as follows:

a. Any local agency may request a Preliminary Review of its Sphere of Influence by providing a written request to the Executive Officer. The Executive Officer shall place the initiation of the Preliminary Review on the next available agenda for LAFCO to consider, and the Executive Officer shall make a recommendation with respect to the initiation of the Preliminary Review. Written notice of the item shall be provided to the affected local agency including the recommendation of the Executive Officer.

b. In the alternative, the Executive Officer may determine in the first instance that a Preliminary Review is appropriate where the Executive Officer is informed or believes that a local agency may undertake an action that is likely to affect its existing sphere of influence, or that an action by a different local agency is likely to affect the existing sphere of influence. Prior to determining that a Preliminary Review is appropriate, the Executive Officer shall confer informally with the affected local agency about the matter. If, following such conference, the Executive Officer determines that a Preliminary Review is appropriate, the Executive Officer shall place the initiation of a Preliminary Review on the next available agenda for LAFCO to consider, and the Executive Officer shall make a recommendation with respect to the initiation of the Preliminary Review. Written notice of the item shall be provided to the affected local agency no later than fifteen days prior to the date of the meeting, and shall include the recommendation of the Executive Officer. If a Preliminary Review of a city's sphere of influence is initiated by LAFCO, the review shall be conducted at a joint public meeting with the City Council at a location within the City limits.

c. LAFCO shall determine whether to initiate a Preliminary Review after considering a report from the Executive Officer, the position of the local agency subject to the Preliminary Review, and such other testimony and evidence as may be presented at the hearing on the item.

d. Upon initiation of a Preliminary Review, the Executive Officer shall undertake the review and make a report to LAFCO. The review shall not be comprehensive in nature, and shall be designed to provide initial observations on the state of the local agency Sphere of Influence and guidance to the local agency accordingly. The review shall consider any factors the Executive Officer deems appropriate, consistent with the factors applicable to a periodic review and update of a Sphere of Influence pursuant to section 56425 (g) of the Act, and a municipal service review pursuant to section 56430 of the Act. Public agencies, their officers and employees shall cooperate in the conduct of the Preliminary Review as provided in sections 56378 and 56386 of the Act.

e. Upon completion of the Preliminary Review, the Executive Officer shall set the matter for the next available LAFCO meeting for consideration, and shall provide the Executive Officer's report to the affected local agency. LAFCO shall consider the report, the position of the affected local agency with respect to the report, and such other testimony and evidence as may be presented at the hearing. LAFCO may accept, reject, or modify the report in its discretion. If accepted or modified, the report shall not be considered a directive of LAFCO, but, consistent with the intent and purposes of this policy, shall be considered guidance to the affected local agency concerning the state of the agency's Sphere of Influence.

f. A Preliminary Review for a local agency shall generally not be initiated within two (2) years following a review and update of a Sphere of Influence for that agency pursuant to section 56425 (g) of the Act, unless the Preliminary Review is requested by the local agency. Not more than one (1) Preliminary Review for a local agency shall be performed within any five (5) year period, unless additional Preliminary Reviews are requested by the local agency.

VII. ADDITIONAL POLICIES RELATING TO THE FORMER FORT ORD AREA[9]

Specifically applying to Spheres of Influence in the former Fort Ord, LAFCO adopted the following policy statements pursuant to a minute order on August 22, 1992:

1. LAFCO encourages sphere proposals that will facilitate initial development efforts which focus on existing facilities and developed area; locate future urban uses adjacent to existing urban areas; phase development based on the availability of urban services and infrastructure; create a positive jobs/housing balance; provide fiscal resource capabilities; and lead to urban patterns that complement objectives and goals of air quality, transportation, and housing plans of affected local and regional agencies.

[9] Policies specific to the area of the former Fort Ord were added by Commission Minute Order on August 25, 1992.

2. LAFCO will encourage sphere proposals that consider region-wide goals with local agencies' ability to provide service. LAFCO will encourage sphere proposals that promote equitable distribution of the costs of regional facilities, related benefits, and cover all service impacts.

3. LAFCO, in recognition of the mandated requirements for considering impacts on open space lands and agricultural lands, will develop and determine Spheres of Influence for Cities and urban service districts in such a manner as to balance the need to promote cost-effective logical urban expansion and economic recovery with the objective of promoting the long-term preservation and protection of this County's "Resources." LAFCO believes the public interest will be best served by considering "Resources" in a broad sense to include open space, recreational opportunities, wildlife, agricultural land, and fiscal resources.

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PART D. STANDARDS FOR THE EVALUATION OF PROPOSALS FOR A CHANGE OF ORGANIZATION OR REORGANIZATION[10]

I. INTRODUCTION

The Local Agency Formation Commission (LAFCO) of Monterey County operates pursuant to the Act. Among the purposes of a local agency formation commission are discouraging urban sprawl, preserving open-space and prime agricultural lands, efficiently providing government services, and encouraging the orderly formation and development of local agencies based upon local circumstances and conditions. (Section 56301.)

State law provides that LAFCO may adopt standards for the evaluation of proposals. The primary purpose of standards is to identify issues and requirements associated with boundary change proposals to promote achievement of LAFCO goals and objectives. Standards also promote a rational and consistent process of review, which can be applied to all proposals. It should be noted that no one standard is of paramount importance nor is universally absolute. Because local circumstances and conditions vary, LAFCO must consider the facts in evidence as they relate to all standards.

Sections 56375(g) and (h) provide that standards may be based on any of the factors enumerated in Section 56668 as follows:

a. Population and population density; land area and land use; per capita assessed valuation; topography, natural boundaries, and drainage basins; proximity to other populated areas; the likelihood of significant growth in the area and in adjacent incorporated and unincorporated areas during the next ten years.

b. The need for organized community services; the present cost and adequacy of governmental services and controls in the area; probable future needs for those services and controls; probable effect of the proposed incorporation, formation, annexation, or exclusion and of alternative courses of action on the cost and adequacy of services and controls in the area and adjacent areas. "Services," as used in this subdivision, refers to governmental services whether or not the services are services which would be provided by local agencies subject to this division and includes the public facilities necessary to provide those services.

[10] Part D of the Policies and Procedures is based on the "Standards for the Evaluation of Proposals," originally adopted on 11/25/1986, and subsequently amended. Portions of this Part which were derived from other LAFCO policy documents are referenced as such.

c. The effect of the proposed action and of alternative actions on adjacent areas, on mutual social and economic interest, and on the local governmental structure of the County.

d. The conformity of both the proposal and its anticipated effects with both the adopted LAFCO policies on providing planned, orderly, efficient patterns of urban development, and the policies and priorities set forth in Section 56377.

e. The effect of the proposal on maintaining the physical and economic integrity of agricultural land, as defined by Section 56016.

f. The definiteness and certainty of the boundaries of the territory, the non-conformance of proposed boundaries with lines of assessment or ownership, the creation of islands or corridors of unincorporated territory, and other similar matters affecting the proposed boundaries.

g. A regional transportation plan adopted pursuant to Section 65080, and consistency with city or county general and specific plans.

h. The Sphere of Influence of any local agency which may be applicable to the proposal being reviewed.

i. The comments of any affected local agency or other public agency.

j. The ability of the newly formed or receiving entity to provide the services which are the subject of the application to the area, including the sufficiency of revenues for those services following the proposed boundary change.

k. Timely availability of water supplies adequate for projected needs as specified in Section 65352.5.

l. The extent to which the proposal will affect a city or cities and the county in achieving their respective fair shares of the regional housing needs as determined by the appropriate council of governments consistent with Article 10.6 (commencing with Section 65580) of Chapter 3 of Division 1 of Title 7 of the Government Code.

m. Any information or comments from the landowner or owners, voters, or residents of the affected territory.

n. Any information relating to existing land use designations.

o. The extent to which the proposal will promote environmental justice. As used in this subdivision, "environmental justice" means the fair treatment of people of all races, cultures, and incomes with respect to the location of public facilities and the provision of public services.

This report outlines the Local Agency Formation Commission's Standards for the Evaluation of Proposals. The standards have been organized to correspond to the major LAFCO policies including Boundaries, Duplication of Service Functions, Conformance with Planning Documents, Conformance with Spheres of Influence, Environmental Impacts, Economics-Service Delivery-Development Patterns, Phasing, Open Space and Agricultural Land, Groundwater Standards, Regional Traffic Impacts, and Efficient Urban Development patterns. The citation following each standard references the related State factor.

II. DETERMINATION OF BOUNDARIES

1. Definite and certain maps and legal descriptions must be filed as part of an application for boundary change proposal. All maps and written geographic descriptions must comply with State Board of Equalization requirements. (Section 56668 f.) Detailed requirements of the State Board of Equalization are found in the "Change of Jurisdictional Boundary – Requirements for Statements, Boundary Descriptions, Maps and Schedule of Processing Fees" which is included in the LAFCO application packet.

2. To the greatest possible extent, boundaries should follow existing political boundaries and natural or man-made features such as rivers, lakes, railroad tracks, and freeways. Where boundaries do not meet this standard, the proponent shall justify the reasons for non-conformance. (Sections 56668 a and f.)

3. Boundaries should not be drawn so as to create an island, corridor, or strip either within the proposed territory or immediately adjacent to it. Where such an island, corridor, or strip is created, the proponent shall justify the reasons for non-conformance with this standard. (Section 56668 f.)

4. Whenever practicable, boundary lines of areas proposed to be annexed to cities and/or districts shall be located so that all streets and rights-of-way will be placed within the same jurisdiction as the properties which abut thereon and/or for the benefit of which such streets and rights-of-way are intended. (Section 56668 d.)

5. The creation of boundaries that divide assessment parcels should be avoided whenever possible. Where such division occurs, the proponents shall justify to LAFCO the necessity for such division. (Section 56668 d.)

6. Boundaries should avoid dividing an existing identifiable community, commercial district, or any other area having social or economic homogeneity. Where such division occurs, the proponents shall justify the reasons for non-conformance to this standard. (Section 56668 c.)

7. The following guidelines related to road right-of-way apply to all proposals submitted to LAFCO. (Section 56668 f.)

   a. The following should not be allowed:

      (1) City limits which include a portion of the road right-of-way.

      (2) Road islands of County maintained roads.

      (3) Islands of road caused by annexation on both sides.

      (4) Strip annexation roads.

   b.* In the following cases where the road is the boundary and is a major County arterial, the street or road should be retained by the County. These roads would not have direct access from the property:

      (1) Roads which carry through traffic.

      (2) Planned development by developer or city which provides limited access and protects the capacity of the road.

   *Note: Each case should be considered on its own merit.

   c. The following should be annexed to the city. These roads would have direct access to the annexing property and would serve the residents of the property:

      (1) Minor or local roads.

      (2) When the street will be used for the city sewer lines, water lines, or storm drains.

      (3) Piece-meal development by developer causing difficult coordination between two or more agencies.

      (4) Where the annexation will complicate drainage or traffic control.

8. Where feasible, city and related district boundary changes should occur concurrently to avoid an irregular pattern of boundaries. (Section 56668 b.)

9. Should LAFCO modify the boundaries of a proposal, LAFCO may condition the proposal on the proponent preparing a new boundary description which conforms with LAFCO and State Board of Equalization requirements. (Section 56668 f.)

10. Boundaries should reasonably include all territory which would reasonably benefit from agency services. (Section 56668 b.)

III. DUPLICATION OF AUTHORITY TO PERFORM SIMILAR FUNCTIONS

1. Proposals, where feasible, should minimize the number of local agencies and promote the use of multi-purpose agencies. (Sections 56668 b and c.)

2. The effect of the approval of a proposal which would result in two or more districts or a city and a district possessing any common territory, the authority to perform the same or similar functions shall be considered by LAFCO. The views of the governing body of the city or special district possessing authority to perform the same or similar function in the subject territory should be made known to LAFCO. Proponents must justify the need for boundary change proposals which result in duplication of authority to perform similar functions. (Section 56668 b and c.)

IV. CONFORMANCE WITH CITY OR COUNTY GENERAL AND SPECIFIC PLANS

1. Each proposal should be consistent with the appropriate city or county general and specific plans. Where the proposal does not abide by these plans, the proponent shall specify the reasons for plan non-conformance. (Section 56668 g.)

2. Pursuant to Section 56375, for proposals involving city annexations, the LAFCO Executive Officer shall not file a Certificate of Filing, which acknowledges that an application is complete, until the city has completed a prezoning process for the subject property in a manner consistent with the city's general or specific plan. (Section 56668 g.)

V. CONFORMANCE WITH SPHERES OF INFLUENCE

1. Proposals shall be consistent with the Spheres of Influence for the local agencies affected by those determinations. (Sections 56375.5 and 56668 h.)

2. In the case of city incorporations and agency formations, LAFCO shall determine a Sphere of Influence within one year from the effective date of the proposal. (Section 56426.5.)

3. With the exception of city incorporations and agency formations, LAFCO shall adopt a sphere for affected agencies prior to consideration of related boundary change proposals. (Section 56668 h.)

4. When a proposal is inconsistent with the adopted Sphere of Influence, the applicant shall justify reasons for amending the Sphere of Influence. An annexation application for land outside an adopted Sphere of Influence may be considered concurrently with a request for amendment to the Sphere of Influence. (Section 56668 h.)

5. Proposals involving changes of organization or reorganization affecting city boundaries shall comply with the Urban Service Area and Urban Transition Area designations.

6. Pursuant to Section 56375 (a) (4), LAFCO shall not have the power to disapprove an annexation to a city, initiated by resolution, of contiguous territory which LAFCO finds is located within an Urban Service Area delineated and adopted by LAFCO, which is not prime agricultural land, as defined by Section 56064, and is designated for urban growth by the general plan of the annexing city. (Section 56668 h.)

VI. ENVIRONMENTAL IMPACT ASSESSMENT

1. LAFCOs are subject to the terms of the California Environmental Quality Act (CEQA) and the regulations of the California Resources Agency, which establishes the guidelines for its implementation. All environmental factors introduced by the proposal shall be considered as outlined in the Act and the State Guidelines.

2. The potential environmental impacts of proposals involving changes of organization or reorganization shall be reviewed by LAFCO environmental staff and the appropriate environmental determination shall be considered by LAFCO in accordance with state law and the State's "Guidelines for Implementation of the California Environmental Quality Act.[11]

VII. ECONOMICS, SERVICE DELIVERY AND DEVELOPMENT PATTERNS

1. LAFCO shall discourage proposals that would have adverse financial impacts on the provision of governmental services or would create a relatively low revenue base in

[11] LAFCO officially adopted the State CEQA Guidelines on July 22, 1986 (Resolution 86-9).

relationship to the cost of affected services. Applications shall describe related service and financial impacts (including revenues and expenditures) on the County, cities, and/or special districts and provide feasible measures which would mitigate such adverse impacts. (Section 56668 a, b and c.)

2. Applications must address current and ultimate needs for governmental services and facilities as established by the appropriate land use plans and prezoning. Proposals shall not be approved unless a demonstrated need for additional service exists or will soon exist. In reviewing boundary change proposals, LAFCO shall consider alternative government structure options which may be more appropriate in light of the demonstrated need for service. The formation of, or annexation to, a single governmental agency, rather than several limited purpose agencies, shall be encouraged when possible. (Section 56668 a and b.)

3. Applications must indicate that the affected agencies have the capability to provide service. Territory shall be annexed to a city or special district only if such agency has or soon will have the capability to provide service. (Section 56668 b.)

4. Whenever a local agency submits a resolution of application for a change of organization or reorganization, the local agency shall submit with the resolution of application a plan for providing services within the affected territory. The plan for providing services shall include all of the following information. (Section 56653.):

    a. An enumeration and description of the services to be extended to the affected territory.

    b. The level and range of those services.

    c. An indication of when those services can feasibly be extended to the affected territory.

    d. An indication of any improvement or upgrading of structures, roads, sewer or water facilities, or other conditions the local agency would impose or require within the affected territory if the change of organization or reorganization is completed.

    e. Any conditions which would be imposed or required within the affected territory such as, but not limited to, improvement or upgrading of structures, roads, and sewer or water facilities.

    f. Information with respect to how those services will be financed.

A plan for providing services may consist of:

a. A master plan for providing services throughout all or a portion of a city or distinct Sphere of Influence for use in evaluating all proposals affecting the area covered in the master plan.

b. A proposal-specific supplement which updates and/or provides a higher level of detail than is contained within the master plan for services. Such supplement may include by reference or in summary form those pertinent sections of the master plan for services which remain valid. The supplement need discuss in detail only that information which is not current or discussed in sufficient detail in the master plan for services.

6. LAFCO discourages proposals which will facilitate development that is not in the public interest due to topography, isolation from existing developments, premature intrusion of urban-type developments into a predominantly agricultural area, or other pertinent economic or social reason. (Section 56668 a.)

7. LAFCO shall consider the testimony from all potentially affected agencies or individuals in reviewing boundary change proposals. Proposals submitted by resolution of application shall include information indicating that landowners in the affected area support the proposal. (Section 56668 i.)

8. An application for incorporation of a new city shall be supplemented by sufficient information to enable LAFCO to determine. (Section 56668 a, b and c.):

a. The long-term fiscal feasibility of the new city. A five-year service plan including revenue projections shall be required of all incorporation proposals. A service plan extending for longer than five years is acceptable.

b. The existing and projected population base in the affected area warrants urban-type services.

c. The service and financial impacts on all potentially affected agencies, including existing cities, districts, and the County.

d. The proposal territory includes the entire area that would reasonably benefit from city services and would not logically be more appropriate for annexation to an existing city.

9. A city application for annexation of an unincorporated island without an election shall, in addition to the plan for providing services, be supplemented by sufficient information to enable LAFCO to determine within the affected territory:

    a. The total acreage of the unincorporated island and the boundaries of all cities and/or counties and, if applicable, the Pacific Ocean, which border thereon.

    b. The presence or absence of Prime Agricultural Land.

    c. The availability of public utility services.

    d. The presence of public improvements.

    e. The presence or absence of physical improvements upon each parcel.

    f. The benefits from such annexation or the benefits now being received from the annexing city.

10. If a proposal is for the incorporation of a new city or the formation of a new agency, the application shall include a service plan demonstrating the economic feasibility of the proposed formation. (Section 56668 a, b and c.)

VIII. PHASING

1. LAFCO, in furtherance of its objectives of preserving prime agricultural land, containing urban sprawl, and in providing a reasonable assurance of a city/district's ability to provide services shall consider the appropriateness of phasing annexation proposals which include territory that is not within a city/district's urban service area and has an expected build-out over a period longer than five to seven years. (Sections 56668 a, b, and e.)

2. Change of organization and reorganization proposals which are totally within a city or district's adopted urban service area shall not be considered appropriate for phasing. Urban service areas are, by definition, territory expected to be developed/serviced in the next five years. (Sections 56668 a, b and c.)

3. Proposals which contain territory which is not within a city or district's adopted urban service area and have an expected build-out extending beyond a five- to seven-year period may be considered appropriate for phasing. For the purpose of this policy, "phasing" shall be defined as a planned incremental approval of a project and "building-out" shall be interpreted as 70 to 80 percent developed. When an exception from this policy is desired, the proponent shall justify to LAFCO the reasons why phasing is not

appropriate. Included within the justification for exception, the proponent shall demonstrate the jurisdiction's ability to provide necessary public services. (Sections 56668 a, b and e.)

4. The Executive Officer shall not issue a certificate of filing pursuant to Section 56658 until the local agencies included in the property tax revenue exchange negotiation, within the 60-day negotiation period, present resolutions adopted by each such county and city whereby each county and city agrees to accept the exchange of property tax revenues. (California Revenue and Taxation Code section 99 b 6.)

IX. OPEN SPACE AND AGRICULTURAL LAND

1. It is the policy of LAFCO to encourage and to seek to provide for planned, well-ordered, efficient urban development pattern while at the same time remaining cognizant of the need to give appropriate consideration to the preservation of open space and agricultural land within such patterns. (Section 56300.) Proposals for a change of organization or reorganization will be judged according to LAFCO's adopted Policy on Preservation of Open-Space and Agricultural Lands (Section E of this Policy Document).

X. GROUNDWATER STANDARDS

Informational Requirements

1. LAFCO shall encourage the Monterey County Water Resources Agency, the Pajaro Valley Water Management Agency, and the Monterey Peninsula Water Management District to complete water management plans, develop or revise allocation of water supply as necessary, and promote County-wide standards. The LAFCO standards shall be reviewed periodically to reflect changes in information and current water management policy.

2. In considering a proposal which may significantly impact the groundwater basin, as documented by the Lead Agency pursuant to the California Environmental Quality Act (CEQA), LAFCO shall review the following information. This information can be submitted to LAFCO in an environmental document or as a part of the LAFCO application.

    a. The projected water demand of the proposed project based on guidelines provided by the appropriate water resources agency.

    b. The existing water use and historical water use over the past five years.

c. A description of the existing water system including system capacity serving the site.

d. A description of proposed water system improvements.

e. A description of water conservation or reclamation improvements that are to be incorporated into the project.

f. An analysis of the impact that proposed water usage will have on the groundwater basin with respect to water quantity and quality, including cumulative impacts.

g. Evidence of consultation with the appropriate water agency. The agency shall be consulted at the earliest stage of the process, so that applicable recommendations can be included in the environmental document.

h. A description of water conservation measures currently in use and planned for use on the site such as drought tolerant landscaping, water-saving irrigation systems, installation of low-flow plumbing fixtures, retrofitting of plumbing fixtures with low-flow devices, and compliance with local ordinances.

i. A description of how the proposed project complies with adopted water allocation plans.

j. A description of those proposals where the agency has achieved water savings or where new water sources have been developed that will off-set increases in water use on the project site that would be caused by the proposal.

k. A description of how the proposal would contribute to any cumulative adverse impact on the groundwater basin.

l. A description of those boundary change proposals that, when considered individually and after taking into account all mitigation measures to be implemented with the project, still cause a significant adverse impact on the groundwater basin.

3. Any proposal considered by LAFCO that uses water will be referred to the Monterey County Water Resources Agency, the Pajaro Valley Water Management Agency, Monterey Peninsula Water Management District, or any other affected water agency. Recommendations of the agencies will be considered by LAFCO and, where appropriate, should be incorporated into the project design prior to approval of the boundary change proposal.

4. LAFCO recognizes that water usage will vary due to soil type, location of aquifer, characteristics of aquifer, and type of project. Each project must be reviewed on a case-by-case basis.

5. Should an agency adopt similar or more restrictive informational requirements, the LAFCO informational Requirement Nos. 1 through 4 will no longer apply.

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6. LAFCO will encourage boundary change proposals involving projects that use reclaimed wastewater, minimize nitrate contamination, and provide beneficial use of storm waters.

7. LAFCO will encourage proposals which have incorporated water conservation measures. Water conservation measures include drought tolerant landscaping, water-saving irrigation systems, installation of low-flow plumbing fixtures, retrofitting of plumbing fixtures with low-flow devices, and compliance with local ordinances.

8. LAFCO will encourage those proposals which comply with adopted water allocation plans as established by applicable cities or water management agencies.

9. LAFCO will encourage those proposals where the affected jurisdiction has achieved water savings or new water sources elsewhere that will off-set increases in water use in the project site that would be caused by the proposal.

10. LAFCO will discourage those proposals which contribute to the cumulative adverse impact on the groundwater basin unless it can be found that the proposal promotes the planned and orderly development of the area.

11. LAFCO will discourage those boundary change proposals which, when considered individually and after taking into account all mitigation measures to be implemented with the project, still cause a significant adverse impact on the groundwater basin.

XII. INCORPORATION GUIDELINES[12]

1. LAFCO shall utilize the "Guide to the LAFCO Process for Incorporations" issued by the Governor's Office of Planning and Development as the guideline for processing proposals for city incorporation.

[12] Subsection XI was added through Resolution 03-18, June 24, 2003.

XII. REGIONAL TRAFFIC IMPACTS [13]

1. For annexations and Sphere of Influence applications, Monterey County LAFCO shall consider as part of its decision whether the proposal mitigates its regional traffic impacts by, for example, monetary contribution to a regional transportation improvement fund as established by the Transportation Agency of Monterey County or otherwise.

XIII. EFFICIENT URBAN DEVELOPMENT PATTERNS[14]

1. For annexations and Sphere of Influence applications, Monterey County LAFCO shall consider as part of its decision whether the city in which the annexation or Sphere of Influence amendment is proposed has included certain goals, policies, and objectives into its General Plan that encourage mixed uses, mixed densities, and development patterns that will result in increased efficiency of land use, and that encourages and provides planned, well-ordered, efficient urban development patterns.

XIV. DISADVANTAGED UNINCORPORATED COMMUNITIES[15]

1. Except as otherwise allowed pursuant to Section 56375 (a) (8), LAFCO shall not approve an annexation to a city of any territory greater than 10 acres, or as determined by Commission policy, where there exists a disadvantaged unincorporated community that is contiguous to the area of proposed annexation unless an application to annex the disadvantaged unincorporated community to the subject city has been filed with the Executive Officer.

XV. CONTRACT / AGREEMENT SERVICE EXTENSION[16]

1. Requests for Service Extension:
   a. In evaluating requests for service extensions outside an agency's jurisdictional boundary, LAFCO shall consider the Sphere of Influence of the affected agency.
   b. Applicants shall submit an application to LAFCO prior to consideration of the proposal. Within 30 days the Executive Officer shall determine if the application is complete, and transmit the need for additional information immediately. Within 90

[13] Subsection XII was added through Resolution 06-15, October 23, 2006.
[14] Subsection XIII was added through Resolution 06-16, October 23, 2006.
[15] Subsection XIV was added through Resolution 12-01, January 23, 2012.
[16] Subsection XV was added through Resolution 94-5, February 25, 1994.

days after the application is deemed complete, the request shall be placed before LAFCO for a determination.

c. LAFCO may authorize a city or district to provide new or extended service outside its jurisdictional boundaries but within its Sphere of Influence in anticipation of a later change of organization. In this instance, LAFCO will consider the factors enumerated in Section 56668 in reviewing the request.
d. LAFCO may authorize a city of district to provide new or extended services outside its jurisdictional boundaries and Sphere of Influence to respond to a documented existing or impending threat to the public health or safety of the residents of the affected territory if the LAFCO has notified any alternative service provider as outlined in Section 56133.
e. The Executive Officer may administratively approve requests for service extension outside an agency's jurisdictional boundary if the applicant has satisfactorily demonstrated the existence of a public health or safety issue as identified in writing from the local public health officer. The Executive Officer is required to inform LAFCO at the next available meeting of any administratively approved service agreements.
f. For purposes of this section, the term "service," or "services," does not include management and administrative services provided by a local agency where the local agency does not directly or indirectly own the facilities by or through which utilities or services are provided. LAFCO's authority over service extensions does not apply to the provision of these management and administrative services.[17]

2. LAFCO authority over contract/agreement service extension does not apply to: (1) contracts or agreements solely involving two or more public agencies where the public service to be provided is an alternative to, or substitute for, public services already being provided by an existing public service provider and where the level of service to be provided is consistent with the level of service contemplated by the existing service provider; (2) contracts for the transfer of non-potable or non-treated water, and (3) contracts or agreements solely involving the provision of surplus water to agricultural lands and facilities, including, but not limited to, incidental residential structures, for projects that serve conservation purposes or directly support agricultural industries. However, prior to extending surplus water that will support or induce development, the agency must receive written approval from LAFCO. (Section 56133.)

[17] Paragraph was added through Resolution 11-14, August 22, 2011.

PART E. PRESERVATION OF OPEN-SPACE AND AGRICULTURAL LANDS[18]

I. INTRODUCTION

Significant debate exists concerning the authority of a local agency formation commission to adopt policies, rules, regulations, guidelines, or conditions regarding the establishment of "agricultural buffers" or other methods to address the preservation of open space and agricultural lands. The Cortese – Knox – Hertzberg Local Government Reorganization Act (the "Act"), California Government Code section 56000, et seq., is replete with provisions that grant to a local agency formation commission the authority to consider and provide for the preservation of open space and agricultural lands. "Among the purposes of a [local agency formation commission] are discouraging urban sprawl [and] preserving open-space and prime agricultural lands, ..." Section 56301. Furthermore, "[i]t is the intent of the Legislature that each commission, . . . , shall establish written policies and procedures and exercise its powers pursuant to this part in a manner . . . that encourages and provides planned, well-ordered, efficient urban development patterns *with appropriate consideration of preserving open-space and agricultural lands* within those patterns." Section 56300 (a) (emphasis added). The Legislature has also declared that the preservation of open-space and prime agricultural lands is a "state interest" to be balanced against the promotion of orderly development. Section 56001.

A local agency formation commission is specifically charged in some instances with protecting open space and agricultural land. For example, an island annexation may not be approved if the island consists of prime agricultural land. Section 56375.3 (b)(5). A local agency formation commission may not approve a change to a Sphere of Influence where the affected territory is subject to a farmland security zone or Williamson Act contract, unless certain conditions exist. Sections 56426 and 56426.5.

In other situations, a local agency formation commission is charged with considering specific circumstances affecting open space or agricultural land when making a decision. For example, when considering a proposal that could reasonably be expected to lead to the conversion of open space lands to non-open space uses, a local agency formation commission must consider guiding such conversion away from prime agricultural land towards non-prime lands. Section 56377s (a) and 56668 (d). In addition, a local agency formation commission should encourage the conversion of open space lands within the jurisdiction or Sphere of Influence of a local agency before approving any proposal that would lead to such conversion outside the jurisdiction or Sphere of Influence of that agency. Sections 56377 (b) and 56668 (d). Finally, a

[18] Part E of the Policies and Procedures was first adopted on January 25, 2010. This Part replaces the "Agricultural Lands Preservation Policy" adopted on November 27, 1979 (Resolution 79-30).

local agency formation commission must consider the "effect of [a] proposal on maintaining the physical and economic integrity of agricultural lands, ..." Section 56668 (e).

While a local agency formation commission has considerable authority to provide for the preservation of open space and agricultural land, it may not directly regulate land use: "A commission shall not impose any conditions that would directly regulate land use density or intensity, property development, or subdivision requirements." Section 56375. A local agency formation commission may, however, require that property sought to be annexed be prezoned, although it may not specify how it shall be prezoned. *Id.*

In order to implement the intent and purposes of the Act with respect to the preservation of open-space and agricultural lands, the Local Agency Formation Commission of Monterey County ("LAFCO") adopts the following policy.

II. POLICY

It is the policy of LAFCO that, consistent with section 56300 (a) of the Act, applications or proposals for a change in organization or reorganization, or for the establishment or any change to a Sphere of Influence or urban service area (hereinafter, "Proposal" or "Proposals"), shall provide for planned, well-ordered, efficient urban development patterns with appropriate consideration of preserving open-space and agricultural lands within those patterns. To implement this policy, it is the further policy of LAFCO that:

1. A Proposal must discuss how it balances the state interest in the preservation of open space and prime agricultural lands against the need for orderly development. (Government Code section 56001.) Proposals that fail to discuss this balance, in the opinion of the executive officer, will be deemed incomplete. Proposals may be denied if they fail to demonstrate to the satisfaction of LAFCO that the need for orderly development is balanced against the preservation of open space and prime agricultural lands.

2. A Proposal must discuss its effect on maintaining the physical and economic integrity of agricultural lands. (Government Code section 56668 (a).) Proposals that fail to discuss their effect, in the opinion of the executive officer, will be deemed incomplete. Proposals may be denied if they fail to demonstrate to the satisfaction of LAFCO that the physical and economic integrity of agricultural lands is maintained.

3. A Proposal must discuss whether it could reasonably be expected to induce, facilitate, or lead to the conversion of existing open-space land to uses other than open-space uses. (Government Code section 56377.) Proposals that fail to discuss potential conversion, in the opinion of the executive officer, will be deemed incomplete. Proposals may be denied if they fail to demonstrate to the satisfaction of LAFCO that: a)

they guide development or use of land for other than open-space uses away from existing prime agricultural lands in open-space use and toward areas containing nonprime agricultural lands (Government Code section 56377 (a)); and b) development of existing vacant or nonprime agricultural lands for urban uses within the existing jurisdiction of a local agency or within the Sphere of Influence of a local agency will occur prior to the development of existing open-space lands for non-open-space uses which are outside of the existing jurisdiction of the local agency or outside of the existing Sphere of Influence of the local agency (Government Code section 56377 (b)).

4. A Proposal must, if applicable, provide for pre-zoning (Government Code section 56375 (a)), and must demonstrate that it is consistent with the General Plans and Specific Plans of the existing local agency and any immediately adjacent local agency (Government Code sections 56375 (a) and 56668 (g)). Proposals may be denied if they are not consistent with such plans, or, if not pre-zoned, if the Proposal does not demonstrate to the satisfaction of LAFCO that the existing development entitlements are consistent with the local agency's plans.

To further these policies, it is the position of LAFCO that agricultural buffers provide an important means to preserve open-space and agricultural lands and preserve the integrity of planned, well-ordered, efficient urban development patterns. Such buffers may be permanent, temporary, or rolling, and may take many forms; easements, dedications, appropriate zoning, streets, or parks, for example. How agricultural buffers are used to further the state policy of preserving open-space and agricultural lands within patterns of planned, well-ordered, efficient urban development is left to the discretion of each local agency; however, Proposals will be judged on how state-wide policies under the Act, and LAFCO adopted policies, with respect to the preservation of open-space and agricultural lands are furthered. Agreements between neighboring local agencies with regard to the preservation of open-space and agricultural lands are encouraged, and such agreements may be incorporated by LAFCO into a Proposal as a condition of approval, or may be required as a condition precedent to approval.

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PART F. HOUSING AND JOBS[19]

I. INTRODUCTION

The State Legislature, through the Cortese–Knox–Hertzberg Local Government Reorganization Act (the "Act"), California Government Code section 56000, et seq., has declared that it is the policy of the State to "encourage orderly growth and development which are essential to the social, fiscal, and economic well-being of the State." Government Code section 56001 (unless otherwise indicated, all statutory references are to the Government Code). The Act is replete with references for the need to consider housing and residential development in correlation with commercial and industrial development, and the efficient provision of government services. For example, in the Act the Legislature recognizes that "providing housing for persons and families of all incomes is an important factor in promoting orderly development," and further finds that the policy of orderly growth and development "should be effected by the logical formation and modification of the boundaries of local agencies, with a preference granted to accommodating additional growth within, or through the expansion of, the boundaries of those local agencies which can best accommodate and provide necessary governmental services and housing for person and families of all incomes in the most efficient manner feasible." *Id.* Furthermore, the Act recognizes that "urban population densities and intensive residential, commercial, and industrial development necessitate a broad spectrum and high level of community services and controls." *Id.*

One of the purposes of a local agency formation commission is to encourage the "orderly formation and development of local agencies based upon local conditions and circumstances." Section 56301. To further that purpose, and implement the policies of the Act, amongst other things, a local agency formation commission makes determinations concerning changes in organization or reorganization, Spheres of Influence, urban service areas, and municipal service reviews. *See generally,* sections 56080, 56375, 56425, and 56430. Each of these determinations requires a local agency formation commission to consider factors such as population and population density, future growth, land area and land use, mutual social and economic interests, the present and planned capacity of public facilities, and the present and future adequacy of public services. These factors relate in part to job availability and creation, and housing supply and demand.

The Local Agency Formation Commission of Monterey County ("LAFCO") believes that applications or proposals for a change in organization or reorganization, or for the establishment or any change to a Sphere of Influence (hereinafter, "Proposal" or "Proposals") should consider the impact that the Proposal may have, if any, on job availability and creation, and housing supply and demand not only for the local community, but for adjacent communities, whether incorporated or unincorporated, and the region.

[19] This Section was added on April 25, 2011.

In order to implement the intent and purposes of the Act with respect to the matters set forth above, LAFCO adopts the following policy.

II. POLICY

It is the policy of LAFCO that, consistent with section 56300 (a) of the Act, Proposals must demonstrate through both quantitative and qualitative methods the relationship between the Proposal and the surplus or deficiency of local and county-wide housing supply and demand, and employment availability and creation. Additionally, the Proposal must demonstrate how its pattern of land use and transportation complements local and regional objectives and goals for the improvement of air quality and reduction of greenhouse gas (GHG) emissions and local vehicle miles traveled (VMT). These factors and their impacts, if any, shall be considered by the Commission in acting upon the Proposal.

PART G. GENERAL PROVISIONS [20]

I. TERMINATION OF INACTIVE APPLICATIONS

Any application for a Sphere of Influence amendment, change of organization or reorganization filed with LAFCO which is deemed incomplete by the Executive Officer pursuant to Government Code Section 56828 and remains incomplete for a period of six months with no progress being made towards its completion shall be deemed inactive.

Applicants whose application has been deemed inactive shall be noticed in writing at the location indicated on the application that the application is deemed inactive. The notice shall also provide information on how the application may be reactivated and list the items necessary to make the application complete. If within six months following the notice that the application has been deemed inactive, no effort or progress has been made to reactivate the application or otherwise cause it to be deemed complete, the application shall be deemed abandoned and all proceedings shall be terminated. Unused fees shall be returned to the applicant. If the applicant chooses to reapply at a later date, new fees will be required. The applicant and all affected agencies shall be noticed by the Executive Officer that proceedings have been terminated.

Nothing in this policy shall be deemed to limit or supersede the provisions contained in Cortese- Knox (Government Code Section 56000, et seq.) regarding the processing of applications before LAFCO.

The purpose of this policy is to enable LAFCO to deem applications that have remained incomplete for extended periods of time as abandoned and to remove them from the LAFCO proposal summary.

[20] Part G of the Policies and Procedures is a new policy adopted on February 25, 2013.

LAFCO *of Monterey County*

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September 4, 2013

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RE: Notice of Preparation for the 2014 Metropolitan Transportation Plan/ Sustainable Communities Strategy (MTP/SCS) Environmental Impact Report (EIR)

Dear Heather,

This letter is a follow-up to my July 24, 2013 letter to you commenting on the subject Notice of Preparation, and contains the official comments of the Local Agency Formation Commission of Monterey County (LAFCO). LAFCO is a CEQA Responsible Agency, with regulatory authority for future local government boundary and service applications in the study area. It is in this role that the Commission is commenting on the Notice of Preparation.

On behalf of the Commission, I would like to first of all thank you for your informative presentation at the August 26th LAFCO meeting. Also at that meeting, the Commission authorized my initial comment letter with certain changes as reflected in this letter. While LAFCO's comments pertain to the five scenarios outlined in the Notice of Preparation, we understand that AMBAG has subsequently narrowed its intended analysis to two "hybrid" scenarios. AMBAG's refinement process does not affect the substance of our comments.

COMMISSION AUTHORITY

Pursuant to the California Environmental Quality Act, LAFCO serves as a Responsible Agency with regard to the subject Notice of Preparation. A Responsible Agency is defined as any public agency, other than the lead agency, which has the responsibility for approving the project where more than one public agency is involved. As a Responsible Agency, LAFCO is available to the lead agency (AMBAG) for early consultation on a project to provide guidance on applicable issues and requirements.

LAFCO's statutory authority to regulate local government boundaries and services is derived from the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Government Code section 56000, et seq.) as amended. Among the purposes of the Local Agency Formation Commission are discouraging urban sprawl, preserving open space and prime agricultural lands, efficiently providing government services, and encouraging the orderly formation, growth and development of local agencies based upon local conditions and circumstances (Government Code section 56301).

The Cortese-Knox-Hertzberg Act further provides that "In order to carry out its purposes and responsibilities for planning and shaping the logical and orderly development and coordination of local governmental agencies to advantageously provide for the present and future needs of the county and its communities, *the [LAFCO] commission shall develop and determine the sphere of influence of each local governmental agency within the county and enact policies designed to promote the logical and orderly development of areas within the sphere* (Government Code section 56425a; emphasis added).

The 2014 Metropolitan Transportation Plan, and its Sustainable Communities Strategy component, may provide a basis for future regional decisions including transportation planning and funding; local land use decisions, patterns and forms enabled by regional transportation plans; and water, sewer and other public service infrastructure that are necessary to support those land uses. Many of these local decisions will involve action by LAFCO.

As such, there are direct links between the current AMBAG planning process and the legislative authority of LAFCO to study and regulate local government boundaries and services. Links between sustainable community strategies and spheres of influence are further emphasized in Senate Bill (SB) 375. The law requires that *"In preparing a sustainable communities strategy, the metropolitan planning organization shall consider spheres of influence that have been adopted by the local agency formation commission within its region"* [Government Code Section 65080(b)(2)(G)]. SB 375 aims to reduce per-capita vehicle miles traveled and related greenhouse gases through preparation of coordinated land use and transportation plans.

COMMENTS ON PROJECT DESCRIPTION

It is our understanding that there is no specific project description, maps or figures to comment on at this time. The Notice of Preparation describes several different planning scenarios relating to land use, transportation and greenhouse gas emission targets. It does not identify any one project as the preferred scenario for analysis in the Environmental Impact Report (EIR). We understand that AMBAG has recently narrowed its analysis to two hybrid scenarios, and will analyze one or both of the hybrid scenarios in the Draft Environmental Impact Report.

LAFCO comments on the Project Description are as follows:

1. Please anticipate that LAFCO will submit additional, specific comments during the circulation period for the Draft EIR.

2. Pursuant to the California Government Code, the SCS preferred planning scenario and all alternative scenarios to be analyzed in the EIR should be designed to reflect only the adopted Spheres of Influence for each city. This methodology would be consistent with the final methodology used in AMBAG's recent Regional Blueprint Planning Process, and supported by LAFCO of Monterey County. This recommendation is also consistent with input provided by LAFCO representatives participating in AMBAG's Planning Directors Group and Regional Advisory Committee for the 2014 MTP/SCS process. We continue to recommend that AMBAG's study of potential SCS scenarios, and final selection of a preferred scenario, only include scenarios in which future development takes place wholly within the cities' adopted Spheres of Influence. The statutory basis for this comment is the requirement of SB 375 that the metropolitan planning organization shall consider Spheres of Influence that have been adopted by the local agency formation commissions within its region [Government Code Section 65080(b)(2)(G)].

COMMENTS ON POTENTIAL ENVIRONMENTAL EFFECTS

As authorized by the Cortese-Knox-Hertzberg Act, LAFCO of Monterey County has adopted local "*Policies and Procedures Relating to Spheres of Influence and Changes of Organization and Reorganization.*" In considering applications for local government boundaries or services, LAFCO considers both the State law and the adopted local policies and procedures. The State law and local policies are available on the LAFCO website at http://www.monterey.lafco.ca.gov/. The local policies are attached to this letter for ease of reference.

The Cortese-Knox-Hertzberg Act and LAFCO's *Policies and Procedures* are germane to the Notice of Preparation. The proposed MTP/SCS project will result in outcomes or recommendations whose implementation would require LAFCO consideration or approvals (such as annexations or Sphere of Influence amendments) in the future. Cities, independent special districts, dependent special districts, the County of Monterey and regional agencies within Monterey County may rely on the EIR analysis for the MTP/SCS as a basis for their own plans and actions. LAFCO will be requested to consider applications for Spheres of Influence, boundaries and services, and to prepare municipal service reviews and other required studies for cities, special districts and the County of Monterey.

As discussed in the Project Description Comments above, the EIR should analyze a preferred SCS scenario that relies on adopted Spheres of Influence. In addition, the EIR should evaluate the proposed project, as well as project alternatives in the EIR, for consistency with all relevant sections of the Cortese-Knox-Hertzberg Act and LAFCO *Policies and Procedures*. Listed below are some of the local LAFCO policies that should be addressed in this consistency analysis:

1. "LAFCO intends that its Sphere of Influence determinations will serve as a master plan for the future organization of local governments within the County. The spheres shall be used to discourage urban sprawl; limit proliferation of local governmental agencies; encourage efficiency, economy and orderly changes in local government; promote compact, community centered urban development; and minimize adverse impacts on lands classified as prime agriculture." [LAFCO *Policies and Procedures*, section C.II.1]

We note that all cities, independent special districts and dependent special districts in Monterey County have adopted Spheres of Influence. The spheres are often tied to the capability to provide public services. AMBAG's long-range planning processes and the current EIR should analyze not only the potential environmental effects of future urban development within the adopted Spheres of Influence of cities, but also the effect of that development on the ability of special districts that provide a wide range of municipal services. If the final 2014 MTP/SCS encourages future urban development outside of the cities' adopted Spheres of Influence, the resulting "ripple effect" of such development could adversely impact the ability of special districts to efficiently provide public services.

2. "LAFCO shall discourage proposals that would have adverse financial impacts on the provision of governmental services or would create a relatively low revenue base in relationship to the cost of affected services. Applications shall describe related service and financial impacts (including revenues and expenditures) on the County, cities, and/or special districts and provide feasible measures which would mitigate such adverse impacts." [LAFCO *Policies and Procedures*, section D.VII.1]

3. "LAFCO discourages proposals which will facilitate development that is not in the public interest due to topography, isolation from existing developments, premature intrusion of urban-type developments into a predominantly agricultural area, or other pertinent economic or social reason." [LAFCO *Policies and Procedures*, section D.VII.6]

4. "LAFCO, in furtherance of its objectives of preserving prime agricultural land, containing urban sprawl, and in providing a reasonable assurance of a city/district's ability to provide services shall consider the appropriateness of phasing annexation proposals which include territory that is not within a city/district's urban service area and has an expected build-out over a period longer than five to seven years." [LAFCO *Policies and Procedures*, section D.VIII.1]

5. "It is the policy of LAFCO to encourage and to seek to provide for planned, well-ordered, efficient urban development pattern while at the same time remaining cognizant of the need to give appropriate consideration to the preservation of open space and agricultural land within such patterns." [LAFCO *Policies and Procedures*, section D.IX.1]

6. "For annexations and Sphere of Influence applications, Monterey County LAFCO shall consider as part of its decision whether the city in which the annexation or Sphere of Influence amendment is proposed has included certain goals, policies, and objectives into its General Plan that encourage mixed uses, mixed densities, and development patterns that will result in increased efficiency of land use, and that encourages and provides planned, well-ordered, efficient urban development patterns." [LAFCO *Policies and Procedures*, section D.XIII.1]

7. Regarding potential impacts to agricultural lands:

   - "A Proposal must discuss how it balances the State interest in the preservation of open space and prime agricultural land against the need for orderly development." [LAFCO *Policies and Procedures*, section E.II.1]

- "A Proposal must discuss its effect on maintaining the physical and economic integrity of agricultural lands." [LAFCO *Policies and Procedures*, section E.II.2]
- "A Proposal must discuss whether it could reasonably be expected to induce, facilitate, or lead to the conversion of existing open-space land to uses other than open-space uses." [LAFCO *Policies and Procedures*, section E.II.3]

8. Regarding jobs and housing:
   - "Proposals must demonstrate through both quantitative and qualitative methods the relationship between the Proposal and the surplus or deficiency of local and county-wide housing supply and demand, and employment availability and creation." [LAFCO *Policies and Procedures*, section F.II]
   - "Additionally, the Proposal must demonstrate how its pattern of land use and transportation complements local and regional objectives and goals for the improvement of air quality and reduction of greenhouse gas (GHG) emissions and local vehicle miles traveled (VMT*), including the importance of efficient movement of goods and commuter traffic."* [LAFCO *Policies and Procedures*, section F.II; additional Commission comments are noted in *italics*].

We appreciate this opportunity to provide comments on the Notice of Preparation, and thank you again for the courtesy of your presentation. I would be pleased to meet with AMBAG staff and consultants for more detailed discussions.

Sincerely,

Kate McKenna

Kate McKenna, AICP
Executive Officer

Attachment: LAFCO *Policies and Procedures Relating to Spheres of Influence and Changes of Organization and Reorganization*, as Adopted by the Local Agency Formation Commission of Monterey County, February 25, 2013

LAFCO\2013\Agency Correspondence\AMBAG MTP SCS NOP comment letter final

Megan Jones

From: Heather Adamson <hadamson@ambag.org>
Sent: Wednesday, July 24, 2013 12:31 PM
To: Megan Jones
Cc: Richard Daulton
Subject: RE: NOP Comments

Thanks Megan. I thought we could talk about these issues at our meeting next Wednesday.

From: Megan Jones [mailto:mjones@rinconconsultants.com]
Sent: Wednesday, July 24, 2013 12:26 PM
To: Heather Adamson
Cc: Richard Daulton
Subject: RE: NOP Comments

Hi Heather,

I received three post-its at the Greenfield meeting (which I put on a comment form and scanned), two comment sheets in Santa Cruz, and one blank comment sheet last night in Salinas (I think she wants to be added to the mailing list). These comment forms are attached to this email. I also received the following verbal comments:

- Greenfield – improve streets, install landscaping, clean streets; educate people on how to improve the city in which they live; request for documents in Spanish (comments also written on post-its by the translator)
- Santa Cruz: Address schools; consider economic impacts, sustainability, and jobs/housing balance
- Salinas: Consider health impacts; address traffic and quality of roads; preserve wilderness and untouched lands

I received no comments in Monterey, Hollister, or Watsonville.

