



FINAL

LAKE COUNTY

SERVICE AUTHORITY FOR FREEWAY EMERGENCIES (S.A.F.E.)

FIVE-YEAR STRATEGIC

AND

FINANCIAL PLAN

July 2008

Adopted: September 10, 2008

Phil Dow, Executive Director
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(707) 463-1806

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I. EXECUTIVE SUMMARY

Historical Background

In 1985 the California Legislature passed Senate Bill 1190 to enable counties to generate revenue for the purpose of purchasing, installing, operating and maintaining an emergency motorist aid system. Senate Bill 1199, enacted in January 1986, provided the basic format for the formation of SAFEs, and Assembly Bill 1390, enacted in October 1991, authorized a county and its cities to designate a Council of Governments to serve as a SAFE for the county. The Lake County/City Area Planning Council (Lake APC) was designated as the Service Authority for Freeway Emergencies (SAFE) in June 1993 after the cities of Clearlake, Lakeport and the County of Lake formed a Joint Powers Agreement (JPA) establishing the SAFE in Lake County.

North Coast Emergency Medical Services (EMS) was instrumental in the formation of the Lake County SAFE. North Coast EMS has administered emergency medical services development on behalf of several northwestern counties since 1975. In 1991, North Coast EMS obtained a California Office of traffic Safety grant to plan and implement a call box demonstration project in Del Norte, Humboldt, and Lake Counties. Ten call boxes were installed in North Coast counties under this program, three of which were installed in Lake County. They have been operational since 1994. Each of the counties has since created a SAFE and installed additional call boxes.

The SAFE Board of Directors is composed of the identical membership to the Lake County/City Area Planning Council: Two members of the Lake County Board of Supervisors, two City Council members from each of the two cities, and two citizen members selected at large by the Board of Supervisors. Meetings are held, when needed, at times and dates reserved for the Lake APC meetings. The Lake SAFE Program is operated in partnership with the California Department of Transportation (Caltrans), the California Highway Patrol (CHP), the California Department of Motor Vehicles (DMV), and private sector businesses such as Verizon Wireless and Case Systems Inc. (formerly Comarco Wireless Technologies).

SAFE affairs are administered by the SAFE Executive Director. The Executive Director is responsible for scheduling meetings, preparing agendas and public notices, coordination with state and federal agencies, maintenance of SAFE records, accounting services related to SAFE funds, distribution of information to the SAFE Board, and general guidance regarding SAFE activities.

Lake County SAFE also has contracted with a transportation planning consultant, Dow & Associates, to perform updates of the Implementation Plan, identify call box installation sites, assist in contracted call box installation, review exception/alarm reports via maintenance computer and arrange repair/maintenance activities.

The 2008-2013 Strategic and Financial Plan is intended to guide Lake SAFE to full deployment of call box service in Lake County. Installations identified in the 1997 Implementation Plan have been installed and approved by Caltrans. To date, 43 of the 46 originally identified locations have been installed. Along with the 43 original boxes, 2 additional call boxes were installed on SR 20. State Route 20, is only one of the two connecting routes for US 101 and SR 5, which is heavily traveled by

commuters, tourists, and local residents. The 2008-2013 Strategic and Financial Plan will largely consist of installing call boxes identified in the current Implementation Plan as well as minor backfilling to reduce spacing between boxes.

Future of the Call Box Program

Nationwide, call box programs expanded, especially in urban areas, as a means of traffic management. The quicker that collisions and mechanical failures could be reported to authorities, the quicker lanes could be cleared and congestion impacts avoided. Guidelines were established for systems that called for spacing ranging from 2 miles in rural areas to ¼ mile on high volume facilities such as urban freeways.

As call box programs expanded to northwest California, factors other than traffic management were considered. There are many miles of remote highways where, during certain times of the year, there may be a considerable time lapse between vehicles. Therefore, if there is a serious injury, valuable minutes may be lost before another vehicle passes by the scene that could then summon help. Even if the problem is just mechanical failure, there may be considerable lapse in time before a breakdown message is conveyed and help arrives.

Since the Lake SAFE was formed and the first call boxes installed, cellular technology has exploded. Many people now carry personal cell phones, reducing the need for roadside devices. Many urban areas have experienced a dramatic decrease in call box use in the past five years. Several agencies have reduced the call box spacing and have phased out service in certain areas.

