



CITY OF MARTINEZ

**CITY COUNCIL AGENDA
February 5, 2014**

TO: Mayor and City Council
FROM: Gary Peterson, Chief of Police
SUBJECT: Fitch Study on the Contra Costa County Fire Protection District
DATE: January 31, 2014

RECOMMENDATION:

Approve draft letter authorizing the Mayor to sign a public comment letter urging Contra Costa County Board of Supervisors to select a service delivery model that will decrease response times and address long term financial health of the Contra Costa County Fire Protection District (ConFire) as requested by Councilmember DeLaney.

BACKGROUND

In Spring 2013, ConFire engaged the emergency services consulting firm Fitch & Associates (hereafter referred to as *FITCH*) to help determine the optimal emergency service response coverage, (both fire and first response) that could be provided by ConFire within its defined fiscal limitations.

FITCH characterized ConFire's financial position as deteriorating and critical. The public had rejected a District tax initiative that would have provided additional funding. Multiple fire companies were eliminated and fire stations closed in order to preserve fund balances that would allow the organization to function while contingency plans were developed.

By October 2013, property tax revenues began to increase slightly after several years of decline and additional relief came in the form of a one-time grant reimbursement and lower expense estimates for retirement contributions. Nevertheless, *FITCH* reported that significant financial constraints remained. Of grave concern was the lack of funding for infrastructure or rolling stock—a need that *FITCH* suggested would quickly become an emergency. *FITCH* posits that the public will be asked to support another tax initiative in the near future and would like to see that ConFire is embracing change to become more efficient and effective.

CURRENT STATE —OBSERVATIONS

The Organization

- ConFire has 23 full time fire stations and employs 227 firefighters, 15 dispatchers, 20 prevention personnel and a \$95.3 million dollar budget. The department is considered well organized and reasonably efficient in its emergency response operations. *FITCH* states that ConFire is under-resourced in the context of fire service industry “standards of cover” and in comparison to the average staffing ratios of other fire departments located in the western United States.
- ConFire’s fire prevention program is a contemporary, well-organized and efficient operation that uses an enterprise business model to fund almost all of its expense.
- ConFire does not have sufficient resources in place to provide appropriate support services. Historically, these areas of the organization have taken the brunt of budget cuts.
- Data from ConFire’s Computer Aided Dispatch (CAD) system was found to be patient/incident centric in that it reported response times to calls for the *system* rather than reporting specifically on ConFire’s performance. While this is a positive attribute for patients and property, analyses of ConFire’s performance required that data be accessed from ConFire’s automatic vehicle location (AVL) system. ConFire’s monthly reports of response times are based on CAD data that should be verified against AVL data before decision-makers rely upon it.
- Beginning in 2013 and going into 2014, three members of ConFire’s senior management team will be new to their positions, including the recently appointed Fire Chief, Jeff Carman, a 29-year veteran of the Roseville Fire Department (CA). Accompanying this change is a revision in the reporting relationships, as the fire chief will now report to the County Administrator rather than to the District Board.
- The Contra Costa County Grand Jury released a report in May 2012 calling for area fire departments including ConFire, to move “outside the box” and implement alternative service delivery models in order to align revenues and costs and operate at a level consistent with citizen expectations.

Emergency Response

- For 90% of calls, high performance EMS systems in North America strive to respond to life threatening emergencies within eight minutes fifty-nine seconds from the time the phone is picked up at 911 until a unit arrives on scene. For the first half of 2013, ConFire's response time performance from 911 call ring-in to first ConFire unit on scene for EMS calls averaged ten minutes 23 seconds on 90% of calls.
- The largest change in the number of frontline units occurred in January 2013 when four units were decommissioned. As a result, the composite response time for life-threatening EMS calls was longer by an average of only six seconds after the closures.
- ConFire's response time goals include complying with NFPA® 1710, a non-regulatory, industry standard for the organization and deployment of fire suppression operations. This standard stipulates that a fire engine company should arrive on emergency calls within a range of six minutes 15 seconds to six minutes 45 seconds from call ring-in to first unit on scene on 90% of incidents. For the first half of 2013, ConFire responded to 90% of Priority 1 and Priority 2 fire calls within 10 minutes 42 seconds.

- After four frontline units were decommissioned in January 2013, ConFire’s response time to fire calls lengthened by 18 seconds compared to the prior six months. There was little change in response times because station closures were remote from areas of high call densities. While NFPA 1710 is a laudable goal, to which many fire departments aspire, it is not commonly achieved.
- Crew chute time (time from when a unit is assigned to a call and the crew leaves the station) averages two minutes 57 seconds and is longer than expected. Faster chute-time by crews can shorten ConFire’s overall response time to incidents at little incremental cost. Chute time should be less than two minutes at the 90th percentile and could reduce total response time by a minute.
- ConFire routinely provides surrounding agencies more hours of mutual aid than it receives. Between 2012 and the first half of 2013, the pace of out-bound mutual aid almost doubled. Mutual aid to other jurisdictions consumes up to 18% of ConFire’s time responding to and working EMS and fire calls.
- Analysis of 75 major incidents that required between six and 14 ConFire frontline units showed that there was no negative impact on response times to the 1,081 calls that occurred simultaneous to the major incidents.