Most comments pertained to issues we already plan to address, or are not pertinent to the EIR (e.g. educating people on how to improve their community). The exceptions include: whether we can translate some portion of the EIR into Spanish, and whether/how economic and health impacts can be considered. As you know, direct health impacts and economic impacts are outside the scope of CEQA. We should discuss whether you would like us to respond in a more detailed manner. Regarding the translation, is this something AMBAG can look into, or would you like us to investigate the feasibility of this?

Thank you,

Megan Jones
Senior Program Manager

Rincon Consultants, Inc.
831 333 0310 EXT 11 MOBILE 831 915 9757
www.rinconconsultants.com
Environmental Scientists Planners Engineers

From: Heather Adamson [mailto:hadamson@ambag.org]
Sent: Wednesday, July 24, 2013 12:06 PM

To: Megan Jones
Subject: NOP Comments

Megan-

Can you e-mail me any comments forms that you received from the scoping meetings?

Thanks,
Heather

City of Gonzales

P.O. BOX 647
PHONE: (831) 675-5000

147 FOURTH ST.
FAX: (831) 675-2644

GONZALES, CALIFORNIA 93926
www.ci.gonzales.ca.us

July 24, 2013

Ms. Heather Adamson
Association of Monterey Bay Area Governments
445 Reservation Road, Suite G
Marina, CA 93933

Sent Via Email/U.S. Mail
hadamson@ambag.org

RE: Comments – Notice of Preparation of Environmental Impact Report for the 2014 Metropolitan Transportation Plan/Sustainable Communities Strategy and 2014 Regional Transportation Plans for San Benito, Santa Cruz, and Monterey Counties

Dear Ms. Adamson:

Thank you for the opportunity to review and provide comments in regard to the Notice of Preparation (NOP) of an Environmental Impact Report (EIR) for the 2014 Metropolitan Transportation Plan/Sustainable Communities Strategy and 2014 Regional Transportation Plans for San Benito, Santa Cruz, and Monterey Counties. The City of Gonzales offers the following comments:

1. The issuance of the NOP is premature since there are no Plans or documents to review. The NOP states that "several" Sustainable Community Strategy (SCS) scenarios are being assessed and that the AMBAG Board will select a preferred scenario at some future date. The reviewers should be able to comment on the scope of an EIR that addresses the preferred scenario; especially the potential for environmental effects of the preferred scenario as it might relate to a City or County. The EIR should include all of the SCS scenarios that were considered during the planning process with a discussion from a CEQA review perspective of why each scenario was not considered to be the preferred scenario, including a list of environmental constraints.

2. The 2014 MTP/SCS is purported to outline the region's goals and polices for meeting current and future mobility needs, proving a foundation for transportation decisions by local, regional, and State officials that are ultimately aimed at achieving a coordinated and balanced transportation system. What are those goals and policies? Were these goals and policies adopted by Monterey County and all of its Cities? No specific information has been provided in the NOP that would enable a reviewer to question the environmental effects of a goal or policy or determine the significance of the local impacts of a particular goal or policy. The EIR should analyze the conflicts that the resulting goals and polices prepared for the MTP and the SCS may have with the General Plan of Monterey County and the General Plans for all of its Cities.

3. No specific information has been provided with regard to the Regional Transportation Plan (RTP's) that would enable a reviewer to comment on environmental effects. For example, are new transportation facilities being planned in an area that would have significant environment effects on a local jurisdiction or conflict with the General Plan of a local jurisdiction? A basic level of information is necessary to provide meaningful input into the NOP comment process. RTP's follow guidelines established by the State of California Transportation Commission (CTC) to describe transportation issues and needs facing each County; identify goals and policies for how each County will meet its needs; identify the amount of money that will be available for needed projects; and include a list of prioritized transportation projects to serve each County's long-term needs within the projected "budget" of transportation revenues with consideration towards environmental impacts, land use and special transportation needs. The EIR should include a thorough analysis of the environmental justice and social equity impacts associated with the proposed projects potential to result in disproportionate adverse effects on minority and low-income populations in areas where transportation improvements that are needed are lacking.

4. The MTP/SCS is purported to result in a Plan that best integrates land use, housing and transportation. It is feasible that such a Plan may result in the shifting of transportation funding from Cities that have robust plans for future growth and development to other areas, which could lead to environmental impacts. The EIR should include a thorough analysis of the environmental impacts resulting from a reprogramming or shifting of transportation investment from one area to another; especially if the shift in funding is from communities that have General Plans that anticipate growth and have planned for regional transportation infrastructure.

5. The impact categories listed on page 4 of the NOP are much too broad to enable a reviewer to discern what actual potential impacts will be analyzed. The following specific impacts should be addressed in the EIR, including: Substantial adverse effects on scenic vistas; Substantial damage to scenic resources; Substantial degradation to visual character; Conversion of prime farmland, unique farmland and farmland of statewide importance; Potential conflicts with Williamson Act contracts and/or Permanent Agricultural Preserves; Fragmentation of agricultural lands and changes in land uses adjacent to agricultural lands; Modification of habitat; Modification of riparian areas/wetlands; Interference with wildlife movement; Conflicts with protective ordinances and polices; Conflicts with the General Plan land use, housing and transportation goals and polices of Monterey County and its Cities; Increased impervious surface /storm water runoff and how that runoff is addressed to comply with state NPDES mandates and requirements; Increase noise related to

increased traffic volumes; Increased noise along rail corridors; Indirect growth inducement; Deterioration in traffic operations due to the potential for increased localized congestions from new projects; and Deterioration of air quality, including cumulative contribution to greenhouse gas emissions.

6. The last sentence in the description of an "Intensified Land Use Alternative" and does not adequately describe how the transportation network will be modified to accommodate a concentration of future growth. The EIR alternative should include a transportation network that has a high investment in transit service and supportive road, pedestrian and bicycling infrastructure.

Thank you for the opportunity to provide these comments to AMBAG in regard to the Notice of Preparation of an Environmental Impact Report for the 2014 Metropolitan Transportation Plan/Sustainable Communities Strategy and 2014 Regional Transportation Plans.

Sincerely,

Thomas Truszkowski, Director
Community Development Department

February 24, 2014

Mr. Thomas Truszkowski
Community Development Director
City of Gonzales
147 Fourth Street
Gonzales, CA 93926

Re: Association of Monterey Bay Area Governments Draft 2035 MTP/SCS EIR Notice of Preparation Letter

Dear Mr. Truszkowski:

In your e-mail dated February 18, 2014, you indicated that the comment letter on the Notice of Preparation (NOP) prepared by the City of Gonzales for the 2035 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) was not included in Appendix A of the 2035 MTP/SCS Draft Environmental Impact Report (Draft EIR). We confirmed with our EIR consultant, Rincon Consultants, Inc., that the NOP letter was received and reviewed. However, it was incorrectly filed, and thus inadvertently left out of Appendix A of the Draft EIR circulated for public review. We apologize for this oversight and have prepared this letter to briefly summarize the points raised in your NOP letter and discuss how they were addressed during development of the 2035 MTP/SCS and reflected in the Draft EIR. Responses to specific comments raised in the NOP letter are summarized below:

1. The NOP contained the information available at that time regarding the scope and content of the 2035 MTP/SCS. The preferred and alternative scenarios were under development; thus, Association of Monterey Bay Area Governments (AMBAG) wasn't able to provide specific details for review/comment as part of the NOP. However, it was our belief that sufficient detail was provided to allow all interested parties an opportunity to comment on the scope of discussion to be included in the Draft EIR. We welcome additional comments on the Draft 2035 MTP/SCS and EIR.

2. As the Metropolitan Planning Organization (MPO) for Monterey, San Benito, and Santa Cruz Counties, AMBAG is responsible for compiling the Regional Transportation Plans (RTPs) for the three Regional Transportation Planning Agencies (RTPAs) into one comprehensive MTP/SCS document. As the RTPA for Monterey County, the Transportation Agency for Monterey County (TAMC) prepared their respective RTP. The RTP was prepared with input from cities in Monterey County to ensure that projects included in the RTP would be consistent with General Plans and related planning/policy documents. To document this, a land use consistency analysis is included as Section 5.0 of the 2035 MTP/SCS Draft EIR.

P.O.Box 809 Marina, CA 93933-0809 [ph] 831.883.3750 [fax] 831.883.3755 http://www.ambag.org info@ambag.org

3. As discussed in the NOP and reflected in the Draft EIR, all environmental issue areas required under CEQA were addressed to provide a comprehensive program level evaluation of potential impacts associated with implementation of the 2035 MTP/SCS. As noted above, to ensure consistency with applicable plans and policies, input was received from all cities and other sponsor agencies regarding the scope and content of the RTP's prepared for each County. The Draft EIR (Section 4.6 – Environmental Justice) and 2035 MTP/SCS include a thorough evaluation of potential impacts to low income and minority communities.

4. The Draft EIR provides a program level evaluation of potential environmental impacts associated with the scope of all programmed projects that comprise the 2035 MTP/SCS. As projects are identified for implementation, the sponsor agency would perform a project specific environmental evaluation. A detailed, project-level discussion of impacts would be included in those environmental documents.

5. The environmental issues evaluated in the Draft EIR include those required in Appendix G of the CEQA Guidelines. Within each issue area, specific criteria are provided that form the scope of review. Each of the resource areas and issues noted in the NOP comment letter were evaluated in the Draft EIR.

6. The full scope of the Intensified Land Use alternative was not developed at the time the NOP was published. In the interim, a total of three alternatives (including No Build and Intensified Land Use) were developed. A detailed description of each as well as a program level comparison of the alternatives relative to the proposed project is provided in Section 7.0, *Alternatives*, of the Draft EIR.

Both this letter and the City's NOP letter will be included in the 2035 MTP/SCS Final EIR and filed as part of the Administrative Record for the project. Thank you for your involvement in the 2035 MTP/SCS process to date and we look forward to receiving your comments on the Draft EIR.

Please feel free to contact me at (831) 883-3750 or via email at hadamson@ambag.org if you have any questions.

Sincerely,

Heather Adamson, AICP
Principal Planner

Appendix B

2035 MTP/SCS Project List

Table B-1
MONTEREY COUNTY ACTIVE TRANSPORTATION

AMBAG ID	Project	Project Location	2020*	2035*
MON-CAR001-CM	Bike Kiosks		13	0
MON-CAR002-CM	Carmel to Pebble Beach Bike/Ped Facility	North San Antonio Road (2nd to Ocean Ave)	86	0
~~MON-CAR043-CM~~	Reservation Road Bicycle Lanes	On Reservation Road between Blanco Road and S. Davis Road	0	250
MON-DRO2-DR	Gen. Jim Moore Bicycle Improvement	Gen. Jim Moore (S. Boundary - 450' North of S. Boundary)	0	10
MON-DRO3-DR	Canyon Del Rey Blvd (Hwy 218) Bicycle Gap	Hwy 68 - 400' North of Del Rey Gardens (Westside); Hwy 68 - General Jim Moore (Eastside)	0	500
MON-GON009-GO	Bike Lockers	At MST Bus Station	1	0
MON-GON010-GO	Bike Racks	At 4th and Elko	1	0
~~MON-GON010-GO~~ MON-SCY009-SA	Bike Racks	Throughout Sand City	~~20~~	20 ~~0~~
MON-GON012-GO	River Rd. Bike Lane	On River Rd. from Alta St. to New Industrial Park	5	0
MON-GON013-GO	Winery - Alta St. Bike Signs	From 5th Ave. SE on Alta to Winery	3	0
MON-GRN001-GR	Apple Avenue Bridge over US 101		1,548	0
MON-GRN005-GR	Thorne Road Bridge over US 101		1,548	0
MON-GRN010-GR	12th St. Bike Lanes	On 12th from Walnut to Elm	1	0
MON-GRN011-GR	13th St. Bike Lanes	On 13th from Walnut to Elm	1	0
MON-GRN012-GR	2nd Ave. Bike Lanes	On 2nd b/t Walnut and Elm	1	0
MON-GRN013-GR	3rd St. Bike Lanes	On 3rd b/t Pine and Elm	1	0
MON-GRN014-GR	7th St. Bike Lanes	On 7th b/t Elm to Apple	1	0
MON-GRN015-GR	El Camino Real Exit Bike Lane	On ECR at US 101 to Walnut and Elm St. to S 101 Exit	1	0
MON-GRN016-GR	Elm Ave. Bike Lanes	From 13th to 3rd	1	0
MON-GRN017-GR	Pine Ave. Bike Lanes	From El Camino Real to 3rd.	1	0
MON-GRN018-GR	Walnut Ave. Bike Lanes	From 10th to the El Camino Real, Highway 101 Bypass to 2nd St., and 3rd Street to El Camino Real.	1	0

Table B-1
MONTEREY COUNTY ACTIVE TRANSPORTATION

AMBAG ID	Project	Project Location	2020*	2035*
MON-KCY008-CK	Airport Rd. Bike Lane	On Airport Rd. from Metz to Bitterwater	1	0
MON-KCY009-CK	Metz Rd. Bike Lane	On Metz Rd. from Airport to Bitterwater	100	0
MON-KCY036-CK	Vanderhurst Bike Lanes	On Vanderhurst St. in King City	0	10
MON-KCY038-CK	1st St Bike Lanes	1st St Metz Rd - Hwy 101	0	10
MON-KCY040-CK	Broadway Bike Lanes	Broadway (San Lorenzo Park - San Lorenzo St)	0	5
MON-MAR012-MA	Beach Rd	Between Del Monte and De Forest Rd	0	500
MON-MAR030-MA	Crescent Ave Bike Lanes, Sidewalk	From Carmel to Reservation	1,000	0
MON-MAR039-MA	Downtown Pedestrian Improvements		0	1,000
MON-MAR070-MA	Reservation Rd. Bike Lanes	From Salinas Ave. to Imjin	0	400
MON-MAR082-MA	Sidewalk Improvements		0	1,000
MON-MAR087-MA	Beach Road Class II Bike Lanes	Beach Rd from Reservation Rd to Del Monte Blvd	0	2
MON-MAR088-MA	Bostick Ave Class II Bike Lanes	Bostick Ave from Carmel Ave to Reindollar Ave	0	2
MON-MAR091-MA	Cardoza Ave Class II Bike Lanes	Cardoza Ave Reservation Rd to Lakewood Dr	0	3
MON-MAR092-MA	Cardoza Ave Class II Bike Lanes	Cardoza Ave from Lakewood Drive to the dead end	0	3
MON-MAR094-MA	De Forest Rd Class II Bike Lanes	De Forest Rd from Reservation Rd to Beach Rd	0	2
MON-MAR100-MA	Imjin Pkwy Class II Bike Lanes	Imjin Pkwy - Stripe Bike Lanes on Imjin Pkwy in addition to Class I Bike Path	2,200	0
MON-MAR101-MA	Lake Dr Class II Bike Lanes	Lake Dr from Palm Ave to Lake Court	0	3
MON-MAR102-MA	Lake Dr Class II Bike Lanes	Lake Dr from Palm Ave to Reservation Rd	0	3
MON-MAR104-MA	Old Marina Class I Bike Path	Along south edge of old Marina from Del Monte Blvd to California Ave	0	200
MON-MAR106-MA	Palm Ave Class II Bike Lanes	Palm Ave from Lake Dr to Sunset Ave	0	3
MON-MAR108-MA	Remove and Replace Signs, Class III Bikeway	Various Locations	0	30
MON-MAR121-MA	Monterey Bay Coastal Bike Path	Marina Greens to Palm Ave	20	0

Table B-1
MONTEREY COUNTY ACTIVE TRANSPORTATION

AMBAG ID	Project	Project Location	2020*	2035*
MON-MAR122-MA	De Forest/Beach Traffic Calming	De Forest Rd and Beach Rd	40	0
	Carmel Ave Bike Lanes	Carmel Ave	0	3
MON-MRY001-MY	Aguajito Road		0	4,000
MON-MRY002-MY	Del Monte - Washington Improvements	Del Monte Avenue at Washington Street	4,000	0
MON-MRY012-MY	Pacific Street Bike/Ped Improvements	Pacific Street	1,500	0
MON-MRY013-MY	Recreation Trail Improvements		5,000	5,000
MON-MRY014-MY	Window on the Bay		7,000	0
MON-MRY016-MY	Lower Presidio Pedestrian Connection	Between Hawthorne Ave and Van Burren Street through Lower Presidio	0	2,500
MON-MRY020-MY	Monterey City Bikeways Program	Various locations	4,500	5,500
MON-MYC001-UM	Alisal Road	Along Alisal Road from Salinas City Limits to Old Stage Road	0	7
MON-MYC002-UM	San Benancio - Corral de Tierra Rd Loop	Along Hwy 68 from San Benancio Rd to Corral de Tierra Road	0	530
MON-MYC003-UM	Blackie Road	Along Blackie Road from SR 183 to US 101	0	5,400
MON-MYC018-UM	Castroville Bicycle/Pedestrian Path and Railroad Crossing	Class III bicycle route from Merritt Street along Pajaro and McDougall Streets to Salinas Street; Class I bike/ped path along Salinas Street from McDougall Street to Axtell Street; bike/ped bridge over the UP railroad crossing from Axtell Street to Collins Road; Class I bike/ped path from Collins Road to Castroville Blvd, and; crosswalk at Castroville Blvd to existing Class I bike path along Castroville Blvd	8,748	0
MON-MYC020-UM	Crazy Horse Canyon Road	Along Crazy Horse Canyon Road from San Juan Grade Road to State Hwy 101	0	4,177
MON-MYC026-UM	Elkhorn Road	North Monterey County - Along Elkhorn Road, Salinas Road and Porter Drive from County Line to Castroville Blvd	0	10,900
MON-MYC029-UM	Florence St. Extension	Along Florence Street from beginning of Florence at railroad, along Florence extension to levee	0	276

Table B-1
MONTEREY COUNTY ACTIVE TRANSPORTATION

AMBAG ID	Project	Project Location	2020*	2035*
MON-MYC030-UM	Gonzales - River Road	From Gonzales city limits to River Road	0	1,127
MON-MYC036-UM	Hall Road - Tarpey Road	Along Hall Road from San Miguel Canyon to San Juan Road	0	1,000
MON-MYC040-MA	Inter-Garrison Road	Along Inter-Garrison Road from 8th Street cut-off to Reservation Road	0	10,800
MON-MYC042-UM	Jonathan St. Extension	From Jonathan St. to school	0	255
MON-MYC045-UM	Las Lomas Dr Bicycle Lane & Pedestrian Project	Las Lomas Dr from Hall Road to Clausen Road	2,673	0
MON-MYC046-UM	Laureles Grade Road	Along Laureles Grade from State Hwy 68 to Carmel Valley Road.	0	6,497
MON-MYC053-UM	Metz Road	On Metz Road from Soledad City Limits to King City Limits.	0	24
MON-MYC056-UM	Monte Road	On Monte Road at Del Monte Boulevard to Nashua Road.	0	1,989
MON-MYC059-UM	Nacimiento-Ferguson Rd	Highway 1 to Mission Road	0	18,500
MON-MYC060-UM	Natividad Road	Along Natividad Road from Salinas City Limits to Old Stage Road	0	2,453
MON-MYC062-UM	Old Stage Road	Gonzales to Natividad	0	11,500
MON-MYC063-UM	Old Stage Road/Hebert Road	From San Juan Grade Rd at Hebert Road to Old Stage Rd	0	720
MON-MYC064-UM	Pajaro River Levee Trail	Along levee from Florence Extension to proposed drainage pond	0	850
MON-MYC068-UM	Porter Drive	From Salinas Road to County Line.	0	66
MON-MYC070-UM	Prunedale South Road	Install continuous bikeways along Prunedale South Road, Berta Canyon Road, and Blackie Road to State Hwy 101 South (with Caltrans).	0	3,127
MON-MYC075-UM	River Road Operational Improvements	From SR 68 to Arroyo Seco Road	0	29,300
MON-MYC078-UM	Rogge Road	On Rogge Road from Natividad Road to San Juan Grade Road	0	1,414
MON-MYC085-UM	San Juan Grade Road	Along San Juan Road between Crazy Horse Rd. to and the County Line	0	6,120
MON-MYC093-UM	Carmel City Limits to Carmel River State Park	From Carmel City Limits beginning at Scenic Drive east on Santa Lucia, south on San Antonio, east on 15th to Rio Park (provide bridge at River St.), Class I from Rio Park to State Park	0	419

Table B-1
MONTEREY COUNTY ACTIVE TRANSPORTATION

AMBAG ID	Project	Project Location	2020*	2035*
MON-MYC095-UM	South Boundary Road	On South Boundary Road.	0	1,934
MON-MYC114-UM	Reservation Rd.	Along Reservation Road from Blanco Road to State Highway 68	0	6,099
MON-MYC115-UM	Corral de Tierra	Along Corral de Tierra Loop from State Hwy 68 to Robley Road to Corral del Cielo	0	8,508
MON-MYC118-UM	Williams Rd.	Along Williams Rd. from Boronda (City Limits) to Old Stage Roads	0	2
MON-MYC121-UM	Tarpy Rd Improvements	Entire length	0	1,000
MON-MYC124-UM	Harris Road Improvements	Harris Rd.	0	8,000
MON-MYC126-UM	Abrams Drive	Along Abrams Dr from Imjin Rd to Intergarrison Rd.	0	3
MON-MYC127-UM	Alta St/Old US Hwy 101	Along Alta St from Foletta Rd to 10th St.	0	4
MON-MYC128-UM	Arroyo Seco Road	Along Arroyo Seco Rd from Fort Romie to Elm Ave.	0	24
MON-MYC129-UM	Arroyo Seco Rd Project (CA PFH 129-1)	South Monterey County	50	0
MON-MYC130-UM	Artichoke Avenue	From Tembladera Street Along Artichoke Avenue to Merritt Street	0	442
MON-MYC135-UM	Bluff Road	Along Bluff Rd from Hwy 1 to Pajaro River	0	5
MON-MYC137-UM	Brooklyn Street	Along Brooklyn Street form San Juan Road to Bishop Street	0	600
MON-MYC138-UM	Camphora Gloria Road	Along Camphora Gloria Road from State Hwy 101 to Gloria Road	0	5,850
MON-MYC139-UM	Canada de la Segunda	Along Canada de la Segunda from Hwy 68 to Carmel Valley Rd.	0	12
MON-MYC140-UM	Carmel River Bridge	From Carmel River (N) to Carmel River (S)	0	540
MON-MYC141-UM	Carmel Valley Class I Bicycle Path Project Phase IV	From the end of APN 157-181-001 to State Highway 1	0	1,275
MON-MYC142-UM	Carmel Valley Rd	Along Carmel Valley Rd from Loma del Rey to Via Contenta	0	278
MON-MYC143-UM	Carmel Valley Rd at Boronda Rd Intersection	Intersection of Boronda and Rancho roads at Carmel Valley Rd	1,278	0
MON-MYC144-UM	Carmel Valley Rd at Country Club Drive	Intersection of Country Club Drive at Carmel Valley Road	1,120	0
MON-MYC139-UM	Castro Street	Along Castro Street from Blackie Rd. to Wood St.	0	1

Table B-1
MONTEREY COUNTY ACTIVE TRANSPORTATION

AMBAG ID	Project	Project Location	2020*	2035*
MON-MYC146-UM	Castroville Boulevard	From Dolan Road along the entire length of Castroville Boulevard to San Miguel Canyon Rd	0	3,602
MON-MYC148-UM	Cattleman Rd	Along Cattleman Rd from Wildhorse Canyon Rd to Paris Valley Rd	0	51
MON-MYC149-UM	Central Ave	Along Central Ave from Elm Ave to Hwy 101.	0	22
MON-MYC150-UM	Chualar River Rd	Along Chualar River Rd from River Rd to Grant St	0	8
MON-MYC151-UM	Cooper - Nashua Rd	Along Cooper - Nashua Rd from Blanco Rd to Monte Rd	0	15
MON-MYC152-UM	Cooper Road	Along Cooper Road to Nashua Road from State Hwy 183	0	9
MON-MYC159-UM	CVMP - Carmel Valley Road Passing Lanes (Front of September Ranch)	Carmel Valley	0	5,734
MON-MYC160-UM	CVMP - Class II Bike Lanes	Carmel Valley	308	0
MON-MYC161-UM	CVMP - Grade Separation at Laurels Grade/Carmel Valley Road	Carmel Valley	0	13,538
MON-MYC163-UM	CVMP - Laureles Grade Climbing Lane	Carmel Valley	0	3,077
MON-MYC164-UM	CVMP - Laureles Grade Shoulder Addition	Carmel Valley	~~5,105~~ 0	~~0~~ 5,105
MON-MYC165-UM	CVMP - Left-Turn Channelization - W of Ford Drive	Carmel Valley	2,000	0
MON-MYC168-UM	Davis Road	On Davis Road from Reservation Road to Blanco Road	0	3,193
~~MON-MYC168-UM~~ MON-MYC169-UM	Davis Road	On Davis Road from Blanco Road to Rossi Street	0 ~~3,137~~	~~0~~ 3,137
MON-MYC170-UM	Drainage Pond/Miller Property	From Florence St. extension to the levee.	0	16
MON-MYC171-UM	El Camino Real	Along El Camino Real from city limits (Greenfield) to Susan Ln	0	1
MON-MYC172-UM	Elkhorn Rd	Along Elkhorn Rd from Paradise Valley Rd to Hall Rd	0	194
MON-MYC173-UM	Elm Ave	Along Elm Ave from Arroyo Seco Rd to 13th St	0	14
MON-MYC174-UM	Elm Ave	Along Elm Ave from Metz Rd to 3rd St (Greenfield)	0	7
MON-MYC175-UM	Espinosa Rd	Along Espinosa Rd from Patricia Ln to Elm Ave	0	8
MON-MYC176-UM	Espinosa Rd	Along Espinosa Rd from Central Ave to Susan Ln (//to Hwy 101)	0	6

Table B-1
MONTEREY COUNTY ACTIVE TRANSPORTATION

AMBAG ID	Project	Project Location	2020*	2035*
MON-MYC177-UM	Foletta Rd	Along Foletta Rd from Chualar River Rd to Alta St/Old US Hwy 101	0	12
MON-MYC178-UM	Fort Romie Rd	Along Fort Romie Rd from River Rd to Arroyo Seco Rd	0	12
MON-MYC180-UM	Front Rd Extension	Along Front Rd from Camphora Gloria Rd to Encinal St	0	95
MON-MYC185-UM	Geil St	Along Geil St from Wood St to Hwy 156 Bike/Ped Overcrossing	0	1
MON-MYC186-DR	Gen Jim Moore Path	Along Gen Jim Moore from Eucalyptus Rd to City Limits	0	1,206
MON-MYC187-UM	Gloria Road	Along Gloria Road from State Hwy 101 to Camphora-Gloria Road	0	2,055
MON-MYC189-UM	Grant St	Along Grant St from Hwy 101 to Payson St	0	2
MON-MYC190-UM	Harkins Rd	Along Harkins Rd from Nutting Street to 5th St (Spreckels)	0	68
MON-MYC193-UM	Harrison Rd	Along Harrison Rd from Damian Wy to Russell Rd (Salinas)	0	82
MON-MYC196-UM	Iverson Rd	Along Iverson Rd from Old Stage Road to Johnson Canyon Road	0	5,000
MON-MYC197-UM	Iverson Road	Along Iverson Road from Johnson Canyon Road to Gloria Road	0	2,600
MON-MYC198-UM	Jetty Road/Pajaro River (Zmudowski Beach)	Along Jetty Road.	0	5,729
MON-MYC199-UM	Johnson Canyon Road	From Gonzales City Limits along Johnson Canyon Road to Iverson Road	0	1,350
MON-MYC203-UM	Lanini Rd	Along Lanini Rd from Tavernetti Rd to Tavernetti Rd Hwy 101 On Ramp	0	2,000
MON-MYC204-UM	Main St	Along Main St from Grant St to Lincoln St (Chualar)	0	6
MON-MYC205-UM	McCoy Road	Along McCoy road to Moranda Road.	0	3,868
~~MON-MYC205-UM~~ MON-MYC206-UM	McCoy Road	Along McCoy Rd from Soledad Prison Rd to Camphora Gloria Rd	0	87
MON-MYC207-UM	McGowan Rd - MBSST	Along McGowan Rd from Trafton Rd to Santa Cruz Co Line	0	2
MON-MYC208-UM	Mead St	Along Mead St from Tembladera St to Gambetta Middle School	0	1
MON-MYC209-UM	Meade St (Extension)	Along Meade St from Tembladera St to Artichoke Ave (Extension)	0	2
MON-MYC210-UM	Meridian Rd	Along Meridian Rd from Castroville Blvd to Hwy 156	0	8

Table B-1
MONTEREY COUNTY ACTIVE TRANSPORTATION

AMBAG ID	Project	Project Location	2020*	2035*
MON-MYC211-UM	Meridian Rd Path	375' S of Meridian Rd, to 390' N of Meridian Rd.	0	95
MON-MYC212-UM	Mesa Verde	Along Mesa Verde from Wildhorse Canyon Rd/Hwy 101 to 1st St	0	8
MON-MYC213-UM	Monte Rd - MBSST	Along Monte Rd from Nashua Rd to Lapis Rd	0	81
MON-MYC214-UM	Monterey Bay Sanctuary Scenic trail-Moss Landing	From just north of State Highway 1 Bridge to Moss Landing Road	~~6,724~~ 0	~~2,435~~ 9,159
MON-MYC215-UM	Moro Rd	Along Moro Rd from San Miguel Canyon Rd to Hwy 101	0	6
MON-MYC216-UM	Moss Landing Road Bike Lanes, Storm Drain, and Street Improvements	From South State Highway 1 to North State Highway 1	~~3,228~~ 0	~~0~~ 3,228
MON-MYC220-UM	Old Stage - San Juan Grade	Along Old Stage - San Juan Grade from Crazy Horse Canyon Rd to County Limit	0	13
MON-MYC221-UM	Old Stage Rd	Along Old Stage Rd from Associated Ln/101 to Alta St	0	1
MON-MYC222-UM	Omart Rd	Along Omart Rd from Del Monte Farms Rd to Meridian Rd	0	1
MON-MYC223-UM	Pajaro Rail Line	From Salinas Rd to Pajaro River Levee	0	448
MON-MYC224-UM	Payson St - Chualar Rd	Along Payson St - Chualar Rd from Grant St to Old Stage Rd	0	4
MON-MYC226-UM	Pesante Rd	Along Pesante Rd from Hwy 101 to Cross Rd	0	2
MON-MYC228-UM	Portola Dr	Along Portola Dr from Torero Dr to Muleta Dr.	0	16
MON-MYC229-UM	Prunedale North Rd	Along Prunedale North Rd from San Miguel Canyon Rd to 300' S of Hwy 156 overpass	0	46
MON-MYC230-UM	Reese Cir - Country Meadows Rd	Along Reese Cir - Country Meadows Rd from Blackie Rd to Damian Way	0	3
MON-MYC231-UM	Reservation Rd Pedestrian/Bicycle Access	From Imjin Parkway to East Garriso Development.	0	140
MON-MYC233-UM	Rio Rd	Along Rio Rd from Atherton Dr to Hwy 1	0	29
MON-MYC236-UM	Russell Road	On Russell Road from State Hwy 101 to San Juan Grade Road	0	1,105
MON-MYC237-UM	Salinas Rd - Hall Rd - Tarpey Rd	Along Salinas Rd from Porter Dr to San Juan Rd	0	74
MON-MYC239-UM	Salinas Street	Along Salinas Street from Merritt Street to Axtell Haight Street	0	360
MON-MYC240-UM	San Benancio Road	Along San Benancio from Corral del Cielo to Harper Canyon Road to State Hwy 68	0	5,182

Table B-1
MONTEREY COUNTY ACTIVE TRANSPORTATION

AMBAG ID	Project	Project Location	2020*	2035*
MON-MYC241-UM	San Juan Grade Rd	Along San Juan Grade Rd from Rogge Road to Herbert Rd	0	88
~~MON-MYC241-UM~~ MON-MYC242-UM	San Juan Grade Rd	Along San Juan Grade Rd from Russell Rd to Rogge Rd	0	1
MON-MYC244-UM	San Juan Rd	Along San Juan Rd	0	5
MON-MYC246-UM	San Juan Road to Pajaro Levee	Along rail line from San Juan Road to Pajaro River Levee	0	663
MON-MYC248-UM	Sanctuary Scenic Trail 15A	From Elkhorn Bridge (S) to Elkhorn Bridge (N)	0	5,082
MON-MYC249-UM	Sanctuary Scenic Trail Segment 10	From Neponset Rd to Lapis Rd	0	2,058
MON-MYC250-UM	Sanctuary Scenic Trail Segment 11	From Neponset Rd to Monte Rd	0	634
MON-MYC251-UM	Sanctuary Scenic Trail Segment 12	From Salinas River and Hwy 1 to Salinas River State Beach	0	5,552
MON-MYC252-UM	Sanctuary Scenic Trail Segment 13	From Salinas River State Beach to Sanholdt Rd	0	7,404
MON-MYC253-UM	Sanctuary Scenic Trail Segment 14	From Nashua Rd to Potrero Rd	0	2,800
~~MON-MYC253-UM~~ MON-MYC254-UM	Sanctuary Scenic Trail Segment 14	From Mora Rd to Monterey Dunes Way	0	258
MON-MYC255-UM	Sanctuary Scenic Trail Segment 14A	From Salinas River State Beach to Potrero Rd	0	835
MON-MYC256-UM	Sanctuary Scenic Trail Segment 17A	From Pajaro River to Trafton Rd	0	699
MON-MYC257-UM	Sanctuary Scenic Trail Segment 17B	From Trafton Rd to McGowan Rd	0	1,659
MON-MYC258-UM	Sanctuary Scenic Trail Segment 7	From Lapis Rd to Dunes Dr	0	3,411
MON-MYC259-UM	Sanctuary Scenic Trail Segment 9	From Lapis Rd to Monte Rd	0	37
MON-MYC261-UM	Seymour St	Along Seymour St from Salinas St to Washington St	~~2~~ 0	~~0~~ 2
MON-MYC262-UM	Sill Road	Along Sill Road from Las Lomas Drive to Harrington Road	0	696
MON-MYC265-UM	Strawberry Rd	Along Strawberry Rd form San Miguel Canyon Rd to Elkhorn Rd	0	10
MON-MYC267-UM	Susan Ln	Along Susan Ln from El Camino Real to Espinosa Rd	~~1~~ 0	~~0~~ 1
MON-MYC268-UM	Tafton Rd	Along Tafton Rd from Salinas Rd to McGowan Rd	~~8~~ 0	~~0~~ 8
~~MON-MYC268-UM~~ MON-MYC269-UM	Tafton Rd	Along Tafton Rd from Bluff Rd to 2nd bend in Trafton Rd	~~2~~ 0	~~0~~ 2

Table B-1
MONTERREY COUNTY ACTIVE TRANSPORTATION

AMBAG ID	Project	Project Location	2020*	2035*
MON-MYC270-UM	Tafton Rd - MBSST	Along Tafton Rd from Salinas Rd to Pajaro River Trails	~~3~~ 0	~~0~~ 3
MON-MYC271-UM	Tavernetti Rd	Along Tavernetti Rd from Lanini Rd to Soledad Prison Rd	0	94
~~MON-MYC271-UM~~ MON-MYC272-UM	Tavernetti Rd	Along Tavernetti Rd from Hwy 101 Overpass to Gloria Rd	~~1~~ 0	~~0~~ 1
MON-MYC273-UM	Tavernetti Road	From Gloria Road to McCoy Road	0	553
MON-MYC274-UM	Teague Ave	Along Teague Ave from Central Ave to Hwy 101	~~4~~ 0	~~0~~ 4
MON-MYC275-UM	Tembladero Slough	Between State Hwy 1 along Tembladero Slough	0	221
MON-MYC276-UM	Thorne Rd	Along Thorne Rd from Arroyo Seco Rd to El Camino Real	~~11~~ 0	~~0~~ 11
MON-MYC277-UM	Werner Rd	Along Werner Rd from Salinas Rd to Elkhorn Rd	~~9~~ 0	~~0~~ 9
MON-MYC280-UM	Rio Rd - Carmel Middle School Bicycle Connection	On Rio Rd in Carmel between Hwy 1 and Val Verde Dr; Val Verde Dr - Carmel Middle School	0	1,500
	Highway 1/Carmel Intersection improvements	Hwy 1 @ Rio Rd/Ocean/Carpenter	0	200
MON-MYC281-UM	Carmel - Monterey Bicycle Connection	Adjacent to State Route 1 between Carpenter St and Viejo Road; on Viejo Road and Soledad Drive between Viejo Road bicycle path and Munras Ave	0	700
MON-MYC282-UM	SR 1 - Carmel Corridor	On State Route 1 between Carmel River Bridge and Carpenter St	0	500
MON-MYC285-UM	Davis Road Bike Path	Davis Road from W Laurel to Rossi	0	~~350~~ 200
MON-MYC286-UM	Calle Del Adobe/West Laurel Dr Bike Lanes	On Calle Del Adobe/West Laurel Dr Bike lanes from Boronda Rd to US 101	0	100
~~MON-MYC286-UM~~	~~Calle Del Adobe/West Laurel Dr Bike Lanes~~	~~On Calle Del Adobe/West Laurel Dr Bike Lanes from Boronda Rd to US 101~~	~~156~~	~~0~~
MON-MYC287-UM	Calle Del Adobe Bike Lanes	Calle Del Adobe	0	150
MON-PG001-PG	Forest Ave Bike Lanes	Forest Ave	0	300
MON-PG002-PG	Pine Avenue Bike Lanes	Pine Ave	0	250
MON-PG003-PG	David Ave Bikeway	David Ave	0	200
MON-PGV004-PG	Lighthouse Ave. Corridor	Lighthouse Ave - 12th St. - Lobos St.	~~3,601~~ 0	~~0~~ 3,601

Table B-1
MONTEREY COUNTY ACTIVE TRANSPORTATION

AMBAG ID	Project	Project Location	2020*	2035*
MON-PGV006-PG	Congress Walkway	Sunset to David	~~300~~ 0	~~0~~ 300
MON-PGV008-PG	Rec. Trail Improvements	Rec Trail between Berwick Park and Eardley	0	1,000
MON-PGV011-PG	Recreational Trail Repairs	On Pacific Grove's Rec Trail between Esplanade and Sea Palm	~~1,500~~ 0	~~0~~ 1,500
MON-SCY009-SA	Bike Path Lighting	From Tioga to Seaside City Limits	~~325~~ 0	~~0~~ 325
MON-SCY010-SA	Class I Bike Path	From Tioga to Playa Ave	0	400
MON-SCY011-SA	Class I Bike Path along Railroad	From Contra Costa to Monterey Road	0	1,300
MON-SCY012-SA	Class III Bikeways	Various locations	~~15~~ 0	~~0~~ 15
MON-SEA001-SE	Del Monte Bike Lanes	Del Monte Avenue in Seaside	0	300
MON-SEA002-SE	2nd Avenue Bike Gap	2nd Ave (Divarty to Lightfighter)	0	250
MON-SEA029-SE	Lightfighter Drive Pedestrian Improvements	Lightfighter Drive from First Avenue to General Jim Moore Boulevard	0	389
MON-SNS003-SL	ADA Access Ramp Installations	Citywide	~~2,400~~ 0	~~2,400~~ 4,800
~~MON-SNS003-SL~~	~~ADA Access Ramp Installations~~	~~Various Locations~~	~~1,200~~	~~0~~
MON-SNS005-SL	Alisal Rd. Bikeway	Alisal Rd south to City Limits	0	6
MON-SNS007-SL	Alvin Drive Bike Lanes	Along Alvin between McKinnon and Natividad	~~86~~ 0	~~86~~ 172
MON-SNS014-SL	Bridge Street Bike Lanes	Entire length of Bridge Street	~~419~~ 0	~~0~~ 419
MON-SNS018-SL	Davis Road Bike Lanes	Davis Road from Central to Blanco	0	500
MON-SNS019-SL	Davis Road Bike Path	Davis Road from W Laurel to Rossi	0	350
MON-SNS046-SL	Reclamation Ditch Bike System	Reclamation Ditch #1665	0	3,500
MON-SNS057-SL	Williams Road Bike Lanes	Williams Road	0	200
MON-SNS062-SL	Arcadia Way Bike Route	Arcadia Way from Natividad to El Dorado	~~2.5~~ 0	~~0~~ 3
MON-SNS063-SL	Boronda Rd Class III Bike Lanes	On Boronda from Westside Parkway to Rossi Street Extension	~~8~~ 0	~~0~~ 8
MON-SNS064-SL	Calle Del Adobe / West Laurel Dr Bikelanes	On Calle Del Adobe/West Laurel Dr Bikelanes from Boronda Rd to	0	156

Table B-1
MONTEREY COUNTY ACTIVE TRANSPORTATION

AMBAG ID	Project	Project Location	2020*	2035*
		US 101		
MON-SNS065-SL	Carr Lake Bikeways	Constitution/Sherwood Place/Maderia Ave	~~5,000~~ 0	~~0~~ 5,000
MON-SNS066-SL	East Alisal St (Future St) and Freedom Parkway (Future St) Bike Lanes	Along East Alisal St- Freedom Parkway - Williams Rd	0	200
MON-SNS071-SL	John Street Class III Bikeway	From Abbott to Wood Street	~~5~~ 0	~~0~~ 5
MON-SNS072-SL	Los Palos Drive Class III Bike Lane	Along Los Palos Dr from Abbott St to Manor Dr/Grove St	~~1~~ 0	~~0~~ 1
MON-SNS073-SL	Market Street Class II Bikeway	On Market Street from E Alisal to Cross Ave	~~1~~ 0	~~0~~ 1
MON-SNS075-SL	N Maderia/King St Class III Bikeway	On N Maderia/King St from E Alisal St to Roosevelt St	~~1~~ 0	~~0~~ 1
MON-SNS076-SL	N Maderia/Saint Edwards Ave Class III Bikeway	On N Maderia/Saint Edwards from Circle Dr to Laurel Dr	~~5~~ 0	~~0~~ 5
MON-SNS077-SL	N Main/Espinosa Rd Class II Bike Lane	On new underpass at Russell/Espinosa to N Main	0	5,000
MON-SNS078-SL	Natividad Creek Bike Path	From Gee St to Circle Dr	~~680~~ 0	~~0~~ 680
MON-SNS080-SL	Rossi St Extension Class II Bike Lanes	On Rossi St Extension from Boronda to Davis	~~175~~ 0	~~0~~ 175
MON-SNS083-SL	Russell Rd Class II Bike Lanes	On Russell Rd from N Main to San Juan Grade Rd	~~155~~ 0	~~0~~ 155
MON-SNS084-SL	San Juan Grade Class II Bike Lanes	On San Jan Grade Rd from Boronda Rd to Cornwall St	~~230~~ 0	~~0~~ 230
MON-SNS086-SL	Station Place (ITC Bridge)	Rossi St to Amtrak Station	~~1,500~~ 0	~~0~~ 1,500
MON-SNS087-SL	Terven Ave Class II Bike Lanes	On Terven Ave from Sanborn Rd to Airport Blvd	~~25~~ 0	~~0~~ 25
MON-SNS089-SL	W Laurel/US 101 Overpass/Adams St Class III Bikeway	West of US 101 to Tulane St	~~3~~ 0	~~0~~ 3
MON-SNS128-SL	Laurel Drive Bike Lanes	Laurel Dr	0	300
MON-SNS129-SL	Street Sidewalk Repair	Various Locations	~~600~~ 0	~~450~~ 1,050
MON-SNS130-SL	ADA Access Ramp Installations	Various Locations	0	1,200
MON-SNS131-SL	Downtown Vibrancy Plan		~~375~~ 0	~~0~~ 375
MON-SOL006-SO	Bicycle Racks and Lockers	Various locations	~~35~~ 0	~~0~~ 35
~~MON-SOL028-SO~~	Pinnacles Bike Route	Metz Rd	0	500

Table B-1
MONTEREY COUNTY ACTIVE TRANSPORTATION

AMBAG ID	Project	Project Location	2020*	2035*
MON-SOL043-SO	Pedestrian Lighting	Various City Streets	~~700~~ 0	~~200~~ 900
~~#N/A~~	~~Highway 1/Carmel Intersection Improvements~~	~~Hwy 1 at Rio Rd/Ocean/Carpenter~~	~~0~~	~~200~~
	Monterey County Bicycle and Pedestrian Improvement Projects	Countywide	0	12,741

* $ thousands – 2010 dollars

Table B-2
MONTEREY COUNTY HIGHWAY - NEW

AMBAG ID	Project	Project Location	2020*	2035*
MON-GRN005B-GR	US 101/Thorne Road Interchange		0	20,482
MON-GRN022-GR	US 101 – Pine Road Overcrossing		0	20,482
MON-CT008-UM	SR1 Operational Improvements	On SR 1 near Carmel by-the-Sea between Rio Road and Carmel Valley Road	3,600	0
MON-CT011-CT	SR 68 - Commuter Improvements	Between Toro Park and Rte 1	0	25,555
MON-CT017-CT	SR 68 - (Holman Hwy - access to Community Hospital)	SR 68 - Holman Highway ~~68~~ (between SR 1 and Community Hospital of Monterey Peninsula)	0	26,620
MON-CT022-CT	SR 156 - Widening (Phase 2)	On SR 156 at US 101 in Prunedale	0	~~195,000~~ 133,130
MON-CT030-SL	US 101 - Salinas Corridor	On US 101 from South of Airport Boulevard to Boronda Road	0	52,000
MON-CT031-CT	US 101 - South County Frontage Roads	US 101 between Harris Road/Abbott Street and Soledad	0	112,000
MON-CT036-CT	SR 156 - West Corridor (Phase I)	On SR 156 West from Castroville to US 101	109,000	0
MON-CT044-SL	US 101 - Harris Road Interchange	US 101 at Harris Road	0	57,662
MON-CT045-MA	SR 1 - Monterey Rd Interchange	On SR 1 between Fremont and Lightfighter Drive near Monterey Rd	0	25,935
MON-GON015-GO	US 101/Gloria Road Interchange		0	39,505
MON-KCY006-CK	US 101 - 1st Street Interchange (Lonoak Street I/C)	In King City between San Antonio Road and US 101	0	42,591
MON-MRY027-MY	SR 68 - SR 1 Interchange Improvements ~~Roundabout~~	On SR 68 at SR 1 in Monterey	6,850	0
MON-SOL002-SO	US 101 - North Interchange	US 101 and Front Street	0	17,490
MON-SOL003-SO	US 101 - South Interchange	US 101 and Front Street/Moranda	0	18,810
~~MON-SOL005-SO~~	~~SR 146 - Bypass to US 101~~	~~Near Soledad between Metz Road and US 101~~	~~0~~	~~15,000~~
MON-SOL014-SO	SR 146 Bypass	From SR 146 (Metz Road) to Nestles Road	0	21,000
MON-GRN008-GR	US 101 - Walnut Avenue Interchange	US 101 at Walnut Avenue, Greenfield	0	28,784
MON-MYC147-UM	Castroville Improvements/Blackie Road	Near Castroville between State Route 156 and Blackie Road	0	18,000

Table B-2
MONTEREY COUNTY HIGHWAY - NEW

AMBAG ID	Project	Project Location	2020*	2035*
MON-CT015-CT	SR 1 ~~– Widening Seaside to Sand City~~	On State Route 1 - Interchange and related local road improvements in the vicinity of Canyon Del Rey and Fremont Avenues. ~~between Fremont Avenue and Canyon Del Rey Boulevard (State Route 218)~~	0	9,000

* $ thousands – 2010 dollars

Table B-3
MONTEREY COUNTY HIGHWAY OPERATION, MAINTENANCE, AND REHABILITATION

AMBAG ID	Project	Project Location	2020*	2035*
MON-CT040-CT	State Highway Operations and Protection Program (SHOPP)	Monterey County	~~257,271~~ 227,850	~~836,259~~ 602,742
MON-MAR084-MA	SR 1 - Reservation Road	At Reservation Road and SR 1 Ramps	0	600
MON-PGV010-PG	SR 68 - Bishop to Sunset	SR 68 - Bishop to Sunset	5,657	4,845
MON-SNS122-SL	US 101/Sanborn/Elvee	US 101/Elvee/Sanborn	3,100	0
800	US 101/Boronda Improvements	US 101/Boronda	8~~,~~00	160
MON-SNS126-SL	US 101/Kern Street TS	US 101/Kern	0	500
MON-MYC153-UM	SR 68 - Corral de Tierra	On SR 68 at Corral de Tierra Road	2,860	0