So, is there a need to continue to invest taxpayer dollars into a program that has been bypassed by technology? To date, the Lake SAFE Board has responded that yes, there continues to be a need – at least in our rather isolated corner of California. Considerations for continuing the program are:

- The existing system continues to be utilized, some locations more than others
- Cellular coverage in Lake County continues to be scattered and sometimes unreliable
- Accidents can happen to anyone, but mechanical failures are more likely to happen to people who, due to economic considerations, drive poorly maintained vehicles; this same group are also less likely to be able to afford personal cell service
- There remain areas where call box service can be obtained but the signal is not strong enough for personal cellular service
- As a tourist destination county, it may provide an additional degree of assurance to visitors traveling unfamiliar roadways

At the time the SAFE program was developed no one could have foreseen the expansion of personal cell phones and the impact on this program. Technology always lags in rural areas, and we can expect that in the future. It could be that GIS transmitters will be standard automobile equipment in the future. Even so, the national fleet turnover rate is approximately eight years. So we could expect that the next technological advance that could render the program obsolete is at least ten years in the future. In any event, the Board and future Boards should monitor the program and its continued viability.

Implementation Issues

There are several policy issues of importance that should be addressed that will have a financial impact on Lake SAFE. The issues described below have the potential to impact call box service, and decisions on them are necessary both now and on an ongoing basis because of regulatory requirements.

- A. Americans with Disabilities Act of 1990 (ADA): Providing enhanced access to motorist aid services for persons with physical, speech and/or hearing disabilities under the ambiguous requirements of the ADA can be rather challenging and costly. Because of actions taken by California Center for Law and the Deaf (CalCLAD), TTY technology has been added to all call boxes in Lake County and will be a component of all new installations in the future. Physical limitations of potential users under ADA are addressed by providing Type A (level) sites wherever possible and boxes positioned at heights accessible by wheelchair.
- B. Poor Reception: Cellular service reception continues to be an issue throughout Lake County due to the mountainous terrain. Locations are sought that can provide reliable service with our three watt radios and stationary antennas located on the 14 foot poles. These locations can provide service that may not be available to standard hand-held cell phones.
- C. Cellular Technology: Federal Communication Commission (FCC) regulations no longer require cellular companies to provide analog service. All Lake SAFE units are now operating with digital radios. Since digital service may provide a different coverage pattern from the previous analog service, it is quite possible that a number of call boxes that are currently installed will require an additional amplified antenna to ensure reliable service. The Lake SAFE plans to implement these amplifiers on an “as needed” basis.

Financial Plan

The program is funded by a \$1 fee included with the annual vehicle registration fee. The stream of DMV revenues has increased slightly over the past two years, but revenues have increased an average of 3.95 percent over the past four years. Staff will take a conservative approach and project that DMV revenues will increase at 2.00 percent per year over the next five years.

Based on financial projections of anticipated revenues and expenditures over the next five years, the DMV revenue stream is sufficient to support the installation, maintenance and operations of the call boxes identified in this plan. Unfortunately, the program’s fiscal viability could be compromised if other types of expenditures are budgeted on top of the anticipated installations, basic operations and maintenance. This Strategic Plan presents a relatively conservative set of strategies designed to refine and enhance current services, so that they may be operated in the most cost-effective and safe manner.

Priorities for Call Box Development Schedule

Staff recommends that the Lake County/City Area Planning Council authorizes SAFE staff to implement the following schedule:

- A. FY 2008-09: Install 10 call boxes along the Eastern part of State Route 20 for an estimated cost of \$70,000, along with approximately 5 amplifier radios to assist in better cellular service at an estimated cost of \$3,000. Total cost: \$73,000.
- B. FY 2009-10: Install 7 additional call boxes along the western portion of State Route 20, adjacent to Clear Lake, at estimated cost of \$49,000. In addition, the Lake SAFE may also need additional amplifier radios, which may cost up to \$5,000. Total cost: \$54,000.
- C. FY 2010-11: Install 8 call boxes along State Route 29, where possible, to achieve a two-mile spacing from the Napa County line to around mile post marker 38.0 for an estimated cost of \$56,000. Again, the Lake SAFE is unsure of the result from the cellular complications with the analog service being terminated; there may be a need to install additional amplifiers to help achieve cellular service in isolated areas of the county at an approximate cost of \$5,000. Total cost: \$61,000.
- D. FY 2011-12: Install 4 call boxes along State Routes 53, and 175 at an estimated cost of \$28,000. If continued complications with the cellular service arise, there will be a further need to install additional amplifiers at an estimated cost of \$5,000. Total cost: \$33,000.
- E. FY 2012-13: Where possible, install approximately 10 call boxes to achieve distance of two-mile spacing between existing call boxes on State Route 29, from mile post marker 38.3 to 48.6. This stretch of road will require two call boxes on either side of the four-lane highway, for an estimated cost of \$70,000. Along with the call box installations, the Lake SAFE may also need to install additional amplifiers to achieve better cellular service for an estimated cost of \$5,000. Total cost: \$75,000.

II. DESCRIPTION OF THE CURRENT CALL BOX SERVICE

Existing Service

Lake SAFE currently maintains 45 call boxes which are located sporadically on State Routes 20, 29, 53 and 175. These call boxes are generally located on two-lane highways. Distances between the existing call boxes range from approximately two miles to several miles. Spacing between call boxes falls below the minimum spacing requirements for a complete service. The availability of a consistent cellular signal as well as safety considerations at potential turn-outs limit the number of optimum locations. Call boxes on two-lane highways are generally installed as single boxes. Call boxes on divided highways with four lanes are installed in pairs on opposite sides of the highway.

The CHP/Caltrans Call Box and Motorist Aid Guidelines, under which call box programs operate, provide direction on call box siting and spacing. In general, the Guidelines standards take into consideration traffic volume along the roadway segment, measured in average daily traffic counts (ADTs) and safety issues when making spacing recommendations. Because of the inherent problems with signal service, and lack of funding, Lake County is far from reaching the recommended minimum spacing standards.








The call box system remains less than fully developed. This plan will focus on completion of call boxes identified in the previous plan, in-filling between existing sites as needed, and improving the system for rural use by installing amplification antennas. Expansion opportunities include:



1. Build-Out Remaining System: Install remaining call boxes, where possible, which were identified the 1997 Call Box Service Implementation Plan.
2. Minor In-Filling: Additional call boxes will be installed, where possible, between existing sites to develop closer spacing as better cellular coverage becomes available. The initial Plan assumed the long term availability of public telephones along the roadside (in particular along S.R. 20 along the Clear Lake shoreline). In recent years, most public telephones have been removed, producing a considerable gap between telephone call opportunities. In-filling is proposed to close the gap to an acceptable distance.

Appendix A-1 provides a map of the existing Lake County Call Box system.

Site Designs

To accommodate the variety of terrain, other physical and roadway design conditions that exists alongside California highways, Caltrans has developed a number of standard call box sites designs. The current Guidelines contain ten distinct site types as follows:

SITE TYPE	DESCRIPTION	PICTURE
A	Installed at level grade; may have handrail in rear if near down slope	
B	Installed in cut (uphill) slope, with retaining walls	
C	Installed in fill (downhill) slope, with retaining walls	
D	Directly mounted onto a sound or retaining wall	
E	Installed behind a barrier wall	
F	Installed behind a guard rail	
G	Installed on a paved median	

SITE TYPE	DESCRIPTION	PICTURE
H	Mounted on top of a barrier wall	
L	NEW SITE TYPE: Mounted behind a dike with call box lowered and turned 90 degrees to face traffic	
M	NEW SITE TYPE: Same as L site without dike in front of site	No picture available

Type A sites will be installed in Lake County whenever possible. There will be some sites where a Type L or Type M installation will be preferable.

Funding

The sole revenue source for the Lake SAFE is the \$1.00 annual vehicle registration fee, collected by the California Department of Motor Vehicles (DMV) on behalf of the SAFEs throughout the state. The \$1 fee is included in the annual vehicle registration fee of all vehicles registered in the county and is forwarded to the Authority monthly by the DMV. The annual \$1 DMV fee is supplemented by any revenue not utilized in the year it was collected (known as Fund Balance), the interest earned on the fund balance, and occasional reimbursements from motorists who damage call boxes.

