

5 Focus Issues and Service Efficiency Opportunities

LAFCO of Santa Clara County identified specific issues for assessment to be addressed in the fire and emergency medical services review. These are:

- Funding and providing service to the underserved area of the County,
- Status of and best practices for roles and oversight of volunteer fire companies,
- Regional models for fire and emergency medical service in the South County region,
- Issues related to fire districts contracting with other districts for service, and
- Assessment of other opportunities to improve service effectiveness or efficiency for fire service providers in the county.

The presence of nine service providers inherently results in some duplication of facilities, programs and functions. The significant cost associated with providing fire and emergency services and the continued weak financial base of public agencies in Santa Clara County provides substantial motivation for cities and districts to examine current service delivery and implement measures that can increase the economy and efficiency of service delivery.

This section of the report reviews the issues identified by LAFCO as well as other issues of material interest to fire and emergency medical services identified during this review.

5.1 *Volunteer Companies and Underserved Areas*

5.1.1 **Background**

The 2004 LAFCO fire service review looked at the status of volunteer fire companies (VFCs) in the County and service to underserved areas that are outside the jurisdiction of a public fire agency. One of the VFCs in existence in 2004, the San Antone VFC, has disbanded. CCFD has initiated annexation procedures for nearly all areas currently in their sphere of influence in the western hillside areas up to the Santa Cruz County line. The annexation was

approved by LAFCO and became effective in September 2010 . Beyond these, conditions have not changed since the last review.

The issues regarding volunteer companies are linked with the broader question of service delivery to underserved areas. While volunteer companies can get on scene in time to provide medical aid and provide an initial attack on fires , they are dependent on responses from the South and Central County Fire Districts, the cities of San José and Milpitas and CAL FIRE. Given the travel distance from adjacent public fire departments, response times to these areas are generally very long (responses by fire agency companies and AMR are often in excess of 20 to 30 minutes).

The response to calls by public fire departments to these areas has two negative impacts on these agencies. First, with extended call response times, apparatus that is relied upon for service delivery within the jurisdiction's boundaries is unavailable for deployment. Second, these agencies receive no compensation for the cost of response.

The volunteer companies are staffed by local residents. Budgets are extremely limited for these organizations. There is no designated or fixed source of funding for the volunteer companies and they are limited in their abilities to self-fund donations from their local residential and business communities. The County of Santa Clara provides workers' compensation coverage to the volunteers. A potential concern of the County is the extent to which providing workers' compensation coverage to the volunteers exposes the County to potential liability for the VFC actions.

The equipment provided by each volunteer fire company is completely dependent on their own ability to purchase and maintain that equipment. The range of equipment varies by type and style; most companies have acquired automatic electronic defibrillators (AEDs) for each response unit; some have acquired sets of "jaws."

Although the volunteer companies do not have ongoing interagency training due to their limited numbers and resources, they coordinate with CAL FIRE for training in the off season and often pay for a certified trainer during fire season to keep their fire suppression skills current. CAL FIRE also provides additional opportunities for volunteers to attend enhanced training provided to CAL FIRE personnel. All of the volunteers maintain at least first responder emergency medical certifications. Some of the volunteers are certified Emergency Medical Technicians (EMTs) capable of providing BLS service.. Of the four companies that responded to the request for information, all have budgeted for and acquired additional emergency medical training for their organizations.

Communications for dispatching volunteer agencies is provided primarily at no charge from CAL FIRE, which activates the volunteers' pagers. PSAPs throughout the County forward requests for service to CAL FIRE. Volunteer companies are equipped with VHS radios for their apparatus and provide handheld units to their volunteers as their local budgets allow.

VFCs are not involved in fire prevention activities. Some provide public education on fire issues such as defensible space information, but none do any enforcement. The defensible space issues are enforced by full-time agencies where appropriate.

The financial and volunteer personnel capacities of the departments vary widely. Spring Valley VFC reported an operating budget of approximately \$20,000 annually and the cash flow to sustain a standard of rebuilding apparatus when acquired; they maintain a large contingent of active volunteers. They have a strong working relationship with CAL FIRE. In fact, CAL FIRE utilized their services to backfill a fire station during high fire season when they were otherwise unable to staff the station when multiple large fires caused units to be deployed out of the area. The remoteness and sparse density of Casa Loma VFC provides significant challenges on all fronts. A smaller population means a smaller source of donations. The volunteer contingent of the Casa Loma agency is only twelve personnel and they are widely dispersed in a very remote area.

In some interviews conducted for the report, a desire for greater cooperation from the County EMS Office was expressed regarding EMS certifications. One interviewee stated that the use of AEDs by their volunteer company had been denied by the County EMS agency because of the requirement of having a medical director sign off on the training. Another interviewee stated that County EMS does not recognize paramedics as having the qualifications of emergency medical technicians (a lower skill level) without obtaining separate EMT training and certification and paying fees into the system.

A representative from the County EMS agency stated that while state law does require approval of a medical director, they were not aware of the denial of any requested AED. The EMS representative also stated that while fees and continuing education are required, paramedics do not need to undergo EMT training. More dialog between the VFCs and County EMS to address issues of training or certification of volunteers would increase the effectiveness of the VFCs.

5.1.2 Alternatives

Interests in improving upon the current conditions are to:

- Improve the quality of fire and emergency medical service to communities,
- Minimize the dependency of these areas on other public fire agencies, and
- Provide some financial compensation to those agencies responding into these areas.

The 2004 fire service review examined alternatives to the current condition of fire and emergency services to the underserved areas. The alternatives were:

- Create a new fire district or expand existing fire protection district(s) to cover all underserved areas that are outside an organized fire protection agency.
- Create a JPA between the cities of Milpitas and San José, the County of Santa Clara, the Santa Clara County Central Fire Protection District, the California Department of Forestry and Fire Protection and the South Santa Clara County Fire Protection District.
- Create a County Service Area (CSA) to cover the underserved areas of the County.

Other counties have acted to provide more structure and support to the volunteer companies. The Santa Cruz County model may be a good fit for Santa Clara County. In Santa Cruz, the County formed a CSA that included all lands not within the boundaries of an existing fire agency. The County also established an assessment for each property in the CSA based upon the size and estimated suppression needs of each parcel. As part of the CSA formation, all volunteer companies came under the umbrella of the County Fire Department. The County uses a portion of the assessment revenue to fund apparatus acquisition and maintenance and training for the VFC. The County also provides insurance coverage. Assessment revenue also goes to partially fund two-person CAL FIRE companies that support the VFC. The volunteer companies maintain community visibility and do occasional fund raising supportive of their mission.

