

## Chapter 7 – Current Delivery System: Issues, Options, and Alternatives

*Can the individual Stanislaus County fire districts and cities keep pace with the rapid changes occurring and increasing demands on their ability to provide service?*

### Issue Clarification

This chapter identifies issues with the current fire services delivery system in Stanislaus County. One of the stated purposes of the MSR process is to evaluate infrastructure needs and deficiencies of jurisdictions in terms of availability of resources, capacity to deliver services, and condition of facilities. Therefore, the identification of issues that currently exist within the overall delivery system needs to be identified and clarified.

Clearly the answers to these issues lie in the future, but at a minimum it will require a coordinated effort of the fire districts, city fire departments, local governments, and the community at large to find solutions to current problems during each and every budget cycle over the next five years.

The answer to these questions also requires a countywide buy-in by almost all of the agencies, as the issues affect all of Stanislaus County fire agencies in one way or another. Future action may also require involvement by the state and federal governments on some aspects.

The following major issues were identified in the data collection or interview process:

1. Aging infrastructure, both apparatus and stations
2. Funding for capital and operating expenses
3. Annexation of district territory by cities
4. Commitment to planning
5. Inability to recruit and retain volunteer firefighters
6. Ability to meet training mandates
7. Large areas of under or un-served property
8. Improving on public awareness of fire service capabilities
9. Dealing with major emergency operations

### 1. Aging Infrastructure

#### Condition of Fire Facilities

Just because two buildings have the name of a fire department on the outside does not necessarily mean they have the same capacity on the inside. In any fire facility, there are subtle and significant differences in how they are designed, how they are staffed and what their capabilities are in being able to operate over a long period of time. In Stanislaus County, there are three types of buildings. The first of these would be classified as a *full service fire station*. The second would be classified as a *full service fire hall*. The third classification would be a *temporary structure* to house apparatus.

The term *fire station*, as used in this report, applies only to buildings that have an adequate range of services so that individuals can use it on a 24-hour-a-day basis. This would include, but not be limited to, an apparatus room, office space, sleeping quarters, dining and cooking facilities, and the necessary infrastructure to support 24-hour day utilizations.

A *fire hall* is a building that is essentially structurally sound but is designed primarily to house apparatus, an office, and perhaps adequate ability to conduct training within the building. It might contain a conference room and restroom facility but does not include consideration for overnight stays. Many fire halls contain a full-scale kitchen even if they do not contain a dormitory facility.

For this report, an improvised facility is any facility that is essentially nothing more than a floor and four walls with a minimum amount of capacity for storage and/or utilization by storage of the apparatus resources of the organization. These temporary facilities are usually defined as mobile homes used for offices, metal buildings that house apparatus only, or buildings that have no administrative facilities. ESCi conducted extensive discussions with fire department personnel regarding how they utilize their fire facilities. During the site visit every fire station but one was physically visited.

With respect to building condition, there are a wide variety of ages of buildings in the inventory. A significant number of the buildings were of modular construction consisting of either metal buildings or simple wood frame construction. Some of the stations were adequately maintained, others were in various stages of disrepair and maintenance. Some of the more basic facilities may have difficulty maintaining future serviceability.

One factor that ESCi closely examined was whether the stations had emergency power. It was pointed out by several of the departments that they sometimes go for several days at a time with power outages as a result of various infrastructure problems. It is considered to be good practice for a fire station to be capable of independent operation from the remainder of the community in the event of a major power outage. Those fire stations that do not have an emergency generator nor control over a dedicated source of fuel for their fire apparatus should be considered vulnerable for long term catastrophic operations.

### **Earthquake/Seismic Issues**

ESCi is aware of a study being conducted by the Earthquake Engineering Research Institute (EERI). This organization is conducting a review of the buildings that house fire apparatus in the San Francisco Bay area to determine whether or not they are capable of surviving a major earthquake. The ESCi review team obtained a sample of the data collection form, but data was not available from EERI's findings as they had not completed the county field work. ESCi, however, believes that the questions and information provided by this survey are very relevant to the question of infrastructure in the study departments. Many if not most of the fire stations were built before seismic standards were available. The ability to survive a major earthquake for many of these stations is undetermined.

**Replacement Cycles for Apparatus and Equipment**

The number of engine companies, water tenders, and other forms of fire apparatus and the estimated replacement cost of all of this apparatus is an issue of concern. It should be noted that there is no way this apparatus can all be replaced within a single budget cycle. In other chapters, ESCi referred to amortization schedules and the need and necessity to have a long-range plan. This report notes the aging apparatus infrastructure, unless it is adequately dealt with, will eventually result in deterioration of the level of service.

As described below, the fire agencies have a fairly large inventory of firefighting apparatus. The equipment ranges from Type 1 pumpers (structural fire companies) to Type 4 pumpers (wildland fire companies). Many fire departments are operating a rescue squad; however, the design specifications of the various units are far from similar. The fleet has many vehicles that are considered to be beyond their normal service life cycle. A significant number of the fire protection districts are using recycled equipment that was placed out of service in other agencies and picked up through the second-hand exchange market.

**Figure 35: Apparatus Inventory**

Department	Engines	Trucks	Tenders	Rescues	Special	EMS
Burbank-Paradise FPD	3	0	0	0	0	0
CDF	2	0	0	0	1	1
Ceres City	5	1	0	1	3	0
Ceres FPD						
Denair FPD	4	0	1	2	1	0
Hughson FPD	4	0	1	0	1	0
Industrial FPD						
Keyes FPD	3	0	1	1	0	0
Modesto	15	3	0	1	2	2
Mountain View FPD	3	0	1	0	0	0
Newman	3	0	1	0	0	0
Oakdale	4	1	0	0	2	0
Oakdale Rural FPD	8	0	2	2	3	0
Patterson	4	0	0	1	0	0
Salida FPD	6	0	1	2	1	0
Stanislaus Consolidated FPD	15	0	3	3	2	0
Turlock City	5	1	0	0	0	0
Turlock Rural FPD	5	0	1	1	1	0
West Stanislaus FPD	8	0	5	3	4	0
Westport FPD	2	0	1	1	0	0
Woodland Avenue FPD	3	0	2	1	0	0
County Fire Warden						
<b>Totals</b>	<b>102</b>	<b>6</b>	<b>20</b>	<b>19</b>	<b>21</b>	<b>3</b>

Moreover, many of the apparatus are incredibly difficult to keep maintained. Technology has moved on significantly in the last 50 years. The net result is that most of the equipment over 30 years old is likely to be incapable of being restored to service if it suffers major damage.

However, having recognized the fact that equipment is of an older vintage, the fact is that the volunteer fire departments are doing an extraordinary job of attempting to maintain and keep them in serviceable shape. Throughout the interview process numerous pieces of equipment were singled out as being off-line because they could not be repaired. Nonetheless, there is an extensive effort by these departments to stretch the serviceable life of the apparatus even longer.

The type of apparatus is an important consideration but more important is its age. The cost to replace a fleet inventory is a major consideration in budget planning. It must be realized that all fire apparatus have a serviceable life and the cost of apparatus must be amortized over the timeframe of that serviceable life.

There is ladder or truck company service provided in the County. Seven truck companies were identified as part of the overall inventory. One truck is not staffed on a regular basis. Many of these truck companies are superannuated also. In addition, one of the concerns that needs to be expressed is that aerial apparatus has a fail-safe issue much more significant than engine companies. It is appropriate that aerial apparatus be tested in accordance with industry standards on a periodic basis. Those that do not meet the minimum professional requirements should be removed from service immediately.

### **Apparatus Replacement Costs**

The fleet inventory of these agencies encompasses over 150 fire vehicles. There are essentially two types of vehicles in the fleet. The vast majority has been purchased as second-hand vehicles or hand-me-downs from other firefighting agencies. The second type is new vehicles.

Eventually, every piece of apparatus in the fleet will have to be replaced. The average age of these vehicles reduces their overall reliability, and their replacement is a long range planning issue. It would seem appropriate to discuss at least two decisions with regard to their replacement and cost avoidance. The first question is should the fire service continue purchasing used fire apparatus? The second being to what specification should any new fire apparatus be designed if it will have to be replaced using local money?

Both of these questions pose philosophical and economic questions that are far more extensive than this report has time to address. The acquisition of used apparatus is a technique employed by fire departments all over this country that have limited funding. In fact, there is an industry based on recycled equipment. For this report, ESCi identified considerations that should be part of long range planning with regard to this issue. They are as follows:

1. The standards applied to fire equipment are becoming increasingly rigid. Firefighter safety is becoming a much valued consideration; and, therefore, old apparatus may well be rendered obsolete by the federal regulatory processes at some point.
2. Firefighting apparatus must be reliable to be useful, and reliability is often linked to repair and maintenance capability. It is becoming increasingly difficult to find parts and to keep aging apparatus on the road.

3. Fire apparatus that is specified for municipal service and purchased for rural service may not be as effective as desired. Customized apparatus that is put on the second-hand market often is difficult to adapt into another service type.

ESCi has suggested that the more rural fire departments might want to consider discontinuing the acquisition of used Type 1 pumpers and focus their energy on the acquisition of new Type III or Type IV engines. The acquisition cost of this equipment is currently in the range of \$125,000 - \$175,000. If we assume the replacement value for secondhand purchases at an average of \$5,000 per vehicle, the *approximate* replacement value of the fleet for every truck that is over 15 years old would be approximately \$5,000 to \$10,000 each if purchased second hand. In both cases, there is limited money to achieve either except for the grants being received by the agencies from the Federal Emergency Management Agency (FEMA) Assistance to Firefighter Grants (AFG) program.

