

El Medio Fire Protection District

Municipal Service Review and Analysis of Alternatives for Service

May 2004



Emergency Services Consulting inc.

El Medio Fire Protection District

Municipal Service Review and Analysis of Alternatives for Service

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I. Executive Summary

The purpose of this report is to provide information necessary to assist the Butte County Local Agency Formation Commission in its review of the services currently provided and those contemplated in the El Medio Fire Protection District. This review was prompted by urgent health and safety concerns raised by the public, local elected officials, and neighboring fire protection agencies questioning the current and future effectiveness of the District.

Therefore, this Municipal Service Review (MSR) is directed at examining two primary questions. Based on the analyses, these questions and the determinations were:

1. Evaluate whether the El Medio Fire Protection District, as it is currently organized, funded, and operated can provide adequate fire and emergency services to its citizens and whether the inadequacies present an urgent public safety concern.

Determination – The El Medio Fire Protection District cannot provide an adequate and reliable level of service to its citizens and this inadequacy presents an urgent public safety concern. Within the context of its funding both current and anticipated, it is unable to consistently train and maintain the staffing necessary for safe effective fire and medical aid responses.

2. Evaluate the suitability of alternatives to the current Fire Protection provided by the District to specifically include neighboring Oroville Fire Department and the Butte County Fire Department.

Determination – Both the Oroville and Butte County Fire Departments are capable of providing satisfactory fire and emergency services to the District. This is true especially in the context of the Oroville Automatic Aid Agreement which provides for the sharing of daily response and specialty resources to the mutual benefit of the participating agencies. In choosing between the two, the Oroville City Fire Department is geographically positioned better to serve the District. Further, if the district is annexed to the City, the City would then be able to provide a single agency both to provide fire and emergency services and enforce the Uniform Fire Code and Uniform Building Code all managed under the Fire Department. This is a superior code enforcement structure to that currently administered by the County Fire Department.

The analyses lead to two recommendations for action. They are:

1. In the short term, the District should approach the City of Oroville to negotiate a contract for services that merges its Fire Department with the City's and stations a City staffed engine in the District's existing station.
2. The City should be approached to consider full annexation of the area served by the District.

II. Organization of the Report

The elements required for a Municipal Service Review (MSR) are outlined in Government Code §56430 and in the recently established “LAFCO Municipal Service Review Guidelines” published by the Governor’s Office of Planning and Research (OPR). In those guidelines, OPR indicates that “the amount of information and analysis necessary to complete a municipal service review report will vary depending upon the particular service being reviewed, local circumstances, and any additional actions that might need to be taken based on the municipal service review”. Additionally, Government Code §56430 and the guidelines reiterate the requirement that the MSR report render draft determinations for the Commission to consider in its review and adoption of the MSR. These determinations must, to the extent applicable to the service being reviewed, be sure to address each of nine categories as enumerated in the statute.

The challenge in constructing this service review is to provide a meaningful evaluation and analyses appropriately focused on the services being reviewed, while ensuring compliance with the statutory requirements set forth in the statute.

Therefore, this Municipal Service Review (MSR) is directed at examining two primary questions.

- 1) Evaluate whether the El Medio Fire Protection District, as it is currently organized, funded and operated presents an urgent public safety concern.
- 2) Evaluate the suitability of alternatives to the current Fire Protection provided by the District to specifically include neighboring Oroville Fire Department and the Butte County Fire Department.

Since the scope of services being reviewed in this case are narrowly focused on fire and emergency services, the bulk of the evaluation and analyses are performed according to the Emergency Services Consulting inc. standard fire and emergency services evaluation process. These analyses are presented in Chapter V of this report, Fire and Emergency Services Evaluation and Analyses. In this chapter, the District’s current performance is assessed in detail. Where appropriate any unique capability of either the Oroville or Butte County Fire Departments to perform those services in the District is mentioned.

As a result of these analyses, the draft determinations for each of the statutorily required nine elements have been developed and appear in Chapter VI.

Developing specific recommendations for action completes the body of the report. These are listed in Chapter VII.

Finally, a critical element in those guidelines is the stated goal of increasing public participation in public service planning and delivery. Consistent with that goal, this MSR included reviews of the draft report by affected program managers with functional responsibility for fire protection in the region. Additionally a report review and public input comment workshop was conducted by the consultant at a February District Board of Directors meeting. The results of that workshop are summarized and displayed as an attachment to this report in Appendix B.

III. Baseline Data and Information

El Medio Fire District

The El Medio Fire Protection District is an independent special district located in a seven square mile section of unincorporated Butte County, California. The District was formed in the 1950's by merging two existing districts which had been serving the area since 1925.

The District lies just to the south of the City of Oroville, in an area known locally as the "Southside". It is bounded on the north by Wyandotte Road, south to Ophir Road, on the east by Lower Wyandotte Road and west to Lincoln Blvd.

The District serves 5,464 residents, 1,899 homes, and 2114 parcel lots. The area is described in a recent Butte County Grand Jury Report as economically depressed with a high percentage of rental properties. Neither the County nor Oroville have generated separate population projections for the area served by the District. The nearest measured growth rate is for the City of Oroville with a stated recent historical growth rate of 0.9% per annum. The City has indicated it believes this slow growth rate should be expected to continue into 2008. In contrast, the City has indicated its regional "fair share" housing allocation for Butte County by the State Department of Housing projects a 28% increase between the years of 2001 to 2008. City indicates it does not believe this is a realistic growth rate projection. In any case, given the economics of the community, it is likely this area may not share equally in the growth rate experienced by the City.

Community services related to fire protection problems are a combination of responsibilities. In a 2003 Standards of Cover Study, the Oroville Fire Chief describes several problems related to the abatement and enforcement of these fire protection problems. First, the control and abatement of abandoned properties is the responsibility of the County. There are approximately 11 burned out residences left long term unabated in the District. The District currently has responsibility for weed abatement which is mostly not enforced. In addition to numerous overgrown unimproved lots, the same study refers to an extreme fire hazard in the south end of the District an abandoned olive grove which under certain weather conditions poses a significant threat not only to the District, but to the City of Oroville.

The District is funded primarily through a combination of secured property tax and a special tax assessment passed by District voters in 1980. The special tax assessment was passed due to the increasing cost of providing services exceeding the revenue available through property taxes. That annual special assessment tax was established at \$60.00 per single family dwelling, \$125.00 per improved commercial property, and \$300.00 per commercial property classified as having a significantly higher fire risk. Three times in the intervening years, the District placed a measure on the local ballot seeking to increase that assessment. Each time, most recently in November 2002, the measure failed to pass.

The District's approved budget for 2003/2004 is \$259,349. Revenues are projected at \$248,500 leaving a budget shortfall of \$10,849. As a result, the District has been forced to gradually scale back staffing and services to its current level assessed later in this report.

Oroville Fire Department

The City of Oroville incorporated in 1906 as a Charter Law City and is located in Butte County California. The City has a population of 13,100 within 12.1 square miles and lies immediately adjacent on two sides to the El Medio District. The City also has a geographically disconnected 1400 acre island of responsibility west of the City with unincorporated area in between.

The City is a mix of light industrial and commercial, recreational, residential, and a densely populated downtown area. The City is governed by an elected Mayor/Council and managed by an appointed City Administrator.

The City has its own fire department which is a combination fire department consisting of full time paid firefighters and staff, and volunteer or paid call firefighters. The Fire Chief also oversees the Code Enforcement Division of the City. This Division provides code inspections, enforcement, issuance of building permits, and other building code services in addition to traditional fire code enforcement.

The City Fire Department participates in the Butte County Fire Chiefs Association which provides a wide range of interagency specialty response capabilities. The City participates in these interagency response teams contributing staffing and in some cases, funding through separate agreements. Examples of these specialty interagency response capabilities are hazardous materials response, technical and high angle rescue, water rescue, and a variety of other special operations.

The Fire Department is funded through the City's general fund with an approved 2003/2004 budget of \$1,651,244 for fire and emergency services and \$190,168 for code enforcement.

Butte County Fire Department

Butte County receives its fire protection services through a cooperative agreement with the California Department of Forestry and Fire Protection (CDF) which created the Butte County Fire Department (BCFD). This agreement has been in place and periodically renewed since 1931. The BCFD provides services to approximately 1550 square miles of Butte County from 42 fire stations. BCFD directly serves approximately 102,000 unincorporated residents of Butte County and 2,700 in the City of Biggs and 5,000 in the City of Gridley. Through automatic and mutual aid agreements, BCFD also provides resources to the cities of Oroville, and Chico.

Specific to this review, the BCFD operates several fire stations that are positioned to routinely provide service to Oroville and the District. The BCFD immediately borders the District on its southeastern and southern boundaries.

The BCFD is also a combination fire department made up of full time and seasonal employees and volunteers or paid call firefighters. The BCFD also provides numerous specialty and support services. Similar to the Oroville City participation discussed in the preceding section, some of these are as part of joint powers agreements with other fire agencies in Butte County such as the Butte County Regional Hazardous Materials Response Teams. Others include participation in other countywide efforts not jointly funded under a specific agreement, but rather through cooperative policies. These include the Drowning Accident Response Team and the RESCUE Team which handles urban and wilderness specialty rescues.

In the Cooperative Fire Protection Agreement, revenue for the fire department is provided from several sources, the largest source of which is from special legislation followed by secured and unsecured property taxes. Personnel and some operating costs funded by county revenue are known as the Schedule "A" of the Cooperative Agreement. Additional stations/equipment and personnel are funded by the State in areas of Butte County designated as State Responsibility Area and are known as the Schedule "B" of the Cooperative Agreement. Butte County also directly funds the operating and capital expenses separately from these two revenue sources in Schedule "C" of the Cooperative Agreement. This combination of multiple revenue sources and infrastructure which is managed by one agency, CDF, functionally results in the single large entity known as the BCFD.

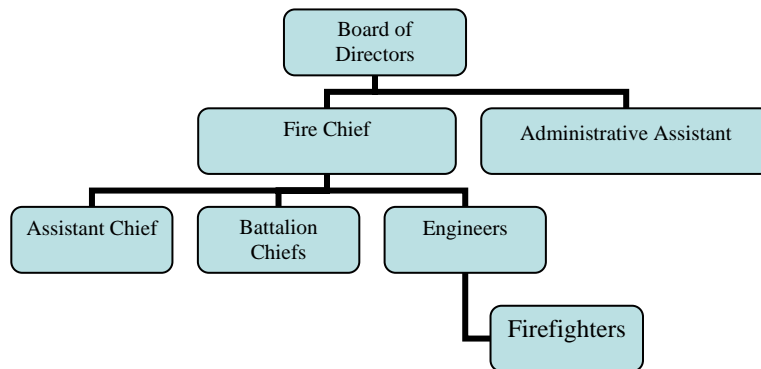
The revenue from the Schedule "A", Schedule "C" and several other smaller revenue sources resulted in a 2002/2003 total appropriations of \$10,018,089

IV. Fire and Emergency Services Evaluation and Analyses

Organizational Overview and Management Components

The District is organized as an independent special district within the County of Butte, in the State of California. The District has a five member Board of Directors which is elected from within the District. Directors serve for a period of four years. The Board of Directors is responsible for budgetary oversight, and establishing Department policies, and has the authority to appoint the fire chief. The Board of Directors meets bi-monthly on the second and fourth Wednesday and minutes of these meetings are taken by the Administrative Assistant and stored in the Fire Chiefs Office.

The current organizational design of the fire department is shown in the chart below.



El Medio Fire District Organizational Chart

At the management level, span of control is suggested to not exceed a ratio of 1:5. In other words, no more than five subordinates to each supervisor. The District's organization reflects a satisfactory span of control. Another desirable characteristic is unity of command in that no individual reports to more than one supervisor and that the lines of authority are clearly identifiable. The District's organizational design reflects these characteristics also.

The responsibilities assigned to the key positions within the organization are as described below.

Fire Chief – 1 Volunteer position. Duties include: provide overall direction and control of the management and operation of the fire department. Provide primary liaison to the Board of Directors. Management responsibilities include defining the strategic direction of the organization, financial control, evaluation of organizational performance and quality, ensuring the competence of staff, and ensuring resolution of organizational issues and concerns.

Until recently, the position of Fire Chief was a salaried full time position. The projected budget shortfall has caused the District to convert this position into volunteer status.

Assistant Fire Chief - 1 Volunteer position. The District does not maintain a written description of duties for this position. During the site assessment interview, they were generally described as those assigned by the Fire Chief. To some extent, the duties also vary according to the skills and interests of the incumbent. Currently these duties include assistance with administrative tasks and Chief Officer coverage for emergency incidents. The current incumbent is also the Chairman of the Board of Directors.

Battalion Chiefs - 2 Volunteer positions. Responsibilities as assigned by the Fire Chief.

Administrative Assistant – 1 part time position. Responsibilities include maintenance of District records, secretary at Board of Directors meetings, payroll, personnel records, and expenditure tracking.

The District does not currently have any written or developed Mission and Vision Statements, a strategic plan, or Goals and Objectives. Even in small organizations, these elements, when developed in concert with the policy body and key staff are essential to set the tone and direction of an organization's efforts. Taken together, they describe the reason for an organization's existence. They should do so in clear and succinct terms.

Records management is a critical function to any organization, but particularly for fire and emergency services where there are numerous regulatory requirements to maintain personnel training records and equipment maintenance records. A variety of uses are made of written records and therefore they must be protected. State law requires public access to most government documents. The District's records are stored with varying degrees of security and protection. Many of the records are incomplete and stored in a manner that makes locating and retrieving information extremely difficult. This is evidenced by the difficulty in obtaining materials from the District for this Review. The failure to maintain adequate records particularly of personnel training is serious as such records are necessary to show compliance with statutory requirements. Security for records that exist is either that they are attended during normal business hours or in locked offices after hours. The District appears to comply with public meeting requirements by posting agenda's in several locations in the District in advance of meetings and minutes of the meetings are maintained as permanent records.

Personnel Management

Policies, rules, regulations, and operational guidelines.

The fire department rules and regulations are combined into a single document titled "Personnel Policies". This document is actually an incomplete mix of Personnel Policies, Standard Operating Procedures, training standards, and internal memoranda. As constructed, the current document is insufficient to provide the clarity and measurability normally desired to give clear direction to personnel and to allow for management of organizational performance. There are no written disciplinary or grievance procedures.

The District's compensation package is well below the local market rate. Absent other factors which make the District a desirable place to work, this would typically create problems with long term retention of personnel. The District's experience in turnover in both the volunteer and career ranks is anecdotally reported by the Fire Chief to have been fairly low until 1998 when the wage disparity with surrounding organizations increased. There are no records available to verify these observations.

Career and volunteer recruitment, application, testing and hiring processes are managed initially by the Fire Chief. The recruitment occurs by local word of mouth and very occasionally ads are placed in local newspapers. There is a written test administered by the Fire Chief which is described as a general reading comprehension test. A copy of the test could not be produced for the evaluation. This is followed by a physical agility test which is locally developed to include simulated firefighting tasks such as wearing of a breathing apparatus, dragging a simulated victim weighing approximately 180 pounds and handling of a ladder. This test has not been validated. Following these test elements, certain applicants are selected by the Fire Chief for the Fire Chief's oral interview. The final hiring decision is vested with the Board of Directors with input from the Fire Chief.

Volunteer firefighters receive "on the job" training and are trained in weekly training sessions by career and volunteer crews. They are restricted from responding as a member of a crew until observed during training and on calls and subsequently approved by the Fire Chief. There is no formal documentation of this requirement.

Career firefighters are cleared or approved through a similar observation process, however since the District requires as an entry level requirement a State Certified Firefighter 1 and EMT-D, the approval process is accelerated. This approval is not documented.

Labor-management relationships are described as good. The firefighter group has a benevolent and fraternal association which is not involved in collective bargaining. There is no recognized collective bargaining group or Memorandum of Understanding or other labor/management contract.

Employee Wellness

Firefighting is a very physically stressful job that requires physically and medically fit personnel to perform it safely and effectively. Approximately 50% of firefighter fatalities come from heart attacks, and 50% of those had existing heart problems. It is clearly in the interest of the District and the individual firefighters to ensure programs are in place to periodically review and support high levels of psychological, medical and physical fitness. Comprehensive wellness programs have been shown to aid in each of these areas as well as reduce injury severity and frequency rates. Components of successful wellness programs are reviewed and evaluated below.

