

## Future Opportunities for Cooperative Efforts

Potential efficiencies this study identified can be categorized using an escalating level of cooperation between BMFPD, GSFD, GSRFPD, and RFPD. General partnering strategies (overarching) fall in a range from remaining autonomous to the creation of a new organization. Strategies are further broken down into short, mid and long-term implementation horizons.

### Processes for Collaboration

To evaluate the opportunities for cooperative efforts effectively, a basic understanding of the methods for collaboration available to the agencies is necessary. The information we provide here should be considered for what it is—a primer regarding the legal aspects of collaborating public agencies. At the point where policymakers have decided to pursue any of the cooperative efforts, the advice of legal counsel should be sought in order to ensure that the appropriate procedures are followed.

There exist various ways for public agencies to join in cooperation. A method used frequently in Colorado is for government units to legally partner through the use of an IGA (Intergovernmental Agreement). Other methods of collaboration include consolidation, dissolution, merger, contract, or through the establishment of a subsidiary district. The movement toward more intergovernmental cooperation in the delivery of emergency service goes by many names, including unification, regionalization, consolidation, alliance, and merger. Our intent with this discussion is to be a primer and not a scholastic analysis of each concept. The concepts are:

- **Collaboration** – When two or more agencies enter a collaborative relationship, no permanent organizational commitment is made and all decision-making power remains with individual organizations. Interagency collaboration may include participation in activities such as local fire management associations, mutual aid agreements, and interagency disaster planning exercises. As a rule, most modern fire agencies consistently operate in a very collaborative mode, having learned long ago the value of the practice. Many times, close collaboration between two or more organizations eventually leads to alliance and integration.
- **Alliance** – Typically, state law declares intergovernmental cooperation as a matter of statewide concern and grants cities and special districts broad power to contract with other governmental entities for any function or activity the agencies have authority to perform. A brief review of Colorado Revised Statutes (CRS) confirms that the State of Colorado grants fire districts the power to contract for a broad range of purposes relating to the control or prevention of fire.<sup>39</sup> Frequently, such contracts are referred to as

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<sup>39</sup> State of Colorado, CRS 29-20-105, Intergovernmental Cooperation.

intergovernmental agreements (IGAs). IGAs permit individual organizations to share resources, improve service, and to save money at the program level.

- **Joint Programming** – In many cases, joint programming is enough to achieve the cooperative goals of the agencies without considering administrative service agreements or organizational integration. The keys to the success of a joint programming strategy lie in a trusting relationship between partner agencies, the completeness of the agreement that sets up the program, and a cooperative approach to the management of the program.

Most commonly, fire districts enter partnering agreements for programs such as dispatching, firefighter training, fire prevention, public education, closest force response, administrative/support services, purchasing, apparatus maintenance, and command standby. Such programs usually carry the advantage of being low-cost and low-risk improvement strategies. As with the actions of BMFPD, GSFD, GSRFPD, and RFPD, these programs often serve as a foundation on which agencies build the experience and trust necessary to implement other programs or strategies.

- **Administrative Service Alliance** – An administrative service alliance includes the sharing, exchanging, or contracting of administrative service to increase the managerial efficiency of one or more of the organizations.<sup>40</sup> This strategy joins two or more agencies through the execution of an IGA. The resulting fire organization may feature a single operational structure and chain of command, or (depending on the IGA) it may result in one administrative structure charged with the management and oversight of more than one fire district/department. Depending on the form of the agreement(s) establishing the organization, employees may remain with the original employer, transfer to one of the other employers, or transfer to an entirely new entity.
- **Integration** – Integration includes organizational changes at the corporate or governance levels. The strategy may consist of the creation and/or dissolution of one or more organizations. Under certain circumstances in law, multiple fire agencies can join to form a single entity. This approach merges not only programs and organizations, but also the units of government.
- **Fire Authority** – Some states provide a process for the creation of regional fire protection units called fire authorities. The process allows existing governmental jurisdictions (cities, counties, fire districts) to create and govern a new entity (the fire authority). Generally, the participating governmental units continue to fund fire protection through traditional means (such as property tax, sales tax, and fees); although, in some cases the creation of a fire authority includes the power of taxation. In most cases though, each of the jurisdictions essentially contracts for fire protection and emergency medical service from the fire authority and each provides representative officials to serve as the authority's governing board.

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<sup>40</sup> Amelia Kohm, David La Piana, and Heather Gowdy, *Strategic Restructuring, Findings from a Study of Integrations and Alliances Among Nonprofit Social Service and Cultural Organizations in the United States*, Chapin Hall, June 2000, page 11.

## **Overarching Partnering Strategies**

There are a number of overarching strategies that exist for integrating the fire and emergency services of BMFPD, GSFD, GSRFPD, and RFPD. The various partnering strategies are described, beginning with a do-nothing approach and ending with complete consolidation of the agencies into a new emergency service provider. The following alternatives will be evaluated and discussed:

- Overarching Strategy 1 – Status Quo (Continuation of Current Efforts of Cooperation)
- Overarching Strategy 2 – Administrative Consolidation
- Overarching Strategy 3 – Operational Consolidation
- Overarching Strategy 4 – FA (Fire Authority)
- Overarching Strategy 5 – Formation of a New Fire District
- Overarching Strategy 6 – Annexation of the City of Glenwood Springs into GSRFPD
- Overarching Strategy 7 – Align Mill Levy Rates and Annex FPDs
- Overarching Strategy 8 – Merge BMFPD and RFPD
- Overarching Strategy 9 – Merge BMFPD and RFPD and a Portion of GSRFPD and Merge Glenwood Springs and a Portion of GSRFPD

## **Overarching Strategy 1 – Status Quo (Continuation of Current Efforts of Cooperation)**

### Level of Cooperation

- Functional

### Timeline for Completion

- Short Term

### Section

- Operations

### Affected Stakeholders

- BMFPD, GSFD, GSRFPD, and RFPD

### Objective

- Keep fire departments independent for greatest local control.
- Capture efficiencies of selective functional strategies.

### Summary

This is a do-nothing strategy. While typically viewed negatively, in some cases the best action is no action. In this case, maintaining status quo means that essentially nothing changes. BMFPD, GSFD, GSRFPD, and RFPD are neighboring agencies who occasionally call upon each other for assistance but remain completely independent. For the organizations status quo should involve the continued development of as many of the functional strategies as possible. During this study the fire departments were encouraged to continue the forward momentum they had begun on cooperative efforts. The departments responded and have made progress on a significant number of initiatives from a single EMS supervisor to joint training activities.

### Discussion

The advantages of this approach are that it is the easiest strategy to implement, creates the least amount of work or stress on the organizations, and does not necessitate any reorganizing. One additional consideration is that it maintains local control; the currently elected boards and city council continue to oversee their individual agencies as their electorate desires without the complication of considering the views of a different constituency.

The disadvantages of this approach are that the current fiscal difficulty facing the agencies is not changed, the opportunities for efficiency (either financial or service level) through greater collaboration are not realized, and some duplication and overlap continue. In today's environment, taxpayers typically hold their elected officials accountable for delivering a quality

level of service at an affordable rate and expect creative thinking to solve problems or achieve those ends. While “maintaining the status quo” is easy and involves the least amount of impact to the agencies, it may well be one of the riskier political decisions.

### Conclusion

Keeping the status quo and continuing the current efforts of cooperation between the fire departments has merit and will produce short-term benefits. As with any relationship that lacks long-term commitment, it is inevitable that a change in governing bodies, agency administration, financial situation, vision, or turning inward of focus will lead to a breakdown of cooperation. It is ESCI’s experience that for mutual benefit of the region, development of a regional vision and an IGA has a greater potential for long-term success.

## **Overarching Strategy 2 – Administrative Consolidation**

### Level of Cooperation

- Administrative

### Timeline for Completion

- Long Term

### Section

- Administration

### Affected Stakeholders

- BMFPD, GSFD, GSRFPD, and RFPD

### Objective

- Improved administrative efficiencies with a single combined administrative function for the four fire agencies.

### Summary

An administrative consolidation occurs when two or more agencies maintain their separate legal status and separate operational elements, but combine some or all of their administrative functions. Examples include administration under a single fire chief and/or shared clerical, human resources, IS/IT and finance functions while maintaining separate operational activities. An administrative consolidation is accomplished legally through an IGA (Intergovernmental Agreement) between the agencies.<sup>41</sup>

### Discussion

The advantages of this strategy include reduced overhead costs by eliminating administrative duplication; a gradual alignment of otherwise separate operations under a single administrative head; less resistance to change by the rank and file in the operational elements than other consolidation options; and a singularity of purpose, focus, and direction at the top of the organizations. This strategy lends itself well to a gradual move toward a single, consolidated agency where differences in attitude, culture and/or operation are otherwise too great to overcome in a single move to combine.

A unique feature of an administrative alliance is that existing governing bodies are preserved.<sup>42</sup> The management team of the allied fire department reports to each political body, usually

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<sup>41</sup> State of Colorado, CRS 29-20-105, Intergovernmental Cooperation.

<sup>42</sup> Durango Fire and Rescue Authority in southern Colorado was the result of two fire districts and one city entering into an alliance.

through a joint oversight board established expressly for the purpose. The political entities prepare and adopt separate budgets and retain responsibility for overall policy and taxation. The unified fire department's funding is specified under terms of the IGA, usually through the melding of individual budgets or by the apportionment of cost in accordance with a predetermined formula.

Administrative consolidations are sometimes (but not always) considered as an intermediate step leading to integration. The key advantage of the strategy offers governing boards the ability to negotiate and monitor desirable outcomes for the management of a particular service. This certainty gives elected officials a higher level of comfort in making the decision to unify fire service across a geographical region.

The disadvantages include potential conflicts in policy direction from multiple BODs and council, potentially untenable working conditions for the fire chief ("one man, two bosses"), and increased potential for personnel conflict as separate employee groups vie for dominance/supremacy. In an administrative service alliance, there is inherent management inflexibility due to the political complexity of the arrangement. An administrative team who must answer to two or more political bodies might become whipsawn by crucial issues, and limited in an ability to respond to change due to contractual requirements. Consequently, conflicting policy directives may sometimes be troublesome in an allied agency. Much depends on the founding political relationship, the contractual agreement, and the skills of management to assure the success of a long-term alliance. Even so, many IGAs are in effect throughout the nation, successfully centralizing the administrative services of fire departments and districts.

