

5.0 EVALUATION OF CURRENT RESOURCES

The current fire protection resources within the Study Area were evaluated based on fire protection standards promulgated by the National Fire Protection Association, Occupational Safety and Health Administration (OSHA) and the Insurance Service Office. Fire service levels within a jurisdiction are determined by local decision-making and policies, with funding a critical consideration. While fire service in the South County is not seriously deficient in any area, the evaluation does identify areas where service improvements should be considered.

5.1 Critical Tasking Scenarios

The following three typical scenarios outline the critical tasks that must be carried out at a fire. It should be noted that the following scenarios do not reflect large fires. These scenarios provide an objective means to evaluate the adequacy of resources within the Study Area.

Table 5.1
Scenario 1: Single Family Residence
Single room, fully involved with fire in a detached, non-sprinklered residence, at night

| Task | Number of Firefighters Needed | Fireflow (GPM) Being Delivered | Number of Engine/Truck Companies Needed |
|-------------------------------|--------------------------------------|---------------------------------------|--|
| Incident Command | 2 (Incident Command and Safety) | None | None |
| Hand Held Hose Lines | 2 Firefighters | 180 GPM | 1 Engine |
| Rapid Intervention Team | 2 Firefighters | None | Same as above |
| Search and Rescue | 2 Firefighters | None | 1 Engine or Truck |
| Ventilation and Smoke Removal | 2 Firefighters | None | 1 Truck Co |
| Utilities | 1 Firefighter | None | Same Truck Co |
| Salvage/ Damage control | 1 Firefighter | None | Same Truck Co |
| Rehab/ Relief personnel | 2 Firefighters | None | 1 Engine Co |
| Total | 14 | 180 GPM/ 12.8 per firefighter | 3 Engines, 1 Truck, 2 Chiefs |

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Table 5.2
Scenario 2: Commercial Building
10,000 square foot, one story, sprinklered building; 25% involved at night (after hours)

| Task | Number of Firefighters Needed | Fireflow (GPM) Being Delivered | Number of Engine/Truck Companies Needed |
|-----------------------------------|---------------------------------------|--|--|
| Incident Command | 3 (Incident Command, OPS and Safety) | None | None |
| Hand Held Hose Lines; 2 lines | 4 Firefighters | 360 GPM | 2 three-person Engines |
| Water supply and sprinkler supply | 1 Firefighter/engineer | None | One from above company |
| Rapid Intervention Team | 4 Firefighters | None | 1 three-person engine + one from above company |
| Search and Rescue, ventilation | 3 Firefighters | None | 1 Truck Co |
| Salvage/ Damage control/utilities | 3 Firefighters | None | 1 Truck Co |
| Rehab/ Relief personnel | 3 Firefighters | None | 1 Engine Co |
| Total | 21 | 360 GPM/ 18 GPM per firefighter plus sprinklers | 4 Engines, 2 Trucks, 3 Chiefs |

Table 5.3.
Scenario 3: 30-Acre Vegetation Fire
Fuel model 3 grass with oak woodland; hot, dry weather, low fuel moisture, wind 15 mph, slope 10%; structures 1000' away

| Task | Number of Firefighters Needed | Fireflow (GPM) Being Delivered | Number of Engine Companies needed |
|-------------------------------|--------------------------------------|--|---|
| Incident Command | 3 (Incident Command, OPS and Safety) | None | None |
| Hand Held Hose Lines; 4 lines | 8 Firefighters | 500 GPM (125 each line) | 3 three-person Engines |
| Water supply | 2 Firefighter/engineer | Supply to engines | 2 Water tenders |
| Construct line ahead of fire | 2; dozer operator and swamper | 0 | Dozer |
| Air attack | 2 (pilot, observer) | N/A | 0 |
| Downwind patrol | 6 | N/A | 2 three-person Engine Companies |
| Rehab/ Relief personnel | 4 Firefighters | None | 1 three-person Engine Co and one from other engines |
| Total | 27 | 500 GPM/ 18.5 GPM per firefighter | 6 Engines, 2 Tenders, 3 Chiefs |