Partnerships

In order for this service to operate smoothly and safely, the Lake SAFE is operated in close coordination with a variety of public and private partners:

California Highway Patrol (CHP) personnel answer calls, and, as necessary, dispatch public safety assistance such as tow trucks, law enforcement, and fire in response to calls.

California Department of Transportation (Caltrans) is responsible for operating and maintaining California's interstate freeways and state highways. The Lake SAFE works closely with Caltrans District 1, which is responsible for reviewing and permitting call box site locations and installations. In order to assure that all call box sites throughout the state have similar standards, Caltrans' Headquarters in Sacramento provides overall guidance and support for call box programs.

The California Department of Motor Vehicles (DMV) collects the \$1 vehicle registration fee from vehicles registered in Lake County and forwards the net proceeds to the SAFE for use in operating the call box program.

The California SAFE Committee is an association of California call box authorities. Known to members as CalSAFE, the organization provides a forum to share information and discuss common issues. Program Managers from the SAFEs meet on an as needed basis to deal with issues such as call box equipment and maintenance costs, access for disabled motorists to call boxes, technical improvements to call box equipment, safety matters, and extending call box coverage to rural counties.

Lake SAFE shares maintenance monitoring equipment as well as SAFE planning personnel with Mendocino SAFE. Sharing monitoring equipment provides a savings to both agencies. Coordinated planning and management is possible because Dow & Associates has administration and planning contracts with both agencies.

Other operational aspects of the program could not be implemented without further assistance from the private sector. The Lake SAFE works closely with Verizon Wireless to provide cellular service and Case Systems Inc., recently known as Comarco Wireless to provide equipment and maintenance to call boxes.

Call Box Operations:

Each call box is a battery powered, solar charged roadside terminal with a microprocessor and built-in cellular telephone. Call box terminals are attached to steel poles mounted on slip bases designed to minimize damage to the call box and to a vehicle in the event of a knockdown. Motorists need only open the front of the unit and pick up the handset and push a large green button to be connected to a California Highway Patrol dispatcher. At that point, voice communications between the motorist and the dispatcher are like any other voice telephone communications. If the motorist needs aid, but has a physical, speech and/or hearing disabilities, they can push the large red button, which will help the CHP dispatcher identify the motorist as impaired and will allow the use of the TTY feature of the call box, where the user can then begin typing to the CHP Dispatcher.

Once the motorist is connected, the dispatcher responds to the request by (1) routing designated calls such as accident reports, crime reports, fires and requests for medical assistance to CHP for the appropriate services or (2) providing a direct connection to routine service to private tow and service providers. All call boxes in California use an Automatic Number Identification (ANI) feature which informs the dispatcher, through a data base look-up, of the exact location of the caller. This feature expedites service requests and is particularly important in critical situations or when motorists are otherwise unable to discern their locations.

Call boxes receive as-needed corrective maintenance to keep them operating. The units are designed to operate in extreme temperatures and in all types of weather conditions. Additionally, the call boxes are capable of initiating special alarm calls to the Lake SAFE's maintenance computer in the event of a malfunction, knockdown, or vandalism. Each call box automatically reports its operational status at regular intervals (every 72 hours), reporting items such as: battery voltage,

electrical components continuity, etc. If a critical item malfunctions in between routine status report calls, the call box initiates an immediate alarm call to the maintenance center.

Operational Statistics

The number of motorist aid calls generated from the county's call boxes during the period of June 2007 through June 2008 was 364 calls. Unfortunately, due to slight difficulties with the new maintenance computer and the digital conversion with the call boxes, Comarco Wireless programmed the call boxes to call their local office in Union City to monitor the system. Reprogramming the call boxes to call the Union City office resulted in a gap of information when data for these call boxes was not captured during the months of June, July and November 2007. The winter months produce the lowest call volume. There were 63 calls during December, January and February 2008, an average of .70 calls per day. Due to the lack of corresponding data for the summer months of 2007, there are not accurate statistics for June, July and August 2007.

Appendix A-2 provides a summary report for June 2007 through July 2008 from the Lake SAFE, along with the individual monthly reports. The reports were generated by the Lake SAFE maintenance computer.

III. NEEDS ASSESSMENT OF THE CALL BOX SYSTEM

The Lake SAFE will face many challenges over the next five years. Staff continues to evaluate upgrades needed to the existing system based on changing requirements at Federal and State levels, along with ongoing cellular service issues. Most of these upgrades will be completed during the course of this plan.