Putting a system similar to Santa Cruz County's in place in Santa Clara County would entail the following actions:

- Create a CSA in Santa Clara County by the County Board of Supervisors covering all underserved areas.
- Grant supervisory authority over the volunteer companies in the CSA to the respective County fire district based upon their location in the district spheres of influence: Casa Loma, Spring Valley, Uvas and Ormsby to the SCFD; Stevens Creek to the CCFD.

- Place a special tax for fire and emergency medical service before the voters of the CSA (which would require two-thirds voter approval). The tax could be structured such that a portion of the proceeds are distributed to the volunteer fire companies to improve their response capacity while another portion is distributed to the impacted agencies to offset the cost of remote responses.

There are approximately 2,218 privately-owned and 371 publically owned parcels in these underserved areas. Private parcels range in size from under one-tenth of an acre to 3,032 acres. A total of 296,287 acres are owned privately. An assessment amount for each property could be based on the size of the property and the extent of development. For example, an annual assessment of \$1 per acre would generate approximately \$300,000 countywide. Creating greater self-sufficiency of the volunteer companies could reduce the number of responses required from the public agencies. Distribution of some CSA funds to the public agencies would provide some offset for the cost of providing remote service.

5.2 Service Delivery Options for the South County Region

The cities and adjacent unincorporated areas of Morgan Hill and Gilroy constitute the “South County” region. Three fire/emergency services departments currently serve different parts of this area.

- CCFD serves the City of Morgan Hill by contract.
- The Gilroy Fire Department serves the City of Gilroy.
- SCFD, through a contract with CAL FIRE, serves some unincorporated areas in South County.

The agencies have different staffing practices, response standards and apparatus deployment policies. CAL FIRE operates on the two-platoon 72-hour work week employed by the state. Gilroy and CCFD operate on the three-platoon, 56-hour work week. There is a high degree of interdependence between the agencies due to the large geographic area and range of suburban and rural development. This interdependence is evident in the high degree of mutual/automatic aid between the agencies.

This area was studied in the 2004 Countywide Fire Service Review. Three alternatives to the current system were identified and analyzed to provide for a uniform regional service delivery model:

- Create a new fire district covering the South County area region (Gilroy, Morgan Hill, and SCFD) or expand an existing agency to cover the same area.

- Create a joint powers agency between the cities of Morgan Hill and Gilroy and SCFD with service contracted to a single entity.
- Create a CSA to cover the South County region, which requires two-thirds voter approval for a special tax.

The situation has remained unchanged since the 2004 review. In May 2009 a staff working group was established to determine the benefits of regionalization in achieving enhanced and more effective services. The group consists of one member each from Gilroy, Morgan Hill, CCFD, and SCFD; they support an ad hoc committee of elected officials.

In September of 2009 the group reached the following conclusions:

- The three fire/EMS providers are interdependent because of station locations, low concentration of resources within the region and mutual/automatic aid agreements.
- From the standpoint of a regional response time, current station locations and the number of fire stations are adequate for first-due, single-unit response.
- The analysis did not support the concept of moving South County Engine 1 south toward San Martin.
- The majority of known future Morgan Hill development through 2030 is adequately covered within a six-minute response for the first arriving unit.
- New development in southern Gilroy will require that a fourth station be built to maintain response times and adequate resources for this area.
- Ladder truck service was not analyzed. The best that can be inferred is that some level of truck service could be provided from current station locations using the three existing truck apparatus and staffing from an engine company.
- The most significant potential future issue will be increased call volume. When simultaneous calls occur, additional resources from neighboring stations will be required, increasing response times for both first arriving and effective response force.

The working group formed a sub-group of operating personnel from the three service providers to discuss a “full boundary drop” system that would have the area served by the closest responding unit regardless of the political jurisdiction of the incident. The sub-group confirmed the viability of a truly integrated response system. To accomplish this objective would require the development of standardized plans for dispatching, incident command standards and resource deployment. The group identified three policy areas for discussion.

- Battalion chief coverage: There are always two battalion chiefs covering the South County area. SCFD provides 24/7/365 coverage from a district or CAL FIRE battalion chief.
- Gilroy and CCFD rotate providing 24 hour coverage; Gilroy 4 days every six day cycle and CCFD 2 days every six day cycle. Communication system: Currently initial fire dispatch is provided from three PSAPs – Gilroy, County Comm and CAL FIRE.
- Response equity: the working group reviewed “net aid provided” for 2005 to 2009. According to the group’s analysis, the Gilroy and South County Department each provided over 500 net responses; Central Fire received over 1,100 responses.

The three departments have implemented a common shared battalion chief plan. No further progress has been made on the communications and service equity issues. Although not a hard requirement for a boundary drop system, to operate such a system at maximum efficiency and effectiveness, a single communication/dispatch system is essential. While each agency is currently dispatched from different communication centers, they are on a common band and frequency. This would allow for an easy transition to a single system.

Any of the current communication operations could serve this role. Given the broader goal of maximizing centralized fire/EMS in the County, the County Comm center is the most logical entity to provide common dispatch.

Consolidating communications for fire only would most likely result in some increased cost for Gilroy. The City would incur additional costs for contracting with County Comm and would not experience offsetting savings in their current operations. Significant savings for Morgan Hill and Gilroy would likely occur if police were included in the consolidation. The CAL FIRE communication center currently used by South County Fire also serves state lands areas outside the district’s boundaries.

The financial stress on the cities of Gilroy and Morgan Hill make service cost a significant factor in evaluating alternatives to the current system. As shown in Table 84, there are differences in the cost of the three agencies to provide service. How these cost measures were developed and a discussion on the limitations of their use is included in a later section of this report.