### Critical Issues

- Policy level
  - A close review of the vision and values of the agencies must be performed by the board, verifying commonality of purpose, focus, and intent in advance of a decision to consolidate.
  - If the vision and values of the agencies sufficiently align or are not in substantial conflict with each other, the alignment of policies between the agencies is then necessary. Care must be taken to limit the number of policy differences between the agencies to avoid adding unnecessary complication to the process or confusion for the staff.
- Staff level
  - A close analysis of current administrative workload for each agency by function will identify position reassignment opportunities. It is possible to reduce the number of administrative staff for greater efficiency, but caution must be exercised to avoid

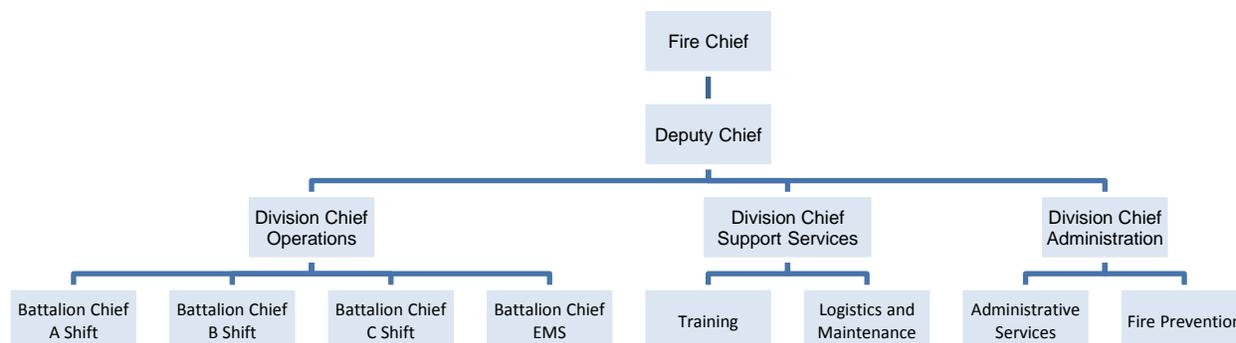
- overloading the remaining staff with a heavier workload. Eliminating staff positions may also jeopardize any surge capacity gained in the administrative consolidation.
- Engaging existing staff who will be directly affected by this consolidation is critical. They possess knowledge about the work they do beyond what is typically recognized by their supervisors. Ensuring that all of the job nuances are identified is an important step in a successful consolidation. The staff should not, however, be burdened with structuring the new consolidated administration themselves. Recommendations can be solicited, but these decisions must be made by the fire chiefs in consultation with the boards/council.
  - Financial considerations
    - Alignment of salaries and benefits for similar jobs can be an issue. New jobs and new job descriptions will be a likely result of the workload analysis. Use the job restructuring as an opportunity to establish a standardized compensation package for new or redesigned jobs. Red-circling positions that are significantly above those of their peers can slowly realign positions and compensation over time.
    - Specific position impacts could flow as follows:
      - Elimination of two fire chief positions
      - Elimination of two division chief – fire protection positions
      - Addition of two fire inspector positions
      - Elimination of one EMS coordinator position
      - Finance and budgeting
    - By configuring the administrative staff in this manner, coupled with staff reductions, the first year combined wage savings could total \$289,010. The current workload for the agencies would not change in this configuration. In some instances, it would improve depth and focus of work product.
    - Physically relocating the administrative function is mostly an exercise in logistics; namely, which facility provides the office space to implement the administrative consolidation with the least expense. Some administrative functions can be decentralized, but care must be taken to avoid reintegrating the separate management teams.

### Guidance

- Conduct joint board/council meetings for the purpose of reviewing the policies of each agency while simultaneously conducting an administrative workload analysis to identify potential realignments. This should also include a compensation analysis to measure any gap that exists within job classifications.
- Engage the staff in a discussion about the purpose of the analysis and structure a process whereby the staff can talk with each other, formulate questions, and propose their suggestions.
- Conduct frank, closed door conversations with the three fire chiefs and the boards/council to determine which chief will remain fire chief (an executive session to discuss personnel matters is legal and appropriate in this situation).

Figure 104 is one concept of an organizational chart for an administrative consolidation.

**Figure 104: Conceptual Organizational Chart – Administrative Consolidation**



Fiscal Considerations

- An administrative consolidation of the agencies will create a financial benefit but will also have operational challenges to establishing a new organizational structure.

Administrative Consolidation FTEs

In the table below (Figure 105), the conceptual staffing of the administration consolidation is depicted with adjustment to position titles and headcount:

**Figure 105: Conceptual Staffing – Administrative Consolidation**

Personnel/Positions	BMFPD 2011 Budget	GSFD 2011 Budget	RFPD 2011 Budget	Total FTEs	FTE Adjustments	Consolidated FTEs
<b>Administration</b>						
Fire Chief	1.0	1.0	1.0	3.0	(2.0)	1.0
Deputy Chief	0.0	0.0	1.0	1.0	0.0	1.0
Division Chief – Fire Prevention	1.0	1.0	1.0	3.0	(2.0)	1.0
Fire Inspector	0.0	0.0	1.0	1.0	2.0	3.0
EMS/Operations Chief	0.0	0.0	1.0	1.0	0.0	1.0
EMS Coordinator	1.0	0.0	0.0	1.0	(1.0)	0.0
Division Chief – Administration	0.0	0.0	1.0	1.0	0.0	1.0
Administrative Assistant	1.0	1.0	1.0	3.0	0.0	3.0
Facilities Manager	1.0	0.0	0.0	1.0	0.0	1.0
Mechanic	0.5	0.0	0.0	0.5	0.0	0.5
Human Resource Manager	0.0	0.0	1.0	1.0	0.0	1.0
<b>Total Administration</b>	<b>5.5</b>	<b>3.0</b>	<b>8.0</b>	<b>16.5</b>	<b>(3.0)</b>	<b>13.5</b>

The above outlined staffing does not make any attempt to identify individuals to fill specific positions but provides the structure to handle the tasks currently being performed by each organization.

**Figure 106: Current Costs – Administrative Consolidation**

Positions	BMFPD 2011 Wages	Extended BMFPD Wages	GSFD 2011 Budget	Extended GSFD Wages	RFPD 2011 Budget	Extended RFPD Wages
<b>Administration</b>						
Fire Chief	100,495	100,495	102,504	102,504	105,000	105,000
Deputy Chief	0	0	0	0	87,000	87,000
Division Chief – Fire Prevention	81,210	81,210	70,776	70,776	73,861	73,861
Fire Inspector	0	0	0	0	64,313	64,313
EMS/Operations Chief	0	0	0	0	71,011	71,011
EMS Coordinator	70,000	70,000	0	0	0	0
Division Chief – Administration	0	0	0	0	62,000	62,000
Administrative Assistant	45,032	45,032	52,626	52,626	45,000	45,000
Facilities Manager	65,000	65,000	0	0	0	0
Mechanic	20,000	10,000	0	0	0	0
Human Resource Manager	0	0	0	0	62,000	62,000
<b>Total Administration</b>		<b>371,737</b>		<b>225,906</b>		<b>570,185</b>

**Figure 107: Conceptual Costs – Administrative Consolidation**

Positions	(Total) Extended Wages	Extended Wage Adjustments	Wages
<b>Administration</b>			
Fire Chief	307,999	(202,999)	105,000
Deputy Chief	87,000	0	87,000
Division Chief – Fire Prevention	225,847	(144,637)	81,210
Fire Inspector	64,313	128,626	192,939
EMS/Operations Chief	71,011	0	71,011
EMS Coordinator	70,000	(70,000)	0
Division Chief – Administration	62,000	0	62,000
Admin Assistant	142,658	0	142,658
Facilities Manager	65,000	0	65,000
Mechanic	10,000	0	10,000
Human Resource Manager	62,000	0	62,000
<b>Total Administration</b>	<b>1,167,828</b>	<b>(289,010)</b>	<b>878,818</b>

The preceding table identifies the reduction of two fire chief positions, two division chiefs – fire prevention, and one EMS coordinator. Two FTE positions were added for fire inspection (fire inspector). Total impact on salaries is a reduction of \$289,010. An additional cost reduction will come from fringe benefits (primarily health insurance) of approximately \$103,285, providing a potential cost reduction of \$392,295. An option to this strategy would be to use the HR services of Glenwood Springs and modify the position configuration. This is feasible only if a capacity exists for the City to perform this function under an administrative consolidation.

With the consolidation of the administrative employees into one organization, the following payroll and benefit related items will need to be addressed:

- Establish and standardize wage and salary structure
- Commonize health benefit packages, including medical, dental, and vision insurance
- Commonize life and disability insurance packages
- Commonize pension and retirement benefits
- Commonize longevity pay structure and other incentive payments

Operational Challenges:

In the current unconsolidated environment, each organization has a general ledger package, bank accounts, account payable checks, unique charts of accounts, reporting structures, purchasing controls, expense approval levels, human resource policies/procedures, and many more unique processing/control mechanisms. Each of these items will need to be reviewed and rewritten into a common internal control framework.

In the new environment, many of these functions can be eliminated or streamlined creating the potential for reduced operating cost. One potential format for these systems is:

- Maintain one general ledger system with a common chart of accounts
- The ledger would have five functional organizations:
  - Administration
  - BMFPD operations
  - GSFD operations
  - RFPD operations
  - GSRFPD
- The administration organization would need to have an allocation mechanism developed to charge each operation unit with the cost of administration. The operation units will be the basis for collecting and reporting tax revenue.
- One accounts payable check writing system will need to be developed.
- One set of bank accounts

The list is just a starting point for discussion on what items need to be reviewed and eventually merged into the new organizational structure. A key item in setting up the new structure is to maximize internal and financial control systems.

In looking at the new structure, various operational cost reductions can be potentially realized.

- Cost reduction for accounts payable processing. Vendor invoices will now be sent to a common location which could potentially reduce the number of invoices processed and the number checks written.

- Audit fees could be reduced as only one set of internal control process and financial books is being reviewed.
- Potential reduction in subscriptions and dues could be identified and duplications are eliminated.
- Bank fees will be reduced by having only one set of bank accounts.

The above cost reduction potential could total approximately \$20,000. Actual savings realized would be determined following development and finalization of an organizational structure.

### Conclusion

An administrative consolidation would produce significant cost avoidance and have minimal or little impact on fire and EMS operations. In ESCI's experience, the complexities of managing separate operational units and a lack of long-term commitment for future alignment of the agencies makes this strategy better suited to being transitional versus long-term. Frustrations of maintaining separate organizations and answering to multiple policy boards is inefficient and defeating. Implementation of this strategy is envisioned as an intermediary step that leads to a more unified fire and EMS agency.

### **Overarching Strategy 3 – Operational Consolidation**

#### Level of Cooperation

- Operational

#### Timeline for Completion

- Long Term

#### Section

- Fire and Emergency Operations

#### Affected Stakeholders

- BMFPD, GSFD, and RFPD

#### Objective

- Combine all operational elements of all three agencies into a singular function to promote improved efficiencies by eliminating some duplication.

#### Summary

Operational consolidation is the combining of two or more agencies at the operational level while the agencies themselves continue to exist separately. In this case, emergency services are provided by the combined emergency resources of BMFPD, GSFD, and RFPD. An operational consolidation is accomplished legally through an IGA between the agencies. This strategy requires alignment of virtually all emergency operational elements, including training, incident Standard Operating Procedures, staffing, and apparatus deployment. In effect, the combined emergency resources (staffing, equipment and facilities) of the three agencies are configured as if there is no boundary between the agencies. This consolidation type is the most advanced step in the continuum of steps toward a full merger of the agencies. A structure of shared decision-making is typically created as they relate to consolidated function(s). Of all the consolidation options, this strategy tends to provide the greatest potential increase in efficiency, both in cost and in service delivery.

#### Discussion

Operational consolidation takes the next step in the continuum of closer collaboration. In this case, all operations are consolidated under a single organizational structure that serves the agencies. The districts and city remain independent organizations from a legal/political/taxing standpoint; but from a service level standpoint, the organization operates as a unified agency.

An operational consolidation is accomplished legally by way of an IGA between the agencies.<sup>43</sup> This strategy requires a significant commitment by policy makers and is customarily a segue toward full consolidation. The level of trust required to implement operational consolidation is very high, since independence and autonomy have been willingly relinquished in favor of the preferred future state of a full consolidation.