5.2 Resource Concentration and Response

The National Fire Protection Association (NFPA) has established standards for fire protection service. Standard 1710, “Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations by Career Fire Departments” recommends 14 firefighters on scene for a first alarm within 8 minutes driving time. As shown in *Table 4.3, Current Fire Response Configuration*, the on-scene staffing for a structural fire within the Study Area does not meet this standard. Watsonville has 10 firefighters on the scene within 8 minutes, with 12-14 personnel in 14

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minutes. County Fire and PVFPD have 9 total personnel for a response, with arrival time dependent on the incident location. When comparing the critical tasking matrices in *Tables 5.1* through *5.3* above to the Current Fire Service configuration shown in *Table 4.3*, it is clear that no one agency is able to respond adequately to any significant structure fire without outside help. Any significant structural fire requires response from other agencies, through mutual aid or automatic aid; however, automatic aid and mutual aid is not guaranteed response, so on-scene forces may be inadequate. The number of fire engines in the Study Area is adequate; the issue is in the number of firefighters available and the response time. The fire agencies cannot respond adequately and in a timely manner to a second significant fire occurring during the first fire. Multiple queuing of alarms (where successive calls are received while companies are responding to another call) cannot be handled effectively due to a lack of concentration of engine companies.

As noted in the *Fire Department Needs/Gap Analysis* report prepared for Watsonville, the current distribution of resources is adequate and the Fire Department's response times are better than the national standard. However, given anticipated growth within the city and adjacent areas, Watsonville will need a third station in the future in order to continue to provide adequate fire response. The participants in this study noted that a station in the area of East Lake Avenue and Holohan Road could be shared between Watsonville and the PVFPD. If future development in Watsonville includes taller buildings, the response resources may not be able to adequately protect such buildings without aid from outside the Study Area.

NFPA 1710 recommends a standard of 4 minutes driving time for 90% of all calls and ALS arrival in 8 minutes driving time. Response times in Watsonville are consistent with these standards. County Fire and PVFPD have not adopted response time standards due to the characteristics of their services areas, including distance, road conditions, and type of development.

The response to vegetation fires is adequate due to the significant CAL FIRE resources in the county.

5.3 Personnel

The Department Fire Chiefs consist of the Watsonville Chief, the County Fire Chief, and the Assistant Chief (both CAL FIRE). There are two on duty Battalion Chiefs: one is on duty 24 hours per day in Watsonville and the other is a CAL FIRE Battalion Chief on duty and on call. This results in coverage of two Chief Officers 24 hours per day, which is adequate for the Study Area.

Watsonville is experiencing staffing shortages. Higher salaries offered by other fire agencies in the region attract employees away. The Fire Department has been chronically understaffed for paramedics, operating with seven staff instead of nine. Half of the Department's 33 firefighters are eligible for retirement in the next five years.

Watsonville and Corralitos have 3-person engine staffing, while Pajaro Dunes and PVFPD have 2-person staffing. In environments that pose an immediate danger to health and life (IDHL), the Code of Federal Regulations (29 CFR Part 1910.134) requires that one employee be located outside the IDHL atmosphere