Performance Indicators

ConFire’s role is to mitigate risks imposed by emergency medical and fire related incidents. Response times are a fundamental measure of ConFire’s ability to mitigate risk—longer response times are considered by the community as an indicator of reduced performance and shorter response times are considered to reflect improved performance.

In January 2013, ConFire closed four stations and decommissioned four frontline fire units. Using AVL (Automatic Vehicle Location) data, response times for the last half of 2012 and the first half of 2013 were compared to understand the impact of station closures. Response times were defined as the time interval starting with 911 call pick-up to the first ConFire unit on scene measured at the 90th percentile.

For life-threatening Priority 1 and Priority 2 EMS calls, response times were as follows:

- July through December 2012 (28 companies): 10 minutes 17 seconds
- January through June 2013 (24 companies): 10 minutes 24 seconds

For Priority 1 and Priority 2 fire calls, response times were as follows:

- July through December 2012 (28 companies): 10 minutes 24 seconds
- January through June 2013 (24 companies): 10 minutes 42 seconds

The impact of decommissioning four fire companies was 6 and 18 seconds longer response times for EMS and fire calls, respectively. *FITCH* characterized the increased response times as, relatively insignificant.

Should ConFire reopen and reactivate the four stations and companies using its current traditional service model, the cost would be approximately \$9 million and the response time benefit would be to gain back six and 18 seconds, respectively.

OPTIONS PRESENTED BY FITCH

The primary findings of *FITCH's* study, summary observations of ConFire's current state, and *FITCH's* detailed data analysis framework that was used to assess ConFire's performance follows. The options *FITCH* developed are described as short-term solutions that may sustain ConFire for three to four years depending on critical factors including: revenue estimates holding true, no material increases in salary or other expenditures, no need for heavy apparatus replacements, and no occurrence of natural or other disasters. The three options are:

- Maintain Status Quo
- Implement the Optimized Service Delivery Model Option (Three/Two Response Staffing)
- Implement the Single Patch Alternative Responder Personnel Option

FITCH explained that should ConFire experience a significant wildfire season or other natural disaster resulting in non-reimbursed expenses, even more fiscal pressure will be exerted. ConFire must make demonstrable changes in service delivery to be credibly positioned with voters for a new tax initiative.

Option 1 —Maintain Status Quo

Continue staffing three-person companies and otherwise maintain operations at current levels. Monitor property tax revenues. Anticipate requesting a tax increase closely following a potential change in majority requirements to pass tax initiatives. This option leaves current budgets in place and provides no funding for fleet maintenance, vehicle replacement, fire stations or dispatch infrastructure needs. This option maintains the maximum number of fire suppression apparatuses on the road and introduces little change to the current system.

Status Quo Advantages

Constituents are seeking change. This option involves no material change in the current system. Should ConFire choose to introduce light rescue vehicles, any savings will not be achieved quickly. The system will appear to be virtually stagnant. Voters who have demanded change will likely be disappointed.

Status Quo Disadvantages

Prior Board decisions to decommission fire companies saved several million dollars. Option 1 provides the Board little flexibility to bring companies back on line due to the significant payroll costs using the traditional/status quo staffing model.

Any decision to add back units or reopen stations will deplete fund balances more quickly than current projections.

Option 2 —Optimized Three/Two Response Staffing

Convert a select number of three-person companies to two-person quick response vehicle (QRV) companies, thereby providing additional response units, expanded coverage, and improved response times to emergency events. Modify deployment plans with an eye towards staffing stations that are now closed. This option utilizes the existing personnel roster and requires capital

costs of approximately \$100,000 to \$200,000 for each fully equipped vehicle. QRVs could be phased into the system as funds become available to purchase vehicles.

Three/Two Response Staffing Advantages

This option results in additional units on the road, and reopens fire stations. This option incurs no additional payroll costs.

There is no change to firefighters' work schedules.

As QRVs are integrated into the system, the workload on the heavier, more expensive apparatuses are lessened thereby extending replacement cycles saving both capital and maintenance costs. Upfront costs are minimal, compared to the resulting service expansion.

Resources required to respond to EMS calls are maximized while maintaining necessary resources required for fire protection. Engines remain in stations and are available for fire responses using QRV crews, should additional apparatuses be needed on an incident.

For every two engines replaced, three quick response vehicles are added to the system. ConFire is thereby better able to address any increase in EMS call volume. The change is noticeable to the public and positions ConFire as a progressive organization seeking to become more efficient and effective.

This option has the least potential impact on the District's ISO rating because there is neither a reduction in firefighter personnel nor a reduction in heavy apparatus.