* $ thousands – 2010 dollars

Table B-4
MONTEREY COUNTY LOCAL STREETS AND ROADWAYS – NEW

AMBAG ID	Project	Project Location	2020*	2035*
MON-FRA003-MA	8th Street	From Hwy 1 Overpass to Inter-Garrison (Eighth Street Cutoff)	3,946	0
MON-FRA004-MA	Patton Parkway (Abrams Road)	From intersection with the Second Avenue (link to Del Monte Blvd, in Marina (see project FO#8) easterly to intersection with Crescent Court extension (part of project 162)	732	0
MON-FRA010-MA	Crescent Court		875	0
MON-FRA018-SE	Giggling Road	From General Jim Moore Blvd. Easterly to Eastside Road	5,914	0
MON-FRA023-MA	Salinas Avenue	From Reservation Road southerly to Abrams Drive.	2,930	0
MON-FRA025-MA	2nd Avenue Phase 2	On 2nd Avenue from Imjin Pkwy to Crescent Ct./Abrams Rd	2,000	0
MON-FRA026-MA	2nd Avenue Phase 3	On 2nd Ave. from Crescent Ct/Abrams Rd to Del Monte in Marina	2,000	0
MON-GON004-GO	Alta Street	From city limits to US 101 interchange -- approx 2 miles	11,716	0
MON-GON005-GO	Fano Road	In city limits to US 101	0	4,250
MON-GON006-GO	Harold Parkway - Roadway Extension	From La Gloria to 5th Street	0	10,741
MON-GON007-GO	La Gloria Rd Widening	From Harold to US 101	0	4,228
MON-MAR054-MA	Michael Drive New Connection	Sells to Cosky	0	800
MON-MAR114-MA	Del Monte Blvd. widening	From north of Beach Road to SR 1 Interchange	5,000	0
MON-MYC125-UM	Espinosa Road Widening	Greater Salinas	0	27,000
MON-MYC245-UM	San Juan Road Improvements	North County	0	71,900
MON-SCY015-SA	Tioga widening	Tioga and Del Monte	600	0
MON-SNS011-SL	Boronda - Main Improvements	Boronda Rd and Main Street	462	0
MON-SNS012-SL	Boronda Rd. Widening	Boronda Rd from Natividad to Williams	15,671	0
MON-SNS029-SL	John Street - US 101	John Street between Work and Wood Streets	0	8,513
MON-SNS035-SL	Lincoln Avenue Widening	Between W. Market and Gavilan	0	1,117
MON-SNS037-SL	Main Street (North) Widening	Main St. from Market to Casentini	0	5,060

Table B-4
MONTEREY COUNTY LOCAL STREETS AND ROADWAYS – NEW

AMBAG ID	Project	Project Location	2020*	2035*
MON-SNS044-SL	Natividad Road Widening	From Boronda Rd to Rogge Rd	0	4,296
MON-SNS048-SL	Romie Lane Widening	Romie Lane - between S. Main and California Street	1,218	0
~~MON-SNS052-SL~~	~~Sanborn Rd Widening/Reconstruction~~	~~Sanborn Rd. from John Street to Abbott Street~~	~~0~~	~~14,737~~
MON-SNS053-SL	San Juan Grade Widening	San Juan Grade between Boronda and Rogge	3,190	0
MON-SNS059-SL	Williams Road Widening	Williams Rd from Boronda to Old Stage Rd	5,500	0
MON-SNS090-SL	Russell Road Extension	From San Juan Grade Rd to Old Stage Rd	17,557	0
MON-SNS092-SL	San Juan - Natividad Collector	from San Juan Grade to Natividad (North of and parallel to Boronda)	3,635	0
MON-SNS093-SL	Independence Boulevard Extension	From Boronda to Russell Rd	1,374	0
MON-SNS094-SL	Hemingway Drive Extension	from Boronda to Russell	0	2,871
MON-SNS095-SL	Constitution Boulevard Extension	From Boronda to Old Stage Road	9,556	0
MON-SNS096-SL	Sanborn Road Extension	From Boronda to Old Stage Road	6,895	0
MON-SNS097-SL	Williams Russell Collector	From Williams Rd to Russell (Parallel and northeast of Boronda)	8,115	0
MON-SNS098-SL	Alisal Street Extension	between Alisal Street/Bardin Road intersection and the Williams-Russell Collector	5,119	0
MON-SNS099-SL	Moffett Street Extension	From Davis Rd to Western Bypass	0	3,336
MON-SNS100-SL	Rossi Street Widening	Between Main Street and Sherwood Dr	1,231	0
MON-SNS101-SL	Bernal Drive Extension	From Sherwood Drive / Natividad Rd intersection to Kern Street	6,976	0
~~MON-SNS095-SL~~ MON-SNS102-SL	Constitution Boulevard Extension	From Laurel Drive to Bernal Drive Extension	3,403	0
~~MON-SNS059-SL~~ MON-SNS103-SL	Williams Road Widening	Between Del Monte Ave and Boronda Rd	2,975	0
MON-SNS104-SL	Alisal Street Widening	between Williams Rd and Alisal Rd	2,908	0
MON-SNS108-SL	Laurel Drive Widening	Between Natividad and Constitution	0	2,161
MON-SNS121-SL	McKinnon Street Extension	From Boronda Rd to Rogge Rd	3,710	0
MON-KCY016-CK	Bypass (So. San Antonio extension)	Bitterwater across	0	10,000

Table B-4
MONTEREY COUNTY LOCAL STREETS AND ROADWAYS – NEW

AMBAG ID	Project	Project Location	2020*	2035*
MON-KCY017-CK	Bypass (Lon Oak connection)	Connection from Bypass/San Antonio to First	0	15,000
MON-SNS008-SL	Bernal Drive East Improvements	Bernal Drive between N. Main and Roasarita Dr	0	1,647
MON-MAR001-MA	Marina-Salinas Corridor	Between Marina and Salinas along Davis and Reservation Roads and Imjin Parkway in Marina	0	90,508
MON-MRY005-MY	Del Monte Corridor	Del Monte from El Estero to Sloat Ave	0	30,000
MON-SNS006-SL	US 101 – Alvin Drive Overpass/Underpass/Bypass	SR 101 and Alvin Drive	0	12,325
MON-SNS050-SL	Russell Road Widening	From US 1010 to San Juan Grade Road	0	3,078

* $ thousands – 2010 dollars

Table B-5
MONTEREY COUNTY LOCAL STREET AND ROADWAYS OPERATIONS, MAINTENANCE, AND REHABILITATION

AMBAG ID	Project	Project Location	2020*	2035*
MON-CAR005-CM	Rio Road parking facility	Near Mission	~~20~~ 0	~~0~~ 20
MON-CAR007-CM	San Carlos Streetscaping	On San Carlos Avenue	~~155~~ 0	~~0~~ 155
MON-CAR009-CM	San Carlos Rehabilitation	In Monterey County in the City of Carmel-by-the-Sea on San Carlos St. between Ocean Ave. and 6th Ave	~~100~~ 0	~~0~~ 100
MON-CAR010-CM	Mission Street Rehabilitation	Mission Street from Third Ave to Eighth Ave	~~338~~ 0	~~0~~ 338
MON-CAR011-CM	5th Ave Rehabilitation	5th Ave from Junipero to Monte Verde Street	~~110~~ 0	~~0~~ 110
MON-DRO002-DR	Carlton Drive Resurfacing	On Carlton Dr. from Highland St. to its southern terminus	~~99~~ 0	~~0~~ 99
MON-DRO003-DR	Work Avenue Resurfacing	On Work Avenue from SR 218 eastward for 800'	~~55~~ 0	~~0~~ 55
MON-FRA027-DR	So. Boundary Rd. Improvements	From General Jim Moore to York Roads	~~4,162~~ 0	~~0~~ 4,162
MON-GON001-GO	5th Street - Fano Road	At 5th & Fano Roads	~~270~~ 0	~~0~~ 270
MON-GON011-GO	Park and Ride Lot	To be determined	~~100~~ 0	~~0~~ 100
MON-GON014-GO	US 101/5th Street Operations	US 101 at 5th St	~~3,000~~ 0	~~0~~ 3,000
MON-GRN003B-GR	Oak Road Bridge over US 101	At US 101	0	30,000
MON-GRN003~~B~~-GR	Oak Road Bridge over US 101	At US 101	0	2,000
MON-GRN006-GR	Thorne Road roadway realignment at US 101	US 101	~~5,300~~ 0	~~0~~ 5,300
MON-GRN007B-GR	Traffic Signal Installations	El Camino Real - Thorne and 101	~~350~~ 0	~~0~~ 350
MON-GRN019-GR	Oak Avenue Pavement Overlay	On Oak Ave. from 3rd to 4th, and from 11th to 12th	~~276~~ 0	~~0~~ 276
MON-GRN021-GR	Citywide Street Rehabilitation	Citywide	~~650~~ 0	~~0~~ 650
MON-GRN022-GR	Pine Avenue Overcrossing at US 101	US 101 at Pine Avenue	~~4,000~~ 0	~~0~~ 4,000
MON-KCY003-CK	Bitterwater Road	From Airport Dr to Industrial Way	~~1,500~~ 0	~~0~~ 1,500
MON-MAR002-MA	Imjin Parkway - 3rd Avenue Signal		~~250~~ 0	~~0~~ 250
MON-MAR005-MA	2nd Ave - 3rd St	2nd Ave - 3rd St	~~250~~ 0	0 250

Table B-5
MONTEREY COUNTY LOCAL STREET AND ROADWAYS OPERATIONS, MAINTENANCE, AND REHABILITATION

AMBAG ID	Project	Project Location	2020*	2035*
MON-MAR006-MA	2nd Ave - 8th St	2nd Ave - 8th St	~~250~~ 0	~~0~~ 250
MON-MAR007-MA	2nd Ave - 10th St		~~250~~ 0	~~0~~ 250
MON-MAR009-MA	Abdy Way	Cardoza to Healy	300	0
MON-MAR013-MA	Beach Road - Del Monte Blvd	At Railroad Grade Crossing	~~2,000~~ 0	~~0~~ 2,000
MON-MAR015-MA	Blanco Rd - Golf Rd Signal		0	250
MON-MAR018-MA	California Ave - Reservation Rd	California Ave - Reservation Rd	~~250~~ 0	~~0~~ 250
MON-MAR020-MA	California Ave Rehab	Carmel to Reservation Road	600	0
MON-MAR021-MA	California Ave - Golf Rd		0	250
MON-MAR022-MA	California Ave - Reindollar		~~250~~ 0	~~0~~ 250
MON-MAR025-MA	California Extension - 8th Ave		~~250~~ 0	~~0~~ 250
MON-MAR026-MA	Cardoza Ave	From Abdy to Ora	500	0
MON-MAR027-MA	Carmel Ave Rehab	Del Monte to Salinas Rd	500	0
MON-MAR032-MA	De Forest Rd	Between Reservation and Beach Roads	500	0
MON-MAR035-MA	Del Monte Blvd - Marina Green Dr		0	250
MON-MAR037-MA	Del Monte Blvd Sidewalks	Between Beach and Marina Green	300	0
MON-MAR040-MA	Eucalyptus St - Reservation to Peninsula		600	0
MON-MAR042-MA	Healy Ave	Between Abdy to Marina	600	0
MON-MAR049-MA	Lake Dr Rehab	Lake Ct to Reservation	0	400
MON-MAR050-MA	Lake Dr - Reservation Rd	Lake Dr - Reservation Rd	0	160
MON-MAR051-MA	Marina Dr Rehab	Beach to Healy	800	0
~~MON-MAR051-MA~~ MON-MAR052-MA	Marina Dr Rehab	South end to Paddon	800	0
MON-MAR057-MA	Palm Ave Rehab	Sunset to Del Monte	158	0

Table B-5
MONTEREY COUNTY LOCAL STREET AND ROADWAYS OPERATIONS, MAINTENANCE, AND REHABILITATION

AMBAG ID	Project	Project Location	2020*	2035*
MON-MAR058-MA	Palm Ave @ TAMC RR	Palm Ave at RR crossing	0	688
MON-MAR061-MA	Redwood Dr Rehab	Reindollar to Carmel	564	0
MON-MAR062-MA	Reindollar Ave Rehab	Del Monte to Redwood	800	0
MON-MAR066-MA	Reservation Rd Rehab	Del Monte to Beach	0	500
MON-MAR072-MA	Reservation Rd Traffic Calming	Beach to Del Monte	2,549	0
MON-MAR077-MA	Salinas Ave Rehab	Carmel to Reservation	0	800
MON-MAR079-MA	Salinas Ave - Reservation Rd new signal	Salinas Ave - Reservation Rd	0	250
MON-MAR080-MA	Seaside Cir - Reservation to east end		0	500
MON-MAR081-MA	Seaside Court	From Reservation Rd to west end	0	500
MON-MAR116-MA	California Avenue	From 8th Street to Imjin Pkwy	0	1,980
MON-MAR117-MA	Reservation Road	Del Monte to Seacrest Ave.	~~252~~ 0	~~0~~ 252
~~MON-MAR117-MA~~ MON-MAR120-MA	Reservation Road	Seacrest Ave to De Forest Rd	~~280~~ 0	~~0~~ 280
MON-MAR118-MA	Del Monte Blvd	Beach to Marina Greens	2,347	0
MON-MAR119-MA	Imjin Pkwy	3rd Ave. to Imjin Rd	126	0
MON-MRY003-MY	Del Monte/Aguajito and Del Monte/El Estero Signal Improvements	Del Monte Avenue at Aguajito Road and Camino El Estero	0	900
MON-MRY006-MY	Fremont - Aguajito Intersection Improvements		~~800~~ 0	~~0~~ 800
MON-MRY007-MY	North Fremont Intersection Improvements and Class II Bikeway		3,800	0
MON-MRY008-MY	Lighthouse Corridor Improvements Phase II		0	3,000
MON-MRY009-MY	Mar Vista and Soledad Storm Drains		~~774~~ 0	~~0~~ 774
MON-MRY011-MY	Munras Abrego - Webster Improvements		~~650~~ 0	~~0~~ 650
MON-MRY017-MY	Munras - Soledad intersection Improvements	Munras and Soledad	900	0

Table B-5
MONTEREY COUNTY LOCAL STREET AND ROADWAYS OPERATIONS, MAINTENANCE, AND REHABILITATION

AMBAG ID	Project	Project Location	2020*	2035*
MON-MRY018-MY	York Road Improvements	SR 68 to South Boundary Road	~~6,000~~ 0	~~0~~ 6,000
MON-MRY019-MY	Sloat - Mark Thomas intersection improvements	Sloat and Mark Thomas	~~700~~ 0	~~0~~ 700
MON-MRY021-MY	Citywide Street Overlay (Phases 1-13)	Various city streets	~~20,000~~ 0	~~0~~ 20,000
MON-MRY022-MY	Citywide Street Reconstruction (Phases 1 and 2)	Various city streets	~~10,000~~ 0	~~0~~ 10,000
MON-MRY023-MY	Citywide Street Panel Replacement (Phases 1 and 2)	Various city street	~~10,000~~ 0	~~0~~ 10,000
MON-MRY024-MY	North Freemont Storm Drain Improvements	North Fremont Avenue	0	2,500
MON-MYC043-UM	Jolon Rd Overlay Safety Improvements	Along Jolon Road from North State Highway 101 to South State Hwy 101	0	58,000
MON-MYC133-UM	Blackie Rd Safety Improvements - Phase I	On Blackie Rd, 0.75 miles, between MP 3.25 and MP 4.00	~~1,423~~ 1,321	0
MON-MYC134-UM	Blackie Rd Safety Improvements - Phase II	On Blackie Rd, 0.60 miles, between MP 4.00 and MP 4.60	~~1,486~~ 1,455	0
MON-MYC136-UM	Bridge Barrier Rail Replacement	Various locations	0	500
MON-MYC154-UM	Crazy Horse Canyon Road Improvements	North County	0	27,900
MON-MYC156-UM	CVMP - Laureles Grade Paved Turnouts and Signs	Carmel Valley	1,538	0
MON-MYC157-UM	CVMP - Carmel Valley Road between Laureles Grade and Ford Shoulder Widening	Carmel Valley	2,308	0
~~MON-MYC158-UM~~	~~CVMP - Carmel Valley Road Channelization~~	~~Carmel Valley~~	~~332~~	~~0~~
MON-MYC162-UM	CVMP - Laureles Grade at Carmel Valley Road Signalization or Widening	Carmel Valley	7,890	0
MON-MYC166-UM	CVMP - Minor Interchanges	Carmel Valley	5,332	0
MON-MYC167-UM	CVMP - Sight Distance Improvements at Dorris	Carmel Valley	2,377	0
MON-MYC181-UM	G12 San Miguel Canyon	Along San Miguel Canyon Road from Castroville Boulevard to Hall Road, and along Hall Road/Elkhorn Road from San Miguel Canyon Road to the Monterey County border	0	55,000
MON-MYC188-UM	Gonzales River Rd Bridge Superstructure Replace	South Monterey County	7,584	0

Table B-5
MONTEREY COUNTY LOCAL STREET AND ROADWAYS OPERATIONS, MAINTENANCE, AND REHABILITATION

AMBAG ID	Project	Project Location	2020*	2035*
MON-MYC191-UM	Harris Road Overlay	From City limits beyond Railroad Avenue	3,000	0
MON-MYC200-UM	Johnson Cyn Land - Phase I	South Monterey County	3,000	0
MON-MYC202-UM	Johnson Road Bridge	North Monterey County	1,520	0
MON-MYC217-UM	Nacimiento Lake Dr Bridge No. 449	South Monterey County	~~5,120~~ 5,047	0
MON-MYC225-UM	Peach Tree Rd Bridge #412 Replacement	South Monterey County	2,595	0
MON-MYC227-UM	Pine Canyon Road Improvements	Central Salinas Valley	0	11,100
MON-MYC232-UM	Reservation Rd Slip Out	Reservation Rd near Panziera Rd (E. Garrison)	~~653~~ 620	0
MON-MYC234-UM	Robinson Canyon Rd Slip Out	Carmel Valley	~~848~~ 815	0
MON-MYC235-UM	Rogge Road Improvements	Greater Salinas	0	900
MON-MYC238-UM	Salinas Road Improvements	North County/North County LCP	15,200	0
MON-MYC260-UM	Scenic Road Protection	Carmel Valley	92	0
MON-MYC266-UM	Street Rehabilitation/Overlay	Countywide	~~88,875~~ 2,017	~~266,442~~ 52,672
~~MON-MYC292-UM~~	~~CVMP - Carmel Valley Road Passing Lanes (Front of September Ranch)~~	~~Carmel Valley~~	~~5,734~~	~~0~~
MON-PGV001-PG	Congress - Sunset Roundabout	Intersection of Sunset and Congress	2,500	0
MON-PGV005-PG	Lighthouse Ave. Resurfacing	Lighthouse Ave - from Fountain to Eardley	700	0
MON-PGV012-PG	Ocean View Blvd. Resurfacing	First St. to Asilomar Ave	3,840	0
MON-PGV013-PG	Pine Ave. Resurfacing	Eardley to 17 Mile Dr	5,900	0
MON-PGV014-PG	Miscellaneous Street Improvements - Various Streets	Various Streets	400	0
MON-PGV015-PG	Miscellaneous Drainage Improvements - Various Streets	Various Streets	400	0
MON-SCY003-SA	California - Playa Signal	Intersection of California and Playa	225	0
MON-SCY005-SA	Sand City Rehab in Old Town area	Old Town Sand City	3,500	0

Table B-5
MONTEREY COUNTY LOCAL STREET AND ROADWAYS OPERATIONS, MAINTENANCE, AND REHABILITATION

AMBAG ID	Project	Project Location	2020*	2035*
MON-SCY013-SA	California Avenue Pavement Overlay	On California Ave between Sylvan Ave and Tioga Ave	156	0
MON-SCY014-SA	Contra Costra Realignment	Contra Costa at Del Monte	500	0
MON-SEA005-SE	Fremont - Broadway	Fremont/Broadway	387	0
MON-SEA007-SE	Hilby Ave Rehab	Hilby Ave	2,000	0
MON-SEA008-SE	Kimball Ave Improvements	Kimball Ave	2,000	0
MON-SEA022-SE	2nd Ave/Seaside Development Parcel	2nd Ave/Seaside Development Parcel	200	0
MON-SEA023-SE	2nd Ave/1st St improvements	2nd Ave/1st St Improvements	200	0
MON-SEA026-SE	Del Monte Boulevard improvements	Del Monte Boulevard	5,000	0
MON-SEA027-SE	Fremont Boulevard Signal Installation	Fremont Blvd. south of Broadway Ave to Canyon Del Rey	500	0
MON-SEA028-SE	West Broadway Ave Corridor improvements	West Broadway Ave Corridor	~~5,000~~ 12,400	0
MON-SEA030-SE	Update and Implement Pavement Management System - Street Maintenance	Citywide	4,500	4,500
MON-SNS022-SL	East Salinas, reconstruct streets	East Salinas	2,870	2,870
MON-SNS024-SL	Elvee Drive	Work to Elvee	3,600	0
MON-SNS033-SL	Laurel Drive Intersection Improvements	Intersections from Adams St to Main St	583	0
MON-SNS040-SL	Martella and Preston Streets	Martella and Preston Streets	650	0
MON-SNS041-SL	Maryal Drive Reconstruction	Maryal Drive	1,260	0
MON-SNS042-SL	Natividad - Laurel Intersection	Intersection of Natividad and Laurel	575	0
MON-SNS058-SL	Williams Road Median Island	Williams Rd. between E Alisal and Bardin	982	0
MON-SNS106-SL	Alisal Street Improvements	on Alisal Street east of Monterey Street	33	0
MON-SNS107-SL	John Street Improvements	Between Abbott Street and Alisal Street	766	0
MON-SNS109-SL	San Juan Grade - Russell Rd Intersection Improvements	San Juan Grade - Russell Rd Intersection	371	0

Table B-5
MONTEREY COUNTY LOCAL STREET AND ROADWAYS OPERATIONS, MAINTENANCE, AND REHABILITATION

AMBAG ID	Project	Project Location	2020*	2035*
MON-SNS111-SL	Boronda Rd - Natividad Rd Intersection Improvements	Boronda Rd - Natividad Rd Intersection	542	0
MON-SNS112-SL	Boronda Rd -East Constitution Intersection Improvements	Boronda Rd -East Constitution Intersection	546	0
MON-SNS113-SL	Boronda Rd - Sanborn Rd Intersection Improvements	Boronda Rd - Sanborn Rd Intersection	501	0
MON-SNS114-SL	Boronda Rd - Williams Rd Intersection Improvements	Boronda Rd - Williams Rd Intersection	490	0
MON-SNS115-SL	Natividad Rd - Russell Rd Intersection Improvements	Natividad Rd - Russell Rd Intersection	440	0
MON-SNS116-SL	Sanborn Rd - Alisal Street Intersection Improvements	Sanborn Rd - Alisal Street Intersection	218	0
MON-SNS117-SL	Independence Blvd - Boronda Rd Intersection Improvements	Independence Blvd - Boronda Rd Intersection	534	0
MON-SNS124-SL	Alisal/Skyway Roundabout	Alisal/Skyway Intersection	500	0
MON-SNS125-SL	Bardin/Schonberg Roundabout	Bardin/Schonberg Intersection	500	0
MON-SNS127-SL	Boronda Road Corridor TS Coord	Boronda (from N Main to Independence Blvd)	375	0
~~MON-SNS133-SL~~ MON-SNS128-SL	Front Street/Sherwood/Rossi TS Coord	From Alisal Street to Rossi Street	450	0
MON-SOL007-SO	Street Resurfacing & Sidewalk Repair	Various locations	2,000	1,150
MON-SOL028-SO	Intersection Improvements	Front Street and Hector de la Rosa Street	500	0
MON-SOL030-SO	Intersection Improvements	Front Street and East Street	700	0
MON-SOL031-SO	Intersection Improvements	Front Street and Moranda Street	~~2,548~~ 1,204	~~0~~ 1,344
MON-SOL032-SO	Intersection Improvements	SR 146 (Metz Road) and SR 146 Bypass/Gabilan Drive Extension	876	845
MON-SOL033-SO	Intersection Improvements	Front Street and Gabilan Drive Extension	1,443	1,440
MON-SOL034-SO	Intersection Improvements	New Arterial 1 and Camphora Gloria Road	1,128	992
MON-SOL035-SO	Intersection Improvements	New Arterial 1 and Front Street Extension	1,443	1,435
MON-SOL036-SO	Intersection Improvements	New Arterial 1 and San Vincente Road	1,198	1,305
MON-SOL037-SO	Intersection Improvements	New Arterial 1 and West Street	1,045	1,074

Table B-5
MONTEREY COUNTY LOCAL STREET AND ROADWAYS
OPERATIONS, MAINTENANCE, AND REHABILITATION

AMBAG ID	Project	Project Location	2020*	2035*
MON-SOL038-SO	Intersection Improvements	West Street Extension and Camphora Gloria Road	1,182	1,080
MON-SOL039-SO	Intersection Improvements	West Street Extension and Front Street Extension	1,439	1,440
MON-SOL040-SO	Intersection Improvements	West Street Extension and San Vincente Road	1,250	1,333
MON-SOL042-SO	Intersection Improvements	Gabilan Drive and San Vincente Road	324	0
~~#N/A~~	~~Hartnell Road Bridge Replacement~~	~~South Monterey County~~	~~1,100~~	~~0~~
~~#N/A~~	~~Robinson Canyon Road Bridge Scour Repair~~	~~South Monterey County~~	~~501~~	~~0~~
~~#N/A~~	~~Castroville Drainage and Road Improvements~~	~~Castroville Between Union Street and Poole Street~~	~~350~~	~~0~~
~~#N/A~~	~~Highway 1 at Ocean Avenue Pavement Repairs~~	~~Carmel~~	~~400~~	~~0~~
MON-MYC247-UM	San Miguel Cyn Rd at Castroville Blvd	On San Miguel Cyn Rd	2,652	0

* $ thousands – 2010 dollars

Table B-6
MONTEREY COUNTY - OTHER

AMBAG ID	Project	Project Location	2020*	2035*
MON-MAA002-MAA	Airport Land Use Plan		150	0
MON-MAA003-MAA	Apron Joint Resealing		0	100
MON-MAA005-MAA	Comprehensive Land Use Plan		35	0
MON-MAA006-MAA	Environmental Assessment		150	0
MON-MAA019-MAA	Taxiway "A"		0	600
MON-MAA008-MAA	Hangars		0	1,188
MON-MAA009-MAA	No. Parallel Taxiway - Phase I		0	1,300
MON-MAA010-MAA	No. Parallel Taxiway - Phase II		0	1,300
MON-MAA011-MAA	No. Perimeter Access Road		0	1,000
MON-MAA013-MAA	Runway Ends		516	0
MON-MAA014-MAA	Runway Improvements		0	1,950
MON-MAA015-MAA	Runway Taxiway Extensions		0	991
MON-MAA018-MAA	Segmented Circle and Windsock		70	0
MON-MAA020-MAA	Taxiway A, B, C, D Lighting and Signage Improvements		814	0
MON-MAA021-MAA	Taxiway A, B, D, D overlay and markings		680	0
MON-MAA022-MAA	Taxi Lights and Signage		0	400
MON-MAA023-MAA	T-Hangar Taxi Lanes		0	300
MON-MAA024-MAA	Tiedown Ramp and Helipad		0	1,100
MON-MAA025-MAA	West T-Hangar Drainage Improvements		80	0
MON-MDR001-MDR	Airport Master Plan		35	0
MON-MDR002-MDR	East Apron Drainage System	King City	175	0

Table B-6
MONTEREY COUNTY - OTHER

AMBAG ID	Project	Project Location	2020*	2035*
MON-MDR003-MDR	East Apron Overlay	King City	200	0
MON-MDR004-MDR	Overlay East TW	King City	150	0
MON-MDR005-MDR	Overlay Runway	King City	500	0
MON-MDR006-MDR	Pave Tie Down Apron Area	King City	250	0
MON-MDR007-MDR	Pavement Management	King City	10	0
MON-MDR008-MDR	Airport Lighting and Fencing Replacement	King City	400	0
MON-MDR009-MDR	Service Road, Clear Zone	King City	90	0
MON-MPA001-MRA	10L28R Runway Extension BA/EA		500	0
MON-MPA003-MRA	28L Service Road - BA/EA		375	0
MON-MPA005-MRA	Airport Road Extension Phase II		1,000	0
MON-MPA012-MRA	Garden Rd. Property Acquisition		4,000	0
MON-MPA013-MRA	Maintenance Department		400	0
MON-MPA014-MRA	North Airport Road Extension BA/EA		375	0
MON-MPA015-MRA	On-Airport Road Projects		300	0
MON-MPA017-MRA	Parking Lot #3 Expansion		250	0
MON-MPA018-MRA	Passenger Lift		350	0
MON-MPA028-MRA	Sky Park - Fred Kane Drive Connection		1,000	0
MON-MPA034-MRA	Terminal Elevator		300	0
MON-MPA038-MRA	Terminal Painting		100	0
MON-MPA039-MRA	Terminal Modernization		4,300	0
MON-MPA041-MRA	Terminal Road Circulation Improvements		1,000	0
MON-MPA043-MRA	Vegetation/Wildlife Management Plan		150	0

Table B-6
MONTEREY COUNTY - OTHER

AMBAG ID	Project	Project Location	2020*	2035*
MON-MPA045-MRA	Residential Soundproofing Phase 8		2,000	0
MON-MPA046-MRA	Residential Soundproofing Phase 9		2,000	0
MON-MPA047-MRA	Residential Soundproofing Phase 10		2,000	0
MON-MPA048-MRA	Residential Soundproofing Phase 11		2,000	0
MON-MPA049-MRA	Land Acquisition Environmental Mitigation		3,000	0
MON-MPA050-MRA	New Terminal Building		0	8,000
MON-SAP022-SLA	T-Hangar Taxiways (Phase II)		1,746	0
MON-SAP023-SLA	VORTAC Relocation		972	0
MON-SAP025-SLA	Runway 13/31 Overlay (constr)		1,500	0
MON-SAP026-SLA	Master Plan Environmental Assessment		300	0
MON-SAP027-SLA	East Area Development		3,500	0
MON-SAP028-SLA	Miscellaneous		52	0
MON-SAP029-SLA	Aviation Easement Acquisition; RPZ		30	0
MON-SAP030-SLA	T-Hangar Taxiways (Phase I)		300	0
MON-SAP031-SLA	North - Hangar Twy Reconstruction (Phase I)		47	0
MON-SAP032-SLA	North T-Hangar Utilities Reconstruction (Phase I)		25	0
MON-SAP033-SLA	Airport Gate/Fencing Upgrades (Phase II)		36	0
MON-SAP034-SLA	North T-Hangar Taxiway Reconstruction (Phase II)		203	0
MON-SAP035-SLA	North T-Hangar Utilities Reconstruction (Phase II)		120	0
MON-SAP036-SLA	Airport Gate/Fencing Upgrades (Phase III)		163	0
MON-SAP037-SLA	Rehabilitate Taxiways A & C		3,740	0
MON-SAP038-SLA	Runway Safety Area/Design Stds Study		154	0

Table B-6
MONTEREY COUNTY - OTHER

AMBAG ID	Project	Project Location	2020*	2035*
MON-SAP039-SLA	Environmental Study RSA Improvements		500	0
MON-SAP040-SLA	Enhance RSA, Runway 13-31		960	0
MON-SAP041-SLA	Enhance RSA, Runway 8-26		0	20,790
MON-SAP042-SLA	East Side Improvements		0	4,800

* $ thousands – 2010 dollars

Table B-7
MONTEREY COUNTY TRANSIT AMERICANS WITH DISABILITY ACT

AMBAG ID	Project	Project Location	2020*	2035*
MON-MST014-MST	Mobility Management		3,500	9,000
MON-MST015-MST	RIDES Bus Replacement		3,000	9,000
MON-MST017-MST	RIDES Operations		18,000	45,000

* $ thousands – 2010 dollars

Table B-8
MONTEREY COUNTY TRANSIT- NEW

AMBAG ID	Project	Project Location	2020*	2035*
MON-MST008-MST	Salinas - Marina Multimodal Corridor	Between Salinas and Monterey along Davis and Reservation Roads, a multimodal corridor through Marina with major stops in Salinas and in Marina at CSUMB and a future Light Rail station at Eighth Street and SR 1	0	60,000
MON-MST011-MST	Salinas Bus Rapid Transit	In Salinas on Alisal Street between Salinas Street and Williams Road and on North Main Street between Market Street and Boronda Road	~~0~~ 20,000	~~20,000~~ 0
MON-MST016-MST	Bus on Shoulder for SR 1	On State Route 1 between Del Monte Avenue in Marina and Fremont Boulevard in Seaside	0	16,000
MON-TAMC001-TAMC	Monterey Branch Line Light Rail	On the Monterey Branch Rail Line between Washington Street in Monterey and Blackie Road in Castroville	~~0~~ 25,000	~~255,000~~ 230,000
MON-TAMC003-TAMC	Rail Extension to Monterey County	On the Union Pacific Coast Mainline between San Jose Diridon Station and the Salinas Amtrak Station	68,025	67,685
MON-TAMC002-TAMC	Monterey Branch Line Light Rail - Salinas River Bridge Replacement	On the Monterey Branch Line at the Salinas River between Marina and Castroville	0	15,000
MON-TAMC004-TAMC	Amtrak Coast Daylight Rail Service	On the Union Pacific Coast Mainline through Monterey County	500	0
MON-SOL001-SO	Soledad Train Station	Adjacent to Front Street	3,500	0
MON-FRA020-MST	Fort Ord Intermodal Centers		4,615	0
MON-KCY035-CK	Multimodal Transportation Center	Along UPRR between Bitterwater and San Lorenzo River	3,600	0

* $ thousands – 2010 dollars

Table B-9
MONTEREY COUNTY TRANSIT OPERATIONS

AMBAG ID	Project	Project Location	2020*	2035*
MON-MST002-MST	Bus Operations		~~189,880~~ 165,880	~~466,962~~ 405,000
MON-MST006-MST	Preventative Maintenance		700	1,500

* $ thousands – 2010 dollars

Table B-10
MONTEREY COUNTY TRANSIT REHABILITATION

AMBAG ID	Project	Project Location	2020*	2035*
MON-MST001-MST	Bus Rolling Stock		~~1,500~~ 1,000	~~3,500~~ 4,000
MON-MST003-MST	Bus Station/Stops		~~10,350~~ 8,000	~~12,000~~ 14,350
MON-MST004-MST	Bus Support Equipment and Facilities/Intelligent Transportation Systems (ITS)		~~2,000~~ 1,000	~~5,000~~ 6,000
MON-MST005-MST	Communication/Radio Equipment		1,000	5,000
MON-MST007-MST	Safety and Security		3,000	6,075
MON-MST009-MST	Operations & Maintenance Facility		~~12,000~~ 8,000	~~12,000~~ 16,000
MON-MST010-MST	Bus Replacement		~~19,000~~ 15,000	~~40,000~~ 44,000
MON-MST012-MST	Bus Rehab/Renovate		8,400	20,000
MON-MST013-MST	Bus Electrification		2,000	2,000
~~MON-MST018-MST~~ MON-MST016-MST	South Monterey County Regional Transit Improvements	Increases the frequency of MST Line 23 service between King City and Salinas and constructs improvements along Abbott Street between US 101 and Romie Way in Salinas. Stops in King City, Greenfield, Soledad, Gonzales, Chualar, and Salinas	~~2,300~~ 27,500	0
MON-SNS120-SL	Salinas ITC Station Improvements	Salinas ITC	~~0~~ 2,300	~~27,500~~ 0

* $ thousands – 2010 dollars

Table B-11
MONTEREY COUNTY TRANSPORTATION SYSTEM MANAGEMENT

AMBAG ID	Project	Project Location	2020*	2035*
MON-MRY010-MY	Multimodal WAVE ITS		~~670~~ 100	~~0~~ 570
MON-MRY015-MY	Downtown Signal ITS	Pacific Street, Franklin Street and Munras Ave., Lighthouse Ave Corridors	~~500~~ 160	~~0~~ 340
MON-SEA020-SE	1st Ave/Lightfighter Dr Improvements	1st Ave. at Lightfighter Drive	~~300~~ 175	~~0~~ 325
MON-TAMC005-TAMC	Monterey County 511 Traveler Information and Rideshare/Commute Alternatives	Monterey County	1,500	3,750

* $ thousands – 2010 dollars

Table B-12
SAN BENITO COUNTY ACTIVE TRANSPORTATION AND OTHER

AMBAG ID	Project	Project Location	2020*	2035*
~~SB-COH-A13~~	~~West Gateway Improvement Project~~	~~COH~~	~~6,000~~	
SB-COG-A15	Bikeway and Pedestrian Master Plan Implementation	~~COG~~ Various locations	1,803	8,250
SB-COH-A20	Sunnyslope Road Class II Bike Lane	~~COH~~ From Cerra Vista to Memorial Drive	21	
SB-SBC-A21	Nash/Tres Pinos Road Class II Bike Lane	~~SBC~~ From east of San Benito River to Airline Highway	43	
SB-SBC-A22	Airline Highway Class I Bike Lane	~~SBC~~ From Sunset Drive to Existing Class I on Airline Highway (Tres Pinos Town)	42	
SB-COH-A23	Ladd Lane Class II Bike Lane	~~COH~~ From Tres Pinos Road to Existing Class II on Ladd Lane	5	
SB-COH-A24	South St/Hillcrest Road Class II Bike Lane	~~COH~~ From McCray St to Proposed Class II on Hillcrest Rd	14	
SB-COH-A25	Central Avenue Class II Bike Lane	~~COH~~ From Bridge to East Street	50	
SB-COH-A26	Memorial Drive Class II Bike Lane	~~COH~~ From Sunset Drive to Meridian Drive	34	
SB-SBC-A27	San Benito River Bike Trail	~~SBC~~ From Hospital Road to San Juan Road along the San Benito River	-	190
SB-COH-A28	4th Street Class II Bike Lane	~~COH~~ From McCray Street to Westside Boulevard	11	
SB-COH-A29	Sally Street Class II Bike Lane	~~COH~~ From Nash Road to 4th Street	13	
SB-COH-A30	Meridian Street ~~Road~~ Class II Bike Lane	~~COH~~ From Memorial Drive to McCray Street	32	
SB-COH-A31	San Felipe Road Class II Bike Lane	~~COH~~ From Santa Ana Road to Northern San Benito County	-	197
SB-COH-A32	Sunset Drive Class III Bike Lane	~~COH~~ From Cerra Vista Road to Airline Highway	11	
SB-COH-A33	Hillcrest Road Class II Bike Lane	~~COH~~ From Fairview Road to Proposed Class III on Hillcrest Road	53	
SB-SBC-A34	Santa Ana Rd./Buena Vista Rd./North Street Class II Bike Lane	~~SBC~~ From Fairview Road to Proposed Class III on Buena Vista Road	-	118
SB-SBC-A35	Westside Blvd Class II Bike Lane	~~SBC~~ From Apricot Lane to Jan Avenue	8	
SB-COH-A36	Monterey Street Class III Bike Lane	~~COH~~ From Nash Road to 4th Street	14	
~~SB-LTA-A37~~	~~General Transit Service Operations~~	~~LTA~~	~~5,300~~	~~0~~
~~SB-LTA-A38~~	~~Express Bus Service to Gilroy – Gavilan~~	~~LTA~~	~~-~~	~~2,908~~
~~SB-LTA-A39~~	~~Express Bus Service to Gilroy - Caltrain Station~~	~~LTA~~	~~-~~	~~2,200~~

Table B-12
SAN BENITO COUNTY ACTIVE TRANSPORTATION AND OTHER

AMBAG ID	Project	Project Location	2020*	2035*
SB-COG-A44	SAFE	~~COG~~ Countywide	1,210	
SB-COH-A40	Hollister Airport Operations & Maintenance	~~COH~~ Hollister Airport	220	
SB-COH-A41	Hollister Airport Capital Improvements	~~COH~~ Hollister Airport	3,476	
~~SB-CT-A43~~	~~SHOPP Group Lump Sum Project Listing~~	~~CT~~		
~~SB-LTA-A42~~	~~Regional Transit Planning~~	~~LTA~~		

* $ thousands – 2010 dollars

Table B-13
SAN BENITO COUNTY HIGHWAYS - NEW

AMBAG ID	Project	Project Location	2020*	2035*
SB-CT-A01	SR 156 Widening – Construct New 4-lane Expressway	~~Construct New 4-lane expressway~~ From The Alameda to San Juan Hollister Road	~~62,900~~ 48,520	-
SB-CT-A17	~~State Route 25 Widening: Sunset Drive to Fairview Rd~~ Airline Highway Widening to 4-lane Expressway	~~Widen to 4-lane Expressway~~ Between Sunset Drive to Fairview Road	-	28,214

* $ thousands – 2010 dollars

Table B-14
SAN BENITO COUNTY HIGHWAY OPERATION, MAINTENANCE, AND REHABILITATION

AMBAG ID	Project	Project Location	2020*	2035*
SB-CT-A02	Highway 156/Fairview Road Intersection Improvements	SR 156/Fairview Road	-	~~2,635~~ 6,044
SB-CT-A03	Highway 25 Operational Enhancements	Hwy 25 North of Hollister	- 4,200	~~1,773~~ 0
SB-CT-A43	SHOPP Group Lump Sum Project Listing	Countywide	72,259	

* $ thousands – 2010 dollars

Table B-15
SAN BENITO LOCAL STREETS AND ROADWAYS - NEW

AMBAG ID	Project	Project Location	2020*	2035*
SB-SBC-A04	Union Road Widening (East)	~~SBC~~ San Benito Street to Highway 25	-	~~3,726~~ 3,730
SB-SBC-A05	Union Road Widening (West)	~~SBC~~ San Benito Street to Highway 156	-	~~11,490~~ 11,502
SB-SBC-A09	Fairview Road Widening	~~SBC~~ Between McCloskey and State Route 25	~~13,100~~	~~0~~ 13,104
SB-COH-A10	Meridian St. Extension to Fairview Road	~~COH~~ Extend Meridian East Connecting to Fairview Road	-	~~4,798~~ 4,799
SB-SBC-A11	Union Road (formerly Crestview Drive) Construction	~~SBC~~ Extend Union Road from Calistoga to Fairview Road	9,659	0
~~SB-SBC-A12~~	~~Memorial Drive Construction - Santa Ana to Flynn Road~~	~~SBC~~	-	~~0~~
SB-SBC-A14	San Benito County Regional Park Access Road	~~SBC~~ Between Nash Road and San Benito Street South and West of San Benito High School	500	0
SB-COH-A16	Memorial Drive Extension: Meridian St. to Santa Ana	~~COH~~ Between Meridian Street and Santa Ana	-	~~2,970~~ 2,971
SB-COH-A18	Westside Boulevard Extension	~~COH~~ South of Nash Road to Union Road	-	13,360
SB-COH-A19	North Street (Buena Vista)	~~COH~~ Connect North Street with Buena Vista Road across North Hollister	~~8,000~~ 4,207	0
SB-SBC-A50	Hospital Road Bridge	~~SBC~~ New Bridge Over San Benito River	~~13,842~~ 13,200	0
~~SB-COH-A54~~	~~Lump Sum Intersection Improvements~~	~~COH~~	~~4,000~~	~~0~~

* $ thousands – 2010 dollars

Table B-16
SAN BENITO COUNTY LOCAL STREETS AND ROADWAYS OPERATIONS, MAINTENANCE, AND REHABILITATION

AMBAG ID	Project	Project Location	2020*	2035*
SB-COH-A13	West Gateway Improvement Project	COH: Streetscape and Intersection improvements on Fourth Street from Westside Blvd to Graf Road	6,000	
SB-COH-A45	Highway Bridge Program	~~COH~~ Various Locations	27,229	9,570
SB-COHSBC-A49	Local Street & Road Maintenance	~~COHSBC~~ Various Locations	~~38,925~~ 85,800	~~76,055~~ 0
SB-COH-A54	Lump Sum Intersection Improvements	Various Locations	4,000	0

* $ thousands – 2010 dollars

Table B-17
SAN BENITO COUNTY TRANSPORTATION DEMAND MANAGEMENT

AMBAG ID	Project	Project Location	2020*	2035*
SB-COG-A08	Rideshare Program (TDM)	~~COG~~ Countywide	-	~~448~~ 36
SB-COG-A53	Vanpool Program	~~COG~~ Countywide	~~136~~ 352	~~312~~ 0

* $ thousands – 2010 dollars

Table B-18
SAN BENITO COUNTY TRANSIT - NEW

AMBAG ID	Project	Project Location	2020*	2035*
SB-LTA-A38	Express Bus Service to Gilroy – Gavilan	Countywide	-	267
SB-LTA-A39	Express Bus Service to Gilroy - Caltrain Station	Countywide	-	89
SB-LTA-A46	Regional Transit Connection to Salinas	~~LTA~~ Countywide	-	~~3,189~~ 2,125
SB-LTA-A47	Regional Transit Connection to Watsonville	~~LTA~~ Countywide	-	~~3,189~~ 2,225

* $ thousands – 2010 dollars

Table B-19
SAN BENITO COUNTY TRANSIT

AMBAG ID	Project	Project Location	2020*	2035*
SB-LTA-A37	General Transit Service Operations	Countywide	8,285	24,855
SB-LTA-A42	Regional Transit Planning	Countywide	880	
SB-LTA-A48	Transit Vehicle Replacements	~~LTA~~ Countywide	-	~~0~~ 2,430
SB-LTA-A51	Transit Infrastructure - Bus Stop Facilities	~~LTA~~ Countywide	168	~~3,814~~ 0
SB-LTA-A52	Transit Technology Infrastructure Improvements	~~LTA~~ Countywide	~~4,526~~ 299	0

* $ thousands – 2010 dollars

Table B-20
SANTA CRUZ COUNTY ACTIVE TRANSPORTATION

AMBAG ID	Project	Project Location	2020*	2035*
CAP 11SC	Clares Street Traffic Calming	Clares Street from Wharf Road to 41st Ave	425	0
CAP 17SC	Upper Pacific Cove Parking Lot Pedestrian Trail and Depot Park Metro Development	Upper Cover Park Lot to Monterey Ave/Park Ave Intersection	300	0
CO 42bSC	Green Valley Rd Pedestrian Safety Project	Green Valley Rd from Airport Blvd to Amesti Rd	375	0
RTC 30SC	Hwy 1 Bicycle/Ped Overcrossing at Mar Vista	Over Hwy 1 at Mar Vista Drive connecting Seacliff and Aptos	7,550	0
RTC 32SC	Bicycle Route Signage Countywide	Countywide	300	200
~~SC 07SC~~	~~Broadway-Brommer Bike/Ped Path (Arana Gulch Multiuse Trail)~~	~~Broadway/Frederick to Brommer Street/7th Ave. through Arana Gulch~~	~~4,000~~	~~0~~
SC 46SC	Branciforte Creek Bike/Ped Crossing	The east bank of the San Lorenzo River Pathway between Soquel Avenue and San Lorenzo Park	~~2,000~~ 2,740	0
SC-CAP-P03-CAP	Upper Capitola Avenue Improvements	Capitola Avenue and Hill Street	0	1,300
SC-CAP-P04b-CAP	Capitola Village Multimodal Enhancements - Phase 2/3	Capitola Village along the Esplanade, Stockton Avenue, San Jose Avenue and Capitola Avenue	0	~~3,000~~ 2,000
SC-CAP-P12-CAP	Monterey Avenue Multimodal Improvements	Monterey Avenue from Park Ave to Washburn Ave	350	0
SC-CAP-P16-CAP	Clares Street Pedestrian Crossing west of 40th Ave	Clares Street 0.20 Mile west of 40th Ave	0	500
~~SC-CAP-P27-CAP~~	~~Wheelchair Access Ramps~~	~~Citywide~~	~~25~~	~~0~~
SC-CAP-P42-CAP	Clares St Bike Lanes/Sharrows (Capitola Rd to 41st Ave)	Clares St from Capitola Rd to 41st Ave	5	0
SC-CAP-P43-CAP	Clares St/41st Ave Bicycle Intersection Improvement	Clares St/41st Ave	5	0
SC-CAP-P44-CAP	Gross/41st Ave Bicycle Intersection Improvement	Gross/41st Ave	15	0
SC-CAP-P46-CAP	40th Ave (at Deanes Ln)Bike/Ped connection	40th Ave at Deanes Lane	5	0
SC-CAP-P47-CAP	41st Ave (Soquel to Portola) Crosswalks	41st Ave from Soquel Dr to Portola Drive	15	0
SC-CAP-P48-CAP	Capitola Mall (Capitola Rd to Clares) Bike Path	Capitola Mall Parking lot from Capitola Rd to Clares Road	50	0
SC-CAP-P51-CAP	Citywide Sidewalk Program	Citywide	150	350
SC-CAP-P52-CAP	Citywide Bike Projects	Citywide	0	500
~~SC-CO-P37-USC~~	~~Countywide Access Ramps~~	~~Countywide~~	~~0~~	~~600~~