It should be noted that this is not a true cost but rather an estimate of the amount of money that could be involved if this apparatus were to be replaced over a period of the next ten years.

## 2. Funding

The condition and capacity of the fire departments studied range from being merely able to make ends meet to those that are coping quite successfully. One indicator that funding is not adequate to meet all of the fire agencies budgetary needs was where the per capita fire funding was below the state average. While there is a tremendous variation from one end of the spectrum to the other with regard to organizational capacity, there appears to be at least one factor that was predominate among all of them - the desire to seek self-improvement and to find ways of overcoming the frustration over funding levels but always accompanied by an abiding concern about the budget

It was almost a contradiction in terms, but many of the individuals who participated in the on-site reviews expressed a unique combination of being highly motivated to serve as a firefighter but being very frustrated at the same time due to financial constraints. The level of job satisfaction in achieving successes has been diminished as a result of the broad based issues facing most of the volunteer chiefs. While not as severe in the paid staffs, it exists there also. That has not prevented them from seeking options and alternatives to get around other obstacles.

One thing that needs to be remembered is that the fire service of Stanislaus County has always faced an uphill battle. It is highly unlikely that individuals who are buying new homes in the area in Hughson and Keyes, for example, will ever recall the level of innovation and adaptation that it took to create these small fire agencies, much less what it takes to operate them today.

To the contrary, many of the new individuals moving into these areas bring with them the memory of the fire department that served them when they were in more urban settings. Not uncommonly, volunteers servicing these newly emerging housing tracts are greeted with statements of astonishment when they revealed to their customers that they are volunteers. There is a lack of understanding of the significance of having a volunteer fire department when individuals have an expectation of the same level of service that they have received in urban California. This often results in lackluster support for improvements that raise property assessments.

This unsupported expectation is part of the reason that this problem will continue to get worse unless some strategy is put into place to either educate the public to reduce their expectations or to find ways of more adequately funding the fire service so that those expectations can be met. There is literally no other tactic or technique that is going to resolve this in a favorable fashion. Remaining on the edge of financial crisis and having an increase in expectations occur simultaneously could result in system failures that could have catastrophic effects in the community.

Unless the per capita revenue for all agencies is raised to a baseline of around \$100.00 to \$125.00, and the organizations that do not have any developmental fees accruing to build future fire stations develop and adopt development fee schedules, funding will continue to be an issue.

### **3. Annexation of Districts by Cities**

As stated in Chapter 5, the detachment of property from a district to a city is a major area of concern for the districts. Border re-alignments are a similar concern. In Chapter 5, it was noted that the actual revenue to districts is still on the increase, but annexation by cities of vacant land does result in an erosion of the property tax base for that district. The appendix of this document includes a discussion of *Triggers and Thresholds* that lead to the installation of new firehouses. In Chapter 6, there is a discussion of Standards of Cover. The detachment process does not normally take into consideration either of these fire protection planning principles. The current response polygons for these stations as provided in the *Map Atlas* indicates that there is overlap in station coverage.

Over the last 20 years, the fire service has continually moved away from the territorial aspects that plagued the fire service for many years that prevented the closest fire company from providing the service. Many communities have now gone to automatic aid agreements to be more effective and efficient in providing fire and life safety services. *An automatic aid agreement is based on the premise that the closest fire company should be the one to provide the service regardless of boundaries.* More and more fire agencies are using automatic aid to overcome this obstacle. Many agencies are moving towards the use of automatic vehicle locators (AVL) just so the closest company will be utilized. The concept of boundary drops is very much a part of creating a more effective and efficient response platform.

While evaluating the Stanislaus fire service, ESCi noted that there are three specific conditions that exist regarding the geography and topography of all of the firefighting agencies in this County. The first of these is the existence of a homogenous area in which fire stations have already been built, constructed, staffed, and/or managed. It was observed that there is a series of geographical and topographical distribution issues associated with the boundaries of districts. There are *fingers* (defined as an area that projects out of the basic response area and creates some form of corridor). There are islands where one agency surrounds another. An island is an area that has been separated from the homogenous area and results in the fact that an engine company must go through another jurisdiction's area in response to protecting their own area.

In responding to the input that came back from the review process, it needs to be noted that there are a number of these fingers throughout the entire area, and there are a number of islands that are present at this time. To go through and enumerate how each of these fingers could or should be realigned to create a border that would be homogenous to one agency or another pits one fire department another. In ESCi's opinion, it is bad public policy to create a set of circumstances in which the level of cooperation (a desirable outcome of the MSR process) is

being impacted by the desire to comply with another process element to try to *clean up* the borders.

One cannot help but draw conclusions by looking at the map that some of these fingers will eventually be taken in through annexation by cities. It is also true, based on the attitude of the residents and property owners of those fingers and islands, that they may resist annexation.

As noted in Chapter 5, the review process could include a review of cost sharing to assure that response times are neither lengthened or service level changed in the detachment process.

## **4. Commitment to Planning**

As stated earlier, there is no long-term comprehensive strategy within the region to improve or add to infrastructure for fire protection and emergency medical services.

There really is no central authority or cooperative organization capable of developing a cohesive strategy for a regional remedy. The closest thing to that process to date has been the visioning process and the preliminary work of the joint powers authority. Currently, planning for structural fire protection and emergency medical infrastructure is the responsibility of each independent city and special district. Each of these entities performs planning and funding activities separately without regard to implications of duplicating or under-utilizing existing regional resources. No specific collaborative program or cooperative organization oversees planning or planning and funding of replacement, upgraded, or additional infrastructure components.

Some of the agencies have formal apparatus replacement schedules or have produced master or strategic plans for adding facilities. A few of them have been able to maintain committed reserve funds and have established programs that provide support to long range planning efforts. Creating programs to ensure resources will be available when new facilities are needed is a major issue.

For example, decisions concerning apparatus replacement are generally ad hoc-driven by short term funding levels that discourage long term planning. Moreover, even better funded districts seem to make apparatus appraisal and replacement decisions an annual process rather than a long-term process.

## **5. Inability to Recruit and Retain Volunteer Firefighters**

### **Staffing of Fire Stations**

The staffing of fire stations is provided by either full-time or volunteer staff. There are issues with both staffing configurations. Because volunteers are such a predominate part of the districts' staffing, ESCi chose to describe this issue first.

### **Definition of a Volunteer**

The concept of being a volunteer firefighter has its roots in Colonial America. The original idea behind the creation of volunteer fire departments was *citizens serving citizens*. For over 250 years, the vast majority of fire departments in the United States were of a volunteer nature. Currently, in Stanislaus County, they are the predominant staffing resource for responding to emergencies in the areas outside of cities.

However, volunteers cannot be taken for granted in this system. They do not materialize out of nothing, nor can they be sustained by improper treatment. Almost all of the rural fire departments have an issue of volunteer recruitment and retention. The majority of the discussions did not center on the motivation of individuals who are volunteers but the inability to find new ones. This is because the real problem is the amount of time and effort it takes to be a volunteer. As stated by a volunteer who responded to a similar study in another county, "It is not enough to just get out of a warm bed and respond on a cold night; you now also have to have the right kind of training and credentials to do the job." This was mirrored by the remarks of many of the volunteer leaders in this process.

There is no doubt that Stanislaus County benefits from the presence of volunteer firefighters. In a recent study conducted by the Volunteer Combination Officers Section of the International Association of Fire Chiefs, the economic impact of the volunteer fire service is significant. The national value of service provided by America's volunteer emergency responders is estimated to be \$36.8 billion annually.

Saint Joseph's University Public Safety and Environmental Protection Institute (May 2004) developed a model to calculate the benefits to having a volunteer firefighter. According to that study, the average volunteer is saving the community between \$25,000 and \$45,000. This is based on the assumption of what staffing would be if all volunteers had to be replaced by a totally career service.

Moreover, this model hypothesis suggests that in order to be equitable in identifying these savings, the volunteers would need to staff apparatus to the same level suggested by *NFPA 1710*<sup>26</sup> - four persons on a piece of apparatus as it responds.

One issue that came up in the interviews was the definition of a volunteer. There has been a contention that a person who is a volunteer was not as qualified and competent in conducting services to the community because they are so ill defined. During the 1993 spring conference in Sioux City, Iowa, the National Volunteer Fire Council approved a new definition for volunteer. The definition reads, "Volunteers provide fire protection services and other emergency services. Volunteers either receive no compensation for expenses or reimbursement for expenses according to local custom."

The new definition also addresses the level of compensation volunteer fire persons may receive: "This compensation does not exceed the yearly compensation for an entry level fire person in the same department. In the event there are no paid fire persons in the department, than the closest fire department with an established entry level career fire person is used to gauge the maximum allowable yearly compensation."

This approved definition by the National Volunteer Fire Council (NVFC) is an attempt to ensure that federal legislation and regulations best address the needs and concerns of the volunteer fire service. The NVFC Legislative Committee, which proposed the definition, also presented a motion that the Bylaws Committee takes steps necessary for the inclusion of the approved definition in the NVFC bylaws. The motion was approved.

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<sup>26</sup> *National Fire Protection Association (NFPA) 1710: Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments*, 2004.