An advantage of this strategy is that the opportunity for efficiencies is typically greatest in the operational element. Fire department expenditures are largest for operations, and the level of trust and cooperation required to make this strategy successful implies a near-readiness to take the next step to full consolidation.

A disadvantage is that administrators and policy-makers must share power and gain consensus where they once had unilateral authority to control and implement.

As neighboring agencies BMFPD, GSFD, and RFPD respond to the same incidents on numerous occasions, resulting in a degree of familiarity between the operational crews on the street. While there may be some differences in approach to incidents between the field crews, they are each proud, competent, and professional service providers who put customer service first. Partly due to the intense pride in the service they provide and the culture that follows, changing the way service is delivered at the operational (line) level poses some challenges.

### Critical Issues

- Policy level
  - Work rules, employee assignments, compensation, service level standards, and operational practices must be consistent across the jurisdictions. Any policy differences which impact the delivery of service to the public must be invisible to the line personnel. This includes hours of work, supervisory ratios, scope of job descriptions, rules of conduct, and disciplinary practices.
  - A close review of all aspects of service delivery must be performed by the fire chiefs and unified decisions announced. There will likely be new practices required for this type of consolidation.
- Staff level
  - Crews can ill-afford to contemplate differences in organizational practices while responding to emergencies. A single set of rules, regulations, and procedures related to emergency operations must be published and the line personnel trained and oriented to them.

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<sup>43</sup> RCW 39.34.030

- Engaging all line personnel who will be directly affected by this consolidation from the start is critical. They possess knowledge about the work they do beyond what is typically recognized, even by their supervisors. Ensuring that job nuances are identified is an important step in a successful consolidation. Rumors will become rampant, and a communication strategy that keeps people informed every step of the way is necessary to maintain calm. Opportunities to debunk rumors should be taken advantage of, and outlets should be created to capture and respond to those rumors quickly.
- The use of part-time employees is common for RFPD and GSFD. Many of these part-time employees are full-time firefighters in another agency, often times each other's. The operational consolidated organization must review the number and use of part-time employees and determine if new full-time positions should be added to fill these requirements. If the part-time system is deemed necessary, the new organization must pay overtime to the full-time employees working hours beyond those allowed by FLSA.
- BMFPD's volunteer firefighter roster includes a number of full-time employees from RFPD and GSFD. If this strategy is adopted, these employees would be considered agency employees and could no longer be volunteers to BMFPD.
- Financial Considerations
  - Alignment of salaries and benefits for similar jobs can be an issue. Standardized compensation packages for line personnel could involve red-circling positions with pay that is significantly above those of comparable to align wage and benefits over time.
  - One large issue is the handling of pension/401a retirement programs for line personnel. Both BMFPD and RFPD provide pension through the State FPPA program while the City of Glenwood Springs offers a citywide 401a program that works on approximately the same structure/rules as the more familiar 401k program.
- Specific changes in an operational consolidation structure could flow as follows:
  - A reduction from three fire chiefs to one.
  - A reduction from three fire marshals to one fire marshal and two fire inspectors.

### Guidance

- Conduct regular joint board and fire chief meetings for the purpose of establishing the policy changes as outlined above. This includes a detailed fiscal analysis.
- Conduct regular command staff meetings for the purpose of establishing rules, regulations, and procedures as outlined above. This includes a staffing analysis, workload analysis, and deployment analysis.
- Engage operational employee groups in regular discussions, fielding questions regularly. Reassure employees to the extent possible but always be honest. Don't speculate but express your collective intentions. There is no such thing as over-communicating when job security is at stake.
- Consider establishing a focus group of external stakeholders to use as a sounding board on the concept of an operational consolidation. Select people of influence and keep them engaged. Listen carefully to their advice and concerns. As with employees, be honest and don't speculate but express your collective intentions.

- Develop a communication strategy to keep the citizens of the combined service area informed as implementation appears a likely result of the discussions.
- An operational consolidation impacts the line level, from the battalion chiefs down.

Fiscal Considerations

Operational Consolidation Manpower Analysis

This strategy will reduce the number of fire chiefs to one, the division chief for fire prevention to one and EMS Coordinator/EMS-Operations Chief. Two additional fire inspectors will be added. Figure 108 provides a comparison of current operational positions, adjusted for the reduction of the positions as described.

**Figure 108: Operational Consolidation Personnel**

Positions	BMPD 2011 Budget	GSFD 2011 Budget	RFPD 2011 Budget	Total FTEs	FTE Adjustments	Consolidated FTEs
<b>Administration</b>						
Fire Chief	1.0	1.0	1.0	3.0	(2.0)	1.0
Deputy Chief	0.0	0.0	1.0	1.0	0.0	1.0
Division Chief – Fire Prevention	1.0	1.0	1.0	3.0	(2.0)	1.0
Fire Inspector	0.0	0.0	1.0	1.0	2.0	3.0
EMS/Operations Chief	0.0	0.0	1.0	1.0	0.0	1.0
EMS Coordinator	1.0	0.0	0.0	1.0	(1.0)	0.0
<b>Total Administration</b>	<b>3.0</b>	<b>2.0</b>	<b>5.0</b>	<b>10.0</b>	<b>(3.0)</b>	<b>7.0</b>
<b>Operations</b>						
Battalion Chief	0.0	0.0	3.0	3.0	0.0	3.0
Captains	0.0	3.0	0.0	3.0	0.0	3.0
Lieutenant	0.0	3.0	3.0	6.0	0.0	6.0
Firefighter/Engineer	0.0	7.0	14.0	21.0	0.0	21.0
Firefighter/Paramedic	0.0	7.0	7.0	14.0	0.0	14.0
Firefighter/EMT	6.0	0.0	13.0	19.0	(6.0)	13.0
Part Time	0.0	13.0	1.0	14.0	0.0	14.0
New Firefighters	0.0	0.0	3.0	3.0	0.0	3.0
<b>Total Operations</b>	<b>6.0</b>	<b>33.0</b>	<b>44.0</b>	<b>83.0</b>	<b>(6.0)</b>	<b>77.0</b>

Total cost avoidance in wages for this strategy in the baseline year of 2011 would be \$407,319 plus a reduction in fringe benefits of approximately \$145,566, for a total of \$552,885.

**Figure 109: Operational Personnel Cost Reduction**

Positions	BMFPD 2011 Wages	Extended BMFPD Wages	GSFD 2011 Budget	Extended GSFD Wages	RFPD 2011 Budget	Extended RFPD Wages
<b>Administration</b>						
Fire Chief	100,495	100,495	102,504	102,504	105,000	105,000
Deputy Chief	0	0	0	0	87,000	87,000
Division Chief – Fire Prevention	81,210	81,210	70,776	70,776	73,861	73,861
Fire Inspector	0	0	0	0	64,313	64,313
EMS/Operations Chief	0	0	0	0	71,011	71,011
EMS Coordinator	70,000	70,000	0	0	0	0
<b>Total Administration</b>		<b>251,705</b>		<b>173,280</b>		<b>401,185</b>
<b>Operations</b>						
Battalion Chief	0	0	0	0	68,181	204,543
Captains	0	0	62,181	186,543	0	0
Lieutenant	0	0	56,333	168,999	51,951	155,853
Firefighter/Engineer	0	0	47,391	331,737	43,460	608,440
Firefighter/Paramedic	0	0	52,311	366,177	46,016	322,112
Firefighter/EMT	38,480	230,880	0	0	42,608	553,904
Part-Time	0	0	42,934	279,071	42,608	21,304
New Firefighters	0	0	0	0	42,608	127,824
<b>Total Operations</b>		<b>230,880</b>		<b>1,332,527</b>		<b>1,993,980</b>

Positions	(Total) Extended Wages	Extended Wage Adjustments	Adjusted Wages
<b>Administration</b>			
Fire Chief	307,999	(202,999)	105,000
Deputy Chief	87,000	0	87,000
Division Chief – Fire Prevention	225,847	(144,637)	81,210
Fire Inspector	64,313	128,626	192,939
EMS/Operations Chief	71,011		71,011
EMS Coordinator	70,000	(70,000)	0
<b>Total Administration</b>	<b>826,170</b>	<b>(289,010)</b>	<b>537,160</b>
<b>Operations</b>			
Battalion Chief	204,543	0	204,543
Captains	186,543	0	186,543
Lieutenant	324,852	13,146	337,998
Firefighter/Engineer	940,177	55,034	995,211
Firefighter/Paramedic	688,289	44,065	732,354
Firefighter/EMT	784,784	(230,880)	553,904
Part-Time	300,375	326	300,701
New Firefighters	127,824	0	127,824
<b>Total Operations</b>	<b>3,557,387</b>	<b>(118,309)</b>	<b>3,439,078</b>

The current volunteer roster count for each agency is provided in the following figure.

**Figure 110: Operational Volunteer Personnel**

Personnel/Positions	BMFPD 2011 Budget	GSFD 2011 Budget	RFPD 2011 Budget	Total FTEs	FTE Adjustments	Consolidated FTEs
<b>Volunteer</b>						
Deputy Chief	1.0	0.0	0.0	1.0	0.0	1.0
Captain Training	1.0	0.0	0.0	1.0	0.0	1.0
Captain	3.0	0.0	0.0	3.0	0.0	3.0
Firefighter/Engineer	5.0	3.0	15.0	23.0	0.0	38.0
Firefighter	30.0	0.0	10.0	40.0	0.0	50.0
<b>Total Volunteer</b>	<b>40.0</b>	<b>3.0</b>	<b>25.0</b>	<b>68.0</b>	<b>0.0</b>	<b>93.0</b>

As noted, the volunteer roster for each agency must be reviewed; any full-time employee working for one of the agencies under this strategy could not continue as a volunteer.

Conclusion

An operational consolidation would produce significant cost avoidance but would have an impact on fire and EMS administration. In ESCI’s experience, the complexities of managing separate administration sections would result in greater harm to the organizations than the benefits. A question of “who is in charge” and reporting structure would be challenging for operations personnel; likewise, the assignment of duties and “who do I take orders from.” Implementation of this strategy for all but the briefest of times as an intermediary step to a unified agency is discouraged.

## **Overarching Strategy 4 – FA (Fire Authority)**

### Level of Cooperation

- Governance

### Timeline for Completion

- Short to Mid Term

### Section

- Administration

### Affected Stakeholders

- BMFPD, GSFD, GSRFPD, and RFPD

### Objective

- Combine all administrative, operations, and support services of the three emergency service providers.
- Form a governing board (fire authority) with representation from each of the four fire agencies.
- Retain local control.

### Summary

An alternative to a merger is the formation of an FA (Fire Authority). An FA can be established by creating a new entity whereby the agencies use a legal framework with a tax base, operational plan, and new governance. An FA may also be accomplished with an IGA (intergovernmental agreement) with each of the agencies retaining taxing authority, governance, and local control. If an IGA model is selected for aligning the agencies, the long-term goal should be to merge the four agencies into a single regional fire and emergency service provider.

### Discussion

In the State of Colorado there have been a number of FAs established for the purpose of eliminating redundancy and duplicated efforts with an emphasis on cost avoidance. Examples of FAs include Poudre Fire Authority in Fort Collins, Durango Fire Authority in Durango, the Clear Creek Fire Authority in Dumont, and the South Metro Fire Authority in Centennial. South Metro Fire Authority was formed when several fire districts merged. The latest merger occurred on May 1, 2008, when the Parker Fire Protection District and South Metro Fire Rescue Authority began operating as a fire authority under an intergovernmental agreement. The long-term intent of the agreement is to fully merge the two districts into one.