Three/Two Response Staffing Disadvantages

To deploy QRVs, a capital purchase is required. One such vehicle is currently in use as a pilot project. Optimally purchase and deployment would occur immediately but could be phased into the operations.

This option also requires a different deployment strategy and increased adaptability in the way service is delivered. These challenges, while simple to describe, are complex to implement without ongoing leadership effort.

Option 3 —Single Patch Personnel for EMS Response

The premise of this option is to substitute current firefighter personnel (fire and EMS dual-certified) with lower cost single-purpose (EMS certified) personnel.

One of the key drivers of emergency service is personnel cost. Likewise, ConFire's largest budgetary item is frontline human resource costs. This is neither unusual nor unexpected. Firefighters have a number of diversified skills that they employ in the field. Many of these skills require specific training and there are real costs for both certification fees and replacement costs for frontline firefighters while they are trained. Patient care activities require that firefighters obtain and maintain at minimum, basic emergency medical technician (EMT) or paramedic certification. In addition, personnel can obtain a number of additional specialized emergency medical certifications. For example, several ConFire firefighters are certified in Advanced Cardiac Life Support, Pediatric Advanced Life Support and Pre-Hospital Trauma Life Support.

This option recognizes the specialty field of EMS and suggests that personnel whose sole purpose is emergency medicine be utilized for some or all EMS calls. Surveys of response personnel indicate that non-firefighter EMTs and paramedics earn substantially less than a firefighter who is also an EMT or paramedic. Option 3 provides a closer match of personnel skills with the largest task at hand in ConFire – EMS calls.

Single Patch Personnel Advantages

Implementation of Option 3 could take place over time as firefighter attrition occurs. No layoffs are anticipated. Smaller quick response type vehicles would be used thereby reducing the workload and stretching out the replacement cycle of heavier engines and other apparatus. This option introduces a different certification requirement for ConFire personnel. This would likely allow for a lower labor and retirement costs and introduce flexibility into the schedule that would further allow a matching of supply and demand.

Single Patch Personnel Disadvantages

Savings may be unsustainable over time, as labor pressure exists to increase wages to a comparable wage rate to the more expensive multi-purpose firefighters.

There can be a great deal of employee dissatisfaction since the lowest wage earners end up doing the higher quantity of call volume and activity. EMS-specific personnel have very limited use on fires and require that the fire system be self sustaining with the remaining resources. Due to a reduced number of firefighting personnel, this Option could have a negative impact on ConFire's ISO rating upon reevaluation.

While Option 3 certainly can be implemented, it adds complexity to the system by creating and maintaining two separate employment streams such as, administrative tasks that are part of establishing new positions, pay scales and training programs.

FITCH STUDY RECOMMENDATION

Notwithstanding the fact that ConFire has comparable response times to fire and EMS calls, *FITCH* suggested that there are benefits to be gained by implementing the proposed Option Two — Optimized Three/Two Response Staffing.

This option involves transitioning several three-position engine companies and reassigning those crews to two-position quick response vehicles (QRVs). For every two engine companies decommissioned, three QRVs would be added to the system—a two to three conversion. The capital cost to purchase the QRVs is approximately \$150,000 per unit. Once an optimal mix of units is distributed throughout the system using exiting personnel, any additional financial resources can be directed at the much-needed capital replacement fund.

FINANCIAL SITUATION

Both ConFire and County financial managers worked together to create and update ConFire budgets that included detailed revenue and expenditure estimates for at least four fiscal years forward. Economic consultants provide advice concerning the future estimates of property tax revenues, which are ConFire's most significant revenue source consistently representing some 90% of annual revenues.

FITCH utilized the financial data for the basis of their operational analyses. For three of the last five fiscal years from FY08/09 to the fiscal year ending June 30, 2013, the Contra Costa County Fire Protection District incurred annual budget deficits. Budget projections for the next four fiscal years predict annual budget deficits, and in all there are structural deficits for seven of nine fiscal years from FY08/09 through FY16/17. The largest budget deficit of \$10.2 million is anticipated in FY14/15 despite recent increased property tax revenue projections for that fiscal year. ConFire has remained solvent primarily because spending was constrained after FY08/09, even though there were healthy reserve balances at the end of that fiscal year.

These fund balances, along with one-off revenue windfalls, allow estimates to be solvent through FY16/17 based on current operations and projections. Any material increases in personnel, payroll, capital funding needs or significant emergency events will exacerbate the structural deficit and further deplete any reserves.

ConFire’s ongoing structural deficit is of deep concern.

IMPACT ON SERVICE DELIVERY IN MARTINEZ

Response times are said to be the fundamental measure of ConFire’s ability to mitigate risk. In January 2013, ConFire closed four stations, including Station 12 in unincorporated Martinez. The impact of decommissioning four fire stations resulted in an increase of 6 and 18 seconds in response times for EMS and fire calls, respectively.