Table 84: Cost Factors for Provider Agencies in South County

| Agency | Service Pop. | 2010/11 Operating Budget ³ | Number of Stations | Number of Sworn Operations Personnel | Number of Daily Staffed Companies | Operating Cost Per: | | | Sworn Personnel per 1000 Residents |
|-------------------------|--------------|---------------------------------------|--------------------|--------------------------------------|-----------------------------------|---------------------|-------------|-----------------|------------------------------------|
| | | | | | | Capita | Company | Sworn Personnel | |
| Gilroy | 49,800 | \$6,832,205 | 3 | 36 | Three 3 person companies | \$137 | \$2,277,402 | \$189,783 | 0.69 |
| CCFD¹ | 38,200 | \$4,420,156 | 2 | 21 | Two 3 person companies | \$116 | \$2,210,078 | \$210,484 | 0.55 |
| SCFD² | 24,533 | \$3,459,170 | 4 | 29.75 | Four 3 person companies | \$141 | \$864,793 | \$116,275 | 0.85 |

Source: Department provided information

¹ Reflects the operating portion of CCFD's contract with the City of Morgan Hill

² A portion of one company is paid for by the state of California

³ Reflects the portion of the operating budget devoted to emergency response operations. Does not include administration and prevention.

The CCFD is the lowest cost provider on a per capita basis. SCFD is the lowest cost per company, and per sworn personnel; this reflects the difference between the two-platoon shift structure of CAL FIRE versus the three platoon structure of Gilroy and CCFD.

5.2.1 Additional Option

In addition to the alternatives identified in the 2004 MSR, a service model option for the South County is for Gilroy, Morgan Hill and SCFD to contract with a common provider agency. This approach would achieve the uniformity of service delivery sought by the working group. Equity in mutual/automatic aid can be achieved in the contract negotiations. If CAL FIRE were selected as the common provider, the preliminary analysis by Management Partners suggests that alternative would result in savings for Morgan Hill and Gilroy in excess of \$2 million annually. This estimate is based on CAL FIRE's lower cost to maintain a fire company than CCFD and the City of Gilroy. Savings of this magnitude would also enable the creation of a single communications function for the area, as such savings would more than cover the cost of County Comm assuming dispatch responsibilities for Gilroy.

There are several options available to the policymakers of the jurisdictions responsible for fire and EMS in the South County to maintain appropriate service at reduced costs. Crafting a solution that meets the interests of all responsible agencies requires agreement on whether to create a new government entity—either a new or expanded district or joint powers agreement, and selection of a common provider for service delivery.

5.3 Fire Districts Contracting for Service with Another Fire District

The Saratoga Fire Protection District (SFD) and Los Altos Hills County Fire Districts (LAHFD) both contract with the CCFD for service. LAFCO has requested a review of these two arrangements to determine the possible consequences of annexing the two districts into the CCFD.

5.3.1 Saratoga Fire Protection District

SFD is an independent special district created in 1924 to provide fire protection to properties in the Saratoga area. It is governed by a three-member elected board. SFD preceded incorporation of the City of Saratoga, which occurred in 1956. The area of Saratoga not in the SFD is in the CCFD.

In 2005, SFD entered into a management agreement with the CCFD. Under that agreement, SFD maintained its department and workforce while CCFD assumed responsibility for management of SFD department operations. In 2008, following success with the management agreement and looking for further economies and

efficiencies, SFD and CCFD entered into a full-service contract, whereby SFD employees were transferred to CCFD. In essence, this contract is similar to those CCFD has with various municipalities in the county. The City of Saratoga is now served by a single provider, CCFD.

SFD remains as an independent special district. Almost all (96%) of the district's FY 2010-11 budget of \$4,865,200 is for the service contract with CCFD. As of June 30, 2010, the district had \$998,475 in unreserved fund balance. At 19% of annual operating expenses, the unreserved balance is reasonable. SFD administers an Early Warning Alarm System (EWAS) for the City of Saratoga. The EWAS is a city-mandated ordinance that requires a fire detection system for new construction and certain remodels and additions.

The 2004 MSR identified the following options for the SFD:

1. Dissolution of SFD and annexation to County Fire.
2. The City of Saratoga withdrawing from both districts and making a decision about a unified approach to service delivery within the City.
3. Expansion of the SFD into the CCFD area of the City.

Conditions have changed since the 2004 review: the SFD has entered into a full service contract with CCFD; and CCFD has annexed all lands adjacent to the SFD. Given these conditions, either maintenance of the status quo or dissolution of the SFD and annexation of the lands to the CCFD are the viable options. Consolidation of SFD with CCFD would result in estimated savings of approximately \$118,000 annually in district administrative costs, and would make accountability for service more transparent. The chair of the district's board stated that SFD is satisfied with the current arrangement and is not interested in any change.

At the start of the service review, the district's website appeared to have not been updated since 2002 and lacked any current public information regarding meetings, governance and finances. According to the district's business manager, the commission meetings are usually held on the third Tuesday morning of every month. The agendas are posted on a message board on the side of the building. Regular meetings were held in 2009. As of August 16, there have been some changes to the website: agendas for the July and August meetings were posted; the District office manager has stated that the most recent audit and budget will be included along with a meeting calendar as they upgrade the site.

With the annexation of unincorporated land adjacent to the SFD by the CCFD, the Saratoga district is completely surrounded by the CCFD, with no room to expand its boundaries or SOI. Annexing the Saratoga district to the CCFD would

reduce administrative costs for fire protection to district lands and remove any public confusion regarding which agency is providing fire and emergency medical services. Administration of the EWAS would need to be addressed.

5.3.2 Los Altos Hills County Fire District

LAHFD was created as a dependent district of Santa Clara County in 1939 to provide fire protection and prevention services to the Los Altos Hills community. A seven-member commission appointed by the County Board of Supervisors is responsible for the oversight of fire protection activities within the district.

LAHFD contracted with the City of Los Altos for fire service until 1996, when the City of Los Altos contracted with the CCFD for services. At that time, the LAHFD also contracted with the CCFD for service, which continues today. In addition to contracting with CCFD, LAHFD has two contract employees to manage and provide services outside of the CCFD contract. These services include weed abatement, yard waste disposal and wood chipping.

The 2010-11 budget for the LAHFD is \$11,436,481. Of this amount, \$4,500,000 is for the contract with CCFD for fire and emergency services, \$3,365,000 is budgeted for the additional projects and programs provided by the district, and \$338,481 is budgeted for district operating expenses. As of June 30, 2010, the district audit reported a total fund balance of \$17,748,277, a decrease of \$2,213,027 in comparison to the prior fiscal year end. Unreserved fund balance was \$6,768,277, 59% of annual operating expenditures. This is a very healthy unrestricted balance. Several reserved fund balances also exist as follows: \$1 million for insurance, \$1 million for equipment, \$3 million for emergency operations, \$3 million for building and maintenance, and \$3 million for water mains and fire hydrants.