## **Recruiting and Retaining Volunteers**

Recruiting and retaining volunteer firefighters is among the top issues associated with managing the organizations in this study. If one examines the population figures for these departments and looks at the number of volunteers that are serving, there is a large gap. In general, being a volunteer has deteriorated in many community values systematically over the last 30 years. This is not necessarily limited to just the fire service. There are organizations all across the public service spectrum that suffer from similar erosion. However, in the case of the fire service, not having volunteer firefighters has a higher consequence than the failure to achieve the same objective with other organizations. Without volunteers, apparatus cannot be staffed and incidents cannot be handled.

This discussion needs to be divided into two components. The first of these is the difficulty of recruiting personnel. The second is training and retaining the volunteer firefighter in a modern setting.

Recruiting volunteers used to be based upon the need for the community to protect itself. If one goes back to the origins of the volunteer fire service in this country, you can find examples of everyone from George Washington and Benjamin Franklin being members of the volunteer fire department up to and including the POST magazine covers of the 1950's illustrating hardware salesmen, garage mechanics, and barbers being part of the volunteer fire force. Essentially, that traditional method of acquiring volunteers was based upon the fact that people lived and worked in the same community. That is not only no longer true but actually maybe almost the direct opposite.

Many volunteer fire departments have actually recognized this phenomenon and have recruited firefighters on the basis of whether they are able to volunteer during the daytime or the nighttime.



But before discussing differential staffing, the main issue is why more people aren't volunteering. A lot of this has to do with the nature of the community itself. In those communities that have a very young population or a very old population with nobody in the middle, it is difficult to recruit either men or women to become members of the volunteer fire force.

Recruiting of volunteer firefighters cannot be a one-time effort. To the contrary, it has to be an ongoing if not outright consistent effort. A document has been placed in the bibliography of this report that addresses the issue of recruiting volunteers. It is recommended that that document and its contents be incorporated as part of the subsequent discussion of how the various fire organizations can improve upon their recruiting opportunities.

*Retaining* volunteers is an entirely different matter. In the first place, the minute a department brings on a volunteer firefighter, it incurs a tremendous amount of expense to adequately equip that person with personal protective equipment (PPE). It has been estimated to properly and adequately outfit a firefighter today takes approximately \$1,000-\$1,200 to acquire the necessary

equipment that will be properly fitted to the individual. Granted, there are many fire departments that are able to recycle protective clothing, but in general it still takes \$1,000 to properly equip that person.

Once the volunteer has been properly equipped, he or she has to receive a minimum amount of training in accordance with state mandates. This is among the most difficult of tasks faced by volunteer chiefs and by their respective training officers. There has been a demonstrated effort to bring a volunteer firefighter curriculum into Stanislaus County through the community college system. However, to get someone through that extensive amount of training requires a very lengthy personal commitment. With family, friends, and other social pressures, it is becoming more and more difficult to encourage a person to give up their personal time to acquire the amount of training required merely to serve the community.

In Chapter 6, ESCi discussed state mandates. One of the most serious concerns that was expressed by the volunteer fire chiefs in this study was their inability to meet all of the training standards that have been imposed by state and federal law over the last ten years. As stated, one should not mistake that for a request to eliminate training requirements. Much of the effort over the past few years to upgrade training standards has been in the name of firefighter safety. Note however, we say “much of” not “all of.” ESCi cannot honestly say that all of it is making a contribution to firefighter safety. The challenge is to keep a person occupied and motivated at the same time as they are going through this kind of basic training.

The term *burnout* is often used to describe the phenomenon that volunteer firefighters experience by being asked to do too much. There are no written policies or procedures that outline minimum thresholds for participation, or maximum levels of involvement for volunteer firefighters. Yet, from a practical point of view, anytime a fire department is calling its volunteers out a minimum of one time a day, it is beginning to impose a great deal of pressure on that volunteer’s personal and professional availability.

A volunteer fire department’s response to at least 365 calls a year might have experiences in burnout. If one doubles that number, the amount of conflict on the volunteers increases significantly. If the number was tripled, it becomes almost impossible to have any volunteer participation.

### **Provide More Management Guidance for Volunteer Chief Officers**

In spite of the longevity of the concept of volunteerism, there is a limited amount of guidance for volunteer chief officers. The independence generated by volunteer firefighters often makes them reluctant to accept or adopt guidance externally. There are three documents that have been recently published by the Volunteer Combination Officers Section (VCOS) of the IAFC. They are:

***A Call for Action, The Blue Ribbon Report – Preserving and Improving the Future of the Volunteer Fire Service, Lighting the Path of Evolution***

***The Red Ribbon Report – Leading the Transition of Volunteer and Combination Fire Departments***

***The White Ribbon Report – Keeping the Lights on – The Trucks Running and the Volunteers Responding***

All communities must recognize that the very forces that provide them with volunteer firefighters may subsequently result in placing excessive demands upon those same firefighters. The community's expectations about services should also include how they must assist the fire department in providing adequate resources to do the job. Such expectations are best identified in local government by finding the balance between expectations of service and what the available funding will support.

In order to monitor performance and progress of volunteer organizations, specific benchmarks should be used that are considerably different than the standard method that the community uses to evaluate its fire department. The community normally evaluates a volunteer fire department by its turnout to fires and emergencies. But to adequately evaluate a totally volunteer organization, other considerations should be evaluated. They include, but are not limited to:

- Average number of volunteers for each recall
- Average age of volunteers
- Level of training of the volunteers
- Cost associated with recruiting, hiring, and training new personnel
- Cost associated with extraordinary fund raising efforts
- Firefighter injury rate

ESCi has identified that it is virtually impossible to provide full-time fire service without an adequate funding base. Based on the demographics and the geographical distribution of almost all of the agencies involved in this study, the transition to a combination fire service might be a reasonable assumption within the horizon of the next 20 years. However, to replace all of these volunteers on an outright basis with full-time career positions is an unreasonable expectation.

Stanislaus County should recognize the benefits and risks of a system design that includes full-time personnel in densely populated areas and a volunteer and combination system in all others. The following bulleted list identifies the various aspects of continuing to support the volunteers in their efforts to protect their communities.

- High-volume staffing during major emergencies such as natural disasters. Such influxes of manpower may be contingent on employers allowing volunteer employees to leave work during such events. They need the support of the system to be able to continue.
- Unpredictable response from volunteer staff will not improve unless it is supported.
- Volunteer systems can be more challenging to coordinate because of intermittent or sporadic participation from various members. Volunteer leaders need better training.
- If a community relies on individual response, rather than system response to meet call load, it will result in unpredictable service levels. This needs to be addressed.

In the event that adequate funding is made available at some point in the future to start hiring personnel, the system design is likely to evolve into a combination system. If that occurs, the fire agencies could experience the following benefits:

- Any combination of career, volunteer, paid-on-call, and part-time personnel is an improvement over not having enough volunteers to respond.
- Enhanced staffing deployment as combination systems can capitalize on both the stability of a paid system and the manpower of the volunteer system during a major emergency, providing greater depth for staffing.
- Salary cost avoidance can occur in a combination system, which can free funds for essential equipment and apparatus on a temporary basis.
- True integration of available resources and distribution of talent resulting in greater efficiency.

There are many resources that are available to assist fire agencies in the development of a new inventory of skills and abilities in dealing with the problems or recruiting, retaining and recognizing volunteer. The following resources can be utilized to develop local or regional training programs for leaders in the fire agencies that are experiencing difficulties in this area.

**Websites:**

Volunteer Pros  
8650 Heritage Hill Drive  
Elk Grove, CA 95624  
Phone 916-525-2485  
Fax 916-525-2495  
[www.volunteerpro.com](http://www.volunteerpro.com)

Other locations for information that may be of value to volunteer organizations.

[wwwFOUNDATIONS.org](http://wwwFOUNDATIONS.org)

[www.fdncenter.org](http://www.fdncenter.org)

[www.nsfre.org/](http://www.nsfre.org/)

[www.ncnb.org/](http://www.ncnb.org/)

[www.energizeinc.com/](http://www.energizeinc.com/)

[www.volunteermatch.org/](http://www.volunteermatch.org/)

[www.pointsoflight.org/centers/](http://www.pointsoflight.org/centers/)

[www.nonprofitrisk.org/](http://www.nonprofitrisk.org/)

## **Texts and Publications**

The text Recruiting, Retaining, and Training Volunteers authored by Jack Snook is available from:

Jones and Bartlett Publishers Inc.  
C/O Customer Service  
40 Tall Pine Drive  
Sudbury, MA 01776

Phone: 1-800-832-0034

## **Volunteer Combination Officer Section**

Increased participation in the Volunteer Combination Officer Section is of value to volunteer organizations. VCOS is a section of the International Association of Fire Chiefs. In the last several years, this organization has developed a series of documents that outline the issues facing these types of departments. They have produced two reports that are available on their website ([www.vcos.org](http://www.vcos.org)) that are called the *Blue Ribbon* and *Red Ribbon* reports. Both are excellent resources for a fire officer in a volunteer fire agency to review. A *White Ribbon* report is forthcoming within the next few months

This organization has also partnered up with fire apparatus manufacturers to provide workshops on leadership and management for volunteer and combination organizations. These workshops can be scheduled by contacting Fire Chief John Buckman, 8400 St. Wendell Road, Evansville, Indiana, 47720, (812) 963-9077, E-mail: [jmbuckman@aol.com](mailto:jmbuckman@aol.com). The only costs to the hosting agency are lodging and meals for the two instructors. If these can be provided by local co-operators, the costs are absolutely a minimum.