With an FA using an IGA, the city and districts retain taxing authority, governance, and local control with representation on an oversight (governance) board. IGAs commonly have a provision for the participants to extricate themselves from the agreement (escape clause). An escape clause in a contract allows a party to "escape" from the contract without being liable for breach of contract. This happened when the City of Greeley and Western Hills Fire Protection District negotiated the dissolution of the Union Colony Fire Rescue Authority (UCFRA). An amicable termination of the intergovernmental agreement that created the FA was agreed upon and in a role reversal Western Hills now contracts with the City of Greeley for fire protection services. UCFRA officially ended services at midnight on December 31, 2010, and the Greeley Fire Department began providing emergency services at 12:01 a.m. January 1, 2011. There were no changes to service levels.

FA Fiscal Considerations

- An FA will create a financial benefit but will also have challenges to establishing a new organizational structure.

FA Operational Consolidation FTEs

Figure 111 lists the current budgeted administrative and support positions in the four agencies, followed by the conceptual staffing configuration for the newly formed FA and a summary of the projected changes in overall staffing numbers.

**Figure 111: Conceptual Staffing – FA Administrative and Support**

Personnel/Positions	BMFPD 2011 Budget	GSFD 2011 Budget	RFPD 2011 Budget	Total FTEs	Net FTE Change	FA FTEs
<b>Administration</b>						
Fire Chief	1.0	1.0	1.0	3.0	(2.0)	1.0
Deputy Chief	0.0	0.0	1.0	1.0	0.0	1.0
Division Chief – Fire Prevention	1.0	1.0	1.0	3.0	(2.0)	1.0
Fire Inspector	0.0	0.0	1.0	1.0	2.0	3.0
EMS/Operations Chief	0.0	0.0	1.0	1.0	0.0	1.0
EMS Coordinator	1.0	0.0	0.0	1.0	(1.0)	0.0
Division Chief – Administration	0.0	0.0	1.0	1.0	0.0	1.0
Admin Assistant	1.0	1.0	1.0	3.0	0.0	3.0
Facilities Manager	1.0	0.0	0.0	1.0	0.0	1.0
Mechanic	0.5	0.0	0.0	0.5	0.0	0.5
Human Resource Manager	0.0	0.0	1.0	1.0	0.0	1.0
<b>Total Administration</b>	<b>5.5</b>	<b>3.0</b>	<b>8.0</b>	<b>16.5</b>	<b>(3.0)</b>	<b>13.5</b>

The conceptual illustration of administrative and support staffing for an FA provides for a single fire chief position, reduced from three. Other position responsibilities are re-aligned and shared

between the three departments where possible. The conceptual modifications to the administrative functions for an FA reduce overall FTEs by three positions. In Figure 112, wage values by category are shown.

**Figure 112: Conceptual Costs – FA Administrative and Support**

Positions	BMFPD 2011 Wages	Extended BMFPD Wages	GSPD 2011 Budget	Extended GSPD Wages	RFPD 2011 Budget	Extended RFPD Wages
<b>Administration</b>						
Fire Chief	100,495	100,495	102,504	102,504	105,000	105,000
Deputy Chief	0	0	0	0	87,000	87,000
Division Chief - Fire Prevention	81,210	81,210	70,776	70,776	73,861	73,861
Fire Inspector	0	0	0	0	64,313	64,313
EMS/Operations Chief	0	0	0	0	71,011	71,011
EMS Coordinator	70,000	70,000	0	0	0	0
Division Chief - Administration	0	0	0	0	62,000	62,000
Admin Assistant	45,032	45,032	52,626	52,626	45,000	45,000
Facilities Manager	65,000	65,000	0	0	0	0
Mechanic	20,000	10,000	0	0	0	0
Human Resource Manager	0	0	0	0	62,000	62,000
<b>Total Administration</b>		<b>371,737</b>		<b>225,906</b>		<b>570,185</b>

Positions	(Total) Extended Wages	Extended Wage Adjustments	FA Wages
<b>Administration</b>			
Fire Chief	307,999	(202,999)	105,000
Deputy Chief	87,000	0	87,000
Division Chief – Fire Prevention	225,847	(144,637)	81,210
Fire Inspector	64,313	128,626	192,939
EMS/Operations Chief	71,011		71,011
EMS Coordinator	70,000	(70,000)	0
Division Chief – Administration	62,000	0	62,000
Admin Assistant	142,658	0	142,658
Facilities Manager	65,000	0	65,000
Mechanic	10,000	0	10,000
Human Resource Manager	62,000	0	62,000
<b>Total Administration</b>	<b>1,167,828</b>	<b>(289,010)</b>	<b>878,818</b>

This FA administrative and support staffing concept will result in a cost avoidance of approximately \$289,010 plus applicable benefit decreases, primarily in the medical insurance costs.

Figure 113 shows a concept organizational structure for the administration section of an FA.

**Figure 113: Conceptual Organizational Chart – FA Administration**

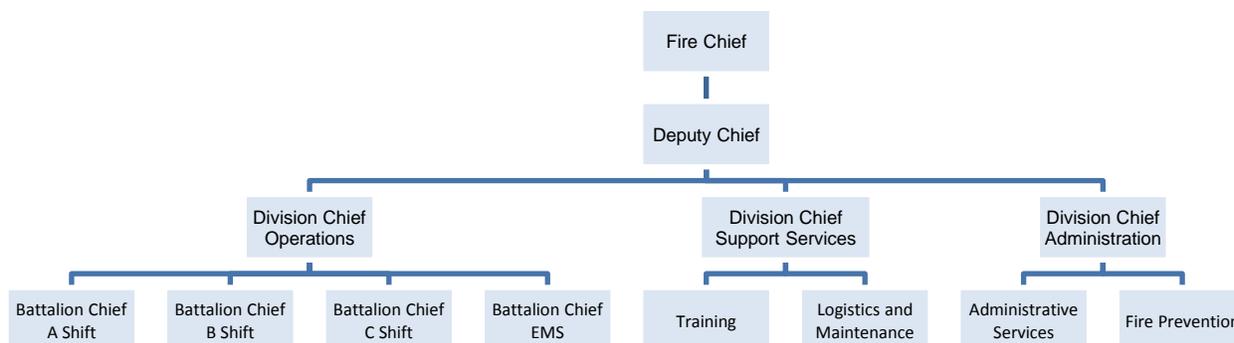


Figure 114 provides a comparison of current operational positions, adjusted for the reduction of six fire fighter/EMTs budgeted by both RFPD and BMFPD.

**Figure 114: Conceptual Staffing – FA Operations**

Positions	BMFPD 2011 Budget	GSFD 2011 Budget	RFPD 2011 Budget	Total FTEs	Net FTE Change	FA FTEs
<b>Operations</b>						
Battalion Chief	0.0	0.0	3.0	3.0	0.0	3.0
Captains	0.0	3.0	0.0	3.0	0.0	3.0
Lieutenant	0.0	3.0	3.0	6.0	0.0	6.0
Firefighter/Engineer	0.0	7.0	14.0	21.0	0.0	21.0
Firefighter/Paramedic	0.0	7.0	7.0	14.0	0.0	14.0
Firefighter/EMT	6.0	0.0	13.0	19.0	(6.0)	13.0
Part Time	0.0	13.0	1.0	14.0	0.0	14.0
New Firefighters	0.0	0.0	3.0	3.0	0.0	3.0
<b>Total Operations</b>	<b>6.0</b>	<b>33.0</b>	<b>44.0</b>	<b>83.0</b>	<b>(6.0)</b>	<b>77.0</b>
Percent Administration to Operations	91.67%	9.09%	18.18%	19.88%		17.53%
<b>Volunteer</b>						
Deputy Chief	1.0	0.0	0.0	1.0	0	1.0
Captain Training	1.0	0.0	0.0	1.0	0	1.0
Captain	3.0	0.0	0.0	3.0	0	3.0
Firefighter/Engineer	5.0	3.0	15.0	23.0	0	38.0
Firefighter	30.0	0.0	10.0	40.0	0	50.0
<b>Total Volunteer</b>	<b>40.0</b>	<b>3.0</b>	<b>25.0</b>	<b>68.0</b>	<b>0</b>	<b>93.0</b>

Pay equalization between the departments will result in a net increase of personnel costs for an FA; wages of GSFD personnel are higher than those of BMFPD and RFPD. The FA strategy

makes the assumption that all pay levels will eventually move to the highest level. Figure 115 depicts the increases by pay category.

**Figure 115: Conceptual Personnel Costs – FA Operations**

Positions	BMFPD 2011 Wages	Extended BMFPD Wages	GSFD 2011 Budget	Extended GSFD Wages	RFPD 2011 Budget	Extended RFPD Wages
<b>Operations</b>						
Battalion Chief	0	0	0	0	68,181	204,543
Captains	0	0	62,181	186,543	0	0
Lieutenant	0	0	56,333	168,999	51,951	155,853
Firefighter/Engineer	0	0	47,391	331,737	43,460	608,440
Firefighter/Paramedic	0	0	52,311	366,177	46,016	322,112
Firefighter/EMT	38,480	230,880	0	0	42,608	553,904
Part Time	0	0	42,934	279,071	42,608	21,304
New Firefighters	0	0	0	0	42,608	127,824
<b>Total Operations</b>		<b>230,880</b>		<b>1,332,527</b>		<b>1,993,980</b>

Positions	(Total) Extended Wages	Extended Wage Adjustments	FA Wages
<b>Operations</b>			
Battalion Chief	204,543	0	204,543
Captains	186,543	0	186,543
Lieutenant	324,852	13,146	337,998
Firefighter/Engineer	940,177	55,034	995,211
Firefighter/Paramedic	688,289	44,065	732,354
Firefighter/EMT	784,784	(230,880)	553,904
Part Time	300,375	326	300,701
New Firefighters	127,824	0	127,824
<b>Total Operations</b>	<b>3,557,387</b>	<b>(118,309)</b>	<b>3,439,078</b>

Operations staffing costs will decrease by \$118,309 plus applicable benefit decreases; primarily in the medical insurance costs.

FA Fiscal Analysis

2011 budget data provided by the client was used to create an FA for BMFPD, GSFD, GSRFPD, and RPD.

FA Forecast Consolidated Taxable Assessed Value

Projected increases in new construction and TAV of existing property utilize the same assumptions contained in the current conditions section of this report. Figure 116 reviews the assumptions used to forecast TAV amounts.

**Figure 116: Oil and Gas Impact on Taxable Assessed Valuation**

Year	BMFPD	GSFD	GSRFPD	RFPD
2011	0.00%	0.00%	0.00%	0.00%
2012	-11.80%	-23.60%	-23.70%	-20.77%
2013	0.10%	0.10%	0.10%	0.10%
2014	0.50%	0.50%	0.50%	0.50%
2015	0.50%	0.50%	0.50%	0.50%
2016	0.50%	0.50%	0.50%	0.50%

A significant portion of the appraised property value for BMFPD and RFPD is related to Oil and Gas production. Oil and Gas TAV increases are tied to Henry Hub pricing for the lower 48 states. The figure below depicts these increases.

**Figure 117: Oil and Gas Impact on Taxable Assessed Valuation**

Year	Price per Million Btus	Percent Change
2008	7.96	
2009	3.62	-54.58%
2010	3.98	10.00%
2011	3.99	0.31%
2012	3.98	-0.16%
2013	4.04	1.43%
2014	4.05	0.23%
2015	4.13	2.00%
2016	4.20	1.57%

Figure 118 provides a view of the consolidated TAV for the FA.