Table B-20
SANTA CRUZ COUNTY ACTIVE TRANSPORTATION

AMBAG ID	Project	Project Location	2020*	2035*
SC-CO-P38-USC	Pajaro River Bike Path System	From Green Valley Road To Thurwatcher Road on Levee. Thurwatcher Road from Monterey County line to West Beach Road. Beach Road from Thurwatcher Road to Plam Beach State Park	0	9,200
SC-CO-P41-USC	Countywide Sidewalks	Countywide	2,000	5,000
SC-CO-P46a-USC	San Lorenzo Valley Trail: Hwy 9 - Downtown Felton Bike Lanes & Sidewalks	Graham Hill Road to Henry Cowell State Park Entrance	0	2,200
SC-CO-P46b-USC	San Lorenzo Valley Trail: Hwy 9 - North Felton Bike Lanes & Sidewalks	Graham Hill Road to North Felton	0	7,400
SC-CO-P50-USC	East Cliff Dr Pedestrian Pathway (5th-7th Ave)	E. Cliff (5th-7th)	1,700	0
SC-CO-P74-USC	Searidge Drive (Mar Vista to State Park) Bike Improvements	Searidge Drive from Mar Vista to State Park	0	100
SC-CO-P75-USC	Rancho Del Mar Shopping Center (Rail Line to State Park) Bike/Ped Path	Rail Line to State Park	0	300
SC-CO-P79-USC	41st Ave (Portola to Eastcliff) Bike/Ped Enhancement	41st Ave from Portola to Eastcliff	0	200
SC-CO-P80-USC	Portola Ave (26th to 41st) Bike/Ped Enhancement	Portola Ave from 26th to 41st	0	300
SC-CO-P81-USC	Brommer and Portola Bike/Ped Connection (at Thompson and Vanessa Ln)	Thompson and Vanessa Ln	0	300
SC-MTD-P49-MTD	Pacific Station- Bike Station	Pacific Avenue	400	0
SC-RTC 16-RTC	Bike Parking Subsidy Program	Key destinations throughout the county which generate a high number of trips throughout the county such as downtown areas, shopping areas, government centers, and education campuses	250	450
SC-RTC 27a-RTC	Monterey Bay Sanctuary Scenic Trail Network - Design, Environmental Clearance, and Construction	Segments and prioritization to be determined through Master Plan. May include trail segments adjacent to the Santa Cruz Branch Rail Line. Will link to trail network in Monterey County and the California Coastal Trail	~~29,000~~ 22,500	17,500
SC-RTC 27b-RTC	Monterey Bay Sanctuary Scenic Trail Network - Maintenance	MBSST Trail Network	700	1,300
SC-RTC 27c-RTC	Monterey Bay Sanctuary Scenic Trail Network - Trail Management Program	MBSST Trail Network	250	250
SC-SC 23-SCR	West Cliff Path Minor Widening (Lighthouse to Swanton)	Lighthouse to Swanton	500	0

Table B-20
SANTA CRUZ COUNTY ACTIVE TRANSPORTATION

AMBAG ID	Project	Project Location	2020*	2035*
SC-SC-P09-SCR	Sidewalk Program	Citywide	2,000	6,000
SC-SC-P105-SCR	Market Street Sidewalks and Bike Lanes	Avalon to Goss	0	1,000
SC-SC-P106-SCR	Arana Gulch Bicycle/Pedestrian Connection (at Agnes St)	Agnes St to Broadway-Brommer/Arana Gulch Path	500	0
SC-SC-P118-SCR	Mott St (at Hiawatha) Bike/Ped Connections	Cayuga St at Hiawatha Avenue	0	20
SC-SC-P119-SCR	Soquel/Water (Branciforte to Morrissey) Crosswalks	Soquel/Water from Branciforte to Morrissey	0	100
SC-SC-P120-SCR	Ocean St and San Lorenzo River Levee Bike/Ped Connections (Felker, Kennan, Blain, Barson Streets)	Felker, Kennan, Blain, Barson Streets	0	600
SC-SC-P121-SCR	Riverside Avenue (Barson to Soquel)	Riverside Avenue from Barson to Soquel	0	200
SC-SC-P123-SCR	Soquel/Branciforte/Water (San Lorenzo River to Branciforte) Bike Lane Treatments	Soquel/Branciforte/Water from San Lorenzo River to Branciforte	0	400
SC-SC-P21-SCR	Brookwood Drive Bike and Pedestrian Path	Brookwood Drive between Prospect Heights Drive and Paul Sweet Road	0	1,000
SC-SC-P22-SCR	Chestnut St. Pathway	The south end of Chestnut Street to the path under West Cliff Bridge, crossing the RR tracks twice	0	550
SC-SC-P23-SCR	Delaware Avenue Bike Lanes	Delaware Avenue between Swift and Seaside and Woodrow and Columbia	0	50
~~SC-SC-P28-SCR~~	~~Mission Street Extension Pathway~~	~~Mission Street Extension between Shaffer Road and Natural Bridges Drive~~	~~75~~	~~0~~
SC-SC-P29-SCR	Morrissey Blvd. Bike Path over Hwy 1	The west side of the Morrissey Blvd. Overpass between Fairmount Avenue and the south end of Pacheco Avenue at Morrissey Blvd./Rooney Street	0	90
SC-SC-P30-SCR	Murray St to Harbor Path Connection	The railroad right-of-way adjacent to the Murray Street Bridge down to the Yacht Harbor Pathways	0	200
SC-SC-P35-SCR	San Lorenzo River Levee Path Connection	The southern end of the east bank of the San Lorenzo River Pathway to East Cliff Drive at the Railroad Bridge	0	2,000
SC-SC-P47-SCR	Chestnut Street Bike Lanes	Chestnut Street between Laurel Street to south end of Chestnut Street near Neary Lagoon Park Entrance	0	550
SC-SC-P59-SCR	King Street Bike Lanes (entire length)	King Street between Mission Street (north end) and Mission Street (south end)	0	2,000

Table B-20
SANTA CRUZ COUNTY ACTIVE TRANSPORTATION

AMBAG ID	Project	Project Location	2020*	2035*
SC-SC-P69-SCR	Seabright Avenue Bike Lanes (Pine-Soquel)	Seabright Avenue between Pine Street and Soquel	2,000	0
SC-SC-P95-SCR	Branciforte Creek Pedestrian Path Connections	Branciforte Creek from Ocean-Lee-Market-May Streets	0	~~1,625~~ 1,650
SC-SV-18A-SCV	Green Hills Road Bike Lanes	Green Hills Rd from GH Estate to Sequoia	0	700
SC-SV-P05-SCV	Citywide Sidewalk Program	Various, as listed in the Ped Master Plan	400	850
~~SC-SV-P06-SCV~~	~~Citywide Access Ramps~~		~~100~~	~~100~~
SC-SV-P21-SCV	Lockwood Ln Pedestrian Signal Near Golf Course	Lockewood Lane at Rolling Green driveway to 250 Lockwood Lane Sidewalk	50	0
SC-SV-P30A-SCV	Mt Hermon Road Sidewalk Connections	Kings Village Rd to Skypark Dr	500	0
SC-SV-P32-SCV	Bluebonnet Lane Bike Lanes	Bluebonnet (Bean Ck, through Skypark to Mt. Hermon/Lockewood)	150	0
SC-SV-P35-SCV	Bean Creek Rd Sidewalks (SVMS to Blue Bonnet)	Bean Creek Rd (Scotts Valley Middle School to Blue Bonnet)	400	0
SC-SV-P39-SCV	Glenwood Dr Bike Lanes	Glenwood Dr. from SVHS to City Limits	0	500
SC-SV-P40-SCV	Lockwood Lane Sidewalk and Bike Lanes	Lockwood Ln b/t Mt. Hermon and City Limits	0	500
SC-SV-P49-SCV	Mt Hermon Rd and Scotts Valley Drive - Crosswalks	Mt Hermon Rd and Scotts Valley Drive	0	500
SC-SV-P54-SCV	Mt Hermon Rd/ Spring Hill Road Pedestrian Intersection Improvements	Mt Hermon Rd at Spring Hill Road	50	0
SC-UC-P33-UC	UCSC Bicycle Parking Improvements	UCSC Campus	150	350
SC-UC-P38-UC	Pedestrian Directional Map/Wayfinding System	UCSC	159	341
SC-UC-P49b-UC	Coastal Marine Campus Bike Improvements	UCSC	95	205
SC-UC-P49c-UC	Coastal Marine Campus Pedestrian Improvements	UCSC	640	1,360
SC-UC-P60-UC	Great Meadow Bike Path Safety Improvements	UCSC	900	0
SC-VAR-P03-VAR	Bicycle Sharrows	Needs identified at: Clares (41st-Capitola Rd), N. Pacific, Wharf Road (Cap Rd-Clares)	100	150
SC-VAR-P05-VAR	Bike-Activated Traffic Signal Program	Intersections throughout the County	300	700
SC-VAR-P08-VAR	Safe Paths of Travel	Countywide	1,000	2,000

Table B-20
SANTA CRUZ COUNTY ACTIVE TRANSPORTATION

AMBAG ID	Project	Project Location	2020*	2035*
SC-VAR-P29-VAR	Public/Private Partnership Bicycle and Pedestrian Connection Plan	Countywide	0	150
SC-VAR-P31-VAR	Uncontrolled Pedestrain Crossing Improvements	Countywide	600	1900
SC-VAR-P32-VAR	Bicycle Treatments for intersection improvements (ADD)	Countywide	1,000	3,000
SC-WAT-P42-WAT	Pajaro Valley High School Connector Trail	Trail from Airport Blvd at Hwy 1 to Pajaro Valley High School	600	0
SC-WAT-P43-WAT	Upper Watsonville Slough Trail	Trail from Main St to Freedom Blvd along upper Watsonville Slough	0	650
SC-WAT-P46-WAT	Lower Watsonville Slough Trail	Trail from Ohlone Parkway to Hwy 1 along lower Watsonville Slough	0	650
SC-WAT-P49-WAT	2nd/Maple Ave (Lincoln to Walker) Traffic Calming and Greenway	2nd/Maple Ave from Lincoln to Walker	0	15
SC-WAT-P50-WAT	5th St (Lincoln to Walker) - Traffic Calming and Greenway	5th St from Lincoln to Walker	0	15
SC-WAT-P51-WAT	Rodriguez St (Main St to Riverside)- Buffered Bike Lane	Rodriguez St from Main St to Riverside	10	0
SC-WAT-P52-WAT	Union/Brennan (Freedom to Riverside) - Sharrows	Union/Brennan from Freedom to Riverside	5	0
SC-WAT-P53-WAT	Kearney/Rodriguez - Ped Crossing	Kearney/Rodriguez	0	25
SC-WAT-P54-WAT	Main St - 3 HAWK Signals	Main St	0	750
SC-WAT-P55-WAT	Main/Rodriguez/Union/Brennan (Freedom to Riverside) - Crosswalks	Main/Rodriguez/Union/Brennan from Freedom to Riverside	0	100
SC-WAT-P57-WAT	East Lake/Madison - ped crossing	East Lake/Madison	0	250
SC-WAT-P58-WAT	Main St (Freedom to Riverside) Ped/Bike Enhancements	Main St from Freedom to Riverside	0	750
SC-WAT-P59-WAT	Downtown Watsonville Universal Streets	Downtown Watsonville	0	500
SC-WAT-P61-WAT	Freedom Blvd (Green Valley Rd to Davis ~~Lincoln~~) Bicycle and Pedestrian Improvements	Freedom Blvd from Green Valley Rd to Davis	0	~~2,000~~ 250
SC-WAT-P62-WAT	Freedom Blvd Pedestrian Crossings (Airport to Lincoln)	Freedom Blvd from Airport to Lincoln	0	500
SC-WAT-P36-WAT	Alley Improvements	Citywide	50	0
SC-SV-P45-SCV	Scotts Valley Town Center Bicycle/Pedestrian Facilities	Scotts Valley Town Center	0	2,000
SC-SV-P50-SCV	Mt Hermon/Scotts Valley - Intersection Improvements for Bicycle Treatment	Mt Hermon and Scotts Valley Drive	10	0

Table B-20
SANTA CRUZ COUNTY ACTIVE TRANSPORTATION

AMBAG ID	Project	Project Location	2020*	2035*
SC-WAT-P15-WAT	Citywide Pedestrian Facilities	Citywide	400	600
SC-RTC-P26-VAR	Countywide Pedestrian Signal Upgrades	Countywide, on most heavily traveled pedestrian corridors	1,000	0
TRL 07SC	Rail Trail: Segment 7 (Natural Bridges to Pacific Ave)	Santa Cruz Branch Rail Line - Natural Bridges Dr. to Pacific Ave (2.4 mi)	5,300	0
TRL 18L	MBSST Rail Trail: Lee Road, 4000 feet east to City Slough Trail connection	Santa Cruz Branch Rail Line - Lee Road, 4000 feet east to City Slough Trail connection, Watsonville	1,300	0
TRL 9bCO	Twin Lakes Beachfront (5th Ave to 7th Ave)	East Cliff Dr: 5th Ave to 7th Ave	3,600	0
WAT 41	Sidewalk Infill Harkins Slough Road and Main Street	Harkins Slough Road: east of Ohlone Parkway; and Main Street: Pennsylvania Dr-Pacifica Blvd	200	0
CAP 15SC	Park Avenue Sidewalks	Park Avenue - Wesley St to McCormick Ave	500	0

* $ thousands – 2010 dollars

Table B-21
SANTA CRUZ COUNTY HIGHWAY- NEW

AMBAG ID	Project	Project Location	2020*	2035*
SC-RTC 24e-RTC	3 - Hwy 1: Park Avenue to Bay/Porter Auxiliary Lanes	PM 12.1 Park Avenue to PM 13.2 Bay/Porter Avenue	0	23,000
RTC 24fSC	2 - Hwy 1: 41st to Soquel Av Auxiliary Lanes and Chanticleer Bike/Ped Bridge	On State Route 1 - 41st Avenue to Soquel Avenue	27,000	0
SC-RTC 24g-RTC	4 - Hwy 1: State Park Drive to Park Avenue Auxiliary Lanes	On State Route 1 from State Park Drive to Park Avenue	0	34,250
~~WAT 01SC~~	~~Hwy 1/ Harkins Slough Road Interchange~~	~~Hwy 1 at Harkins Slough Rd. PM 2.3/2.5~~	~~9,800~~	~~0~~

* $ thousands – 2010 dollars

Table B-22
SANTA CRUZ COUNTY HIGHWAY OPERATION, MAINTENANCE, AND REHABILITATION

AMBAG ID	Project	Project Location	2020*	2035*
SC 25SC	Hwy 1/9 Intersection Modifications	Hwy 1 (PM 17.5/17.7) at Hwy 9 (PM 0.0-0.2)	4,700	1,500
SC-SC-P81-SCR	Hwy 1/Mission Street at Chestnut/King/Union Intersection Modification	Radiates out approximately 500 foot from the intersection of Route 1 and Chestnut Street on all approaches	2,250	2,250
SC-CT-P45-CT	State Highway Preservation (bridge, roadway, roadside)	Countywide	38,000	90,000
SC-CT-P46-CT	Collision Reduction & Emergency Projects	Countywide	52,000	111,000
SC-CT-P47-CT	Minors	Countywide	10,000	32,000
SC-SC 38-SCR	Hwy 1/San Lorenzo Bridge Replacement	Hwy 1 between Hwy 17 and Hwy 9	~~1,950~~ 2,355	0
SC-SC-P112-SCR	Mission (Hwy 1)/Laurel Intersection Modification	At intersection and approximately 250 south on Mission	500	250
SC-SC-P113-SCR	Mission (Hwy 1)/Swift Intersection Modification	At intersection and approximately 250 south on Swift	50	0

* $ thousands – 2010 dollars

Table B-23
SANTA CRUZ COUNTY LOCAL STREETS AND ROADWAYS - NEW

AMBAG ID	Project	Project Location	2020*	2035*
~~SC-CAP-P24-CAP~~	~~Pacific Cove Parking Lot Expansion~~	~~Pacific Cove Parking Lot~~	~~2,000~~	~~0~~
~~SC-UC-P49a-UC~~	~~Coastal Marine Campus Roadway and Transit Improvements~~	~~UCSC~~	~~1,000~~	~~3,000~~

* $ thousands – 2010 dollars

Table B-24
SANTA CRUZ COUNTY LOCAL STREET AND ROADWAYS OPERATIONS, MAINTENANCE, AND REHABILITATION

AMBAG ID	Project	Project Location	2020*	2035*
CAP 16SC	Bay Avenue/Capital Avenue Intersection Modifications/Roundabout	Bay Avenue at Capitola Avenue	700	0
CO 62SC	Nelson Rd PM 2.0 Storm Damage Repair	Nelson Rd at PM 2.0	1,500	0
CO 65SC	17th Ave Cape Seal (Brommer to East Cliff)	17th Ave: Brommer to East Cliff (0.62mi)	363	0
CO 66SC	East Cliff Drive Cape Seal (12th-17th)	East Cliff Drive: 12th-17th (0.35mi)	222	0
CO 67SC	Empire Grade Chip Seal: City of SC limits to 130' N of Heller Drive	Empire Grade: City of SC limits to 130' N of Heller Drive (0.71mi)	328	0
CO 68SC	Green Valley Rd Chip Seal: Devon Ln to Melody Ln (0.58 mi)	Green Valley Rd: Devon Ln to Melody Ln (0.58 mi)	260	0
CO 69SC	Mt. Hermon Rd Overlay: Graham Hill to 1000' N of Locatelli Ln	Mt. Hermon Rd: Graham Hill to 1000' N of Locatelli Ln (1.34mi)	~~836~~ 857	0
CO 70SC	Porter Street Overlay: Capitola Limits to 288' N/O Soquel Dr	Porter Street Overlay: City of Capitola Limits to 288' N/O Soquel Dr (0.34mi)	341	0
SC 42SC	Soquel Ave at Frederick St Intersection Modifications	Soquel Ave at Frederick	300	0
SC-CAP-P06-CAP	Citywide General Maintenance and Operations	Citywide	~~3,920~~ 5,600	~~8,400~~ 12,000
~~SC-CAP-P08-CAP~~	~~Bay Avenue/Capitola Avenue Improvements~~	~~Bay Avenue at Capitola Avenue~~	~~0~~	~~400~~
SC-CO-P35-USC	Countywide General Road Maintenance and Operations	County roads as needed	~~90,220~~ 97,090	~~194,900~~ 207,814
SC-SC 37-SCR	Murray St Bridge Replacement	Murray St approx 0.20 mi east of Seabright Ave (at Yacht Harbor)	11,070	0
SC-SC-P07-SCR	Citywide Operations and Maintenance	Citywide	~~29,820~~ 33,860	~~63,900~~ 72,560
SC-SC-P100-SCR	Seabright/Murray Traffic Signal Modifications	At intersection of Seabright and Murray	1000	0
SC-SC-P101-SCR	Swift/Delaware Intersection Roundabout or Traffic Signal	At intersection of Swift and Delaware	500	0
SC-SC-P104-SCR	Measure H Road Projects	Citywide	~~10,400~~ 6,000	~~27,000~~ 17,000
SC-SC-P114-SCR	King/Laurel Intersection Modification	At intersection and approximately 100 feet in each direction	50	0
SC-SC-P115-SCR	North Branciforte/Water Intersection Modification	At intersection and approximately 250 feet in each direction	1,000	500
SC-SC-P73-SCR	Neighborhood Traffic Management Improvements	Citywide	200	425

Table B-24
SANTA CRUZ COUNTY LOCAL STREET AND ROADWAYS OPERATIONS, MAINTENANCE, AND REHABILITATION

AMBAG ID	Project	Project Location	2020*	2035*
SC-SC-P93-SCR	Beach/Cliff Intersection Signalization	Beach Street and Cliff Street	200	0
SC-SC-P99-SCR	Seabright/Water Intersection Improvements	Seabright and Water Intersection	100	0
SC-SV-P27-SCV	Citywide General Maintenance and Operations	Citywide	~~3,630~~ 3,945	~~6770~~ 8,455
~~SC-SV-P43-SCV~~	~~Mt. Hermon Rd./Scotts Valley Dr. Intersection Operations Improvement Project~~		~~0~~	~~1,000~~
SC-SV-P47-SCV	Mt Hermon/Scotts Valley - Transit Queue Jump	Mt Hermon and Scotts Valley Drive Intersection	0	600
SC-SV-P51-SCV	Mt. Hermon Road/Town Center Entrance Traffic Signal	Mount Hermon Rd at intersection of new Town Center Entrance	0	125
SC-UC-P59-UC	UCSC Lump Sum Roadway Maintenance	UCSC	1,000	2,000
SC-UC-P66-UC	Transportation-Related Stormwater Management Projects	UCSC	318	682
SC-UC-P68-UC	Parking Management Technology Improvements	UCSC	127	273
SC-VAR-P14-VAR	Lump Sum Bridge Preservation	Countywide	~~21,500~~ 14,500	~~48,000~~ 31,434
~~SC-VAR-P26-VAR~~	~~Park and Ride Lot Development~~	~~Countywide, with emphasis on southern sections of county~~	~~500~~	~~1,500~~
SC-WAT-P35-WAT	Bridge Maintenance	Citywide	100	0
~~SC-WAT-P36-WAT~~	~~Alley Improvements~~	~~Citywide~~	~~50~~	~~0~~
SC-WAT-P37-WAT	Pennsylvania Dr/Clifford St Roundabout	Pennsylvania Dr & Clifford St Intersection	250	0
~~CAP-15SC~~	~~Park Avenue Sidewalks~~	~~Park Avenue - Wesley St to McCormick Ave~~	~~500~~	~~0~~
~~CO-52SC~~ CO-P28i	Varni Rd Improvements (Corralitos Rd to Amesti Rd)	Varni Rd (Corralitos Rd to Amesti Rd)	0	300
CO 64SC	Aptos Village Plan Improvements	Soquel from 350 ft west of Aptos Creek Rd to 150 ft east of Trout Gulch Rd (1230 ft); Trout Gulch from Soquel to Valencia D8St (390 ft)	3,377	0
SC-CAP-P29-CAP	Bay Avenue Traffic Calming and Bike/Ped Enhancements	Bay Avenue from Highway 1 to Monterey Avenue	400	0
SC-CAP-P30-CAP	47th Avenue Traffic Calming and Greenway	47th Ave from Capitola Ave to Portola Dr	100	0

Table B-24
SANTA CRUZ COUNTY LOCAL STREET AND ROADWAYS OPERATIONS, MAINTENANCE, AND REHABILITATION

AMBAG ID	Project	Project Location	2020*	2035*
SC-CAP-P32-CAP	Bay Avenue/Monterey Avenue Intersection Modification	Bay Ave and Monterey Ave Intersections	0	300
SC-CAP-P34-CAP	Capitola Village Enhancements: Capitola Ave	Capitola Avenue from Stockton Avenue to Beulah Drive	0	1,000
SC-CAP-P40-CAP	46th/47th Ave (Clares to Cliff Dr) Bike Lanes/Traffic Calming	46th/47th Ave from Clares to Cliff Dr	15	0
SC-CAP-P41-CAP	Brommer/Jade/Topaz St Bike Lanes/Traffic Calming (Western City Limit on Brommer to 47thAve)	Brommer/Jade/Topaz St from Western City Limit on Brommer to 47thAve	15	0
SC-CAP-P45-CAP	38th Ave (Capitola Rd to City limit to south) -Bike lanes/Traffic Calming	38th Ave from Capitola Rd to City limit to south	15	0
CO 63SC	Redwood Lodge Rd PM 1.65 Storm Damage Repair	Redwood Lodge Rd PM 1.65	1,000	0
CO 67BSC	Empire Grade 2-layer Seal (130' north of Heller Dr to 0.79 mi north of Heller)	Empire Grade Rd: 130' north of Heller Dr to 0.79 mi north of Heller, near UCSC entrance	211	0
CO 71SC	Bear Creek Rd Surface Seal (PM 4.75-PM 7.0)	Bear Creek Rd: PM 4.75-PM 7.0 (2.25mi)	500	0
CO 72SC	Capitola Road Slurry Seal (30th-17th Ave)	Capitola Road: 30th-17th Ave (0.58mi)	326	0
CO 73SC	Casserly Rd Bridge Replacement	Casserly Road Green Valley Creek near Smith Rd intersection (approx 300ft)	903	0
CO 74SC	Freedom Blvd Cape Seal (Hwy 1 to Pleasant Vly Rd)	Freedom Blvd: Hwy 1 to Pleasant Vly Rd (3.53mi)	1,384	0
CO 76SC	Portola Dr Slurry Seal (E. Cliff to 24th Ave)	Portola Dr: E. Cliff Dr. to 24th Ave (0.45mi)	230	0
CO 78SC	Summit Rd Chip Seal (Soquel-San Jose Rd-Old SC Hwy)	Summit Rd (Soquel-San Jose Rd-Old SC Hwy)	516	0
SC-CO-P02-USC	Airport Blvd Improvements (City limits to Green Valley Rd)	Airport Blvd from City of Watsonville to Green Valley Rd. (.57 mi)	0	1,200
SC-CO-P03-USC	Amesti Road Multimodal Improvements (Green Valley to Brown Valley Rd)	Amesti Road, from Green Valley Rd to Brown Valley Rd. (3.79 mi)	0	600
SC-CO-P04-USC	Bear Creek Road Improvements (Hwy 9 to Hwy 35)	Bear Creek Road from Hwy 9 to Hwy 35 (9.82 mi)	0	690
SC-CO-P08-USC	Corralitos Road Rehab and Improvements (Freedom Blvd to Hames Rd)	Corralitos Road from Freedom Blvd to Hames Rd (1.84 mi)	0	600
SC-CO-P09-USC	East Cliff Drive Improvements (32nd Ave to Harbor)	East Cliff Drive, from City of Santa Cruz (Harbor) to 32nd Ave (2.03 mi)	0	2,300

Table B-24
SANTA CRUZ COUNTY LOCAL STREET AND ROADWAYS OPERATIONS, MAINTENANCE, AND REHABILITATION

AMBAG ID	Project	Project Location	2020*	2035*
SC-CO-P10-USC	Empire Grade Improvements	Empire Grade: City of SC to end (17.07 mi)	0	1,150
SC-CO-P11-USC	Freedom Blvd Multimodal Improvements (Bonita Dr to City of Watsonville)	Freedom Blvd, from Bonita Dr to city limits (8.52 miles)	0	750
SC-CO-P12-USC	Graham Hill Road Multimodal Improvements (City of SC to Hwy 9)	Graham Hill Rd, from City of SC to State Hwy 9 (5.73 miles).	0	1,700
SC-CO-P13-USC	Green Valley Road Improvements	Green Valley Rd from City of Watsonville to end (7.91mi)	0	1,000
SC-CO-P14-USC	La Madrona Dr Improvements (El Rancho Dr to City of Scotts Valley)	La Madrona Dr from El Rancho Dr to City of Scotts Valley (2.1mi)	0	875
SC-CO-P17-USC	Sims Road Improvements (Graham Hill Rd to La Madrona Dr)	Sims Road from Graham Hill Rd to La Madrona Dr (.59mi)	0	425
SC-CO-P18-USC	Soquel Ave Improvements (City of SC to Gross Rd)	Soquel Ave from City of Santa Cruz to Gross Rd. (1.79mi)	0	3,200
SC-CO-P19-USC	Soquel Dr Improvements (Soquel Ave to Freedom Blvd)	Soquel Dr. from Soquel Ave to end/Freedom (7.33mi)	0	1,825
SC-CO-P20-USC	State Park Drive Improvements Phase 2	State Park Drive, full length	0	325
SC-CO-P22-USC	Paul Sweet Road Improvements (Soquel Dr to end)	Paul Sweet Road from Soquel Dr to end (1.56 mi)	0	300
SC-CO-P24-USC	Lockwood Lane Improvements (Graham Hill Rd to SV limits)	Lockewood Lane from Graham Hill Rd. to City of Scotts Valley	0	213
SC-CO-P26a-USC	41st Ave Improvements Phase 2 (Hwy 1 Interchange to Soquel Dr)	41st Ave (Capitola City Limits/Hwy 1 to Soquel Dr)	300	0
SC-CO-P26b-USC	Beach Road Improvements (City limits to Pajaro Dunes)	Beach Road (City limits to Pajaro Dunes)	0	300
SC-CO-P26d-USC	Brown Valley Rd Improvements (Corralitos Rd to Redwood Rd)	Browns Valley Rd (Corralitos Rd to Redwood Rd)	0	300
SC-CO-P26e-USC	Buena Vista Rd Improvements (San Andreas to Freedom Blvd)	Buena Vista Rd (San Andreas to Freedom Blvd)	0	725
SC-CO-P26g-USC	Casserly Rd Improvements (Hwy 152 to Green Valley Rd)	Casserly Rd (Hwy 152 to Green Valley Rd)	0	188
SC-CO-P26h-USC	Center Ave/Seacliff Dr Improvements (Broadway to Aptos Beach Dr)	Center Ave/Seacliff Dr (Broadway to Aptos Beach Dr)	0	300
SC-CO-P26i-USC	Chanticleer Ave Improvements (Hwy 1 to Soquel Dr)	Chanticleer Ave (Hwy 1 to Soquel Dr)	0	300
SC-CO-P26j-USC	East Zayante Rd Improvements (Lompico Rd to just before Summit Rd)	East Zayante Rd (Lompico Rd to just before Summit Rd [SC/SC County border)	0	425

Table B-24
SANTA CRUZ COUNTY LOCAL STREET AND ROADWAYS OPERATIONS, MAINTENANCE, AND REHABILITATION

AMBAG ID	Project	Project Location	2020*	2035*
SC-CO-P26k-USC	El Rancho Dr Improvements (Mt. Hermon/Hwy 17 to SC City Limits)	El Rancho Dr (North Pymouth to Glenn Canyon/State Hwy 17)	0	575
SC-CO-P26l-USC	Eureka Canyon Rd Improvements (Hames Rd to Buzzard Lagoon Rd)	Eureka Canyon Rd (Hames Rd to Buzzard Lagoon)	0	575
SC-CO-P26m-USC	Glen Canyon Rd Improvements (Branciforte Dr to City of Scotts Valley)	Glen Canyon Rd (Branciforte Dr to State Hwy 17)	0	1,450
SC-CO-P26n-USC	Glenwood Dr. Improvements (Scotts Valley city limits to State Hwy 17)	Glenwood Dr. (Scotts Valley city limits to State Hwy 17)	0	725
SC-CO-P26p-USC	Mattison Ln Improvements (Chanticleer Ave to Soquel Ave)	Mattison Ln (Chanticleer Ave to Soquel Ave)	0	350
SC-CO-P26q-USC	Mt. Hermon Rd. Improvements (Lockhart Gulch to Graham Hill Rd)	Mt Hermon Rd. (Lockwood Ln to Felton Empire Grade)	0	725
SC-CO-P26r-USC	Porter St Improvements (Soquel Dr to Paper Mill Rd)	Porter St (Soquel Dr to Paper Mill Rd)	0	300
SC-CO-P26s-USC	Seascape Blvd Improvements (Sumner Ave to San Andreas Rd)	Seascape Blvd (Sumner Ave to San Andreas Rd)	0	150
SC-CO-P26u-USC	Summit Rd Improvements	Summit Rd (Soquel - SJ Summit Rd)	0	1,350
SC-CO-P27a-USC	37th/38th Ave (Brommer to Eastcliff) Multimodal Circulation Improvements and Greenway	38th Ave (RR to E. Cliff Dr)	0	500
SC-CO-P27c-USC	Corcoran Ave Improvements (Alice St to Felt St)	Corcoran Ave (Alice St to Felt St)	0	150
SC-CO-P27e-USC	Main St Improvements (Porter St to Cherryvale Ave)	Main St (Porter St to Cherryvale Ave)	0	1,700
SC-CO-P27f-USC	Mill St Improvements (entire length)	Mill St (Hwy 9 - Hwy 9)	0	350
SC-CO-P27h-USC	Paulsen Rd Improvements (Green Valley Rd to Whiting Rd)	Paulsen Rd (Green Valley Rd to Casserly Rd)	0	300
SC-CO-P27i-USC	Pinehurst Dr Improvements (entire length)	Pinehurst Dr (entire length)	0	213
SC-CO-P27k-USC	Spreckels Dr Improvements (Soquel Dr to Aptos Beach Dr)	Spreckels Dr (small portion off of Aptos Beach Dr)	0	300
SC-CO-P27l-USC	Winkle Ave Improvements (entire length from Soquel Dr)	Winkle Ave (entire length from Soquel Dr)	0	575
SC-CO-P28a-USC	Bean Creek Rd Improvements (Scotts Valley City Limits to Glenwood Dr)	Bean Creek Rd (Scotts Valley Rd to Glenwood Dr)	0	425

Table B-24
SANTA CRUZ COUNTY LOCAL STREET AND ROADWAYS OPERATIONS, MAINTENANCE, AND REHABILITATION

AMBAG ID	Project	Project Location	2020*	2035*
SC-CO-P28c-USC	Commercial Way Improvements (Mission Dr. to Soquel Dr.)	Commercial Way (Mission Dr. to Soquel Dr.)	0	150
SC-CO-P28d-USC	Felton Empire Road Improvements (entire length to State Hwy 9)	Felton Empire Road (entire length to State Hwy 9)	0	575
SC-CO-P28f-USC	Pine Flat Rd Improvements (Bonny Doon Rd to Empire Grade Rd)	Pine Flat Rd (Bonny Doon Rd to Empire Grade Rd)	0	575
SC-CO-P28g-USC	Soquel-Wharf Rd Improvements (Robertson St to Porter St)	Soquel Wharf Rd (Robertson St to Porter St)	0	500
SC-CO-P28h-USC	Thurber Ln Improvements (entire length)	Thurber Ln (entire length)	0	425
SC-CO-P29e-USC	Maciel Ave Improvements (Capitola Rd to Mattison Ln)	Maciel Ave.(Capitola Rd to Mattison Ln)	0	350
SC-CO-P29f-USC	Paul Minnie Ave. Improvements (Rodriguez St to Soquel Ave)	Paul Minnie Ave. (Rodriguez St to Soquel Ave)	0	300
SC-CO-P30d-USC	Cabrillo College Dr Improvements (Park Ave to Twin Lakes Church)	Cabrillo College Dr. (Park Ave to Twin Lakes Church)	0	300
SC-CO-P30n-USC	Rio Del Mar Blvd Improvements (Esplanade to Soquel Dr)	Rio Del Mar Blvd.(Esplanade to Soquel Dr)	0	725
SC-CO-P31g-USC	Opal Cliff Dr Improvements (41st Av to Captiola City Limits)	Opal Cliff Dr. (41st Ave to Capitola City Limits)	0	300
SC-CO-P33d-USC	Harper St Improvements (entire length-El Dorado Ave to ECM)	Harper St (entire length-El Dorado Ave to ECM)	0	300
SC-CO-P36-USC	Soquel-San Jose Rd Improvements (Paper Mill Rd to Summit Rd)	Soquel - SJ Rd (Paper Mill Rd to Summit Rd)	0	625
SC-CO-P62-USC	Soquel Dr Road Improvements (Robertson St to Daubenbiss)	Soquel Drive Road between Robertson St and Daubenbiss	0	400
SC-CO-P60-USC	Lomond St, Laurel St & Harmon St Pedestrian Safety Improvements (Boulder Creek Elementary School)	Lomond St, Laurel St & Harmon St	582	0
SC-CO-P82-USC	Quail Hollow Rd Bridge Replacement Project	Quail Hollow Rd	2,352	0
SC-CO-P83-USC	San Lorenzo Way Bridge Replacement Project	San Lorenzo Way Bridge	3,088	0
SC-CO-P84-USC	Old County Rd Bridge Replacement Project	Old County Rd Bridge	2,489	0
SC-CO-P85-USC	Green Valley Rd Bridge Replacement Project	Green Valley Rd	2,047	0

Table B-24
SANTA CRUZ COUNTY LOCAL STREET AND ROADWAYS OPERATIONS, MAINTENANCE, AND REHABILITATION

AMBAG ID	Project	Project Location	2020*	2035*
SC-CO-P86-USC	Forest Hill Dr @ Bear Creek Bridge Replacement Project	Forest Hill Dr @ Bear Creek Bridge	1,981	0
SC-CO-P87-USC	Rancho Rio Ave @ Newell Creek Bridge Replacement Project	Rancho Rio Ave @ Newell Creek Bridge	1,676	0
SC-CO-P88-USC	Either Way Ln Bridge Replacement Project	Either Way Ln Bridge	2,114	0
SC-CO-P89-USC	Redwood Rd Bridge Replacement Project	Redwood Rd Bridge	1,271	0
SC-CO-P90-USC	Fern Dr @ San Lorenzo River Bridge Replacement Project	Fern Dr @ San Lorenzo River	2,739	0
SC-CO-P91-USC	Larkspur Bridge @San Lorenzo River	Larkspur Bridge @San Lorenzo River	3,809	0
SC-CO-P92-USC	Holohan Rd and Highway 152 Intersection Safety Improvement Project	Holohan Rd and Highway 152 Intersection	1,600	0
SC 48	Ocean St Pavement Rehabilitation (and Felker St)	Ocean St (Water to Hwy 17/Plymouth) & Felker St (Ocean SLR Bike/Ped Bridge) (0.7 miles)	1,000	0
SC-SC-P109-SCR	Bay/High Intersection Modification	At intersection and approximately 250 feet in each direction	400	400
SC-SC-P110-SCR	River (Rte 9)/Fern Intersection Modification	At intersection and approximately 250 feet in each direction	250	0
SC-SC-P111-SCR	River (Rte 9)/Encinal Intersection Modification	At intersection and approximately 250 feet in each direction	150	0
SC-SC-P116-SCR	River St/River Street South Intersection Modification	At intersection and approximately 250 feet in each direction	0	500
SC-SC-P13-SCR	Riverside Ave/Second St Intersection Modification.	Intersection of Riverside and Second	75	0
SC-SC-P66-SCR	Ocean Street Widening from Soquel to East Cliff	Ocean Street between Soquel Avenue and San Lorenzo Blvd.	100	4,900
SC-SC-P77-SCR	Bay Street Corridor Modifications	Bay St at Mission St to Escalona	2,000	2,000
SC-SC-P83-SCR	West Cliff/Bay Street Modifications	Bay St at West Cliff Dr	150	75
SC-SC-P84-SCR	Ocean St Streetscape and Intersection, Water to Soquel	Ocean St between Water and Soquel	0	6,000
SC-SC-P86-SCR	Ocean St Streetscape and Intersection, Plymouth to Water	Ocean St between Plymouth and Water Street	2,000	2,000
SC-SC-P87-SCR	Soquel Ave Corridor Widening (Branciforte-Morrissey)	Branciforte Ave to Morrissey Blvd	500	0
SC-SC-P90-SCR	High St/Moore St Intersection Modification	Intersection of High St and Moore St	100	0

Table B-24
SANTA CRUZ COUNTY LOCAL STREET AND ROADWAYS OPERATIONS, MAINTENANCE, AND REHABILITATION

AMBAG ID	Project	Project Location	2020*	2035*
SC-SC-P91-SCR	Shaffer Road Widening and Railroad Crossing	Shaffer Rd from Delaware to the intersection of the Union Pacific Railroad line and Shaffer Rd	500	0
SC-SC-P96-SCR	Bay/California Traffic Signals	Bay St and California Ave/St	250	0
SC-SC-P97-SCR	Laurent/High Intersection Improvements	Laurent and High St intersection	200	0
SC-SV-P28-SCV	Neighborhood Traffic Calming	Citywide	750	0
~~SC-SV-P45-SCV~~	~~Scotts Valley Town Center Bicycle/Pedestrian Facilities~~		~~0~~	~~2,000~~
~~SC-SV-P50-SCV~~	~~Mt Hermon/Scotts Valley - Intersection Improvements for Bicycle Treatment~~		~~10~~	~~0~~
SC-SV-P52-SCV	Kings Village Rd/Town Center Entrance Traffic Signal	Intersection of Kings Village Rd and new entrance to Town Center located opposite the main entrance to transit center	0	100
SC-WAT 01A-WAT	Hwy 1/Harkins Slough Road/Corridor Improvements	Harkins Slough Road and Green Valley Road from Hwy 1 to Main Street Intersections	8,600	0
SC-WAT 27a-WAT	Main St. (Hwy 152)/Freedom Blvd Roundabout	Main St and Freedom Blvd Intersection	1,250	0
SC-WAT-P06-WAT	Citywide General Maintenance and Operations	Throughout the entire city	~~14,000~~ 15,300	~~30,000~~ 32,700
SC-WAT-P11-WAT	Freedom Blvd Improvements (Green Valley Rd to Compton Terrace)	Freedom Blvd. between Green Valley Road and Compton Terrace	2,000	0
SC-WAT-P13-WAT	Neighborhood Traffic Plan Implementation	Citywide	0	400
~~SC-WAT-P15-WAT~~	~~Citywide Pedestrian Facilities~~	~~Citywide~~	~~400~~	~~600~~
SC-WAT-P31-WAT	Ohlone Parkway Improvements - Phase 2 (UPRR to West Beach)	Ohlone Pkwy from UPRR to West Beach	0	500
SC-WAT-P39-WAT	East Fifth St (Main St to Lincoln St)	East Fifth St from Main St to Lincoln St	250	0
SC-WAT-P40-WAT	Main St Modifications (500 Block: Fifth St to East Lake Ave)	Main St from Fifth St to East Lake Ave	600	0
SC-WAT-P44-WAT	Green Valley Rd Modifications (Struve Slough to Freedom Blvd)	Green Valley Rd from Struve Slough to Freedom Blvd	0	1,400
SC-WAT-P45-WAT	Green Valley Rd Modifications (Freedom Blvd to City Limit)	Green Valley Rd from Freedom Blvd to City Limit	0	1,750
SC-WAT-P47-WAT	Main St Modifications (City Limit to Lake Ave)	Main St from City Limit to Lake Ave	0	1,400

Table B-24
SANTA CRUZ COUNTY LOCAL STREET AND ROADWAYS OPERATIONS, MAINTENANCE, AND REHABILITATION

AMBAG ID	Project	Project Location	2020*	2035*
WAT 38SC	Airport Blvd (Freedom Blvd to City Limits)	Airport Blvd from Freedom Boulevard to City limits	950	~~550~~ 336
WAT 39SC	Freedom Blvd Reconstruction (Broadis St to Alta Vista Ave)	Freedom Boulevard from Broadis Street to Alta Vista Avenue (0.8mi)	~~3,500~~ 1,000	0
WAT 40SC	Airport Boulevard Improvements: Westgate/Larkin to Hanger Way	Airport Boulevard: 1200 feet east of Westgate Drive/Larkin Valley Road near Hwy 1 to east of Hanger Way	1,500	0
SC-CAP-P27-CAP	Wheelchair Access Ramps	Citywide	25	0
SC-CO-P37-USC	Countywide Access Ramps	Countywide	0	600
SC-SV-P06-SCV	Citywide Access Ramps	Citywide	100	100
SV 27	Mt Hermon Road/Scotts Valley Drive/Whispering Pines Drive	Mt Hermon Rd/Scotts Valley Dr/Whispering Pines	434	0
SC-VAR-P13-VAR	Lump Sum Emergency Response Local Road	Countywide	0	0

* $ thousands – 2010 dollars

Table B-25
SANTA CRUZ COUNTY - OTHER

AMBAG ID	Project	Project Location	2020*	2035*
SC-AIR-P01-WAT	Lump Sum Watsonville Airport Capital Projects	Watsonville Municipal Airport	3,500	8,688
SC-AIR-P02-WAT	Watsonville Airport Operations		14,000	30,000
RTC 04SC	Planning, Programming & Monitoring (PPM) – SB 45	Countywide	1,600	3,000
SC-RTC-P07-RTC	SCCRTC Administration (TDA)	SCCRTC	3,500	10,500
SC-RTC-P08-RTC	SCCRTC Planning	Countywide	4,875	14,625
SC-RTC-P25-VAR	Transit Oriented Development Grant Program	Countywide	750	1,750
~~SC-RTC-P26-VAR~~	~~Countywide Pedestrian Signal Upgrades~~	~~Countywide, on most heavily traveled pedestrian corridors~~	~~1,000~~	~~0~~
~~SC-RTC-P32-VAR~~	~~Countywide Pedestrian Planning Grant~~	~~Focus on Cities and Urban Areas of County~~	~~150~~	~~0~~
SC-RTC-P50-RTC	Countywide Bicycle, Pedestrian and Vehicle Occupancy Counts	Countywide	50	150
SC-RTC-P51-RTC	Performance Monitoring	Countywide	250	550
SC-RTC-P55-RTC	Rail Line Planning	Rail line from Watsonville to Davenport	150	350
SC-UC-P65-UC	Electric Vehicle Charging Stations	UCSC	95	205
SC-UC-P73-UC	UCSC Parking Operations & Maintenance	UCSC Campus	21,700	46,500
SC-VAR-P10-VAR	Safe Routes to Schools Studies		70	130
SC-VAR-P25-VAR	Planning for Transit Oriented Development for Seniors	Countywide	25	50
~~SC-VAR-P28-VAR~~	~~Complete Streets Area Plan~~		~~400~~	~~0~~
SC-VAR-P30-VAR	Public/Private Partnership Transit Stops and Pull Outs Plan	Countywide	0	150
SC-WAT-P04-WAT	Neighborhood Traffic Plan	Citywide in Residential Neighborhoods	0	100
SC-WAT-P38-WAT	Freedom Blvd Undergrounding	Freedom Blvd from West High St to Broadis St	1,230	0
SC-WAT-P56-WAT	Watsonville-wide HOV Priority	Citywide	0	50
SC-VAR-P39-VAR	Active Transportation Plan	Countywide	150	450

* $ thousands – 2010 dollars

Table B-26
SANTA CRUZ COUNTY TRANSPORTATION DEMAND MANAGEMENT

AMBAG ID	Project	Project Location	2020*	2035*
RTC 02SC	Commute Solutions Rideshare Program	Countywide	1,650	3,835
SC-CO 50-USC	Santa Cruz County Health Service Agency - Traffic Safety Education	Countywide	935	1,203
SC-MTD-P42-MTD	Senior/Disabled/Low-Income Fixed Route Transit Incentives	Countywide	800	1,700
~~RTC 02SC~~	~~Commute Solutions Rideshare Program~~	~~Countywide~~	~~1,650~~	~~3,835~~
SC-RTC 15-RTC	Vanpool Incentive Program	Countywide	625	0
RTC 17SC	Ecology Action Transportation Employer Membership Program	Santa Cruz County	350	750
SC-RTC 26-OTH	Bike To Work/School Program	Countywide	300	800
SC-RTC 33-VAR	Cabrillo College TDM Programs	Cabrillo College	295	500
SC-RTC-P34-RTC	511 Travel Information System	Countywide	700	1,500
SC-RTC-P48-VAR	Climate Action Transportation Programs	Countywide	400	850
SC-RTC-P49-RTC	RTC Bikeway Map	Distribute Countywide	100	200
SC-RTC-P53-VAR	TDM Individualized Employer/Multiunit Housing Program	Countywide with emphasis on priority areas	750	1,500
SC-RTC-P54-RTC	School-Based Mobility/TDM Programs	Countywide with emphasis on schools with moderate to severe traffic concerns	800	1,700
SC-RTC-P56-RTC	Transportation Demand Management Ordinance and User Guide	Countywide	250	0
SC-RTC-P57-RTC	Shared Parking Program	Countywide	150	0
~~SC-RTC-P58-RTC~~	~~Real-Time Transit Info~~		~~150~~	~~350~~
SC-UC-P61-UC	Traveller Safety Education/Information Programs	UCSC	32	68
~~SC-UC-P62-UC~~	~~Bus Tracking and AVL Transit Programs~~	~~UCSC~~	~~79~~	~~171~~
SC-UC-P63-UC	UCSC Vanpool Program	UCSC	2,673	5,727
SC-UC-P69-UC	UCSC Commute Counseling Program	UCSC	955	2,045
SC-UC-P70-UC	UCSC Commuter Incentive Programs	UCSC	477	1,023

Table B-26
SANTA CRUZ COUNTY TRANSPORTATION DEMAND MANAGEMENT

AMBAG ID	Project	Project Location	2020*	2035*
VAR 01SC	Santa Cruz County Open Streets	Countywide	150	350
SC-VAR-P17-VAR	Eco-Tourism - Sustainable Transportation	Countywide	150	350
SC-VAR-P18-VAR	Mission St/Hwy 1 Bike/Truck Safety Campaign	Mission Street	150	350
SC-VAR-P19-VAR	School Safety Programs	Countywide	600	1,250
SC-VAR-P20-VAR	Public Transit Marketing	Countywide	250	500
SC-VAR-P24-VAR	Countywide Senior Driving Training	Countywide	30	50
SC-VAR-P26-VAR	Park and Ride Lot Development	Countywide, with emphasis on southern sections of county	500	1,500
SC-EA-01-OTH	South County Youth Bike Safety Training	PVUSD – 8 schools	35	0

