

Service Authority for Freeways and Expressways (SAFE)  
Emergency Motorist Aid System

# Five-Year Strategic Plan

2009/2010 – 2013/2014



# Service Authority for Freeways and Expressways (SAFE)

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## EXECUTIVE SUMMARY

On August 25, 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.

Through the Emergency Call Box Program, the Service Authority for Freeways and Expressways ensures that motorists have direct access to emergency services along the state highway system in San Benito County. It is important that the SAFE consider what the level of investment is appropriate to either maintain or improve the current system with available resources.

This Five-Year Strategic Plan was developed to provide direction on the Motorist Aid Program for the next five years. The Five-Year Strategic Plan includes service options that provide the greatest return on investment by achieving greater system efficiency and service.

The Five-Year Strategic Plan identifies four service options. Each option includes a finance plan assuming projected revenue sources. The Five-Year Strategic Plan includes the following service options:



**OPTION I**  
"No Build"



**OPTION II**  
Call Box Installation Evaluated  
by Eligibility Criteria



**OPTION III**  
511 Traveler  
Information Program



**OPTION IV**  
Freeway Service Patrol

The four service options presented herein offer cost-effective alternatives designated to achieve greater system efficiency. The purpose of the Five-Year Strategic Plan is to invest in a program with the greatest return on investment. In order to determine the most appropriate investment, an overview of the existing Emergency Call Box Program was prepared.

## SECTION I PROGRAM BACKGROUND

In 1985 the California Legislature passed Senate Bill 1190 enabling counties to generate revenue for the purpose of purchasing, installing, operating, and maintaining an emergency motorist aid system. This legislation required the Department of Motor Vehicles (DMV) to collect revenue, and requires the Department of California Highway Patrol (CHP) and the California Department of Transportation (Caltrans) to provide review, approval, and operating services.

On January 1, 1986, the Senate enacted Senate Bill 1199, which provided the basic format for the formation of Service Authorities for Freeways and Expressways (SAFEs). SAFEs are given the task to develop a plan to install, operate, and maintain a motorist aid system of call boxes. The emergency call box program was established to provide assistance to motorists in trouble, allowing them to report emergencies directly to the California Highway Patrol (CHP).



On August 25, 1998, the Council of San Benito County Governments established the San Benito County Service Authority for Freeways and Expressways to administer the \$1 vehicle registration fee collected by the Department of Motor Vehicles (DMV) for maintaining an

emergency motorist aid system in San Benito County. In order to obtain funding, SAFE's are required to follow California Motorist Aid Guidelines.

California Motorist Aid Guidelines are a set of procedures that have been developed by the California Highway Patrol and the California Department of Transportation, in cooperation with the California Service Authority for Freeways and Expressways (CalSAFE). CalSAFE is made up of program managers from each county or regional SAFE organization, California Highway Patrol, and the Department of Transportation.

## SECTION II

### VEHICLE REGISTRATION FEE REVENUE

Motorists registering their vehicle(s) in San Benito County pay for call boxes within the County. The California Department of Motor Vehicles collects the annual \$1 vehicle registration fee from persons registered in San Benito County. The proceeds are sent to the Service Authority for Freeways and Expressways for use in maintaining and operating the San Benito County's Call Box Program.

The Service Authority for Freeways and Expressways has collected the following vehicle registration fees over the last five years.

<b>Table I                      Vehicle Registration Fees Collected (03/04 – 07/08)</b>			
<b>Fiscal Year</b>	<b>Collected</b>	<b>Interest</b>	<b>Total</b>
2003/2004	\$49,711	\$1,128	\$50,839
2004/2005	\$51,696	\$1,732	\$53,428
2005/2006	\$42,750	\$2,912	\$45,663
2006/2007	\$43,057	\$335	\$43,392
2007/2008	\$50,788	\$1,216	\$52,004

The Service Authority for Freeways and Expressways projects the following revenue for the next five years.

<b>Table II                      Projected Five Year Vehicle Registration Revenue</b>			
<b>Fiscal Year</b>	<b>Revenue</b>	<b>Interest</b>	<b>Total</b>
2009/2010	\$52,633	\$1,260	\$53,893*
2010/2011	\$53,633	\$1,284	\$54,917**
2011/2012	\$54,652	\$1,309	\$55,960**
2012/2013	\$55,690	\$1,333	\$57,024**
2013/2014	\$56,748	\$1,358	\$58,106**
<b>TOTAL</b>	<b>\$273,356</b>	<b>\$6,544</b>	<b>\$279,900**</b>

\* Projected based on a 1.8% annual population increase using the AMBAG Model.