This organization provides a support system for the volunteer fire agency that is very useful and at the same time very inexpensive.

## **Volunteer Incentive Program**

The Volunteer Incentive Program (VIP) is an intensive six-day educational opportunity designed specifically for volunteer and combination emergency service personnel. These courses are offered four times a fiscal year and have recommended college accreditation through the American Council on Education (ACE). Personnel who meet established student criteria for the course are eligible to apply.

For purposes of VIP eligibility, the following definitions are used:

- Volunteer department - All personnel are registered as volunteers (Including those that are paid on-call per call compensated).
- Combination department - The majority of active duty personnel in the department are volunteers, which are supplemented by career staff. Volunteers or career staff representing the predominately volunteer department may apply to the VIP. (Career personnel and personnel from combination departments must submit a letter from the

chief or administrator/supervisor identifying how the training requested will help the volunteers with whom they work.)

- Career department - All personnel within the department are paid career staff. The VIP is not applicable to career department personnel, regardless of size.

Each student that is accepted into the program is eligible to receive the cost of a round-trip coach airfare ticket or actual mileage, not to exceed airfare from the point of departure; whichever is less. Lodging, student materials, books, and ground transportation from/to airports in the Washington D.C. area are provided by the National Fire Academy. Students that stay on the facility must purchase a meal ticket. The approximate cost is \$20.00 per day. Other incidentals must be provided by the agency sending the student.

The VIP program begins on a Sunday morning and is completed on the following Friday at 4:00 p.m. Students are expected to be on campus by Saturday evening. Applications can be obtained by visiting the website - [www.usfa.fema.gov/training/nfa/about/attend/nfa-abt1c.shtm](http://www.usfa.fema.gov/training/nfa/about/attend/nfa-abt1c.shtm).

Completed applications should be mailed or faxed to:

NETC Office of Admissions  
Bldg 1, Room 216  
16825 South Seton Avenue  
Emmitsburg, MD, 21727  
Fax (301) 447-1441

The VIP curriculum consists of the following courses:

- Command and Control of Fire Department Operations at Target Hazards (R825)
- Challenges for Local Training Officers (R815)
- Command Control of Local Incidents (R831)
- Community Education Leadership (R816)
- Fire Cause Determination for Company Officers (R811)
- Fire Protection Systems for Incident Commanders (R827)
- Leadership and Administration (R810)
- Advanced Safety Operations and Management (R822)
- Leading Community Fire Prevention (R823)
- Management Strategies for Success (R824)
- Presenting Effective Public Education Programs (R826)

The VIP Program Manager can be reached at (800) 238-3358.

## **Full-Time Staffing**

Eventually, the workload on a volunteer fire agency, and in some cases the economics of the community, result in the need to transition from a combination department to a full-time agency. This is the normal transition. It has happened already to the cities that have gone to full-time staff, and it will likely occur to the districts over the next few decades. This is a planning phase that is sometimes controversial as the phasing in of full-time staff occurs, but it is probably inevitable when workloads reach the point where volunteers can no longer meet the demand. The issue, of course, will be costs of providing full-time staff. Some agencies choose to hire part-time personnel to initiate the process. In general, the transition is from volunteer to paid staff.

In terms of defining service level using full-time personnel, ESCi utilizes the concept of the FTE. This is an acronym that stands for *full-time equivalency*. Many fire departments undergoing transition will go through a period of time in which they have somebody on a part-time basis that can provide a certain type of service that supports a totally volunteer fire department. However, as work load demands increase, the concept of the FTE translates into *what position can you afford*.

As a classic example, many fire departments who find themselves with increasing demand on their volunteer fire force, find it useful at some point in their transition to hire a full-time, permanent fire chief. In other cases, the first position in a volunteer fire department might be a fire prevention officer or a fire marshal. Others often select to hire their first person as a fire mechanic to keep the apparatus operational. It really makes no difference which position you pick, but rather the fact that a full-time equivalency becomes a personnel cost that begins to shape future budgets with regard to expenditure. If the revenue stream is there to support that full-time expenditure, it is almost axiomatic that most fire departments will begin to explore how often and how comprehensive they want to add full-time staff to their organization.

Some fire agencies have even staffed with full-time personnel during the daytime, working the full-time staff on a 40 hour work week and reverting to the volunteers after 7:00 pm.

It is also important to note, that when an organizations establishes the FTE cost, and once they decide to put full-time staff on fire apparatus and house them in fire stations, they cannot hire just one FTE. They must hire a multiple of three (the actual ratio is more like 3.6 or 3.9 depending on the comprehensiveness of the employees benefit package). Then, if they wish to add more than one person on that company, they have to adopt or accept the idea that these are what they call *post positions*. A postposition is a 24/7/365 position, and that may not be the same person everyday.

Post positions mean that if the organization is going to put three people on duty, they must have enough money to hire nine people (plus a decimal point that is determined by the department's staffing configuration) in order to keep that fire station open to meet that need. This formula assumes a 56-hour work week that is contemporary in the fire service.

## **Firefighter Safety Concerns**

Every year a ceremony is held in Emmitsburg, Maryland, in which the survivors of the 100+ firefighters who died in the line of duty commemorate the loss. The organization that supports and makes that event occur is the National Fallen Firefighter Foundation.

The mantra of the National Fallen Firefighter Foundation today is “Everybody goes home.” This is not just a cliché. It is rapidly becoming one of the most important aspects of keeping the cost of fire protection under control. At one level, the idea that everybody goes home is pretty simplistic. It implies that every firefighter who gets on a piece of fire apparatus responding to the scene of an emergency should have a reasonable expectation that they will return back to their home and/or their fire station later during that same period.

However, the other implication is that we need to reduce the number of firefighter deaths and injuries if we ever expect to be able to afford the other aspects of a modern fire department. The relationship is based on the fact that a firefighter who is injured in the line of duty has a statistically significant impact on worker’s compensation insurance, which drives up rates and drives up benefit costs, which erode the ability of a fire department to sustain its other forms of financial need.

A firefighter who dies in the line of duty has a cash value. While it is common for people to express emotional reactions to such events by talking about “our thoughts and prayers go out to the members of the family,” the reality is someone has to pay for every firefighter death. It is manifested in higher insurance rates and in the consequences of having to defend lawsuits and other forms of unintended consequence.

What most people do not realize is that a firefighter death is not nearly as expensive in the long run as a major firefighter injury. A firefighter who is injured in the line of duty and forced to retire prematurely places a burden on the benefit package that is significantly higher than firefighter mortality. Unfortunately, this cost factor is often obscured by the more emotional aspects of dealing with mortality.

The *significance of firefighter safety* in the volunteer fire service is equally as important as it is in the career fire service. There are no simple resolutions of a firefighter killed or injured in the line of duty.

Therefore, some of the issues being addressed in this report regarding training and adequate equipment are a lot more important than just the lines describing the deficiency.

It has been stated, and needs to be reinforced in the context of any evaluation of a fire department, that every firefighter – whether they are paid, volunteer, or paid-call deserve three things: to be adequately trained, to be adequately equipped, and to be adequately led under emergency conditions.

The reason for placing this information in the context of a Municipal Service Review is that this could well be one of the greatest cost avoidance tactics and strategies that any firefighting agency can engage in. Improving upon training programs, improving upon command and control of leadership under stress conditions, and properly equipping firefighters is not so much a cost as it is an investment.

## **6. Ability to Meet Training Mandates**

Stanislaus County is a very large geographical area. The fire agencies, with the exception of those that are lined up along the I-5 and Highway 99 corridors, are widely disbursed with considerable travel distances between them. In addition to that the fact that many of these

departments are predominately staffed by volunteers, trying to gather all of the fire chiefs in one location for information exchange and training is incredibly difficult. In fact, there is clearly evidence that there has been an attempt to utilize a variety of techniques to accomplish that objective, but it is also in evidence that the information is sometimes not as widely disbursed or as readily available as it needs to be, to keep fire chiefs informed. Most of the districts indicate that they have problems meeting all of the state training mandates.

### **Legislative Mandates**

Beginning in 2000, legislation was enacted that has had a significant impact on the California fire service and, in particular, the volunteer agencies. They are as follows:

#### **January 2000 - Assembly Bill 1127 became effective**

This Bill altered 12 sections of the California Labor Code increasing the potential for substantial civil and criminal penalties for an employer, its managers and supervisors including governmental agencies such as fire districts, cities, counties, and the state.

Of greatest concern is the potential personal liability for members and supervisors for violations of OSHA standards, such as Cal-OSHA Workplace Safety Procedures, regardless of whether it is at an emergency scene or at the workplace (fire station).

#### **January 2002 – Senate Bill 1207 became effective**

This Bill extended Cal-OSHA requirements for firefighter safety to volunteer firefighters. Specifically, Cal-OSHA employment and employee now includes volunteer firefighting and firefighters. In essence, this legislation placed the same requirements for safe operations, training, and equipment on volunteers and volunteer departments as there is on paid and combination departments.

#### **September 2002 - Assembly Bill 2118 became effective**

This Bill delayed the implementation of Senate Bill 1207 until January 1, 2004. The intent of this delay was to allow volunteer fire departments enough time to come into compliance with the OSHA mandates for work place safety, injury illness, and preventions plans, and their associated programs, training, and protective equipment.