**Figure 118: FA Consolidated Taxable Assessed Valuation**

Year	BMFPD	GSFD	GSRFPD	RFPD	Total
2011	438,986,550	279,553,070	93,231,470	678,109,670	1,489,880,760
2012	558,676,500	213,578,545	71,135,612	763,722,230	1,607,112,887
2013	564,988,083	213,792,124	71,206,747	773,329,756	1,623,316,710
2014	571,436,894	214,861,085	71,562,781	782,767,293	1,640,628,053
2015	573,187,419	215,935,390	71,920,595	784,979,888	1,646,023,292
2016	581,983,051	217,015,067	72,280,198	798,020,364	1,669,298,680

FA Forecast Revenue

Initial development of fire operations revenue was established to combine the 2011 budget data into a consolidated statement. This consolidation is detailed in Figure 119.

**Figure 119: FA Budgeted Consolidated Revenue, 2011**

Description	BMFPD 2011 Budget	GSFD 2011 Budget	GSRFD 2011 Budget	RFPD 2011 Budget	Eliminations & Adjustments	Consolidated 2011 Budget
Property Tax/City Transfer	2,678,695	1,741,604	587,864	4,061,198	0	9,069,361
Rural Fire District IGA	0	538,866	0	0	(538,866)	0
Specific Ownership Tax	50,000	0	33,000	300,000	0	383,000
G/O Bonds Mill Rate	0	289,818	0	0	0	289,818
Delinquent Taxes	100	0	0	0	0	100
Fire Fees/Permits	0	9,000	0	0	0	9,000
ColoTrust Interest Income	1,000	0	0	46,000	0	47,000
Interest Apportionment	250	0	0	0	0	250
GF Interest	0	800	1,200	2,500	0	4,500
Ambulance	100,000	600,000	0	150,000	150,000	1,000,000
Bad Debt Recovery	0	10,000	0	0	0	10,000
Training	0	0	0	5,000	0	5,000
BMFPD IGA	0	0	0	900,000	(900,000)	0
Airport/Interagency	0	0	0	10,000	0	10,000
Haz-Mat Response	100	0	0	0	0	100
Grants	105,000	0	0	0	0	105,000
Pension State Contribution	35,000	0	0	0	0	35,000
Capital Improvement Taxes	0	0	62,620	0	0	62,620
Volunteer Fire – Revenues	0	0	500	0	0	500
Miscellaneous	10	100	100	0	0	210
Donations	0	50	0	0	0	50
Rental Income	50	0	0	2,000	0	2,050
<b>Total Revenues</b>	<b>2,970,205</b>	<b>3,190,238</b>	<b>685,284</b>	<b>5,476,698</b>	<b>(1,288,866)</b>	<b>11,033,559</b>
Mill Rate	6.102	6.230	6.305	5.989		6.087

The consolidation of the four agencies' fire operations results in a combined tax rate of \$6.087 per \$1,000 of taxable assessed value.

FA Forecast Expense

Fire operations expense calculations merge the 2011 budget data into a consolidated statement. The modification of personnel and the cost increases associated with these modifications will increase wage levels and require an increase in benefit costs. This consolidated budget is depicted in Figure 120.

**Figure 120: FA Budgeted Consolidated Expense, 2011**

Description	BMFPD 2011 Budget	GSFD 2011 Budget	GSRFD 2011 Budget	RFPD 2011 Budget	Eliminations & Adjustments	Consolidated 2011 Budget
Salaries	679,958	1,693,369	3,000	2,836,300	(407,319)	4,805,308
Benefits and Taxes	199,444	593,236	0	1,033,625	(145,567)	1,685,038
Training	100,000	18,000	0	115,850	0	233,850
Operating Expense	789,361	353,617	32,200	350,974	(208,000)	1,318,152
Supply and Expense	174,995	59,500	3,015	159,000	0	396,510
Repair and Maintenance	473,126	114,000	0	156,000	0	743,126
TABOR Contingency Reserve	395,229	0	0	237,308	0	632,537
Interagency Cost	0	151,305	538,866	30,000	(690,171)	30,000
Debt	791,864	289,818	0	135,389	0	1,217,071
Capital	701,229	0	62,620	456,111	0	1,219,960
<b>Total Expenditures</b>	<b>4,305,205</b>	<b>3,272,845</b>	<b>639,701</b>	<b>5,510,557</b>	<b>(1,451,057)</b>	<b>12,281,551</b>

Cost decrease in wages and benefits total under an FA model in the baseline year is \$552,886.

FA Forecast Revenue, 2011 – 2016

Figure 121 details the calculation of consolidated revenue for the new organization, projected to 2016. Included in the property revenue is the assumption that the new entity's tax rate will be established at current effective rate of Glenwood Springs at \$6.23 per \$1,000 of assessed property value. All other line items have been increased by the ten-year average CPI of 2.45 percent.

**Figure 121: FA Consolidated Revenue, 2011 – 2016**

Description	Consolidated 2011 Budget	2012	2013	2014	2015	2016
Property Tax/City Transfer	9,069,361	10,012,313	10,113,263	10,221,113	10,254,725	10,399,731
Rural Fire District IGA	0	0	0	0	0	0
Specific Ownership Tax	383,000	392,384	401,997	411,846	421,936	432,273
G/O Bonds Mill Rate	289,818	382,883	381,633	384,773	381,953	383,383
Delinquent Taxes	100	102	105	108	110	113
Fire Fees/Permits	9,000	9,221	9,446	9,678	9,915	10,158
ColoTrust Interest Income	47,000	48,152	49,331	50,540	51,778	53,047
Interest Apportionment	250	256	262	269	275	282
GF Interest	4,500	4,610	4,723	4,839	4,957	5,079
Ambulance	1,000,000	1,024,500	1,049,600	1,075,315	1,101,661	1,128,651
Bad Debt Recovery	10,000	10,245	10,496	10,753	11,017	11,287
Training	5,000	5,123	5,248	5,377	5,508	5,643
BMFPD IGA	0	0	0	0	0	0
Airport/Interagency	10,000	10,245	10,496	10,753	11,017	11,287
Haz-Mat Response	100	102	105	108	110	113
Grants	105,000	107,573	110,208	112,908	115,674	118,508
Pension State Contribution	35,000	35,858	36,736	37,636	38,558	39,503
Capital Improvement Taxes	62,620	190,972	191,163	192,119	193,079	194,045
Volunteer Fire - Revenues	500	512	525	538	551	564
Miscellaneous Donations	210	215	220	226	231	237
Donations	50	51	52	54	55	56
Rental Income	2,050	2,100	2,152	2,204	2,258	2,314
<b>Total Revenues</b>	<b>11,033,559</b>	<b>12,237,416</b>	<b>12,377,763</b>	<b>12,531,155</b>	<b>12,605,370</b>	<b>12,796,274</b>
Mill Rate	6.087	6.230	6.230	6.230	6.230	6.230

Figure 122 is a conceptual model for capital apparatus under a FA.

**Figure 122: FA Capital Apparatus**

Vehicle No.	Purchase Date	Make	Vehicle No.	Purchase Date	Make
4x4 Pickup	2005	Chevrolet	ER Truck	2008	GMC Sierra
Air 43	2006	Eagle	ER Truck	2008	GMC Sierra
Ambulance 43	2005	Ford/Medtec	Hazmat 41	2007	Nomad Trailer
Ambulance 44	2011	Ford	Haz-Mat Trailer	2003	US Cargo
Ambulance 61	3/1/2010	2006/3500	Ladder 41	1990	Pierce Arrow
Ambulance 64	7/1/2011	F450 Super Chief	Ladder 43	2007	Spartan
Ambulance 71	2009	Braun	Ladder 64	10/1/2006	Crimson
Ambulance 72	2009	Braun	Ladder 72	1991	Pierce Arrow
Attack 61	5/15/2004	Outland/FL-70/Weapon	Parade Truck	5/1/1954	HRS-Howe-GMC
ATV 41	2007	Polaris Ranger	Rescue 41	2007	Ford F550
Battalion 41	2010	Ford	Rescue 61	10/1/2006	Spartan
Battalion 60	6/1/2010	Durango	Reserve – Ambulance 42	2000	Ford/McCoy Miller
Battalion 64	12/15/2003	Silverado	Reserve – Ambulance 73	2007	Ford
Brush 41	2007	Ford F-350	Reserve - Brush 241	1999	Ford F-350
Brush 43	2008	Sterling/S&S	Reserve - Brush 63	6/29/1995	K4
Brush 61	4/18/2007	F350	Tender 41	2007	Pierce
Brush 64	6/29/1995	K4	Tender 43	2003	Pierce
Brush 71	2006	S&S	Tender 61	5/15/2004	Infinity
Brush 72	2002	Ford F-350	Tender 63	5/20/2004	Infinity
Chief 40	2010	Ford F150	Tender 64	5/15/2004	Infinity
Chief 41	2010	Ford	Tender 71	2003	International
Command 60	6/1/2008	Expedition	Tender 73	2003	Pierce
Engine 273	1996	Pierce 4800	Unit 6191	6/1/2005	Ranger
Engine 41	2010	Pierce Velocity	Utility 241	2007	Ford
Engine 42	1996	Pierce Quantum	Utility 341	2010	Ford F150
Engine 43	2010	Pierce Velocity	Utility 41	2001	Ford Expedition
Engine 61	12/15/2009	Pierce	Utility 43	2008	Ford
Engine 64	12/15/2009	Pierce	Utility 61	12/15/2003	Trailblazer
Engine 71	2008	Pierce Dash	Utility 64	4/4/2011	Silverado
Engine 72	2002	Pierce Dash	Wildland 261	5/23/2011	Kaiser
Engine 73	2002	Pierce Dash	Wildland 41	2002	Cache Trailer

The consolidated vehicle replacement plan was reviewed to verify that all vehicles were required or if the potential exists to eliminate duplicate equipment. ESCI determined that two ambulances and three wildland vehicles could potentially be eliminated. The oldest vehicles in these categories were removed from the replacement plan. During establishment of the FA a review of the type and number of vehicles required should be based on an adopted deployment plan. Proceeds from excess apparatus disposal have not been included in this calculation.

FA Forecast Expense

Figure 123 depicts the estimated consolidated fire expenses for the new organization. Personnel and fringe benefits are increased by 3.00 percent per year; all other line items have been increased by the ten-year average CPI of 2.45 percent. Debt is included at the current amortization schedule. Capital/vehicle replacement is included utilizing the vehicle replacement schedule prepared by ESCI.

**Figure 123: FA Consolidated Expense, 2011 – 2016**

Description	Consolidated 2011 Budget	2012	2013	2014	2015	2016
Salaries	4,805,308	4,949,467	5,097,951	5,250,890	5,408,416	5,570,669
Benefits and Taxes	1,685,038	1,735,589	1,787,657	1,841,286	1,896,525	1,953,421
Training	233,850	158,087	161,960	165,928	169,993	174,158
Operating Expense	1,318,152	1,330,286	1,362,878	1,396,268	1,430,477	1,465,524
Supply and Expense	396,510	386,676	396,150	405,856	415,799	425,986
Repair and Maintenance	743,126	495,828	507,976	520,422	533,172	546,235
TABOR Contingency Reserve	632,537	335,842	344,119	349,035	353,709	362,814
Interagency Cost	30,000	30,735	31,488	32,259	33,050	33,860
Debt	1,217,071	1,311,586	1,308,876	1,186,577	1,048,368	1,049,798
Capital	1,219,960	796,490	815,682	835,022	854,514	874,162
<b>Total Expenditures</b>	<b>12,281,551</b>	<b>11,530,587</b>	<b>11,814,737</b>	<b>11,983,544</b>	<b>12,144,025</b>	<b>12,456,626</b>

FA Summary of Operations

Summarized in Figure 124 is the revenue and expenditure activity for 2011 through 2016.