\*\* Projected based on a 1.9% annual population increase using the AMBAG Model.

### SECTION III POSSIBLE VEHICLE REGISTRATION REVENUE USES

- **Emergency Call Box Program** – Call boxes are the yellow telephone boxes installed primarily along highways. Call boxes provide direct access to motorists who need roadside assistance in case of a flat tire, an empty tank of gas or an auto accident.



Use of the call box is free to all motorists.

- **Freeway Service Patrol** – A Freeway Service Patrol Program provides towing services to reduce traffic congestion and improve highway safety by having specially marked and equipped vehicles patrol designated sections of roadway and provide incident management and motorist assistance at trouble spots.



- **511 Traveler Information** – 511 uses an automated voice response system, which means callers are guided through a menu with a series of requests. Callers can ask for specific areas, and the system will provide information about traffic incidents, closures and other important roadway conditions.



## SECTION IV EMERGENCY CALL BOX LOCATIONS

The San Benito County Service Authority for Freeways and Expressways Emergency Call Box Program consist of a total of 36 emergency call boxes. Emergency call boxes are located at the following locations:

Table III Call Box Locations	
Location	Number of Call Boxes
Highway 156	17
Highway 25	12
Highway 101	6
Highway 146	1
<b>TOTAL</b>	<b>36</b>



**For a detailed map of San Benito County Call Boxes see page 19.**

San

Benito County call boxes have teletypewriter (TTY) capabilities offering communication for the deaf/hearing impaired and speech impaired user. Call box screens provide Spanish language text.

In addition, San Benito County call boxes are ADA\* accessible to persons with physical disabilities. Call boxes are able to be accessed by using existing concrete asphalt paths from the road shoulder to the call box.

\*Americans with Disabilities Act





**SECTION V  
CALL BOX SERVICE PROVIDERS**

Call Box service providers include the following:

- Verizon Wireless
- California Highway Patrol
- Case Systems, Inc.

The San Benito County Service Authority for Freeways and Expressways works cooperatively with various call box service providers to maintain and operate an efficient Emergency Call Box Program in San Benito County.



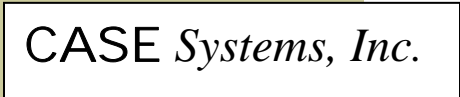
**Call Box Digital Service**

San Benito SAFE currently contracts with Verizon for digital service for emergency call boxes. The average annual cost for call box digital service totals \$3,263.



**Emergency Call Box Answering Services**

Emergency calls from call boxes are currently handled through the California Highway Patrol call answering center based in Salinas, California. The call answering center handles incoming calls from any San Benito County freeway call boxes 24 hours a day. Call box calls are answered as secondary calls behind 911 calls. Additionally, the California Highway Patrol call answering center services include translations and teletype (TTY) services to accommodate the hearing impaired. The average annual cost for this service is \$204.