An ongoing fitness program is an important aspect of the overall firefighter training and education system. NFPA Standard 1583 provides excellent guidance to the development of a comprehensive fitness screening, improvement and maintenance program. The Districts does not have a fitness program.

Ongoing physical capacity is evaluated only through casual observation of personnel in their activities. This does not provide the District solid information as to whether an individual remains physically capable of performing the rigorous tasks involved in emergency services. Periodic evaluations would typically mirror the entry physical capacity test but should, within limits, give some consideration for an individual's age. The District has no periodic physical capacity testing program.

Physical capacity testing cannot detect all potential limiting conditions of an individual's health and fitness levels. Periodic medical evaluations of full-time personnel are an important tool in this process. National safety standards for firefighters recommend an annual medical evaluation. The evaluation should include all the criteria included in the entry level exam as well as periodic stress EKGs and blood toxicology screening. Communicable disease vaccinations can also be updated as needed during this process. This medical evaluation should be based on standards recommended in the National Fire Protection Association (NFPA) Standard 1582. The District does not provide this testing.

There are no formal referral processes or guidelines for employee assistance and counseling services.

Safety Committees or regular safety review is a management component critical to assuring safe fire department operations. This process recommended by national standards in NFPA 1500. The Districts Policy #110.82 in its Personnel Policies Manual outlines an Injury Prevention Program. It requires the Fire Chief to designate a panel of 3 members to serve as a safety committee.

The policy sets forth the duties of the safety committee as follows:

- Reviewing and investigating all incidents of job related injury
- Assessing the safety of fireground and other hazardous operations
- Work with Training Officer to establish testing procedures to ensure all employees are understand and follow safety requirements
- Maintaining records of safety training, corrections, and work place inspections
- Work with the Chief to establish long range goals for improving the safety of the work environment
- Report to the Board of Directors on a quarterly basis on all safety issues and training

From available information, it does not appear the District conducts any of these activities on a regular basis.

On November 23, 1998, Cal/OSHA passed a new Respiratory Protection Standard that requires departments to establish and manage a written Respiratory Protection Program. This and related standards require the employer to include program components on training, fit-testing, medical evaluations, maintenance systems, equipment standards, record-keeping and other items as required by California Labor Code 142.3(a)(2) and Title 8, Section 5144 of the California Code of Regulations [8 CCR 5144 (c)]. The District has not implemented the written program.

One component of the program requires annual fit testing of self contained breathing apparatus (SCBA). This fit testing is conducted at the station level. Fit test means the use of a protocol to qualitatively fit test (QLFT) or quantitatively fit test (QNFT) the fit of a respirator on an individual. The District chooses to use a QLFT pass/fail fit test to assess the adequacy of respirator fit that relies on the individual's response to an odor test agent. This is an acceptable practice.

During the site evaluation, records were not available to document the results of this testing. A related requirement is the documentation of daily, weekly, monthly inspection SCBA's. The District reports it conducts these inspections and have in the past performed the attendant record keeping; however the records could not be located for the site evaluation.

The District had a firefighter trained and certified as a repair and testing technician who has left the department for employment elsewhere. In the absence of a trained individual, SCBA's will need to be sent out for repair which will increase maintenance costs.

Risk Management

This section reviews the various elements within the operation of the District that present or mitigate risks of civil or legal action, injury, or illness, that would have a detrimental effect on the organization.

Nothing is accomplished without some element of risk. Since avoiding risk altogether is impossible, effective management of risk is necessary. This should be accomplished by implementation of a deliberate effort directed at that management task. This program should involve a variety of strategies including:

1. Transferring some risk to a third party via insurance.
2. Periodic safety and risk inspections of fire department facilities.
3. Review of fire department rules, regulations and procedures for potential risk exposure.
4. Review of contracts and agreements entered into by the fire department for potential risk exposure.
5. Periodic review, with the Fire Chief and Board of Directors, of risk coverage and retentions.



Workers Compensation

The District's Workers Compensation Program is administered through a joint powers agreement with the state provided State Compensation Insurance Fund. There are no records available to review regarding the frequency or nature of injuries to fire department personnel. The District does not keep or post the state required Cal OSHA 200 injury log.

Property and Liability Insurance Coverage

The District reports that it maintains a single all inclusive insurance policy provided through a cooperative venture made available by the State Fire District's Association. The only records that could be produced for the site review was a certificate of automobile insurance provided by Atwood Insurance Agency located in Placerville. This coverage provides automobile liability coverage of \$1,000,000 combined single limit per accident, and \$142,000 with \$250 deductible in comprehensive collision coverage for vehicle losses for District owned vehicles.

This umbrella policy was also reported to include general liability, property damage, and liability coverage for medical malpractice in the form of an "errors and omissions" component. The District was unable to produce certificates of insurance to allow independent evaluation of these components of coverage.

ISO Grading

The Insurance Services Office (ISO) uses a 1 – 10 rating scale with class 1 being the best level of service (and lowest fire insurance premium cost) and class 10 being no service at all. The ISO reviews fire protection in three major categories. These categories are shown below.

Communication (10%) – This evaluates the function and reliability of the dispatch service.

Water Supply (40%) – This evaluates the community's ability to deliver firefighting water in sufficient volumes to combat fires in buildings.

Fire Department – (50%) – This evaluates the capability of the fire department to effectively respond to and extinguish a fire. Items reviewed include apparatus, staffing, training, and station locations.

The ISO rating is important to a community. Many property insurance companies base the fire risk portion of property insurance premiums on the community's ISO rating. The chart that follows shows an example of how fire insurance rates for homes change based on the ISO rating assigned.



Fire Department Protection Class Versus Insurance Premium Cost				
Annual fire insurance premiums based on home value (source: Oregon premium survey)				
Amount of coverage	Protection Class			
	2-6	7-8	9	10
\$100,000	\$322	\$435	\$885	\$1,046
\$150,000	\$416	\$562	\$1,144	\$1,352
\$200,000	\$549	\$740	\$1,509	\$1,782
\$250,000	\$691	\$934	\$1,901	\$2,247

As the ISO class improves fire insurance rates decrease dramatically until class 5 for homes. Businesses generally benefit from further reductions down to class 1.

The District's last ISO rating was performed in 1988 when it received a protection class rating of 5, improved from its previous rating of 6. As a result of the recent budget driven staffing reductions and the credit for staffing levels in the grading process, if another rating were to occur today, doubtless it would result in an increased (worsened) rating.

Fiscal Accountability

The Board of Directors is responsible for adopting an annual budget and maintaining financial records for the District. The Administrative Assistant tracks all expenditures and produces a monthly line item accounting of expenditures against budgeted amounts for the Fire Chief and Board of Directors. The District reports it produces an independent Comprehensive Audited Financial Report (CAFR) through contract with an accounting firm. A copy of the latest CAFR was not able to be located for review during this process. However the District's own records as of December 2003 show a current fund balance shortfall of \$7,342.00 to date.

The District is carrying and servicing some debt. The first is for a FY 96/97 \$89,000 lease option on the front line fire apparatus Engine 312 which has an annual payment of \$12,118, a current balance of \$22,437 and is completed in Nov 2005. The second is for a FY 00/01 \$50,000 loan for a water tender which has an annual payment of \$8,719, a current balance of \$23,435, and is completed in 2006. Combined, these annual payments represent approximately 8% of the districts annual budget.

There are no open purchasing accounts (standing purchase orders). All purchase requests are approved by the Fire Chief and tracked by the Administrative Assistant.

There is a petty cash account which is managed solely by the Fire Chief.

There are two District credit cards issued, one for office supplies and a government gas card. The District handles routine fueling of apparatus through an informal agreement with the nearby Lake Oroville Public Utilities District. The Fire District fuels its apparatus at the Public Utilities District yards, and is billed monthly at the suppliers cost. The fuel credit card is used for those occasions when the facilities at the Public Utilities District yards are not available. These appear to be the only open lines of credit the District holds.

Capital Assets and Capital Improvement Programs

Facilities

The District operates out of a single station located at 3515 Meyers Street in the unincorporated area immediately south of the Oroville city limits. The facility was constructed in 1980.

Overall, the station has a need for general upkeep maintenance items such as painting and minor repairs that appear to have been deferred for some time. There does not appear to be any current effort to improve the physical condition of the station.

Often, departments avoid getting behind on the need for recurring minor repairs and maintenance by allocating a certain amount of recurring funding on a rotating “Alterations and Improvements” budget cycle ranging from 3 to 5 years. In this strategy, a certain amount is budgeted each year for a predetermined number of minor alterations and improvements. Examples of this category of work would be dorm privacy upgrades, shower/restroom remodeling, minor kitchen remodeling, and station painting.

A senior officer in conjunction with the station officers normally assigns these projects each year following a joint facility inspection. Following these inspections a list of recommended improvements is generated prioritized and work assigned. This is distinguished from typical Capital Improvement Plan projects in scope, budgeted amounts, and the flexibility of generating the A&I programs minor project list each year according to need.

The District typically has budgeted for these activities in the annual operating portion of the budget. The District’s financial status has prevented funds budgeted for these items from being used for that purpose and consequently the facility continues to fall behind.

There are several situations noted during the station assessment that present some risk. The first is related to personnel exposure to diesel fumes. There are three primary areas of concern.

1. There is no diesel exhaust system designed to remove the harmful products of internal combustion from diesel engines in apparatus rooms. This is typically accomplished through either an umbilical hose attached to each apparatus to collect and exhaust diesel fumes or a negative pressure fan venting system in the apparatus room. Neither of these practices is in use.
2. In addition to a diesel exhaust or collection system, apparatus rooms should be fitted with self-closing, airtight doors in doorways leading to station living and sleeping areas. Once again the primary concern is reduction of long term exposure to products of diesel combustion.
3. Turnout clothing is stored in open lockers in the apparatus room. Research indicates that long term exposure of clothing to diesel fumes allows carcinogens to permeate the clothing and then off-gas to be inhaled by the wearer. To avoid this, turnout clothing should be stored in a separate room or area of the station not continuously exposed to diesel fumes.

Secondly, the station does not have a separate area for washing and drying clothing and equipment exposed to bloodborne pathogens. Station personnel simply rinse turnout clothing on the rear apron and wash contaminated uniforms with other station laundry in the station clothes washer, or are even laundered at the wearer's home.

OSHA Regulations (Standards - 29 CFR) Bloodborne pathogens - 1910.1030 specify the employer's responsibility to develop and maintain an Exposure Control Plan. In that plan, the requirements for workplace engineering practices and training are specified. The District does not have an Exposure Control Plan.

Several other items were noted as not immediate in nature, but worthy of mention in the report.

1. Station furnishings are most cases a collection of discarded and second hand furniture. This not only reduces the comfort and livability of the station, but also presents a cluttered, unprofessional impression to visitors.
2. Similar to the station furnishings, the complement of glasses, dishes, silverware and cooking utensils is also a collection of second hand or discarded items the crews have brought from home.

There is only a single small dorm with three beds. There are no personnel privacy separations or accommodations for a mixed gender workforce. There is a single bathroom and shower facility. The kitchen is small but satisfactory for use by the on-duty crews.

Apparatus/Vehicles

A list of District apparatus and the condition of each appears in Appendix A. In general, the District has a single first line response engine which was acquired new in 1996. This engine is staffed by career personnel and is in generally good condition. It is a Type 2 (combination of structural and wildland capabilities) engine which is well suited for service requirements in the District and surrounding communities.

The remaining fleet includes three additional Type 2 engines, and one Type 1 Water Tender. Additional recalled career personnel and District volunteers usually staff these vehicles. These vehicles are old (range from 26 to 41 years), and in generally fair to poor condition. This is a serious concern for the District as the fleet age far exceeds the industry best practice of 15 years first line service and 10 additional years of reserve service for fire apparatus.

Reliability during emergency operations and service repair costs generally make retention and use beyond those thresholds prohibitive. The Fire Chief has indicated that one of the reserve apparatus, although still serviceable is not routinely used as the brakes are wearing and there are no longer any parts made for the unit thus necessitating relatively expensive fabrication to repair. Although good maintenance practices and less demanding use can slightly extend those industry best practice thresholds, this fleet far exceeds even a reasonable extension.

Maintenance and repair records are focused exclusively on tracking expenditures. Record keeping for the purpose of tracking apparatus reliability and maintenance costs is not performed. Preventative Maintenance occurs on a biannual basis and is performed by station personnel. It is reported to be oil and filter changes and brake checks, however there is no written verification of this process. There is a daily checkout sheet however the records are incomplete and not well maintained.

Future capital needs and apparatus replacement plans do not exist. The Fire Chief indicates that future apparatus needs will be accommodated by similar lease/option to buy financing programs as currently being used for the two front line apparatus the District currently uses.

Training Program

Providing quality and safe fire and emergency services requires a well-trained response force. Training and education of department personnel are critical functions for the District. Without a quality, comprehensive training program, emergency outcomes are compromised and department personnel are at risk.

General Training Competencies

In order to ensure quality training is provided, it should be based on established standards of good practice. There are a variety of sources for training standards. The District has selected the International Fire Service Training Association (IFSTA) as its main sources of standards and materials, which is widely used as an industry standard.

Hazardous materials training is delivered at the “Operations” level. The Operations level of training is appropriate for the District’s personnel who function in the first responder role on hazardous materials responses. For advanced hazardous materials response capability, the District relies on the mutual aid response from the regional interagency hazardous materials response team managed by the BCFD.

Training Facilities

Quality training occurs when simulations are created that closely mimic real life emergencies. The first time a firefighter experiences the environment of an emergency situation should not be on a real event. Although the District does not have the resources to design and development training facilities, there are opportunities for partnership with other public and private entities that have similar or compatible needs. The District does pursue these cooperative efforts.

The District does have a classroom in the station for formal training classes. The District provides use of the facility to a local private company (Absolute Safety Training) which provides legally mandated fire department and EMS training for a fee to many area departments. The District provides use of this facility in return for training services for Operations Level Hazardous Materials and EMT-D recertification training as in kind services. The District does not have access to any other training facilities available to support ladder skills and multi-floor operations, but instead uses local schools and businesses. This is not an uncommon practice in the industry.

Live fire training is limited to only those times a structure intended for demolition is provided to the District or another of the area departments. The area departments seek opportunities to train together in these settings and the District makes an effort to participate.

The District maintains a limited library of IFSTA manuals and related audiovisual equipment and materials at the station.

Training Staff

The District Personnel Policies Manual makes a reference to a Training Officer. This is an assigned position which is not currently filled. Therefore, on duty crews and volunteer Chief Officers serve as training staff.

Ongoing Skills Maintenance Training

Once assigned to a response unit, personnel must be continually provided with refresher training to avoid degradation of skills learned during entry level training. In addition, training must be provided to deal with emerging risks and service demands.

There is a variety of guidance available on the amount of time that a firefighter should spend training each year including the Insurance Services Office, NFPA and others. These sources suggest that 240 hours per year is the minimum needed to ensure proficiency and prevent degradation of skills. Additional hours of training are needed for specialty services such as rescue, emergency medical, leadership and incident management.

The District does not have a written training plan nor is any other information available from which to determine the frequency or subjects of training efforts.

Career Development Training

National standards recommend that personnel demonstrate the skills and knowledge required prior to be promoted to a more responsible position within the organization. Pre-promotional training is often provided to ensure candidates for promotion meet the minimum educational requirements for the position. Then the recruitment process is used to select the most qualified individual based on a demonstration of proficiency.

The National Fire Protection Association has standards for each of the positions within the Fire Service. The apparatus operator standard is NFPA 1002 and the fire officer standard is NFPA 1021. Other standards exist for specialty skills such as the rescue disciplines.

The District does not provide any documented Career Development Training. Employees may attend some classes on their own time at their own expense, however currently no records exist to track this.

Record and Reports

Training records should be maintained to provide reports showing the amount of training delivered to each employee. This is an excellent resource for the department to assist in developing long-range training and education plans. The District sporadically keeps company training records and does not currently keep individual training records.

The lack of proper training programs and record keeping is a serious deficiency. Proper training is a critical component of effective fire and emergency service delivery. Without a properly organized and tracked training program there is no assurance that the district personnel have the training to properly perform their duties.