The 2004 MSR reviewed the option of annexing the LAHFD area into the CCFD. This option remains. Annexation of LAHFD into CCFD would result in savings of up to \$254,068 annually in administrative costs, and would make accountability for service more transparent. Maintaining the district provides greater certainty about continuing the local supplemental programs and provides flexibility to contract with another provider agency. The fire consultant for LAHFD stated that the district is satisfied with the current arrangement and seeks no change.

At the start of the service review, the district's website showed no commission meetings scheduled for the balance of 2010 and no budget or financial information was available. The district's consultant stated that regular monthly

meetings are held, with notices placed on three public bulletin boards and the fire station. The district’s calendar has since been updated to include commission meeting; financial information remains unavailable. The consultant stated that financial information is available by calling the district.

5.4 Communications

Emergency communications in Santa Clara County is fragmented and complicated. The numerous combinations of agencies involved in fire unit first responder dispatch, ambulance dispatch and EMD service are discussed on pages 31 through 33.

The fragmentation of communications is further complicated by the fact that the fire departments in the County operate on four bands and frequencies, as shown in Table 85 below.

Table 85: Fire Department Communication Band and Frequency

| Band and Frequency | Fire Department |
|-----------------------------|---|
| VHF: 150 - 160 MHz | County Fire (County Comm) Gilroy Palo Alto Mountain View San José CAL FIRE |
| UHF: 450-459 MHz | Milpitas |
| UHF (T-Band): 480 - 512 MHz | Sunnyvale |
| 800 MHz | Santa Clara |

Source: County of Santa Clara Communications Department

The fragmentation of communications among different agencies on different frequencies is a major barrier for achieving efficiencies, reducing response times and improving the overall effectiveness of the fire/EMS system. As reported previously, the Silicon Valley Regional Interoperability Authority (SVRIA), comprised of all primary and secondary PSAP agencies in the County, was formed to improve system-wide functionality. SVRIA has the goal of creating a “virtual” consolidated communications system. SVRIA has been submitted for an FY 2010 UASI grant funding request for approval and the County has allocated \$810,000 to begin this process. The first phase is to develop CAD-to-CAD compatibility among all communications centers. This will enable all CAD systems to communicate with each other and eliminate the need to transfer calls between agencies. Grant funds to begin the work, if approved, will be available in 2011.

Consolidation of all public safety communications (police, fire and transport) into a single countywide center would provide the best opportunity to maximize resource utilization, improve response times and reduce cost.

Many of the other opportunities for efficiencies and economies identified in this report either require or would be significantly enhanced by a single countywide communications center. These include boundary drops, consolidating stations between jurisdictions and combining departments.

The best example of a single communication center is in San Mateo County. In 1999 the 17 cities and fire districts established the San Mateo County Communications Division as the countywide fire/EMS center. All fire and ambulance units are dispatched from this center. The single communications system facilitates boundary drops. Although comprised of multiple departments, the system operates as one entity. The fire departments have agreed on system-wide response and station ordering based on the closest unit responding, regardless of political jurisdiction.

The most significant issues to address in developing a countywide communications system in Santa Clara County are technology costs, operating costs and local control. With differing bands and frequencies in use, transition to a single system will be costly. In cities, the fire call volume is a small portion of overall dispatch activity; police activity is estimated to account for up to 90% of all calls in some combined agencies. This dynamic often means the staffing and cost of the current police communications unit will remain the same and additional costs will be incurred to staff a central fire/EMS center. This issue can be addressed by consolidating all communications (fire, EMS and police) into a common center. This usually results in significant savings to all participating agencies.

There are good working models in California where public safety communications for multiple agencies have been consolidated. The San Diego/Riverside Emergency Communications Agency provides communication services to over 200 municipalities and districts including the City of San Diego. All law enforcement and fire agencies in Monterey County are served by a common communications center.

Many cities have been reluctant to give up direct operating control of their police communication functions. Given the existence of successful models and opportunity for improved fire/EMS service, better law enforcement coordination and cost savings, cities may choose to reconsider this reluctance.

Recognizing the shortcomings of the current system, all agencies are working together to improve communications interoperability. While requiring significant capital investment in communications infrastructure, consolidating all public safety communications into a single provider would improve fire/EMS service responsiveness, create the opportunity for additional cooperative efforts and offer potential significant savings.

5.5 Consolidation of Stations and Apparatus

In some cases, often due to adjacent jurisdictions maintaining capacity to serve their entire communities, stations and engine companies are located in close enough proximity that they could be combined and, with fewer apparatus, be capable of meeting response standards to all areas. With the cost of maintaining an engine company for most agencies exceeding \$2 million per year, consolidation would result in significant savings to the affected agencies.

Consolidation opportunities can include stations and/or apparatus within the service area of a single provider or between two adjacent service providers. In-boundary consolidations are easier to implement as they can be accomplished by the sole service provider. Consolidations across service boundaries are more difficult to implement as they require agreement between two separate agencies. Inter-jurisdictional consolidations can also be constrained by the lack of a common communication system. Community and labor concerns typically become significant issues when reviewing station consolidations; some residents will perceive the outcome as having a negative impact on them and their property.

A preliminary review of stations and apparatus has identified station pairings where consolidation may be feasible. The threshold criteria used to identify potential consolidations included a distance of one mile or less between stations and a call volume that would not exceed ten calls per day for any apparatus in the consolidated station. For consolidation to meet established service standards, relocation of an existing station may be necessary. Depending on market conditions, the sale of existing station sites may produce enough revenue for the new station.

Stations 3, 4, and 7 in the City of Santa Clara offer a potential consolidation opportunity. The stations are in close proximity to each other. The total call volume for the three apparatus in the stations was 3,148 in 2009, which translates to an average daily demand of 8.6 calls. Stations 1 and 4 in Milpitas offer a potential opportunity. They are approximately one-half mile apart and responded to 1,717 calls in 2009 with three apparatus.

The following inter-jurisdictional station pairs are recommended for further study based on the initial assessment of physical proximity and the capacity of existing apparatus.

1. San José Station 29 and Santa Clara Station 6
2. San José Station 15 and CCFD Fire Station 2

Another station pairing meeting the distance and call volume criteria are CDF's Almaden station (22) and the San Jose station # 28. CDF plans to eventually move their station 6-8 miles south; this coupled with the differing shift schedules between the departments would make consolidation difficult.