Option 2 provides the personnel capacity to respond to fire-related incidents, while the flexibility for response to EMS incidents would be increased. *FITCH* believes that stations may be reopened under this option. Based on the information provided by *FITCH*, if the Board of Supervisors selected option 2, the residents of Martinez should not see any discernible impact on service delivery for emergency or non-emergency calls for service in the immediate future.

Table 1. Key Attributes of Options

Impact On	Status Quo	Three/Two Staffing	Single Patch Personnel
Firefighters	No change in number to reactivate one company costs \$2+ million in overtime	No change in number to add one QRV incurs only vehicle cost; no additional payroll cost	Reduces the number of FFs; hire single patch personnel to replace FFs through attrition
Fire Stations	23 fire stations No change	Re-open stations as convert engines to QRVs No additional payroll cost	Can open additional stations and/or Post personnel
Change	Traditional – No change	Somewhat alternative perceivable changes	Unusual in Fire Service
Emergency Funds	Little flexibility for any additional spending; fund balances easily depleted	Flexibility to expand services; onetime capital costs; can maintain emergency funds	Implementation will be slow and difficult; savings upon implementation may not sustain in long-term

FISCAL IMPACT:

There is no fiscal impact.

ACTION:

Motion to authorize the Mayor to sign a public comment letter urging Contra Costa County Board of Supervisors to select a service delivery model that will decrease response times and address long term financial health of the Contra Costa County Fire Protection District (ConFire) as requested by Councilmember DeLaney.

Attachment:
Draft Letter
Fitch Report

APPROVED BY: 
Interim City Manager



City of Martinez

525 Henrietta Street, Martinez, CA 94553-2394

(925) 372-3505
FAX (925) 229-5012

February 5, 2014

Tim Ewell
County Administrator's Office
Fitch Study – Public Comment
651 Pine Street, 10th Floor
Martinez, CA 94553

Re: Proposed Changes to the Contra Costa County Fire Protection District Service Delivery Model

Dear Mr. Ewell:

As Mayor and on behalf of the City Council of the City of Martinez, I am writing to express our concern about the service delivery models proposed in the FITCH study. We have seen multiple fire companies eliminated and fire stations closed in the past few years, including Station 12 in unincorporated Martinez.

The Contra Costa County Fire Protection District's (ConFire) stated role in public safety is to mitigate risks imposed by emergency medical and fire related incidents. Response times are the fundamental measure of ConFire's ability to mitigate risk.

The FITCH study provided three options:

- Maintain Status Quo
- Implement the Optimized Service Delivery Model Option (Three/Two Response Staffing)
- Implement the Single Patch Alternative Responder Personnel Option

We believe that the Board of Supervisors and the fire chief are in the best position to determine how systemic change and optimization should occur within ConFire. However, we would strongly suggest that the Board select a service delivery model that will likely decrease response times for emergency calls. Our concern is rooted in the preservation of life and public safety.

Moreover, the FITCH study characterized ConFire's financial position as deteriorating and critical. We believe that any of the proposed changes to a service delivery model should address the structural deficit and the organizations long term financial health, so ConFire can continue to provide the service the residents of Martinez have come to expect.

Mr. Ewell
February 5, 2014
Page 2

We urge the Board of Supervisors to consider these comments when they deliberate on the proposed changes.

Sincerely,

Rob Schroder,
Mayor

January 2014

DRAFT REPORT: Evaluation and Options Appraisal



Contra Costa County Fire Protection District
Contra Costa County, CA

Prepared by:



FITCH & ASSOCIATES, LLC
2901 Williamsburg Terrace #G § Platte City § Missouri § 64079
816.431.2600 § www.fitchassoc.com

CONSULTANT REPORT

Contra Costa County Fire Protection District - Contra Costa County, CA
Draft Report: Evaluation and Options Appraisal

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ATTACHMENTS

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- B. E-mails: August 2013 Public Meeting
- C. Filter Logic for CAD Data Files
- D. Risk Model Methodology
- E. ConFire Performance Metrics – AVL Data
- F. Community Awareness and Emergency Response (CAER) Member Organizations
- G. Petrochemical Mutual Aid Organization Equipment Summary

EXECUTIVE SUMMARY

In Spring 2013, emergency services consulting firm Fitch & Associates (*FITCH* or the Consultants) was engaged to determine the optimal emergency service response coverage, (both fire and first response) that could be provided by Contra Costa County Fire Protection District (ConFire) within its defined fiscal limitations. At project initiation, ConFire's financial position was deteriorating and considered critical. The public had rejected a District tax initiative that would have provided additional funding. Multiple fire companies were eliminated and fire stations shuttered in order to preserve fund balances that would allow the organization to function while contingency plans were developed.

By October 2013, property tax revenues began to increase slightly after several years of decline and additional relief came in the form of a one-time grant reimbursement and lower expense estimates for retirement contributions. Nevertheless, significant financial constraints remain. Of grave concern is the lack of funding for infrastructure or rolling stock — a need that will quickly become an emergency. The public, who will be asked to support another tax initiative in the near future, wants to see that ConFire is embracing change to become more efficient and effective.