#### **February 2005**

Although volunteer fire agencies, via Assembly Bill 2118, received a two-year grace period, many of them are to this day struggling to come into compliance. In order to fully comprehend the impact of what we are faced with, one needs to review some of the topics that come under workplace safety and training consisting of, but not limited to, the following:

- Workplace ergonomics
  - 1) Work stations
  - 2) Slippery surfaces
  - 3) Noise exposure
  - 4) Climate exposure
  - 5) Lifting

- Workplace hazardous materials exposure
  - 1) Household chemicals
  - 2) Paint and solvents
  - 3) Fuel and oils
  - 4) Biological exposure
    - a) Ambulance linen
    - b) Contaminated medical equipment
    - c) Contaminated firefighting equipment
  
- Structural firefighting
- EMS operations
- Hazardous materials/Weapons of mass destruction operations
- Urban search and rescue operations
- Wildland firefighting

A look at mandated training has all of the above, plus:

- Hostile work environment
- Air crash rescue
- Incident commander
- SIDS, elder/child abuse
- Blood borne pathogens/communicable diseases
- Respiratory protection
- Driver training/EVOC
- Fire officer continuing education
- Incident command system
- Any new equipment or procedure

Skill competencies include all the above and:

- EMS continuing education
- Basic firefighter
- Forklift operator (when applicable)
- Apparatus engineering
- Truck operations

We then address career development:

- Firefighter development
- Fire officer development
- Chief officer development
- Fire marshal/inspector development

In addition to training requirements OSHA expects compliance with other regulations that include, but are not limited to:

- Hearing conservation
- Respiratory protection medical exams
- Communicable disease and blood born pathogen prevention
- Two in / two out structural firefighting mandates
- Tailgate safety briefings
- Workers compensation injury log postings

This level of responsibility has become a burden for many of the volunteer fire departments.

### **California State Fire Marshal Statewide Firefighter Certification Program**

The vast majority of the fire departments reporting in this document are participants, at various levels, in the California State Fire Marshal's Office (CSFM) Firefighters Certification Program. Participation in this program provides two things. The first is a standard curriculum that establishes minimum performance for a firefighter. Secondly, it provides credibility to the overall training process because it is consistent with professional standards that have been adopted by the California State Board of Fire Services. Those departments that are not availing themselves of the certification process should be encouraged to do so. Those departments that are currently participating in the process should document and provide visibility to their firefighters for achieving various levels of professional qualifications.

### **Access to Training**

Time and distance are either the enemy or the ally of the fire service. When events are close to a fire station they are handled quickly. That is the primary reason that fire stations are distributed throughout an area; response time is the gold standard of performance.

When events are far away – or worse yet the fire apparatus is out of position and must travel long distances to get on–scene – events can get out of control awaiting arrival of the required resource. This translates into two problems for fire departments. The first is that they must remain in their response area as much as possible. Secondly, they must periodically travel out of the area to get needed training if that training is not readily available in their area.

Concurrent with this is turnover within these departments as a direct result of two things. The first is that most volunteer fire chiefs are in the position as a result of an election; volunteer leadership changes often. The second thing that compounds the problem is the turnover of volunteer members. The net result is a gap in communications, which needs to be remedied.

Any suggestion of holding more meetings would only compromise the problem. The continuing communications process makes the problem even more complicated. However, there may be a possible solution in the form of technology.

There are two elements of technology that are clearly available to fire departments today which did not exist as little as ten years ago. The first of these is using the internet as a more comprehensive communications device. Granted, imposing a requirement that communications be accelerated on the internet does generate additional workload for someone. Nonetheless, email networks, fax networks, bulletin boards, websites, etc., are commonly used as forms of community and corporate communications so that information is readily available. The second of these is the use of teleconferencing bridges and other forms of electronic communications.

### **Video-Conferencing**

Another solution is video-conferencing, a technique where one location can be chosen for the development and delivery of needed information, and multiple locations can be connected to receive; such as training in the fire station. It is a form of *long-distance learning*.

Fire agencies with multiple stations and that wish to preserve the reliability of their fire companies are installing these video conferencing systems to provide both an improvement in response time and a simultaneous improvement in the distribution of training and educational materials to widely dispersed units.

North County in San Diego has developed one such system that covers almost 50 percent of the county. Their system services over 40 separate fire stations. This system consists of a facility that houses a studio and facilities in each fire station that can receive the broadcast. The system is *two-way* in that the instructor can communicate to the stations, and individual stations can communicate questions or provide feedback in real time. Cameras and audio equipment are provided at both sites.

Many of these facilities have been funded through AFGA and DHS grants because they provide a much needed resource for fire facilities. Such a grant could also involve the community college and be integrated into the communications system and serve as a link with law enforcement. (For more information, visit [www.ivci.com](http://www.ivci.com).)

### **Electronic Bulletin Boards**

Another consideration to improve communications within Stanislaus County would be for the County to provide an electronic bulletin board on which essential information can be posted. By placing documents on an electronic bulletin board, they can assure access. It would not ensure that individuals access it, but it would assure that those individuals who chose to do so would not have to search extensively for information.

Secondarily, a recommendation would be for the organization to hold a monthly teleconference that would follow an agenda and be set with a consensus time and date to assure a maximum amount of participation. The purpose of the teleconference would not be so much to collect extensive input as much as it would be to assure broadcast distribution of valuable and important information.

The combination of these two techniques could improve the distribution of information. However, it is suggested that they not be used to replace physical, face-to-face communications. The dynamics of the fire service demand that there be an opportunity for people to exchange information on a one-to-one and organizational basis. However, the fact that individuals are often *out of the loop* and come to these meetings unprepared could be mitigated by the use of electronic communication's devices.

## 7. Underserved and Un-served Areas

When a fire station is assigned a first-in response area, there is an assumption that the fire company will respond to all incidents in that area within the response goal time frame. If a fire station is seen by persons driving down a rural road, they may assume they have fire protection within a short time frame. Neither assumption is accurate. The reality is that the area to be protected is often laid out in such a fashion that it prohibits the company from achieving that goal.

In a practical sense, the ability to actually cover an entire area depends on a number of variables. One of the major variables is the extent of the road network in providing access to all parcels requiring a potential response. The second is the assignment of responsibility to protect the area by a legally established fire company. Another variable is the competition fire vehicles encounter for priority in using the road network. In the case of the former, the road network is laid out in a fashion that will allow a fire vehicle to go from its point of dispatch (normally the station, but not always) to the location of an emergency without having to backtrack or take alternative routes that are inefficient. Theoretically, a fire vehicle should move progressively from point of departure to scene location with a minimum of lost time. In the event that the road network within a jurisdiction is convoluted and/or designed for limited access, a fire company may have to make numerous turns and directional reverses to arrive at a specific location. When this occurs, meeting a response time goal becomes harder to accomplish.

In the context of evaluating fire station location response polygons, GIS technology places polygons on a road network based on travel times and distance from the fire station only. In studying the fire stations in Stanislaus County, a map was prepared for each jurisdiction that shows the anticipated response coverage areas based upon time and distance. These maps are illustrated in the *Map Atlas* in the appendix. They are color coded to illustrate the area that a fire apparatus can cover in the designated time. The color coding used in this mapping effort was a gray color.

As a result, in any specific area of a station's response there may be areas that will not be color-coded as being within the response polygon but are still within the jurisdiction. In some maps there is an overlap between adjacent fire companies. This can generate some degree of concern for those parties living in the uncolored areas. It can create confusion in the overlapped areas; but if the response is outside of an agency's jurisdiction, they have no responsibility to respond either. In some cases the response polygons overlap. This can be an indication of excess capacity of the system, and automatic aid often blurs the distinction of these areas anyway.

ESCI defines an area as being *underserved* if the non-color-coded area is on the perimeter of an area that is considered to be within the jurisdiction but cannot be reached in a reasonable time frame. In that case, the only thing that makes an area *underserved* is that the area is beyond the color-coded polygon.

A *hard to serve* area is different. A hard to serve area is an area that is within a polygon range, but because of topography, geography, or road design, a responding apparatus cannot get to that location within the adopted response goal.

The term *un-served* means that no fire apparatus is tasked with the responsibility to respond. Is close enough.

Therefore, in an area in which the roads are not, in general, laid out to expedite travel, there can be both underserved and hard to serve areas for consideration. This is especially true in this particular countywide study.

However, being underserved or hard to serve does not always mean long response times. The reason is that fire apparatus often are dispatched from a location other than the fire station. Therefore, an actual response time within the response goal can occur into these areas.

### **Levels of Service for Each Region and Sub-Region**

In a rural environment, response times are expected to be long. In a suburban environment, they are expected to be shorter; in an urban environment company reliability may be a more important issue. In general, most of the agencies evaluated have not adopted actual response standards. There are verbal commitments, but no actual SOC studies in most cases. The Sheriff's Office does maintain record keeping of the departments' total response workload but does not provide an annual accounting of response times. That detail needs to be improved drastically if being able to evaluate the levels of service are to mean anything.