Station/apparatus consolidation requires detailed analysis of the impact on service. It is beyond the scope of this report to perform this level of analysis. A more detailed study of the station pairings may identify additional opportunities to provide service at a reduced cost. A detailed countywide review of engine response call capabilities and locations county wide may identify other opportunities for consolidation and savings.

5.6 Competitive Service Contracting

Some jurisdictions that are responsible for fire/EMS services fulfill this responsibility by contracting with another agency for service delivery. The cities of Los Altos, Campbell and Morgan Hill and the Saratoga and Los Altos Hills Districts contract for service with the CCFD. SCFD contracts with CAL FIRE.

Municipalities currently providing services through their own departments have the option to contract with another agency. The primary consideration in contracting for service is that the purchaser receives the services they desire at a lower cost than the current system. The cost of fire and emergency service departments vary based on a number of factors, including the number of stations and apparatus, compensation structures, special programs and equipment and operating practices (such as the use of overtime). Competitive bidding for fire and emergency services may allow agencies to provide desired services at a lower cost than their current delivery model.

Comparing costs of fire protection service providers is always difficult and any methodology used for a high-level review is fraught with limitations. Cost comparisons are difficult because of different budgeting and accounting practices in jurisdictions, including how apparatus are purchased and maintained and whether central city management and overhead costs are identified in fire department budgets. Comparisons between municipal departments and fire districts are difficult because districts are responsible for all

general management functions and expenses that may not show up in the budgets of municipal departments.

As part of the objective of identifying opportunities for economies and efficiencies in the fire and emergency services, Management Partners compared the costs of the nine provider departments on a number of measures, using a consistent methodology. Given the limitations of the scope of the engagement and the inherent difficulties noted above, these comparisons should only be used as broad indicators of the relative costs for different departments. **The only definitive way for an agency interested in contracting to compare costs is to develop a specification for the desired services and ask departments to submit a bid based on that specification.**

Budget, staffing and apparatus deployment data for the 2010-2011 fiscal year were provided by each agency for the service review. Using the reported information and agency budget documents, expenditures were categorized as administrative, operating, prevention and other. The results of the categorization were sent to each agency for validation. In comparing costs between departments, only operating costs were used to represent the cost of emergency responses services and factor out administrative and prevention costs. After initial data gathering departments were resurveyed with clarification regarding the definition of “operating” costs. Operating costs are intended to capture the agency’s direct costs to maintain their emergency response capability, including: personnel costs including overtime for all firefighting personnel up to and including shift battalion chiefs; services and supplies necessary to support the emergency response system; and capital outlay related to the emergency response system. Operating cost comparisons were made on a number of measures with the intention of providing a number of perspectives on agency costs. These are displayed in Table 86. Figures 65, 66 and 67 display the per capita, per three-person company equivalent and per sworn personnel costs for each provider.¹³

There are a number of issues that impact the operating costs of a department. The primary drivers are: the number and type of apparatus used; the number of personnel assigned to each apparatus; and the compensation structure for the workforce. A change in any one of these can impact the cost structure for a department. Different cost measures provide different insights on the cost of maintaining emergency response services:

¹³ Apparatus includes trucks, engines, rescues and transports. Where multiple apparatus are cross-staffed, only one was counted.

Cost per capita is a traditional measure and shows the relative cost to serve the community on a population basis. The limitation of looking only at per capita costs is that the basic infrastructure (equipment, apparatus) required to serve a population of 25,000 is often sufficient to serve a population of 40,000. The total cost of maintaining the same response capability may be greater in the department with a larger population, but because the cost is spread out over a larger population, the cost per capita will be lower.

The measures of **cost per daily apparatus** and **cost per 3 person company equivalent** provide some indication of the relative operating cost of the main components of the service delivery system: the number of apparatus used and the cost of staffing the apparatus. Each department uses a variety of apparatus and daily staffing to provide emergency response services. Each department also has its own compensation structure. Staffing an engine with a four person crew versus a three person crew would result in a higher cost per apparatus. However, the use of specialized apparatus with smaller crews on some departments will offset this cost difference in the aggregate. The 3 person company equivalent was agreed to by the TAC to neutralize the impact of different staffing levels on apparatus. **Cost per sworn personnel** can provide an indicator of the number of staff and the compensation structure in the agency's emergency response system.

This page intentionally left blank

Table 86: Cost Factors for Provider Agencies

| Agency | Service Pop. ¹ | 2010/11 Operating Budget ² | Number of Stations | Number of Sworn Operations Personnel ³ | Number of Daily Staffed Apparatus ⁴ | Apparatus Staffing ⁵ | Number of Three Person Company Equivalents ⁶ | Operating Cost Per: | | | | Sworn Personnel per 1000 Residents |
|------------------------------|---------------------------|---------------------------------------|--------------------|---|--|--|---|---------------------|-------------------------|----------------------------------|-----------------|------------------------------------|
| | | | | | | | | Capita | Daily Staffed Apparatus | Three Person Company Equivalents | Sworn Personnel | |
| Gilroy | 49,800 | \$6,832,205 | 3 | 36 | 3 | 3 apparatus with 3 person crews | 3 | \$137 | \$2,277,402 | \$2,277,402 | \$189,783 | 0.72 |
| Milpitas | 69,000 | \$12,258,554 | 4 | 63 | 6 | 4 apparatus with 3 person crews 1 apparatus with a 2 person crew 1 apparatus with a 1 person crew | 5 | \$178 | \$2,043,092 | \$2,451,711 | \$194,580 | 0.91 |
| Mountain View | 72,100 | \$16,445,640 | 5 | 70 | 7 | 1 apparatus with a 2 person crew 6 apparatus with 3 person crews | 7 | \$228 | \$2,349,377 | \$2,349,377 | \$234,938 | 0.97 |
| Palo Alto | 77,779 | \$18,959,463 | 8 | 105 | 10.5 ⁷ | 9 apparatus with 3 person crews 1.5 apparatus with 2 person crews | 10.1 | \$244 | \$1,805,663 | \$1,877,175 | \$180,566 | 1.35 |
| San José | 1,037,567 | \$126,926,383 | 34 | 630 | 52 | 3 apparatus with 5 person crews 26 apparatus with 4 person crews 7 apparatus with 3 person crews 16 apparatus with 2 person crews | 57.3 | \$122 | \$2,440,892 | \$2,215,120 | \$201,470 | 0.61 |
| Santa Clara | 114,700 | \$26,791,827 | 10 | 148 | 13 | 3 apparatus with 2 person crews 7 apparatus with 3 person crews 3 apparatus with 4 person crews | 13 | \$234 | \$2,060,910 | \$2,060,910 | \$181,026 | 1.29 |
| CCFD | 240,789 | \$53,893,046 | 17 | 247 | 21 | 16 apparatus with 3 person crews 5 apparatus with 4 person crews | 23 | \$224 | \$2,566,336 | \$2,343,176 | \$218,190 | 1.03 |
| SCFD⁸ | 24,533 | \$3,459,170 | 4 | 29.75 | 4 | 4 apparatus with 3 person crews | 4 | \$141 | \$864,793 | \$864,793 | \$116,275 | 1.21 |
| Sunnyvale⁹ | 135,200 | \$22,977,192 | 6 | 82 | 12 | 12 apparatus with 2 person crews | 8 | \$170 | \$1,914,766 | \$2,872,149 | \$280,210 | 0.61 |