Fire Prevention and Education

An aggressive risk management program, through active fire prevention efforts, is a fire department's best opportunity to minimize the losses and human trauma associated with fire. The International Association of Fire Chiefs has defined proactive fire services as:

“... embracing new, proven, technology and built-in protection, like automatic fire sprinkler and early detection systems, combined with an aggressive code enforcement and strong public education programs.”

A fire department should actively promote fire resistive construction, built-in early warning and fire suppression systems, and an educated public trained to minimize their risk to fire and respond effectively when faced with an emergency.

Code Enforcement

The authority for modern code enforcement efforts are usually vested in the adoption and subsequent modification (amendments) for local needs of a set of model or “uniform” codes. The District has adopted the 1994 Uniform Fire Code. Since financial concerns have caused the District to eliminate its code enforcement officer, it now provides limited code enforcement and other fire prevention services with the Fire Chief and on-duty career crews.

Butte County has adopted and enforces the Uniform Building Code (UBC) in the District through the County Building Department. Butte County has not adopted the Uniform Fire Code (UFC), therefore throughout the unincorporated areas in Butte County fire related prevention and code enforcement is limited to those requirements enforceable under the fire and panic safety regulations located in the California Code of Regulations (CCR) Title 19 and portions of Title 24. These efforts are generally limited in their application to buildings with an occupant load of 50 persons or more.

Wildland or vegetative fuels enforcement is provided in Butte County primarily through the California Public Resources Code (PRC) and portions of CCR Title 14 which provides for certain enforcement efforts in those lands designated as State Responsibility Areas. These codes are primarily focused on wildland fire and structural interface fire safety considerations (access, roof construction, brush clearance etc).

Therefore, although the District has had the foresight to adopt a model fire code and thus has the authority from which to enforce a more modern code, it lacks the resources to do so. At the same time, although the Butte County Fire Department enforces county adopted codes in the unincorporated area, and has indicated it's willingness to enforce the UFC in any of its contract communities, it lacks the authority or funding to conduct code enforcement in the District. As a result, neither the Butte County fire codes nor the District adopted UFC codes are enforced in the District.

Further, during the site assessment on a drive through the District, a number of burnt out and/or abandoned buildings which are standing unabated were noted. Thus one must conclude that very little fire or building code enforcement is occurring with any regularity in the area served by the District.

In contrast, the City of Oroville has adopted the UBC and UFC and enforces them both through the Fire Department. This difference is a significant advantage in any comparison relative to this component between the three agencies.

One additional element in the District's code enforcement picture is that it lies partially within a local Enterprise Zone. In 1991 the State of California designated most of the District and a portion of the City as an Enterprise Zone. The Enterprise Zone Program targets economically distressed areas throughout California for state and local incentives intended to encourage business investment. The rationale of the program is to provide tax and other incentives to businesses which allow private sector market forces to revive the local economy.

Pursuant to this designation, the City and the County entered into an agreement whereby the City functions as the single streamlined contact/plan approval point for builders and developers. As a result, the City also has some building code enforcement responsibilities. At the time of the development of this report, it is unclear to the principals involved whether the language of the agreement also requires Fire Code enforcement by the City within the areas of the District which lies within the Enterprise Zone. It is important to note that the provisions of this agreement only extend to non residential development, and it has not resulted in any code enforcement activities in the District.

Sprinklers

Later in this report the dynamics of fire in a building are described as they relate to response time. While excellent response time performance by the fire department is vitally important, the most effective method to protect lives and property from fire is the fire sprinkler system. Fire service resources can not be provided to match the level of protection provided by this technology. The cost would simply be too high. The best opportunity to apply water to a fire prior to flashover is through the use of built-in fire sprinkler systems in homes, businesses, and other buildings. Their advantage is that they not only detect the fire, but also apply water well before flashover.

Recent innovations in residential fire sprinkler design have dramatically reduced their cost. Scottsdale, Arizona, for example, reports that residential fire sprinkler installation costs are averaging \$.59 per square foot (\$885 for a 1500 square foot house). St. Helens, Oregon is reporting costs of about \$.75 per square foot (\$1,125 for a 1500 square foot house) in a pilot project within their community.

Scottsdale, in 1985 passed a city ordinance requiring fire sprinklers in all new buildings including single family residential. This created a large market for sprinkler installers and is the primary reason for their lower cost experience. Their ordinance, in addition to requiring fire sprinklers also allowed opportunities for “design freedoms” in new development. These include increased density in new subdivisions, narrower street widths, smaller water main sizes, increased spacing between fire hydrants, and longer cul-de-sac lengths. These resulted in development and construction costs savings (1986 estimates) of \$2,110 per unit. In a report by the California State Fire Marshal’s Office, similar results were reported for design freedom programs in that state.

Scottsdale conducted a comprehensive evaluation of the effectiveness of their fire sprinkler ordinance. This evaluation covered a ten-year period following the implementation of the ordinance. Their findings indicated:

“The average fire loss per sprinklered incident was only \$1,945, compared to a non-sprinklered loss of \$17,067. Automatic protection had a direct role in saving eight lives. One or two heads controlled or extinguished the fire 92% of the time, with the majority of the exceptions a result of flammable liquid incidents.”

There are no sprinkler ordinances currently in existence or contemplated by the District.

New Construction Review

The Butte County Building Department reviews plans for the construction and remodeling of commercial structures. The Building Department reviews/approves the plans with respect to any construction related issues found in the applicable Building Code. Fire Code plan review such as access and water supply and certain process hazards such as hazardous materials handling systems and construction inspections are all performed by the Fire Chief. In addition, the Fire Chief also would review fire alarm and sprinkler system design, construction of area and occupancy separations as well as fire dampers and other fire resistive features. Lacking the expertise or training to perform these evaluations, the Fire Chief indicated he relies on the collegial informal review and recommendations of the Oroville and Butte County building and fire inspection services.

Fire Safety Inspections

Property inspections, to find and eliminate potential fire hazards, are an important part of the overall fire protection system. Typically Fire Codes stipulate that certain, more hazardous, properties must have a permit to operate and in order to receive a permit must have a fire safety inspection. The chief can generally waive the inspection requirement, however the issuance of a permit should indicate that a minimum degree of safety exists. Without an inspection this cannot be assured.

The recommended frequency for commercial fire safety inspections varies by the type of business. Generally they are classified by degree of hazard. The table below describes the various hazard classes and the frequency for fire safety inspections recommended by the National Fire Protection Association.

Hazard Classification	Example Facilities	Recommended Inspection Frequency
Low	Apartment common areas, small stores and offices, medical offices, storage of other than flammable or hazardous materials.	Annual
Moderate	Gas stations, large (>12,000 square feet) stores and offices, restaurants, schools, hospitals, manufacturing (moderate hazardous materials use), industrial (moderate hazardous materials use), auto repair shops, storage of large quantities of combustible or flammable material.	Semi-annual
High	Nursing homes, large quantity users of hazardous materials, industrial facilities with high process hazards, bulk flammable liquid storage facilities, a facility classified as an “extremely hazardous substance” facility by federal regulations (SARA Title III)	Quarterly

In modern Fire Departments, fire station personnel are often utilized to provide fire inspection services. They must receive comprehensive training to do this work to ensure best service and minimize the risk associated with improper inspections. However this should not be at the expense of their primary function of emergency responders.

The use of fire station personnel is the stated means of conducting fire prevention inspections in the District. However, there is no regularly scheduled effort to perform these inspections, but rather it is left up to the interest of the crews on duty and those precipitated by citizen complaints. There is a limited record keeping system of inspection and citations; however the most recent entry in the files available to the site reviewer were performed in the late 1990’s. There is no fire prevention training provided to the station personnel. One must conclude there is currently very little fire prevention effort in the District.

Public Safety Education

Providing fire safety education to the public to minimize the occurrence of fire and train the community in appropriate actions to take when faced with an emergency is a fire protection strategy is important for any community.

The District offers public education programs which include fire safety programs and demonstrations at the fire station during the annual October Fire Prevention Week. There has been some effort to provide fire safety training at the local elementary schools each year, however this is not documented and is reported to have been falling off over the last year.

The District does not attempt to measure or evaluate the results of its existing Public Safety Education Programs.

Incident Information Analysis

The primary purpose for maintaining a record of emergency responses is to evaluate the effectiveness of fire department effort. This effort includes deployment strategies, personnel training, and particularly the effectiveness of fire prevention and public safety education programs.

The District provides required fire incident reporting through the use of a widely used commercial fire incident reporting system called “Firehouse”. Although this system also has some incident analysis capabilities, the District does not maintain these records for that purpose. Therefore, other than anecdotally, it is unable to study or understand the nature of its risk.

Fire Investigation

The Fire Chief and Assistant Chief are reported to have had several classes in fire cause and origin and therefore conduct all fire investigation. In the event a fire involves a fatality or attendant circumstances are too complex for these individuals, there is an area interagency Arson Team which provides its services to the District free of charge.

Planning for Emergency Services

The fire service exists in a rapidly changing environment. Along with improvements in tools and methods used to provide service come increased regulation of activities, new risks to protect, and other challenges that can quickly catch the unwary off guard. Only through continuous environmental awareness and periodic course corrections can an organization stay on the leading edge.

Therefore, to achieve its maximum effectiveness, fire agencies should address planning on three levels: Tactical planning, operational planning, and master or strategic planning. Pre-incident planning should be pervasive in scope and should be based on building and construction types, and should include those targets such as hazardous occupancies, high-rise, schools, as well as industrial parks.



Planning Elements

Long-term perspective

There is not much information available upon which to base any qualitative or quantitative analysis of level or quality of service. The organization has not adopted any measurable performance objectives upon which to assess the level of service provided by the District. These would include such measures as annual acceptable fire loss, response time performance, fire incident rates, and the like. Since this clear definition is missing it is difficult for policy makers and department managers to know when “great service” is achieved. Additionally, the District has not undertaken any long term strategic or organizational planning upon which it may depend for direction of short-term effort. The District’s attention is completely focused on short-term survival that detracts from any long range planning efforts that the District may desire to conduct.

Pre-incident/Tactical Planning

A firefighter’s typical work area is usually quite foreign to him or her. Normally, a firefighter’s first visit to a building is when the building is involved in fire. This is also the point in time where the internal environment is at its worst. Contrary to Hollywood’s portrayal of the inside of a building on fire, visibility is at or near zero due to smoke. A lack of familiarity with a building can easily lead a firefighter to become disoriented or injured by an unfamiliar internal layout, or by equipment or other hazards that might be encountered.

It is critically important that firefighters and command staff have good information readily at hand to identify hazards, direct tactical operations, and use built-in fire resistive features. This can only be accomplished by building familiarization tours, developing pre-fire plans, and conducting tactical exercises, either on-site or by tabletop simulation.

The first step in this process is a review of the response area for the purpose of generating a defined list of “target hazards”. Target hazards are defined by:

- buildings with large potential occupant loads
- buildings with populations who are partially or completely non-ambulatory
- buildings of large size (greater than 12,000 square feet)
- buildings that contain process hazards such as hazardous materials or equipment

Development of pre-incident plans is the next step in the tactical planning process. Once the target hazards have been identified, a pre-incident plan is developed for each. These plans are generally carried on the fire apparatus and provide the basis for tactical decision making which is well thought out ahead of the emergency. At a minimum a pre-incident plan should include information such as:

- building construction
- occupant characteristics
- incorporated fire protection systems
- capabilities of public or industrial responding personnel
- water supply
- exposure factors

The last step which closes the loop in the pre-incident tactical planning process is pre-incident plan targeted training. In this step, training sessions are conducted with all responding companies which involve a walk-through of the building and discussion of actual unit and personnel deployment at the target hazard in accordance with the pre-incident plan. This training ensures that when an actual fire or other emergency occurs at the target hazard, all responding personnel have had a chance to practice expected incident operations. This provides maximum opportunity for success at an actual emergency.

The District does carry preplans generated by BCFD and OFD for their respective jurisdictions, however there appears to be little development of target hazard information, pre-incident planning, or targeted training for occupancies inside the District. As was pointed out the Fire Chief during the site evaluation, there are not very many structures meeting the target hazard criteria within the District, however this does not negate the need for these planning activities on those that do exist.

Customer Involvement in Planning

Fire Departments have two primary customer groups; external customers (the community) and internal customers (employees). Both perspectives are very valuable to the organizational planning effort.

External Customer Involvement

Because the community is the recipient of services, and the source of funding for those services, their needs and expectations must be a key consideration to selecting the type and level of services to provide. In Butte County, Fire Safe Councils are a primary means to achieve this external customer involvement. The District does not participate in the Fire Safe Council or any other community based planning efforts.

Internal Customer Involvement

The employees of the District are also, in a fashion, customers of the organization. They depend on management and support personnel to ensure they have the tools they need, needed training and other support so they can be successful in providing this vital community service. Those delivering the service often have valuable ideas about how to improve it.

There is currently no formal opportunity for employee involvement in the critical issues facing the organization. There are no periodic internal communications such as newsletters or messages from the Fire Chief, senior staff, or Board of Directors.

Delivery Systems: Suppression, Rescue, EMS and HazMat

The most visible, and valued, of the services provided by any Fire Department is the response to and control of emergency events. The District provides a variety of emergency response services including:

- fire suppression
- first response emergency medical service
- hazardous materials emergency first response
- initial extrication and rescue
- public assistance

Following is the review and evaluation of these and the related emergency services.

Emergency Communications System

The first line of contact for persons experiencing and reporting emergencies in any response system is generally the Dispatch Center. Emergency call receipt and dispatch service for the District and surrounding area is provided under contract by the Butte County Emergency Command Center (Butte ECC). Enhanced 9-1-1 telephone service is in operation. This system provides a display of the address and telephone number of the telephone being used to place the call. This information is very useful to ensure an accurate and timely dispatch of units to the emergency. Cellular phones do not currently give this information, however state and national efforts are underway to solve this.

Computer assisted dispatch technology is being used by the 9-1-1 center. This system provides the dispatcher with current status of all response units, recommends the units to respond to a call based on the type of call and location, and allows tracking of units during the event.

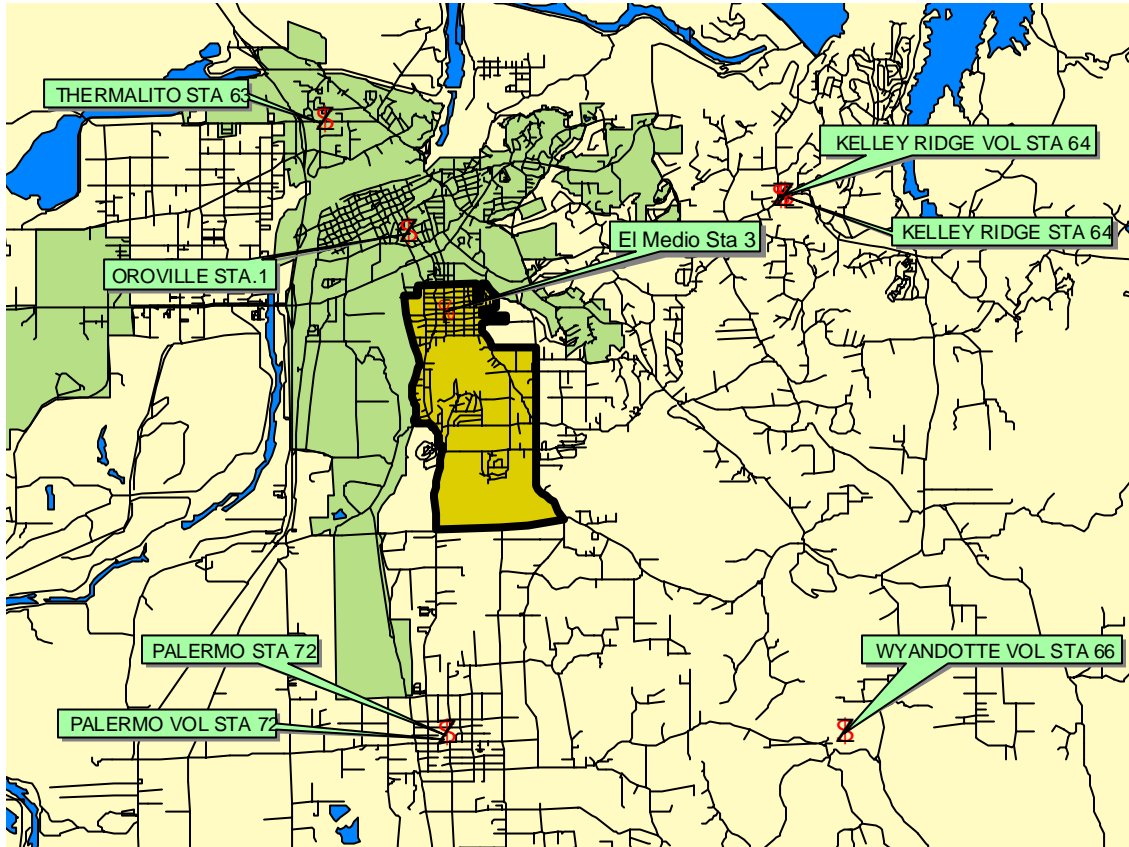
The Butte ECC is secondary Public Service Answering Point (PSAP). This means all 911 calls are first answered by the primary PSAP which is the Butte County Sheriff's Department. The primary PSAP determines if the incident is a law enforcement or fire/medical request. If the call is for a fire or medical emergency, the call is transferred to the Butte ECC. The Butte ECC provides dispatch services for the unincorporated areas of Butte County, the cities of Oroville, Gridley, Biggs, and the El Medio Fire District. Since the District withdrew from the Oroville Automatic Aid Agreement the dispatching services it received at a greatly reduced contract price is now \$25 per call which translates into a new annual fee of approximately \$25,000. The District can ill afford this increase in service costs.