Americans with Disabilities Act

Background

The Americans with Disabilities Act (ADA) was enacted on July 20, 1990, and provides comprehensive civil rights protection to individuals with disabilities in the areas of employment, public accommodations, state and local government services, and telecommunications.

An important ADA concern for call box programs is the accessibility of call box sites to mobility-impaired individuals. Unfortunately, the ADA provides no direct guidance on compliance of call box sites. Since none of the Draft ADA Guidelines concerning call boxes have been adopted by any agency, there are no stated requirements for what must be done to make call boxes accessible to mobility-impaired individuals.

Speech and Hearing Impaired

In an effort to provide greater access to call boxes for hearing and speech impaired motorists and passengers, the Lake SAFE currently equips all call boxes with the tele-type/telecommunications (TTY) technology. Because of the recent lawsuit with CalCLAD, the Lake SAFE had agreed via a resolution to convert all installed boxes with tele-type/telecommunications (TTY) technology by June 30, 2006. In addition, all future installations will be equipped with the tele-type/telecommunications devices for the deaf.



A TTY/TDD provides the user with a small display screen and keyboard onto which messages can be typed and then transmitted to another TTY/TDD at the other end of a telephone or cellular phone line. The operator, upon receiving notification that the TTY is in use, can activate pre-scripted and custom text to determine the nature of the caller's request. Although the all of the Lake

SAFE call boxes are equipped with this feature, staff acknowledges that there may be further ADA requirements that will need to be met in the future.

Cellular Technology

The specifications and operation of digital cellular call boxes remain very similar to those of the original call boxes installed at the beginning of the Lake SAFE's call box program in 1994. Although largely transparent to the motorist, a number of technological improvements have been made by the call box manufacturer over time. These improved versions of the call box were installed in June 30, 2006.

Recent advances in communications technology may provide other opportunities for enhancing contributions from call box programs. Digital communication services are now available in many areas and geographic coverage by providers of these technologies is gradually expanding. Digital providers are able to transmit both voice and data communications quickly and efficiently with unlimited access. The cellular companies are in general no longer installing towers to provide any additional analog service. Furthermore, a recent FCC ruling required the analog service providers to maintain their systems until July 2007, after July the analog service began discontinuation throughout counties in the state. The Lake SAFE program has fully implemented the digital conversion throughout the county, in which the current callbox offers both digital and analog service.

The switch from analog to digital cellular signal involves a number of interrelated, and often confusing, issues:

Digital cellular technology is currently going through several stages of technological improvements to its capacity and speed. Different cellular service providers have selected different digital cellular technologies for use in their systems. Each technology requires a different transceiver in the call box. For this reason, the choice of the type of digital cellular technology by default limits the number of cellular service providers that can offer the cellular service. Further, that choice of digital technology will limit the choice of cellular providers, and perhaps competition among them, down the road, since a change to a cellular provider using a different digital technology would require replacing the transceivers in all of the call boxes.

Even with enhanced data transmission capabilities, these new technologies need to overcome the coverage area hurdle and the SAFE must consider the retrofit cost as they look to any future conversion to furthermore their digital service capacity.

Decreasing Call Volume

Lake SAFE has noted a decrease in call volume, as have most SAFEs throughout the state. It is believed that the main reason for the decrease in calls is the increased usage of cellular phones. However, call boxes continue to provide a safety net for those motorists without a cell phone; and because of limited reception call boxes tend to be more reliable. Batteries of call boxes are continuously recharged so they are never low on power. Regular self-diagnostic checks through the maintenance computer report the call boxes operational status to identify mechanical problems

should hardware fail. Most importantly, the call box automatically identifies its location to help aid both the motorist and CHP in sending the appropriate assistance to the correct location if a motorist is unable to communicate with the CHP dispatcher.

IV. IMPLEMENTATION PLAN STATUS AND SCHEDULE

The Lake County SAFE has been in operation for over ten years. During this period, fees have been collected and background work regarding priority call box placement has been completed. Within the past five years, 43 of the 46 proposed call box installations in the 1997 Implementation Plan were completed, along with additional locations on State Route 20.