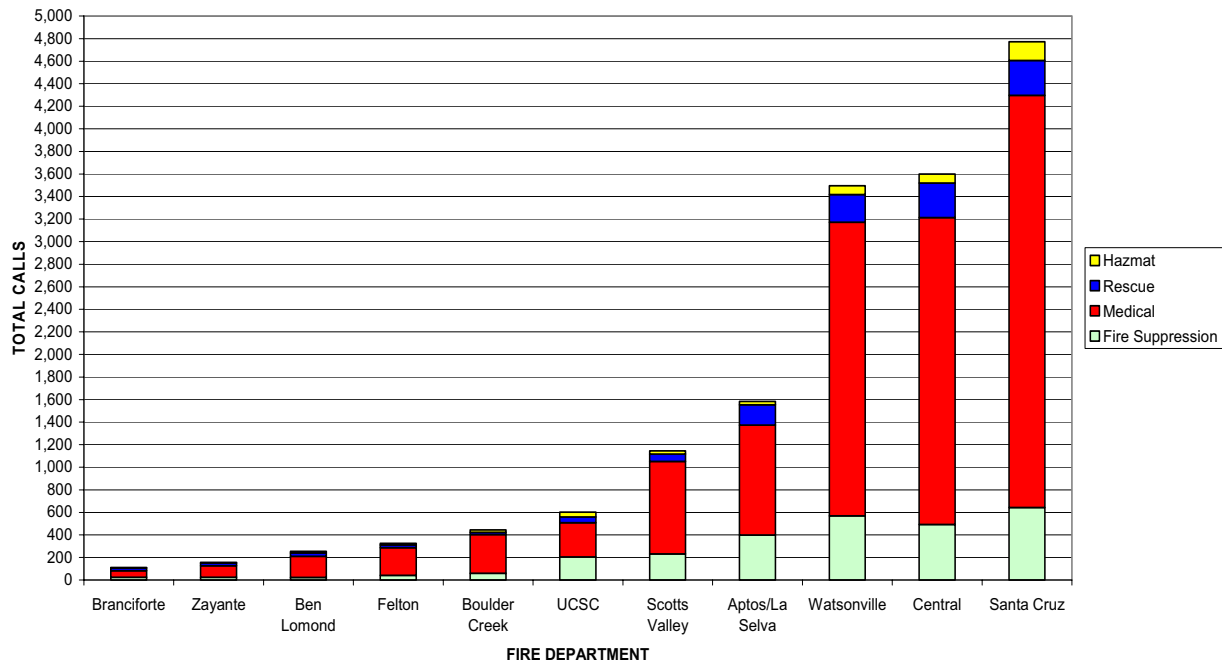
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and visual, voice or signal line communication be maintained between the employee(s) inside the IDHL atmosphere and the employee(s) located outside. For interior structural firefighting, at least two employees enter the IDHL atmosphere and at least two employees must remain outside (Rapid Intervention Team/Rapid Intervention Crew). Two or three-person companies are not OSHA compliant for Rapid Intervention Team/Rapid Intervention Crew (2 in, 2 out) and an interior attack on a significant structural fire must be delayed until at least four personnel are on site.

This is a common issue for local governments as providing four-person engine companies is desirable but it significantly increases fire service costs. Fire agencies provide the staff and equipment resources based on funding and acceptable risk levels. As shown below in *Figure 5.1* from the 2005 Countywide Service Review, the majority of calls are for emergency medical response. Due to improved building codes and more fire resistant building materials, the number of fire suppression calls has diminished. However, should a significant fire event occur, the firefighting resources must be available within an acceptable timeframe, through other stations within the agency, automatic aid, and mutual aid.

Figure 5.1

EMERGENCY CALL VOLUMES 2004



Note: the call-type mix for County Fire and Pajaro Dunes is similar to the agencies shown above.

Given that the majority of calls are EMS-related, one option that is available is to staff a quick response vehicle which can respond to medical calls. Watsonville may consider this as part of the City’s approach to fulfilling its contract with the Santa Cruz County Health Services Agency. It should be noted that this

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approach to providing emergency medical services does not reduce the need for fire stations or the number of firefighting staff.

5.4 Equipment

The fire apparatus within the Study Area is in reasonable condition. Watsonville's first line apparatus will be new or nearly new by the end of 2007. However, there is only one ladder truck in the study area. This area should have a second ladder truck to meet ISO standards for truck company coverage. Truck service is needed at every structural fire for manpower, critical tasking, and equipment. The second truck could be a service ladder truck rather than an aerial ladder due to lack of tall buildings or high fire flow buildings in the area outside of the city.