**Emergency Call Box Maintenance**

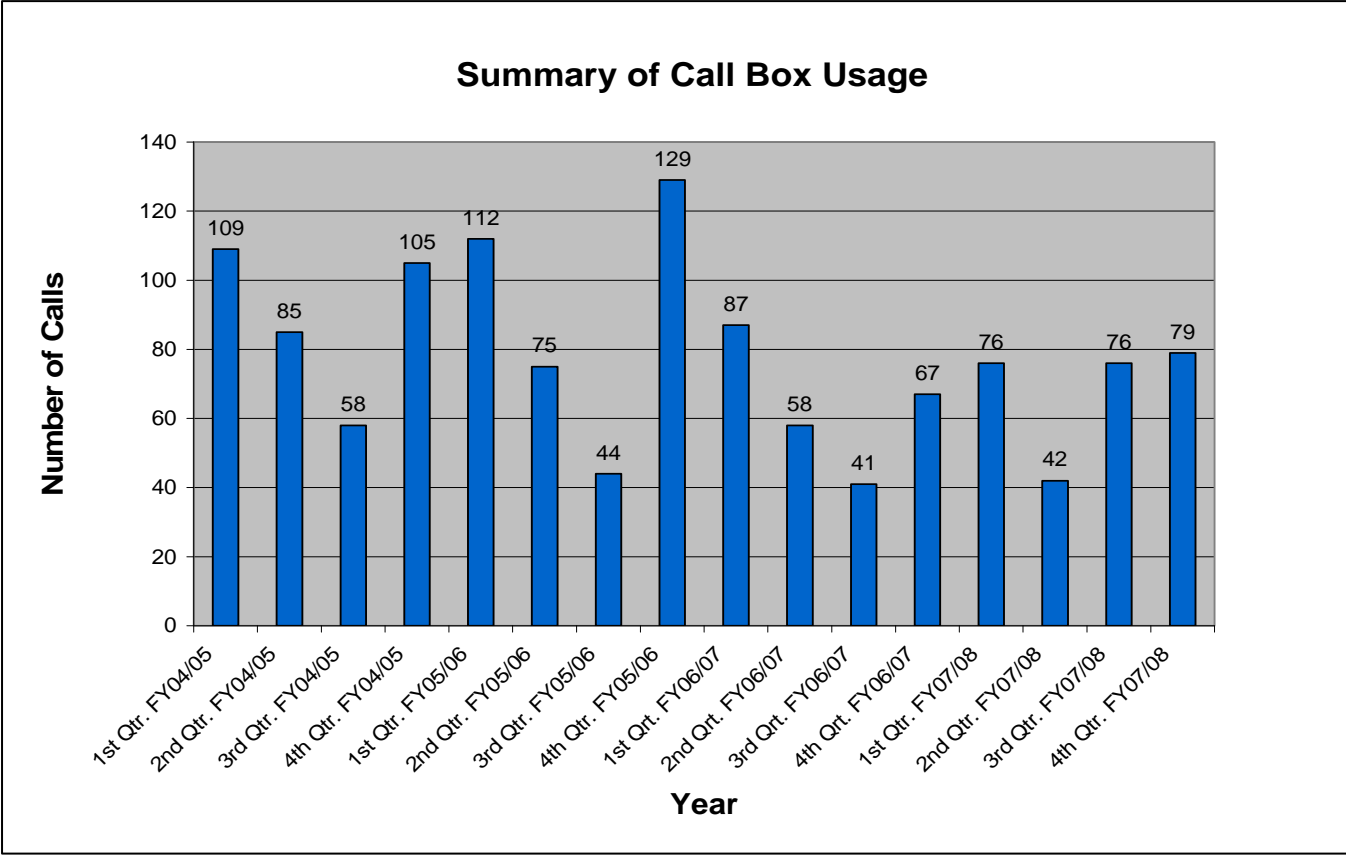
The Service Authority for Freeways and Expressways is currently under contract with Case Systems, Inc. for call box maintenance. The average annual cost for this service is \$14,440.

**SECTION VI  
 EMERGENCY CALL BOX USAGE**

The level of call box usage on San Benito County call boxes has experienced a gradual reduction since its implementation in 1998.

**Table IV                      Call Box Usage Summary FY 04/05 – 07/08**

During the reporting period, 04/05 – 07/08, the Service Authority for Freeways and Expressways received an average of 78 calls on emergency call boxes. Table IV depicts a gradual reduction in call box usage during the reporting 04/05 – 07/08 fiscal years.



**SECTION VII  
 CALL BOX USAGE BY HIGHWAY**

Emergency call boxes are located along four major state highways in San Benito County. Call box usage can be attributed to several factors including: functional condition of a highway, Annual Average Daily Traffic (AADT), and the number of available call boxes.

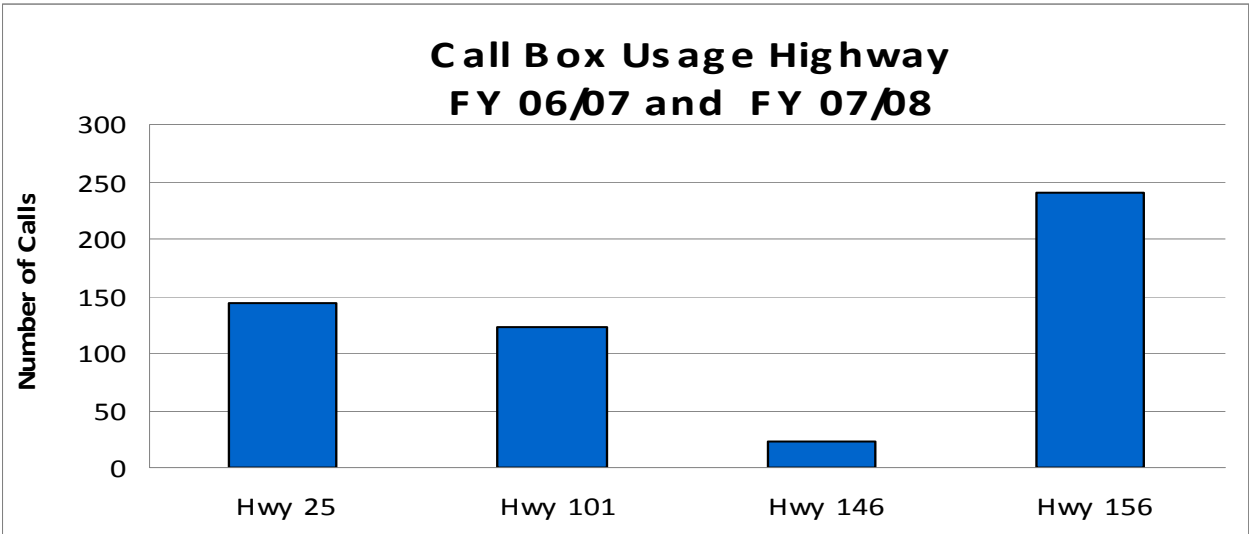
2005 Caltrans traffic volumes count the Annual Average Daily Traffic (AADT) along San Benito County Highways as follows:

- **Highway 101** – 53,000
- **Highway 156** – 23,000 to 26,000
- **Highway 25** – 750 to 16,100
- **Highway 146** – 170

Highway 101 reported the highest AADT compared to the other three state highways located in San Benito County. However, Highway 101 call box usage ranked third, as shown below in Table V. The low call box usage could be attributed to the number of call boxes available along Highway 101 or the current functional condition of Highway 101. Highway improvements enhance traffic flow and safety—resulting in a decline in use of amenities such as Call Boxes.

<b>Table V</b>	<b>Call Box Usage by Highway</b>
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Between fiscal years 06/07 and 07/08 the Service Authority for Freeways and Expressways received a total of 531 calls. The majority of these calls, 45 percent, were made from call boxes located along Highway 156.



**SECTION VIII  
 COST PER CALL**

The overall average cost per call is \$82.

Table VI                      Cost Per Call			
Fiscal Year	Total Call Box Program Expenses	Number of Call	Annual Cost Per Call
2004/2005	\$24,977*	357	\$70
2005/2006	\$33,640	360	\$93
2006/2007	\$29,928	353	\$85
2007/2008	\$22,076	273	\$80

\*Amount does not include salaries

A preliminary peer comparison was completed between San Cruz, Monterey, and San Benito Counties assessing the average cost per call. San Benito County's cost per call ranked the lower of the two counties. Santa Cruz average cost per call is between \$80 and \$100. Monterey County averaged cost per call averaged at \$116.

It is important that the San Benito County Service Authority for Freeways and Expressways (SAFE) continue to effectively serve the public and the most effective use of available resources. It is also important to determine what level of investment is appropriate to either maintain or improve the current system – relative to the number of users, the user groups being served, and the service being provided.

## SECTION IX

### FIVE-YEAR STRATEGIC PLAN

Statewide, call box usage has been decreasing as personal cell phone ownership increases. Motorists are using their cell phones (Figure I, Page 19) to dial 911 to report an emergency along the freeway or to call a tow service/friends/family directly for assistance.



Over the last 10 years, San Benito County SAFE has implemented improved access for persons with physical disabilities and improved system coverage. However, in recent years, several new issues have arisen (e.g., improving access for the hearing-impaired, converting the call boxes from analog to digital service, etc.) that could require large, future investments beyond the capabilities of projected resources.

Cell phone ownership has increased over the past 10 years (Figure I). It is projected that cell phone ownership will continue to increase for the next five years.

Given the fact that call box usage has declined and will most likely continue to decline over the next several years, the question of “How the Call Box Program should continue to effectively serve the public with an effective use of available resources?” will need to be answered. It is important to determine what level of investment is appropriate to either maintain or improve the current system – relative to the number of users, the user groups being served, and the service being provided.

#### Strategic Plan and Financial Plan

Service Authority for Freeways and Expressways staff developed four different service options to most effectively operate an Emergency Motorist Aid System program. Each service option includes financial implications.



**SERVICE OPTIONS**

**OPTION I  
 "NO BUILD"**



**Option I** is considered the "no-build" scenario. The Emergency Call Box Program would remain at the current service level. This option would include occasional call box improvements such as access improvements, and technology upgrades. The outcome of this scenario will be to maintain a call box program that is effectively sized and fully functional.