Butte ECC also provides Emergency Medical Dispatching or EMD. This program provides callers with critical medical care instructions prior to fire department resources arriving at the scene. This service is a critical step in the chain of survival for patients suffering injury or illness.

Mobile and portable radios are purchased and repaired as needed from a private vendor by the District from its annual budget. The radio system is compatible with all surrounding fire agencies. Coverage is excellent with no “dead” or areas of poor service or reception in the District’s response area.

Fire District Resources

The current deployment of resources providing fire and emergency response to the District is shown on the map below.



Map 1 - District area station locations.

The location of fire stations from border agencies is useful in any analyses; however it is particularly pertinent in view of the resource sharing agreement in place in this region. The “Oroville Automatic Aid Agreement” was originally established in November 1995 as the “South County Fire and Rescue Management Agreement” and modified to its current form in January 2004. This agreement is an extremely effective resource sharing agreement which significantly enhances the fire protection available to the community of Oroville and the surrounding area including the District.

Most California fire agencies participate in the statewide master mutual aid system which shares resources in an “as called” basis. Through this agreement, any participating agency when faced with an emergency which exceeds its own resource capacity, may call for and receive additional resources not just from bordering jurisdictions, but from throughout the state. Although extremely effective at marshalling large numbers of resources to combat large scale emergencies, it is cumbersome and therefore not designed to manage the task of resource sharing for day to day operations.

Access to additional resources in this system is accomplished by multiple phone calls from the requesting agency to various dispatch centers that in turn must alert and dispatch their own resources. Often these requests must be made through a third dispatch center designated as an “Operational Area Coordinator” functioning as a regional coordinating intermediary. This request and coordinating process is time consuming and therefore adds additional minutes to an already time critical need of providing the number of resources necessary to effectively and safely mitigate an emergency.

The Oroville Automatic Aid Agreement is designed to streamline that resource request and sharing process to make it useful for daily operations. Agreements of this nature are generally designated as “Automatic Aid” agreements in contrast to the “Mutual Aid” agreement described above. This means that rather than request resources only for occasional large scale incidents, the agreement to share is prospectively designed to happen automatically in certain predetermined areas on a daily basis. This is also descriptively called a “Boundary Drop” in that these agreements provide for the physically closest resource respond to an emergency irrespective of jurisdictional boundaries.

The Oroville Automatic Aid Agreement is a uniquely effective construct of that automatic aid concept due to several factors listed below.

- The agreement allows participants to have access to a greater number of resources and staffing than any could provide alone.
- The agreement provides for sharing of resources that not all parties otherwise would have access to, i.e. a truck company.
- A separate but related agreement provides for the dispatching of all participants from a single dispatch center. This provides a tremendous advantage of eliminating the time intensive process of requests and dispatching being handled by multiple centers.
- A Field Operations Guide has been developed to outline common response procedures, staffing levels, operational protocols, and terminology.

One important consideration in discussing the effectiveness of the Oroville Automatic Aid Agreement is the predictability and reliability that the shared resources are available to respond to emergencies within the agreement area when they occur. Specifically, this means how often each agency’s resources will be available in its station to participate in the boundary drop response.

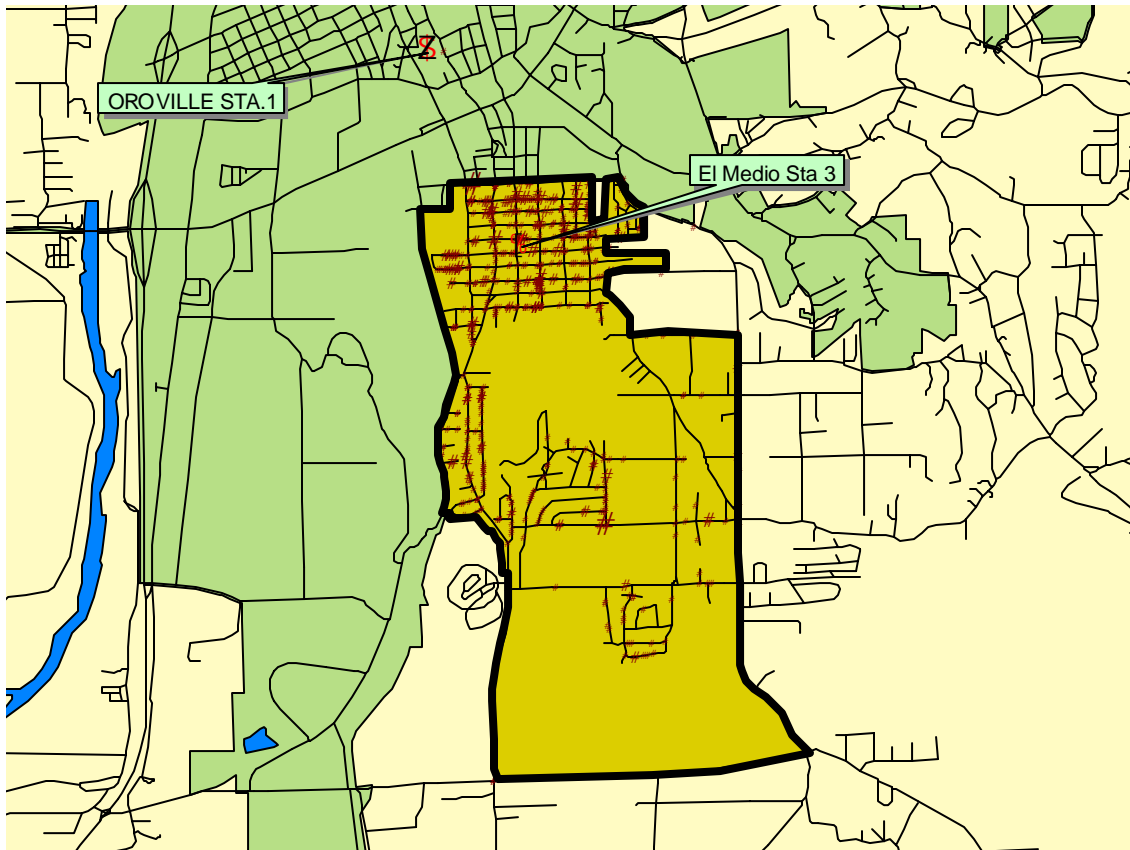
In the case of the CDF Thermalito Station #63, it is a combination Schedule “A” and “Schedule “B” station. While the Schedule “A” staffed unit is available all year, the Schedule “B” staffed units have as their primary responsibility response and commitment to wildland fires in State Responsibility Areas of Butte County. As a result, the total available station staffing also varies seasonally, with a high during declared fire season of three engines staffed with 8 personnel to a low during non-declared fire season of one engine staffed with two persons. Therefore the staffing and number of units at Station #63 are not consistent and may not be available at all in the event of a large commitment of CDF/BCFD resources in its own jurisdiction.

In contrast, the Kelly Ridge (#64) and Palermo (#72) stations are CDF/BCFD stations. As a result, although they are still vulnerable to be called away to fires and other emergencies elsewhere in the county, they are staffed more predictably year round at 3 and 2 respectively. In either case, when these stations are empty due to commitment at other emergencies or for administrative reasons, they are not covered with other resources, but remain empty. As a result, when requested for an emergency response in the local area (Oroville or the District), the response may still be honored as indicated in the Agreement, but with a more distant unit. In this circumstance, travel time increases significantly thus reducing the effectiveness of the Agreement for initial attack at local emergencies.

It is important to note that the agreement is philosophically contingent upon a certain pre-agreed level of resources and daily staffing levels by all participants. In November 2001, the District’s financial situation impaired its ability to staff according to the requirements of the agreement, specifically a career chief officer for emergency response and staffing minimum at 2 per unit. As a result, it was required to withdraw from the agreement. As is shown later in this report under the section titled “Fire Incident Staffing”, this significantly erodes the District’s ability to staff at safe and effective levels for even daily emergencies. Given this history, in evaluating the emergency resources available to the District, it is necessary to examine them both in the context of this agreement and as a standalone agency.

Emergency Response Activity and Response Unit Workload

There is an automated incident reporting system in the District. The District utilizes a standalone desktop PC system with a Windows based third party software Records Management System (RMS) program called “Firehouse”. However, the District’s use of this program is limited to input of mandated incident reporting information and does not integrate with the Butte ECC Computer Aided Dispatching system. Therefore, no incident time markers such as unit enroute or on scene are reliably captured in either database. This significantly hampers efforts to conduct any analyses of emergency response activity or emergency incident workload. Analyzing call demand by time of day, call type, or frequency of concurrent calls for service is not possible. Plotting geographical call density clusters was possible from 2003 incident location data provided by the Butte Emergency Communications Center. That data is displayed graphically on the following map.



Map 2 - District Incident Locations 2003

The District has also provided aggregate incident volume information which was not possible to verify independently. That data is displayed in the following tables. The first table is data from the year FY 2001-2002 during which the District participated in the Oroville Automatic Aid Agreement and thus provided automatic aid calls outside its boundaries. The second table is from FY 2002-2003 in which the District responds only to calls within its jurisdictional area.

2001 – 2002 Response Data

Type of Call	Number of Responses
Rescue/Medical	392
Automatic Aid	583
False Alarm	415
Mutual Aid	5
Fires	72
Total Calls	1467

2002 – 2003 Response Data

Type of Call	Number of Responses
Rescue/Medical	380
Automatic Aid	0
False Alarm	378
Mutual Aid	5
Fires	119
Total Calls	812

As can be seen from the data, prior to its withdrawal from the Oroville Automatic Aid Agreement, the District provided a significant automatic aid resource to the surrounding communities.

Response Time Factors

Before discussing the effectiveness of the emergency response system in the context of response times in the District and surrounding area, it would be useful to share the “science behind the service” to aid in understanding how the various components of the emergency response system interrelate.

The ultimate goal of any emergency service delivery system is to provide sufficient resources (personnel, apparatus, and equipment) to the scene of an emergency in time to take effective action to minimize the impacts of the emergency. This need applies to fires, medical emergencies, and any other emergency situation to which the fire department responds. An understanding of the dynamics of fire and medical emergencies, as influenced by time, is important.

Dynamics of Fire

Most fires within buildings develop in a predictable fashion, unless influenced by highly flammable material. Ignition, or the beginning of a fire, starts the sequence of events. It may take some minutes or even hours from the time of primary ignition until flame is visible. This smoldering stage is very dangerous, especially during times when people are sleeping, since large amounts of highly toxic smoke may be generated during early phases.

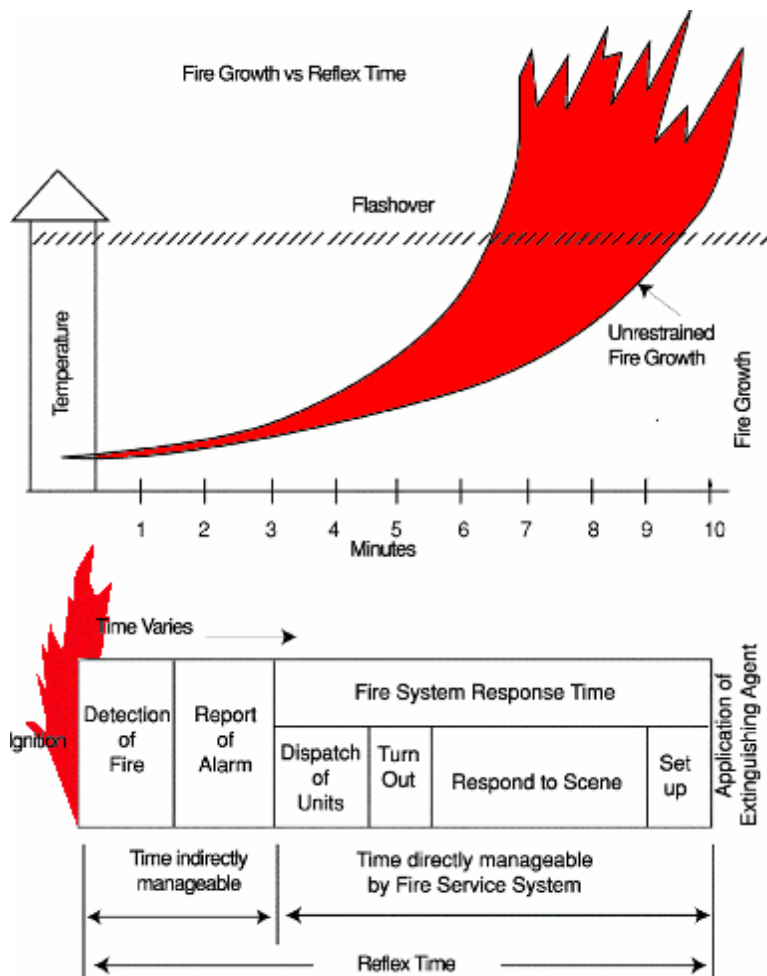
Once flames do appear, the sequence continues rapidly. Combustible material adjacent to the flame heats and ignites which in turn heats and ignites other adjacent materials if sufficient oxygen is present. As the objects burn, heated gases accumulate at the ceiling of the room. Some of the gases are flammable and all are highly toxic.

The spread of the fire continues quickly. Soon the flammable gases at the ceiling reach ignition temperature. At that point, an event termed “flashover” takes place; the gases ignite, which in turn ignites everything in the room. Once flashover occurs, damage caused by the fire is significant and the environment within the room can no longer support human life.

Flashover usually occurs about five to eight minutes from the appearance of flame in typically furnished and ventilated buildings. Since flashover has such a dramatic influence on the outcome of a fire event, the goal of any fire agency is to be able to apply water to a fire before flashover takes place.

Perhaps as important as preventing flashover is the need to control a fire before it does damage to the structural framing of a building. Materials used to construct buildings today are often less fire resistive than the heavy structural skeletons of older frame buildings. Roof trusses and floor joists are commonly made with lighter materials that are more easily weakened by the effects of fire. “Light weight” roof trusses fail after five to seven minutes of direct flame impingement. Plywood I-beam joists can fail after as little as three minutes of flame contact. This creates a very dangerous environment for firefighters. In addition, the contents of buildings today have a much greater potential for heat production than in the past. The widespread use of plastics in furnishings and other building contents rapidly accelerate fire spread and increase the amount of water needed to effectively control a fire. All of these factors make the need for the early application of water to a fire essential to a successful outcome.

A number of things must happen quickly to make it possible to achieve fire suppression prior to flashover. The figure below illustrates the sequence of events.