As noted in the February 27, 2007 report to the Board of Supervisors, County Fire has deferred purchasing replacement vehicles as a cost saving measure. County Fire currently owns and operates 8 engines, 6 water tankers, and 6 rescue vehicles. The County has not purchased an engine since 1994, and most of the engines are approximately 15 years old. Engines are typically converted to reserve status at 15 years, with an estimated remaining useful life of 5 years. The age of the equipment makes them more expensive to operate and less dependable. The County estimates that \$500,000 is needed annually to address equipment needs.

The Pajaro Dunes fire engine was acquired in 1997, so it is approximately halfway through its expected useful life.

6.0 KEY ISSUES

The purpose of the South County Fire Service Study is to evaluate whether there are opportunities to improve efficiencies and service levels (or sustain current service levels with increasing funding constraints) through organizing fire protection services differently. A number of issues have been identified through the service review process and in discussions with representatives from each of the agencies. Any reorganization should provide a net benefit to the residents and property owners within the affected area and should improve conditions related to the following issues:

6.1 Service Level Differences

Fire and emergency medical service levels vary within the more populated areas of the Study Area, which is a direct function of cost and available funding. Watsonville and Corralitos (County Fire) have 3-person engine staffing, while PVFPD and Pajaro Dunes have 2-person staffing. Watsonville provides Advanced Life Support (ALS) and the other areas have Basic Life Support (BLS). Watsonville is serving the Freedom area and adjacent communities, which offers higher service levels to those urban communities than are available in other rural areas within the PVFPD. Although these differences do not indicate that service is inadequate in any given area, it does demonstrate an opportunity for service levels to be equalized, particularly within the more developed areas.

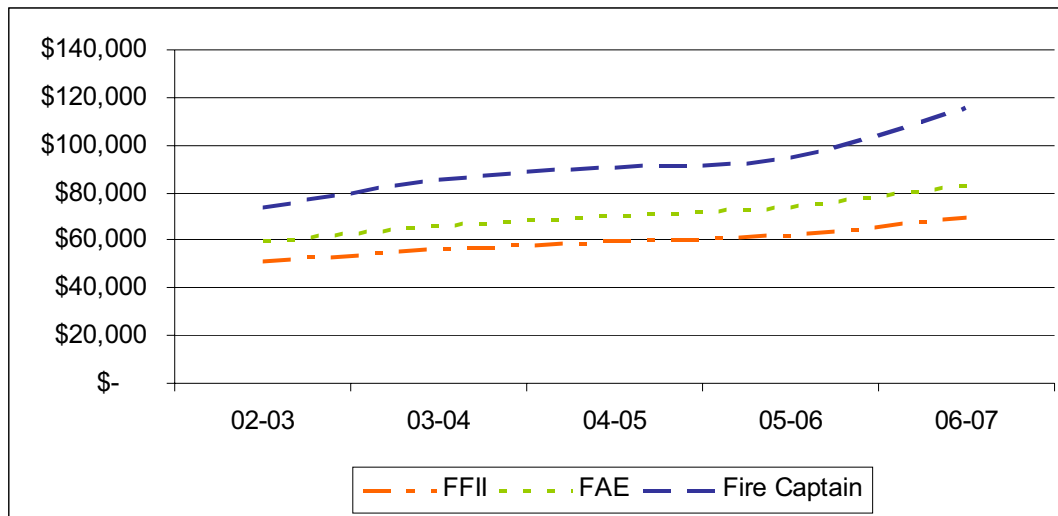
6.2 Increasing Personnel Costs for State Negotiated Contracts

Fire protection is labor-intensive, and personnel costs comprise a major portion of fire protection expenditures. Within the Study Area, labor represents approximately 91% of the aggregate cost. CAL FIRE personnel are employees of the State with most rank-and-file classifications represented by Bargaining Unit 8. Salary rates and benefits are negotiated by the State in fulfillment of the State's responsibility to provide for wildland fire protection. Local governments that contract with CAL FIRE to provide services are subject to the salary rates and costs adopted by the State; rates are not negotiable for local fire protection.