**Financial Information**

Once salaries and SAFE contracts have been accounted for, San Benito County SAFE can expect to build an annual reserve of \$23,073 for moderate upgrades and other unforeseen costs associated with operating the San Benito County Emergency Call Box Program.

Contract	Amount
Vehicle Registration Fees Collected Annually	\$53,000
Salaries	- \$12,000
Case Systems, Inc.	- \$14,460
California Highway Patrol	- \$204
Verizon Wireless	- \$3,263
<b>Balance</b>	<b>\$23,073</b>

**OPTION II  
 CALL BOX INSTALLATION EVALUATED BY ELIGIBILITY CRITERIA**

**Option II** calls for evaluating call box installations based on specific criteria. Call box installations could require meeting the following eligibility criteria:

- Lack of cellular service
- Identifiable safety need
- High population density areas (e.g. Parks)



In addition, this option includes ensuring that all proposed call box installations are fully accessible to the physically disabled, fully functional for individuals with speech and hearing impairments, and upgraded with the latest technologies.



**Financial Information**

Once salaries and SAFE contracts have been accounted for, San Benito County SAFE can expect \$23,073 to install call boxes in locations that meet the eligibility criteria.

According to the California SAFE Universal Price List an average cost per call box is approximately \$5,000. At this cost, the SAFE Board of Directors can consider up to four call boxes per year over the next five years.

Contract	Amount
Vehicle Registration Fees Collected Annually	\$53,000
Install Call Boxes	-\$20,000
Salaries	- \$12,000
CASE Systems, Inc.	- \$14,460
California Highway Patrol	- \$204
Verizon Wireless	- \$3,263
<b>Balance</b>	<b>\$3,073</b>

**OPTION III  
 511 TRAVELER INFORMATION PROGRAM**



Option III includes building on a reserve for establishing a 511 Traveler Information Program– similar to the one that exists in the Bay Area. The 511 Traveler Information Program uses an automated voice response system, which means callers are guided through a menu with a series of information options. Callers can ask for specific areas or highways, and the system will provide information about traffic incidents, closures, transit, vanpooling, carpooling, and other important information.

The Association of Monterey Bay Area Governments (AMBAG), the Transportation Agency for Monterey County (TAMC), and the Santa Cruz County Regional Transportation Commission (SCCRTC) are researching options to establish a Regional 511 Traveler Information Program in the tri-county area. These efforts have not been formalized by any of the three Counties.



**Financial Information**

Option III would include building a fund reserve for the next five years to fund a Regional 511 Traveler Information Program. In five years, this reserve will total approximately \$125,000\* once all contract expenses have been covered. This option would result in a minimal fund reserve after initial costs.

Item	Amounts
Vehicle Registration Fees Collected Annually	\$53,000
SAFE Staff Salaries	-\$12,000
CASE Systems, Inc. Contract	-\$14,460
California Highway Patrol Contract	-\$204
Verizon Wireless Contract	-\$3,263
<b>Balance</b>	<b>\$23,073</b>

\*based on projected vehicle registration fees collected



## OPTION IV FREEWAY SERVICE PATROL

**Option IV** would consist of establishing a Freeway Service Patrol (FSP) Program in San Benito County. The Freeway Service Patrol Program would include emergency towing services for motorists using State Highways in San Benito County.



In other counties, the Freeway Service Patrol is a free service for motorists coordinated by the California Highway Patrol (CHP) and Caltrans. Caltrans provides funding to local agencies that operate a Freeway Service Patrol, which includes funding up to 80 percent of operating costs.

### Financial Information

Once salaries and SAFE contracts have been accounted for, San Benito SAFE can expect to collect \$23,073 to implement a Freeway Service Patrol program in San Benito County. Without releasing a formal Request for Proposals, it is unknown if \$23,073 would be sufficient to fund an FSP Program.

Contract	Amount
Vehicle Registration Fees Collected Annually	\$53,000
Salaries	- \$12,000
Case Systems Inc.	- \$14,460
California Highway Patrol	- \$204
Verizon Wireless	- \$3,263
<b>Balance</b>	<b>\$23,073</b>

Monterey County's Freeway Service Patrol Program annual cost is approximately \$200,000. At a Caltrans reimbursable rate of 80 percent Monterey County's local contribution is approximately \$40,000. Additional funds may be obtained by applying for Air District funds under their AB2766 Emission Reduction Grant Program.