* $ thousands – 2010 dollars

Table B-27
SANTA CRUZ COUNTY TRANSIT- AMERICANS WITH DISABILITIES ACT

AMBAG ID	Project	Project Location	2020*	2035*
SC-CTSA-P01-OTH	Countywide Specialized Transportation	Santa Cruz County	10,000	22,460
SC-MTD 02-MTD	ADA Paratransit Bus Replacements	Santa Cruz County	~~1,350~~ 1,000	2,970
SC-MTD-P10C-MTD	ADA Paratransit Service - Continuation of Existing Service	Santa Cruz County	32,000	69,000
SC-MTD-P11-MTD	ADA Service Expansion	Santa Cruz County	250	1,500
SC-MTD-P19-MTD	Transit Mobility Training Program Expansion	Systemwide	200	400
SC-MTD-P30-MTD	ParaCruz Mobile Data Terminals; Radios	Santa Cruz County	732	0
SC-MTD-P44-MTD	Inter-County Paratransit Connection	Santa Cruz County	400	850
SC-MTD-P45-MTD	Transit/Paratransit Driver Emergency Training	Countywide	90	160
SC-RTC-P43-OTH	Senior Employment Ride Reimbursement	Santa Cruz County	600	1,000

* $ thousands – 2010 dollars

Table B-28
SANTA CRUZ COUNTY TRANSIT - NEW

AMBAG ID	Project	Project Location	2020*	2035*
SC-MTD-P12-MTD	Hwy 17 Express Service Expansion	Highway 1 and Highway 17	700	1,550
SC-MTD-P13-MTD	UCSC Bus Service Expansion	City of Santa Cruz	0	7,000
SC-MTD-P14-MTD	Local Transit Service Restoration and Expansion	City of Santa Cruz, Watsonville, San Lorenzo Valley	1,500	5,580
SC-MTD-P15-MTD	Bus Rapid Transit	Highway 1 between Watsonville and Santa Cruz	0	23,328
SC-RTC-P02-RTC	Rail Transit: Watsonville-Santa Cruz Corridor	Santa Cruz Branch Rail Line	0	82,500
SC-RTC-P03-RTC	Rail Line Management	Santa Cruz Branch Rail Line	875	2,625
SC-UC-P23-UC	Transit Vehicles (ongoing)	UCSC campus	1,591	3,409

* $ thousands – 2010 dollars

Table B-29
SANTA CRUZ COUNTY TRANSIT OPERATIONS

AMBAG ID	Project	Project Location	2020*	2035*
MTD 20	Mainline Routes Runtime Recalibration	Watsonville – Santa Cruz Mainline Routes (69, 71, 91)	30	0
SC-MTD-P10-MTD	Local Transit - Continuation of Existing Service Levels 2010-2035	Santa Cruz County	~~245,000~~ 260,000	~~528,000~~ 557,000
SC-MTD-P10B-MTD	Hwy 17 Express Service - Continuation of Existing Service Levels	Santa Cruz County	17,000	36,000
SC-MTD-P21-MTD	Signal Priority/Pre-Emption for Buses	Metro Center 920 Pacific Avenue Santa Cruz	2,000	0
SC-SV-P46-SCV	Mt Hermon/King's Village Rd -Transit Signal priority	Mt Hermon and Kings Village Road Intersection	75	0
SC-UC-P74-UC	UCSC Transit Service	UCSC Campus	~~19,110~~ 21,070	~~40,950~~ 45,150
SC-UC-P75-UC	Disability Van Service	UCSC	1,680	3,600
SC-VC-P1-OTH	Volunteer Center Transportation Program	Countywide	490	1,050
SC-RTC-P58-RTC	Real-Time Transit Info	Countywide	150	350
SC-UC-P62-UC	Bus Tracking and AVL Transit Programs	UCSC	79	171

* $ thousands – 2010 dollars

Table B-30
SANTA CRUZ COUNTY TRANSIT REHABILITATION

AMBAG ID	Project	Project Location	2020*	2035*
SC-MTD 13-MTD	Santa Cruz Metro Center/Pacific Station Renovation	Pacific Avenue	0	2,100
MTD 18SC	Replacement Transit Fareboxes	Santa Cruz County	800	1,550
SC-MTD-P04-MTD	Metro Bus Replacements	Santa Cruz County	12,500	30,590
MTD 21	ParaCruz Van Replacements	Santa Cruz County	431	0
MTD 19SC	Bus Stop Upgrades	Santa Cruz County	600	1,500
SC-MTD-P20-MTD	Bikes on Buses Expansion	Systemwide	0	750
SC-MTD-P27-MTD	Hwy 1 Express Buses	Countywide	500	1,480
SC-MTD-P31-MTD	Bus Rebuild and Maintenance	Countywide	1,000	1,500
SC-MTD-P33-MTD	Transit Security and Surveillance Systems	Countywide	940	160
SC-MTD-P35-MTD	Transit System Technology Improvements	Countywide	980	0
SC-MTD-P36-MTD	Metro Facilities Repair/Upgrades	Countywide	1,355	2,430
SC-MTD-P46-MTD	Watsonville Transit Center Improvements	Watsonville	1,000	0
SC-MTD-P47-MTD	Electric Non-Fleet Vehicles	.	560	0
SC-MTD-P48-MTD	EV Fast Charging Stations	Countywide	1,000	0
SC-RTC-P41-RTC	Rail Line: Freight Service Upgrades	Countywide	10,000	10,000

* $ thousands – 2010 dollars

Table B-31
SANTA CRUZ COUNTY TRANSPORTATION SYSTEM MANAGEMENT

AMBAG ID	Project	Project Location	2020*	2035*
SC-CAP-P49-CAP	41st Ave (Soquel to Brommer) Signal Synchronization	41st Ave from Soquel to Brommer	0	15
SC-CAP-P50-CAP	Capitola-wide HOV Priority	Citywide	40	0
SC-CHP-P01-CHP	Hwy 17 Safety Program		700	1,500
SC-MTD-P06-MTD	Transit Technological Improvements	Santa Cruz County	1838	0
RTC 01SC	Freeway Service Patrol (FSP) on Hwy 1 and Hwy 17	Highway 17 from the Santa Clara/Santa Cruz county line to Mt. Hermon Rd in Scotts Valley. Highway 1 from Highway 9 in Santa Cruz to State Park Drive in Aptos	1,810	4,100
SC-RTC-P01-RTC	SAFE: Call Box System Along Highways	Along the shoulders of Highways 1, 9, 17, 129, and 152	1,715	3,675
SC-SC-P117-SCR	Water St (add Branciforte and Center) Signal Synchronization	Water Street	200	0
SC-SC-P122-SCR	Ocean Street Corridor Multiuse Transit Lane		0	400
SC-SV-P42-SCV	Synchronize Traffic Signals along Mt. Hermon Road		100	0
SC-UC-P58-UC	UCSC Traffic Control	UCSC	795	1,705
SC-VAR-P34-VAR	Transit Priority		600	1,900

* $ thousands – 2010 dollars

Appendix C

Response to Comments

FINAL EIR COMMENTS and RESPONSES

1.0 INTRODUCTION

In accordance with Section 15088 of the California Environmental Quality Act Guidelines, the Association of Monterey Bay Area Governments (AMBAG), as the lead agency, has reviewed the comments received on the Draft Environmental Impact Report (DEIR) for the 2035 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) and the Regional Transportation Plans (RTPs) for the Monterey, San Benito, and Santa Cruz Counties and has prepared written responses to the written and verbal comments received. The DEIR was circulated for a 55-day public review period that began February 13, 2014 and concluded on April 8, 2014. The comment letters included herein were submitted by public agencies, private organizations, and private citizens. Verbal comments were received at six Public Hearings and at the AMBAG Board of Directors Meeting held on March 12, 2014.

Each written comment that AMBAG received on the Draft EIR is included in this section. Responses to these comments have been prepared to address the environmental concerns raised by the commenters and to indicate where and how the EIR addresses pertinent environmental issues. In addition, AMBAG received verbal public hearing comments on the Draft EIR and Draft 2035 MTP/SCS, as well as written comments specifically on the Draft 2035 MTP/SCS. These comments and responses to them are included as Appendix I of the Final 2035 MTP/SCS; these comments and responses are hereby incorporated by reference into the Final EIR.

The Final EIR volume and this Comments and Responses document collectively comprise the Final EIR for the 2035 MTP/SCS. Any changes made to the text of the Draft EIR correcting information, data or intent, other than minor typographical corrections or minor working changes, are noted in the Final EIR as changes from the Draft EIR.

The comment letters have been numbered sequentially, and each issue within a comment letter, if more than one, has a number assigned to it. Each comment letter is reproduced in its entirety with the issues of concern lettered in the right margin. References to the responses to comments identify first the letter number, and second, the numbered comment.

As provided in CEQA Guidelines Section 15088(a), AMBAG has provided written responses to comments on all environmental issues raised in the Draft EIR comments. Comments related to the merits of the proposed project or other non-environmental issues are noted, but consistent with Section 15088(a), responses are not provided. Although not required by CEQA, responses to some of these non-environmental issue comments may be included in Appendix I of the Final 2035 MTP/SCS.

2.0 RESPONSES TO COMMENTS ON THE DRAFT EIR

Commenters on the Draft EIR include public agencies and private entities (refer to Table C-1).

Table C-1
Commenters on the Draft EIR

Letter No.	Commenter	Agency/Organization	Date Received
1	Amy L. White, Executive Director	Land Watch Monterey County	March 12, 2014
2	Mike Novo, Director	Monterey County Resource Management Agency	April 7, 2014
3	Amy Clymo, Supervising Air Quality Planner	Monterey Bay Unified Air Pollution Control District	April 8, 2014
4	Jack Nelson	Private Citizen	April 8, 2014
5	Larry Barr, President	San Benito County Business Council	April 8, 2014
6	Henry Reed Searle	Private Citizen	March 17, 2014
7	Irma Lagomarsino	United States Department of Commerce National Oceanic and Atmospheric Administration, National Marines Fisheries Service	March 19, 2014
8	Katie Butler, Coastal Planner	California Coastal Commission	April 8, 2014
9	Louis Calcagno, Chair	Local Agency Formation Commission of Monterey County	March 28, 2014
10	Neal Coonerty, Third District Supervisor	County of Santa Cruz Board of Supervisors	March 7, 2014
11	Aileen K. Loe, Deputy District Director, Planning and Local Assistance	Department of Transportation	April 8, 2014
12	Thomas Truszkowski, Director, Community Development Department	City of Gonzales	April 4, 2014
13	Mike Weaver, Chair	Highway 68 Coalition	April 8, 2014

Letter 1

LandWatch monterey county

Post Office Box 1876, Salinas, CA 93902
Email: LandWatch@mclw.org
Website: www.landwatch.org
Telephone: 831-759-2824
FAX: 831-759-2825

March 12, 2014

Maura Twomey
Executive Director
AMBAG
P.O. Box 809
Marina, CA 93933

Dear Ms. Twomey:

LandWatch Monterey County reviewed the DEIR for the 2035 MTP/SCS and RTPs for Monterey, San Benito and Santa Cruz Counties. We have the following comments:

1. Adoption of the MTP/SCS. The DEIR states, "Because the act of adopting the 2035 MTP/SCS would not, in itself, result in the implementation of transportation system improvements projects or programs identified in this document, no environmental impacts would be directly associated with this action." (p. ES-3) Because adoption of the Plan is the precursor to project and program implementation, the statement should be amended to indicate adoption would lead to indirect impacts per CEQA Guidelines Section 15064 (2): 1.1

> An indirect physical change in the environment is a physical change in the environment which is not immediately related to the project, but which is caused indirectly by the project. If a direct physical change in the environment in turn causes another change in the environment, then the other change is an indirect physical change in the environment.

2. Appendices. The DEIR identifies nine appendices including the Regional Growth Forecast in Appendix A, Financial Plan in Appendix B and Project List in Appendix C. Appendix A includes responses to the NOP; Appendix B includes the List of Projects. No other Appendices are included. The Regional Growth Forecasts, while referenced throughout the document, appear not to be available. 1.2

3. A SCS Land Use map is provided for Monterey County Coast (Figure 2-3); however, a map for Monterey County inland is not included. 1.3

4. Aesthetic Impacts. The MTP includes hundreds of transportation projects including the following major highway projects for Monterey County: Widening of SR 156, improving SR 1 and improving the Marina-Salinas Corridor. The DEIR finds impacts to viewsheds would be insignificant with mitigation. However, proposed mitigation measures are not mandatory:

> AMBAG, SCCRTC, SBCOG and TAMC shall implement and sponsor agencies can and **should** implement the following mitigation measures...These measures can and **should** also be implemented for future infill and transit oriented development..." (Emphasis added).

1.4

Proposed mitigation measures AES-1(a) to AES-1(d) even with implementation would not assure significant impacts to viewsheds would be mitigated..

The DEIR finds proposed transportation improvement projects as well as land use patterns would contribute to alterations of the Monterey Bay area's aesthetic character and the area's rural or semi-rural character and that these impacts would be significant and unavoidable. We concur with the finding.

1.5

5. Air Quality Impacts - Long Term Emissions. The DEIR states:

> With respect to long-term impacts, because the 2035 MTP/SCS itself does not directly generate the emissions, MBUAPCD thresholds associated with new or indirect source emissions does not apply in the case. (p. 4.2-12)

However, the DEIR then compares 2010 on-road mobile source emission estimates as baseline conditions compared to the AMBAG transportation network for 2035 as a different "threshold", i.e., if region-wide ozone precursor emissions caused by the Plan "do not significantly exceed" the 2010 baseline, then the project would not have a significant impact on regional air quality. The DEIR should clarify why on the one hand MBUAPCD thresholds are not applicable since it claims the Plan itself does not directly generate emissions while on the other hand it appears to contradict this finding by applying a new and different threshold of significance.

1.6

Further, as noted in #1 above, "Because adoption of the Plan is the precursor to project and program implementation, the statement should be amended to indicate that adoption would lead to indirect impacts per CEQA Guidelines Section 15064 (2)." New emissions related to individual highway improvements should be estimated and compared to the District's thresholds of significance for VOC and NOx per Section 5.4, paragraph one of the District's CEQA Air Quality Guidelines. If those data are not available, a consistency determination of the proposed project with the 2008 Air Quality Management Plan should be used to address the Plan's cumulative impacts on ozone levels.

1.7

The DEIR states the socioeconomic growth projections used for the 2035 MTP/SCS on-road mobile source emission analyses are based on AMBAG's 2014 Regional Growth Forecast. (P. 4.2-12) The new forecast is not included in the appendices as indicated

1.8

above. Further, the AMBAG website states that they are unavailable. If they are not available, the DEIR should explain how mobile source emissions and other population and employment analyses were completed. If they are available, they should be provided in the environmental document. 1.8

6. Air Quality - Regional Mobile Source Emissions. DEIR Table 4.2-5 identifies emissions for ROG, NOx and PM_{10} for years 2010 and 2035. It shows 63.38 tons/day of NOx and 54.36 tons/day of ROG for APCD Baseline. Not shown are APCD 2035 numbers for ROG and NOx, respectively, of 54.67 tons/day and 32.29 tons/day (from Triennial Plan Revision). However, DEIR Table 4.2-5 shows 2035 forecasts ranging from 2.90 to 2.83 tons/day of NOx and 6.36 to 6.32 tons/day of ROG. Please explain the difference between APCD 2035 forecasts and those shown on Table 4.2-5. 1.9

Table 4.2-5 shows 104.55 tons/day of PM_{10} emissions in 2010 citing the MBUAPCD 2005 Particulate Matter Plan. Table 4-1 of the Particulate Plan shows 39.61 tons per day of mobile source emissions in 2010. The number cited in DEIR Table 5 (104.55) is the total PM_{10} emission inventory for 2010, not the mobile source fraction. Further, the Particulate Plan (Table 4-1) shows PM_{10} levels increasing from 39.61 tons per day in 2010 to 43.11 tons per day in 2010. (There is not a 2035 forecast in the Particulate Plan.) DEIR Table 4.2-5 shows 2035 forecasts ranging between 1.22 and 1.88 tons per day. Please explain the difference between APCD forecasts and those shown on Table 4.2-5. 1.10

Additionally, the DEIR states, "Since the 2035 MTP/SCS....would reduce emissions of...PM_{10} as compared to both baselines...long–term operational impacts would be less than significant."(p. 4.2-16) Please explain this finding in relationship to the 2005 Particulate Matter Plan that shows an increase in mobile source PM_{10} emission due to increasing VMT. 1.11

7. Air Quality -Sensitive Receptors. The most recent "California Air Resources Board Air Quality and Land Use Handbook" was released in 2011, not 2005. It recommends the following mitigation measure (Table 1-1):

> Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day. 1.12

This mitigation measure should be added to AQ-3(a).

8. Air Quality - Entrained Road Dust. The DEIR states that entrained road dust will decline over 2010 base line emissions when the 2010 baseline inventory is compared to the 2035 MTP (p. 4.2-21) The MBUAPCD emission inventory for entrained road dust for paved roads shows an increase from 23.18 tons per day in 2010 to 24.58 tons per day in 2020 primarily due to increased VMT (MBUAPCD "2005 Report on Attainment of the California Particulate Matter Standards in the Monterey Bay Region", Table 4-1, 2005 and DEIR p.4.12-16 which states, "The 2035 total VMT would increase above 2010 conditions. Total system-wide VMT in the AMBAG region in 2035 assuming 1.13

implementation of the 2035 MTP/SCS would be 19,652,667, compared to 15,233,025 in 2010".) Please address this difference. 1.13

The DEIR references mitigation measures to reduce entrained road dust identified in Table 4.2-7 and finds impacts from entrained road dust on PM_{10} levels would be insignificant after mitigation. None of the measures identified in Table 4.2-7 would address entrained road dust from on-road mobile sources. The impact of the proposed project on entrained road dust PM_{10} levels should be found to be significant and unavoidable. 1.14

9. Biological Resources. The DEIR does not address mitigation requirements for the loss of oak woodlands. Additionally, it fails to address declines in sequestration resulting from the loss of biological resources. 1.15

10. Greenhouse Gas Emissions. Table 4.8-2 identifies per capita CO_2 emissions without State controls for 2010 and the 2035 MTP/SC as adjusted. The estimates are 22.28 lbs/day and 24.64 lbs/day, respectively. The DEIR concludes, "Implementation of the proposed 2035 MTP/SCS would not result in an increase in GHG emissions." Please address the apparent inconsistency of this finding with the above data. 1.16

Table 4.8-2 identifies per capita CO_2 emissions with **State controls** for 2010 and 2035 MTP/SC as adjusted. The estimates are 22.20 lbs/day and 17.64 lbs/day, respectively. The DEIR concludes, "As such, the 2035 MTP/SCS would contribute to a reduction in per capital transportation-related GHG emissions." Based on the GHG emissions without State controls that show an increase in emissions from MTP/SCS implementation, it appears that reductions in GHG emissions are solely the result of State controls. Since the reduction appears to be the result of State controls rather than implementation of the MTP/SCS, please explain how the MTP/SCS in and of itself reduces CO_2 emissions. 1.17

Table 4.8-3 identifies per capital CO2 emissions from passenger vehicles and shows a 5.8% reduction in GHG emissions. The DEIR states, "These projections do not include any additional measures from the Scoping Plan to further reduce passenger vehicle GHG emissions and are, therefore, conservation." We assume reference to additional measures from the Scoping Plan is to Pavley and Low Carbon Fuel Standards (LCFS) controls. If so, the DEIR should explain how passenger vehicle emissions are declining even though VMT is increasing. (DEIR finds, "The 2035 total VMT would increase above 2010 conditions. Total system-wide VMT in the AMBAG region in 2035 assuming implementation of the 2035 MTP/SCS would be 18,502,906 compared to 15,233,025 in 2010." p.4.12-1) 1.18

11. The DEIR finds:

> **Specific MTP/SCS Projects That May Result in Impacts.** All proposed projects listed in Section 2.0 *Project Description* would have the potential to result in GHG emissions. However, the 2035 MTP/SCS as a whole is designed to reduce per capita transportation-related GHG emissions in accordance with SB 1.19

375 and AB 32. Since plan level emissions meet AMBAG's SB 375 targets, all planned 2035 MTP/SCS projects remain below the thresholds of significance. 1.19

Please explain this finding in reference to comments in item 9 above.

12. Water. The DEIR states, "A proposed desalination plant at Moss Landing could provide between 6.4 and 9.6 million gallons of water per day (Johnson, 2013). For the purposes of this analysis, the desalination plant is considered speculative.". The proposed location is in Marina, not at Moss Landing. 1.20

13. Table 4.10-1 identifies projects that may result in impacts to agriculture. It does not include widening Highway 156 in Monterey County which should be added to the table. 1.21

14. Traffic. The DEIR finds, "Implementation of the 2035 MTP/SCS would improve total vehicle miles traveled, overall delay as defined by total and peak hour congested vehicle miles traveled, when compared to 2035 conditions without the 2035 MTP/SCS. Impacts would be Class III, *less than significant*.." CEQA requires that impacts be measured against the existing environment. Please explain this finding when daily vehicle hours of delay would increase from 14,426 in 2010 to 29,442 in 2035 with the MTP/SCS (Table 4.12-8) and VMT would increase from 15,233,025 in 2010 to 18,502,906 in 2035 (Table 2.12-7). 1.22

15. Transit. Does the analysis of future transit ridership include reductions related to bus rapid transit (BRT) from Monterey/Pacific Grove to Seaside and Sand City with $6,443,000 of funding (Appendix B, MTIP)? 1.23

16. Impacts Found to be Less than Significant. Section 4.13.1 is entitled "Agriculture and Forestry". Agriculture should be removed from the title since the project is found to have a significant and unavoidable impact on agriculture. 1.24

17. Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Significance After Mitigation. This table finds that because the 2035 MTP/SCS would **generally** be consistent with applicable alternative transportation plans and policies, its impact is less than significant. The Summary should identify where the 2035 MTP/SCS is inconsistent with transportation plans and policies per the Consistency Analysis (Section 5). 1.25

18. Growth Inducement (DEIR 6-2). It is not clear how the EIR was able to conclude that the proposed highway projects would not induce growth. In the case of the Highway 156 project alone, both proposed alignments show stubs of future roads that are unexplained within the document.

For example, Figure B-1 of Alternative 11 and Figure B-8 of Alternative 12 show new interchanges at Castroville Boulevard with an unexplained southbound stub for future, apparently undeclared, southbound roads. Figure B-9 of Alternative 12 shows yet another interchange at Cathedral Oak Boulevard with yet another unexplained southbound stub for future, again undeclared, southbound roads. There is no reason for interchanges at both locations for existing and planned development. There are artichoke fields to the south of 156 that do not require an interchange. 1.26

Further, the size and complexity of the Highway 156/101 intersection (Figures B-6 of Alternative 11 and B-13 of Alternative 12), along with the development of new frontage roads and sound walls along the project area, support the likelihood of, at minimum, increased commercial development, and residential development as well. Compounded with the massive intersections at San Miguel Canyon and Messick Road, as well as those created at Crazy Horse and San Juan Road, one would be hard-pressed to reach any other conclusion than the support of growth all over the North County region. 1.26

19. Alternatives Analysis.

CEQA requires identification of alternatives that reduce significant and unavoidable impacts (CEQA Guidelines, Sec 15126.6). Significant impacts identified in the DEIR include loss of agricultural land, interference with wildlife corridors, and impacts on aesthetics and cultural resources. Based on our comments, increased levels of PM_{10} should be added to that list. 1.27

None of the DEIR alternatives would reduce impacts on aesthetics, wildlife corridors, agricultural land, cultural resources, or PM_{10} levels. To meet CEQA requirements, an alternative that would reduce significant and unavoidable environmental impacts should be identified and evaluated. 1.28

Thank you for the opportunity to review the document.

Sincerely,

Amy L. White
Executive Director

Response to Letter 1

Response 1.1

As described in the Draft EIR, "paper" adoption of the 2035 MTP/SCS and certification of the EIR would not cause or contribute directly to actions or activities that would have any environmental effect. The EIR focuses on the programmatic environmental impacts of implementing the transportation projects and land use scenario identified in the 2035 MTP/SCS proposed for adoption.

Response 1.2

The Draft EIR is referring to the 2035 MTP/SCS content, including the appendices therein. Each section and appendix referenced in the Comment is provided in the 2035 MTP/SCS and is available online.

Response 1.3

Graphics depicting both North Monterey County and South Monterey County have been included in the EIR. These figures match the figures that are included in the 2035 MTP/SCS.

Response 1.4

Where AMBAG, SCCRTC, SBCOG or TAMC are the implementing agencies, the measures included in the EIR to avoid or reduce potentially adverse impacts to visual resources would be implemented where applicable. Because AMBAG has no regulatory authority over other agencies that may implement projects consistent with the 2035 MTP/SCS, the mitigation measures in the 2035 MTP/SCS EIR are provided as recommendations only. However, the EIR identifies mitigation measures within the regulatory authority of sponsor agencies that they can and should implement for specific projects that result in environmental impacts. Each project within the 2035 MTP/SCS that is implemented would be subject to a project specific evaluation to identify potentially significant and adverse environmental impacts. Where significant impacts would occur, project specific mitigation measures would be developed. The sponsoring agency would be responsible for ensuring the measures are implemented. This approach to mitigation is sanctioned by CEQA Guidelines Section 15092(a)(2).

Actual project specific impacts and mitigation measures for individual transportation and land use projects consistent with the 2035 RTP/SCS would be determined when project features and timing are identified. At the time of this programmatic evaluation, implementation of mitigation measures AES-1(a) to AES-1(d) can be reasonably expected to reduce potentially significant impacts on viewsheds to a less than significant level.

Response 1.5

The commenter's concurrence with the EIR determination regarding impacts related to changes to aesthetic character is noted.

Response 1.6

The EIR provides a programmatic evaluation of the air quality impacts of the proposed 2035 MTP/SCS. Analysis of site-specific impacts of individual projects is not the intended use of a program EIR. MBUAPCD thresholds were designed to be applied to individual projects which directly generate emissions. As such, project-level MBUAPCD thresholds are not appropriate thresholds for analyzing air pollutant emissions associated with the MTP/SCS.

As discussed on page 4.2-12, state and federal clean air laws require that emissions of pollutants for which national or State ambient air quality standards are violated be reduced from current levels. Therefore, a programmatic threshold was developed for consistency with state and federal clean air laws. The 2035 MTP/SCS' long-term impacts to air quality are considered significant if the plan would result in regionwide mobile source emissions that significantly exceed existing levels (defined as the 2010 baseline).

Response 1.7

Refer to Response 1.6. Analysis of site-specific impacts of individual projects is not the intended use of a program EIR. Project specific emission estimates will be made when individual projects contained within the 2035 MTP/SCS are proposed for implementation, consistent with MBUAPCD protocol. Consistency with the 2008 Air Quality Management Plan is addressed in Impact AQ-4 of the EIR.

Response 1.8

The comment is referencing the Regional Growth Forecast data used in part to prepare the mobile source emissions analysis presented in the Draft EIR. The Regional Growth Forecast is provided in Appendix A of the 2035 MTP/SCS. It is not provided as an appendix to the Draft EIR because it is otherwise available in the underlying document which is the subject of the EIR.

Response 1.9

The commenter notes that the 2012 Triennial Plan Revision includes PM_{10} and NOx emissions forecasts for the year 2035. The Triennial Plan Revision 2035 forecast data accounts for all emissions sources including stationary, area-wide, and mobile sources. The 2035 MTP/SCS would primarily result in mobile air pollutant emissions. As such, the 2035 forecasts shown in Table 4.2-5 do not include stationary source and area-wide source emissions. In addition, the socioeconomic assumptions for the Triennial Plan Revision were based on AMBAG's 2008 Regional Growth Forecast (2008 RGF), while those for the 2035 MTP/SCS were based on AMBAG's 2014 RGF. A discussion of the consistency of the MTP/SCS with the 2012 Triennial Plan Revision is addressed in Impact AQ-5.

Response 1.10

The commenter correctly states that the 2010 MBUAPCD Baseline PM_{10} emissions in Table 4.2-5 (104.55 tons/day) represents the total PM_{10} inventory for 2010 (including stationary, area-wide, and mobile sources). As the 2035 MTP/SCS would primarily result in mobile air pollutant

emissions, Table 4.2-5 was corrected to reflect the PM_{10} mobile emissions (39.61 tons/day) outlined in the 2005 Particulate Matter Plan. A row showing PM_{10} mobile source emissions was also added to Table 4.2-4. As described in the Draft EIR, the 2035 PM_{10} forecasts shown in Table 4.2-5 were calculated using EMFAC2011 emissions factors and multiplied by VMT provided by the AMBAG Regional Travel Demand Model. Socioeconomic assumptions for the 2035 MTP/SCS were based on AMBAG's 2014 RGF. The 2005 Particulate Matter Plan does not include a 2035 forecast. As such, no comparison can be made between MBUAPCD forecasts and those shown in Table 4.2-5 of the Draft EIR.

Response 1.11

The commenter states that the 2005 Particulate Matter Plan indicates that PM_{10} emissions are generally expected to increase between 2000 and 2010, primarily due to anticipated increases in fugitive dust caused by increased vehicle travel. The 2005 Particulate Matter Plan was based on AMBAG projections dating back to 2004. Since completion of the 2005 Particulate Matter Plan, AMBAG has released updated growth projections, including those used for forecasting 2035 PM_{10} emissions for the purposes of the Draft EIR (2014 RGF). The 2014 RGF includes new data and analysis of the current economy to provide a more accurate assessment of future growth. Inconsistencies in socioeconomic assumptions and forecast horizons are attributed to updated data providing more accurate assumptions for the post-recession economy and socioeconomic conditions in the region. Despite differences in forecasted PM_{10} emissions trends between the 2005 Particulate Matter Plan and the Draft EIR, the 2035 MTP/SCS would result in a decrease in PM_{10} when compared to baseline and forecast levels identified in the 2005 Particulate Matter Plan and the AMBAG 2010 Baseline. As such, the MTP/SCS would be consistent with the goals of the 2005 Particulate Matter Plan.

Response 1.12

The Draft EIR text was corrected to reference the 2011 California Air Resources Board Air Quality and Land Use Handbook (January 31, 2011). The mitigation measure referenced was added to Mitigation Measure AQ-3a.

Response 1.13

The difference in VMT between 2010 baseline and 2035 MTP/SCS conditions is based in part on overall population growth within the AMBAG region and implementation of the projects and land use planning approach included in the 2035 MTP/SCS. The methods associated with the VMT analysis and findings are described under Impact T-1. In addition, please refer to Response 1.11 above regarding updated growth assumptions used in the 2035 MTP/SCS.

Response 1.14

In response to the comment, text was modified to clarify the purpose associated with providing MBUAPCD measures in Table 4.2-7. These measures focus on reducing re-entrained dust emissions from unpaved roadways. It is noted that the text incorrectly references applicability to on-road vehicles. As discussed in Impact AQ-2 and AQ-4, emissions levels for PM_{10} criteria pollutants would be reduced from 2010 baseline emissions levels, as well as 2035 'no project

scenario' levels with the implementation of the 2035 MTP/SCS. Therefore, no mitigation measures for re-entrained dust emissions from unpaved roadways are included. The impact finding remains unchanged.

Response 1.15

Valley Oak Woodlands are listed in Table 4.3-1 as a community considered sensitive by CDF&W. Mitigation measures B-1(a) through B-1(k) provide substantial direction for assessing impacts to biological resources within the AMBAG region associated with implementation of projects in the 2035 MTP/SCS. The EIR evaluates the impacts of the 2035 MTP/SCS at a programmatic level, and a precise evaluation of the carbon sequestration effects of the plan would be speculative at this time. As specific project plans are prepared, project-level evaluations of changes to carbon sequestration, including from tree and vegetation removal, as well as project tree planting and landscaping, would be provided by project sponsors.

Response 1.16

The text of the EIR was modified to state that the 2035 MTP/SCS would not generate per capita GHG emissions greater than the 'no project scenario'.

Response 1.17

As discussed in Impact GHG-2, without accounting for reductions from the AB 32 Scoping Plan strategies, in 2035 the MTP/SCS would result in a five percent increase from 2010 baseline levels. However, without the MTP/SCS (i.e., under the 'no project scenario') emissions would increase 12 percent from 2010 baseline levels by 2035. As such, even in the absence of reductions from state strategies, implementation of the MTP/SCS would reduce emissions by seven percent over the future 'no project scenario' due primarily to reductions in vehicle miles traveled compared to the 'no project scenario'. With reductions from the AB 32 Scoping Plan strategies, the 2035 MTP/SCS would result in a 24 percent reduction from 2010 baseline levels and a six percent reduction from the 2035 'no project scenario.' Therefore, as stated in the EIR, the 2035 MTP/SCS would contribute to a reduction in per capita transportation-related GHG emissions.

Response 1.18

The commenter correctly assumes that that the reference to "additional measures from the Scoping Plan" is referring to Pavley fuel efficiency standards and Low Carbon Fuel Standard. Even without reductions from state strategies, the 2035 MTP/SCS would result in a nearly six percent decrease in per capita passenger vehicle GHG emissions from 2005 baseline levels and a 22 percent reduction from 2010 baseline levels. While VMT would increase with the 2035 MTP/SCS compared to 2010 baseline levels, due to population growth, VMT with the 2035 MTP/SCS would decrease compared to future conditions without the plan, which controls for population growth. In the absence of measures contained within the Scoping Plan, the reduction in emissions is explained in part by the use of more fuel efficient vehicles within the 2035 vehicle fleet.

Response 1.19

Item 9 in the comment letter refers to the loss of oak woodland habitat and reduced sequestration potential associated with a reduction in natural resources. Refer to Response 1.15. As noted in the Draft EIR, AB 32, and SB 375 GHG reduction objectives would be met as a result of 2035 MTP/SCS implementation. Mitigation measures are provided in Section 4.3 to avoid or minimize impacts to biological resources.

Response 1.20

The EIR was revised to identify the location of the desalinization plant as Marina rather than Moss Landing.

Response 1.21

The list of projects in Table 4.10-1 are representative of those projects that could cause impacts to agricultural resources. The list is not intended to be comprehensive. All projects would be evaluated for environmental impacts in a project-specific CEQA review prepared by the sponsoring agency. The SR 156 widening project in Monterey County is included in Appendix B of the Draft EIR.

Response 1.22

It is understood that VMT would increase from 2010 baseline conditions and that fact is discussed in the Draft EIR. The forecast growth and related VMT would occur due to population growth whether or not the 2035 MTP/SCS is implemented and is reflected in the 2035 No Project scenario. Impact T-1 focuses on improvements in delay that are projected based on implementation of the 2035 MTP/SCS relative to what would occur if the No Project scenario were selected. As explained in the Final EIR, for Impact T-1, a future no-project baseline was used as the sole baseline because use of an existing conditions baseline would have been uninformative and misleading. An existing conditions baseline would not have included reasonably foreseeable traffic growth and transportation network improvements that would occur in the absence of the 2035 MTP/SCS.

Response 1.23

The Bus Rapid Transit route servicing Monterey to Seaside, known as the Jazz line, is currently funded and is included on constrained list in the 2035 MTP/SCS. Since this is an existing service currently in operation it is funded under project MON-MST002-MST – Bus Operations, and is not called out as a separate project. It is not a reduction in service and therefore reductions in transit ridership is not assumed.

Response 1.24

The title of that topic is Agricultural/Forestry Resources in Appendix G of the CEQA Guidelines. While it is acknowledged that there are potentially significant impacts to

agricultural resources associated with 2035 RTP/SCS implementation, the section title will remain as written.

Response 1.25

The 2035 MTP/SCS is a compilation of the RTP's prepared by the three RTPA's within the tri-county region and therefore the MTP/SCS is consistent with the RTPs. The RTP's were prepared in consultation with the sponsoring agencies listed in Section 2.5 of the *Project Description*. The evaluation of consistency with transportation policies is general because of the programmatic level of analysis of the EIR.

Response 1.26

Section 6.1.2 discusses growth inducement related to implementation of the 2035 MTP/SCS. As described in the Draft EIR, the majority of 2035 MTP/SCS transportation improvements are located in existing urbanized areas. However, projects are also located in rural or semi-rural areas.

The improvements referenced in the Comment would not necessarily remove obstacles to growth. Rather, the 2035 MTP/SCS transportation improvements are designed to fully support compact development approach outlined in the SCS and fully support the complementary transportation needs of the growing population. The SCS is designed to accommodate growth by encouraging infill and TOD development. The 2035 MTP/SCS transportation improvement projects are intended and designed to support the land use patterns established in the SCS. Therefore, the 2035 MTP/SCS is consistent with and accommodates projected and planned growth. Further, the majority of the transportation projects included in the 2035 MTP/SCS are local projects that will be implemented by a local jurisdiction, such as streets/road improvements and active transportation projects, and are included in local plans such as the general and/or specific plans. However, all transportation improvements have been coordinated with the applicable local jurisdictions. As such, the 2035 MTP/SCS accommodates the anticipated and planned growth of the three counties making up the MTP area; it does directly not induce growth.

Response 1.27

Comment noted. PM_{10} impacts are incorporated into the aggregate discussion of air quality impacts.

Response 1.28

AMBAG developed a range of alternatives as described in Section 7.0, Alternatives, within the Draft EIR. These included Alternative 1 - No Project; Alternative 2 - Intensified Land Use and Transit; and Alternative 3 - Business As Usual. Each provided development scenarios that represent a reasonable range of options relative to the 2035 MTP/SCS. To satisfy most of the project objectives, some transportation and land use improvements must be included in each alternative besides the No Project Alternative, and those improvements would programmatically result in the environmental impacts identified. Table 7-1 in the Draft EIR

shows how the impacts would differ from the impact findings associated with the 2035 MTP/SCS. The analysis identified that implementation of certain alternatives would reduce some, but not all of the impacts associated with the 2035 MTP/SCS. EIR alternatives are required only to reduce one or more of the proposed project's significant environmental effects, and need not "provide substantial environmental advantages in all respects." *Sierra Club v. City of Orange* (2008) 163 Cal.App. 4th 523,546.

Letter 2

MONTEREY COUNTY
RESOURCE MANAGEMENT AGENCY

Benny J. Young, Director
Carl P. Holm, AICP, Deputy Director

Michael A. Rodriguez, C.B.O., Chief Building Official
Michael Novo, AICP, Director of Planning
Robert K. Murdoch, P.E., Director of Public Works

168 W. Alisal Street, 2nd Floor
Salinas, CA 93901
http://www.co.monterey.ca.us/rma

April 7, 2014

Ms. Heather Adamson, AICP, Principal Planner
Association of Monterey Bay Area Governments
445 Reservation Road, Suite G
Marina, CA 93933

Subject: Draft 2035 Metropolitan Transportation Plan/Sustainable Communities Strategy and associated Draft Environmental Impact Report

Dear Ms. Adamson:

Thank you for the opportunity to comment on the *Draft 2035 Metropolitan Transportation Plan/Sustainable Communities Strategy* (MTP/SCS) and associated Draft Environmental Impact Report (EIR). The County of Monterey Resource Management Agency (RMA) staff appreciates the extensive outreach process that has been conducted in relation to developing the draft documents which provided the participating jurisdictions and public with a number of opportunities to receive information and provide input.

As a result of our review of the draft documents, RMA staff offers the following comments:

1. The documents should be revised to clarify the relationship between the growth scenarios and the adopted Spheres of Influence for each city. The adopted Spheres of Influence should be a starting point for growth projections used in the development of the preferred

2.1

scenarios. Any adjustments beyond that should be fully explained, as it's unclear that the adjustments followed a consistent methodology. 2.1

2. The 2023 Land Use Pattern Maps seem to depict more future development than is planned in Castroville. The Castroville Community Plan is only adopted for the non-Coastal Zone areas. The maps look like they include significant future development in the Coastal Zone. These areas of the Community Plan were never adopted and should not be part of the growth projections. 2.2

3. The 2023 Land Use Pattern Maps for Watsonville (Santa Cruz County) include Pajaro which is located in Monterey County. This may not be a problem if noted. The land use pattern for Pajaro, as depicted, looks correct. 2.3

4. Section 4.9 Water Resources, page 7 states: "Due to the programmatic nature of the 2035 MTP/SCS, a precise, project-level analysis of the specific impacts of individual transportation and land use projects on water supply is not possible at this time" and then the Draft EIR describes the general impacts to water supply. The Monterey County Health Department, Environmental Health Bureau (EHB) concurs with the general description of potential impacts that may result from implementation of MTP/SCS and understands that individual transportation and land use projects discussed in the MTP/SCS will be specifically evaluated for impacts on water supply, water quality, water quantity, water recharge, and existing water system infrastructure during project-specific environmental review. 2.4

Sincerely,

Mike Novo, Director
RMA – Planning

Response to Letter 2

Response 2.1

This is a comment on the 2035 MTP/SCS itself and not on the EIR evaluating the environmental impact of the 2035 MTP/SCS. The comment is addressed in AMBAG's response to comments on the 2035 MTP/SCS.

Response 2.2

Comment noted. The land use pattern maps have been revised.

Response 2.3

Comment noted. A notation has been added to the land use pattern map.

Response 2.4

Comment noted.

MBUAPCD
Monterey Bay Unified Air Pollution Control District
Serving Monterey, San Benito, and Santa Cruz Counties

24580 Silver Cloud Court
Monterey, CA 93940
PHONE: (831) 647-9411 • FAX: (831) 647-8501

Letter 3

April 8, 2014

Heather Adamson
Association of Monterey Bay Area Governments
445 Reservation Road, Suite G
Marina, CA 93933

SUBJECT: 2035 MTP/SCS and RTPs for Monterey, San Benito, and Santa Cruz Counties Draft Environmental Impact Report

Dear Ms. Adamson:

Thank you for providing the Monterey Bay Unified Air Pollution Control District (Air District) the opportunity to comment on the above-referenced document. Although the air quality benefit derived from implementation of the Sustainable Communities Strategy has a minimal benefit to air quality when compared to the No Project scenario, the Air District supports the strategy as a comprehensive approach to transportation and land use planning for our region. The Air District has reviewed the document and has the following specific comments:

Section 4.2 Air Quality

- Page 4.2-10 references the CEQA Guidelines and the initial study question regarding evaluating cumulative air quality impacts for nonattainment pollutants. However, the impact discussion does not address cumulative impacts. Section 4.2 must be updated to evaluate cumulative air quality impacts. 3.1

- The methodology states that EMFAC2011 emission factors multiplied by VMT were used to estimate emissions. However, the DEIR does not include the emission factors used to generate the emissions reported in Table 4.2-5. Please provide documentation showing how the regional criteria pollutant emissions were calculated. This same comment applies to the methodology for estimating CO2 emissions discussed on page 4.8-12. 3.2

- The methodology section should reference the "off model adjustments" discussion on page 4.12-17 so it is clear how the reduced VMT values for "2035 MTP/SCS and Off Model Adjustments" were calculated. 3.3

- Mitigation measure AQ-1(b) on page 4.2-14 requires compliance with the California Air Resources Board's off-road regulation which is not mitigation. Furthermore, allowing construction equipment to meet Tier 1 standards is not acceptable for projects that span a time period until 2035. This measure is also inconsistent with mitigation measure GHG-1 which requires the use of equipment meeting Tier 2 standards. The Air District recommends revising the measure to require construction equipment to meet at least Tier 3 emission standards to the extent feasible. 3.4

- Mitigation measure AQ-1(d) on page 4.2-15 requires mitigation for ROG and NOx emissions from construction to below guideline levels. However, the Air District does not have ROG or NOx thresholds for construction. What guidelines will be used to determine the emissions level that triggers off-site mitigation? 3.5

Table 4.2-5 on page 4.2-16

- The 2010 APCD emissions reported include stationary, mobile, and area source emissions. The Air District recommends comparing the project emissions only to the mobile source portion of the 2010 inventory (23.24 tons NOx per day and 10.58 tons ROG per day). This comparison is more representative of how the project emissions compare with the Air District's inventory for mobile sources. 3.6

- Please clarify the discussions comparing the 2035 No Project and implementation of the SCS in the second paragraph on page 4.2-16 and the air quality discussion on page 7-3. Implementation of the SCS in 2035 results in lower emissions compared to the 2035 No Project only when the off-model adjustments are included. The text should more clearly state the comparison is to the "2035 MTP/SCS and off-model adjustments". 3.7

Table 4.2-6 on page 4.2-18

- The table footnote incorrectly states that diesel PM10 inventory values were not available in the 2005 Particulate Matter Plan. Appendix C to the plan contains the detailed inventory including an inventory for on-road mobile sources by fuel type. Please update Table 4.2-6 to reflect the diesel PM10 emissions in the 2005 Particulate Matter Plan. In addition, it can be conservatively assumed that diesel PM10 equals diesel PM2.5 for purposes of reporting the 2010 APCD PM2.5 value in the table. 3.8

- The following comments apply to mitigation measure AQ-3(a) on page 4.2-19:

    - Bulleted items 1, 6, 9, 10, and 13 have duplicate and inconsistent requirements for air filtration. Please revise these measures. 3.9

    - Bullet 3 is not a mitigation measure. The California Air Resources Board's Airborne Toxic Control Measure for Perchloroethylene from Dry Cleaning Operations eliminated the use of perchloroethylene machines at co-residential facilities (facilities that share a wall with, or are located in the same building, as a residence) in the year 2010. In addition, the ATCM phases out the use of all perchloroethylene dry cleaning machines and related equipment by January 1, 2023. Please remove this measure. 3.10

    - Bullet 12 is not a risk reduction measure; it simply recommends preparation of a health risk assessment without any requirement for mitigation based on the results of the risk assessment. In addition, it is not clear whether CEQA case law supports the requirement to evaluate the impact from an existing stationary source on a project. Please review this mitigation measure with your counsel. 3.11

Section 4.8 Greenhouse Gas Emissions/Climate Change

- With the GHG emission reductions required by AB32, it is not clear why construction GHG emissions for the project would be significant when compared to existing conditions. Please clarify why implementing this region's MTP/SCS would have significant GHG impacts from construction when the Association of Bay Area Government's *One Bay Area* plan found construction GHG impacts to be less than significant. 3.12

- The measures listed in mitigation measure GHG-1 on page 4.8-13 are intended to reduce criteria pollutant emissions from construction equipment and would not necessarily reduce GHG emissions. Please consider additional measures to reduce GHG emissions from construction including requiring alternative fueled equipment for 15% of the fleet, sourcing materials from local suppliers, and recycling or reusing at least 50 percent of construction waste materials. 3.13

- The section should include a more detailed discussion of sea level rise in reference to Executive Order S-13-08 which requires state agencies, such as Caltrans, to evaluate to sea level rise when planning construction projects in areas vulnerable to sea level rise. The discussion should reference the Caltrans sea level guidance released in May 2011 and recommend that AMBAG, SCCRTC, and TAMC consider such guidance when developing projects, as appropriate. 3.14

Please let me know if you have questions, I can be reached at (831) 647-9418 ext. 227 or aclymo@mbuapcd.org.

Best regards,

Amy Clymo
Supervising Air Quality Planner

cc: Richard Stedman, Air Pollution Control Officer
Alan Romero, MBUAPCD Air Quality Planner

Response to Letter 3

Response 3.1

The methods used to address cumulative effects analysis are discussed in Section 4.0, *Environmental Impact Analysis,* of the Final EIR.

Response 3.2

AMBAG used emission factors included in EMFAC2011 to calculate the emissions. Information regarding the EMFAC2011 model and documentation can be found at: http://www.arb.ca.gov/msei/modeling.htm.

Response 3.3

The methodology discussion was updated to reference the off model adjustments discussion in Section 4.12, Transportation and Circulation.

Response 3.4

Mitigation Measure AQ-1(b) was modified to remove the reference to the California Air Resources Board's off-road regulation and to include Tier 3 emissions standards to the extent feasible.

Response 3.5

The specific requirements associated with AQ-1(d) would be determined based on project-specific conditions identified during the planning and implementation of individual projects. The text in Mitigation Measure AQ-1(d) was modified to remove the reference to guideline levels.

Response 3.6

Table 4.2-5 has been modified to correctly reflect mobile source emissions.

Response 3.7

Updates have been made to Table 4.2-5 based on technical revisions. As a result it appears that the 2035 MTP/SCS (both with and without off-model adjustments) results in lower emissions compared to the 2035 'no project scenario'. The related text in the EIR section remains unchanged.

Response 3.8

Table 4.2-6 was updated to reflect diesel PM_{10} data contained in Appendix C of the 2005 Particulate Matter Plan. The PM_{10} data did not change the outcome of the analysis provided in the Draft EIR.