Source: Fire agency data provided to Management Partners.

¹ ABAG Projections 2009 was used for city populations. District populations were developed by LAFCO using ABAG and other data. The population figure for the City of San Jose includes areas in the CCFD served by the SJFD through contract. The population for the CCFD includes the district population less areas served by SJFD and includes the contract cities and contract districts. Palo Alto population includes Stanford.

² Reflects the portion of the departments' budgets for emergency response operations inclusive of compensation, overtime, services and supplies and capital outlay. Does not include administration and prevention costs.

³ Reflects sworn personnel assigned to emergency response operations

⁴ Includes Truck, Engine, Rescue, Transport

⁵ Reflects the number of personnel assigned to each apparatus daily

⁶ Converts the number of sworn staffing on all apparatus into a 3-person company equivalent

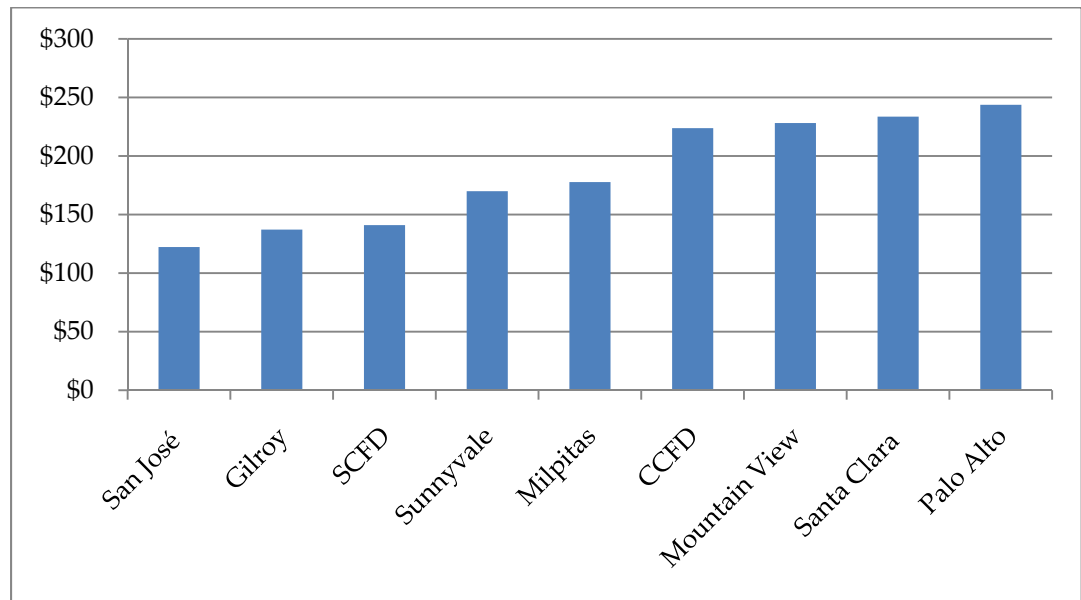
⁷ The PAFD staffs 10 companies daily on 24 hour shifts. One transport company is staffed on a 12 hour shift. For four months of the year, an additional engine is staffed on a 24 hour shift.

⁸ A portion of one engine company is paid for by the State of California

⁹ The City of Sunnyvale employs a Department of Public Safety which provides emergency response through personnel assigned to fire apparatus and other personnel provide police patrol. The uniqueness of this approach make comparisons with traditionally organized fire departments difficult