In 2001 the State entered into a Memorandum of Understanding (MOU) with Unit 8 that significantly changed the compensation for CAL FIRE personnel. A negotiated base compensation increase of 5% became effective July 1, 2003. Planned and unplanned overtime expenditures represent a significant portion of total costs. Planned overtime is the portion of the regularly scheduled work week for which staff is compensated at overtime rates (1.5). Due to federal labor law and contract obligations, planned overtime pay applies to scheduled work shifts that exceed 53 hours. Regular shifts for CAL FIRE staff are 72 hours, so 19 hours per shift are paid at overtime rates. Effective November 1, 2005, the compensation for the overtime hours changed from half time to time and a half. At the same time the method for determining hourly rates changed from weekly base salary divided by 72 hours to weekly base salary divided by 56 hours. Per the analysis done by the Legislative Analyst's Office, the 2001 Unit 8 MOU "will result in significant compensation increases for employee classifications within Unit 8". As

an example, from Year 2002-03 to 2006-07, the trend in total compensation for three major employee classifications is shown below:

Figure 6.1
CAL FIRE Compensation Changes



FFII = Firefighter II; FAE = Fire Apparatus Engineer

Retirement benefits have increased as well. Prior to Year 2000, the firefighter retirement benefit was 2.5% at 55 years. Beginning in 2000, Chapter 555, Statutes of 1999 (SB 400, Ortiz) allowed for a benefit increase to 3% at 55 years, which was included in the 1999 and 2000 Unit 8 MOUs. In 2003, Unit 8 renegotiated the 2001 MOU to 3% at 50 years beginning January 1, 2006.

This has had a significant impact on local governments contracting with CAL FIRE as those costs are passed through. The Legislative Analyst's Office estimated that the 2001 MOU increased costs to local governments by \$9 million in 2003-04, and may have reached \$22 million annually by 2005-06.

A new MOU is now in place that extends to June 30, 2008. It continues most of the provisions in the 2001 MOU including the 3% at 50 retirement benefits. It does not include changes to the basic compensation package; however, it does reduce the scheduled work week for newly appointed Battalion Chiefs to relieve a compaction problem that was a disincentive to seek promotion.

Effective July 1, 2006, CAL FIRE revised its station staffing so that core employees will staff SRA stations year round, and local governments will pay for supplemental employees through the Amador Plan. This change benefits local governments as it reduces the personnel cost that they are responsible for in the non-fire season. In addition, the set minimum charge for Amador Plan services has been eliminated and replaced by an at-cost billing system. These changes do not benefit Schedule A (year-round)

agreements and the rates for providing service with local facilities and equipment. For FY 2006/07, the County realized a net reduction of \$403,762 in CAL FIRE costs, which consists of a reduction of approximately \$656,000 in Amador Plan costs and an increase of \$253,000 in Schedule A costs. However, as noted above in the September 2006 report to the Board of Supervisors, the cost to maintain current service levels is expected to increase in FY 2007/08 and may necessitate an increase in the assessment for CSA 48.

In September 2006, the Governor vetoed AB 2683, which would have required the State to pay rank and file members of Bargaining Unit 8 (CAL FIRE) the estimated average total compensation (for each rank) of the average salary and benefits received by other jurisdictions employing 75 or more full-time firefighters within California. It was estimated that salary costs for CAL FIRE firefighters would have increased 20% under this legislation. Because personnel is the most significant cost for fire service, this type of legislation has the potential to significantly impact the fiscal stability of local agencies that contract with CAL FIRE.

It should be noted that the limited ability for local governments to affect these State-directed costs in the future is through legislative action and not annual contract negotiations at the local level.