**Figure 124: FA Operations Consolidated, 2011 – 2016**

Description	Consolidated 2011 Budget	2012	2013	2014	2015	2016
Beginning Fund Balance	9,115,275	8,767,283	9,474,112	10,037,139	10,584,749	11,046,095
<b>Revenue</b>	<b>11,033,559</b>	<b>12,237,416</b>	<b>12,377,763</b>	<b>12,531,155</b>	<b>12,605,370</b>	<b>12,796,274</b>
<b>Expenditures</b>						
Salaries	4,805,308	4,949,467	5,097,951	5,250,890	5,408,416	5,570,669
Benefits & Taxes	1,685,038	1,735,589	1,787,657	1,841,286	1,896,525	1,953,421
Training	233,850	158,087	161,960	165,928	169,993	174,158
Operating Expense	1,318,152	1,330,286	1,362,878	1,396,268	1,430,477	1,465,524
Supply and Expense	396,510	386,676	396,150	405,856	415,799	425,986
Repair and Maintenance	743,126	495,828	507,976	520,422	533,172	546,235
TABOR						
Contingency Reserve	632,537	335,842	344,119	349,035	353,709	362,814
Interagency Cost	30,000	30,735	31,488	32,259	33,050	33,860
Debt	1,217,071	1,311,586	1,308,876	1,186,577	1,048,368	1,049,798
Capital	1,219,960	796,490	815,682	835,022	854,514	874,162
Under Spending 2011 Budget	(900,000)	0	0	0	0	0
<b>Total Expenditures</b>	<b>11,381,551</b>	<b>11,530,587</b>	<b>11,814,737</b>	<b>11,983,544</b>	<b>12,144,025</b>	<b>12,456,626</b>
<b>Ending Fund Balance</b>	<b>8,767,283</b>	<b>9,474,112</b>	<b>10,037,139</b>	<b>10,584,749</b>	<b>11,046,095</b>	<b>11,385,742</b>

The summary for operations shows that a revenue growth is generated and an increase in ending fund balance is projected for each year through 2016.

Conclusion

An FA allows the four fire agencies to have input on services to be provided, levels of service, budgets, and governance decisions. This strategy can provide cost avoidance in administrative, operational, and capital costs. It allows for long-term planning for facilities, apparatus, equipment, and staffing.

## **Overarching Strategy 5 – Formation of a New Fire District**

### Level of Cooperation

- Governance

### Timeline for Completion

- Long Term

### Section

- Administration

### Affected Stakeholders

- BMFPD, GSFD, GSRFPD, and RFPD

### Objective

- Provide a single fire and EMS agency for the current service area of BMFPD, GSFD, GSRFPD, and RFPD.

### Summary

Formation of a new fire district would be used to provide all of the fire, EMS, and ancillary emergency services of BMFPD, GSFD, GSRFPD, and RFPD. The fire district would be organized under the Special District Act. The Special District Act constitutes Title 32 article 1 of the Colorado Revised Statutes, which is the general source of most of the statutory authorization, limitations, upon the formation and operation of special districts. Special districts organized pursuant to Title 32 are quasi-municipal corporations and political subdivisions of the state of Colorado organized for specific functions.

### Discussion

Title 32 of the Colorado Revised Statutes specifies what public services a special district can provide. The list of services a special district can provide are broad and varied and can include:

- Fire protection (may also provide ambulance and emergency medical and rescue services)
- Mosquito control
- Parks and recreation
- Safety protection
- Solid waste disposal facilities, or collection and transportation of solid waste
- Street improvements
- Television relay and translation
- Transportation
- Covenant enforcement

- Ambulance
- Health Service Districts
- Metropolitan districts
- Park and recreation

The first step in formation of a special district is submittal of a service plan to the jurisdiction in which the property is located. A service plan, like a city charter, sets forth the powers that the district as a government entity will have. The service plan review and approval process can take from six to nine months or even longer dependent on the complexity of the district structure and the procedural requirements of the approving jurisdiction. Upon approval of the service plan by the approving jurisdiction, a Petition for Organization is filed with the District Court requesting the Court order an election on the issues of formation of the district and the incurrance of debt. Following a court hearing, the District Court orders an organizational election to be held at the next available election date (May and November in even-numbered years and November in odd-numbered years). Election results are then certified and the Court issues an Order and Decree declaring that the district has been duly organized. The district may then hold an organizational meeting.

Governance of a special district is by a five or seven-member board of directors (BOD), who are elected by the registered electors in the district to staggered four-year terms. Anyone registered to vote in the State of Colorado and residing in or owing taxable property in the special district is eligible to serve on the BODs. The BODs may hire a manager, employees, or consultants to carry out the purposes of the special district and to ensure compliance with all statutory requirements for the special district's operations.

Following organization, a special district as a quasi-municipal corporation and political subdivision of the State of Colorado must comply with open meeting laws, public bidding requirements, restrictions in its service plan, public budget law, and public audit requirements. Typically, the BODs of a special district meet on a regular basis to handle the business of the district. Many special districts will engage a professional management company, general counsel, and an accountant experienced with governmental accounting to assist and advise in the district's functions.

Special districts are authorized to use a number of ways to raise revenues, including issuing debt, levying taxes, and imposing fees and charges. The issuance of debt or an increase in

taxes first requires an election and approval by the qualified voters of the district, as required by TABOR (Section 20, Article 10 of the Colorado Constitution). Methods of raising revenues include:

- **General Obligation Bonds:** Special districts are authorized to issue general obligation bonds, secured by ad valorem property taxes, through the imposition of a mill levy. Property taxes are tax deductible as opposed to fees or assessments imposed by private entities (such as HOAs), which are not.
- **Revenue Bonds:** Revenue bonds are payable from any revenue source of the district. Payment for bonds is generated through fees, charges, or other non-tax revenues collected from district residents and customers, which are not tax deductible. These revenues may come from fees for service and include EMS, EMS transport, fire and life safety inspections, and permits.
- **Mill Levy:** A district may impose a mill levy which is based on the assessed value of real property as calculated by the county assessor's office. The mill levy is collected with other property taxes paid to the county.
- **Service Charges and Fees** A district may impose fees, rates, tolls and charges for programs, services and facilities provided by the district.
- **Grants and Loans:** Via the Colorado Division of Local Government, federal and state agencies, and programs, a special district can be eligible for infrastructure improvement grants and often very low interest loans under a variety of programs.

Special district fees and taxes are set by its BODs, subject to the limitations imposed by TABOR, Colorado statutes, and the special district's electors through the election process. Additionally, limitations may be placed upon the special district's debt issuance or its mill levy by its service plan.

Potential benefits of a special district include:

- A special district can raise funds for public infrastructure through municipal bonds (or other governmental grant or loan programs if applicable) with favorable rates and terms not available to private entities.
- Special districts are exempt from sales, use, and other taxes for equipment, supplies, and services, allowing lower overhead costs.
- A special district is not in the business of making a profit from the facilities and services provided. Specific statutes govern the expenditures and revenues of special districts.
- State-obligated budget, audit, and other financial filing and reporting requirements provide regulatory oversight of special district's operations.
- A special district is governed by local control over the services that are provided on a community basis and are responsive and accountable for decisions through the election and public hearing processes. The business of the special district is conducted at public meetings.

- Special districts enjoy governmental immunity against certain legal actions thus avoiding expensive lawsuits and corresponding tax or fee increases.
- Because of its local nature, a special district is often better able to address issues of local concern to the community.

### Conclusion

The formation of a new fire district is not feasible. A real or perceived loss of control, the time to accomplish, and a possible increase in levy rates to some citizens, doom the concept. During interviews and community meetings, internal and external stakeholders expressed to ESCI that the creation of a new fire district would lack public and the political support of elected officials.

## **Overarching Strategy 6 – Annexation of the City of Glenwood Springs into GSRFPD**

### Level of Cooperation

- Governance

### Timeline for Completion

- Short Term

### Section

- Administration

### Affected Stakeholders

- City of Glenwood Springs, GSFD, and GSRFPD.

### Objective

- Annex the City of Glenwood Springs into the GSRFPD.
- Combine all GSFD operational and administrative elements with GSRFPD and abdicate policy decisions to the GSRFPD.

### Summary

The annexation of the City of Glenwood Springs by GSRFPD would have two distinctive impacts on the GSFD and City residents:

1. The revenue base for fire and EMS would become property tax based for city residents compared to the current revenue stream being primarily funded by sales tax. In 2012 this would create an approximate increase in total city property tax of \$900,000.
2. Control of the GSFD would transfer from the Glenwood Springs City Council to the GSRFPD Board of Directors.

### Discussion

If an annexation of the City of Glenwood Springs into GSRFPD is approved by the voters, the City could reduce or eliminate the collection of property taxes. The 2011 property tax rates for the City of Glenwood Springs are summarized in the following table.

**Figure 125: City of Glenwood Springs Mill Levy Rate, 2011**

Description	2011 Levy Rate
City Mill Rate	
General Operating	2.603
Tabor Temporary Credit	-0.597
Refunds/Abatements	0.038
<b>Net Mill Rate</b>	<b>2.044</b>

The rates for 2011 provided for budgeted property tax revenue of \$568,121. In the 2011 budget, the City of Glenwood Springs transferred \$1,741,604 from the General Fund to support fire department operations.

### Critical Issues

- Policy level
  - The fire department's SOPs and SAGs would remain unchanged.
  - A transfer of oversight authority for the fire department from the City Council to the Board of Directors would occur.
- Staff level
  - No staffing level changes would be required.
- Financial Considerations
  - The annexed fire department will become property tax supported.
  - Handling of personnel and in-kind costs currently paid for by the City need to be resolved. It is recommended that an intergovernmental agreement be drafted to have these costs paid by the City and reimbursed by the District.
- Guidance
  - Conduct regular joint board and fire chief meetings.
  - Conduct regular command staff meetings to discuss the change.
  - Engage operational employee groups in regular discussions, fielding questions regularly. Reassure employees to the extent possible, but always be honest. Don't speculate, but express your collective intentions. There is no such thing as over-communicating when job security is at stake.
  - Consider establishing a focus group of external stakeholders to use as a sounding board on the concept of an operational consolidation. Select people of influence and keep them engaged. Listen carefully to their advice and concerns. As with employees, be honest and don't speculate, but express your collective intentions.
  - Develop a communication strategy to keep the citizens of the combined service area informed as implementation appears a likely result of the discussions.
- Fiscal Considerations
  - Financial information included in this strategy is the same information that was provided in the current condition section of the report. It uses the 2011 budget information as the base data. In this strategy the information is consolidated.

### Taxable Assessed Value Forecast

Projected property TAV growth assumptions are the same as presented in the current conditions section of the report.