The reflex time continuum consists of six steps, beginning with ignition and concluding with the start of the application of (usually) water. The time required for each of the six components varies. The policies and practices of the fire department directly influence four of the steps, but two are only indirectly manageable. The six parts of the continuum are:

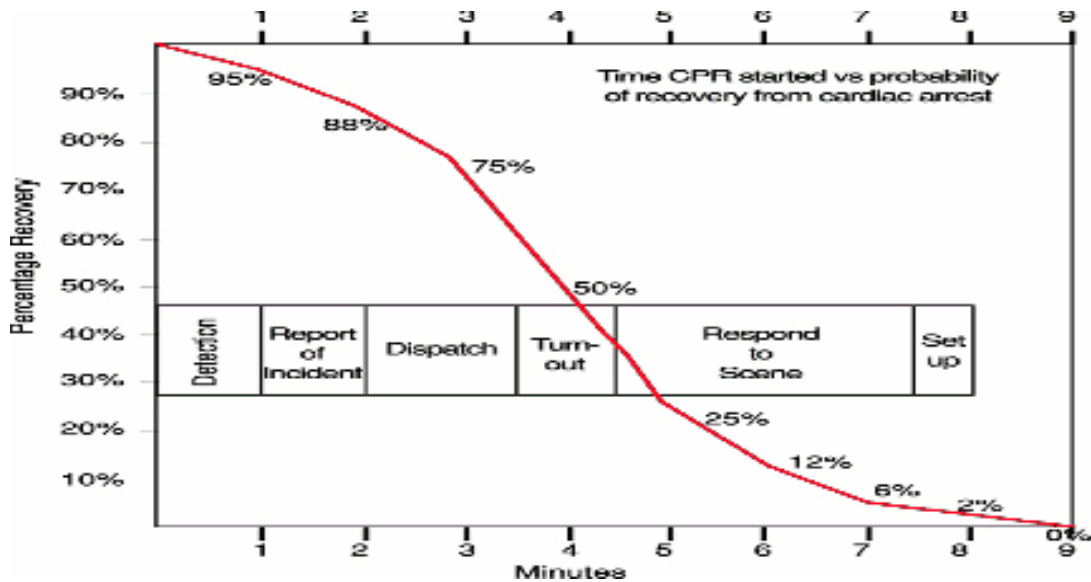
- 1. Detection:** The detection of a fire may occur immediately if someone happens to be present or if an automatic system is functioning. Otherwise, detection may be delayed, sometimes for a considerable period.
- 2. Report:** Today most fires are reported by telephone to the 9-1-1 center. Call takers must quickly elicit accurate information about the nature and location of the fire from persons who are apt to be excited. A citizen well trained in how to report emergencies can reduce the time required for this phase.
- 3. Dispatch:** The dispatcher must identify the correct fire units, subsequently dispatch them to the emergency, and continue to update information about the emergency while the units respond. This step offers a number of technological opportunities to speed the process including computer aided dispatch and global positioning systems.
- 4. Turnout:** Firefighters must don firefighting equipment, assemble on the response vehicle, and begin travel to the fire. Good training and proper fire station design can minimize the time required for this step.
- 5. Response:** This is potentially the longest phase of the continuum. The distance between the fire station and the location of the emergency influences response time the most. The quality and connectivity of streets, traffic, driver training, geography, and environmental conditions are also a factor.
- 6. Set up:** Last, once firefighters arrive on the scene of a fire emergency, fire apparatus are positioned, hose lines stretched out, additional equipment assembled, and certain preliminary tasks must be performed (such as rescue) before entry is made to the structure and water is applied to the fire.

As is apparent by this description of the sequence of events, application of water in time to prevent flashover is a serious challenge for any fire department. It is reasonable though, to use the continuum as a tool for designing the emergency response system.

Emergency Medical Event Sequence

Cardiac arrest is the most significant life threatening medical event. A victim of cardiac arrest has mere minutes in which to receive definitive lifesaving care if there is to be any hope for resuscitation. Recently, the American Heart Association (AHA) issued a new set of cardiopulmonary resuscitation guidelines designed to streamline emergency procedures for heart attack victims, and to increase the likelihood of survival. The AHA guidelines include new goals for the application of cardiac defibrillation to cardiac arrest victims. Heart attack survival chances fall by seven to ten percent for every minute between collapse and defibrillation. Consequently, the AHA now recommends the administration of “clot-busting” drugs as soon as professional medical care is available and cardiac defibrillation within five minutes of cardiac arrest.

As with fires, the sequence of events that lead to emergency cardiac care can be visually shown as in the following figure.



The percentage of opportunity for recovery from cardiac arrest drops quickly as time progresses. The stages of medical response are very similar to the components described for a fire response. Recent research stresses the importance of rapid cardiac defibrillation and administration of certain drugs as a means of improving the opportunity for successful resuscitation and survival. An Oregon fire department recently studied the effect of time on cardiac arrest resuscitation and found that nearly all of their “saves” were within 1.5 miles of a fire station, underscoring the importance of quick response.

Actual District Response Time Performance

The Fire District’s portion of the response continuum starts with receipt of the alarm from dispatch and concludes when effective action is initiated to control the incident. There are two major portions of this sequence; turnout time (from dispatch to the initiation of the response) and travel time (from initiation of response to arrival at the scene).

National Fire Protection Association Standard 1710 has established a standard for response time performance for fire departments. These standards include:

1. Turnout time shall be 60 seconds or less, 90% of the time.
2. First unit arrival shall be within 4 minutes or less (travel time), 90% of the time.
3. The full assignment shall arrive within 8 minutes or less, 90% of the time.

Turnout Time

There is insufficient data available to study this portion of the response time continuum as a separate distinct element.

Travel Time

Travel time to an incident is influenced by a variety of factors. They include:

- the location of the assigned unit at the time of dispatch
- distance from the units location to the scene of the emergency
- traffic congestion
- width, curvature, and surface condition of roads
- number of and ability to control traffic signals
- training and experience of apparatus drivers
- accuracy of the addressing system
- existence of plainly visible addresses on property
- quality and condition of apparatus

As was mentioned in the previous section, since distinct data elements such as enroute time are not currently captured in a useable form in the automated incident record system, there is no way to accurately evaluate this portion of the response continuum using actual response data. Again, this is a very important piece of management information. Analysis such as how actual travel time is affected by time of day, traffic, and other factors can provide important information to the department that can ultimately lead to improved performance. Consequently District management lacks an important tool to evaluate overall performance.

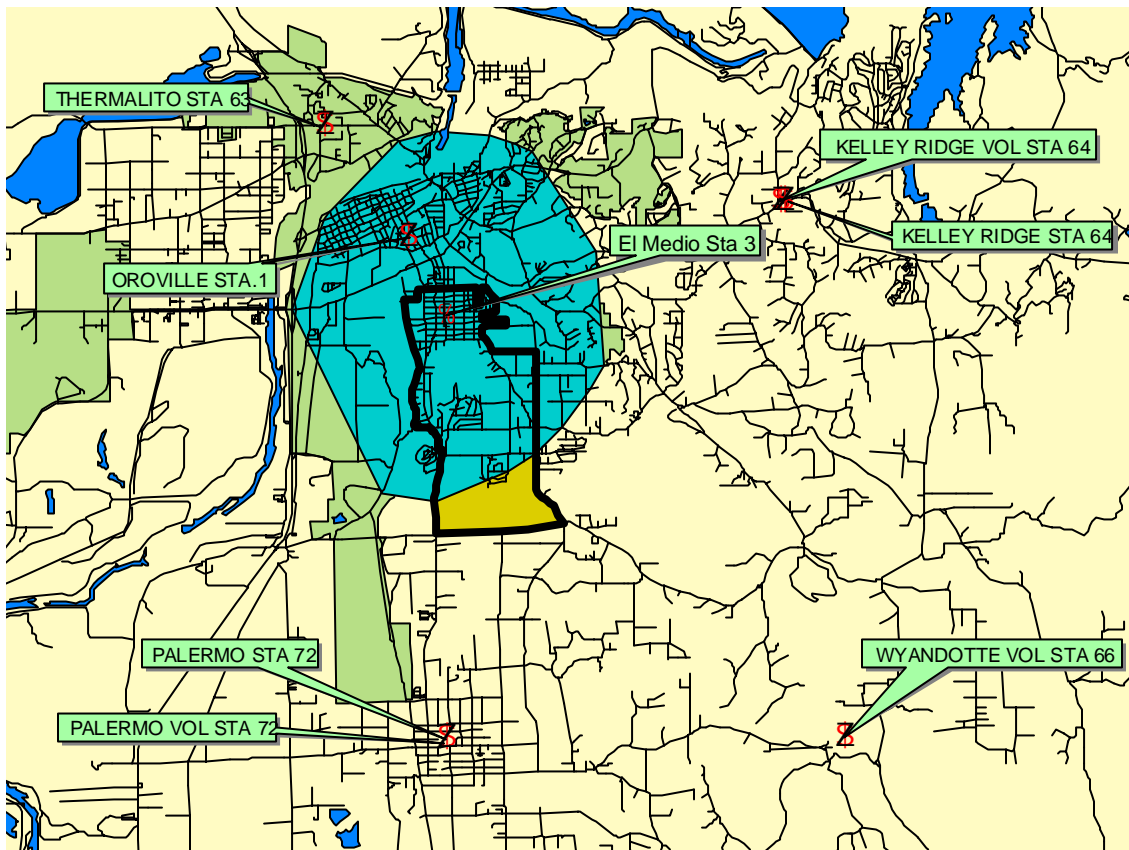
Overall Response Time Performance and Response Coverage

Given the lack of automated records, it is still possible, using the known locations of existing fire stations (Response Coverage) and National Standards, to generalize about overall response time performance in the community.

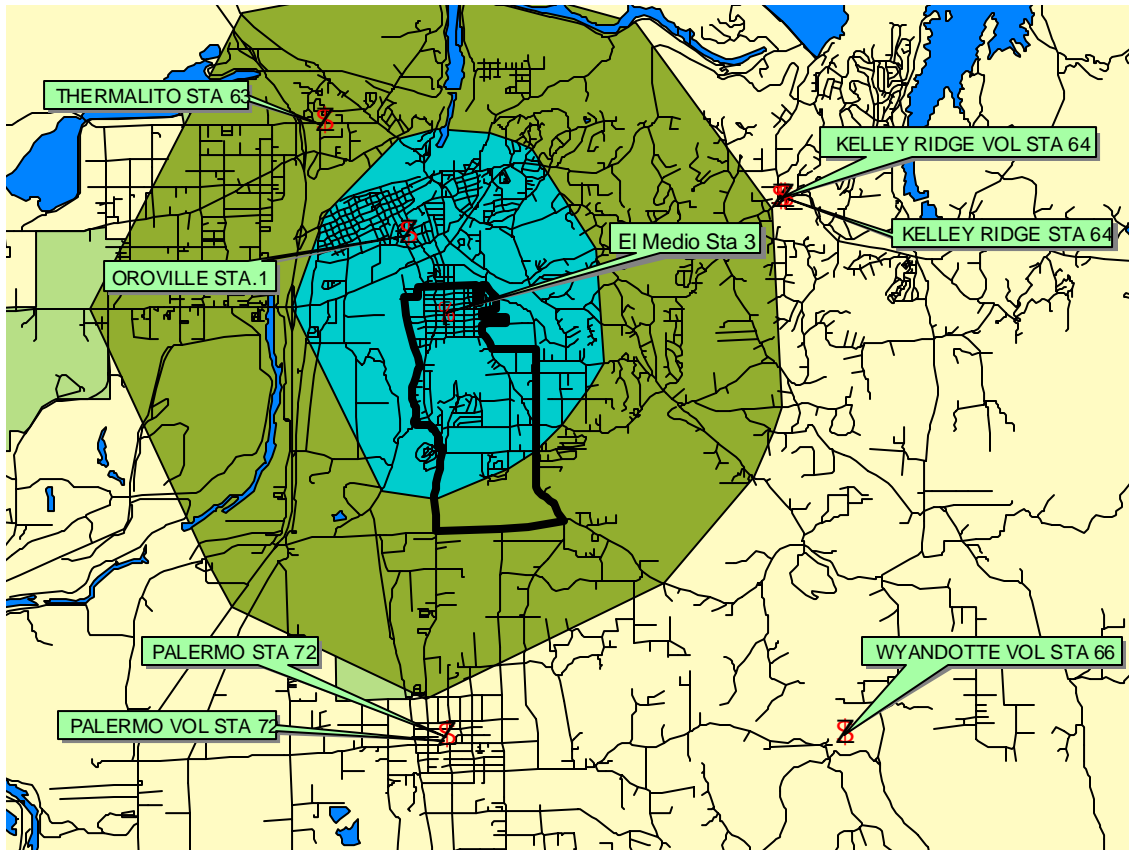
Below are several maps that show both the NFPA's suggested four minute and the eight minute travel time "envelopes" or coverage areas for the District and surrounding staffed stations. These are based on a average 30 mph travel speed over the local road network. The envelopes are irregularly shaped because the analyst software is able to take into account the actual local road network distances in its projections. In contrast to prior analyses which could only draw idealized response circles of a certain radius without regard to the actual road distances, these are superior and more accurate planning tools. This allows us, even in the absence of historical response data, to predict the expected travel time performance based on station locations.

It is important to underscore that as pointed out in the preceding discussion, travel time as displayed below is only one component of the response time continuum and should not be confused with the actual total amount of elapsed time from receipt of call in the ECC until the resource arrives at the scene of the emergency (Actual Response Time). If a industry standard call processing time of 90 seconds and an NFPA recommended standard of 60 seconds turnout (get away) time are generously assumed, and added to the predicted travel times shown below, each of these travel time envelopes (four and eight minute) would represent a response time of 6.5 and 10.5 minutes respectively.

The next two maps (maps 3 and 4) show the four minute and eight minute travel time envelopes from the District's station.



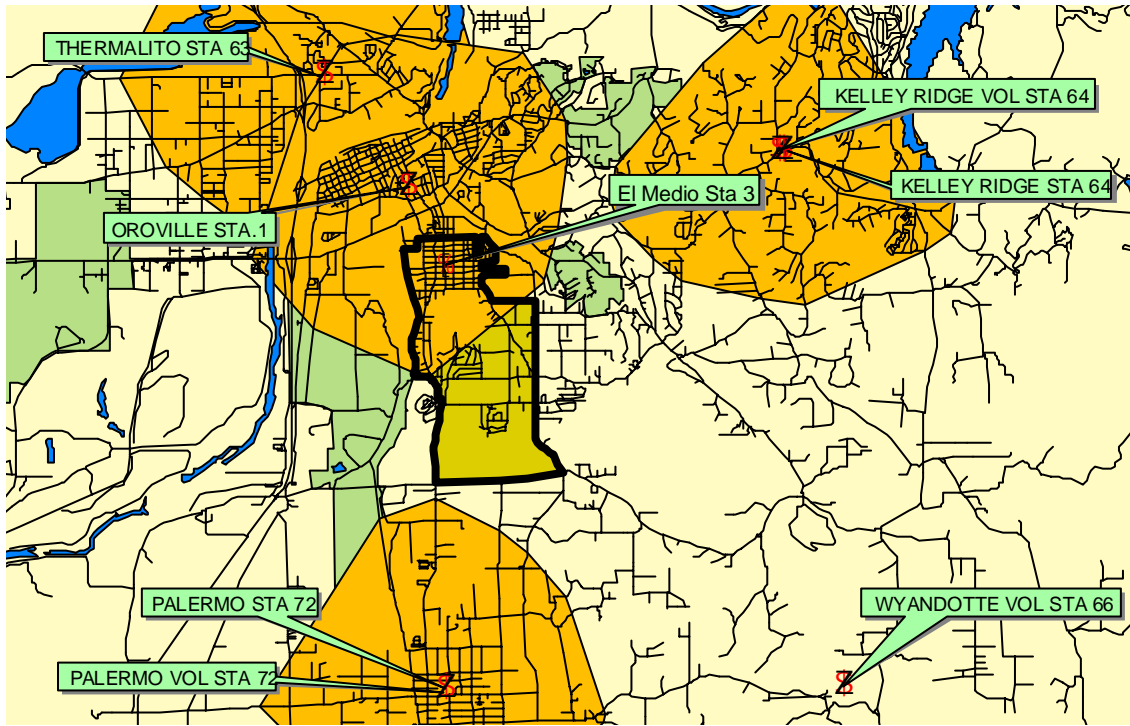
Map 3 - Four minute travel time envelope from District station.