It is recommended that *each department* consider adopting a travel time that is consistent with the size and density of the district. In Chapter 6, ESCi discussed the concept of standards of cover. A series of charts were provided that described the current level of service that appears to be present. What is not present in all agencies is well defined standard of cover statement that provides a basis for measuring performance. Based on ESCi's evaluation of current level of service, the cities and/or districts that are providing suburban level of service should adopt the following response goal:

*The \_\_\_\_\_ fire department (district) has established a response time goal of providing a first due fire apparatus to arrive at the scene of an emergency involving fire or medical services within six minutes of travel time 90 percent of the time.*

The rural level of service agencies should adopt the following:

*The \_\_\_\_\_ fire department (district) has established a response time goal of providing a fire apparatus to arrive at the scene of an emergency involving fire or medical aid within eight minutes total travel time, 90 percent of the time for all locations within five driving miles of current fire stations. The department will provide fire apparatus to respond to other emergencies beyond that zone in a timely fashion.*

It is also possible for one agency to have different levels of service depending on topography, geography, and population density. Many agencies that cover large areas that have both suburban and rural areas have dual response goals based on demand zones.

## 8. Dealing With Major Emergency Response

There are a wide variety of cooperative agreements in existence between the various agencies in the Stanislaus study area. Appendix A (Bibliography) in this document provides an inventory of documents that were collected during the field on-site interviews. These documents clearly illustrate a high level of activity in cooperative effort between local, regional, and state fire entities. Maintaining these cooperative agreements, especially those associated with automatic aid, will be a critical part of future cost avoidance scenarios.

### The Difference Between Mutual Aid and Automatic Aid

Local fire protection and emergency medical agencies assess risk against available resources and formulate plans for providing services. However, individual agencies rarely possess sufficient resources to cover extraordinary situations; moreover, unnecessary duplications of effort and needless expense would result if each fire protection agency independently acquired facilities, apparatus, equipment, and personnel to create a response capability able to confront every conceivable worst-case scenario. Accordingly, a basic component of fire protection strategy is to share apparatus and personnel among agencies as requested (mutual aid) or dispatch resources automatically upon notification of an incident (automatic aid).

Frequently, individuals will use the terms mutual aid and automatic aid as if they are interchangeable; they are not. The concept of mutual aid is described in the California Emergency Services Act as an agreement between individual departments to send resources to assist another community that has lost its capacity to cope with an emergency. The term mutual aid has been around since the origins of the paid professional fire service of the 1800s. There are examples of mutual aid being offered in almost all of the major catastrophes of the turn of the last century.

However, the primary consideration in mutual aid is that a department agrees to send resources to assist another department only if they are asked to respond. The assumption is the department will exhaust all of its resources, before it requests outside aid. The term *mutual* generally means that *aid* is between two entities and is interchangeable (City A will help City B, and City B will help City A).

Automatic aid is not based on depletion of resources. Another term frequently used to be synonymous with automatic aid is *boundary drop*. The concept of a boundary drop is simply that the dispatch center is able to send the engine that is closest to an emergency, regardless of jurisdictional boundaries. Automatic aid agreements, therefore, are not always equitable. It is conceivable that a community may sign an automatic aid agreement and go into another area, but in fact have no area in which the reciprocating agency can provide a similar service. Automatic aid has grown in stature in the California fire service over the last 15 years as a direct result to make response systems more efficient and more effective. The degree to which organizations have automatic aid agreements in existence eliminates gaps and deficiencies that otherwise would force the creation of additional fire stations or result in significantly longer response times.

Currently, the County, as well as the State of California, relies on a complex system of automatic and mutual aid among federal, state, and local agencies and volunteer organizations, in order to provide fire protection and emergency medical services to the area.

State law designates the County of Stanislaus as an *operational area* for disaster response.<sup>27</sup> The County's operational area, in turn, is organized into *zones*, with assigned zone coordinators who report to an area fire coordinator. Mutual emergency responses are initially generated from within zones; advanced to other operational area zones as required; and, if necessary, elevated to the regional level where the regional coordinator has authority to request response from other state regions.

Fire protection agencies also participate in individual automatic aid agreements with surrounding agencies. Automatic aid is designed to furnish response within the normal operating range of participating agencies; no added support--as would be provided by mutual aid--is required. Research is incomplete; however, preliminary and anecdotal evidence seem to indicate that automatic aid within much of the unincorporated area flows primarily in one direction--from well-funded agencies to the lesser funded. In other words, agencies with minimal resources are the largest recipients of automatic aid. This system is a logical remedy for providing effective safety service to areas with minimal resources; however, it relies on the willingness of agencies with relatively more resources to subsidize less affluent agencies.

In the context of the MSR, mutual aid should be considered an example of an agreement between agencies to support one another over the long term. Those communities that have automatic aid agreements should consider entering into cooperative agreements in a much more focused process and deal with the reality of putting services at the scene of minor emergencies to prevent them from becoming larger ones on a more effective and efficient basis.

The maintenance of these cooperative agreements requires a specific level of activity. The CDF ranger unit chief has assigned staff to perform that oversight. The Stanislaus County Fire Chiefs Association is also has an integral part in sustaining and maintaining these agreements.

Since 9/11, there has been an increase in emphasis on the development of mutual aid plans. This is reflected in the recent International Association of Fire Chiefs Strategic Plan.<sup>28</sup>

### **Disaster Readiness**

In many communities, the only visible and permanent governmental structure in the community is the fire facility. In the past, the County experienced major catastrophic events that have resulted in not only impact but also isolation of some of these communities. In conducting the physical facilities review, an attempt was made to determine the degree of self-sufficiency to which each of these facilities would be able to operate independently. This included whether or not they had emergency power provisions (generators), and whether or not they had sufficient amount of fuel to allow them to operate for at least one operational period for up to four days without having to rely on exterior sources. The vast majority of the fire stations represented in this study do not have that capacity.

In the case of a countywide disaster that would damage the infrastructure of the community, specifically electrical, the fire station would be rendered as weak as any other commercial structure in the area. Good planning would seem to indicate that the use and distribution of portable generators and other provisions would be an appropriate action.

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<sup>27</sup> Government Code 8605.

<sup>28</sup> A National Mutual Aid System for the Fire Service, IAFC, 2006.

### **Out of County Issues**

One of the aspects of mutual aid is that mutual aid is not always just with your neighbors. In the State of California, mutual aid is a function that runs all up and down the state. It is not inconceivable, for example, that a piece of equipment from Stanislaus County could, and in some cases already has been, deployed as far south as San Diego. This is an issue that has both its detractors and its supporters. The concept of mutual aid and being able to stage and deploy large amounts of equipment has been a part of the integrated fire protection mobilization system in California since the early 1970s. In fact, the presence of the OES pumper inventory in California is a manifestation of how that system has grown systematically larger over time.

The downside is that in many communities taxpayers are reluctant to see their apparatus sent out of the community, especially when they are gone for extended periods of time. The perception is that this reduces the level of service to the community. And it has been true that when equipment was sent out of a county and subsequent emergencies have occurred in that county, there have been redeployment decisions that have resulted in public criticism. The upside of this issue is that it has resulted in opportunity for the smaller fire agencies to obtain additional funding during the major fire storms of the last few years.

Nonetheless, it is unlikely that the State of California will modify its current policies and procedures. What is more likely is that more and more communities are opting out of mutual aid systems.

There is a term used in Standards of Cover documentation called *draw down*. Draw down is the minimum number of fire companies that an organization will allow to remain in position when mutual aid is evoked. In the context of this report it was difficult to determine if any of the departments have a draw down policy. Moreover, given the fact that some of the fire companies are using mutual aid reimbursement as a means of balancing their budget, this issue is likely to become more critical and not less relevant.

### **Specialized Emergency Operations**

Stanislaus County has been the scene of many other major events over a period of the last 15 years other than fires. These events have not been limited to any specific type of emergency, but rather a reflection of the all-risk issues in the County. Among the most recent was a major hazardous materials event

The potential for mobilization of all the fire agencies in this County for a catastrophic event can best be referred to as a moderate probability, with a relatively high consequence if they actually do occur.

Few of the fire departments provided any evidence in doing extensive emergency planning.

## **9. Improve Public Awareness of Fire Service Capabilities**

During the interviews, several questions were asked regarding community support that dealt with public perception. Without a doubt, most of the departments feel that they enjoy a considerable amount of positive support in their communities. However, that positive support may or may not translate into a complete understanding of how the fire department is actually

staffed and deployed, and it definitely does not translate into a mandate for increased funding to support growth and development of the fire department. Much of the public's perception of the industry is based upon media representation and their response to catastrophic events such as the recent exposure of firefighters during Hurricane Katrina and other major national disasters such as September 11, 2001. In addition, the public's perception is often shaped by television shows and by movies such as *Ladder 49*, *Towering Inferno*, and others.

Collectively, this perception of the fire service, results in the vast majority of individuals believing that the fire service is a ubiquitous service. There is a belief among many new homeowners in Stanislaus that the level of fire service provided is the same everywhere. Nothing could be further from the truth. In spite of the fact that firefighters might look alike in the way that they are dressed and might all arrive at the scene of an emergency on a piece of a equipment that looks typical, there are significant differences between the level of service in different communities based upon the level of community financial support that allows that level of service to exist.

Generally speaking, firefighters and their close personal friends have a real understanding of this deficiency. What is not as clearly understood is how the average citizen in a community evaluates that perception; it is even more ambiguous with regard to how elected officials and governmental authority understand the significance of those differences. But a well-informed electorate would likely chose to provide adequate financial support so that the level of service is consistent with community expectations. An adequately informed elected official would likely choose policy and procedures that would result in the level of service being consistent with their constituencies' demands. In actuality, neither of these conditions exists in a formal fashion.

In the case of rural America, those individuals who lived in a rural area for the majority of their life span are extremely knowledgeable about the deficiencies. Their support of the fire organization often remains very high, but their understanding of the performance is based on more practical observations. They don't expect much, because they know exactly *why it is the way it is*.