Outlined below are a synopsis of the primary study finding, summary observations of ConFire's current state and *FITCH's* detailed data analysis framework that was used to assess ConFire's performance. The options *FITCH* has developed are short-term solutions that may sustain ConFire for three to four years depending on critical factors including: revenue estimates holding true, no material increases in salary or other expenditures, no need for heavy apparatus replacements, and no occurrence of natural or other disasters. The three options for consideration are:

- § Maintain Status Quo
- § Implement the Optimized Service Delivery Model Option (Three/Two Response Staffing)
- § Implement the Single Patch Alternative Responder Personnel Option

The body of the report provides a snapshot of ConFire's financial state, followed by detailed data analysis of operational performance and more lengthy descriptions of the options developed. The operational analyses conducted, while highly technical in nature, serve to demonstrate both the performance characteristics and the viability of the options presented.

SYNOPSIS OF PRIMARY FINDING

ConFire's role is to mitigate risks imposed by emergency medical and fire related incidents. Response times are a fundamental **measure** of ConFire's ability to mitigate risk—**longer** response times are considered by the community as an indicator of reduced performance and **shorter** response times are considered to reflect improved performance.

In January 2013, ConFire closed four stations and decommissioned four frontline fire units. Using AVL (Automatic Vehicle Location) data, response times for the last half of 2012 and the first half of 2013

were compared to understand the impact of stations closures. Response times are defined as the time interval starting with 911 call pick-up to first ConFire unit on scene measured at the 90th percentile.

For life-threatening Priority 1 and Priority 2 EMS calls, response times are as follows:

- § July through December 2012 (28 companies): 10 minutes 17 seconds
- § January through June 2013 (24 companies): 10 minutes 24 seconds

For Priority 1 and Priority 2 fire calls, response times are as follows:

- § July through December 2012 (28 companies): 10 minutes 24 seconds
- § January through June 2013 (24 companies): 10 minutes 42 seconds

The impact of decommissioning four fire companies was six and 18 seconds longer response times for EMS and fire calls, respectively. The response time changes are relatively insignificant.¹

When units can be removed from a system without significantly degrading response performance, the system is “saturated” as discussed further the section titled “Designing the System.” Should ConFire reopen and reactivate the four stations and companies using its current traditional service model, the cost would be approximately \$9 million and the response time benefit would be to gain back six and 18 seconds, respectively.

Notwithstanding the fact that ConFire has comparable response times to fire and EMS calls, there are benefits to be gained by implementing the proposed Option Two — Optimized Three/Two Response Staffing. This option involves transitioning several three-position engine companies and reassigning those crews to two-position quick response vehicles (QRVs). For every two engine company decommissioned, three QRVs are added to the system — a two to three conversion. The cost is that of capital to purchase the QRVs at approximately \$150,000 per unit. Once an optimal mix of units is distributed throughout the system using exiting personnel, any additional financial resources can be directed at the much-needed capital replacement fund.

The attributes and benefits of Optimized Three/Two Response Staffing Option 2 include:

- § The personnel capacity of the system to respond to fire-related incidents is maintained at an adequate level and both the capacity and flexibility for response to EMS incidents is increased.
- § ConFire is proactively positioned to meet anticipated increases in EMS call volume, while meeting the needs of diminished fire call trends (based on 20 year national projections).
- § There are no changes in schedules for firefighters to be negotiated.
- § The useful lifetime of the heavy fire fleet is extended by shifting EMS mileage to the less expensive QRVs.
- § Stations can be reopened at a significantly lower cost, thereby preserving fund balances.
- § ConFire demonstrates and the public perceives positive change.

¹ Composite total response times weighted for Priority 1 and Priority 2 emergency fire and EMS calls.

CURRENT STATE — OBSERVATIONS

The Organization

- § ConFire is generally well organized and reasonably efficient in its emergency response operations. ConFire is under-resourced in the context of fire service industry “standards of cover” and in comparison to the average staffing ratios of other fire departments located in the western United States.
- § ConFire’s fire prevention program is a contemporary, well-organized and efficient operation that uses an enterprise business model to fund almost all of its expense.
- § ConFire does not have sufficient resources in place to provide appropriate support services. Historically, these areas of the organization have taken the brunt of budget cuts.
- § Data from ConFire’s Computer Aided Dispatch (CAD) system was found to be patient/incident centric in that it reported response times to calls for the *system* rather than reporting specifically on ConFire’s performance. While this is a positive attribute for patients and property, analyses of ConFire’s performance required that data be accessed from ConFire’s automatic vehicle location (AVL) system. ConFire’s monthly reports of response times are based on CAD data that should be verified against AVL data before decision-makers rely upon it.
- § Beginning in 2013 and going into 2014, three members of ConFire’s senior management team will be new to their positions, including the recently appointed Fire Chief, Jeff Carman, a 29-year veteran of the Roseville Fire Department (CA). Accompanying this change is a revision in the reporting relationships, as the fire chief will now report to the County Administrator rather than to the District Board.
- § The Contra Costa County Grand Jury released a report in May 2012 calling for area fire departments including ConFire, to move “outside the box” and implement alternative service delivery models in order to align revenues and costs and operate at a level consistent with citizen expectations.