## CONCLUSION

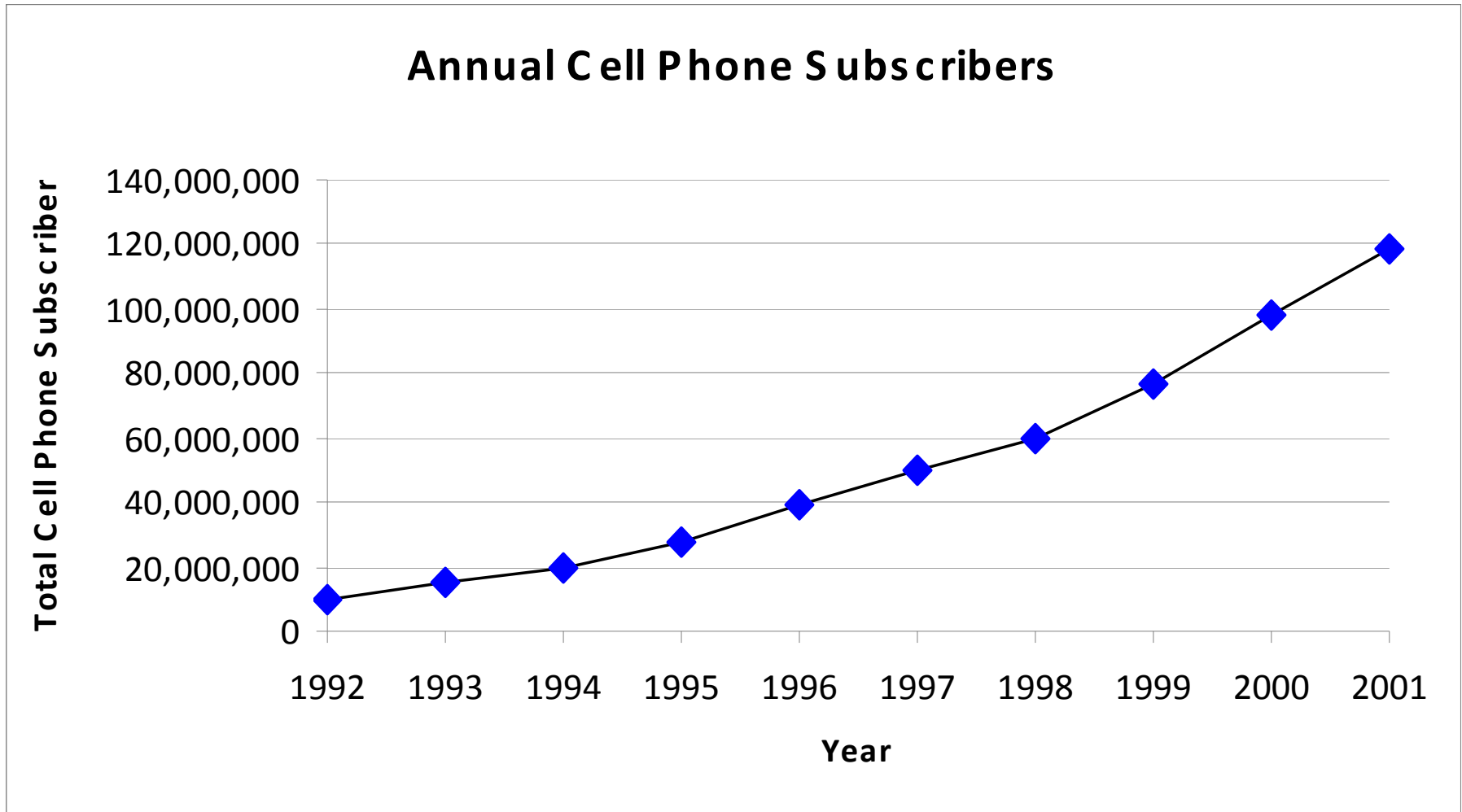
The Five-Year Strategic Plan provides some flexibility on the selection of service options. Table VII provides a service option matrix that allows for the implementation of one or more options.

**TABLE VII**  
**Service Option Matrix**

Option I Maintain Existing System	Option II Call Box Installation Evaluated by Eligibility Criteria	Option III Reserve for 511 Rideshare	Option IV Freeway Service Patrol	Financial Impact
X				\$29,927
X	X			\$53,000
X		X		\$53,000
X			X	\$53,000

Once the preferred option(s) are selected, an implementation plan will be prepared which will identify: program deliverables, funding options, and project schedule.

**FIGURE I**



**FIGURE II**  
**EXISTING CALL BOX LOCATIONS**