## Options and Alternatives

As one looks at these various types of governance models, it is important to understand that there are two key elements of consideration. The first of these has to do with the distribution of powers vested in the various forms of governance. The second element is the reporting relationship between the various forms of governance. For example, a city can either be a General Law City or it can be a Charter City. The choices the city makes in creating its form of governance determines what it can and cannot do with regard to creating service levels. County governments have a specific scope as stated by the California Government Code. The same holds true with fire districts. They can be either a single purpose or multi-purpose district. They can be independent or dependent. State agencies are allowed to engage in specific behavior that they are authorized to engage in but are limited with respect to doing other things. The same limitations apply to federal agencies.

ESCi is recommending a more appropriate and strategic way of looking at incremental improvements over time to achieve a more desired state sometime in the future. We will describe each of the governance options and alternatives that are possible. They are all assessed in terms of practical application and *do-ability* by a brief review of the advantages and disadvantages of each.

## Options Available for Consideration:

- Creating a countywide fire protection district as a special district
- Creating a county fire department
- Encourage regional consolidation of existing fire protection districts
- Utilize the Joint Power Authority (JPA) for functional consolidation
- Realigning borders and considering district consolidations

### **1. Countywide Fire Protection District**

The Stanislaus County Board of Supervisors could initiate action that would lead to the development of a countywide district assuming operational responsibility for fire protection and emergency medical service in the unincorporated region. The County has no statutory responsibility to provide fire protection; however, there is precedence for its involvement. The board could also initiate a reorganization action through LAFCO that would request dissolution of all unincorporated area fire protection districts.<sup>29</sup> LAFCO approval of the reorganization would likely include terms and conditions to substantiate the newly formed district's obligation to assume emergency services within the unincorporated region.

The countywide fire district's service area would include all unincorporated territory, including previously un-served areas. The assets and property tax increment of each dissolved special district would transfer to the newly formed district. The assets of volunteer organizations are, for the most part, private property and not subject to state law regarding transfer of public property.

As a countywide fire district, fire protection and emergency medical service in the unincorporated area would likely have to be supplemented additionally from the general fund based on the wide variation in per capita contribution. This would likely create some inevitable conflicts over level of service. A fire chief would be appointed by the elected officials.

Centralizing unincorporated area emergency services under the one district would provide unity of command and allow the public agency with land use authority to coordinate regional planning with strategic planning for emergency services. The redundancies of multiple agencies and elected offices would be eliminated. It is hoped that a single agency could use resources more effectively; however, such notions would need to be carefully examined within context of the additional administrative support that would be needed.

- Advantages
  - Consistent level of service countywide
  - Co-ordination of service especially communication, training, and planning
  - Economies of scale to reduce costs, such as purchasing equipment and supplies, providing insurance, equipment repair and maintenance, and training
  - Reduce duplication of efforts, such as administration, regulatory compliance, facilities, and equipment
- Disadvantages
  - Cost savings may be short term; increased size of agency could require paid personnel with accompanying increased funding requirements

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<sup>29</sup> Reorganization means two or more changes of organization initiated in a single proposal (Government Code § 56073).

- Disparate funding
- Pooling and redistribution of existing districts' funds may not be acceptable due to disparity of current funding (*haves and have-nots*)
- Loss of local control
- Organization may be unable to absorb any funding short fall
- Major political conflict likely

## **2. Creating a Stanislaus County Fire Department**

The Stanislaus County Board of Supervisors could also create a County Fire Department. As a countywide department, fire protection in the unincorporated area would likely have to be funded additionally from the general fund and be subject to the County's annual discretionary budget process. A county fire chief would be an appointed office selected by the Chief Executive Officer, unless County policy was changed to add fire chief to the list of offices appointed directly by the Board. An alternative, also requiring a County charter change, would establish a county fire chief as an elected office comparable to the office of sheriff. Operational responsibilities could be carried out by County staff within the public safety group or by contract staff similar to the model used by the Riverside and Butte County Fire Department — where even the county fire chief is a contract employee from CDF.

Centralizing unincorporated area emergency services under the County would also provide unity of command and allow the public agency with land use authority to coordinate regional planning, with strategic planning for emergency services. The redundancies of multiple agencies and elected offices would be eliminated. As with a countywide fire district, it would be hoped that a single agency could use resources more effectively; however, such notions would need to be carefully examined within context of the additional County administrative support that would be needed.

An action that would cause all current fire protection agencies to be combined into a single agency and concurrently take in any underserved or un-served territory outside of the districts cannot be processed as a *consolidation*. State law requires that such a proposal be processed as a *reorganization*.

Procedurally, current agencies could be dissolved and a new agency could be formed. LAFCO, however, is prohibited from initiating a district formation.

- Advantages
  - Consistent level of service countywide
  - Co-ordination of service, especially communication, training, and planning
  - Economies of scale to reduce costs, such as purchasing equipment and supplies, providing insurance, equipment repair and maintenance, and training
  - Reduce duplication of efforts, such as administration, regulatory compliance, facilities, and equipment
- Disadvantages
  - Cost savings may be short term; increased size of agency could require paid personnel with accompanying increased funding requirements
  - Pooling and redistribution of existing districts' funds may not be acceptable due to disparity of current funding (*haves and have-nots*)
  - Loss of local control

- County unable to absorb funding short fall
- Major political conflict

Based on the past practices of the area, this option would be heavily resisted.

### **3. Sub Regional Consolidation of Existing Fire Protection Districts**

The Stanislaus County Board of Supervisors could adopt a resolution initiating a reorganization that would include dissolution of some the current districts plus formation of new regional fire protection districts. Considering past experience, that is not likely to happen.

The issues that were involved with forming a district over the entire unincorporated area would be similar to the issues encountered in a proposed consolidation of any sub-region unity of command, global planning, and elimination of redundancies would be positive aspects. However, including un-served territory makes securing additional funding even more crucial. Territory that is essentially unpopulated and un-served by a fire protection district does not generate adequate property tax or benefit fee revenue for emergency services. Accordingly, unpopulated and undeveloped areas would bring limited resources to a new agency and create new concerns.

- Advantages:
  - Improved coordination of services
  - Some economies of scale achieved
  - Reduction in duplication of efforts
  - Retain local control
  - Ideally win-win results can be achieved with strengths and weaknesses balanced
- Disadvantages
  - Unbalanced strengths and weaknesses could result in reduction of effectiveness of regional consolidation
  - Combining divergent communities could result in friction and inefficiency

### **4. Support the Joint Powers Agreement (JPA)**

A Joint Powers Authority was recently created in Stanislaus County to coordinate the planning processes of the participating agencies that provide services in the County. This process has previously been used in Orange County, California, to create a system that is large enough to meet the operational demands of a rapidly growing urban county and yet representative enough to preserve some degree of local input into the outcomes.

Membership in a JPA is voluntary; however, the purpose of the authority could be to provide a unified command structure for providing fire protection and emergency medical services over an entire region. The advantage of the JPA process is that it would create a partnership between existing agencies and would not require LAFCO approval. A JPA may not decrease the current number of agencies or abridge the discretionary powers of agencies; however, the JPA board of directors, which is comprised of member-agency representatives, could assume governance over regional emergency services operations, regional emergency services planning, and allocation of regional resources for fire protection and emergency medical services. This addresses one of the main issues in this report – overall coordination.

A comprehensive JPA formed under current State statutes does not require voter approval; however, if legislative action were sought to create a special regional authority, voter approval would become necessary. Membership in a JPA would not need to be limited to unincorporated agencies – JPA models used in other counties include cities and special districts, or cities and county government. Un-served areas of the County would not be eligible to participate unless the areas received public agency representation by annexing to an existing special district or by forming a new district. Alternatively, the Board of Supervisors could become a financially contributing partner in the JPA to sponsor un-served, unincorporated areas.

A JPA could develop and oversee a unified command structure, reorganize personnel to eliminate redundant positions, and allocate resources globally to provide enhanced fire protection and emergency medical services to the entire region. The JPA would be the natural location for a study to be conducted on how to frame cost sharing agreements also. It could provide needed assistance in administrative duties, including standardizing the budget efforts.

The authority would be funded by member agencies; therefore, a threshold for JPA membership would be an adequate, stable revenue base. Because agencies with insufficient income would be unlikely candidates to join the JPA, it is possible that unless current regional revenues are augmented, the unity of command, economies of scale, and service enhancements offered by the JPA would not be available to the entire region. Moreover, territory that is not currently included in a public fire protection agency would not be eligible for JPA membership – unless represented and funded by the Board of Supervisors.

**Functional JPA:** A JPA to regionalize specific functional roles such as training, dispatch, geographic information services, administrative services, or apparatus maintenance is called a functional JPA. Essentially, that is what is in existence right now. The functional JPA would focus on creating economies of scale and cooperative sharing of resources, rather than creating unity of command and eliminating redundant positions. A functional JPA would not decrease the number of current agencies or infringe on local control.

Fire protection agencies which currently receive inadequate revenues would have difficulty participating in the benefits that could be generated by a functional JPA. Like the structural model, member agencies would fund the Authority; and while a JPA could be designed to allow members to *buy-in* at different levels, it is possible that agencies with minimal and/or unstable revenue bases could still be excluded.

Membership in a functional JPA would be available to cities; however, identical to a structural JPA, un-served areas of the County would not be eligible to participate unless public agency status was achieved or the Board of Supervisors sponsored and funded membership for the areas.