Emergency Response

- § For 90% of calls, high performance EMS systems in North American strive to respond to life threatening emergencies in eight minutes fifty-nine seconds from time of phone pick up at 911 until a unit arrives on scene. For the first half of 2013, ConFire’s response time performance from 911 call ring-in to first ConFire unit on scene for EMS calls is ten minutes 23 seconds on 90% of calls.²
- § The largest change in the number of frontline units occurred in January 2013 when four units were decommissioned. As a result, the composite response time for life-threatening EMS calls was longer by only six seconds after the closures.
- § ConFire’s response time goals include complying with NFPA® 1710, a non-regulatory, industry standard for the organization and deployment of fire suppression operations. This standard stipulates that a fire engine company should arrive on emergency calls within a range of six minutes 15 seconds to six minutes 45 seconds from call ring in to first unit on scene on 90% of

² Based on composite weighted AVL call data for EMS Priority 1 and 2 calls for January 1, 2013 through June 30, 2013.

incidents. For the first half of 2013, ConFire responded to 90% of Priority 1 and Priority 2 fire calls in 10 minutes 42 seconds.³ While NFPA 1710 is a laudable goal, to which many fire departments aspire, it is not commonly achieved.

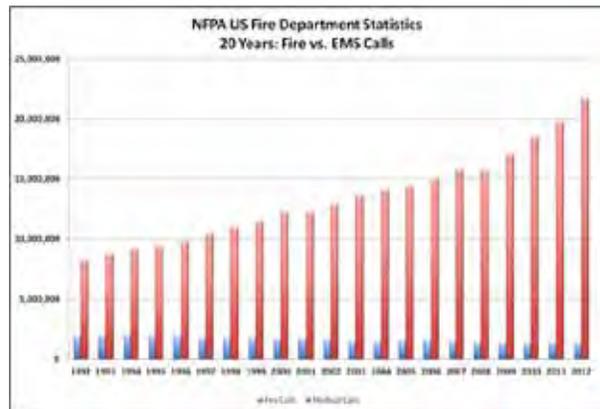
- § After four frontline units were decommissioned in January 2013, ConFire’s response time to fire calls lengthened by 18 seconds compared to the prior six months. There was little change in response times because station closures were remote from areas of high call densities.
- § Crew chute time (time from when a unit is assigned to a call and the crew leaves the station) is two minutes 57 seconds and is longer than expected. Faster chute-time by crews can shorten ConFire’s overall response time to incidents at little incremental cost. Chute time should be less than two minutes at the 90th and could reduce total response time by a minute.
- § ConFire routinely provides surrounding agencies more hours of mutual aid than it receives. Between 2012 and the first half of 2013, the pace of out-bound mutual aid almost doubled. Mutual aid to other jurisdictions consumes up to 18% of ConFire’s time responding to and working EMS and fire calls.
- § Analysis of 75 major incidents that require between six and 14 ConFire frontline units showed that there was no negative impact on response times to the 1,081 calls that occurred simultaneous to the major incidents.

The figures below are representations of ConFire EMS and fire activities and the growth of EMS in the fire service. The figures are also found in the body of the report in the section titled “Time-on Task” and “Activity in the System – Quantitative Distribution.”

ConFire Hours on Fire vs. EMS Calls



EMS vs. Fire Call Growth in US Fire Service



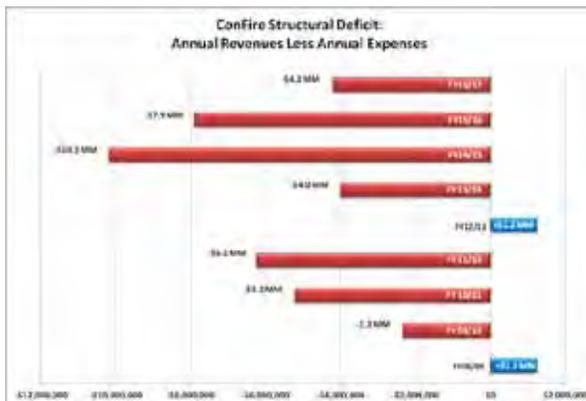
³ Based on composite weighted AVL call data for fire Priority 1 and 2 calls for January 1, 2013 through June 30, 2013.