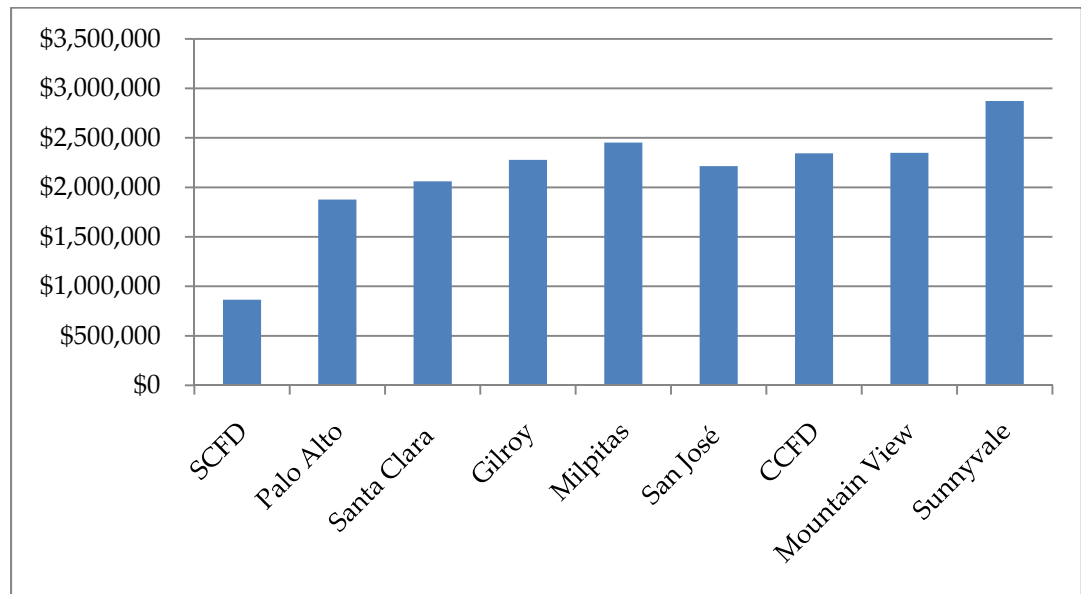
This page intentionally left blank

Figure 65: Operating Cost per Capita



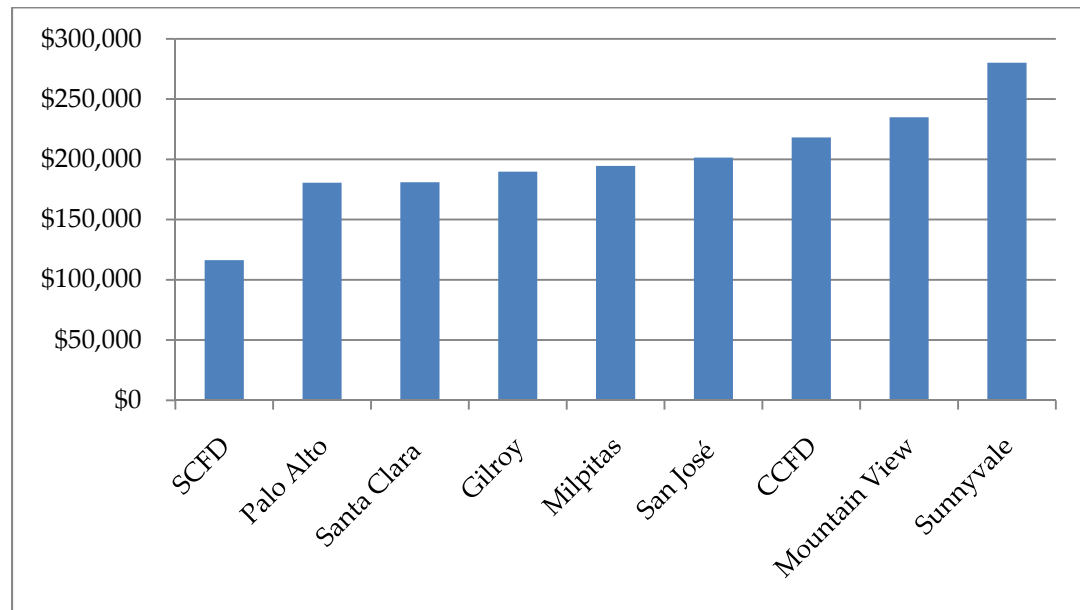
Source: Agency reported financial information and ABAG population data

Figure 66: Operating Cost per Three Person Company Equivalent



Source: Agency reported budget and expenditure information and agency budgets on websites

Figure 67: Operating Cost per Sworn Operating Personnel*



Source: Agency reported staffing

* Includes only sworn personnel identified as "operating," exclusive of administrative and prevention sworn personnel.

The significantly lower cost per staffed apparatus and 3-person company equivalent for SCFD is reflective of the two-platoon, 72-hour week staffing model compared with the three-platoon, 56-hour week used by the other departments.

The existence of multiple providers, coupled with the financial pressure on agencies to maximize resource utilization, creates a competitive market. As agencies look for ways to reduce the cost of service delivery, contracting for fire and EMS may be a viable strategy for some. Again, recognizing the limitations of this analysis, the information provides an opportunity for higher-cost agencies to evaluate the practices of lower cost agencies to identify opportunities to reduce their service cost.

5.7 Strategic Paramedic Placement

With the exceptions of Sunnyvale and Santa Clara, the practice of all agencies is to have at least one firefighter/paramedic on each engine. This has resulted generally in response times for EMS calls exceeding the County 90% standard; in 2009 the range was 94% to 98%. Since response times are consistently above 95% for most agencies it may be possible to both meet the County EMS first-responder standards and reduce the cost of service by strategically placing fewer paramedics on engines through-out the County.

Identifying the number and location of paramedics necessary to achieve the 90% standard will require detailed countywide analysis and response modeling. This type of analysis could be done in conjunction with the start of the new transport contract between the County/EMS and a private provider.

5.8 Fire Suppression Training

Each agency provides fire suppression training for its personnel. The amount of resources devoted to training varies. A common theme from the interviews with fire chiefs is that training budgets have suffered significantly from budget reductions. Most agencies report being able to only provide the minimum required training. The South County region lacks an adequate training facility at present.

The operation of joint training programs and shared training facilities could improve County-wide service delivery and allow training dollars to go farther. Some agencies have good training facilities with the capacity to handle multiple departments. CCFD, the City of San José and the City of Santa Clara have facilities that could handle multiple agencies and staff that could serve as a nucleus for broader training programs. Mountain View, Palo Alto and CCFD have discussed the potential for a shared facility at Moffett Field.

The use of shared facilities would provide greater opportunities for joint training between departments. Joint training improves emergency response capability in mutual/automatic aid incidents by building familiarity between fire companies. County fire agencies use a joint academy to train new employees. This concept could be expanded to create a countywide training program.

Important factors in establishing joint training facilities and programs include facility location and standardized fire suppression practices. Company training is usually accomplished by taking units out of service. This decreases the coverage available in the jurisdiction. A joint facility must be located so it is convenient to the participating agencies. This allows the unit in training, if required by an emergency, to return to service. A second factor is that departments may have different practices related to fire suppression practices. Agencies participating in a joint training program would want to standardize practices in the interest of having a common curriculum.

Opportunities to improve overall response effectiveness and reduce operating costs exist in developing shared training facilities and programs. Joint training can be accomplished on a countywide basis through a JPA or by cooperative agreements between agencies.

5.9 Prevention

The development of shared fire prevention functions is an opportunity to improve efficiency and economy. Prevention functions include reviewing and inspecting new construction, inspecting required business and multi-family units, investigating arsons as well as providing community education. At a minimum, consolidating the management and support of fire prevention bureaus can produce cost savings. A common plan check function is another opportunity for improving service and potential savings. The Uniform Fire Code is used by all agencies.

Agencies have their own policies on fee collection for certain prevention services and maintain different fee schedules. Prevention fees provide a source of additional revenue to support fire and EMS. Integrating prevention services would provide the opportunity to standardize policies and fees. Standardizing policies would provide consistency for businesses that operate in multiple jurisdictions. Establishing fees at a level sufficient to cover the cost of service would reduce any general revenue subsidy.

Because of budgetary cuts many departments have significantly reduced or eliminated community education. Pooling prevention resources and sharing education staff may be an option to accomplish this important function.