6.3 Adequate Fire Service Funding

Adequate funding for fire services is a challenge for local governments across the state, particularly with the trend toward increasing costs and limited opportunities to increase revenue. Within the Study Area, fire service is funded through property taxes and assessments as shown below in *Table 6.1*:

**Table 6.1
Fire Service Funding Sources**

| Agency | Funding Sources |
|---|--|
| County of Santa Cruz – CSA 48 | Portion of 1% Property Tax Fire Marshal fees, Proposition 172 funds, plus Assessments = \$56.68 per fire flow unit ¹² (2 X \$56.68 = \$113.36 per single family dwelling) |
| County of Santa Cruz - CSA 4 (Pajaro Dunes) | Portion of 1% Property Tax plus Assessments = \$324.52 per fire flow unit (2 x \$324.52 = \$649.04 per single family dwelling) |
| City of Watsonville | General Fund, Prop 172 funds, fees |
| PVFPD | Portion of 1% Property Tax, fees, CAL-Star Dispatch contract plus Fire Protection Tax (\$30 per single family dwelling) |

State law determines the exchange of property tax revenues among local agencies in conjunction with jurisdictional boundary changes. When territory is detached or annexed to a district or a new fire agency

¹² A fire flow unit is a volume of water necessary to extinguish a structural fire within a given time period. The units are used to ensure adequate water service capacity as well as to quantify fire service demands. Most single-family residential properties are assigned two (2) fire flow units.

is formed, the County Board of Supervisors negotiates an exchange of property tax revenue on behalf of the districts. The exchange is limited to revenue from the annual increase in assessed value that is attributable to the affected tax rate area, referred to as the annual tax increment.

As discussed above, fire service expenditures are trending upwards faster than revenues. This is largely due to labor costs; increasing professional standards in the fire industry, changes in community demographics, and rising service level expectations are all making it more difficult to field paid-call and volunteer staff, and many local governments find this model increasingly difficult to sustain. A few years ago Watsonville ended its paid call and volunteer programs as the cost outweighed the benefits; however, in March 2007 the Watsonville City Council identified renewal of the City's volunteer firefighter program as one of the Council's priorities.

Population and level of development is a factor in fire service funding. Greater density provides increased funding due to the number of developed parcels. The 1% property tax is also a factor – increased property values provide more funding as well. As experienced by the property owners in Pajaro Dunes, spreading fire service costs over a small number of developed parcels results in higher assessments. In the Corralitos response area, there are an estimated 156 people per square mile, which represents a challenge to fund an urban level of fire service.

There are three ways to balance fire service funding with costs: 1) reduce expenditures by streamlining operations, 2) reduce expenditures by reducing services, or 3) obtain additional revenues. Revenue increases require voter or landowner approval; assessments require approval by a majority of the property owners, weighted by assessed value, and special taxes need approval by 2/3 of the registered voters. The following *Table 6.2* provides a history of the public's acceptance of fire protection assessments over the past 25 years.

**Table 6.2
Successful Fire Protection Assessments**

| District | Election | Type | Yes Vote | Total Raised | Typical Single Family Dwelling in 2006-07 |
|---------------------|------------|----------------------|--|--------------|---|
| Aptos (La Selva) | 1982 June | Special tax | 76% voters | \$110,000 | \$60 |
| Aptos (Day Valley) | 1988 June | Special Tax | 71% voters | | \$60 |
| Branciforte | 1981 Nov. | Special Tax | 81% voters | \$78,814 | \$100 |
| Branciforte | 1988 | Special Tax increase | 92% voters | | |
| Branciforte | 1996 Nov. | Special Tax increase | 78% voters | | |
| Branciforte | 2005 | Continue Special Tax | 89% voters | | |
| Pajaro Valley | 1996 March | Benefit Assessment | 56% (majority required) | \$140,000 | \$30 |
| Salsipuedes | 1982 June | Special Tax | 70% voters | | (was \$60 until reduced by 1996 PV assessment vote) |
| Zayante | 1992 June | Special Tax | 78% voters | \$68,000 | \$35 |
| CSA 48/ County Fire | 1997 June | Benefit Assessment | 67% weighted by assessment (majority required) | \$895,508 | \$111 |
| Pajaro Dunes | 1997 June | Benefit Assessment | 96% weighted by assessment (majority required) | \$368,655 | \$649 |
| Pajaro Dunes | 2006 Feb | Benefit Assessment | 85% weighted by assessment (majority required) | | |