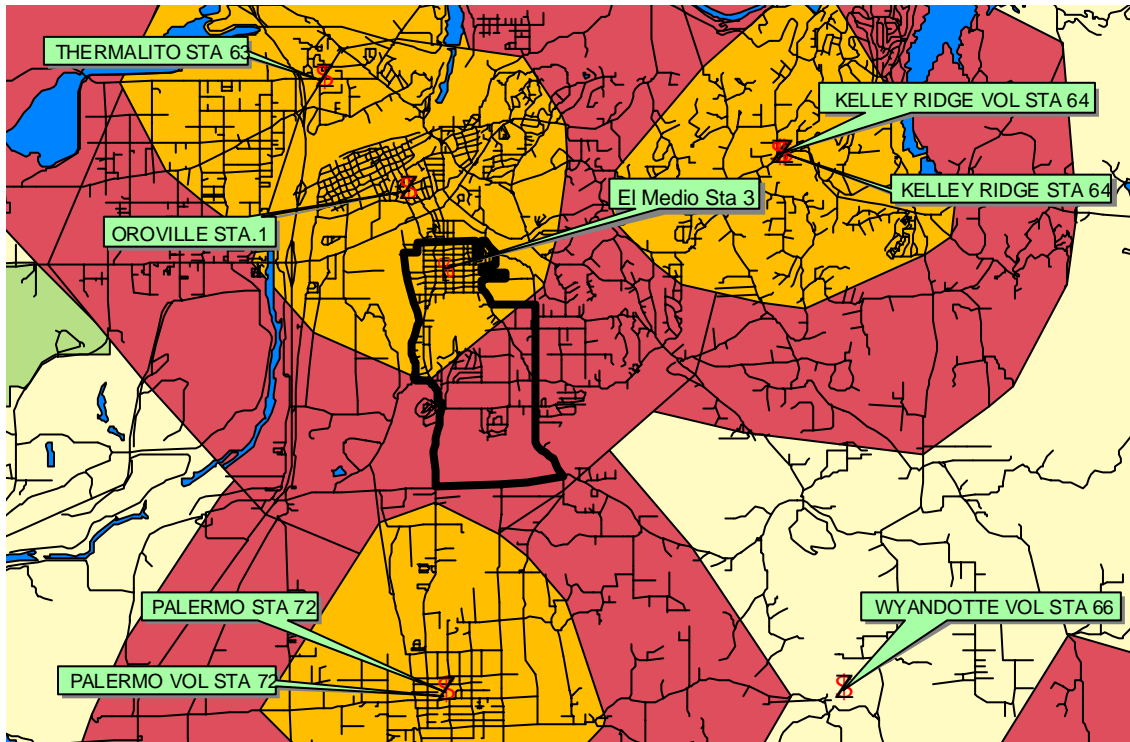
Map 4 - Four & eight minute travel time envelopes from District station.

It is readily apparent from these maps, that the District station is well sited to serve not only the District, but if staffed, can contribute significantly to the initial response and second due coverage in the City of Oroville, actually extending well into OFD Station 1 response area.

The next two maps (maps 5 & 6) illustrate response coverage if the District were forced to cease its operations, leaving only existing BCFD and OFD stations in the response pattern. This is accomplished by eliminating the District's engine and plotting the resulting 4 and 8 minute travel time envelopes from the remaining OFD and BCFD staffed stations. It is apparent that although the District's engine improves the coverage and provides depth (an additional resource), the area is still fairly well served from the remaining stations.



Map 5 – Surrounding area four minute travel time envelopes without the District station.



Map 6 – Surrounding area four and eight minute travel time envelopes without the District station.

The July 2003 “City of Oroville Fire Department Standard of Coverage Study” states that the OFD Station 1 companies were busy or out of position for 20% of its calls for emergency response. 69% of these are reported to have occurred in Station 1’s response area. This OFD analysis lead that report to recommend that the City Council consider adding a 3rd fire company in the City of Oroville to improve unit availability.

It is noteworthy that through the Oroville Automatic Aid Agreement and prior to the District’s withdrawal in November of 2001 the District’s engine provided not only initial response to those areas of the City it is located closest to, but also that backup or increased unit availability the OFD report recommends. Since November of 2001, the District no longer responds into the City of Oroville on an automatic aid basis and thus the City must draw more upon surrounding resources for initial response and has lost the depth or additional coverage for concurrent calls that the District provided. More importantly in the context of this evaluation, the District must now field all its own resources for calls within its jurisdictional boundaries.

Combined with the reduction in unit staffing discussed later in this report, this situation seriously hampers the District’s ability to conduct safe and effective firefighting operations. As importantly, this loss of the closest unit boundary drop approach results in emergencies just outside the District’s boundaries (even just across the street) not receiving the closest resource which is the District’s engine staffed now at 1 person. Rather it receives the closest resource still operating under the Agreement and its 2 person per unit staffing requirements which could be a considerable distance away. This practice does not serve the interests of the community.

The same study also indicated that although the call demand for City responsibility areas west of the city and near the airport was currently low, it is an area of anticipated growth which has long response times from existing stations, and should be considered for future staffing. This area is not currently served well from any of the existing stations.

This set of maps, taken in conjunction with the OFD analyses of its call demand, illustrate several important points:

1. An engine staffed according to Oroville Automatic Aid Agreement standards at the District’s station is an important component of the area’s initial and backup response coverage.
2. When combined with all the area staffed stations, the District’s station is actually geographically positioned better than the OFD Station #1 to provide maximum coverage in the District, the City of Oroville and area-wide.
3. Without the District’s station in service, although service levels are reduced, the District and surrounding area would be satisfactorily covered by the remaining staffed stations assuming those units are in the station.

Effect of Predicted Response Time on Emergency Incident Outcomes

In order to determine if an agency's response time performance is achieving meaningful results, benchmarks of effectiveness must be established and measured.

One way to review performance is to compare the percentage of property saved from fire (the loss to a building compared to its value) against other similar fire departments. The District does not save building loss information in its record system, nor does it record the buildings value. Thus no comparison can be made.

Another is to review patient outcome. For example, the percentage of cardiac arrest victims who survive, or the degree of disability sustained by trauma patients. Again, no data is available to conduct this review.

Incident Staffing

The issue of timeliness of arrival at the scene of emergencies was discussed in the preceding section. However, the arrival time of the resources is only one element of the emergency service equation. Delivering sufficient numbers of properly trained, appropriately equipped, personnel within the critical time period is the complete equation.

For medical emergencies this can vary based on the nature of the emergency. Most medical emergencies are not time critical. However, for serious trauma, cardiac arrest, or conditions that may lead to cardiac arrest, response time is very critical.

Equally critical is delivering enough personnel to the scene to perform all of the concurrent tasks required to deliver quality emergency care. For a cardiac arrest this can be up to six personnel; two to perform CPR, two to set up and operate advanced medical equipment, one to record the actions taken by emergency care workers, and one to direct patient care.

Thus, for a medical emergency the real test of performance is the time it takes to deliver the personnel and equipment needed to deal effectively with the patients condition, not necessarily the time it take for the first person to arrive.

Fire emergencies are even more resource critical. As discussed previously, the true test of performance is the time it takes to deliver sufficient personnel to initiate application of water on the fire to reverse the continuing internal temperature increases to prevent flashover. As an example, the arrival of one person with a portable radio does provide some fire intervention capability but should not be counted as "arrival" by the fire department.

Effective operations at the scene of fire emergencies depends on the arrival of sufficient trained personnel to perform all of the duties and tasks required to effectively control a fire event. Tasks that must be performed can be broken down into two key components, life safety, and fire flow. The life safety tasks are based upon the number of building occupants, their location, status, and ability to take self-preservation action. Life related tasks involve the search, rescue, and evacuation of victims. The fire flow component involves delivering sufficient water to extinguish the fire and create an environment within the building that allows entry by firefighters.

Due to Department of Labor and OSHA staffing standards (“two in and two out rule”), and industry best practices, in order to legally enter a building to conduct interior firefighting operations at least four personnel must be on scene. Hence, the initial arrival of effective resources should be measured at the point in time when at least four personnel, who are properly trained and equipped, have assembled at the fire.

The number and types of tasks needing simultaneous action will dictate the minimum number of firefighters required to combat different types of fires. In the absence of adequate personnel to perform concurrent action, the command officer must prioritize the tasks and complete some in chronological order rather than at the same time reducing overall fire emergency effectiveness. These tasks include:

command	scene safety	search and rescue
fire attack	water supply	pump operation
ventilation	back-up	

The following chart illustrates the fire ground staffing recommendations of the Commission on Fire Accreditation, International.

The following definitions apply to the chart:

Low Risk – Fires involving small sheds and other outbuildings, larger vehicles and similar. Characterized by sustained attack fire flows typically less than 250 gallons per minute.

Moderate Risk – Fires involving single-family dwellings and equivalently sized commercial office properties. Sustained attack fire flows range between 250 gallons per minute to 1,000 gallons per minute.

High Risk – Fires involving larger commercial properties with sustained attack fire flows between 1,000 gallons per minute and 2,500 gallons per minute

Maximum Risk – Fires in buildings with unusual hazards such as high-rise buildings, hazardous materials facilities, very large buildings, and high life risk properties (nursing homes, hospitals, etc.). Though they may not require large sustained attack fire flows they do require more personnel to perform tasks required for effective control.

The Commission on Fire Accreditation, International, has developed recommended staffing targets for structure fires at different risk levels. The charts below describe these recommendations.

Minimum Firefighting Personnel Needed Based Upon Level of Risk

Task	Maximum Risk	High Risk	Moderate Risk	Low Risk
Attack Line	4	4	2	2
Search and Rescue	4	2	2	
Ventilation	4	2	2	
Back-Up Line/Rapid Intervention	4	3	2	2
Pump Operator	1	1	1	1
Water Supply	1	1	1	
Utilities Support	1	1	1	
Command/Safety	2	2	2	1#
Forcible Entry	*			
Salvage	*			
Overhaul	*			
Communication	1*			
Chief's Aide	1	1		
Operations Section Chief	1			
Logistics	1			
Planning	1*			
Staging	1*			
Rehabilitation	1			
Division/Group Supervisors	2*			
High Rise Evacuation	10*			
Stairwell Support	10*			
Totals:	49	17	13	6

Can often be handled by the first due officer.

* At maximum and high-risk fires, additional personnel may be needed.

Minimum Number of Personnel needed for a typical Residential or Small Commercial Fire Based on Necessary Fireground Tasks

Task	Number of Firefighters	Company Assigned	GPM
Attack Line	2	1st Engine	180
Search and Rescue	2	Truck	
Ventilation	2	Truck	
Back-Up/Rapid Intervention	2	Engine	180
Pump Operator	1	Engine	
Water Supply	1	Engine	
Utilities Support	1	Rescue or Truck	
Command	1	Chief Officer	
Safety	1	Rescue or Truck	
Total Personnel	13		360 gpm

Prior to it's economically forced reductions in staffing in 2001 the District staffed its career engine at 2 persons. Its current staffing is 2 persons during declared fire season. During the balance of the year, it staffs 2 persons on weekdays for 8 hours each day. The staffing then falls to one person for the balance of 16 hours each weekday. The staffing remains at one person for the entire 24 hours on weekend days. None of the career personnel are Captains. The District currently employs a total career staff of 3 engineers (apparatus operators) and 3 firefighters. Thus, although the District is managing its resources best it can to achieve 2 person staffing part of the time, it is still staffing at 1 person on duty most of the time.

Below are two charts, the first shows staffing by Alarm Type while the District was able to participate as a member of Oroville Automatic Aid Agreement. The second shows the same staffing by alarm type without being able to staff sufficiently to participate in the Agreement.

District Staffing by Typical Alarm Type as Member of Agreement

Alarm Type	Engine	Truck	Rescue	BC	Volunteer	Personnel¹
Structure Fire	3	1	1	1	2	10/14
Second Alarm Structure Fire	3	1	1	1	2	10/14
Vegetation Fire	3		2(WT)	1	2	9/11
Vehicle Fire	1				2	2/6
Rescue/Medical Aid	1		1			4
Traffic Accident	1		1	1		5
Traffic Accident – extrication	2		1	1		7

¹ Career staffed personnel/total with Volunteer Personnel included

District Staffing by Typical Alarm Type without Agreement

Alarm Type	Engine	Truck	Rescue	BC	Volunteer	Personnel ²
Structure Fire	1		1	1	2	1or2/7or8
Second Alarm Structure Fire	Call back of all available personnel					
Vegetation Fire	1		1(WT)	1	1	1or2/6or7
Vehicle Fire	1					1or2
Rescue/Medical Aid	1				1	1or2/3or4
Traffic Accident	1		1	1	1	1or2/6or7
Traffic Accident – extrication	1		1	1	1	1or2/6or7

Prior to the District’s reduction in staffing and subsequent withdrawal from the agreement in November of 2001, the three agencies through the Oroville Automatic Aid Agreement had pre-designated the number of resources to be dispatched to various emergencies in the area including the District. The District, Oroville, and Butte County Fire all staffed units with two personnel at a minimum.

As discussed above, two people on a unit is barely sufficient for the majority of responses (medical aids) made by the District. Later in this report the staffing for medical aid calls is discussed in detail, however during the hours the engine is staffed with one person, the engine is severely challenged to perform the basic care required. This section will discuss staffing for other more labor intensive emergencies handled by the District, such as structure fires, that depend on the arrival of more than one response unit.

Participation in the Oroville Automatic Aid Agreement brought a minimum response of 5 staffed units and a Chief Officer at structure fires which typically yields 10 firefighters. Through that agreement, the District’s response capability nearly provided the staffing recommended for moderate and low risk fires. To develop the response needed for high and maximum risk fires a call back of volunteer and off-duty personnel was required.

Comparing the charts above which show the District’s staffing available at emergencies before and after it’s participation in the Oroville Automatic Aid Agreement, it becomes immediately apparent that absent the resources the District receives through that agreement, staffing available at all alarm types falls precipitously to extremely low levels. Further, comparing the fireground tasks chart above to the staffing the District can provide, it is clear that the staffing at any structure fire will restrict the available tactical options to simply attempting to keep the fire from extending to nearby structures or vegetation. The staffing is not sufficient to legally or safely mount an interior attack directed at limiting property damage or search for trapped persons.

² Career staffed personnel/total with Volunteer Personnel included

Contribution of Call Back and Volunteer Staffing

Similar to surrounding agencies, the District relies on off duty career and volunteer personnel who are called back to duty to staff additional engine companies housed at its station. These personnel respond from home or work to large emergencies or to the station to cover behind the commitment of the staffed engine. The District currently has a roster of 18 volunteer firefighters.

This call back can be very effective at providing a staffed resource available for a second call when the primary staffed unit is committed or otherwise unavailable. If there are a sufficient number of off duty or volunteer staff nearby in the community, the second unit can be staffed in a reasonable period of time (from 5 to 15 minutes). However, the unpredictability of having sufficient personnel nearby coupled with the additional time to drive to the station, dress and drive to the emergency makes reliance on these types of resources not suitable for initial attack staffing requirements.

Emergency Medical Services

Emergency Medical Services (EMS) are provided at the intersection of public safety, public health, and health care systems. In 1973 the Federal Emergency Medical Services Systems Act described that intersection by defining an EMS system as “a system which provides for the arrangement of personnel, facilities, and equipment for the effective and coordinated delivery in an appropriate geographic area of health care services under emergency conditions (occurring either as a result of the patients condition or of natural disasters or similar conditions) and which is administered by a public or non-profit entity which has the authority and resources to provide effective administration of the system”.

Contemporary thought in evaluating EMS Systems typically involves studying the structure, processes, and patient outcomes of the system. In 1996, the EMS Agenda for the Future proposed the assessment and continued development of 14 EMS attributes in all EMS Systems. These 14 attributes provide an excellent framework for evaluating entire systems. They are:

- Integration of Health Services
- EMS Research
- Legislation and Regulation
- System Finance
- Human Resources
- Medical Direction
- Education Systems
- Public Education
- Prevention
- Public Access
- Communication Systems
- Clinical Care
- Information Systems
- Evaluation

Although reviews of some of the 14 attributes were utilized in this study, an evaluation of the entire Butte County EMS System is beyond the scope of this report. Therefore, the District's EMS component was evaluated in the context of its currently described role in the statewide and county system and its structure and function.