5.10 Apparatus Maintenance

All nine providers have apparatus maintained in-house. For city fire departments this is a citywide maintenance operation. CCFD has its own maintenance facility and maintenance of SCFD apparatus is performed at the CAL FIRE maintenance facility. Maintenance of fire apparatus is specialized, requiring certified fire mechanics, and recruitment of qualified personnel can be difficult.

A number of factors are important in setting up a shared apparatus maintenance function. Having a shop of sufficient capacity to handle multiple agencies is necessary. To the extent any of the current maintenance providers are operating one or two shifts a day, adding a second or third shift can provide additional capacity without major facility costs. Evaluating the opportunities for agencies to share apparatus maintenance facilities and staff would be worthwhile, given the potential economies that could accrue to those agencies in shared facilities.

5.11 Apparatus Purchasing

Generally, each department develops specifications for their apparatus and each unit is custom manufactured. Agencies will also “tag on” to apparatus purchase

bids of larger organizations, accepting their specification and achieving savings. With engines costing \$500,000 to \$750,000 each, the opportunity for multiple agencies to develop a common apparatus specification and competitively bid the purchase of a number of uniform vehicles offers the potential for significant savings. Development of a common apparatus fleet over time would also help facilitate a shared maintenance function and generate savings through the standardization of parts. Development of common apparatus is worthy of further exploration by the fire chiefs in the County.

5.12 Emergency Preparedness

All fire departments in the County are responsible for planning for natural or other disasters and maintaining the capacity to respond when a significant event occurs. Departments have generally assumed responsibility for increasing community preparedness, recognizing that a significant incident will require a triage for the deployment of resources and that households and neighborhoods need to be self sufficient for a period of time.

In a metropolitan area, a major disaster like an earthquake will impact multiple jurisdictions. Agencies participate in joint disaster exercises to practice coordination between jurisdictions. In some departments, personnel dedicated exclusively to emergency preparedness have been the casualties of budget cuts. Some redundancy exists in the disaster preparation. Each department prepares its own plan using the same basic elements, coordinates training, and conducts similar community education efforts. Sharing disaster preparedness staff among several agencies offers the opportunity to reduce preparation costs, better coordinate disaster response, and reinstate important community education efforts. The County OES assuming a larger role in preparing and maintaining model plans for fire agencies, coordinating training and supporting the public education efforts of the departments is another opportunity for efficiency and economy.

5.13 Other Service Delivery Methods

In the interest of improved efficiency and in response to constrained financial conditions, public agencies are increasingly looking for alternatives to the current method of delivering services. Alternative service delivery can take many forms. The most common include integrating the services of multiple organizations into a single entity, changing long-established business practices and outsourcing functions or entire services. Many of these opportunities have already been discussed. Following is a brief summary of other alternative delivery approaches available to fire and emergency service providers.

5.13.1 Combining Departments

Combining separate departments into a larger operating unit can also result in cost savings in management, administration and support. Each agency maintains its own management/command structure consisting of a chief, assistant chiefs and battalion chiefs. Each agency is also purchasing and maintaining information technology and common support items and materials. Combining departments creates the opportunity to eliminate this duplication. There are many examples of merged fire departments in California.

In reviewing consolidation opportunities, care must be taken to analyze the overall financial impact. Savings resulting from the elimination of duplicate management and support costs can be eroded by higher operating costs. As was shown in Figures 65, 66 and 67 above, agencies have different cost structures. Savings can also be eroded by agreements to set the employee compensation structure in a manner that reflects the highest salaries and benefits of the merging agencies. Municipal departments must be careful to analyze the “go away” costs of a merger, as some of the cost items included in fire department budgets are provided by central departments and the personnel providing these functions would not be eliminated.

5.13.2 Shared Command

An alternative to consolidating departments is the sharing of command staff between multiple agencies. A contractual agreement between agencies to have a single command structure for their operations can produce the financial benefit of eliminating management redundancy without having to address various issues that arise when departments are consolidated. There is a complexity in this approach, as managers would need to manage multiple labor agreements.

5.13.3 Shared Battalion Chiefs

Short of a shared command staff is the opportunity for agencies to share battalion chiefs. Smaller departments often maintain a battalion structure capable of supporting a greater number of companies. Two similarly situated departments can often come together and share a single battalion management structure. This can be done on a 24/7 basis or with an arrangement for after-hours sharing only.

5.13.4 Boundary Drops

All fire departments in Santa Clara County are party to mutual aid and automatic aid agreements. Under a mutual aid agreement, agencies agree to provide personnel and apparatus when requested by other parties. In automatic aid, agencies identify in advance which areas will receive assistance from

participating agencies. When calls are received by the initial responding agency, the partner agency is notified and the agreed upon unit(s) are automatically dispatched as backup to the initial responding unit.

Boundary drops are a higher level of aid. The name refers to the dropping of city limits boundaries between party agencies and, in accordance with a previously approved plan, the closest unit to the incident is dispatched as the initial responder regardless of the responder's political jurisdiction. Given the positioning of stations between jurisdictions, this can often improve response times to emergency calls. Boundary drops are a best practice in emergency service delivery. While boundary drops can be established without a common communication function, their use and utility is enhanced when such a function is in place.

5.13.5 Alternative Staffing Models

Most California fire departments employ a staffing model to provide 24/7/365 coverage consisting of three platoons staffed with personnel working 24-hour shifts and a 56-hour work week. Staffing is typically uniform and does not vary by time of day or day of week.

Other approaches to staffing are available that can meet response standards at reduced cost. CAL FIRE uses a two-platoon structure with personnel working 24-hour shifts and a 72-hour work week. Overtime is built into the schedule to maintain constant coverage. Paying overtime costs less than maintaining a third platoon.

Private ambulance companies have long used system status staffing (rather than constant staffing). This is a dynamic resource deployment plan based on the analysis over time of service demand by time of day and day of week. More response units are in service during times of high demand; fewer at lower demand times. This is the staffing pattern used by AMR to meet the County's EMS response standards.

Emergency travel times can vary significantly in a metropolitan area by time of day and day of week. When roads are less congested and travel time is faster, it may be possible to post fire apparatus at different locations than the fixed stations and meet response standards with fewer units.

Alternative staffing models need to be carefully analyzed to determine if anticipated service and financial objectives are met. They also require that labor contracts be renegotiated with firefighters. Alternative staffing models typically experience strong resistance from labor as they represent a significant change in long-established practices.