JPAs are not a panacea, but they have two very important factors for consideration. The first is that they provide widespread representation for stakeholders, i.e. from both the elected and appointed persons from local entities, and they provide a forum for dialogue that cannot move any faster than the consensus of the group.

- Advantages
  - Flexibility - can be designed to achieve consistent, coordinated level of service, economies of scale, and reduction in duplication of efforts
  - Local control maintained

- Voluntary membership
- Various types of districts may combine (city, county, and special district)
- This process has the greatest chance of succeeding of any of the possible alternatives
- Disadvantages
  - Possible lack of permanence and long term viability
  - Loss of key members could defeat JPA
  - Sharing of resources may become imbalanced over time with changed circumstances
  - Stability of employee wages and benefits

As stated in the next chapter, each of these choices can be a consideration. Each will come with a set of issues that will have to be evaluated before choosing the course of action. Some of the reasons that the choices will be made difficult have to do with:

- ✓ Development practices
- ✓ The lack of data on triggers and thresholds for response failures
- ✓ Cost of providing full-time personnel compared to revenue sources

## **5. Realign Borders and Consider Adjacent District Consolidations**

In reviewing each individual department, identification was made as to whom the organization was surrounded by and an evaluation made of their agreements regarding mutual aid and automatic aid coverage. Those entities that had contiguous borders or had islands that were within other fire protection entities were evaluated to determine whether or not any form of realignment was in order.

### **Logical Service Boundaries**

There is clear evidence after reviewing the boundaries and the growth patterns in this County that some boundary realignment is in order. This is likely to be an ongoing issue with annexations and the update of the spheres of influence. There are islands and peninsulas in some areas. These are not a serious problem of governance and this configuration is perfectly legal. These types of areas are only a problem sometimes with respect to public perception. When a citizen has a problem, they seldom worry about who is providing the service. They want the closest fire apparatus. Often citizens move into occluded areas of this type and are not even aware of who their service provider is until they have an emergency. In other cases, the identity of the local fire station is very important to frequent users of the services, especially EMS.

As stated in Chapter 6, response polygons are based on time and distance, and the average person uses the element of time as their benchmark for determining satisfaction. Therefore odd shaped boundaries and islands that result in a person on one side of the street getting a service that is denied to another person on the other side of the street can often raise public relations issues. Many events have made headlines because the closest fire station has not responded.

Therefore, response polygons that do not provide for the most efficient delivery of service are potential areas of community criticism. Moreover, if land use policies allow a tract development to be built that places demands on a fire agency by its proximity and reduces the revenue to a fire district, these policies can generate potential liabilities that could result in greater

fragmentation in the future. It is clear from the history of some of the fire departments, that they were originally created in response to citizen concerns about the level of service in a specific neighborhood, and they have evolved in a fashion that may not be totally consistent with that. LAFCO cannot mandate that consolidations occur, but they can certainly encourage consideration of realignments that balance out response areas based on time and distance instead of just geographical boundaries.

Any idea that two organizations should be forced to consolidate when they don't want to be consolidated or realigned generates political activity. However, any two organizations that could benefit from consolidating or realigning should explore that possibility without prejudice. A key factor in the level of controversy is going to be the status of revenue distribution.

### **Tract Development**

There was input from several district chiefs that homes are being built outside of the boundaries of recognized fire protection delivery systems response areas. This practice is counter productive. While it is common for there to be a disconnect between land use and fire protection planning, the reality is that of the presence of homes are the obvious generator of workload and demand placed on a fire department.

Single-family dwellings that are built in an area on an infill basis can create a similar problem over a lengthy period of time. However, housing tracts and developments that are systematically planned to put 200–300 homes into one specific area are guaranteed to create that phenomenon.

In support of this contention, ESCi have provided a fire station planning model that addresses triggers and thresholds. Later in this report ESCi has submitted several recommendations that boundary lines be redrawn or at least reconsidered for some of the areas, and to place some of these housing tracts into the fire protection zone. Notwithstanding the political response, this is good fire protection planning. Failure to even attempt to put these buildings into a fire protection planning zone could eventually be responsible for system failures.

### **Triggers and Thresholds Explanation**

In Appendix B is an article entitled *Triggers and Thresholds* that identifies that a fire station can only cover a certain area and be within response time goals of contemporary fire service agencies. As noted before, this report is not a standards of cover document; nonetheless, the fact is that growth outside of any fire agency's response polygon raises issues of potential response failure and subsequent loss. Readers are referred to that appendix to become more familiar with the concept. It could be applied to some of the recommendations covered later in this report.

### **Transition into the Future**

When a fire agency has a long period of time with no growth in either its area of responsibility or its funding, or an increase in demand for service, it becomes more traditional. In this context, tradition is not a negative term because it means stability. The organization develops a means of managing its activities that are somewhat predictable, and over time, usually become quite effective.

When that same organization faces growth, it has three basic options. The agency can become proactive and try to deal with the influx of changes, or it can become reactive and try to ignore or deflect the changes to limit their impact on the organization. Lastly, the organization can become in-active and be left behind by the changes.

The fire agencies reviewed in this MSR all have a long history that reflects both the communities and the fire districts' comfort with the way things have been. Population increase in an area becomes statistically important when it begins to impact service demands. The development of any community's residential, industrial, or commercial base will result in increased demands being placed on the fire department. This is an obvious consequence of growth.

What is not so obvious from this process is the impact of this transition on the need for new programs, resources, and personnel in the fire department. In its simplest terms, the initial increases in the attributes of an area are incrementally small on the fire department. Infrastructure impacts are usually not felt right away due to the time gap between the arrival of new people and the need for them to place a demand on service.

If the fire department has a record of being proactive in dealing with incremental changes, there is little reaction. However, the phenomenon of influx of sustained growth does result in consequence that is not necessarily totally compensated for by a proactive approach. This is the basic issue of transition management, and it has already occurred in the area as cities are annexing area away from the districts. When a sustained growth rate has reached a point where past practices and policies have been stretched to the maximum, things have to change.

Transition management consists of understanding that coping with rapid change is vastly different than coping with incremental change. A text has been identified in the bibliography of this report, *Managing Transition*, that more elaborately describes this phenomenon. This chapter highlights that the districts are experiencing many of the behavioral and organizational symptoms of an organization that is going through a maturation process.

This must be recognized as a key element in the development of any planning process that is used to define and direct the future activities of these districts. Failure to recognize the principles involved in transition management may have an impact on the placing of proper priorities on activities or attempting to make quantum leaps forward without adequate review of desired outcomes.

The most important consideration at this point is the acceptance by the respective fire agencies that unwillingness in the process of transition is a problem in itself. Without appropriate mechanisms in place, the process can result in inefficient use of resources, ineffective program development, morale, and interpersonal conflict, and the most important of all flawed decision-making processes.

The process used to develop this review of the Stanislaus fire districts involved making observations and findings. The recommendations are placed within a phased plan that is based on the recognition that if a fire agency is trying to remain a proactive and progressive fire district in spite of the pressures generated by this growth, it takes time to make meaningful changes.

It is anticipated that the officers and members of the respective districts will have already anticipated many of the proposed changes ESCi will be documenting. The main distinction

placed on these recommendations is that they be properly prioritized and implemented instead of being developed as a perceived reaction to a specific problem.

## Summary

Any effort to reorganize multiple fire agencies is complex and fraught with political considerations. It takes a fairly lengthy period of time to complete the application processes and there are a variety of reasons that parties will either line-up to support or resist a consolidation effort. As result, a *rule-of-thumb* applies to the decision to pursue a partial or full consolidation. The group of entities that do not want to become one entity should not be forced into a bad marriage. Secondly, any group of agencies that does want to pursue the action should not be stymied by bureaucracy and interference. It makes sense that any or all efforts to evaluate a consolidation effort be adequately reviewed before any decision is made to move ahead by policymakers.

If the decision is made to make an adjustment in governance, the discussion should center on how to make the process work as opposed to why it should or should not be accomplished. ESCi recognizes that this is a difficult environment to create.

However, the justification for any consolidation effort should be based on the overall survivability of the entities in providing for fire and emergency services. If an organization cannot survive on its own, it is good candidate for consolidation. If it can survive on its own but would have an increased capacity to perform as a result of leveraging its efforts with another agency, it is still a good candidate for consolidation.

In the strategic planning process, agencies are always advised to develop a set of observations that include challenges, opportunities, strengths, and weaknesses. This process provides one set of observations that fall into each of these areas. In general:

- ✓ All agencies are financially challenged – this is a weakness
- ✓ All agencies have opportunities to improve upon working relationships with the agencies that are contiguous with them – this is an opportunity
- ✓ All agencies have weaknesses that make them vulnerable to specific problems - this is a challenge
- ✓ All agencies have individual strengths that they can build upon - this is their collective strength

In the final analysis, most fire department planning efforts can only effectively cover about five years in the future. It has already been projected that the rate and impact of growth will continue for the next 15 to 20 years for this area. This trend and pattern indicates that managing transition is every bit as important as the incremental changes that must be made to cope with specific issues. A major part of this report, therefore, is aimed at developing a planning rationale to support the decision-making process that will need to be supported by planning efforts by local agencies.

It is recommended that this MSR not be a document that provides a snapshot in time, but become the basis for a five-year planning document that is renewed, reviewed, and updated as elements of change evolve from one issue to another by the local fire agencies.