Fiscal Observations

- § In late 2012, Contra Costa Fire District residents rejected a ballot initiative to increase funding for ConFire. Voters expressed desire for change and improved efficiencies in the fire department and that sentiment was echoed in stakeholder meetings.
- § From January 2011 through December 2013, seven response companies were eliminated and position reductions occurred through attrition; there were no firefighter layoffs.
- § Anticipated increases in property tax revenues and lower retirement expenses partially alleviated ConFire’s immediate fiscal crisis. However, continuing structural deficits coupled with zero budgets for pressing fleet and infrastructure needs will threaten even short-term financial sustainability.
- § The ConFire Board of Directors will likely recommend a tax initiative within the next three years to meet ongoing service and capital needs. Options for change other than status quo will better position a ConFire initiative for voter approval.
- § The fact that operational plans going forward contain no budget provisions for capital replacement is a concern. The need for capital replacements will transition from being urgent to critical. This escalation is a certainty. How it plays out is a race of probabilities against time. An appropriate capital replacement plan is estimated at \$4 million per year.
- § Both Moody’s Investor Service and Standards & Poor’s Rating Services downgraded ConFire’s bond rating based on trends of weakened and structurally unbalanced financial operations.

The figures below are graphic representations of key financial findings. The figures are also found in the body of the report in the section titled “Financial State.”

ConFire Structural Deficits



Mandatory Expenses as % of ConFire Budget



Communications Center Observations

- § Analysis of Communications Center performance shows that station closures had no discernible impact on dispatch performance. For dispatching EMS calls, the ConFire Communications Center performs within seconds of the NFPA 1221 performance standards. It does not meet NFPA performance standards for dispatching fire calls.
- § Call-handling from call ring-in until assignment of a unit to the call is longer when compared to high performing communications centers. By implementing a fire-based protocol for call taking, with its increased discipline, call-handling time could be decreased by up to one minutes thereby improving ConFire's overall response time to incidents.
- § Accreditation status for the Communications Center lapsed due to budget constraints. It is in the best interest of the District and the County that protocol-based dispatch accreditation for EMS calls is re-established. In addition, protocol-based dispatch is recommended for fire calls.
- § Communication Center staffing reflects a maximum of four to five dispatchers on site at all times and available for recall. Actual staffing at the consoles changes depending on the time of day and activity. It ranges from one dispatcher up to the maximum of five. Dispatchers work 48 hours on and 96 hours off on a schedule that corresponds to the suppression shift schedules. This is an uncommon dispatcher shift schedule in the industry. Surge capacity is hindered by these shifts and at some point a full dispatch review should be instituted in order to align the ConFire Communications Center with best practice.

OPTIONS GOING FORWARD

The options proposed for ConFire are short-term strategies designed to address immediate and significant underlying financial problems. The following expected events will likely exacerbate ConFire's precarious financial situation:

- § increases in EMS call demand,
- § concessions to labor for increases in salary and/or benefits,
- § the need to replace critical fire apparatus.

Additionally, should ConFire experience a significant wildfire season or other natural disaster resulting in non-reimbursed expenses, even more fiscal pressure will be exerted. ConFire must make demonstrable changes in service delivery to be credibly positioned with voters for a new tax initiative.

Option 1 — Maintain Status Quo

Continue staffing three-person companies and otherwise maintain operations at current levels. Monitor property tax revenues. Anticipate requesting a tax increase closely following a potential change in majority requirements to pass tax initiatives. This option leaves current budgets in place and provides no funding for fleet maintenance, vehicle replacement, fire stations or dispatch infrastructure needs.

Status Quo Advantages

This option maintains maximum number of fire suppression apparatus on the road and introduces little change to the current system.

Status Quo Disadvantages

Constituents are seeking change. This option involves no material change in the current system. Should ConFire choose to introduce light rescue vehicles, any savings will not be achieved quickly. The system will appear to be virtually stagnant. Voters who have demanded change will likely be disappointed.

Prior Board decisions to decommission fire companies saved several million dollars. Option 1 provides the Board little flexibility to bring companies back on line due to the significant payroll cost using the traditional/status quo, staffing model.

Any decision to add back units or reopen stations will deplete fund balances more quickly than current projections.

Option 2 — Optimized Three/Two Response Staffing

Convert a select number of three-person companies to two person quick response vehicle (QRV) companies, thereby providing additional response units, expanded coverage, and improved response times to emergency events.⁴ Modify deployment plans with an eye towards staffing stations that are now closed. The option utilizes the existing personnel roster and requires capital costs of approximately \$100,000 to \$200,000 for each fully equipped vehicle. QRVs could be phased into the system as funds become available to purchase vehicles.

Three/Two Response Staffing Advantages

This option results in additional units on the road, and reopens fire stations. The Option incurs no additional payroll costs.

There is no change to firefighters' work schedules.

As QRVs are integrated into the system, the workload on the heavier, more expensive apparatus is lessened thereby extending replacement cycles saving both capital and maintenance costs. Upfront costs are minimal, compared to the resulting service expansion.

Resources required to respond to EMS calls are maximized while maintaining necessary resources required for fire protection. Engines remain in stations and are available for fire responses using QRV crews, should additional apparatus be needed on an incident.