Response 3.9

Mitigation Measure AQ-3(a) lists several potential measures that a project sponsor may incorporate to reduce health risks associated with implementation of individual projects. The mitigation measure is designed to allow individual project sponsors to determine the most applicable and appropriate techniques for each individual project. The specific requirements associated with Mitigation Measure AQ-3(a) would be determined based on project-specific conditions identified during the planning and implementation of individual projects. Because the specific measures would be tailored to specific projects, the language in these bulleted points would be applied practically, in a manner that will not result in inconsistencies and no change is necessary.

Response 3.10

Bullet three was removed from Mitigation Measure AQ-3(a) as it is no longer applicable.

Response 3.11

Bullet 12 of Mitigation Measure AQ-3(a) was modified to include implementation of applicable Health Risk Assessment (HRA) recommendations to a level which would not result in exposure of sensitive receptors to substantial pollutant concentrations (pursuant to the State CEQA Guidelines). AT the time this response to comment was prepared, the Supreme Court in *CBIA v. BAAQAMD* (S213478) was considering the issue of whether CEQA requires EIRs to evaluate the impacts of the environment on a project.

Response 3.12

As discussed in the Draft EIR, construction activities associated with transportation improvement projects and future land use patterns envisioned by the 2035 MTP/SCS would generate temporary short-term GHG emissions primarily due to the operation of construction equipment and truck trips. Although the precise construction timing and construction equipment for individual projects are not specifically known at this time, a conservative approach was used to determine that impacts are significant.

The environmental analysis conducted for the Plan Bay Area takes a similar approach to assessing construction-related GHG emissions. As stated on page 2.5-56 of the Plan Bay Area Draft EIR, "Project level details would be required to assess the specific construction-related impact… Due to the project-specific nature of construction emissions, quantitative estimates are not included in the assessment." However, the Plan Bay Area Draft EIR concludes, "since overall GHG emissions are expected to decline from existing condition to 2040 with implementation of the proposed Plan, there is no adverse impact (NI) and no mitigation measures are required." For the 2035 MTP/SCS EIR, since construction-related GHG emissions are analyzed separately than overall GHG emissions, impacts related to short-term GHG emissions would be potentially significant. Mitigation Measure GHG-1 would reduce impacts to a less than significant level, similar to the best practice measures identified in Appendix E of the Plan Bay Area Draft EIR.

Response 3.13

Mitigation Measure GHG-1 was modified to include the additional recommended measures to reduce GHG emissions.

Response 3.14

A discussion of Executive Order S-13-08 was added to Section 4.8.1(d). This requirement is applicable to state agencies (such as Caltrans). Regional and local agencies (including AMBAG, SCCRTC, SBtCOG, and TAMC) may choose to assess such impacts, but are not required to do so.

Letter 4

Heather Adamson

From: Jack Nelson <nelson333@baymoon.com>
Sent: Tuesday, April 08, 2014 4:55 PM
To: info@movingforwardmb.org
Cc: Heather Adamson
Subject: Comments on Draft 2035 MTP/SCS & related Draft EIR

Hello, here are my comments on the Draft 2035 MTP/SCS and associated Draft EIR.

I'd like to focus on the greenhouse gas (GHG) reduction targets that the plan aims to meet.

First, it is good that such targets exist, new as of only four years ago. It's truly fortunate, that the old "predict and provide" transportation planning approach, of predicting continued rapid growth in vehicle miles traveled, and then planning to provide infrastructure to accomodate (and encourage) that, has been set aside. Now the concept of sustainability has entered in. Good so far.

On page 4-58, the Draft 2035 MTP/SCS explains that "On September 23, 2010, CARB set targets for lowering GHG in the Monterey Bay region. They call for a zero percent increase, in per capita GHG emissions from passenger vehicles by 2020 (compared with 2005); and a five percent per capita reduction by 2035 through land use and transportation planning."

Unfortunately, these target levels are inadequate to respond to what climate scientists are saying is needed in actions now in order to have some chance of less disruption of civilization and natural systems due to climate change. 4.1

As an example of a GHG reduction pace informed by climate science, a recent scientists' consensus report calls for GHG reductions of 5% per year, year after year, from now until 2050. This is in order to stabilize atmospheric CO2 at 450 ppm by 2050 and in so doing have a 50-50 chance of limiting global temperature rise to two degrees Celsius. This metric was presented in the May 2013 report, titled "Scientific Consensus on Maintaining Humanity's Life Support Systems in the 21st Century: Information for Policy Makers," signed by more than 500 scientists from 44 nations, which is available online at http://mahb.stanford.edu/wp-content/uploads/2013/05/Consensus-Statement-For-Web-6-02-13.pdf

I observe, also, that CEQA calls for adherence to science, not politics, in analyzing environmental impacts. 4.2

So what went wrong? I was present at the August 23, 2010 special meeting of the AMBAG Board of Directors, at which the Board voted to propose to CARB the target levels now in place. This step was taken after the preceding target setting process between AMBAG staff and CARB went off track and failed to set any reduction at all. As I saw at the time, climate science was buckled in the back seat, with politics doing the driving. I was in the sad position of arguing (successfully, at least) to the Board that since these were referred to as "reduction targets," they should at least show some reduction, and not an increase. Following that Board action, CARB simply adopted the weak targets AMBAG submitted.

To imply that the existing targets were the result of a rational process at CARB, or to celebrate a plan that just somewhat exceeds these underwhelming targets, is to overlook what's really needed to move to a sustainable future.

The time is not too soon for AMBAG to begin a process of reviewing those targets, with an explicit goal of bringing them much closer to what the climate science calls for.

Sincerely,

Jack Nelson
127 Rathburn Way
Santa Cruz CA 95062

Response to Letter 4

Response 4.1

The 2035 MTP/SCS is intended to reduce GHG emissions consistent with California Air Resources Board targets set pursuant to SB 375 in September, 2010. As discussed in the Draft EIR, these targets would be met with implementation of the 2035 MTP/SCS. Note also that the State's AB 32 Scoping Plan includes several other regulatory requirements to reduce GHG emissions that are beyond the scope of the 2035 MTP/SCS.

Response 4.2

The Draft EIR was prepared consistent with industry standard methods and regulatory guidance summarized in Section 1.1 of the Draft EIR.

Letter 5

SAN BENITO COUNTY BUSINESS COUNCIL

April 8, 2014

Heather Adamson
Association of Monterey Bay Area Governments
445 Reservation Road
Marina, CA 93933

Re: AMBAG DRAFT METROPOLITAN TRANSPORTATION PLAN (MTP) & SUSTAINABLE COMMUNITIES STRATEGY (SCS)

Dear Ms. Adamson,

Thank you very much for AMBAG's consideration of ensuring that local and regional planning organizations utilize the best available, realistic data, processes and community engagement efforts to ensure that all organizations adopt a better basis for planning that is both consistent with local directives as well as recognizes that we need to sustain and foster significant investment to be economically viable and sustainable as a community.

In your consideration of population growth, the AMBAG MTP and SCS must be consistent with other plans prepared by local, state and federal agencies and reflective of the dramatic economic recovery being experienced in neighboring regions, especially our immediate neighbor to the north, Santa Clara County. Since June 23, 2009 (nearly 5 years) all analyses of the County General Plan have been based on AMBAG's 2008 population forecast of 94,731 by 2035 based on numerous factors explained below. AMBAG's current growth forecasts of 81,000 population by 2035 for their MTP/SCS are too low and are inconsistent with County Board of Supervisors direction (June 23, 2009 and July 24, 2012) and growth factors available to AMBAG since 2009. For example, AMBAG has given insufficient consideration of the end of the Hollister sewer moratorium, elimination of growth control measures, a substantial uptick in the activity of private investment, current and active general plans in all jurisdictions especially in Hollister and San Benito County encouraging residential, commercial and industrial retention and expansion. 5.1 5.2

The San Benito County Business Council further asks AMBAG's work be consistent with these growth projections and work with Caltrans and the Federal Department of Transportation's Highway Administration to extend the timeline for consideration of a final EIR and adoption of the MTP and SCS that allows proper engagement with the San Benito County community and agencies and for full consideration of transportation funding. The overly aggressive timelines and current processes have simply not provided adequate time for our undercompensated elected officials and understaffed agencies to review and analyze the sheer volume of information contained in those plans as well as our own regional transportation plan. 5.3

Finally, as reflected in the low participation rate of San Benito County residents in AMBAG workshops, the public participation plan and process is inadequate and insufficient to reach our diverse and commute-reliant population. We would like to work with you on these efforts. 5.4

As reflected in our comments on the County General Plan update, our comments and suggestions on this matter are intended to strike a balance between the need to sustain and protect important resources, which we support, with the need to permit the County to thrive, expand and enhance the community job base, improve the economic climate, support a superior quality of life and actively contribute to the wellbeing of the communities of San Benito County.

Sincere regards,

Larry Barr
President

341 First Street, Hollister, CA 95023 ♦ Phone: 831.524.0408
Email: sanbenitocountybusinsesscouncil@gmail.com

Response to Letter 5

Response 5.1

This comment is related to the 2035 MTP/SCS itself rather than the environmental impacts of the plan. This comment is addressed in AMBAG's response to comments on the 2035 MTP/SCS (Appendix I.).

Response 5.2

This comment is related to the 2035 MTP/SCS itself rather than the environmental impacts of the plan. This comment is addressed in AMBAG's response to comments on the 2035 MTP/SCS (Appendix I.).

Response 5.3

The current timeline for the 2035 MTP/SCS will be maintained as closely as possible to ensure the process is completed consistent with federal and state guidelines.

Response 5.4

Comment noted. There have been numerous opportunities for public and elected officials to comment during the development of the 2035 MTP/SCS. To date, AMBAG has conducted three separate series of public workshops, each of which included a workshop in Hollister. Staff have held over one hundred one-on-one meetings with city and county planning staff which included discussions about the forecast, the Metropolitan Transportation Plan and consistency with local plans. In 2012, the Planning Directors Forum met on a regular basis and provided input on the planning process. The Planning Directors Forum includes representatives from all of the cities and counties in the region. AMBAG has given presentations to the Technical Advisory Committees of the San Benito Council of Governments in addition to its Board of Directors. Online surveys and telephone surveys were conducted in all three of the counties, including more than 300 individuals in San Benito County, to obtain input from members of the public that are not likely to attend a workshop. All public workshops were held in the evening to accommodate commuter travel. E-mail blasts, Facebook posts, newspaper ads, flyers, and website postings were used to notify people of events and opportunities to comment on the planning process. AMBAG exceeded public outreach requirements for the 2035 MTP/SCS.

Letter 6

Heather Adamson

From: Henry Searle <hrsearle@sbcglobal.net>
Sent: Monday, March 17, 2014 2:47 PM
To: Heather Adamson
Subject: comment on draft eir and proposed plan, 2035 metropolitan transportation plan

The draft EIR and the proposed plan emphasize sustainability and describe programs which may improve traffic circulation and possibly reduce SOV travel. There is discussion of alternative transportation methodologies.

I suggest that the possibility of off-road public transportation be at least mentioned in the appropriate part of the reports. It is unlikely that there will be much road widening and the forecasts for increased population make it obvious that some off-load alternate transportation be considered. 6.1

PRT, Podcars, ATN, (Personal Rapid Transit, Podcars, Automated Transit Network) —-fully automated, non-stop, point-to-point , off road and elevated technologies now exist and will likely be a dominant form of new public transportation in future years. PRT systems are in operation at various parts of the world, including a 40 year old system at Morgantown, West Virginia. More are planned. 6.2

I think we will be remiss if we fail to include in the plan some mention the potential that this methodology offers. A PRT line running in the middle of, say, highway 1 or 101 could move far more people far more efficiently than extra freeway lanes at a fraction of the long-term, cost. PRT on the rail-trail corridor would probably be less expensive, more efficient and far less environmentally damaging than a train. Solar energy could largely power a PRT system. 6.3

Reed Searle
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Response to Letter 6

Response 6.1

This comment is related to the 2035 MTP/SCS itself rather than the environmental impacts of the plan. Off-road transportation options are not part of the 2035 MTP/SCS and so were not analyzed as part of the EIR. An EIR should analyze the "project" as proposed.

Response 6.2

Comment noted.

Response 6.3

This comment is related to the 2035 MTP/SCS itself rather than the environmental impacts of the plan. A PRT system was not included into the 2035 MTP/SCS and so was properly not part of the EIR.

Letter 7

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
777 Sonoma Avenue, Room 325
Santa Rosa, California 95404-4731

March 19, 2014

George Dondero
Santa Cruz County Regional Transportation Commission
1523 Pacific Avenue
Santa Cruz, California 95060

Dear Mr. Dondero:

NOAA's National Marine Fisheries Service (NMFS) is providing comments on the Santa Cruz County Regional Transportation Commission's (Commission) draft 2014 Santa Cruz County Regional Transportation Plan (2014 RTP). The 2014 RTP provides guidance for transportation policy and projects through the year 2035 using economic, environmental, and equity ratings (STARS- Sustainable Transportation Analysis and Rating System). Individual projects in the 2014 RTP will undergo separate design and environmental review, and implementation will depend upon funding availability. The 2014 RTP will be incorporated into the Monterey Bay area Metropolitan Transportation Plan along with Monterey and San Benito County plans. A description of potential effects of the 2014 RTP is included in the 2035 Metropolitan Transportation Plan/Sustainable Communities Strategy and Regional Transportation Plans for Monterey, San Benito and Santa Cruz Counties Draft Environmental Impact Report (EIR). The 2014 RTP was provided to NMFS for review on February 12, 2014. NMFS' comments are not inclusive of the entire document but highlight some issues of concern.

Federally endangered Central California Coast (CCC) coho salmon (*Oncorhynchus kisutch*), threatened CCC steelhead (*O. mykiss*) and South-Central California Coast (S-CCC) steelhead are present in Santa Cruz County watersheds. Santa Cruz County also contains coho salmon and steelhead designated critical habitat and Essential Fish Habitat (EFH) for Pacific salmon. The 2014 RTP includes minimal discussion of these listed salmonids and habitats.. Infrastructure projects and design elements that could improve designated critical habitat and EFH are largely omitted from 2014 RTP (*e.g.*, reduction of impervious surfaces, decommissioning of roads, remediation of fish passage and habitat barriers, *etc.*). Additionally, we recommend the Commission review recently completed recovery plans for CCC coho salmon (NMFS 2012) and S-CCC steelhead (NMFS 2013) for information on important watersheds, threats, and restoration actions that could be incorporated into future projects. We believe these recovery plans can provide important guidance to the Commission to ensure future actions contribute to the recovery of these listed species.

7.1

7.2

7.3

Please incorporate the aforementioned projects, design elements, and recovery recommendations into future drafts of the 2014 RTP. The impacts to listed salmonids and habitats discussed in the EIR are primarily associated with construction activities. Please discuss the potential combined effects of the 2014 RTP on listed salmonids and their habitats (*e.g.*, anticipated net changes in habitat quantity, quality, or accessibility) in future drafts of the EIR. 7.4

Thank you for the opportunity to comment on the 2014 RTP. If you have questions or concerns regarding this letter, please contact Jonathan Ambrose at (707) 575-6091.

Sincerely,

for Irma Lagomarsino
California Coastal Area Office

cc: Melissa Farinha CDFW, Yountville, CA
Jon Jankovitz, CDFW, Yountville, CA

References Cited

National Marine Fisheries Service (NMFS). 2012. Final Recovery Plan for Central California Coast coho salmon Evolutionarily Significant Unit. National Marine Fisheries Service, Southwest Region, Santa Rosa, California.

National Marine Fisheries Service (NMFS). 2013. South-Central California Coast Steelhead Recovery Plan. West Coast Region, California Coastal Area Office, Long Beach, California.

Response to Letter 7

Response 7.1

The Draft EIR provides a programmatic overview all habitats, plants, and animals occurring or known to occur within the AMBAG region. It also acknowledges that specific projects will be required to review potential impacts with more specificity.

Response 7.2

The EIR includes programmatic mitigation to conduct biological resources screening, conduct protocol surveys for endangered species as warranted, and implementation of avoidance and minimization measures if sensitive species are identified. These species include listed salmon and steelhead species referenced in the comment. As specific projects are planned and implemented, a review of potential natural resource impacts, including those to aquatic resources (fish and other species), would be performed at that time and will be benefitted by any updated information from appropriate agencies. Based on project-specific evaluations, specific mitigation measures would be identified as necessary by project sponsor agencies.

Response 7.3

See response to Comment 7.2 above. Please note that federal endangered species recovery plans are not binding and have no effect on regional or local agencies.

Response 7.4

See response to Comment 7.2 above. Project specific impacts to salmonids and their habitats will be evaluated as projects that could adversely affect these resources are identified.

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Letter 8

April 8, 2014

Heather Adamson
Association of Monterey Bay Area Governments
445 Reservation Road, Suite G
Marina, CA 93933

Subject: 2035 Metropolitan Transportation Plan Draft EIR (SCH # 2013061052)

Dear Ms. Adamson:

Thank you for sending the 2035 Metropolitan Transportation Plan and Sustainable Communities Strategy (MTP/SCS) Draft EIR (DEIR) for our review. The Central Coast District Office of the Coastal Commission covers the Coastal Zone of Monterey and Santa Cruz Counties; as such, we have reviewed the DEIR for those areas. We note that the MTP/SCS covers a large number of ongoing and future transportation projects, many of which will improve public access to and along the coast, consistent with Coastal Act objectives. Many of those same projects also require Coastal Commission review through the coastal development permit process; so again, we are appreciative of the opportunity to review this document.

Section 2.5 of the Project Description includes a list of agencies that are responsible for future approvals of the various MTP/SCS transportation projects. The Coastal Commission is listed, but the local cities and counties are not. In the Coastal Zone, coastal development permit (CDP) authority has largely been transferred to the cities and counties through local coastal program (LCP) certification. In Monterey and Santa Cruz Counties, all jurisdictions, with the exception of the cities of Monterey and Pacific Grove, have their own certified LCPs and subsequent CDP authority. As such, CDP approval authority lies with the local governments. For those jurisdictions without certified LCPs, the Coastal Commission retains CDP approval authority. 8.1 8.2

Section 4.10 (Land Use) of the DEIR describes the Coastal Zone as generally being all land 1,000 yards inland from the mean high tide. In fact, the Coastal Zone varies quite a bit and can extend up to five miles inland in rural areas (such as Big Sur) and can be less than 300 feet inland in urbanized areas (such as the City of Monterey). It is also important to note that anything in the Coastal Zone that constitutes "development" as defined by the Coastal Act (and subsequently, by the certified Local Coastal Program (LCP) where there is one) requires a coastal development permit. The Land Use section should also include a discussion of instances where a proposed project conflicts with the applicable LCP. In such cases, LCP amendments, which require Coastal Commission approval, may be necessary. For example, Coastal Commission staff has been in discussions with Monterey County and Caltrans about the need for an LCP amendment for the proposed Highway 156 widening project because of the project's inconsistencies with 8.3 8.4 8.5

existing agricultural policies. While such amendments to the LCPs may not always be supportable, they are an important aspect of the process to include in the policy section of the DEIR. 8.5

Thank you for the opportunity to comment and please let us know if you have any questions.

Sincerely,

Katie Butler
Coastal Planner
Central Coast District Office

cc: State Clearinghouse

Response to Letter 8

Response 8.1

Section 2.5, Project Approvals has been revised to clarify the cities and counties as responsible agencies for approving projects included in the 2035 MTP/SCS.

Response 8.2

Comment noted. This comment does not raise an environmental issue requiring response.

Response 8.3

Comment noted. This comment does not raise an environmental issue requiring response.

Response 8.4

It is acknowledged that the approval of future projects may require amendments to one or more Local Coastal Programs and/or a Coastal Development Permit (CDP). The 2035 MTP/SCS would not directly result in the implementation of any project action; thus, it would not conflict with an existing LCP or require a CDP. No revisions to the land use section of the EIR are necessary at this time. There may be a possible need for amendments if specific future projects would be inconsistent with the adopted LCP.

Response 8.5

Comment noted.

Letter 9

LAFCO of Monterey County

LOCAL AGENCY FORMATION COMMISSION OF MONTEREY COUNTY

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March 28, 2014

Heather Adamson, AICP, Principal Planner
Association of Monterey Bay Area Governments
445 Reservation Road, Suite G
Marina, CA 93933

RE: Draft 2035 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) and Associated Draft Environmental Impact Report (EIR)

Dear Ms. Adamson,

Thank you for this opportunity to comment on the Draft 2035 Metropolitan Transportation Plan/Sustainable Communities Strategy and associated Draft Environmental Impact Report.

This letter is a follow-up to LAFCO's September 4, 2013 letter commenting on AMBAG's Notice of Preparation of the Draft EIR for the MTP/SCS. That letter anticipated that additional, specific comments would be submitted during the circulation period for the Draft EIR. Two main comments were addressed in the September 2013 letter: (1) Pursuant to SB 375, the MTP/SCS must consider cities' adopted Spheres of Influence, and therefore the final SCS scenario should only include development that takes place wholly within cities' adopted Spheres of Influence, and (2) the plan's EIR should evaluate the plan's consistency with relevant sections of the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000, and LAFCO of Monterey County's adopted *Policies and Procedures*. A copy of our September 2013 comment letter, including relevant policies and procedures, is attached for reference. 9.1 9.2

The Commission has reviewed the Draft MTP/SCS and Draft EIR distributed in February 2014. It appears that the draft documents do not address our original comments provided by LAFCO in September 2013. Therefore, we respectfully request AMBAG to revise the draft documents to adequately address our comments as restated below.

Commission Authority

LAFCO of Monterey County is a Responsible Agency under the California Environmental Quality Act (CEQA), with regulatory authority for future local

government boundary and service applications in the study area. It is in this role that the Commission provided comments on the Notice of Preparation last September and is now commenting on the February 2014 drafts of the MTP/SCS and associated EIR. Please refer to the "Commission Authority" section of LAFCO's September 2013 comment letter for a full description of LAFCO's role and legislative authority as they relate to AMBAG's MTP/SCS planning process.

Comment No. 1: The Sustainable Communities Strategy Must Consider Adopted Spheres of Influence

Senate Bill 375, the legislation directing preparation of a Sustainable Communities Strategy, requires that *"In preparing a sustainable communities strategy, the metropolitan planning organization shall consider spheres of influence that have been adopted by the local agency formation commission within its region"* [Government Code Section 65080(b)(2)(G)].

The February 2014 Draft SCS (page 4-3) states that "In summary, under SB 375, an SCS must: Identify existing and future land use patterns, identify transportation needs and the planned transportation network, consider statutory housing goals and objectives, identify areas to accommodate long-term housing needs, identify areas to accommodate 8-year housing needs, consider resource areas and farmland, and comply with federal law for developing a MTP."

LAFCO agrees with these listed requirements. However, this list is incomplete as it does not clearly identify cities' adopted spheres of influence as a factor that has been taken into consideration during development of the SCS scenario. The February 2014 Draft SCS appears to make no mention of spheres of influence anywhere in the document. In addition, the document's maps and figures (e.g. Figure 4-10: 2035 Land Use Pattern Monterey County) do not show spheres of influence, and give no indication as to whether cities' adopted spheres of influence were taken into consideration when developing the forecasted amounts and types of development.

LAFCO therefore reiterates its request, as expressed in our September 2013 comment letter, that the 2014 Final SCS *"only include scenarios in which future development takes place wholly within the cities' adopted Spheres of Influence."* The document should clearly demonstrate and explain how cities' adopted spheres of influence have been factored into the scenario planning process. 9.3

Comment No. 2: The Draft and Final EIR Should Evaluate Consistency with the Cortese-Knox-Hertzberg Act and Adopted LAFCO *Policies and Procedures.*

LAFCO's September 2013 comment letter stated: *"As discussed in the Project Description Comments above, the EIR should analyze a preferred SCS scenario that relies on adopted Spheres of Influence. In addition, the EIR should evaluate the proposed project, as well as project alternatives in the EIR, for consistency with all relevant sections of the Cortese-Knox-Hertzberg Act and LAFCO Policies and Procedures. Listed below are some of the local LAFCO policies that should be addressed in this consistency analysis."* The letter listed eight key LAFCO policy subject areas.

The February 2014 Draft SCS (Section 2.6, Relationship with Other Plans and Programs, page 2-24) states "The 2035 MTP/SCS and the RTPs prepared by the Monterey, San Benito, and Santa Cruz RTPAs has been evaluated for consistency with the goals, policies and objectives currently being implemented by municipal and county planning agencies within the region as well as the

Local Area Formation Commissions (LAFCO) for Monterey, San Benito, and Santa Cruz County. This discussion is provided in Section 5.0, Land Use Consistency Analysis."

However, Section 5.0 in the Draft EIR provided to LAFCO appears to include no references to LAFCO of Monterey County or to LAFCO's adopted Policies and Procedures. Therefore, LAFCO requests that this section be revised to include a consistency analysis of the Cortese-Knox-Hertzberg Act and LAFCO policies cited in our September 2013 letter. 9.4

We appreciate this opportunity to provide comments on the Draft 2014 MTP/SCS and Draft EIR. Please continue to keep us informed throughout AMBAG's processes. LAFCO's Executive Officer, Kate McKenna, would be pleased to meet with AMBAG staff and consultants for more detailed discussions.

Sincerely,

Louis R. Calcagno

Louis R. Calcagno
Chair

Attachment:
LAFCO Comment Letter (Re- Notice of Preparation for the 2014 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) Environmental Impact Report) dated September 4, 2013

LAFCO of Monterey County

LOCAL AGENCY FORMATION COMMISSION OF MONTEREY COUNTY

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September 4, 2013

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Association of Monterey Bay Area Governments
445 Reservation Road, Suite G
Marina, CA 93933

RE: Notice of Preparation for the 2014 Metropolitan Transportation Plan/ Sustainable Communities Strategy (MTP/SCS) Environmental Impact Report (EIR)

Dear Heather,

This letter is a follow-up to my July 24, 2013 letter to you commenting on the subject Notice of Preparation, and contains the official comments of the Local Agency Formation Commission of Monterey County (LAFCO). LAFCO is a CEQA Responsible Agency, with regulatory authority for future local government boundary and service applications in the study area. It is in this role that the Commission is commenting on the Notice of Preparation.

On behalf of the Commission, I would like to first of all thank you for your informative presentation at the August 26th LAFCO meeting. Also at that meeting, the Commission authorized my initial comment letter with certain changes as reflected in this letter. While LAFCO's comments pertain to the five scenarios outlined in the Notice of Preparation, we understand that AMBAG has subsequently narrowed its intended analysis to two "hybrid" scenarios. AMBAG's refinement process does not affect the substance of our comments.

COMMISSION AUTHORITY

Pursuant to the California Environmental Quality Act, LAFCO serves as a Responsible Agency with regard to the subject Notice of Preparation. A Responsible Agency is defined as any public agency, other than the lead agency, which has the responsibility for approving the project where more than one public agency is involved. As a Responsible Agency, LAFCO is available to the lead agency (AMBAG) for early consultation on a project to provide guidance on applicable issues and requirements.

LAFCO's statutory authority to regulate local government boundaries and services is derived from the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Government Code section 56000, et seq.) as amended. Among the purposes of the Local Agency Formation Commission are discouraging urban sprawl, preserving open space and prime agricultural lands, efficiently providing government services, and encouraging the orderly formation, growth and development of local agencies based upon local conditions and circumstances (Government Code section 56301).

The Cortese-Knox-Hertzberg Act further provides that "In order to carry out its purposes and responsibilities for planning and shaping the logical and orderly development and coordination of local governmental agencies to advantageously provide for the present and future needs of the county and its communities, *the [LAFCO] commission shall develop and determine the sphere of influence of each local governmental agency within the county and enact policies designed to promote the logical and orderly development of areas within the sphere* (Government Code section 56425a; emphasis added).

The 2014 Metropolitan Transportation Plan, and its Sustainable Communities Strategy component, may provide a basis for future regional decisions including transportation planning and funding; local land use decisions, patterns and forms enabled by regional transportation plans; and water, sewer and other public service infrastructure that are necessary to support those land uses. Many of these local decisions will involve action by LAFCO.

As such, there are direct links between the current AMBAG planning process and the legislative authority of LAFCO to study and regulate local government boundaries and services. Links between sustainable community strategies and spheres of influence are further emphasized in Senate Bill (SB) 375. The law requires that *"In preparing a sustainable communities strategy, the metropolitan planning organization shall consider spheres of influence that have been adopted by the local agency formation commission within its region"* [Government Code Section 65080(b)(2)(G)]. SB 375 aims to reduce per-capita vehicle miles traveled and related greenhouse gases through preparation of coordinated land use and transportation plans.

COMMENTS ON PROJECT DESCRIPTION

It is our understanding that there is no specific project description, maps or figures to comment on at this time. The Notice of Preparation describes several different planning scenarios relating to land use, transportation and greenhouse gas emission targets. It does not identify any one project as the preferred scenario for analysis in the Environmental Impact Report (EIR). We understand that AMBAG has recently narrowed its analysis to two hybrid scenarios, and will analyze one or both of the hybrid scenarios in the Draft Environmental Impact Report.

LAFCO comments on the Project Description are as follows:

1. Please anticipate that LAFCO will submit additional, specific comments during the circulation period for the Draft EIR.

2. Pursuant to the California Government Code, the SCS preferred planning scenario and all alternative scenarios to be analyzed in the EIR should be designed to reflect only the adopted Spheres of Influence for each city. This methodology would be consistent with the final methodology used in AMBAG's recent Regional Blueprint Planning Process, and supported by LAFCO of Monterey County. This recommendation is also consistent with input provided by LAFCO representatives participating in AMBAG's Planning Directors Group and Regional Advisory Committee for the 2014 MTP/SCS process. We continue to recommend that AMBAG's study of potential SCS scenarios, and final selection of a preferred scenario, only include scenarios in which future development takes place wholly within the cities' adopted Spheres of Influence. The statutory basis for this comment is the requirement of SB 375 that the metropolitan planning organization shall consider Spheres of Influence that have been adopted by the local agency formation commissions within its region [Government Code Section 65080(b)(2)(G)].

COMMENTS ON POTENTIAL ENVIRONMENTAL EFFECTS

As authorized by the Cortese-Knox-Hertzberg Act, LAFCO of Monterey County has adopted local "*Policies and Procedures Relating to Spheres of Influence and Changes of Organization and Reorganization.*" In considering applications for local government boundaries or services, LAFCO considers both the State law and the adopted local policies and procedures. The State law and local policies are available on the LAFCO website at http://www.monterey.lafco.ca.gov/. The local policies are attached to this letter for ease of reference.

The Cortese-Knox-Hertzberg Act and LAFCO's *Policies and Procedures* are germane to the Notice of Preparation. The proposed MTP/SCS project will result in outcomes or recommendations whose implementation would require LAFCO consideration or approvals (such as annexations or Sphere of Influence amendments) in the future. Cities, independent special districts, dependent special districts, the County of Monterey and regional agencies within Monterey County may rely on the EIR analysis for the MTP/SCS as a basis for their own plans and actions. LAFCO will be requested to consider applications for Spheres of Influence, boundaries and services, and to prepare municipal service reviews and other required studies for cities, special districts and the County of Monterey.

As discussed in the Project Description Comments above, the EIR should analyze a preferred SCS scenario that relies on adopted Spheres of Influence. In addition, the EIR should evaluate the proposed project, as well as project alternatives in the EIR, for consistency with all relevant sections of the Cortese-Knox-Hertzberg Act and LAFCO *Policies and Procedures*. Listed below are some of the local LAFCO policies that should be addressed in this consistency analysis:

1. "LAFCO intends that its Sphere of Influence determinations will serve as a master plan for the future organization of local governments within the County. The spheres shall be used to discourage urban sprawl; limit proliferation of local governmental agencies; encourage efficiency, economy and orderly changes in local government; promote compact, community centered urban development; and minimize adverse impacts on lands classified as prime agriculture." [LAFCO *Policies and Procedures*, section C.II.1]

We note that all cities, independent special districts and dependent special districts in Monterey County have adopted Spheres of Influence. The spheres are often tied to the capability to provide public services. AMBAG's long-range planning processes and the current EIR should analyze not only the potential environmental effects of future urban development within the adopted Spheres of Influence of cities, but also the effect of that development on the ability of special districts that provide a wide range of municipal services. If the final 2014 MTP/SCS encourages future urban development outside of the cities' adopted Spheres of Influence, the resulting "ripple effect" of such development could adversely impact the ability of special districts to efficiently provide public services.

2. "LAFCO shall discourage proposals that would have adverse financial impacts on the provision of governmental services or would create a relatively low revenue base in relationship to the cost of affected services. Applications shall describe related service and financial impacts (including revenues and expenditures) on the County, cities, and/or special districts and provide feasible measures which would mitigate such adverse impacts." [LAFCO *Policies and Procedures*, section D.VII.1]

3. "LAFCO discourages proposals which will facilitate development that is not in the public interest due to topography, isolation from existing developments, premature intrusion of urban-type developments into a predominantly agricultural area, or other pertinent economic or social reason." [LAFCO *Policies and Procedures*, section D.VII.6]

4. "LAFCO, in furtherance of its objectives of preserving prime agricultural land, containing urban sprawl, and in providing a reasonable assurance of a city/district's ability to provide services shall consider the appropriateness of phasing annexation proposals which include territory that is not within a city/district's urban service area and has an expected build-out over a period longer than five to seven years." [LAFCO *Policies and Procedures*, section D.VIII.1]

5. "It is the policy of LAFCO to encourage and to seek to provide for planned, well-ordered, efficient urban development pattern while at the same time remaining cognizant of the need to give appropriate consideration to the preservation of open space and agricultural land within such patterns." [LAFCO *Policies and Procedures*, section D.IX.1]

6. "For annexations and Sphere of Influence applications, Monterey County LAFCO shall consider as part of its decision whether the city in which the annexation or Sphere of Influence amendment is proposed has included certain goals, policies, and objectives into its General Plan that encourage mixed uses, mixed densities, and development patterns that will result in increased efficiency of land use, and that encourages and provides planned, well-ordered, efficient urban development patterns." [LAFCO *Policies and Procedures*, section D.XIII.1]

7. Regarding potential impacts to agricultural lands:

   - "A Proposal must discuss how it balances the State interest in the preservation of open space and prime agricultural land against the need for orderly development." [LAFCO *Policies and Procedures*, section E.II.1]

- "A Proposal must discuss its effect on maintaining the physical and economic integrity of agricultural lands." [LAFCO *Policies and Procedures*, section E.II.2]
- "A Proposal must discuss whether it could reasonably be expected to induce, facilitate, or lead to the conversion of existing open-space land to uses other than open-space uses." [LAFCO *Policies and Procedures*, section E.II.3]

8. Regarding jobs and housing:
   - "Proposals must demonstrate through both quantitative and qualitative methods the relationship between the Proposal and the surplus or deficiency of local and county-wide housing supply and demand, and employment availability and creation." [LAFCO *Policies and Procedures*, section F.II]
   - "Additionally, the Proposal must demonstrate how its pattern of land use and transportation complements local and regional objectives and goals for the improvement of air quality and reduction of greenhouse gas (GHG) emissions and local vehicle miles traveled (VMT*), including the importance of efficient movement of goods and commuter traffic."* [LAFCO *Policies and Procedures*, section F.II; additional Commission comments are noted in *italics*].

We appreciate this opportunity to provide comments on the Notice of Preparation, and thank you again for the courtesy of your presentation. I would be pleased to meet with AMBAG staff and consultants for more detailed discussions.

Sincerely,

Kate McKenna

Kate McKenna, AICP
Executive Officer

Attachment: LAFCO *Policies and Procedures Relating to Spheres of Influence and Changes of Organization and Reorganization*, as Adopted by the Local Agency Formation Commission of Monterey County, February 25, 2013

Response to Letter 9

Response 9.1

This comment is related to the 2035 MTP/SCS itself rather than the environmental impacts of the plan.

Response 9.2

This comment is related to the 2035 MTP/SCS itself rather than the environmental impacts of the plan. Section 5 of the EIR was modified to include a discussion of the Cortese-Knox-Hertzberg Act and related LAFCO policies provided in the September, 2013 letter provided by LAFCO in response to the Notice of Preparation.

Response 9.3

This comment is related to the 2035 MTP/SCS itself rather than the environmental impacts of the plan. However, AMBAG did evaluate a SCS scenario in the scenario planning process that did assume that all growth would occur within spheres of influence. This scenario resulted in unrealistic amounts of growth particularly in jurisdictions that have smaller spheres of influence.

Response 9.4

Refer to Response 9.2.

MAR 1 3 2014

Letter 10

County of Santa Cruz

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March 7, 2014

Heather Adamson, Principal Planner
AMBAG
445 Reservation Road, Suite G
Marina, CA 93933

RE: 2035 METROPOLITAN TRANSPORTATION PLAN/SUSTAINABLE COMMUNITIES STRATEGY AND REGIONAL TRANSPORTATION PLANS FOR MONTEREY, SAN BENITO, AND SANTA CRUZ COUNTIES DEIR COMMENTS

Dear Ms. Adamson:

As you know, I raised a question during the March 6, 2014, Regional Transportation Commission meeting regarding the appropriateness of the alternatives analysis in the above mentioned Draft EIR. I want to follow up with a clarification of my concern as well as raise another one.

1. ALTERNATIVES ANALYSIS – Pages ES-2 and 7-15 – On both these pages there is a chart that compares the three alternatives with the preferred project. According to the chart, for Alternative 2 there are five categories where the Alternative's impacts are greater than those of the proposed project, one where the impact is equal or greater, and only one impact where the impact is less than the proposed project. For Alternative 3, in three categories the Alternative's impacts are greater than those of the proposed project and in only two categories are they less. Clearly, neither of these two substantive alternatives significantly reduces the impacts of the project. 10.1

   Section 15126.6(b) of the CEQA Guidelines contains the following: "...the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly."

In my opinion, neither Alternative 2 nor Alternative 3 conforms to this requirement.

You mentioned at the meeting that the alternatives analysis requirement for program EIRs was different from the requirement for project EIRS. Section 15168 of the Guidelines contains requirements for program EIRS. The most relevant provisions are contained in the Advantages of a Program EIR subsection:

- 15168(b)(1): "Provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action."

- 15168(b)(4): "Allow the Lead Agency to consider broad policy alternatives and programwide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts." 10.2

It seems to me that both of these subsections would support the concern that the alternatives in the proposed project Draft EIR are inadequate.

I would request that the Final EIR contain the analysis of at least one additional reasonable alternative consistent with the requirements contained in the CEQA Guidelines.

2. ENFORCEABILITY OF THE EIR'S MITIGATION MEASURES – The Draft EIR contains a large number of mitigation measures to reduce the adverse environmental impacts of the proposed project. Since neither AMBAG nor the Regional Transportation Commission will be the lead agency responsible for permitting or constructing most of the specific projects described in the document, are these other lead agencies legally required to abide by and implement these mitigations? 10.3

Thank you for your consideration of these comments and I look forward to your responses.

Sincerely,

NEAL COONERTY, Supervisor
Third District

NC:ted

2044A3

Response to Letter 10

Response 10.1

See response to comment 1.28 above. Additionally, in Section 7.0, *Alternatives,* Alternative 2 does reduce several of the proposed project's impacts. It is observed that the Commenter did not suggest a specific alternative to be analyzed.

Response 10.2

See response to Comments 1.28 and 10.1 above. An appropriate range of alternatives meeting CEQA's requirements was developed to evaluate opportunities to reduce potential environmental impacts while achieving most of the project objectives, including the GHG reduction targets. Therefore, the alternatives analysis contained in the EIR satisfies the guidance contained in Section 15168 of the CEQA Guidelines. It is observed that the Commenter did not suggest a specific alternative to be analyzed.

Response 10.3

See response 1.4 above.

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Letter 11

Flex your power!
Be energy efficient!

April 8, 2014

Ms. Maura Twomey, Executive Director
Association of Monterey Bay Area Governments
P.O. Box 809
Marina, CA 93933-0809

Dear Ms. Twomey:

DRAFT 2035 METROPOLITAN TRANSPORTATION PLAN / SUSTAINABLE COMMUNITIES STRATEGIES AND DRAFT ENVIRONMENTAL IMPACT REPORT COMMENTS

Thank you for the opportunity to review and comment on the *Draft 2035* Metropolitan Transportation Plan (MTP) / Sustainable Communities Strategies (SCS) and Draft Environmental Impact Report (DEIR).

Based on our review, the Department of Transportation (Caltrans) offers the following comments, suggestions and questions for your consideration. Detailed comments are included as a separate attachment for the Draft 2035 MTP Plan. In addition, we are also providing copies of our comments to the draft 2014 Regional Transportation Plans for Santa Cruz, San Benito and Monterey Counties.

Association of Monterey Bay Area Governments (AMBAG) is commended on a detailed discussion of Transportation Services and Non-Motorized Transportation within the region as well as a thorough discussion of the public participation process accompanying development of the draft 2035 MTP/SCS.

This is a very well written planning document. Very good detailed discussion of multimodal goods movement impacts, projects and mitigations. Regional coordination is noteworthy as is the big picture perspective with regard to trade and commerce by those in the region. Excellent graphics of the intermodal goods movement network in the region and items in the table of contents made review of this very large document quick and easy.

Caltrans recently released its 2013 Version 3 of the *Main Street, California: A Guide for Improving Community and Transportation Vitality*. This document incorporates livability and sustainability principles into main street projects and helps balance the need for an efficient multi-modal transportation facility with local needs for a community's main street.

For more information on the Main Street California see Caltrans' website can be accessed for more details at the following:
http://www.dot.ca.gov/hq/LandArch/mainstreet/main_street_3rd_edition.pdf

Overall, we commend AMBAG for its comprehensive draft 2035MTP/SCS/DEIR, which demonstrates your agency's commitment to planning for a safe, sustainable, integrated and efficient transportation system throughout the region. We look forward to discussing these comments with you as we look ahead to the next draft MTP Update work effort. 11.1

Thank you for the opportunity to comment. If you have any questions, please contact Brandy Rider of my staff at (805) 549-3970 or brandy.rider@dot.ca.gov.

Sincerely,

AILEEN K. LOE
Deputy District Director
Planning and Local Assistance

Attachments

cc: Debra L. Hale, TAMC
George Dondero, SCCRTC
Lisa Rheinheimer, SBtCOG

Attachment 1

Specific Comments by Caltrans
Monterey Bay Draft 2035 Metropolitan Transportation Plan (MTP) /
Sustainable Communities Strategies (SCS)

Policy statements (CA government code 65080). While these items appear to be covered in various sections of the document, a more in-depth discussion of how system needs influence the policy statements of the SCS would be beneficial.

Demographics - The MTP is missing key demographic data that would allow the reader to ascertain the social and ethnic makeup and geographic population of disadvantaged populations. While the EIR does contain detailed information on ethnicity, this information should appear in the body of the MTP.

Bicycle and pedestrian facilities, pg. 2-11 – this section should include a discussion of specific bike and pedestrian facilities that will be included in the MTP.

Active Transportation: Safe Routes to School, pg. 2-12: Need to discuss how this program changed under MAP-21 and is now under the Active Transportation Program (ATP).

California Coastal Trail, pg. 2-16- AMBAG is commended for its discussion of the Monterey Bay Sanctuary Scenic Trail (MBSST) Network; however, the discussion should include support for AMBAG's compliance with Government Code Section 65080.1 requiring coordination with appropriate agencies, including the State Coastal Conservancy and the California Coastal Commission, regarding the development of the California Coastal Trail. Please consider expanding discussion in this section to include a description of which agencies were consulted with and how, or a reference to a relevant appendix.

Strategic System Expansion, pg. 2-16 – 2-20: Caltrans' has five modal plans (California Aviation System Plan, California Freight Mobility Plan, California State Rail Plan, Interregional Transportation Strategic Plan, and the California Statewide Transit Strategic Plan), but only two of them (Aviation and Freight) are mentioned in this section. At the very least the Rail Plan should be added since it identifies a potential *Capitol Corridor* Extension to Salinas, the new *Coast Daylight and the State's High Speed Rail Project*. This would help introduce the California Transportation Plan since it is not mentioned in the body of the document as details are noted below. Also, acknowledging these are interregional modes of travel and this may have been the reasoning why they were omitted, but land use within the AMBAG region will be affected.

Aviation: California Aviation System Plan, pg. 2-16: a description of the plan needs to be given such as the California Aviation System Plan (CASP) is a multi-element plan prepared by the Department of Transportation (Caltrans), Division of Aeronautics, with the goal of developing and preserving of airports responsive to the needs of the State.

It is noted that an inventory of all the airport facilities, heliport locations and military facilities are identified. It is hopeful that AMBAG would include this inventory in any future emergency evacuation plans as well as any GIS mapping system.

Primary Air-Carrier airports with annual enplanements over 10,000 are *required* to have an Airport Ground Access Improvement Program per Government Code 65081.1. The only airport within the AMBAG region with this designation is the Monterey Regional Airport. The only mention of 'primary ground access is on page 2-17, which simply explains that State Routes 1 and 68 provide the primary ground access *to the airport*. This does not qualify as an "Airport Ground Access Improvement Program."

Caltrans requires this addition in all Regional Transportation Plans or Metropolitan Transportation Plans. Please review the requirements for completion of an Airport Ground Access Improvement Program at the following link: http://ntl.bts.gov/DOCS/AGAPP.html

Page 2-17 regarding the King City Municipal Airport (Mesa Del Rey), the two names are confusing to those who are not accustomed to this title. The FAA has this airport listed as "Mesa Del Rey" located in King City, while the official Pilot's Guide shows "King City." Caltrans Aviation Safety Officers recommend an official name change, which would involve making modifications to the Airport Master Record.

Additionally, there was no mention of the Sean D. Tucker, (in partnership with Tutima Instrument Watches), Academy that provides the most "in-depth study of aircraft control ever offered." This is an advantage for the Mesa Del Rey Airport, which could prove to be beneficial to the patronage of the airport if widely promoted.

Goods Movement: Salinas Valley Truck-to-Rail Intermodal Facility Feasibility Study, pg. 2-20. Described the next steps of the Truck-to-Rail Intermodal Facility Feasibility Study and how this study and the Commercial Flows Study are incorporated into the US 101 Corridor Freight Study.

Local Transportation Sales Tax, pg. 3-10: There are two critical greenhouse gas emissions deadlines (2020 and 2035) and stating here a reasonably expected adoption year for the local transportation sales tax would be helpful in understanding how this pricing increase influences travel behavior.

The expectation of new sales tax and toll revenue in the Monterey Bay Area region is not well supported, as there is no guarantee that the sales tax measure will be passed, and several other revenue sources are still under development. In addition to the information listed in the financial element, AMBAG must list strategies to ensure that new funding sources will be available at the time indicated (23 CFR 450.322 (10)(iii)). If not, The RTP should include a funding scenario that does not include sales tax measure funding.

Assembly Bill (AB) 32 and Senate Bill (SB) 375, pg. 4-4: This is another location that Senate Bill (SB) 391 and the California Transportation Plan (CTP) could be presented or identified as it is currently not in the body of the document, yet it is in the glossary. This would be an effective location to add the CTP, as SB 375 addresses the regional greenhouse gas (GHG) emissions from the transportation sector and SB 391 addresses the statewide GHG emissions from the transportation sector of AB 32. The following is an example of what could be added:

> Senate Bill 391 (SB 391, 2009), the California Transportation Plan, requires the California Department of Transportation to prepare the California Transportation Plan (CTP), the long-range transportation plan, by December 2015, to reduce GHG emissions.
> This system must reduce GHG emissions to 1990 levels from current levels by 2020, and 80 percent below the 1990 levels by 2050 as described by AB 32 and Executive Order S-03-05. The upcoming CTP 2040 will demonstrate how major metropolitan areas, rural areas, and state agencies can coordinate planning efforts to achieve critical statewide goals.

Scenario Planning, pg. 4-5: This section talks about a preferred scenario was selected and it is talk about in pieces throughout, but a comprehensive summary or snapshot would be beneficial and useful. At the very least, a summary should be reference in the body here and included in the Appendix E.

SCS maps, pg. 4-7, et al. – These maps are very well done, but the reader would benefit from accompanying maps or discussion identifying current conditions in addition to the figures that show how the region is anticipated to change.

Environmental Mitigation: A discussion or summary of the potential environmental impacts of the plan and their mitigation should be included in the body of the MTP (23 CFR 450.322(f)(7)).

Natural Resources: The MTP should contain a discussion of construction aggregate as a natural resource. Aggregate development is an integral part of transportation construction and maintenance cost and feasibility, and often precludes other land uses.

Sustainable Community Strategies Chapter – Figure 4-10a: 2035 Land Use Pattern Monterey County Coast, Pg. 4-35: The map does not show any land use patterns along the SR 68 Corridor (between Monterey and Salinas), the former Fort Ord area, River Road area, Prunedale or Carmel Valley.