**Figure 126: Glenwood Springs and GSRFPD TAV Growth Assumptions, 2011 – 2016**

Year	BMFPD	GSFD	GSRFPD	RFPD
2011	0.00%	0.00%	0.00%	0.00%
2012	-11.80%	-23.60%	-23.70%	-20.77%
2013	0.10%	0.10%	0.10%	0.10%
2014	0.50%	0.50%	0.50%	0.50%
2015	0.50%	0.50%	0.50%	0.50%
2016	0.50%	0.50%	0.50%	0.50%

**Figure 127: Glenwood Springs and GSRFPD TAV Consolidated, 2011 – 2016**

Description	2011 Budget	2012	2013	2014	2015	2016
TAV – City of Glenwood Springs	279,553,070	213,578,545	213,792,124	214,861,085	215,935,390	217,015,067
TAV – GSRFPD	93,231,470	71,135,612	71,206,747	71,562,781	71,920,595	72,280,198
<b>Total TAV</b>	<b>372,784,540</b>	<b>284,714,157</b>	<b>284,998,871</b>	<b>286,423,866</b>	<b>287,855,985</b>	<b>289,295,265</b>

Revenue Forecast

**Figure 128: GSFD and GSRFPD Revenue 2011 Budget Consolidated**

Description	GSRFPD 2011 Budget	GSFD 2011 Budget	Eliminations	Consolidated GSRFPD
Ambulance Fees	0	600,000	0	600,000
Rural Fire District IGA	0	538,866	(538,866)	0
Fire Fees/Permits	0	9,000	0	9,000
Interest	1,200	800	0	2,000
Miscellaneous Income	100	100	0	200
Donations	0	50	0	50
Specific Ownership Tax	33,000	0	0	33,000
Volunteer Fire – Revenue	500	0	0	500
Bad Debt Recovery	0	10,000	0	10,000
City Transfer in/Property Tax	587,864	1,741,604	0	2,329,468
<b>Total Revenue</b>	<b>622,664</b>	<b>2,900,420</b>	<b>(538,866)</b>	<b>2,984,218</b>
Effective Mill Rate	6.305	6.230		6.249

The mill rate shown for GSFD is the effective rate that would have been charged if the department was fully funded—like a fire district—using only property taxes.

**Figure 129: GSRFPD Revenue Consolidated, 2011 – 2016**

Description	Consolidated GSRFPD	2012	2013	2014	2015	2016
Ambulance Fees	600,000	614,700	629,760	645,189	660,996	677,191
Rural Fire District IGA	0	0	0	0	0	0
Fire fees/Permits	9,000	9,221	9,446	9,678	9,915	10,158
Interest	2,000	2,049	2,099	2,151	2,203	2,257
Miscellaneous Income	200	205	210	215	220	226
Donations	50	51	52	54	55	56
Specific Ownership Tax	33,000	33,809	34,637	35,485	36,355	37,245
Volunteer Fire – Revenue	500	512	525	538	551	564
Bad Debt Recovery	10,000	10,245	10,496	10,753	11,017	11,287
City Transfer in/Property Tax	2,329,468	1,804,803	1,806,608	1,815,641	1,824,719	1,833,843
<b>Total Revenue</b>	<b>2,984,218</b>	<b>2,475,594</b>	<b>2,493,834</b>	<b>2,519,704</b>	<b>2,546,031</b>	<b>2,572,827</b>
Effective Mill Rate	6.249	6.339	6.339	6.339	6.339	6.339

Consolidated revenue above the mill rate shown is the maximum allowed for the GSRFPD. The increase is required due to the large decrease in TAV projected for 2012. This change in property values drives down revenue approximately \$500,000 in 2012.

Expenditures Forecast

Expenditures for the consolidated GSRFPD do not include the debt and capital line item as these are special mill levies approved for specific expenditures.

**Figure 130: GSRFPD Expenditures 2011 Budget Consolidated**

Description	GSRFPD 2011 Budget	GSFD 2011 Budget	Eliminations	Consolidated GSRFPD
Salaries	3,000	1,693,369	0	1,696,369
Benefits	0	593,236	0	593,236
Current Expenses	35,215	545,117	0	580,332
Interfund Cost of Service	538,866	151,305	(538,866)	151,305
<b>Total Expenditures</b>	<b>577,081</b>	<b>2,983,027</b>	<b>(538,866)</b>	<b>3,021,242</b>

**Figure 131: GSRFPD Expenditures 2011 – 2016**

Description	Consolidated GSRFPD	2012	2013	2014	2105	2016
Salaries	1,696,369	1,747,244	1,799,644	1,853,616	1,909,207	1,966,465
Benefits	593,236	611,034	629,365	648,245	667,693	687,724
Current Expenses	580,332	594,550	609,117	624,040	639,329	654,993
Interfund Cost of Service	151,305	155,012	158,810	162,701	166,687	170,771
<b>Total Expenditures</b>	<b>3,021,242</b>	<b>3,107,839</b>	<b>3,196,935</b>	<b>3,288,602</b>	<b>3,382,915</b>	<b>3,479,951</b>

Summary

The figure below is the summary of operations for a consolidated GSRFPD from 2011 through 2016:

**Figure 132: Consolidated GSRFPD Operations Summary, 2011 – 2016**

Description	Consolidated GSRFPD	2012	2013	2014	2015	2016
Revenue	2,984,218	2,475,594	2,493,834	2,519,704	2,546,031	2,572,827
<b>Expenditures</b>						
Salaries	1,696,369	1,747,244	1,799,644	1,853,616	1,909,207	1,966,465
Benefits	593,236	611,034	629,365	648,245	667,693	687,724
Current Expenses	580,332	594,550	609,117	624,040	639,329	654,993
Interfund Cost of Service	151,305	155,012	158,810	162,701	166,687	170,771
<b>Total Expenditures</b>	<b>3,021,242</b>	<b>3,107,839</b>	<b>3,196,935</b>	<b>3,288,602</b>	<b>3,382,915</b>	<b>3,479,951</b>
Revenue Excess/(Shortfall)	(37,024)	(632,245)	(703,101)	(768,898)	(836,884)	(907,124)

Conclusion

Annexation of the City of Glenwood Springs to the GSRFPD is financially unsustainable. The financial analysis of the strategy shows that the property tax method of providing revenue to the GSRFPD will result in a cash shortfall of \$600,000 to \$900,000 per year through 2016.

## **Overarching Strategy 7 – Align Mill Levy Rates and Annex FPDs**

### Level of Cooperation

- Administrative

### Timeline for Completion

- Mid to Long Term

### Section

- Administration

### Affected Stakeholders

- BMFPD, GSFD, GSRFPD, and RFPD

### Objective

- Align the tax mill levy rate for the agencies to expand the possibility of potential cooperative efforts include creation of a merge single district.
  - This strategy would need to occur after the strategy for annexation of the City of Glenwood Springs into Glenwood Springs Rural Fire Protection District has been implemented.

### Summary

A potential variation to consolidation is the absorption of one rural fire protection district into another. Technically this would not be a consolidation, as the absorbing fire district would continue to exist and the absorbed fire district would cease to exist. Further, the makeup of the board would likely be different through a consolidation, which often results in a seven-member board, whereas as the five-member board of the absorbing fire district would remain if that legal mechanism is used. Still, this process may warrant further discussion by the boards and council of the four agencies. Once the mill rates have been aligned, the "consolidation" might be accomplished through a "district-to-district" transfer of property pursuant to C.R.S. §32-1-501(1.5).<sup>44</sup> This provision only applies to fire protection districts. Without going into too much of the statutory details, fire districts can agree to transfer property between themselves.

If the fire district receiving the property has a higher mill levy, a taxpayer election must be held; however, an election would not appear to be required where the mill levies of three fire districts are identical. If an election is not required, the process could be greatly simplified and expedited. There still would be a multitude of issues to be resolved, such as the future name of the surviving fire district, the transfer of title to fire stations, personnel, equipment,

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<sup>44</sup> Colorado Revised Statutes, CRS 32-1-501, Exclusion of Property.

compensation, and the ultimate legal dissolution of the fire district being absorbed, but those issues could be negotiated and memorialized in an IGA (Intergovernmental Agreement).

Assuming the district-to-district approach is viable; the BODs would need to decide if, for purposes of transparency and community buy-in, it prefers to allow the citizens to vote on the proposed joining of the fire districts by following the traditional legal consolidation approach.

Discussion

Aligning of mill levy rates will require voter approval to increase the mill rate for Rifle and Burning Mountains. The current mill rate by agency is shown in the figure below.

**Figure 133: Maximum Approved Mill Rate by Agency**

Agency	2011 Maximum Mill Rate
BMFPD	6.102
City of Glenwood Springs	2.603
GSRFPD	6.339
RFPD	5.989

The current mill rate for the three fire districts is relatively close ranging from a low of 5.989 in RFPD to 6.339 in GSRFPD. The table clearly shows that the City of Glenwood Springs mill rate is considerably below that of the fire districts. In a previous strategy it was proposed that GSRFPD annex the City to the District. This event would need to precede this strategy. An interim step to this strategy would be for RFPD and BMFPD to align their mill rate levy with GSRFPD at 6.339. The next step would be an annex with the intent of adding the City of Glenwood Springs after an annexation to GSRFPD.

One of the concerns to the FPDs and property tax payers would be the cost of this change. The cost per district based on the 2011 TAV is shown in the figure below.

**Figure 134: Cost for Aligning Tax Rates**

Agency	Property Tax Revenue Max 2011 Mill Rate	Property Tax Revenue Aligned Mill Rate	Increased Revenue Aligned Rate
BMFPD	2,678,696	2,782,736	104,040
GSRFPD	590,994	590,994	0
RFPD	4,061,199	4,298,537	237,338

Total cost impact per year based on the 2011 TAV would be \$314,378. This cost increase would be borne by BMFPD and RFPD, of which roughly 70 percent of the increase would be covered by oil and gas properties and the remaining 30 percent paid by residential and commercial property.

### Critical Issues

- Policy level
  - A close review of the vision and values of the agencies must be performed by the BODs, verifying commonality of purpose, focus, and intent in advance of a decision to annex or consolidate agencies.
  - If the vision and values of the agencies sufficiently align or are not in substantial conflict with each other, the alignment of policies between the agencies is then necessary. Care must be taken to limit the number of policy differences between the agencies to avoid adding unnecessary complication to the process or confusion for the staff.

### Conclusion

Annexation of the City of Glenwood Springs would require voter approval. Assuming a successful outcome, annexation would not require a vote if rates are adjusted to the lowest mill levy.

## **Overarching Strategy 8 – Merge BMFPD and RFPD**

### Level of Cooperation

- Legal

### Timeline for Completion

- Mid Term

### Section

- Administration

### Affected Stakeholders

- BMFPD and RFPD

### Objective

- Merge all administrative, operations, and support services of the two fire districts.

### Summary

A merger of BMFPD and RFPD would have one district absorb the other, eliminating it as a legal entity. All resources, assets and liabilities would transfer to the surviving district. The terms of merger from an annexation can be the result of negotiation between the two agencies in advance. An organizational structure would be agreed upon, the status of all employees being transferred would be addressed (including rank, assignments, and seniority).

### Discussion

The merging district negotiates what it can before the fact and when approved by the BODs, turns all assets over to the merger district. The merger district's policies, procedures, practices, name, manner of business and culture becomes the prevailing environment. To say that the merging district doesn't cause changes to the merger district however, is an overstatement. Combining two agencies together naturally creates impacts to the culture of the surviving entity and a new culture will emerge.

The resource pool is larger as a result of a merger, but so too is the demand for service. Restructuring the organization to maximize efficient delivery of service and management of the agency will create need for new positions and eliminate redundant positions.