System Oversight or Medical Direction

Out-of-facility EMS in California is generally provided by a network of independent but interrelated agencies each occupying a specific niche in the patient care system.

The primary statutory and regulatory framework is found in the California Health and Safety Code, Division 2.5 and California Code of Regulations (CCR) Title 22, Division 9. These establish responsibility and authority for system planning and oversight primarily within each county in California which chooses to have an Emergency Medical Care System. The primary regulatory oversight is provided by a Local Emergency

Medical Services Agency (LEMSA) which generally is within the county's Department of Health. In some cases, California Statute allows for these services to be conducted by a multi-county EMS agency under contract with each participating county. This is the case in Butte County where these statutorily required oversight functions are provided by a private multi-county EMS Agency under contract with the counties of Butte, Colusa, Glenn, Lassen, Modoc, Plumas, Shasta, Sierra, Siskiyou, Tehama, and Trinity. The agency is "Nor Cal EMS" and is headquartered in Redding.

As is typical in many modern EMS systems, clinical oversight is provided in three ways.

Prospective oversight is provided through the system of training and certification as prescribed and authorized by the State of California through Statute and Regulations. Prospective oversight is also accomplished through the establishment of treatment protocols that may be initiated by designated out of facility EMS personnel without prior consultation with a physician or nurse. These are commonly referred to as standing orders.

On-line or "real time" oversight is provided by emergency room physicians designated and authorized to provide radio or telephonic consultation in certain situations not covered by standing orders prior to initiating ALS care.

Retrospective or "off-line" oversight is provided by a system of continuous quality improvement (CQI) involving tracking system performance and trends both clinically and structurally. In addition, individual call review and education of out-of-facility EMS personnel is conducted by local "Base Station Hospitals". These are qualified hospitals and physicians designated by the Local EMS Agency in each county who are experienced in the conduct and delivery of prehospital emergency medical services.

System Description

The District's Fire Department functions as a component of the County EMS System. The system is designed generally as a two tiered (or care capability) system. The majority of first tier personnel are public safety personnel trained to the level of Emergency Medical Technician I or Basic Life Support capability with Automatic Defibrillator capability (EMT-D). Basic life support or "BLS" generally means initiating noninvasive emergency patient care designed to optimize the patient's chances of surviving the emergency situation. The care rendered usually consists of all first-aid procedures needed, but does not include invasive procedures or administration of medications. This course of study is approximately 120 hours in length and includes supervised clinical experience.

The second or advanced life support (ALS) tier is provided by personnel trained to the level of Emergency Medical Technician – Paramedic (EMT-P). These personnel are capable of providing ALS care which is defined in the Revised Statutes as initiating basic life support care as well as physician-authorized invasive patient care designed to stabilize and support a patient's condition due to sudden illness or injury. This course of study is approximately 1100 hours and includes supervised clinical experiences in both the hospital and out-of-hospital setting.

In the case of the District, the first (EMT-D) tier of responders is assigned to Fire Department engine companies, and the second (EMT-P) tier personnel are deployed on ambulances. Currently those ambulances belong to a private company - First Responder EMS Inc. headquartered in Chico. These ambulances provide paramedic and medical transportation services to the District and surrounding area under exclusive contract by the regulatory agency Nor Cal EMS. There are two ambulances staffed 24 hours a day and one staffed for daytime peak volume periods. The ambulances are all staffed with two personnel each, one EMT-P and one EMT-1. These ambulances are stationed at Oroville Hospital in Oroville, less than ½ mile from the District. Back-up EMT-P ambulance services are from the same company and respond from the communities of Biggs, Gridley and Chico.

Butte County has an organized trauma care system which relies on a system of hospitals authorized to provide certain levels of trauma care. Trauma Centers in California are generally classified according to the capability of the facility and staff availability. They arrange from the highest level of care possible designated as a Level I facility to the least level of care capability designated as a Level IV. The area serving the district has Level II Trauma Centers as the highest care capable in the Nor-Cal EMS region. They provide well-staffed Emergency departments, a group of surgeons, sub-specialists, and all the necessary support services and equipment to care for the seriously injured trauma patient on a 24-hour basis. The area is served by two Level II centers. They are Mercy Medical Center in Redding, and Enloe Medical Center in Chico.

The District and surrounding area are immediately served by a Level III Trauma Center. A Level III Center has an organized trauma team and a surgeon on-call, but may not have the full service capability and subspecialty back up availability as the Level II Trauma Centers. Level III Centers are facilities that are integrated formally into the trauma system through transfer agreements, transfer guidelines, and participation in data collection and quality assurance efforts. Many trauma patients may be kept locally in this community hospital because these facilities are capable of providing some definitive care. Other patients require stabilization at the Level III Center and subsequent transfer to the Level II Center for definitive care. The local Level III Center is Oroville Medical Center in Oroville.

The District's role in EMS deployment and response

The system is designed, with some exceptions, to initially respond the nearest fire department first responder resource and the nearest ALS ambulance to requests for emergency medical assistance.

The system utilizes the fire department to arrive on scene first due to their geographical proximity to the call and initiate BLS care while waiting for the arrival of the EMT-P ambulance. The rationale for such a system is since there are more numerous first responder units than EMT-P ambulances, the system hopes to deliver basic emergency care capability to victims of illness or injury in a more timely manner than relying on the fewer number of EMT-P ambulances alone. Thus, the District's emergency medical response functions in the first responder status and therefore the response time clock for basic EMS care is stopped upon the arrival of the District's engine company. The reader should be reminded that as pointed out previously in this report, most of the time this arrival is only with one person. Therefore although the response clock is theoretically stopped upon the District's arrival, one person cannot adequately care for most serious illnesses and injuries and therefore in all practicality, the clock is still running even with a District engine on scene.

The first responder role in this system also functions as a "triage" or sorting mechanism where the first responders are allowed to cancel the responding EMT-P ambulance if the patient's condition is not sufficiently serious to warrant EMT-P care. This results in decreasing the amount of unnecessary time on task for the relatively few EMT-P units thus making them available sooner for a second or more serious call. This is an efficient use of system resources.

Medical Incident Staffing and Response Times

As discussed previously, the District staffing prior to the November 2001 reductions provided the minimum personnel (2) required to initiate BLS Care as first responders. With the staffing levels reduced to the current minimum of (1) except weekday daytime, the District does not provide the initial response staffing required for the more personnel intensive and serious medical calls involving serious ill or injured patients.

These are ALS ambulances staffed with one EMT Paramedic and one EMT Basic. This brings the total scene staffing in the District upon the arrival of the ambulance to three personnel. Thus even with the arrival of the ambulance, the combined staff will be challenged to manage an acutely ill patient or a traffic accident with several injured patients. Once again, a response past the initial available units would be required, adding to the response time waiting for personnel to be recalled and respond.

Most of the county is classified as rural with the exception of the urban area immediately in and surrounding population centers of Oroville. The State of California EMS Systems Standards and Guidelines Publication #101, June 1993 recommends response time standards be set such that from the time the call is answered at the Primary PSAP, that EMS response time performances be as follows:

BLS – 5 minutes urban, 15 minutes rural

EMT-D – 5 minutes urban, as soon as possible rural

EMT-P – 8 minutes urban, 20 minutes rural

Transportation Unit – 8 minutes urban, 20 minutes rural

The District has no adopted EMS response time performance requirements. The responsibility for establishing and monitoring ambulance response time requirements lie with the statutorily created regulatory agency – Nor Cal EMS. Ambulance performance information was not available for this report. However, it should be pointed out that since none of the District, City of Oroville, or County of Butte has any control over the ambulance performance in its jurisdictional area, in the context of this report, the ambulance data is only of passing interest. Nonetheless even in the absence of response data, it is possible given the previous analyses of station location, to generalize about likely response time performance based on the location of units if they are in quarters. Thus given the distribution of units, it is likely that all the state recommended EMS response times are possible to achieve.

EMS Education

The County of Butte has a several initial EMT Basic and EMT-P training programs delivered through both the community college system and by private training institutions.

The ALS ambulance company and the Nor Cal EMS Agency Medical Director both have a well established written Continuous Quality Improvement (CQI) program in place. The system monitoring and surveillance results in a well documented and administered training feedback loop. Ambulance personnel receive in service training based on this surveillance.

The District's EMS initial training is an entry level requirement for employment. Refresher training is done utilizing a formal recertification class provided by a private company - Absolute Safety Training - at the District's station.

The District has no formal feedback loop established with the medical CQI program from the private ambulance company or the Nor Cal EMS Agency Medical Director. As a result, no targeted monthly medical training occurs which would be typically pointed at system improvement needs. Additionally, as discussed before, there is no organized or written plan for annual training, this includes EMS training.

Summary of Suitability of the Oroville and Butte County Fire Department to Provide Fire Protection Services to the District

Based on the review of materials submitted and as indicated throughout the preceding analyses, both the Oroville and Butte County Fire are similarly qualified to serve the District. Both Departments are organized and managed efficiently. Both have the necessary financial controls and elected oversight to ensure long term viability in provision of essential services. Both Departments staff the emergency response units that would serve the District at similar levels. Both Departments have long term forward looking planning processes and documents. Both Departments adhere to State and Federal requirements for safe operations. Both Departments utilize and manage volunteer firefighters to augment their staffing. Finally, both Departments through their cooperation in the Oroville Automatic Aid Agreement have standardized response protocols, common training, a single dispatch center, and operate under nearest unit full boundary drop responses.

As a result, there are but two primary elements that might distinguish Oroville and Butte County Fire Departments suitability to provide alternative service to the District.

1. Geography – as shown and discussed in the preceding analyses, the geographic location of the Oroville and District stations provide a response coverage and backup or second call capability that is mutually beneficial. This arrangement of stations with 4 minute travel time response envelopes overlapping the highest area of emergency activity in the City of Oroville indicate the City is best positioned to service and in return receive benefit from resources located in the District. Additionally the District is within the City's SOI which would allow the district area to be annexed to the City, with possible service benefits beyond just improved fire service.
2. Fire Prevention – as shown and discussed in the preceding analyses, the City's organization and structure for enforcing the Fire and Building Codes are consolidated under the management of the Fire Department. This appears to result in a superior coordination of plan review, code enforcement and annual inspection programs. Additionally, the City has adopted and enforces the Uniform Fire Code while the County is limited to those elements that may be enforced under the Public Resources Code. The City's approach and code is a superior approach to fire prevention. It is important to note that in the Butte County Fire Department's Master Plan, an effort to adopt and begin enforcing the Uniform Fire Code in the County unincorporated areas is listed as a future goal. BCFD also has as its practice to enforce any adopted code in any of its contract cities. Thus if the District were to contract with the county and maintain its separate code adoption, BCFD would have the authority to enforce the UFC in the District. If either of these situations were to occur, the importance of this difference would be diminished, however the consolidated management of the building and fire code functions would remain superior.

V. Determinations

Infrastructure Needs or Deficiencies

1. The District's station is beginning to suffer from deferral of basic maintenance and upkeep. In addition, there are some unfunded alterations and improvements to the facility related to employee health and safety which will need to be addressed.
2. The District's emergency apparatus fleet is well past the industry standard in age. Several apparatus are in fair to poor condition.
3. The District lacks the financial resources which would enable it to plan for long term infrastructure needs.

Growth and Population Projections for the Affected Area

1. Growth and population projections for the general area of south Oroville or the City of Oroville are not developed independently for the area served by the District. The City indicates that over the last decade it has experienced a .9% growth rate. The City believes this rate may increase slightly in the years leading to 2008. This is due to recent applications to the City for subdivisions in areas not served by the District. Very little growth is likely to be experienced in the area served by the District.

Financing Constraints and Opportunities

1. The District's revenues are a predominately a combination of secured property tax and a special tax assessment approved by voters in 1980. Due to increasing costs, the District has three times placed a ballot measure before the voters to increase the special tax assessment. It has failed all three times. The District has few foreseeable opportunities for increasing its revenues to keep pace with the cost of producing its services. As a result it is likely to fall further behind economically which will continue to erode services.
2. Funding has been an obstacle to both the City and the District in individually establishing or maintaining reliable and timely backup emergency response capability in the District and adjacent areas of the City.
3. Funding would be an obstacle to the County in providing the same level of service the District currently provides, should the District fail.

Cost Avoidance Opportunities and Evaluation of Management Efficiencies

1. Over the past several years, the District has eliminated its administrative staff and reduced its career emergency response staffing drastically. Career staff are already earning near or at the minimum wage level. There is little the District can do to further reduce personnel costs.
2. The District already makes full use of outsourcing and cooperative arrangements for material purchasing and group purchasing of insurance.
3. The District already makes full use of cooperative arrangements such as exchanging use of its classroom facility in lieu of fees for recertification classes for its personnel.



Opportunities for Rate Restructuring

1. The Districts failed attempts to secure an increase in the Special Tax Assessment leave little opportunity to increase its revenues through restructuring its rates.

Opportunities for Shared Facilities

1. The District's station is located such that it is able to provide more timely initial response and backup service to a large portion of the City of Oroville. Thus, the City of Oroville and the District have a mutual interest in the viability of an engine company in the District's station.
2. To a lesser extent, the District also provides backup service to County areas south of the District. Thus the County and the District also have a mutual interest in the viability of the District's engine company in its current location. Additionally, should the District fail the responsibility for service provision within the District will default to the County.

Government Structure Options

1. The current practice of not dispatching the nearest staffed resource to the scene of an emergency due to the District's necessary withdrawal from the Oroville Automatic Aid Agreement causes longer response times for areas immediately adjacent to the District but outside it's jurisdictional boundaries. It is important to note that the preceding analyses based on station location alone showed that although this practice produces longer response times, those predicted times are still within state and nationally recommended standards.
2. The District has several options for agreements and restructuring to improve services.
 - The District could remain intact and to negotiate a pro-rata cost sharing agreement with the City and County for the services it is best positioned to provide outside of its jurisdictional area.
 - The District could remain intact, and use its revenue to merge it's fire department staffing and contract with the City or the County for provision of mutually beneficial services to areas of mutual concern within the District and immediately adjacent to the District.
 - The District could be dissolved and the County as the successor would begin servicing the area.
 - The District could be dissolved and the area annexed by the City of Oroville.

Local Accountability and Governance

1. The District minimally meets the requirements as set forth for the conduct of Special Districts. It holds regularly scheduled and properly agendized and noticed meetings of the Board of Directors. Staff records and maintains minutes of those meetings. The District develops and maintains a detailed budget and reportedly produces an independent Comprehensive Audited Financial Report (CAFR) through contract with an accounting firm.
2. Apart from the elected officials, there is little community participation or interest in the business of the District.

General Determinations

As stated previously in this report, this Municipal Service Review (MSR) is directed at examining two primary questions. Based on the forgoing analyses, this report concludes as follows:

1. Evaluate whether the El Medio Fire Protection District, cannot provide an adequate and reliable level of service to its citizens and this inadequacy is currently organized, funded and operated can provide adequate fire and emergency services to its citizens and whether any inadequacies presents an urgent public safety concern.

Determination – Yes, the El Medio Fire Protection District cannot provide an adequate and reliable level of service to its citizens and this inadequacy presents an urgent public safety concern. Within the context of its funding both current and anticipated, it is unable to consistently train and maintain the staffing necessary for safe effective fire and medical aid responses.

2. Evaluate the suitability of alternatives to the current Fire Protection provided by the District to specifically include neighboring Oroville Fire Department and the Butte County Fire Department.

Determination – Both the Oroville and Butte County Fire Departments are capable of providing satisfactory fire and emergency services to the District. This is true especially in the context of the Oroville Automatic Aid Agreement which provides for the sharing of daily response and specialty resources to the mutual benefit of the participating agencies. In choosing between the two, the Oroville City Fire Department is geographically positioned better to serve the District. Further, if the district is annexed to the City, the City would then be able to provide a single agency both to provide fire and emergency services and enforce the Uniform Fire Code and Uniform Building Code all managed under the Fire Department. This is a superior code enforcement structure to that currently administered by the County Fire Department.