Motorist safety continues to be the primary concern for Lake SAFE. There is no need in Lake County to provide a call box system with minimal spacing requirements as a congestion management tool. The vast majority of State highways are two-lane roadways in mountainous areas. Daily volumes on most of these routes are relatively low and drop off in the winter months. Lake SAFE has based call box placement priorities upon accident and volume data. Unlike the urban areas, low traffic volume is one of major criteria used to determine call box placement. Availability of cellular service continues to dictate placement on most routes, however it is the goal of this plan to, where possible, provide two-mile spacing between call boxes.

Lake SAFE intends to closely monitor actual costs as the service is implemented. If costs vary significantly from projected costs, revised implementation plans will be prepared and submitted. It is expected that there will be sufficient revenues available to fully implement all phases of the plan as submitted.

Year-to-Year Call Box Development Plan:

Fiscal Year	Route 20	Route 29	Route 53	Route 175	Total Boxes
Prior Installations	18	15	2	10	45
2008/09	10	0	0	0	10
2009/10	7	0	0	0	7
2010/11	0	8	0	0	8
2011/2012	0	0	3	1	4
2012/2013	0	10	0	0	10
Total Per Route:	35	33	5	11	84

Proposed Development of State Highways by Segment:

This section presents a schedule for call box implementation. Highway segments are identified by route number and post mile. Average daily traffic volume (ADTs), call box spacing, and total call boxes per highway segment are also shown in each table. It is the intent of this plan to provide two-mile spacing between call boxes; however due to limited funds and cellular reception, the Lake County Service Authority for Freeway Emergencies can only commit to a rural call box *service* with variable spacing.

Segment		Average ADT	Existing Call Boxes	Proposed Call Boxes	Call Boxes per Segment
Route 20	Post Mile				
Mendo/Lake Co. Line to Junction-Rte. 29	0.00-8.5	8,000-8,800	3	2	5
Junction-Rte. 29 to Bell Ray Avenue, Lucerne	8.5-18.5	7,700-11,000	3	2	5
Bell Ray Avenue, Lucerne to Clearlake Oaks	18.5-25.5	6,000-8,900	2	3	5
Clearlake Oaks to Junction-Rte. 53	25.5-31.5	6,000-6,700	1	3	4
Junction-Rte. 53 to Lake/Colusa Co. Line	31.5-46.47	5,800-6,700	9	7	16
Route 20 Totals:			18	17	35

Segment		Average ADT	Existing Call Boxes	Proposed Call Boxes	Call Boxes per Segment
Route 29	Post Mile				
Napa/Lake Co. Line to Dry Creek Cutoff	0.00-4.5	8,200-10,200	1	1	2
Dry Creek Cutoff to Spruce Grove Road	4.5-12.00	9,000-11,300	1	3	4
Spruce Grove Road to Point Lakeview Drive	12.00-22.00	8,600-10,600	4	2	6
Point Lakeview Drive to Bottle Rock Road	22.00-32.00	8,600-10,300	4	1	5
Bottle Rock Road to 11 th Street Interchange	32.00-43.00	9,000-15,100	3	3	6
11 th Street Interchange to Junction-Rte. 20, Upper Lake	43.00-52.53	6,200-12,600	2	8	10
Route 29 Totals:			15	18	33

Segment		Average ADT	Existing Call Boxes	Proposed Call Boxes	Call Boxes per Segment
Route 53	Post Mile				
Jct. Route 29- Lower Lake to 40 th Ave, Clearlake Highlands	0.00-3.00	8,400-17,000	0	1	1
40 th Ave, Clearlake Highlands to S. of Robinson Creek	3.00-7.5	7,400-17,000	2	2*	4
Route 53 Totals:			2	3	5

**This is a 4-lane segment that would require 2 boxes, one on each side.*

Segment		Average ADT	Existing Call Boxes	Proposed Call Boxes	Call Boxes per Segment
Route 175	Post Mile				
Mendo/Lake Co. Line to Junction-Rte. 29, Lakeport	0.00-8.25	680-2,000	4	0	4
Junction-Rte. 29, Kelseyville to Cobb Post Office	8.25-20.00	680-3,900	5	1	6
Cobb Post Office to Junction-Rte. 29, Middletown	20.00-28.03	3,100-3,500	1	0	1
Route 175 Totals:			10	1	11

V. CALL BOX FINANCIAL PLAN

Revenues & Expenditures

Funding for the SAFE Call Box Program is provided by a \$1 per vehicle annual registration surcharge imposed in each SAFE county. The surcharge is collected by the DMV as part of the normal vehicle registration process. The net proceeds (less 0.5% DMV administrative fee) are primarily used to finance the purchase, maintenance and ongoing operations for the Lake SAFE. DMV revenues have slowly increased over the past five years. Please refer to Table IV-1 and Table IV-2 below which provide details of all actual revenues and projected expenditures for the past and future five fiscal years.