Sustainable Community Strategies Chapter – Figure 4-13: 2035 Transit Network, Pg. 4-43: Monterey-Salinas Transit is proposing a Bus Rapid Transit (BRT) project between Marina and Monterey on or along Highway 1. The green legend depicting BRT isn't shown for the Highway 1 Corridor between Marina and Monterey.

Sustainable Community Strategies Chapter – Figure 4-14: 2035 Highway Network, Pg. 4-45: The map is inconsistent with Caltrans Transportation Concept Reports for the following roadways: US 101, SR 17, SR 1 (Santa Cruz to Watsonville). The legend is confusing and inconsistent not knowing if the highway network map is to be read for example as a two-lane facility or two lanes in each direction. Please be consistent throughout the highway network map.

Glossary, pg. 7-8: The CTP is referenced and defined in the Glossary, yet it is not mentioned in the body of the document. Other essential modal components that will be integrated into the CTP are discussed in the document such as the CASP and California Freight Mobility Plan in which the CTP could be mentioned here as well.

Errata, pg. 2-20: Under the heading "Salinas Valley Truck-to-rail Intermodal Facility Feasibility Study", the first sentence has no verb, and the second sentence is missing commas.

Appendix E, Introduction, pg. 2 and Hybrid SCS Scenarios, pg. 6: The introduction talks about a final preferred scenario was prepared and incorporated, yet there is not a preferred scenario described in the Initial and Hybrid SCS Scenarios section. A Preferred SCS Scenario describing the Land Use and Transportation strategies should be included in the Appendix E similar to Initial Scenarios 1 – 5 and Hybrid Scenarios A and B.

It is noted that the Airports Economic Impact Study was completed in 2003. It is always prudent to identify the economic value of the airports and actively promote this to the community. Caltrans would recommend updating the Economic Study based on more current statistics.

Attachment 2
Draft Environmental Impact Report (DEIR)
Metropolitan Transportation Plan (MTP)

1.2 Project Background, Pg. 1-1: Second Paragraph - Correct the year from 20355 to 2035. 11.2

2.0 Project Description, Pg. 2-12: Bus Rapid Transit and Rail Projects -
There is no mentioning of the State's proposed High Speed Rail Project going through San Benito County with a nearby station stop in Gilroy. 11.3

3.0 Environmental Setting, Pg. 3-4 – Santa Cruz County – Third paragraph. The name of the railroad that operates the Santa Cruz Branch Line is the Monterey Bay Railway (Iowa Pacific Holdings) and not Sierra Northern Railway. 11.4

4.3 Biological Resources; pg. 4.3-1: Figure 4.3-1b- California Wildlife Habitat Relationships (CWHR) vegetation map for San Benito County and Figure 4.3c CWHR vegetation map for Santa Cruz County - Legends on both maps says Monterey County. Change legends to match County for each map it represents. Maps do not appear to include the entire County boundary. Why? 11.5

4.3 Biological Resources: Wildlife movement corridors: Pg. 4.3-55:

- Mentions that *California Department of Fish and Wildlife* (CDFW) BIOS (2013) has mapped three essential connectivity areas and the general locations. It also mentions fourteen (14) important movement corridors identified in the Missing Linkage report from 2001. The Bay Area Critical Linkage report also by Penrod et.al in 2013 is more recent and should be referenced to this document as well. 11.6

- Assuming the CDFW BIOS mapping reflects the information included in the "*California Essential Habitat Connectivty Project: A Strategy for Conserving A Connected California*". For the public also reference this report. 11.7

- Include generalized mapping of the important corridors similar to the mapping done for the Designated Critical Habitat. 11.8

Pg. 4.3-56 - California Department of Fish and Wildlife – Third Paragraph: It describes CESA regulations but it doesn't discuss what type of permits would be required if state listed species would be impacted. 11.9

Pg. 4.3-60 - Last paragraph: Bats also occur in buildings that maybe demolished prior to construction of projects. The discussion should include buildings as one of the type of structures that can be occupied by bats. 11.10

Mitigation Measures, pg. 4.3-61:

- Pg. 4.3-B-1 (f) discusses avoidance and minimization measures. There also needs to be a discussion on how compensatory mitigation for listed species is going to be addressed with the agencies such as use of Conservation Banks. 11.11

- Pg. 4.3-64 B-1(f) 2nd bulleted item: Seasonal restrictions on timing for construction in riparian/aquatic sites is a minimization measure. It wouldn't necessarily avoid impacts. 11.12

- Pg. 4.3-66 B-1(g) 1st bulleted item describing use of cover boards 3 month prior to construction for relocating amphibians & reptiles states the following:

  > "coverboard surveys shall be completed within three months of the start of construction. The coverboards shall be at least four feet by four feet and constructed of untreated plywood a placed flat on the ground. The coverboards shall be checked by a qualified biologist once per week for each week after placement up until the start of vegetation removal. All non-listed special status and common animals found under the coverboards shall be captured and placed in five-gallon buckets for transportation to relocation sites." 11.13

  Installing coverboards 3 months prior to construction is appropriate. It allows time for boards to settle and animals to become adapted to using the boards for cover. Moving animals up to 3 months before initial ground disturbance potentially allows time for animals to move back into the area and possibly the need for the same individuals to be relocated multiple times. Also it allows time for new animals to move into the vacated habitat no longer occupied by the animals that were relocated. Consider narrowing the window when animals are actually moved to closer to construction.

Mitigation Measures, pg. 4.3-72:

4.3-72 B-3 (b): Construction Best Management Practices. Bulleted item #6 on 4.3-73: Restricting construction activities to daylight hours may not be feasible since night work often reduces traffic congestion if done outside peak traffic hours. 11.14

Note: Comments on mitigation measures also apply to the same measures listed in the Executive Summary ES-9 through ES-20. 11.15

4.12 Transportation and Circulation, Pg. 4.12-9 Rail Freight: The statement that freight service is seldom used along the Union Pacific Coast Line is not correct. Freight may be seldom used on the rail line between Watsonville Junction and the City of Santa Cruz, the Davenport branch line or the Hollister spur line, but not the Coast Line. 11.16

Response to Letter 11

Response 11.1

Comment noted.

Response 11.2

The requested correction was made to the EIR.

Response 11.3

The material on Page 2-12 summarizes project types included in the 2035 MTP/SCS. The High Speed Rail project is not included in the 2035 MTP/SCS; and thus, is not referenced in the EIR.

Response 11.4

The requested correction has been made to the EIR.

Response 11.5

Corrections to the map legends referenced have been made.

Response 11.6

The following was added to the reference section: Penrod, K., P. E. Garding, C. Paulman, P. Beier, S. Weiss, N. Schaefer, R. Branciforte and K. Gaffney. 2013. *Critical Linkages: Bay Area & Beyond*. Produced by Science & Collaboration for Connected Wildlands, Fair Oaks, CA. This documentation does not change the scope of analysis or related findings presented in the EIR.

Response 11.7

Information specific to the material referenced in response to Comment 11.6 was included and cited in Section 4.3, *Biological Resources*, of the Draft EIR.

Response 11.8

The graphic information included in the Draft EIR provides adequate programmatic representation of natural resources features present in the AMBAG region. At the time that any specific project is proposed that may require more detailed mapping of important corridors, it will be included as part of that environmental review. No additional mapping will be prepared for the Final EIR.

Response 11.9

The purpose of the discussion is to provide an overview of the CESA as it may apply to future project specific actions. It is beyond the scope the Program EIR to speculate as to specifically what impacts may occur and what, if any, permits would be required. Programmatic mitigation

measures are identified to evaluate such impacts and permitting on a project-by-project basis. Permits may include Section 2081 incidental take permits as well as Section 1601 streambed alteration agreements.

Response 11.10

Buildings were added as a type of structure that may be suitable for bats.

Response 11.11

Mitigation Measure B-1(f) addresses avoidance and/or minimization measures that could be implemented to address impacts to threatened or endangered species and their habitat during implementation of the 2035 MTP/SCS. While mitigation banks are available in the region, there is no guarantee that each or any project in the future will be able to purchase credits from these banks, as it is at the discretion of the provider to determine which projects qualify, and, it can be anticipated that these types of banks will eventually run out of credits. Mitigation measures, that may include compensatory mitigation and the use of conservation banks, would be determined as part of a project-specific environmental review conducted as individual projects in the 2035 MTP/SCS are advanced into the planning and design phase.

Response 11.12

Comment noted.

Response 11.13

The mitigation measure addressed in the second bullet states that pre-construction surveys would be conducted within 14 days of the start of construction. Any animals inhabiting the area – whether or not they were previously relocated, would be captured and relocated per the protocol addressed under Mitigation Measure B-1(g).

Response 11.14

Comment noted.

Response 11.15

Comment noted.

Response 11.16

The phrase "but is seldom used" has been removed.

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Letter 12

April 4, 2014

Ms. Heather Adamson
Association of Monterey Bay Area Governments
445 Reservation Road, Suite G
Marina, CA 93933

Sent Via Email/U.S. Mail
hadamson@ambag.org

RE: Comments – Draft Environmental Impact Report for the 2035 Metropolitan Transportation Plan/Sustainable Communities Strategy and 2035 Regional Transportation Plans for San Benito, Santa Cruz, and Monterey Counties (SCH #2013061052)

Dear Ms. Adamson:

Thank you for the opportunity to review and provide comments in regard to the Draft Environmental Impact Report (DEIR) prepared for the 2035 Metropolitan Transportation Plan/Sustainable Communities Strategy and 2035 Regional Transportation Plans for San Benito, Santa Cruz, and Monterey Counties.

The City of Gonzales offers the following comments:

1. **Chapter 4.0 Environmental Impact Analysis; Section 4.6 Environmental Justice.**

   a. The DEIR at page 2-8 mentions that the 2035 MTP/SCS is based on a preferred land use and transportation scenario which defines a pattern of future growth and transportation system investment for the region emphasizing a transit-oriented development and infill approach to land use and housing. Population and job growth is allocated principally within existing urban areas near public transit. Allocation of future growth directly addresses jobs-housing balance issues.

      In theory, having the "right" ratio of jobs to housing results in a reduction of vehicle miles traveled, environmental pollution, better housing choices and improved economic vitality. In reality a jobs-housing balance measures the availability of housing for the local workforce; however, the perceived "balance" does not tell the entire story. In many cases, a jobs-housing balance masks the reality that the local workforce cannot afford to live in the community, thereby forcing them to commute long distances or live in overcrowded conditions. Moreover, environmental equity and economic goals are advanced when workers of all income levels have the opportunity to live near their jobs in homes that they can afford. This fundamental

concept is known as the jobs-housing fit, which is the relationship between wages and housing costs.

The DEIR does not, but should include an impact analysis of the MTP/SCS on housing or the relationship of the preferred land use and transportation scenario with regard to the job-housing balance goals and/or objectives of Cities and Counties in the study area. Even better, the DEIR should include an analysis of the jobs-housing fit, providing information about how well matched local wages and housing costs are within the preferred land use and transportation scenario. 12.1

The 2010 Regional Transportation Plan Guidelines direct MPOs to incorporate an analysis of jobs-housing fit (i.e.) into modeling[1]. Granted, the same guidelines direct AMBAG to work closely with state and federal agencies to secure additional funding to research and implement the new land use and activity-based modeling methodologies. However, the preparers of the DEIR should disclose that there has been direction given by the California Transportation Commission to bring these new modeling approaches into the mainstream of modeling practice. At the very least, the DEIR should include an analysis of how the MTP/SCS might affect housing prices, gentrification, and the displacement of lower income residents, including those in high-priority transit areas and/or corridors. 12.2

b. Table G-1: entitled *Performance Measure Results* in the 2035 Metropolitan Transportation Plan / Sustainable Communities Strategy compares the Revenue Constrained Network compared to the existing conditions (2010), 2035, and the 2035 No Build Scenario. The DEIR should include the detailed analysis that led to the conclusions included in the table, including those conclusions associated with Social Equity. 12.3

2. **Chapter 4.0 Environmental Impact Analysis; Section 4.8 Greenhouse Gas Emissions/Climate Change**.

a. Page 4.8-10; Heading: *Local Climate Action Plans*. Please note that the City of Gonzales City Council adopted a Climate Action Plan on February 19, 2013. Please reference the City of Gonzales in the text as one of the Cities in Monterey County that have adopted such a plan. Additionally, please include the following information in Table 4.8-1: 12.4 12.5

[1] California Transportation Commission, *2010 California Regional Transportation Plan Guidelines*, pp. 46-47, 50, 63, available at http://www.dot.ca.gov/hq/tpp/offices/orip/rtp/index_files/2010_RTP_Guidelines_4-7-10.pdf

Jurisdiction	Type	Annual Baseline Emissions (MT CO2E)	Project 2020 Business-as-usual Annual Emissions (MT CO2E)	Status
Gonzales	Climate Action Plan	2005: 26,847	42,546	Adopted February 2013

12.5

b. Page 4.8-11; Subsection 4.8.2; third paragraph. Please note that the Climate Action Plan adopted by the City of Gonzales does provide a quantitative metric for determining compliance with the City's GHG Emission reduction thresholds. The Gonzales Climate Action Plan can be accessed at http://www.ci.gonzales.ca.us. 12.6

c. Page 4.8-17; Impact GHG-4. Please include the City of Gonzales as one of the listed jurisdictions whose goals and targets for the reduction of GHG emissions as set forth in the City's adopted Climate Action Plan will not be impacted by the implementation of the 2035 MTP/SCS. 12.7

d. Page 4.8-17; first full paragraph. Please include the City of Gonzales as one of the Cities that has adopted a Climate Action Plan that sets goals and targets for the reduction of GHG emissions, and outlines policies to help achieve those goals. 12.8

Thank you for the opportunity to provide these comments to AMBAG in regard to the preparation of the Draft Environmental Impact Report for the 2035 Metropolitan Transportation Plan/Sustainable Communities Strategy and 2035 Regional Transportation Plans.

Sincerely,

Thomas Truszkowski, Director
Community Development Department

Response to Letter 12

Response 12.1

An evaluation of jobs-housing balance per se is not a requirement of the CEQA review process. The 2035 MTP/SCS EIR discusses the proposed project's direct housing impacts in Impact LU-4, where the direct impacts of the plan on housing displacement are evaluated. Section 6.1 evaluates the plan's potential indirect, growth-related impacts on housing. As explained in that section, the 2035 MTP/SCS accommodates and is consistent with projected and planned growth; it does not directly cause new housing units to be built. Further, the majority of the transportation projects included in the 2035 MTP/SCS are local projects that will be implemented by a local jurisdiction, such as streets/road improvements and active transportation projects, and are included in local plans such as the general and/or specific plans. However, all transportation improvements have been coordinated with the applicable local jurisdictions

Response 12.2

An impact evaluation of housing prices and gentrification is not a threshold of significance under CEQA as noted above. Population and housing displacement is programmatically addressed in Impact LU-4 in Section 4.10, *Land Use,* of the EIR. This issue would be evaluated as part of a project specific environmental review performed by sponsor agencies prior to implementation of individual transportation projects.

Response 12.3

The Draft EIR provided a programmatic review of potential environmental impacts associated with the 2035 MTP/SCS as proposed. The alternatives analysis contained in Section 7.0 of the Draft EIR, included an impact evaluation of Alternative 1 - No Project which includes the performance measures referenced in Table G-1 of the 2035 MTP/SCS. Additional information on the methodology to calculate the performance measures is included in Chapter 5 and Appendix G of the 2035 MTP/SCS. As described in Section 15131 of the CEQA Guidelines, "Economic or social effects of a project shall not be treated as significant effects on the environment."

Response 12.4

A reference to the City of Gonzales Climate Action Plan will be included on Page 4.8-10 of the Final EIR.

Response 12.5

The GHG emissions data for the City of Gonzales was added to Table 4.8-1.

Response 12.6

Comment noted.

Response 12.7

The EIR was revised to reference 2035 MTP/SCS consistency with the City of Gonzales Climate Action Plan under Impact GHG-4.

Response 12.8

The EIR was revised to reference the City of Gonzales Climate Action Plan and related goals and policies.

Letter 13

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Salinas, CA 93901-2902
Contact: Debbie Hale
Via email: debbie@tamcmonterey.org

Re: Draft EIR for the 2035 Metropolitan Transportation Plan/Sustainable Communities Strategy

April 8, 2014

Dear Ms. Adamson and Ms. Hale,

There follows comments and concerns regarding the referenced document.

1) Beginning with the Project Objective, we learn the 2035 Metropolitan Transportation Plan and the 2014 Monterey County Regional Transportation Plan are being considered together in an environmental document that you've chosen to be Programmed EIR. Why is this? 13.1

Your flier sent with the CD shows people on bicycles in a park. It's titled "Moving Forward". It is a identified as a Draft 2035 Moving Forward Monterey Bay Plan.
In the small print is says, "An integrated long-range transportation and land use plan". 13.2
The objective thus seems unclear as it is a two-in-one. Don't you agree? If not, why not?

2) The Highway 68 Coalition requests a comprehensive Baseline analysis, to begin, that describes State and County Roads currently at Levels of 13.3
Service D to F. This is important. Don't you agree? If not, why not?
We also request a comprehensive Baseline analysis that describes the pitiful surface conditions of our Monterey County Roads in Monterey County. We have heard estimates of between $600 Million and $800 Million to bring these Monterey County roads up to a more acceptable condition. Don't you agree? If not, why not? 13.4

3) "The 2035 MTP/SCS plans for and programs the approximately $7.5 billion in revenues expected to be available to the region from all transportation funding sources over the course of the planning period." 13.5

Further Baseline is needed:
*Please list the specific sources for the approximately $7.5 Billion
*Please list the amounts to be received from these specific sources

*Please list the timing when these specific amounts will be available.
*Please list the agency and or Department that will be receiving these specific funds and in what amounts.

Don't you agree these should be specified for the public and decision makers? If not, why not?

13.5

* There is an assumption that a sales tax and/or a parcel tax measure will be passed as a part of this "expected to be available" revenue amount. Regarding Monterey County, the Transportation Agency for Monterey County has lost at the polls now on four sales tax measures . These were transportation sales tax measures B, N, A, and Z.

Isn't this important information for the public and decision makers to know?
Please explain your anticipated revenue rationale. This is important information, don't you agree? If not, why not?

13.6

4) Further baseline is needed:
Please list the specific criteria used for your Regional Growth Forecasts, and please break this down by County, as well as areas in these three Counties.
Don't you agree this is important information for the public and decision makers?
If not, why not?

13.7

5) On Page 4.1- 9 we find a list of planned "specific projects" in this "Programmed" EIR.
The specific projects are identified by an AMBAG Project #.
For example we find:
MONCT011-
CT
SR 68 - Widen existing roadway
to 4-lanes between existing 4
lane segment at Toro Park and
Corral de Tierra Road
Toro/Monterey AES-1, 2 Scenic highway; alteration of rural
Character

And

MONMYC153-
UM
SR 68 - Add lanes at Corral de
Tierra Toro AES-1,2 Scenic highway, alteration of rural
character

The Highway 68 Coalition doesn't recall getting responses to questions and concerns from the letter we co-authored regarding the RTIP and the DEIR, on June 8, 2010 and sent to AMBAG.
Re: Comments for the AMBAG Board of Directors
about the 2010 Monterey Bay Metropolitan Transportation Plan:
Monterey Bay Area Mobility 2035
and Final Supplemental Environmental Impact Report
AMBAG Board of Directors Meeting scheduled for June 9, 2010
at the Marina Library.

This June 8, 2010 letter was filled with examples of adopted Official Plan Lines being ignored and incomplete project traffic mitigations on both built out and being built out projects in Monterey County. We submit this letter again as a portion of our responses to this current DEIR.

A copy of this previous June 8, 2010 submitted letter will be sent in a separate email to better ensure the email comments submitted does not get kicked-back due to the size of the content. Please do include this letter and substantive formal AMBAG and TAMC responses in your FEIR. 13.8

6) Regarding air quality and greenhouse gases, please provide a baseline of the air quality in the three counties today. Please also provide a detailed explanation of air quality standards as population forecasts increase. In other words, provide charts and graphs to reflect governmental standards of acceptable air quality based on population. 13.9
This is important information. Don't you agree? If not, why not?

7) Please provide a detailed explanation of California State Scenic Highway Standards as a baseline. Please also provide a detailed analysis of what can cause designated Scenic Highways to lose their Scenic Highway status. 13.10
Secondly, please provide a list of roadways, or portions of roadways, in the Tri-County area that are currently eligible for Scenic Highway Status. 13.11
Third, please provide an explanation as to what local entities can to do get these eligible roadways officially designated as Scenic. 13.12
This is necessary as the Programmed EIR as currently written, seems to reveal loss of rural character over to increasing urbanization. 13.13
Where is the economic analysis on the potential impacts to tourism, housing values, Please explain. This is important information, don't you agree? If not, why not? 13.14

8) Regarding wildlife, this document has a considerable amount of wildlife material, but in the small print we find that a survey will be done for specific project and if none found, no further action is necessary. This bypasses detailed explanation of the process and procedure as to who does the survey, how are they chosen, when is it made public, are local residents to be asked as to their observations as part of the survey? 13.15

Transparency is very important regarding wildlife surveys. Don't you agree? 13.15

Thank you for the opportunity to comment.

Respectfully,

Mike Weaver
Chair, The Highway 68 Coalition
831-484-6659

Response to Letter 13

Response 13.1

This is a comment on the 2035 MTP/SCS itself and not on the EIR evaluating the environmental impact of the 2035 MTP/SCS, and no response is required. Nevertheless, the MTP contains a compilation of the projects proposed in the Regional Transportation Plans (RTPs) prepared by the Council of San Benito County Governments (SBtCOG), the Santa Cruz County Regional Transportation Commission (SCCRTC) and the Transportation Agency for Monterey County (TAMC) as the state-designated Regional Transportation Planning Agencies (RTPAs) for San Benito, Santa Cruz, and Monterey counties, respectively. The MTP is a document used to achieve a coordinated and balanced regional transportation system. Therefore, the Program EIR provides a regionwide evaluation of the 2035 MTP/SCS as well as the RTPs compiled within the 2035 MTP/SCS.CEQA encourages the reduction of delay and paperwork, to eliminate repetitive discussion, and to "tier" environmental analyses through such means as Program EIRs, which is the process being followed here. Because the MTP/SCS by its nature includes and encompasses the RTPs of the three county agencies, it is only logical that a single Environmental Impact Report be prepared, so that the public can go to a single, comprehensive document.

Response 13.2

This is a comment on the 2035 MTP/SCS itself and not on the EIR evaluating the environmental impact of the 2035 MTP/SCS, and no response is required. Nevertheless, the title is consistent with the objective of the 2035 MTP/SCS which is to develop an integrated transportation and land use plan that meets mobility needs and reduces GHG emissions the targets set by CARB. SB 375 requires the development of a Sustainable Communities Strategy that includes a transportation and land use plan.

Response 13.3

This is a comment on the 2035 MTP/SCS itself and not on the EIR evaluating the environmental impact of the 2035 MTP/SCS, and no response is required. Nevertheless, the projects that comprise the RTP portion of the 2035 RTP/SCS, were compiled by the three RTPA's in the AMBAG region. The projects are intended to improve circulation within the region, address congestion issues and improve access to alternative modes of travel. While important for prioritizing specific projects and focusing the allocation of funding to sponsoring agencies, a regional baseline Level of Service evaluation was not performed for the 2035 MTP/SCS and EIR. A Level of Service evaluation will be performed for specific highway and local street projects as part of the planning, design, and environmental review process.

Response 13.4

This is a comment on the 2035 MTP/SCS itself and not on the EIR evaluating the environmental impact of the 2035 MTP/SCS, and no response is required. Nevertheless, the RTPA's and sponsoring agencies have likely considered pavement conditions as part of the process to identify specific projects to include in the RTP's prepared for each county in the AMBAG region. It is beyond the scope of this EIR to include a detailed baseline analysis of pavement

conditions. Highway operation, maintenance, and rehabilitation projects for Monterey County as well as funding estimates are shown in Tables B-3, B-14, and B-22 in Appendix B of the 2035 MTP/SCS Draft EIR.

Response 13.5

This is a comment on the 2035 MTP/SCS itself and not on the EIR evaluating the environmental impact of the 2035 MTP/SCS, and no response is required. Nevertheless, the sources for revenue are described in detail in Chapter 3 of the 2035 MTP/SCS as well as in Appendix B of the 2035 MTP/SCS EIR. With respect to the phrase "more baseline is needed" in the comment, Table 3-1 of the 2035 MTP/SCS provides a quick reference for the sources of funding available for all tri-county projects contained in the 2035 MTP/SCS. Additional county level information can be found in the Regional Transportation Plan for Monterey County prepared by the Transportation Agency for Monterey County (TAMC). The funding assumptions for the 2035 MTP/SCS and TAMC's RTP are consistent. Details regarding the timing of funding and the sponsoring agencies that will receive the funding will be determined over the coming 4-year 2035 MTP/SCS implementation cycle.

Response 13.6

This is a comment on the 2035 MTP/SCS itself and not on the EIR evaluating the environmental impact of the 2035 MTP/SCS, and no response is required. Nevertheless, a sales tax measure, not a property or parcel tax, is identified and included as a potential future revenue source as part of the Regional Transportation Plan for Monterey County and the 2035 MTP/SCS. Additional rationale for why this source of revenue is considered to be "reasonably available" has been added to both the MTP/SCS (Chapter 3) and RTP documents. The MTP/SCS is required to be updated every 4 years, including revising revenues forecasts. AMBAG and TAMC will continue to monitor the progress of all potential revenue sources for the next MTP/SCS scheduled to be updated in 2018.

Response 13.7

This is a comment on the 2035 MTP/SCS itself and not on the EIR evaluating the environmental impact of the 2035 MTP/SCS, and no response is required. This comment is addressed in AMBAG's response to comments on the 2035 MTP/SCS (Appendix I). Detailed information on the Regional Growth Forecast is included in Appendix A to the 2035 MTP/SCS.

Response 13.8

The comment letter and responses are included in the Final EIR.

Response 13.9

Baseline Air Quality information for the AMBAG region is provided in Section 4.2.1, Setting.

Response 13.10

The thresholds of significance for Aesthetic impacts discussed under CEQA are found in Appendix G of the CEQA Guidelines. With respect to this comment, the criteria in the EIR properly focus on determining whether the project would impact a scenic vista or substantially impact scenic resources within a state scenic highway corridor. The baseline discussion focuses on identifying these resources within the region which is included in Section 4.1.1(b) – Primary Viewing Corridors. Providing material regarding the designation of scenic highway and factors that would cause a designated corridor to lose the status is not part of a review of the environmental impacts of a proposed project, is not needed for a programmatic analysis of such impacts, and is beyond the scope of the EIR.

Response 13.11

See the response to Comment 13.10 above.

Response 13.12

Identifying the steps local agencies can take to get eligible roadways formally designated scenic is not an environmental issue, so no response is provided.

Response 13.13

It is acknowledged that implementation of projects in the 2035 MTP/SCS could contribute to the alteration of the Monterey Bay area aesthetic character, as noted in Impact AES-2.

Response 13.14

As described in Section 15131 of the CEQA Guidelines, "Economic or social effects of a project shall not be treated as significant effects on the environment." Therefore, this comment does not pertain to an environmental issue. The potential economic impact to tourism and housing values associated with the 2035 MTP/SCS is speculative.

Response 13.15

Details regarding natural resource surveys conducted as part of project-specific environmental review would be addressed at that time. While AMBAG agrees transparency is an important part of the process, the detail requested is not available at the programmatic level and it would be speculative to engage in the type of "detailed explanation" requested.


A M B A G
Association of Monterey Bay Area Governments


Monterey Bay 2035
Moving Forward
Sustainability
Mobility
Accessibility
Economy
Social Equity

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Appendix F Public Comment and Responses

Date:	March 19, 2014
Name:	Larry Barr
Organization:	San Benito County Business Council
Comment format:	Letter
Chapter:	Various chapters

Comment	Response
Thank you very much for COG's consideration of ensuring that local and regional planning organizations utilize the best available, realistic data, processes and community engagement efforts to ensure that all organizations adopt a better basis for planning that is both consistent with local directives as well as recognizes that we need to sustain and foster significant investment to be economically viable and sustainable as a community.	Comment noted.
In your consideration of population growth, the AMBAG MPO and SCS must be consistent with other plans prepared by local, state and federal agencies and reflective of the dramatic economic recovery being experienced in neighboring regions, especially our immediate neighbor to the north, Santa Clara County. Since June 23, 2009 (nearly 5 years) all analyses of the County General Plan have been based on AMBAG's 2008 population forecast of 94,731 by 2035 based on numerous factors explained below. AMBAG's current growth forecasts of 81,000 population by 2035 for their MTO/SCS are too low and are inconsistent with the County Board of Supervisors direction (June 23, 2009 and July 24, 2012) and growth factors available to AMBAG since 2009. For example, AMBAG has given insufficient consideration of the end of the Hollister sewer moratorium, elimination of growth contrail measures, a substantial uptick in the activity of private investment, current and active general plans in all jurisdictions especially in Hollister and San Benito County encouraging residential, commercial and industrial retention and expansion.	A similar comment was submitted to the Association of Monterey Bay Area Governments on the MTP/SCS on March 19, 2014. AMBAG responded to the commenter as a part of the 2035 MTP/SCS. The 2008 Forecast used by the County of San Benito is not grounded in current 2010 Census data, nor does it make use of the most recently available data. In updating the MTP, AMBAG and San Benito COG are required to "base the update on the latest available estimates and assumptions for population, land use, travel, employment, congestion and economic activity." (2010 California Regional Transportation Plan Guidelines, p. 41: Title 23 CFR Part 450.322(e).) By way of background, AMBAG staff met with staff from the County of San Benito on numerous occasions to discuss the updated forecast which has been in development since 2011. The County indicated they would use the prior 2008 forecast for the County General Plan since the updated forecast was not ready when the General Plan was first prepared. County staff was aware of the fact that the updated forecast would be lower for the County of San Benito and the region as a

Comment	Response
	whole given that the 2008 forecast was prepared prior to the recession and the projections have not come to fruition in any of the three counties. In August 2012, AMBAG representatives for the County of San Benito and the City of Hollister voted to approve the updated forecast with these lower numbers. The forecast is high enough to accommodate a nearly doubling of the population within the County and therefore is consistent with Plans for increased growth in the County of San Benito. It should be noted that the forecast will be updated every four years and as such will be revised again after the MTP/SCS is adopted.
We ask that COG, this Thursday, adopts Agenda item number 8, the growth forecast, scenario number 4, and that AMBAG be requested to adopt that forecast for its MTP/SCS.	Refer to response to comment above regarding the AMBAG Growth Forecast.
The San Benito County Business Council further asks that you encourage the COG board to release a SBC RTP consistent with these growth projections and direct the RTP ad hoc committee to continue its work with AMBAG, Caltrans and the Federal Department of Transportation's Highway Administration Highway to extend the timeline for consideration of a final EIR and adoption of the MTP and SCS that allows proper engagement with the San Benito County community and agencies to review and for full consideration of transportation funding. The overly aggressive timelines and current processes have simply not provided adequate time for our undercompensated elected officials and understaffed agencies to review and analyze the sheer volume of information contained in those plans as well as our own regional transportation plan. Finally, as reflected in the low participation rate of San Benito County residents in AMBAG workshops, the public participation plan and process is inadequate and insufficient to reach our diverse and commute-reliant population.	AMBAG and San Benito COG continue to coordinate with state and federal agencies. The timeline for this Regional Transportation Plan and MTP/SCS is legally mandated and is used by other regions. In 2009, AMBAG and San Benito COG (COG Resolution 2009-13) elected to move to a four year cycle for the MTP and RTP, respectively, as provided by law, to be consistent with SB 375, the development of the Sustainable Communities Strategy, and the Regional Housing Needs Assessment. Despite the timeline, AMBAG and San Benito COG have exceed all public outreach requirements. There have been numerous opportunities for public and elected officials to comment during the development of the MTP and San Benito Regional Transportation Plan. To date, AMBAG, in coordination with San Benito COG, has conducted three series of public workshops, each of which included a workshop in Hollister. AMBAG staff held over one hundred one-on-one meetings with local cities and counties planning staff which included discussions about the forecast, the Metropolitan Transportation Plan and local plans. In 2012, the Planning Directors Forum met on a regular basis and provided input on the planning process. The Planning Directors Forum includes representatives from all the cities and the counties in the region. AMBAG gave

Comment	Response
	presentations to the Technical Advisory Committees of the San Benito Council of Governments in addition to its Board of Directors. Online surveys and telephone surveys were conducted in all three of the counties, including more than 300 individuals in San Benito County, in order to capture the audience that is not likely to attend a workshop. All public workshops were held in the evening to accommodate commuter travel. Email blasts, Facebook posts, newspaper ads, flyers and website postings were used to notify people of events and opportunities to comment on the planning process. Additionally, San Benito COG partnered with the Hollister Downtown Association to help gather input on the San Benito Regional Transportation Plan and the AMBAG MTP/SCS. In 2013, San Benito COG staff presented at various community groups and solicited input at the Hollister Farmers Market on two occasions.
As reflected in our comments on the County General Plan update, our comments and suggestions on this matter are intended to strike a balance between the need to sustain and protect important resources, which we support, with the need to permit the County to thrive, expand and enhance the community job base, improve the economic climate, support a superior quality of life and actively contribute to the wellbeing of the communities of San Benito County.	Comment noted.

Date:	March 21, 2014
Name:	Aileen Loe
Organization:	Caltrans, District 5
Comment format:	Letter
Chapter:	General

Comment	Response
This letter is provided in a spirit of partnership and cooperation for the continued success of the Council of San Benito County Governments (San Benito COG) as the Regional Transportation Planning Agency addressing important transportation needs throughout the county.	Comment noted.
The action by the San Benito COG Board of Directors at its March 20, 2014 meeting directed staff to use a recently updated version of the 2010 San Benito County Traffic Model. The California Department of Transportation (Caltrans) cannot support this decision. Because the county model is not consistent with the federally recognized Regional Travel Demand Model maintained by the Association of Monterey Bay Area Governments (AMBAG), it will not be acceptable for state and federal transportation planning purposes. To remain eligible for state and federal funds for both planning activities and programming of capital improvements countywide, the San Benito COG must build upon the foundation provided by the AMBAG model. This is also fundamental for the validity of the Regional Transportation Plan.	The draft and final Regional Transportation Plan uses the Regional Travel Demand Model maintained by the Association of Monterey Bay Area Governments as the basis for its performance evaluation. Throughout the document, reference to the Regional Travel Demand Model has been used.
I encourage San Benito COG to continue working in partnership with AMBAG for appropriate use of the Regional Travel Demand Model to meet the goals of San Benito County. Please contact me if you would like to discuss this further.	Comment noted.

Date:	April 14, 2014
Name:	Ben Tripousis and Mark McLoughlin
Organization:	California High-Speed Rail Authority
Comment format:	Letter
Chapter:	Regional Issues and Overall Policy Approach and Investments in Our Transportation Future

Comment	Response
Thank you for the opportunity to comment on the San Benito County Draft Regional Transportation Plan. The San Benito Council of Governments' (SBCOG) Draft Regional Transportation Plan (RTP) includes important goals for economic vitality, access and mobility, social equity, and promoting an integrated multimodal transit network and healthy communities. These same principals are shared by the California High-Speed Rail Authority (Authority) and would be supported by the implementation of California's high-speed rail system.	Comment noted.
The construction and operation of the high-speed rail project is a reasonably foreseeable project in close proximity of the SBCOG planning area, and within the planning horizon of the proposed RTP. The Authority suggests that SBCOG consider the adopted planning and environmental documents for the high-speed rail project both the effects of its construction and its operation, in its evaluation of the cumulative impacts from implementation of the proposed RTP. The documents that may be used to describe the project include but are not limited to the following: • Draft 2014 Business Plan (anticipated to be adopted in May 2014); • Statewide Final Program EIR/EIS (adopted by the Board of Directors on November 2, 2005; Record of Decision received from Federal Railroad Administration on November 18, 2005). These documents are available on the Authority's website: www.hsr.ca.gov.	Connections to the Gilroy Caltrain and Greyhound station are included in the draft project list and further enhanced in the final project list. The Regional Transportation Plan is updated every four years. As the High-Speed Rail gets closer to fruition, SBCOG, in consultation with the San Benito County Local Transportation Authority, will consider more robust service to the rail and bus station in Gilroy.
The Authority encourages the SBCOG to prioritize transit connectivity and to work with local transit	Comment noted.

Comment	Response
providers, especially intercounty service between Santa Clara County and San Benito County by San Benito County Express, to plan for transit connections to and from a future high-speed rail station in Gilroy.	
The Authority is available to assist in the refinement of the proposed RTP for analysis or the development of alternatives regarding transit connectivity to reduce environmental impacts.	Comment noted.

Date:	April 17, 2014
Name:	Bob Scales
Organization:	Parsons Transportation Group
Comment format:	Public Testimony
Chapter:	Various

Comment	Response
Mr. Scales stated that at the recent Board of Supervisors meeting it was suggested by at least three of the members that the Regional Transportation Plan consider reporting a range of results. The range reflecting the AMBAG draft population projections and the projections that are reflected in the County General Plan. He stated that he took the initiative to provide editorial comments on the 8 or 9 pages in the Draft Regional Transportation Plan that would be affected. He provided copies for consideration with mark-ups showing highlighted text and underlined what was deleted and what was added. Mr. Scales mentioned that Parsons just completed the traffic study on a three billion dollar High Desert Corridor project in Southern California. He stated that they don't use the recently adopted model, but the prior version of the regionally adopted model because the current version has a lot of controversy about it. They also use the prior version of the regionally adopted population forecast because no one in the High Desert Corridor area believes in the current version, which are driven solely by an effort to reduce vehicle miles of travel and cut down the population in the High Desert Corridor. He stated that his point was that flexibility is permitted in these project, Caltrans District 7 (Los Angeles County), Caltrans District 8 (San Bernardino County), and all of the member entities found what they did fine and it was all agreed upon by the project development team.	The 2008 Forecast used by the County of San Benito is not grounded in current 2010 Census data, nor does it make use of the most recently available data. In updating the MTP, AMBAG and San Benito COG are required to "base the update on the latest available estimates and assumptions for population, land use, travel, employment, congestion and economic activity." (2010 California Regional Transportation Plan Guidelines, p. 41: Title 23 CFR Part 450.322(e).) By way of background, AMBAG staff met with staff from the County of San Benito on numerous occasions to discuss the updated forecast which has been in development since 2011. The County indicated they would use the prior 2008 forecast for the County General Plan since the updated forecast was not ready when the General Plan was first prepared. County staff was aware of the fact that the updated forecast would be lower for the County of San Benito and the region as a whole given that the 2008 forecast was prepared prior to the recession and the projections have not come to fruition in any of the three counties. In August 2012, AMBAG representatives for the County of San Benito and the City of Hollister voted to approve the updated forecast with these lower numbers. The forecast is high enough to accommodate a nearly doubling of the population within the County and therefore is consistent with Plans for increased growth in the County of San Benito. It should be noted that the forecast will be updated every four years and as such will be revised again after the MTP/SCS is adopted. The Regional Travel Demand Model was used and provides the basis for the 2011 update of the Traffic Impact Mitigation Fee Nexus Study and the basis for all Caltrans projects including the

Comment	Response
	San Benito Route 156 Improvement Project and the Highway 25 Widening Project. The draft and final Regional Transportation Plan use the Regional Travel Demand Model maintained by the Association of Monterey Bay Area Governments as the basis for its performance evaluation. Throughout the document, reference to the Regional Travel Demand Model has been used.

Date:	April 17, 2014
Name:	Jeff Gilles
Organization:	L+G LLP Attorneys at Law
Comment format:	Public Testimony
Chapter:	Various

Comment	Response
Mr. Gilles reiterated his comments regarding Item 5(c). He recommended that any action on 5(c) be postponed until after there is an opportunity to meet with Simon Salinas, AMBAG and AMBAG's Counsel, Chair Gomez, Director Muenzer, and Lisa Rheinheimer. This will allow time to determine if there is an issue with the Regional Transportation Plan (RTP) and the Environmental Impact Report (EIR) from AMBAG. He stated that he was confident that if everyone works together they will be able to resolve any issues and move forward. *During Public Comment on the April 17, 2014 COG Agenda, Mr. Gilles provided these comments which were referred to during his public testimony during the Public Hearing:* Mr. Gilles provided the Board a copy of a letter from him addressed to Simon Salinas. The letter is an effort to set up an all hands meeting with AMBAG, AMBAG's General Counsel, with regard to this issue (growth forecast, Highway 25 Widening, and Shore Road extension) which seems to be growing between San Benito COG and AMBAG. He also recommended that Simon Salinas consider extending an invitation to the COG Chair, COG's Executive Director, and the Chair of the Board of Supervisors to have a productive discussion with regard to the letter from Aileen Loe from Caltrans. He stated that he believed this issue could be resolved by everyone getting together and talking about solutions as opposed to advocating their respective differences. He mentioned that the meeting between Simon Salinas, AMBAG and other respective parties could occur April 28th, 29th, or 30th depending on everyone's schedules.	The 2008 Forecast used by the County of San Benito is not grounded in current 2010 Census data, nor does it make use of the most recently available data. In updating the MTP, AMBAG and San Benito COG are required to "base the update on the latest available estimates and assumptions for population, land use, travel, employment, congestion and economic activity." (2010 California Regional Transportation Plan Guidelines, p. 41: Title 23 CFR Part 450.322(e).) By way of background, AMBAG staff met with staff from the County of San Benito on numerous occasions to discuss the updated forecast which has been in development since 2011. The County indicated they would use the prior 2008 forecast for the County General Plan since the updated forecast was not ready when the General Plan was first prepared. County staff was aware of the fact that the updated forecast would be lower for the County of San Benito and the region as a whole given that the 2008 forecast was prepared prior to the recession and the projections have not come to fruition in any of the three counties. In August 2012, AMBAG representatives for the County of San Benito and the City of Hollister voted to approve the updated forecast with these lower numbers. The forecast is high enough to accommodate a nearly doubling of the population within the County and therefore is consistent with Plans for increased growth in the County of San Benito. It should be noted that the forecast will be updated every four years and as such will be revised again after the MTP/SCS is adopted. The Highway 25 Widening Phase I project was on the2010 Regional Transportation Plans because sufficient funding was identified to pay for the project. The funding outlook has changed since 2010. San Benito COG and AMBAG are required

Comment	Response
	to demonstrate fiscal constraint in preparing their RTP and MTP. Title 23 CFR Part 450.104 provides the following definition of fiscal constraint or fiscally constrained: "(it) means that the metropolitan transportation plan, TIP, and STIP includes sufficient financial information for demonstrating that projects in the metropolitan transportation plan, TIP and STIP can be implemented using committed, available or reasonably available revenue sources, with reasonable assurance that the federally supported transportation system is being adequately operated and maintained. For the TIP and the STIP, financial constraint/fiscal constraint applies to each programming year. Additionally, projects in air quality nonattainment and maintenance areas can be included in the first two years of the TIP or STIP only if funds are 'available' or 'committed'." The Highway 25 Widening Phase I and Phase II projects are included on the project list as unconstrained in the Final Regional Transportation Plan. Staff did not propose the Highway 25 Widening Phase I and II in the Draft San Benito Regional Transportation Plan on the constrained list of projects due to four prior COG Board actions described below: 1. In February 2013, the COG Board directed COG staff to include only core financial assumptions as a part of the RTP update. The COG Board specifically discussed a mileage base user fee/vehicle mileage fee and local sales tax for transportation as possible additional funding sources. The COG Board directed staff to assume that additional funding beyond the core funding available today would not be available in the 20-year planning horizon. Based on this Board direction, there are only three major core sources of funding eligible for Highway 25 Widening: 1) Traffic Impact Mitigation Fees, 2) State

Comment	Response
	Transportation Improvement Program, and 3) Regional Surface Transportation Program. These funding sources are further detailed below. 2. The COG Board, Hollister City Council, and County Board of Supervisors removed the largest funding source for Highway 25 Widening in 2011 when they approved the Traffic Impact Mitigation Fee Nexus Study without the Highway 25 Widening project on the list. This document is available on the Council of Governments website at: www.sanbenitocog.org. 3. The Council of Governments Board has advanced State Transportation Improvement Program (STIP) funds for the Highway 156 Project. Returning to a $0 balance will likely take 4-6 years. The Council of Governments is advancing over $6 million for the San Benito Route 156 Improvement Project. Additionally, future STIP funding does not raise enough to pay for the deficiency share of the Highway 25 Widening Project. The Traffic Impact Mitigation Fee Nexus Study shows an existing deficiency on Highway 25 which could not be paid for through the Traffic Impact Mitigation Fee program by new development per state law. Government Code Section 66001(g) states "A fee shall not include the costs attributable to existing deficiencies in public facilities, but may include the costs attributable to the increased demand for public facilities reasonably related to the development project in order to (1) refurbish existing facilities to maintain the existing level of service or (2) achieve an adopted level of service that is consistent with the general plan." 4. The COG Board in August 2013 provided direction to COG staff to prioritize local streets and roads maintenance in the

Comment	Response
	Sustainable Communities Strategy and San Benito RTP. This action directed Regional Surface Transportation Program funding to local streets and roads maintenance and repair needs rather than for funding the Highway 25 Widening Phase I or II projects. The Hybrid Scenarios project list was presented to the San Benito COG Board and action was taken at the meeting to direct staff to prioritize local streets and roads maintenance. The list represented the constrained projects for inclusion in the Draft Regional Transportation Plan and Draft Metropolitan Transportation Plan. The Board of Directors accepted the project list presented at the meeting as a handout. While funding is not identified in the Regional Transportation Plan for fiscal constraint reasons, the Highway 25 corridor is still important. San Benito COG will work with the Federal Highway Administration and Caltrans to grant an extension to complete the environmental document. If the Federal Highway Administration grants an extension on completing the environmental document, the project team will work on the project design, environmental, funding and schedule over the next several years. The Shore Road extension was not proposed on the project list because there have been no adopted plans to support its inclusion.

Date:	April 17, 2014
Name:	Walt Allen
Organization:	Parsons Transportation Group
Comment format:	Public Testimony
Chapter:	Investments in Our Transportation Future (Action Plan)

Comment	Response
Mr. Allen stated that he worked for the San Benito COG for three years starting in 1998. He was appointed Interim Executive Director for six months to replace Mr. Max Bridges and prior to the Board appointing Mr. George Lewis. Mr. Allen stated that he left COG in 2001 to work for the Transportation Agency for Monterey County (TAMC) and joined Parsons in 2007. Mr. Allen stated that during his time at COG he was responsible for hiring Lisa Rheinheimer and Mary Gilbert and they were all actively involved in efforts to make Highway 25 safer. He stated that he pledged to work to make Highway 25 as safe as possible in honor of 12 people who were killed on Highway 25 in 2000. He mentioned that improvements have been made to Highway 25 in 2003 and 2011, which have substantially reduced collisions and fatalities. He stated that as part of the continued effort to improve safety and mobility on Highway 25, COG has made Highway 25 Widening a high priority since 2000. He stated that COG's Executive Director, George Lewis personally obtained a commitment for $2 million from the Santa Clara Valley Transportation Authority (VTA) in 2001 and COG has since obtained various amounts of funds totaling $6.8 in Federal, VTA, and COG sources to prepare an environmental document, which will approve the ultimate alignment and allow construction of projects. Mr. Allen stated that he was appalled that COG's Executive Director did not specify that the Highway 25 Widening project was going to be removed from the constrained list of projects to be built in the San Benito Transportation Plan, and did so without informing the Board of this action. Mr. Allen stated that the project has been in the San Benito Regional Transportation Plan as a constrained project since 2005, since that time the COG Board has never voted to take Highway 25 off the list. Mr. Allen stated that on February 21, 2013 the COG Board accepted the Regional	The Highway 25 Widening Phase I and Phase II projects were on previous Regional Transportation Plans because sufficient funding was identified to pay for the project. The funding outlook has changed since 2010. San Benito COG and AMBAG are required to demonstrate fiscal constraint in preparing their RTP and MTP. Title 23 CFR Part 450.104 provides the following definition of fiscal constraint or fiscally constrained: "(it) means that the metropolitan transportation plan, TIP, and STIP includes sufficient financial information for demonstrating that projects in the metropolitan transportation plan, TIP and STIP can be implemented using committed, available or reasonably available revenue sources, with reasonable assurance that the federally supported transportation system is being adequately operated and maintained. For the TIP and the STIP, financial constraint/fiscal constraint applies to each programming year. Additionally, projects in air quality nonattainment and maintenance areas can be included in the first two years of the TIP or STIP only if funds are 'available' or 'committed'." The Highway 25 Widening Phase I and Phase II projects are included on the unconstrained project list in the Final Regional Transportation Plan. Staff did not propose the Highway 25 Widening Phase I and II in the Draft San Benito Regional Transportation Plan on the constrained list of projects due to four prior COG Board actions described below: 1. In February 2013, the COG Board directed COG staff to include only core financial assumptions as a part of the RTP update. The COG Board specifically discussed a mileage base user fee/vehicle mileage fee

Comment	Response
Transportation Plan list and core financial assumptions and there were two Highway 25 Widening Projects on this list. He stated that the June 2013 TAC minutes show that they reviewed and recommend approval of the revised project list and also identified that staff add a constrained and unconstrained project list for 2020 and 2035. The TAC directed COG staff to present this list of projects to the COG Board, the COG Board never received or voted on that list.	and local sales tax for transportation as possible additional funding sources. The COG Board directed staff to assume that additional funding beyond the core funding available today would not be available in the 20-year planning horizon. Based on this Board direction, there are only three major core sources of funding eligible for Highway 25 Widening: Traffic Impact Mitigation Fees, the State Transportation Improvement Program, and the Regional Surface Transportation Program. These funding sources are further detailed below. 2. The COG Board, Hollister City Council, and County Board of Supervisors removed the largest funding source for any Highway 25 Widening in 2011 when they approved the Traffic Impact Mitigation Fee Nexus Study without the Highway 25 Widening project on the list. This document is available on the Council of Governments website at: www.sanbenitocog.org. 3. The COG Board has advanced State Transportation Improvement Program (STIP) funds for the Highway 156 Project. Returning to a $0 balance will likely take 4-6 years. The Council of Governments is advancing over $6 million for the San Benito Route 156 Improvement Project. Additionally, future STIP funding does not raise enough to pay for the deficiency share of the Highway 25 Widening Project. The Traffic Impact Mitigation Fee Nexus Study shows an existing deficiency on Highway 25 which could not be paid for through the Traffic Impact Mitigation Fee program by new development per state law. Government Code Section 66001(g) states "A fee shall not include the costs attributable to existing deficiencies in public facilities, but may include the costs attributable to the increased demand for

Comment	Response
	public facilities reasonably related to the development project in order to (1) refurbish existing facilities to maintain the existing level of service or (2) achieve an adopted level of service that is consistent with the general plan." 4. The COG Board in August 2013 provided direction to COG staff to prioritize local streets and roads maintenance in the Sustainable Communities Strategy and San Benito RTP. This action directed Regional Surface Transportation Program funding to local streets and roads maintenance and repair needs rather than for funding the Highway 25 Widening Phase I or II projects. The Hybrid Scenarios project list was presented to the San Benito COG Board and action was taken at the meeting to direct staff to prioritize local streets and roads maintenance. The list represented the constrained projects for inclusion in the Draft Regional Transportation Plan and Draft Metropolitan Transportation Plan. The Board of Directors accepted the project list presented at the meeting as a handout. While funding is not identified in the Regional Transportation Plan for fiscal constraint reasons, the Highway 25 corridor is still important. San Benito COG will work with the Federal Highway Administration and Caltrans to grant an extension to complete the environmental document. If the Federal Highway Administration grants an extension on completing the environmental document, the project team will work on the project design, environmental, funding and schedule over the next several years.