VI. Recommendations

Following are recommendations for action listed in priority order:

1. In the short term, the District should approach the City of Oroville to negotiate a contract for services which merges its Fire Department with the City's and stations a City staffed engine in the District's existing station. The District should maintain and enhance its volunteer component. The City already manages volunteer firefighters in its own organization, thus providing the basis for continuing this valuable program. Advantages are:
 - The City and the District to share the pro rata cost and each receive the full benefit from a reliably and predictably staffed engine geographically located to meet the area's needs at less than the cost to either agency individually.
 - The District would contribute its apparatus and station, saving the City from having to acquire and build a station and buy an apparatus to improve its coverage and depth in its highest activity area.
 - The District would benefit from a more reliably staffed engine and services at a cost less than that currently provided.
 - The District would be able to preserve its special tax assessment for fire protection which taken with the secured property tax should allow payment of the contract for services and still support the maintenance of the station and apparatus and still retire the District's outstanding debt.
2. In the context of this report, which focuses on the element of Fire and Emergency Medical Response capability, the City should be approached to consider full annexation of the area served by the District. Ultimately the District is within the SOI of the City, its boundaries are virtually indistinguishable from the City, and both ultimately benefit from long-term stable fire protection services in the area. LAFCo could maintain the fire suppression assessment within the area of the former District in order to assist the city in providing funding for fire and emergency services in that area.

VII. Appendices

Appendix A – Station and Apparatus Worksheet

Station Name	El Medio Station #3		
Address	3515 Meyer, Oroville		
Unit #: E312	Make: International		
Year: 1996	Description: Type 2 Engine		
	Condition: Good		
Unit #: E313	Make: Ford		
Year: 1975	Description: Type 2 Engine		
	Condition: Fair		
Unit #: E336	Make: Ford		
Year: 1977	Description: Type 2/3 Engine		
	Condition: Fair		
Unit #: E311	Make: Ford		
Year: 1962	Description: Type 2 Engine		
	Condition: Poor		
Unit #: WT3	Make: Ford		
Year: 1992	Description: Type 1 Water Tender		
	Condition: Fair		
Unit #:	Make:		
Year:	Description:		
	Condition:		
A. Facility features		B. Does the facility provide	
Year of construction	1980	Office space?	Yes
Number of stories	1	Conference/training space?	Yes
Number of apparatus bays	6	Adequate storage?	Yes
Square footage		Kitchen?	Yes
Is facility ADA compliant?	Yes	Dormitory?	Yes
Has an energy audit been conducted?	No	Exercise/workout area?	No
Equipment and turnout decon facilities?	No	Restroom/shower/locker area?	Yes
Does facility have emergency power?	No	C. Areas of liability	
Is there an SCBA fill station?	No	Underground storage tanks?	No
Is the facility sprinklered?	No	Above ground storage tanks?	No
Is there early warning fire detection?	No	Sliding pole?	No
Is there an exhaust removal system?	No	SCBA fill station tests up to date	N/A
Seismic evaluation conducted?	No	Other?	

Appendix B – El Medio Response Letter Analyses

Note: This appendix is the consultant’s analyses of the El Medio Fire Protection District Board of Directors response letter to the Draft MSR. The original letter was provided in handwritten form and is retyped and formatted in this appendix to facilitate the requested review and where appropriate, an analyses of each point. When indicated, any changes required have been made in the body of the report. The content of the District’s letter is reproduced in normal typeface with the consultants review following in italics. The original handwritten letter is available for review at LAFCO offices.

MUNICIPAL SERVICE REVIEW AND ANALYSIS OF
ALTERNATIVES FOR SERVICE
REBUTTAL

This rebuttal is for and by the board of directors of the El Medio Fire Protection District.

The following statements are intended to clarify some of the inaccuracies of the MSR draft that was presented to the district.

Baseline Data and Information

The district encompasses 7 sq. Miles of incorporated land south of the city limits of Oroville.

Change made.

The City of Oroville’s Fire Chief was not correct in the amount of burned out residences in the district, there are 11 burned out structures in the district.

Change made.

The south end of the district does not have 1000 acres of abandoned olive trees, there are only 63 acres of olive trees and 300 acres of open range land with few trees. Even with the worst case scenario this area does not pose a threat to the city of Oroville.

Change made to the specific acreage of the abandoned olive grove. The Oroville Fire Chief’s assessment that under extreme burning conditions, this vegetation presents a threat to other vegetation and property in the District and south portion of the city is correct.



Special Tax Assessment

In 1980 when Jarvis Gann property tax rolled back property taxes the district was left short, as were other agencies through-out California. If the Jarvis Gann measure had been defeated we may not be in the position we are in now.

Comment acknowledged.

Administrative Assistant

The district at no time has ever had a full time paid administrative assistant. The district secretary has always been a part time position never a full time position, and answers only to the district board.

Change made.

Personnel Management

Career recruitment is handled by the Assistant Chief and Chief. Testing is done by the Assistant Chief, who administers a written test that was derived from the IFSTA manuals covers all aspects of the firefighter 1 requirements. Although our test is not certified by anyone it fills our needs quite well. Not all departments have certified tests. Physical agility test are administered by the Assistant Chief and company officers. Oral interviews are done by a panel consisting of the Chief one board member a member from either Oroville fire department or Butte County Fire Department and a member from the public who lives in the district. The Chief then makes his recommendations to the district board that then makes the final decision to hire.

Volunteer recruitment is done by the company officers and Assistant Chief, testing, and physical ability test are done by company officers, with their recommendations presented to the Chief for approval. A new recruit is not allowed to respond until a certain level of training is achieved and a recommendation is made to the Chief to allow them to respond.

Comments acknowledged.

All volunteer training records are kept on file by the company officers. When the study was done the Chief had no access to the files.

During both the materials and site evaluations these records were not available for review.

Labor Management

The department has never had a need for collective bargaining. All the employees know the department pays as much as it can with what the budgets have been. A contract has never been needed by the district. All the employees know the department's status before they start their first day of employment. And it never has been an issue in the past.

Comment acknowledged.



Employee Wellness

The district is well aware of the fitness requirements and has set aside two hours every morning for the employees to work out. Most employees prefer to go to the local health club for which they are members, and do their work-outs.

This element of the evaluation is directed at a comprehensive employee wellness program of which, a workout policy or regimen is only a single component.

Safety Committee

The district has had this committee in place for many years and they do follow the guidelines you have listed. The committee consists of two board members one company officer and one firefighter who take their findings back to the board for review and action.

During both the materials and site evaluations these records were not available for review.

Fit Testing (SCBA)

Done on an annual basis records are kept in each members personnel file. Daily inspections of all SCBA's are also recorded and kept on file, since the reviewer's visit we learned the records were moved to a different office, to make room for other records.

During both the materials and site evaluations these records were not available for review.

Workers Compensation Program

The call OSHA 200 injury log, I have since learned was removed by a student in an EMT class. I have written to state comp and requested a new log.

Comment acknowledged.

Property and Liability Insurance Coverage

Our insurance package is here at the station for anyone to review. The day the reviewer was here I was unaware that the coverage booklet had been moved into another file under a different heading.

During both the materials and site evaluations these records were not available for review. Subsequent to these evaluations a copy of the declaration sheet for vehicle coverage was located and provided to the reviewer. This is indicated in the body of the report.



ISO Rating

Why is the graph on page 14 show a source survey of insurance companies in the southeast United States instead of companies on the west coast? I do not feel this is fair to us.

The ISO chart is provided to be illustrative of the thresholds of the ISO rating “bands” to increases in residential insurance, not to provide a method to calculate actual insurance changes. The chart from southeastern United States has been replaced with one from the west coast in the final report.

Capital Assets and Capital Improvement Programs

We fee the opinions of the reviewer are his own. Our station is not in the shape he is trying to pass on to you. If we find something that needs to be repaired, it is repaired. We repainted the inside of the station last spring. The meeting room was repainted by the training company that uses it, with our permission, after that. Why must we remodel everything every 3 to 5 years when it is not needed?

This element of the evaluation indicates that it is desirable to have regular facility maintenance planned as part of the normal budgeting cycle rather than on an ad hoc basis. This aids in preventing deferred maintenance from resulting in large or unanticipated capital costs.

The Diesel Exhaust System

Neither Oroville fire department nor any of the Butte County or State stations have this very expensive system.

Our doors leading into the apparatus room are self closing and our structure gear is stored in the apparatus room as is Oroville fire and most of the BCFD/CDF stations.

We do have a separated washing and drying room for contaminated clothing, and structure gear, for which all personnel are encouraged to use, and we advise them against washing their gear at home.

Comments acknowledged.

Exposure Control Plan

This plan is headed by the Assistant Chief, and records are kept and not available to the public.

This element is directed at the requirement for a comprehensive written exposure control plan which has as its purpose the prevention and management of communicable disease exposures. It includes engineering controls, policies and procedures, and vaccination/treatment practices. This plan should be in written form and training made available on its contents to all employees.



Smoke Detectors

We have on in the dispatch area, and one in the district meeting room.

Change made.

Furnishings

Yes they are donated items, but what fire department refuses donated items.

Comments acknowledged.

Again the opinions of the reviewer are his own and should not be held against us.

Personnel Privacy

Until just recently Oroville fire did not have these and I know for a fact that BCFD/CDF dose not have this feature in all its stations either.

Comments acknowledged.

Bathrooms

We have a men's and a women's bathroom. The men's bathroom has a shower facility the women's does not. How many bathrooms do we need?

Comments acknowledged.

Apparatus/Vehicles

Yes some of our engines are very old. If we had money to replace our older equipment, we wouldn't be here doing the review would we.

Comments acknowledged.

Training Program

We train twice a month 2 hours a night volunteer drills

Comment acknowledged.

Career Development Training

Copies of all certifications that the paid staff or volunteers receive are kept in their personnel file. We try to get the staff as much training as possible but when funds are low training suffers. This problem in not unique to just us, but most departments out their training budget before anything else.

Comments acknowledged.

Training Records

Yes we may not be the best records keepers in the world, but even though our training program is at the bare minimum, and more is better, we all feel that what we train on is geared to the needs of the district and the fact that funds are short and formal training at times can be out of our reach we feel that by knowing this and practicing safer habits on the fire ground makes us better firepersons.

Comments acknowledged.

Fire Prevention and Education

Yes our code enforcement program is lacking, we feel that for us to have a good code enforcement program we need support from the districts attorneys office. Something that we have not had for many years. At one time the district attorney told this department do not bother citing people for code violations, because they were so under staffed they would not even look at our cases. So naturally we felt like why bother if we don't get support. We then turned to the bluff. We would tell people we will cite them into court if they didn't comply. It works most of the time.

Comments acknowledged.

Education Programs

We go to both grammar schools with our prevention program, when available we use the interagency fire safe house to conduct fire drills and exit drills, and to get our prevention program across. We encourage schools to come to the station for tours, and any interested group or church.

Comments acknowledged.

Sprinklers

We have only two buildings that are sprinklered in the district. Until it is state mandated that all new construction must be sprinklered we do not foresee a dramatic increase in sprinklered buildings.

This element of the evaluation is directed at the option that local governmental bodies such as the District have to modify fire and building codes life safety requirements in excess of state minimum standards. This is especially important to consider in the case of sprinklers for the reasons stated in the report.

External Customer Involvement

The department has belonged to the Southside coalition for many years. We have sponsored clean-up days, held meetings, and attended workshops in efforts to assist in cleaning-up the south Oroville area.

Comments acknowledged.

Internal Customer Involvement

All the district personnel are welcome to attend the regularly scheduled board meetings. There is one paid member and one volunteer who sits on the budget committee. All correspondence that comes from the board to the staff is done so by memo, passed down from the Chief. All personnel must sign the memo stating they have read and understand the contents of the memo.

Comments acknowledged.

El Medio Fire Department Volunteer Roster

Nowhere in this MSR is our volunteer staff mentioned or given any credit. Our volunteers are the backbone of this department, as is most all volunteer companies, in Butte County.

Our volunteer staff is a very dedicated group of men and women who are giving something back to their community and deserve to be recognized for their efforts.

We have volunteers that have been with the department for 25+ years for little or no pay, because they are dedicated to the department and to the community they live in.

Our volunteer company responds to all emergency calls and non-emergency calls. They staff equipment when the paid staff is committed to other incidents. Our volunteers drive our equipment, staff the station, greet the public, attend training sessions, etc. We utilize our volunteers more than any other station in the county.

We feel that by not including our volunteers in the MSR was a big slap in their face, since this department was formed by volunteers 75 years ago, and has kept an active volunteer force since. The service our volunteers have provided through-out the past 75 years has been outstanding.

Our volunteers live in various parts of the district, and more often than not, are the very first on the scene. Our volunteers are very active, and they take pride in their accomplishments.

Our question to you is this, why were they left out of the review? We feel that by not including our volunteer staff, and the service they provide to our community, a grave mistake has been made, and that mistake needs to be rectified.

Volunteer firefighter programs are common in many areas of California and the nation. In some communities which cannot afford or choose not staff a full time fire department they provide all emergency response services. In California they typically are used very successfully to augment resource depth (additional resources beyond the first or initial response). Such is the case in the District. Despite the obvious contribution and value of these programs in providing additional resources beyond the first response (which are counted in the staffing analysis), there are characteristics inherent to almost all volunteer



programs which provide significant barriers to the use of these resources in a quantifiable analysis of initial response capability.

As discussed in the body of the report, fire and emergency medical responses are time sensitive. The variable availability of volunteer personnel for immediate emergency response as they go about their daily tasks of work and normal life coupled with the built in response time delay associated with traveling to the station, dressing for the emergency, and initiating response make reliance on volunteer personnel for staffing of initial time critical responses undesirable. While volunteer programs contribute significantly to a community's ability to provide depth or backup resources, and can contribute significantly to additional resource needs later in an incident, they cannot be predictably and reliably counted upon for the initial response analyses in this study.

During the first meeting that LAFCO had with the district about the MSR, we were told that someone would be out to talk with board members (other than in a board meeting) and talk to members of our community. These were not done. Our staff has relayed to us that your meeting was very short and with only one person. The meeting with the Chief was less than one hour in length, and the impression he got was "hurry i need to fly back home."

Our department feels that minds were already made-up before the review even started, and lets just go through the motions and stick it too el Medio fire department. Get our money and go home.

The department knows that someday the city of Oroville should and will annex us into the city. We will not fight this, we know all cities must grow, and the most likely place for Oroville is to go south.

What we don't want to happen is, taking us in small bites (one or two blocks at a time). That will not only hurt us, but the city as well.

When the city can come out and tell us they are ready to annex the whole district at one time, we will do whatever it takes to help that process along.

Our first concern when that happens is our employees and our volunteer company. Then we must think of our equipment. So until the time for full annexation is her we have a fire department to run and will do it to the best of our abilities.

Our first concern is to the people of the district since they are the ones that pay our bills. Our next concern would be outside the district.

What prompted this review, was the fact that our department pulled out of the south county agreement, and the way it pulled out. Granted it was not handled in a very professional manner, (and i apologize for that) but none the less when we had to drop our staffing level in the winter months, we would have had pull out of the agreement, as per

the original agreement, made between the Chiefs, prior to final signing by all three departments.

I feel that changes in administration, to two of the departments, and more informed people, that are now in key positions, and cooler heads prevail, i feel that a solution can be found and worked out by all parties involved, that will allow the el Medio fire department to once again be part of the south county agreement and still provide services to our district and bordering Oroville fire and butte county fire.

Funding is still a major factor in the equation, but i feel that with cooperation from all parties a solution can be reached.

Everyone knows our problem is funding. But we are not alone, just hit harder than everyone else.

Last summer when the California Department of Forestry was 55 million dollars short, in their budget, the state imposed a fee on every parcel of land in the state, that CDF calls the SRA (state responsibility area). The people of California never even got a chance to vote on it. While this department is \$25,000 short we have to have 2/3rd majority vote to increase our budget. Is that fair?

If the voters had not passed the two propositions for bonds this year, where would CDF be?

I have talked to other departments in the county and they are all faced with shrinking budgets, possible layoffs, or station closures, so we are not alone in the budget battle.

We are not picking on the California Department of Forestry, they are a great department with great people on staff, and this department has always, and will continue to be a friend to them.

Our friends at Oroville fire know that a big number of their current and past employees started their careers with this department. Some even moved to larger departments, or became city councilmen. I know we can all work towards the betterment of the city of Oroville and to the residence of the El Medio Fire Protection District.

Thank you for your time