Lake SAFE Actual Revenues and Expenditures
Fiscal Year 2003/04 through 2007/08

Table IV-1

Fiscal Year	DMV Revenues	Interest Earned	Total Revenues	Expenditures	Fund Balance
2003/04	\$72,906	\$5,364	\$78,270	\$42,039	\$428,102
2004/05	\$73,028	\$6,863	\$79,891	\$26,587	\$481,406
2005/06	\$74,920	\$16,063	\$90,983	\$19,395	\$552,994
2006/07	\$75,360	\$22,688	\$98,048	\$200,259	\$450,783
2007/08	\$76,234	\$16,525*	\$92,759	\$26,885	\$516,657

Projected Revenues and Expenditures
Fiscal Year 2008/09 through 2012/2013

Table IV-2

	2008/09	2009/10	2010/11	2011/12	2012/13
Total Call Boxes	54	62	70	74	84
Revenues					
Fund Balance	\$516,657	\$508,829	\$509,792	\$499,330	\$508,739
Gross DMV Revenue-2% annual increase	\$77,302	\$78,848	\$80,425	\$82,034	\$83,675
Additional Income	0	0	0	0	0
Revenue Total:	\$593,959	\$587,677	\$590,217	\$581,364	\$592,414

Expenses	2008/09	2009/10	2010/11	2011/12	2012/2013
Administration	\$9,000	\$12,000	\$12,000	\$14,000	\$14,000
Planning & Operations	\$12,000	\$15,000	\$15,000	\$17,500	\$17,500
New System Installations & Upgrades	\$73,000	\$54,000	\$61,000	\$33,000	\$75,000
Existing System Maintenance	\$5,000	\$10,000	\$15,000	\$20,000	\$25,000
Cellular Network Charges	\$5,500	\$6,000	\$6,500	\$7,000	\$8,000
CHP Call Answering	\$200	\$300	\$400	\$500	\$600
Total Expenses:	\$104,700	\$97,300	\$109,900	\$92,000	\$140,100
Subtotal:	\$489,259	\$490,377	\$480,317	\$489,364	\$452,314
Interest of Balance at 4%	\$19,570	\$19,415	\$19,013	\$19,375	\$17,893
Annual Balance:	\$508,829	\$509,792	\$499,330	\$508,739	\$470,207

Expenditures

Expenditures generated from operating and maintaining the Lake Call Box System can be divided into three general categories:

1. **Administrative.** These expenses are generated primarily by Lake SAFE staff for the administration and oversight of the contractors, partners, and the system. These expenses include labor, benefits, overhead, travel, printing, and any professional services contracts.
2. **Call Box Operations and Maintenance.** These expenses are for expenses to oversee and operate the system and include the contract for the current call box management consultant (Dow & Associates), communications (Verizon Wireless), maintenance, equipment, and installations (Case Systems Inc., formerly Comarco Wireless), and call answering/dispatch (California Highway Patrol).
3. **Capital Programs.** These projects are outside of the day to day system operations and include the purchase of new call boxes for in-filling and expansion and upgrades to the existing system needed to comply with ADA and Caltrans site designs requirements.

Conclusions

In comparing the revenues to expenses, it is expected that the annual revenues exceed the annual expenses. The available program revenue (DMV vehicle registration fees and projected interest) will be sufficient to sustain projected expenditures for planned installations and maintenance over the next five years. However, with proposed installations, the pending requirements for ADA, along with conversion to digital technology, the program will likely begin to spend significantly more within the short range in comparison to recent years.

APPENDIX

- **Appendix A-1:** Map and Spreadsheet of Existing Call Boxes
- **Appendix A-2:** June 2007 through July 2008 SAFE Reports from Maintenance Computer