Date:	April 17, 2014
Name:	Kristina Chavez Wyatt
Organization:	San Benito County Business Council
Comment format:	Public Testimony
Chapter:	Investments in Our Transportation Future (Action Plan)

Comment	Response
Ms. Chavez -Wyatt stated that she wanted to reiterate some of the comments and requests that were made by the SBC Business Council regarding population forecasts and the process and procedure for developing the Regional Transportation Plan in cooperation with the AMBAG Metropolitan Transportation Plan (MTP) moving forward. Ms. Chavez-Wyatt read the letter that was presented to the Board from the San Benito County Business Council dated April 8, 2014.	See response to San Benito County Business Council letter dated March 19, 2014 above.

Date: April 21, 2014
Name: John W. Eade
Organization:
Comment format: Letter
Chapter: Investments in Our Transportation Future (Action Plan)

Comment	Response
I am writing to provide comments on the draft 2035 San Benito Regional Transportation Plan (RTP). I believe that it is essential for the 2035 San Benito RTP to include the SR 25 Widening project, that was described in the March 20 draft RTP which RTP represents a major improvement over the February 20, 2014 San Benito RTP that was initially proposed by COG staff.	The draft San Benito Regional Transportation Plan includes several improvement projects for Highway 25 north of Hollister. The first is the Highway 25 Operational Enhancements project which would construct passing lanes to help improve capacity and reduce time spent following. The second project is the Highway 25 4-Lane Widening Phase I between San Felipe Road to Hudner Lane. The third project is Highway 25 4-Lane Widening Phase II between Hudner Lane and a new Route 152 near the County line. The Highway 25 4-Lane Widening Projects Phase I and II are identified in the unconstrained project list in the Final Regional Transportation Plan.
The February 20 draft RTP mentioned the SR 25 Widening project and even put it on an illustration, but clearly mislead the public into thinking that the SR 25 widening project would be a funded part of the 2035 San Benito RTP.	The Highway 25 Widening Phase I and Phase II projects are included on the unconstrained project list in the Final Regional Transportation Plan. Figure 5-5 has been revised to better illustrate the constrained, unconstrained, and funded by others roadway improvement projects.
You, of course knew that the February 20 draft RTP lacked a separate list for Constrained and Unconstrained Projects, leaving it unclear to the general public which projects, making it certain that Caltrans could actually not approve the proposed RTP, much less ever widen SR 25.	The Highway 25 Widening Phase I and Phase II projects are included on the unconstrained project list in the Final Regional Transportation Plan. In August 2013, the COG Board of Directors reviewed the constrained project list as a part of a discussion on the Sustainable Communities Strategy and Hybrid Scenarios prepared by AMBAG. Appendix C has been revised in the Final RTP to provide clarity to the project list with respect to constrained, unconstrained, and funded by others.

Comment	Response
You also knew but buried the fact that the SR 25 widening project was also omitted from the AMBAG 2035 MTP/SCS and the EIR for the AMBAG 2035 MTP/SCS. These projects could clearly never be built in San Benito County within the next 25 years.	The Highway 25 Widening Phase I and Phase II projects are included on the unconstrained project list in the Final Regional Transportation Plan.
The COG Board needs to work with AMBAG to make sure that this project also appears in the AMBAG 2035 MTP/SCS and its EIR.	At this moment, Highway 25 Widening Phase I and Phase II projects cannot be added to the AMBAG 2035 MTP/SCS and EIR or the San Benito Regional Transportation Plan for fiscal constraint reasons as provided in Title 23 CFR Part 450.104.
As you well know the SR 25 Widening project was included as a constrained project in 2005 and 2010 San Benito RTPs. The project also appeared in the AMBAG MTP/EIR project lists for those years. Since that time, the COG Board has never voted to take the SR 25 Widening project off the RTP list. It is unconscionable that the COG staff decided unilaterally to take the SR 25 Widening project off the RTP list of funded projects and therefore ensure that the SR 25 Widening project is not going to expeditiously move forward for another 10 years or more. You cannot operate in the haphazard reckless manner you have in the past few months without inviting certain legal consequences.	The Highway 25 Widening Phase I project was on the previous 2010 Regional Transportation Plan constrained project list because sufficient funding was identified to pay for the project. The funding outlook has changed since 2010. San Benito COG and AMBAG are required to demonstrate fiscal constraint in preparing their RTP and MTP. Title 23 CFR Part 450.104 provides the following definition of fiscal constraint or fiscally constrained: "(it) means that the metropolitan transportation plan, TIP, and STIP includes sufficient financial information for demonstrating that projects in the metropolitan transportation plan, TIP and STIP can be implemented using committed, available or reasonably available revenue sources, with reasonable assurance that the federally supported transportation system is being adequately operated and maintained. For the TIP and the STIP, financial constraint/fiscal constraint applies to each programming year. Additionally, projects in air quality nonattainment and maintenance areas can be included in the first two years of the TIP or STIP only if funds are 'available' or 'committed'." The Highway 25 Widening Phase I and Phase II projects are included on the project list as unconstrained in the Final Regional Transportation Plan. Staff did not propose the Highway 25 Widening Phase I and II in the Draft San Benito Regional Transportation Plan on the constrained list of

Comment	Response
	projects due to four prior COG Board actions described below: 1. In February 2013, the COG Board directed COG staff to include only core financial assumptions as a part of the RTP update. The COG Board specifically discussed a mileage base user fee/vehicle mileage fee and local sales tax for transportation as possible additional funding sources. The COG Board directed staff to assume that additional funding beyond the core funding available today would not be available in the 20-year planning horizon. Based on this Board direction, there are only three major core sources of funding eligible for Highway 25 Widening: 1) Traffic Impact Mitigation Fees, 2) State Transportation Improvement Program, and 3) Regional Surface Transportation Program. These funding sources are further detailed below. 2. The COG Board, Hollister City Council, and County Board of Supervisors removed the largest funding source for any Highway 25 Widening in 2011 when they approved the Traffic Impact Mitigation Fee Nexus Study without the Highway 25 Widening project on the list. This document is available on the Council of Governments website at: www.sanbenitocog.org. 3. The COG Board has advanced over $6 million in State Transportation Improvement Program (STIP) funds for the Highway 156 Project since 2008. Returning to a $0 balance will likely take 4-6 years. Additionally, future STIP funding does not raise enough to pay for the deficiency share of the Highway 25 Widening Project. The Traffic Impact Mitigation Fee Nexus Study shows an existing deficiency on Highway 25 which could not be paid

Comment	Response
	for through the Traffic Impact Mitigation Fee program by new development per state law. Government Code Section 66001(g) states "A fee shall not include the costs attributable to existing deficiencies in public facilities, but may include the costs attributable to the increased demand for public facilities reasonably related to the development project in order to (1) refurbish existing facilities to maintain the existing level of service or (2) achieve an adopted level of service that is consistent with the general plan." 4. The COG Board in August 2013 provided direction to COG staff to prioritize local streets and roads maintenance in the Sustainable Communities Strategy and San Benito RTP. This action directed Regional Surface Transportation Program funding to local streets and roads maintenance and repair needs rather than for funding the Highway 25 Widening Phase I or II projects. The Hybrid Scenarios project list was presented to the San Benito COG Board and action was taken at the meeting to direct staff to prioritize local streets and roads maintenance. The list represented the constrained projects for inclusion in the Draft Regional Transportation Plan and Draft Metropolitan Transportation Plan. The Board of Directors accepted the project list presented at the meeting as a handout. While funding is not identified in the Regional Transportation Plan for fiscal constraint reasons, the Highway 25 corridor is still important. San Benito COG will work with the Federal Highway Administration and Caltrans to grant an extension to complete the environmental document. If the Federal Highway Administration grants an extension on completing the environmental document, the project team will work on the project design, environmental, funding and schedule over the next several years.

Date:	May 22, 2014
Name:	Brandy Rider
Organization:	Caltrans, District 5
Comment format:	Letter
Chapter:	Various chapters

Comment	Response
Page 1-3, First Paragraph. In discussing transportation funding, this section states that there are "*constraints imposed by laws and guidelines which prevent optimizing transportation dollars*…" A discussion of the institutional barriers and limitations is appropriate as it relates to San Benito COG policies.	Additional explanatory text has been added to Chapter 1.
Page 3-1, Federal and State Planning Goals. Regional plans are guided by the goals, policies, and performance measures consistent with the State's long-range plans; along this line we recommend references to California Transportation Plan (CTP) in Draft RTP. Suggested wording to introduce the CTP 2040 may include: *The California Transportation Plan (CTP 2040) is a state-level transportation plan that combines statewide transportation goals with regional transportation and land use plans to produce a unified multimodal transportation strategy. The CTP defines performance-based goals, policies, and strategies to achieve a collective vision and recommendations for California's future, statewide, integrated, multimodal transportation system over the next 25 years.* Also, adding references to the Caltrans five modal plans—California Aviation System Plan, California Freight Mobility Plan, California State Rail Plan, Interregional Transportation Strategic Plan, and California Statewide Transit Strategic Plan can also add context to this section. Generally speaking, along with the goals listed throughout the document, a vision statement can complement policy approaches. Potential language could include: *The San Benito County Regional Transportation Plan calls for a safe, sustainable, globally competitive multimodal*	The suggested text has been added to Chapter 3.

Comment	Response
transportation system that provides reliable and efficient mobility and accessibility of people, goods and services.	
Relationship to CTP Goals (various). The Draft RTP references five of the six CTP 2040 goals—access and mobility, safety and health, environmental stewardship, social equity, and economic benefit (Page 1-1). Another very important goal to consider adding is "Preserving the Multimodal Transportation System." This will likewise be a major goal of the CTP 2040. It was clearly demonstrated from the results of the voting survey that San Benito County residents agreed the most pressing transportation need, according to survey respondents, was repairing and maintaining local streets and roads (Page 8-5). This is consistent with the California State Transportation Agency's infrastructure report which strongly recommends California implements the state's "fix it first" approach to the highway system. California is ranked 48th in the nation in terms of highway conditions, with more than half of the highway lanes either in distressed condition or in need of preventive maintenance. Poor roadway conditions are not only costly to motorists but affect the safety of bicyclists and pedestrians. Maintaining the highway system has a 10 to 1 return on investment over delayed rehabilitation replacement.	Comment noted. The Regional Transportation Plan includes the goal of "System Preservation and Safety". The Council of Governments commitment to system repair and maintenance is reflected in investments identified in the action plan.
Page 3-3, Figure 3 Policy Objectives. Additional details for these policy statements should be provided, including the methodology used for developing and any significant changes from previous versions. In addition, this element should include objectives that link to both long and short-term goals and horizons. The RTP Checklist (Appendix H) states that this is not applicable, but is actually a requirement of California Government Code Section 65080.	Additional explanatory text has been added to Chapter 3.
Page 3-4, Social Equity. The Draft RTP seems to be missing key demographic information that would allow the reader to ascertain the prevalence, makeup, and location of its	Additional explanatory text has been added to Chapter 3.

Comment	Response
disadvantaged populations. This data is needed to support the social equity goals.	
Page 4-4, Bicycle and Pedestrian (Active Transportation). The second bullet in this section refers to the Bicycle Transportation Account (BTA). Please note that the BTA was replaced by the Active Transportation Program (ATP) on September 26, 2013, when Governor Brown signed Senate Bill (SB) 99, Chapter 359, and Assembly Bill (AB) 101, Chapter 354. The ATP consolidates existing federal and state transportation programs, including the Transportation Alternatives Program (TAP), Bicycle Transportation Account (BTA), and State Safe Routes to School (SR2S), into a single program. Reference to ATP should also be updated in section starting on Page 4-17, Active Transportation in Action.	The text in Chapter 4 has been modified to reflect this change to the program.
Page 4-9, Highway 25 Widening. Please change last sentence of paragraph (Page 4-9) to read, "*This project is intended to add capacity along the corridor.*"	The suggested text has been added to Chapter 4.
Page 4-10, State Route 146. Please change reference from a 'rural road' to a '*two-lane conventional highway*.'	The suggested text has been added to Chapter 4.
Page 4-10, State Route 156. Please consider revising the statement in the second paragraph, "*As such, the route has a high priority for completion to facility standards in order to assure a statewide truck system that can handle higher volumes of interregional trip movements."* We recommend, *"As such, the route has a high priority for completion to facility standards in order to handle higher volumes of interregional trip movements and connect all urban areas, goods movement gateways, and rural areas."*	The suggested text has been added to Chapter 4.
Page 4-11, first paragraph. Please add the following changes the last sentence to read, "Once constructed, the existing State *Route* 156 will *become a county road and* will serve as access for residents living on the north side and a bicycle and pedestrian multi-use path connecting bicyclists traveling between Hollister and San Juan Bautista.	The suggested text has been added to Chapter 4.

Comment	Response
Page 4-11, Goods Movement. It would be beneficial to include a map of the regions' highly impacted freight and goods movement routes. Further discussion on the two categories as it relates to project prioritization would be helpful as well.	The suggested map has been added to Chapter 4. Additional text has been added to Chapter 4 relating to freight and goods movement routes.
Page 4-22, Transportation System Management. Please add "weigh-in-motion" after "at-speed" truck scales in the first paragraph of Page 4-22. Also, please remove the word "recently" from the first sentence of the second paragraph referencing the implementation of the Corridor System Management Plans.	The suggested text has been added to Chapter 4.
Page 4-25, Aviation Services. The fourth paragraph, second sentence reads, "*Some land uses are more susceptible to the effects of airport development; as such, an Airport Land Use Compatibility Plan (ALUCP) was prepared for Hollister Municipal Airport and Frazier Lake Airpark*." This sentence does not accurately portray an ALUCP. An ALUCP is not an effect of land uses; it is a plan that is used as a guideline in an effort to prevent incompatible land uses around airports. We recommend this sentence be changed to add more explanation of an ALUCP.	The suggested change has been made to Chapter 4.
Page 4-26, first paragraph, last sentence, states that there are 112 aircraft currently based at the Hollister Municipal Airport. The chart below was excerpted from a database in the California Aviation Systems Plan, Inventory Element, which is posted on the Caltrans Division of Aeronautics website. References to aircraft figures are not consistent with Draft RTP figures. Please advise us if there are changes needed to our data base. The numbers below were reported by the Hollister Municipal Airport Manager or representative when surveyed in 2012-13. Based Aircraft: Single 91 Glider 45 Multi 5 Military 0 Jet 4 Ultralight 20 Helicopter 2 **Total Based Aircraft: 167**	The number of aircraft based at the Hollister Municipal Airport has been modified to reflect the California Aviation Systems Plan, Inventory Element, database.

Comment	Response
Page 5-5, Intelligent Transportation Systems. Additional information to clarify the role San Benito COG has regarding ITS would be appropriate.	Additional explanatory text has been added to Chapter 5.
Page 5-5, Figure 6-4. It appears that three areas (Active Transportation, Transportation Demand Management, and Aviation) are disproportionately affected by a lack of funding availability. This table indicates four areas that are funded at over 50% of their projected need, but the three aforementioned areas are scheduled to receive less than 25% of the funding needed to carry out the plan, including two that are funded less than 10% of their projected need. Those three areas constitute 12% of the projected need, but represent 27.6% of the unfunded needs in the region. Please explain this disparity, particularly considering that many of the Draft RTP stated goals appear to prioritize these categories.	Figure 6-4 has been updated. Only a small percentage of funding identified in the Regional Transportation Plan is flexible and the Council of Governments Board in August 2013 voted to prioritize system preservation. Programs available through State and federal governments preclude broad discretion for flexible use across funding programs. In general, transit funding is limited to transit projects and programs and cannot be used for bicycle lanes or aviation projects.
Chapter 7, Climate Change. The Draft RTP recognizes concerns that less rainfall has for the long-term planning of the region. We encourage further discussion how extreme weather events impacts agriculture and the related industries.	Additional explanatory text has been added to Chapter 7.
Chapter 7, Legislative References. There is no specific reference to SB 391, although GHG emission reduction goals AB 32 and SB 375 are referenced throughout the RTP. A summary of SB 391 could enhance the context of this section. SB 375 addresses the regional greenhouse gas (GHG) emissions from the transportation sector and SB 391 addresses the statewide GHG emissions from the transportation sector of AB 32. The following is an example of potential language to include: *SB 391, 2009, requires the California Department of Transportation to prepare the California Transportation Plan (CTP), the long-range transportation plan, by December 2015, to reduce GHG emissions. This system must reduce GHG emissions to 1990 levels from current levels by 2020, and 80 percent below the 1990 levels by 2050, as described by AB 32 and Executive Order S-03-05. The upcoming CTP 2040 will*	Additional explanatory text has been added to Chapter 7.

Comment	Response
demonstrate how major metropolitan areas, rural areas, and state agencies can coordinate planning efforts to achieve critical statewide goals. When asked about protecting the environment in the MetroQuest survey, the results showed that voters were not as concerned about air pollution as an environmental issue (Pages 8-6). The Draft RTP could be a good medium to inform San Benito County residents of these issues. Other potential language could include: *The California Interregional Strategic Plan states, "It is widely accepted that carbon dioxide forms approximately 84 percent of all GHG emissions; this is true in California as in the rest of the world. The impacts from a change in global climate can be felt throughout the region. California has adopted the public policy position that global climate change is 'a serious threat to the economic well-being, public health, natural resources, and the environment of California.'"*	
Page 7-9, Figure 7-8 Performance Targets. We recommend that the "Targets" and "Performance Measures" columns be reversed in the table. As written, the 'pragmatic objective and policy statements' as required by Government Code Section 65080 are not met.	The suggested revision has been made to Figure 7-8.
Appendix C – Please consider including expected dates of completion in the project list. Without project dates, gauging the "year of expenditure" for cost purposes is not possible. Providing the project completion dates will also better establish project priorities for the life of the plan.	The suggested addition has been made to Appendix C.
Appendix H, RTP Checklist. In addition to Chapters, please incorporate specific page numbers as reference as well.	The suggested addition has been made to Appendix H.

SAN BENITO COUNTY BUSINESS COUNCIL

March 19, 2014

Councilmember Victor Gomez, Chairman
Council of San Benito County Governments
330 Tres Pinos Road, Suite C7
Hollister, CA 95023

Re: AMBAG DRAFT METROPOLITAN TRANSPORTATION PLAN (MTP) & SUSTAINABLE COMMUNITIES STRATEGY (SCS)

Dear Chairman Gomez,

Thank you very much for COG's consideration of ensuring that local and regional planning organizations utilize the best available, realistic data, processes and community engagement efforts to ensure that all organizations adopt a better basis for planning that is both consistent with local directives as well as recognizes that we need to sustain and foster significant investment to be economically viable and sustainable as a community.

In your consideration of population growth, the AMBAG MTP and SCS must be consistent with other plans prepared by local, state and federal agencies and reflective of the dramatic economic recovery being experienced in neighboring regions, especially our immediate neighbor to the north, Santa Clara County. Since June 23, 2009 (nearly 5 years) all analyses of the County General Plan have been based on AMBAG's 2008 population forecast of 94,731 by 2035 based on numerous factors explained below. AMBAG's current growth forecasts of 81,000 population by 2035 for their MTP/SCS are too low and are inconsistent with County Board of Supervisors direction (June 23, 2009 and July 24, 2012) and growth factors available to AMBAG since 2009. For example, AMBAG has given insufficient consideration of the end of the Hollister sewer moratorium, elimination of growth control measures, a substantial uptick in the activity of private investment, current and active general plans in all jurisdictions especially in Hollister and San Benito County encouraging residential, commercial and industrial retention and expansion.

We ask that COG, this Thursday, adopt Agenda item number 8, the growth forecast, scenario number 4, and that AMBAG be requested to adopt that forecast for its MTP/SCS.

The San Benito County Business Council further asks that you encourage the COG board to release a SBC RTP consistent with these growth projections and direct the RTP ad hoc committee to continue its work with AMBAG, Caltrans and the Federal Department of Transportation's Highway Administration Highway to extend the timeline for consideration of a final EIR and adoption of the MTP and SCS that allows proper engagement with the San Benito County community and agencies and for full consideration of transportation funding. The overly aggressive timelines and current processes have simply not provided adequate time for our undercompensated elected officials and understaffed agencies to review and analyze the sheer volume of information contained in those plans as well as our own regional transportation plan. Finally, as reflected in the low participation rate of San Benito County residents in AMBAG workshops, the public participation plan and process is inadequate and insufficient to reach our diverse and commute-reliant population.

As reflected in our comments on the County General Plan update, our comments and suggestions on this matter are intended to strike a balance between the need to sustain and protect important resources, which we support, with the need to permit the County to thrive, expand and enhance the community job base, improve the economic climate, support a superior quality of life and actively contribute to the wellbeing of the communities of San Benito County.

Sincere regards,

Larry Barr
President

CC: COG board of directors, COG staff, AMBAG

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STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION
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http://www.dot.ca.gov/dist05/

Flex your power!
Be energy efficient!

March 21, 2014

Victor Gomez, Chairperson
Council of San Benito County Governments
330 Tres Pinos Road, Suite C7
Hollister, CA 95023

Dear Chair Gomez:

This letter is provided in a spirit of partnership and cooperation for the continued success of the Council of San Benito County Governments (San Benito COG) as the Regional Transportation Planning Agency addressing important transportation needs throughout the county.

The action by the San Benito COG Board of Directors at its March 20, 2014 meeting directed staff to use a recently updated version of the 2010 San Benito County Traffic Model. The California Department of Transportation (Caltrans) cannot support this decision. Because the county model is not consistent with the federally recognized Regional Travel Demand Model maintained by the Association of Monterey Bay Area Governments (AMBAG), it will not be acceptable for state and federal transportation planning purposes. To remain eligible for state and federal funds for both planning activities and programming of capital improvements countywide, the San Benito COG must build upon the foundation provided by the AMBAG model. This is also fundamental for validity of the Regional Transportation Plan.

I encourage San Benito COG to continue working in partnership with AMBAG for appropriate use of the Regional Travel Demand Model to meet the goals of San Benito County. Please contact me if you would like to discuss this further.

Sincerely,

AILEEN K. LOE
Deputy District Director

cc Lisa Rheinheimer, Executive Director
Maura Twomey, Executive Director AMBAG

CALIFORNIA
High-Speed Rail Authority
Northern California Regional Office

April 14, 2014

Ms. Mary Gilbert
Transportation Planning Manager
San Benito Council of Governments
330 Tres Pinos Road, Suite C7
Hollister, CA 95023

Re: 2014 Draft Regional Transportation Plan

Dear Ms. Gilbert:

Thank you for the opportunity to comment on the San Benito County Draft Regional Transportation Plan. The San Benito Council of Governments' (SBCOG) Draft Regional Transportation Plan (RTP) includes important goals for economic vitality, access and mobility, social equity, and promoting an integrated multimodal transit network and healthy communities. These same principles are shared by the California High-Speed Rail Authority (Authority) and would be supported by the implementation of California's high-speed rail system.

The construction and operation of the high-speed rail project is a reasonably foreseeable project in close proximity of the SBCOG planning area, and within the planning horizon of the proposed RTP. The Authority suggests that SBCOG consider the adopted planning and environmental documents for the high-speed rail project, both the effects of its construction and its operation, in its evaluation of the cumulative impacts from implementation of the proposed RTP. The documents that may be used to describe the project include but are not limited to the following:

- Draft 2014 Business Plan (anticipated to be adopted in May 2014);
- Statewide Final Program EIR/EIS (adopted by the Board of Directors on November 2, 2005; Record of Decision received from Federal Railroad Administration on November 18, 2005).

These documents are available on the Authority's website: www.hsr.ca.gov.

The Authority encourages the SBCOG to prioritize transit connectivity and to work with local transit providers, especially intercounty service between Santa Clara County and San Benito County by San Benito County Express, to plan for transit connections to and from a future high-speed rail station in Gilroy.

The Authority is available to assist in the refinement of the proposed RTP for analysis or the development of alternatives regarding transit connectivity to reduce environmental impacts.

If you have any questions or concerns, please contact me at (408) 447-5631or ben.tripousis@hsr.ca.gov or Ricci Graham, Information Officer at (408) 227-1086 or ricci.graham@hsr.ca.gov.

Sincerely,

Ben Tripousis
Northern California Regional Director
High-Speed Rail Authority

Mark McLoughlin
Director of Environmental Services
High-Speed Rail Authority

cc: Barbara Gilliland, Director of Planning, Parsons Brinckerhoff
Brian Porter, Senior Environmental Planning Manager, Parsons Brinckerhoff
Caltrans District 5 Planning

JOHN W. EADE
4760 Santa Ana Valley Road
Hollister, CA 95023
johneade@garlic.com

April 21, 2014

Lisa Rheinheimer
Executive Director
San Benito Council of Governments
330 Tres Pinos Road, Suite C7
Hollister, California 95023

SUBJECT: Comments regarding 2035 San Benito Regional Transportation Plan approved for public release by the San Benito COG Board on March 20, 2014

Dear Ms. Rheinheimer:

I am writing to provide comments on the draft 2035 San Benito Regional Transportation Plan (RTP). I believe that it is essential for the 2035 San Benito RTP to include the SR 25 Widening project, that was described in the March 20 draft RTP which RTP represents a major improvement over the February 20, 2014 San Benito RTP that was initially proposed by COG staff.

The February 20 draft RTP mentioned the SR 25 Widening project and even put it on an illustration, but clearly mislead the public into thinking that the SR 25 widening project would be a funded part of the 2035 San Benito RTP. You, of course knew that the February 20 draft RTP lacked a separate list for Constrained and Unconstrained Projects, leaving it unclear to the general public which projects, making it certain that Caltrans could actually not approve the proposed RTP, much less ever widen SR 25. You also knew but buried the fact that the SR 25 widening project was also omitted from the AMBAG 2035 MTP/SCS and the EIR for the AMBAG 2035 MTP/SCS. These projects could clearly never be built in San Benito County within the next 25 years.

The COG Board needs to work with AMBAG to make sure that this project also appears in the AMBAG 2035 MTP/SCS and its EIR.

As you well know the SR 25 Widening project was included as a constrained project in 2005 and 2010 San Benito RTPs. The project also appeared in the AMBAG MTP/EIR project lists for those years. Since that time, the COG Board has never voted to take the SR 25 Widening project off the RTP list. It is unconscionable that the COG staff decided unilaterally to take the SR 25 Widening project off the RTP list of funded projects and therefore ensure that the SR 25 Widening project is not going to expeditiously move forward for another 10 years or more. You cannot operate in the haphazard reckless manner you have in the past few months without inviting certain legal consequences.

Please do all you can to help us "Keep 25 Alive" in San Benito County so that we can plan and implement the infrastructure necessary to improve the economic viability of the County.

Sincerely,

John W. Eade
CC COG Board of Directors

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION
50 HIGUERA STREET
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Flex your power!
Be energy efficient!

May 22, 2014

Lisa Rheinheimer
Executive Director
San Benito County Council of Governments
330 Tres Pinos Road, Suite C7
Hollister, CA 95023

Dear Ms. Rheinheimer:

COMMENTS TO 2035 SAN BENITO REGIONAL TRANSPORTATION PLAN

Thank you for the opportunity to review and comment on the San Benito County Draft Regional Transportation Plan. We value our partnership and look forward to continuing to work with you to improve the mobility on all users of the transportation network in San Benito County.

Attached you will find specific comments that when incorporated we believe can further enhance the document. If you have any questions, or need further clarification on items attached, please don't hesitate to contact me at (805) 549-3970.

Sincerely,

Brandy Rider
Planning Branch Chief, North

Attachment

Attachment

San Benito County Draft Regional Transportation Plan (RTP)

Comments by California Department of Transpiration (Caltrans)

1. Page 1-3, First Paragraph. In discussing transportation funding, this section states that there are "*constraints imposed by laws and guidelines which prevent optimizing transportation dollars…*" A discussion of the institutional barriers and limitations is appropriate as it relates to San Benito COG policies.

2. Page 3-1, Federal and State Planning Goals. Regional plans are guided by the goals, policies, and performance measures consistent with the State's long-range plans; along this line we recommend references to California Transportation Plan (CTP) in Draft RTP. Suggested wording to introduce the CTP 2040 may include:

   The California Transportation Plan (CTP 2040) is a state-level transportation plan that combines statewide transportation goals with regional transportation and land use plans to produce a unified multimodal transportation strategy. The CTP defines performance-based goals, policies, and strategies to achieve a collective vision and recommendations for California's future, statewide, integrated, multimodal transportation system over the next 25 years.

   Also, adding references to the Caltrans five modal plans—California Aviation System Plan, California Freight Mobility Plan, California State Rail Plan, Interregional Transportation Strategic Plan, and California Statewide Transit Strategic Plan can also add context to this section.

   Generally speaking, along with the goals listed throughout the document, a vision statement can complement policy approaches. Potential language could include: *The San Benito County Regional Transportation Plan calls for a safe, sustainable, globally competitive multimodal transportation system that provides reliable and efficient mobility and accessibility of people, goods and services.*

3. Relationship to CTP Goals (various). The Draft RTP references five of the six CTP 2040 goals—access and mobility, safety and health, environmental stewardship, social equity, and economic benefit (Page 1-1). Another very important goal to consider adding is "Preserving the Multimodal Transportation System." This will likewise be a major goal of the CTP 2040.

   It was clearly demonstrated from the results of the voting survey that San Benito County residents agreed the most pressing transportation need, according to survey respondents, was repairing and maintaining local streets and roads (Page 8-5). This is consistent with the California State Transportation Agency's infrastructure report which strongly

recommends California implements the state's "fix it first" approach to the highway system. California is ranked 48th in the nation in terms of highway conditions, with more than half of the highway lanes either in distressed condition or in need of preventive maintenance. Poor roadway conditions are not only costly to motorists but affect the safety of bicyclists and pedestrians. Maintaining the highway system has a 10 to 1 return on investment over delayed rehabilitation replacement.

4. Page 3-3, Figure 3 Policy Objectives. Additional details for these policy statements should be provided, including the methodology used for developing and any significant changes from previous versions. In addition, this element should include objectives that link to both long and short-term goals and horizons. The RTP Checklist (Appendix H) states that this is not applicable, but is actually a requirement of California Government Code Section 65080.

5. Page 3-4, Social Equity. The Draft RTP seems to be missing key demographic information that would allow the reader to ascertain the prevalence, makeup, and location of its disadvantaged populations. This data is needed to support the social equity goals.

6. Page 4-4, Bicycle and Pedestrian (Active Transportation). The second bullet in this section refers to the Bicycle Transportation Account (BTA). Please note that the BTA was replaced by the Active Transportation Program (ATP) on September 26, 2013, when Governor Brown signed Senate Bill (SB) 99, Chapter 359, and Assembly Bill (AB) 101, Chapter 354. The ATP consolidates existing federal and state transportation programs, including the Transportation Alternatives Program (TAP), Bicycle Transportation Account (BTA), and State Safe Routes to School (SR2S), into a single program. Reference to ATP should also be updated in section starting on Page 4-17, Active Transportation in Action.

7. Page 4-9, Highway 25 Widening. Please change last sentence of paragraph (Page 4-9) to read, "*This project is intended to add capacity along the corridor.*"

8. Page 4-10, State Route 146. Please change reference from a 'rural road' to a '*two-lane conventional highway.*'

9. Page 4-10, State Route 156. Please consider revising the statement in the second paragraph, "*As such, the route has a high priority for completion to facility standards in order to assure a statewide truck system that can handle higher volumes of interregional trip movements.*" We recommend, "*As such, the route has a high priority for completion to facility standards in order to handle higher volumes of interregional trip movements and connect all urban areas, goods movement gateways, and rural areas.*"

Page 4-11, first paragraph. Please add the following changes the last sentence to read, "Once constructed, the existing State *Route* 156 will *become a county road and* will serve as access for residents living on the north side and a bicycle and pedestrian multi-use path connecting bicyclists traveling between Hollister and San Juan Bautista.

10. Page 4-11, Goods Movement. It would be beneficial to include a map of the regions' highly impacted freight and goods movement routes. Further discussion on the two categories as it relates to project prioritization would be helpful as well.

11. Page 4-22, Transportation System Management. Please add "weigh-in-motion" after "at-speed" truck scales in the first paragraph of Page 4-22. Also, please remove the word "recently" from the first sentence of the second paragraph referencing the implementation of the Corridor System Management Plans.

12. Page 4-25, Aviation Services. The fourth paragraph, second sentence reads, "*Some land uses are more susceptible to the effects of airport development; as such, an Airport Land Use Compatibility Plan (ALUCP) was prepared for Hollister Municipal Airport and Frazier Lake Airpark.*" This sentence does not accurately portray an ALUCP. An ALUCP is not an effect of land uses; it is a plan that is used as a guideline in an effort to prevent incompatible land uses around airports. We recommend this sentence be changed to add more explanation of an ALUCP.

13. Page 4-26, first paragraph, last sentence, states that there are 112 aircraft currently based at the Hollister Municipal Airport. The chart below was excerpted from a database in the California Aviation Systems Plan, Inventory Element, which is posted on the Caltrans Division of Aeronautics website. References to aircraft figures are not consistent with Draft RTP figures. Please advise us if there are changes needed to our data base. The numbers below were reported by the Hollister Municipal Airport Manager or representative when surveyed in 2012-13.

Based Aircraft:

Single	91
Multi	5
Jet	4
Helicopter	2
Glider	45
Military	0
Ultralight	20
Total Based Aircraft	**167**

14. Page 5-5, Intelligent Transportation Systems. Additional information to clarify the role San Benito COG has regarding ITS would be appropriate.

15. Page 5-5, Figure 6-4. It appears that three areas (Active Transportation, Transportation Demand Management, and Aviation) are disproportionately affected by a lack of funding availability. This table indicates four areas that are funded at over 50% of their projected need, but the three aforementioned areas are scheduled to receive less than 25% of the funding needed to carry out the plan, including two that are funded less than 10% of their projected need. Those three areas constitute 12% of the projected need, but represent 27.6% of the unfunded needs in the region. Please explain this disparity, particularly considering that many of the Draft RTP stated goals appear to prioritize these categories.

16. Chapter 7, Climate Change. The Draft RTP recognizes concerns that less rainfall has for the long-term planning of the region. We encourage further discussion how extreme weather events impacts agriculture and the related industries.

17. Chapter 7, Legislative References. There is no specific reference to SB 391, although GHG emission reduction goals AB 32 and SB 375 are referenced throughout the RTP. A summary of SB 391 could enhance the context of this section. SB 375 addresses the regional greenhouse gas (GHG) emissions from the transportation sector and SB 391 addresses the statewide GHG emissions from the transportation sector of AB 32. The following is an example of potential language to include:

    SB 391, 2009, requires the California Department of Transportation to prepare the California Transportation Plan (CTP), the long-range transportation plan, by December 2015, to reduce GHG emissions. This system must reduce GHG emissions to 1990 levels from current levels by 2020, and 80 percent below the 1990 levels by 2050, as described by AB 32 and Executive Order S-03-05. The upcoming CTP 2040 will demonstrate how major metropolitan areas, rural areas, and state agencies can coordinate planning efforts to achieve critical statewide goals.

    When asked about protecting the environment in the MetroQuest survey, the results showed that voters were not as concerned about air pollution as an environmental issue (Pages 8-6). The Draft RTP could be a good medium to inform San Benito County residents of these issues.

    Other potential language could include:

    The California Interregional Strategic Plan states, "It is widely accepted that carbon dioxide forms approximately 84 percent of all GHG emissions; this is true in California as in the rest of the world. The impacts from a change in global climate can be felt throughout the region. California has adopted the public policy position that global

climate change is 'a serious threat to the economic well-being, public health, natural resources, and the environment of California.'"

18. Page 7-9, Figure 7-8 Performance Targets. We recommend that the "Targets" and "Performance Measures" columns be reversed in the table. As written, the 'pragmatic objective and policy statements' as required by Government Code Section 65080 are not met.

19. Appendix C – Please consider including expected dates of completion in the project list. Without project dates, gauging the "year of expenditure" for cost purposes is not possible. Providing the project completion dates will also better establish project priorities for the life of the plan.

20. Appendix H, RTP Checklist. In addition to Chapters, please incorporate specific page numbers as reference as well.

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Appendix G Regional Transportation Plan Checklist

Regional Transportation Plan Checklist

(Revised February 2010)

(To be completed electronically in Microsoft Word format by the MPO/RTPA and submitted along with the draft RTP to Caltrans)

Name of MPO/RTPA:	Council of San Benito County Governments
Date Draft RTP Completed:	April 30, 2014
RTP Adoption Date:	Anticipated June 19, 2014
What is the Certification Date of the Environmental Document (ED)?	Anticipated June 19, 2014
Is the ED located in the RTP or is it a separate document?	Yes, Appendix E

By completing this checklist, the MPO/RTPA verifies the RTP addresses all of the following required information within the RTP.

REGIONAL TRANSPORTATION PLAN CONTENTS		Yes/ No	Page #
General	1. Does the RTP address no less than a 20-year planning horizon? (23 CFR 450.322(a))	Yes	Chapter 2
	2. Does the RTP include both long-range and short-range strategies/actions? (23 CFR part 450.322(b))	Yes	Chapters 3,5,6,7, Appendix C
	3. Does the RTP address issues specified in the policy, action and financial elements identified in California Government Code Section 65080?	Yes	Chapters 3,5,6,7, Appendix C
	4. Does the RTP address the 10 issues specified in the Sustainable Communities Strategy (SCS) component as identified in Government Code Sections 65080(b)(2)(B) and 65584.04(i)(1)? **(MPOs only)**	N/A	N/A
	a. Identify the general location of uses, residential densities, and building intensities within the region? **(MPOs only)**	N/A	N/A
	b. Identify areas within the region sufficient to house all the population of the region, including all economic segments of the population over the course of the planning period of the regional transportation plan taking into account net migration into the region, population growth, household formation and employment growth? **(MPOs only)**	N/A	N/A

REGIONAL TRANSPORTATION PLAN CONTENTS		Yes/ No	Page #
General	c. Identify areas within the region sufficient to house an eight-year projection of the regional housing need for the region pursuant to Government Code Section 65584? **(MPOs only)**	N/A	N/A
	d. Identify a transportation network to service the transportation needs of the region? **(MPOs only)**	N/A	N/A
	e. Gather and consider the best practically available scientific information regarding resource areas and farmland in the region as defined in subdivisions (a) and (b) of Government Code Section 65080.01? **(MPOs only)**	N/A	N/A
	f. Consider the state housing goals specified in Sections 65580 and 65581? **(MPOs only)**	N/A	N/A
	g. Utilize the most recent planning assumptions, considering local general plans and other factors? **(MPOs only)**	N/A	N/A
	h. Set forth a forecasted development pattern for the region, which, when integrated with the transportation network, and other transportation measures and policies, will reduce the greenhouse gas emissions from automobiles and light trucks to achieve, if there is a feasible way to do so, the greenhouse gas emission reduction targets approved by the ARB? **(MPOs only)**	N/A	N/A
	i. Provide consistency between the development pattern and allocation of housing units within the region (Government Code 65584.04(i)(1)? **(MPOs only)**	N/A	N/A
	j. Allow the regional transportation plan to comply with Section 176 of the federal Clean Air Act (42 U.S.C. Section 7506)? **(MPOs only)**	N/A	N/A
	5. Does the RTP include Project Intent i.e. Plan Level Purpose and Need Statements?	Yes	Appendix C
	6. Does the RTP specify how travel demand modeling methodology, results and key assumptions were developed as part of the RTP process? (Government Code 14522.2) **(MPOs only)**	N/A	N/A
Consultation/Cooperation	1. Does the RTP contain a public involvement program that meets the requirements of Title 23, CFR part 450.316(a)?	Yes	Chapter 8
	2. Did the MPO/RTPA consult with the appropriate State and local representatives including representatives from environmental and economic communities; airport; transit; freight during the preparation of the RTP? (23CFR450.316(3)(b))	Yes	8-8
	3. Did the MPO/RTPA who has federal lands within its jurisdictional boundary involve the federal land management agencies during the preparation of the RTP?	Yes	D-4

REGIONAL TRANSPORTATION PLAN CONTENTS		Yes/ No	Page #
Consultation/Cooperation	4. Where does the RTP specify that the appropriate State and local agencies responsible for land use, natural resources, environmental protection, conservation and historic preservation consulted? (23 CFR part 450.322(g))	Yes	8-9
	5. Did the RTP include a comparison with the California State Wildlife Action Plan and (if available) inventories of natural and historic resources? (23 CFR part 450.322(g))	Yes	Appendix E, 4.4-2
	6. Did the MPO/RTPA who has a federally recognized Native American Tribal Government(s) and/or historical and sacred sites or subsistence resources of these Tribal Governments within its jurisdictional boundary address tribal concerns in the RTP and develop the RTP in consultation with the Tribal Government(s)? (Title 23 CFR part 450.316(c))	N/A	N/A
	7. Does the RTP address how the public and various specified groups were given a reasonable opportunity to comment on the plan using the participation plan developed under 23 CFR part 450.316(a)? (23 CFR 450.316(i))	Yes	8-3
	8. Does the RTP contain a discussion describing the private sector involvement efforts that were used during the development of the plan? (23 CFR part 450.316 (a))	Yes	8-8
	9. Does the RTP contain a discussion describing the coordination efforts with regional air quality planning authorities? (23 CFR 450.316(a)(2)) **(MPO nonattainment and maintenance areas only)**	N/A	N/A
	10. Is the RTP coordinated and consistent with the Public Transit-Human Services Transportation Plan?	Yes	4-12
	11. Were the draft and adopted RTP posted on the Internet? (23 CFR part 450.322(j))	Yes	8-8
	12. Did the RTP explain how consultation occurred with locally elected officials? (Government Code 65080(D)) **(MPOs only)**	N/A	N/A
	13. Did the RTP outline the public participation process for the sustainable communities strategy? (Government Code 65080(E) **(MPOs only)**	N/A	N/A
Modal Discussion	1. Does the RTP discuss intermodal and connectivity issues?	Yes	Chapters 4,5,6
	2. Does the RTP include a discussion of highways?	Yes	2-5
	3. Does the RTP include a discussion of mass transportation?	Yes	2-6
	4. Does the RTP include a discussion of the regional airport system?	Yes	2-8
	5. Does the RTP include a discussion of regional pedestrian needs?	Yes	4-4
	6. Does the RTP include a discussion of regional bicycle needs?	Yes	4-4
	7. Does the RTP address the California Coastal Trail? (Government Code 65080.1) **(For MPOs and RTPAs located along the coast only)**	N/A	N/A

REGIONAL TRANSPORTATION PLAN CONTENTS		Yes/ No	Page #
Modal Discussion	8. Does the RTP include a discussion of rail transportation?	Yes	4-15
	9. Does the RTP include a discussion of maritime transportation (if appropriate)?	N/A	N/A
	10. Does the RTP include a discussion of goods movement?	Yes	4-11
Programming/ Operations	1. Is a congestion management process discussed in the RTP? (23 CFR part 450.450.320(b)) **(MPOs designated as TMAs only)**	N/A	N/A
	2. Is the RTP consistent (to the maximum extent practicable) with the development of the regional ITS architecture?	Yes	4-22
	3. Does the RTP identify the objective criteria used for measuring the performance of the transportation system?	Yes	7-9
	4. Does the RTP contain a list of un-constrained projects?	Yes	Appendix C
Financial	1. Does the RTP include a financial plan that meets the requirements identified in 23 CFR part 450.322(f)(10)?	Yes	Chapter 6
	2. Does the RTP contain a consistency statement between the first 4 years of the fund estimate and the 4-year STIP fund estimate? (2006 STIP Guidelines, Section 19)	Yes	6-1, 6-3
	3. Do the projected revenues in the RTP reflect Fiscal Constraint? (23 CFR part 450.322(f)(10)(ii))	Yes	Chapter 6
	4. Does the RTP contain a list of financially constrained projects? Any regionally significant projects should be identified. (Government Code 65080(4)(A))	Yes	Appendix C
	5. Do the cost estimates for implementing the projects identified in the RTP reflect "year of expenditure dollars" to reflect inflation rates? (23 CFR part 450.322(f)(10)(iv))	Yes	6-1
	6. After 12/11/07, does the RTP contain estimates of costs and revenue sources that are reasonably expected to be available to operate and maintain the freeways, highway and transit within the region? (23 CFR 450.322(f)(10)(i))	Yes	Chapter 6, Appendix C
	7. Does the RTP contain a statement regarding consistency between the projects in the RTP and the ITIP? (2006 STIP Guidelines section 33)	Yes	Chapter 6
	8. Does the RTP contain a statement regarding consistency between the projects in the RTP and the FTIP? (2006 STIP Guidelines section 19)	Yes	Chapter 6
	9. Does the RTP address the specific financial strategies required to ensure the identified TCMs from the SIP can be implemented? (23 CFR part 450.322(f)(10)(vi) (**nonattainment and maintenance MPOs only**)	N/A	N/A

REGIONAL TRANSPORTATION PLAN CONTENTS		Yes/ No	Page #
Environmental	1. Did the MPO/RTPA prepare an EIR or a program EIR for the RTP in accordance with CEQA guidelines?	Yes	Chapter 8, Appendix E
	2. Does the RTP contain a list of projects specifically identified as TCMs, if applicable?	N/A	N/A
	3. Does the RTP contain a discussion of SIP conformity, if applicable? **(MPOs only)**	N/A	N/A
	4. Does the RTP specify mitigation activities? (23 CFR part 450.322(f)(7))	Yes	Appendix E
	5. Where does the EIR address mitigation activities?	Yes	Appendix E, ES-4
	6. Did the MPO/RTPA prepare a Negative Declaration or a Mitigated Negative Declaration for the RTP in accordance with CEQA guidelines?	N/A	N/A
	7. Does the RTP specify the TCMs to be implemented in the region? **(federal nonattainment and maintenance areas only)**	N/A	N/A

I have reviewed the above information and certify that it is correct and complete.

(Must be signed by MPO/RTPA Executive Director or designated representative)

June 13, 2014
Date

Lisa Rheinheimer
Print Name

Executive Director
Title

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