⁴ The conversion is three to two meaning the decommissioning of two engines allows for deployment of three QRVs while utilizing the same number of personnel and no additional overtime.

For every two engines replaced, three quick response vehicles are added to the system. ConFire is thereby better able to address any increase in EMS call volume. The change is noticeable to the public and positions ConFire as a progressive organization seeking to become more efficient and effective.

This option has least potential impact on the District's ISO rating because there is neither a reduction in firefighter personnel nor a reduction in heavy apparatus.

Three/Two Response Staffing Disadvantages

To deploy QRVs, a capital purchase is required. One such vehicle is currently in use as a pilot project. Optimally purchase and deployment would occur immediately but could be phased into the operations.

This option also requires a different deployment strategy and increased adaptability in the way service is delivered. These challenges, while simple to describe, are complex to implement without ongoing leadership effort.

Option 3 — Single Patch Personnel for EMS Response

The premise of this option is to substitute current firefighter personnel (fire and EMS dual-certified) with lower cost single-purpose (EMS certified) personnel.

One of the key drivers of emergency service is personnel cost. Likewise, ConFire's largest budgetary item is frontline human resource costs. This is neither unusual nor unexpected. Firefighters have a number of diversified skills that they employ in the field. Many of these skills require specific training and there are real costs for both certification fees and replacement costs for frontline firefighters while they are trained. Patient care activities require that firefighters obtain and maintain at minimum, basic emergency medical technician (EMT) or paramedic certification. In addition, personnel can obtain a number of additional specialized emergency medical certifications. For example, several ConFire firefighters are certified in Advanced Cardiac Life Support, Pediatric Advanced Life Support and Pre-Hospital Trauma Life Support.

This option recognizes the specialty field of EMS and suggests that personnel whose sole purpose is emergency medicine be utilized for some or all EMS calls. Surveys of response personnel indicate that non-firefighter EMTs and paramedics earn substantially less than a firefighter who is also an EMT or paramedic. Option 3 provides a closer match of personnel skills with the largest task at hand in ConFire – EMS calls.

Implementation of Option 3 would take place over time as firefighter attrition occurs. No layoffs are anticipated. Smaller quick response type vehicles would be used, thereby reducing the workload and stretching out the replacement cycle of heavier engines and other apparatus.

Single Patch Personnel Advantages

This option introduces a different certification requirement for ConFire personnel. This would likely allow for a lower labor and retirement costs and introduce flexibility into the schedule that would further allow a matching of supply and demand.

Implementation of Option 3 could take place over time as firefighter attrition occurs. No layoffs are anticipated. Smaller quick response type vehicles would be used thereby reducing the workload and stretching out the replacement cycle of heavier engines and other apparatus.

Single Patch Personnel Disadvantages

Savings may be unsustainable over time, as labor pressure exists to increase wages to comparable wage rate to the more expensive multi-purpose firefighters.

There can be a great deal of employee dissatisfaction since the lowest wage earners end up doing the higher quantity of call volume and activity.

EMS-specific personnel have very limited use on fires and require that the fire system be self-sustaining with the remaining resources

Due a reduced number of firefighting personnel, this Option could have a negative impact on ConFire's ISO rating upon reevaluation.

While Option 3 certainly can be implemented, it adds complexity to the system by creating and maintaining two separate employment streams such as, administrative tasks that are part of establishing new positions, pay scales and training programs.

Conclusion

Seven ConFire companies were decommissioned since January 2011 and the most significant change occurred in January 2013 when four companies were decommissioned. Response times after the January 2013 closures to June 2013 showed little change. *FITCH* believes that excess capacity has been removed from the system and that subsequent efforts to demonstrate value to the public will be to improve dispatch and crew chute times. These efforts can result in improved service and can be accomplished at minimal financial cost. The result is that response times can be shortened by one to two minutes.

In choosing the way forward, policy makers have a unique opportunity to position ConFire for the future.

Table 1 below compares key attributes of the three service delivery options.

Table 1. Key Attributes of Options

Impact On	Status Quo	Three/Two Staffing	Single Patch Personnel
Firefighters	No Change in number To reactivate one company costs \$2+ million in overtime	No Change in number To add one QRV incurs only vehicle cost; no additional payroll cost	Reduces the number of FFs; hire single patch personnel to replace FFs through attrition
Fire Stations	23 fire stations No change	Re-open stations as convert engines to QRVs No additional payroll cost	Can open additional stations and/or Post personnel
Change	Traditional – No Change	Somewhat Alternative Perceivable changes	Unusual in Fire Service
Emergency Funds	Little flexibility for any additional spending; fund balances easily depleted	Flexibility to quickly expand services; no payroll increase; one-time capital costs; can maintain reasonable emergency funds	Implementation will be slow and difficult; savings upon implementation may not sustain in long-term

Each option must be considered and compared against the criteria of successfully addressing underlying financial issues and demonstrating operational efficiencies that will be positively perceived by voters.