Some strategies related to merger are somewhat complicated and require careful planning and analysis by and between the two agencies prior to implementation, then a shared interest in managing the resulting consolidation after implementation. In this case, a full merger by

annexation is simpler, since a merger eliminates one of the agencies and there requires no further negotiation.

This strategy can increase efficiency by eliminating any duplication that exists between the two agencies, but it will, at the very least, eliminate five fire commissioners and a fire district as a legal entity.

Manpower Analysis

Figure 135 lists the current budgeted administrative and support positions in BMFD and RFPD, a conceptual staffing configuration for a merged district, and net changes in staffing.

**Figure 135: Conceptual – Administrative Staffing Merged BMFPD and RFPD**

Positions	BMFD 2011 Budget	RFPD 2011 Budget	Total FTEs	Merger FTEs	Merged FTEs
<b>Administration</b>					
Fire Chief	1.0	1.0	2.0	(1.0)	1.0
Deputy Chief	0.0	1.0	1.0	0.0	1.0
Division Chief – Fire Prevention	1.0	1.0	2.0	(1.0)	1.0
Fire Inspector	0.0	1.0	1.0	1.0	2.0
EMS/Operations Chief	0.0	1.0	1.0	0.0	1.0
EMS Coordinator	1.0	0.0	1.0	0.0	1.0
Division Chief – Administration	0.0	1.0	1.0	0.0	1.0
Admin Assistant	1.0	1.0	2.0	0.0	2.0
Facilities Manager	1.0	0.0	1.0	0.0	1.0
Mechanic	0.5	0.0	0.5	0.0	0.5
Human Resource Manager	0.0	1.0	1.0	0.0	1.0
<b>Total Administration</b>	<b>5.5</b>	<b>8.0</b>	<b>13.5</b>	<b>(1.0)</b>	<b>12.5</b>

The conceptual illustration above provides for a single fire chief position, reduced from the two currently in place. Other position responsibilities are re-aligned and shared between the two departments where possible. The position of division chief – fire prevention was re-classified as a fire inspector. ESCI’s recommendation is related to FTE positions only and doesn’t make any judgment on the individual current filling these positions. The conceptual modifications to the administrative functions of the merged district reduce overall FTEs by one position. In Figure 136, wage values by category are shown.

**Figure 136: Conceptual Costs – Administrative Staffing Merged BMFPD and RFPD**

Positions	BMFPD 2011 Wages	Extended BMFPD Wages	RFPD 2011 Budget	Extended RFPD Wages	Extended Wages	Extended Wage Adjustments	Merged Wages
<b>Administration</b>							
Fire Chief	100,495	100,495	105,000	105,000	205,495	(100,495)	105,000
Deputy Chief	0	0	87,000	87,000	87,000	0	87,000
Division Chief - Fire Prevention	81,210	81,210	73,861	73,861	155,071	(73,861)	81,210
Fire Inspector	0	0	64,313	64,313	64,313	64,313	128,626
EMS/Operations Chief	0	0	71,011	71,011	71,011	0	71,011
EMS Coordinator	70,000	70,000	0	0	70,000	0	70,000
Division Chief - Administration	0	0	62,000	62,000	62,000	0	62,000
Admin Assistant	45,032	45,032	45,000	45,000	90,032	0	90,032
Facilities Manager	65,000	65,000	0	0	65,000	0	65,000
Mechanic	20,000	10,000	0	0	10,000	0	10,000
Human Resource Manager	0	0	62,000	62,000	62,000	0	62,000
<b>Total Administration</b>		<b>371,737</b>		<b>570,185</b>	<b>941,922</b>	<b>(110,043)</b>	<b>831,879</b>

Administrative staffing wages would decrease by \$110,043, plus applicable benefit decreases primarily in the medical insurance costs.

Figure 137 provides a comparison of current operational positions, adjusted for the reduction of six firefighter/EMT positions. Both organizations have included in the 2011 budget the addition of these positions to staff Fire Station No. 61.

**Figure 137: Conceptual Personnel Costs – Merged BMFPD and RFPD Operations**

Positions	BMFPD 2011 Budget	RFPD 2011 Budget	Total FTEs	Net FTE Change	Merged FTEs
<b>Operations</b>					
Battalion Chief	0.0	3.0	3.0	0.0	3.0
Captains	0.0	0.0	0.0	0.0	0.0
Lieutenant	0.0	3.0	3.0	0.0	3.0
Firefighter/Engineer	0.0	14.0	14.0	0.0	14.0
Firefighter/Paramedic	0.0	7.0	7.0	0.0	7.0
Firefighter/EMT	6.0	13.0	19.0	(6.0)	13.0
Part-Time	0.0	1.0	1.0	0.0	1.0
New Firefighters	0.0	3.0	3.0	0.0	3.0
<b>Total Operations</b>	<b>6.0</b>	<b>44.0</b>	<b>50.0</b>	<b>(6.0)</b>	<b>44.0</b>
<b>Total Paid Staff</b>	<b>11.5</b>	<b>52.0</b>	<b>63.5</b>	<b>(7.0)</b>	<b>56.5</b>
Percent Administration to Operations	91.67%	18.18%	27.00%		28.41%
<b>Volunteer</b>					
Deputy Chief	1.0	0.0	1.0	0	1.0
Captain Training	1.0	0.0	1.0	0	1.0
Captain	3.0	0.0	3.0	0	3.0
Firefighter/Engineer	5.0	15.0	20.0	0	20.0
Firefighter	30.0	10.0	40.0	0	40.0
<b>Total Volunteer</b>	<b>40.0</b>	<b>25.0</b>	<b>65.0</b>	<b>0</b>	<b>65.0</b>

The merged BMFPD and RFPD strategy makes the assumption that all pay levels will eventually move to the highest level. Figure 138 depicts the costs by pay category.

**Figure 138: Conceptual Personnel Costs – Merged BMFPD and RFPD**

Positions	BMFPD 2011 Wages	Extended BMFPD Wages	RFPD 2011 Budget	Extended RFPD Wages	Extended Wages	Extended Wage Adjustments	Merged Wages
<b>Operations</b>							
Battalion Chief	0	0	68,181	204,543	204,543	0	204,543
Captains	0	0	0	0	0	0	0
Lieutenant	0	0	51,951	155,853	155,853	0	155,853
Firefighter/Engineer	0	0	43,460	608,440	608,440	0	608,440
Firefighter/Paramedic	0	0	46,016	322,112	322,112	0	322,112
Firefighter/EMT	38,480	230,880	42,608	553,904	784,784	(230,880)	553,904
Part-Time	0	0	42,608	21,304	21,304	0	21,304
New Firefighters	0	0	42,608	127,824	127,824	0	127,824
<b>Total Operations</b>		<b>230,880</b>		<b>1,993,980</b>	<b>2,224,860</b>	<b>(230,880)</b>	<b>1,993,980</b>

Operations staffing costs will decrease by \$230,880 plus applicable benefit decreases (primarily in the medical insurance costs).

Merged BMFPD and RPD Fiscal Analysis

2011 budget data provided by the client was used to create a merged district of BMFPD and RPD, detailed in the following discussion.

Merged BMFPD and RPD Forecast Consolidated Taxable Assessed Value

Projected increases in new construction and TAV of existing property utilize the same assumptions contained in the current conditions section of this report. Figure 139 provides a view of the consolidated TAV for the merged District.

**Figure 139: Merged BMFPD and RPD Taxable Assessed Valuation, 2011 – 2016**

Description	2011	2012	2013	2014	2015	2016
BMFPD – Property	198,580,310	175,149,400	175,324,549	176,201,172	177,082,178	177,967,589
BMFPD – Oil and Gas	240,406,240	383,527,100	389,663,534	395,235,722	396,105,241	404,015,462
<b>Total BMFPD</b>	<b>438,986,550</b>	<b>558,676,500</b>	<b>564,988,083</b>	<b>571,436,894</b>	<b>573,187,419</b>	<b>581,983,051</b>
RFPD – Property	219,781,820	174,135,340	174,309,475	175,181,023	176,056,928	176,937,212
RFPD – Oil and Gas	458,327,850	589,586,890	599,020,280	607,586,270	608,922,960	621,083,152
<b>Total RFPD</b>	<b>678,109,670</b>	<b>763,722,230</b>	<b>773,329,756</b>	<b>782,767,293</b>	<b>784,979,888</b>	<b>798,020,364</b>
Total TAV – Property	418,362,130	349,284,740	349,634,025	351,382,195	353,139,106	354,904,801
Total TAV – Oil and Gas	698,734,090	973,113,990	988,683,814	1,002,821,992	1,005,028,201	1,025,098,614
<b>Total TAV</b>	<b>1,117,096,220</b>	<b>1,322,398,730</b>	<b>1,338,317,839</b>	<b>1,354,204,187</b>	<b>1,358,167,307</b>	<b>1,380,003,415</b>
Percent Oil and Gas	62.55%	73.59%	73.88%	74.05%	74.00%	74.28%

Merged BMFPD and RPD Forecast Revenue

Initial development of fire operations revenue was established to combine the 2011 budget data into a consolidated statement. This consolidation is detailed in Figure 140. Adjustments to the financial data include:

- Ambulance rates must be communized between the two districts. BMFPD’s rates are higher than RFPD’s rates. The amount added to income is the estimated amount of incremental income for increasing RFPD rates.
- The \$900,000 adjustment is to remove income from RFPD for providing personnel at Fire Station No. 61. In a merged district this income would not be paid.

**Figure 140: Merged BMFPD and RPD Budgeted Consolidated Revenue, 2011**

Description	BMPFD 2011 Budget	RPFD 2011 Budget	Eliminations & Adjustments	Consolidated 2011 Budget
Property Tax	2,678,695	4,061,198	0	6,739,893
Specific Ownership Tax	50,000	300,000	0	350,000
Delinquent Taxes	100	0	0	100
Fire Fees/Permits	0	0	0	0
ColoTrust Interest Income	1,000	46,000	0	47,000
Interest Apportionment	250	0	0	250
GF Interest	0	2,500	0	2,500
Ambulance	100,000	150,000	150,000	400,000
Bad Debt Recovery	0	0	0	0
Training	0	5,000	0	5,000
BMFPD IGA	0	900,000	(900,000)	0
Airport/Interagency	0	10,000	0	10,000
Haz-Mat Response	100	0	0	100
Grants	105,000	0	0	105,000
Pension State Contribution	35,000	0	0	35,000
Miscellaneous	10	0	0	10
Donations	0	0	0	0
Rental Income	50	2,000	0	2,050
<b>Total Revenue</b>	<b>2,970,205</b>	<b>5,476,698</b>	<b>(750,000)</b>	<b>7,696,903</b>
Mill Rate	6.102	5.989		6.033

The consolidation of the two fire districts results a combined tax mill rate of \$6.033 per \$1,000 of TAV. This results in a de minimis rate increase for RFPD and a small decrease for BMFPD.

*Merged BMFPD and RPD Forecast Expense*

Fire operations expense calculations merge the 2011 budget data into a consolidated statement. The modification of personnel and fringe costs will reduce total expenditures. The expenditure number is also reduced for the budgeted expense included in the BMFPD budget for RFPD personnel to cover Fire Station No. 61.

Expenses for a merged district are depicted in Figure 141.

**Figure 141: Merged BMFPD and RFPD Budgeted Expense, 2011**

Description	BMFPD 2011 Budget	RFPD 2011 Budget	Eliminations & Adjustments	Consolidated 2011 Budget
Salaries	679,958	2,836,300	(340,923)	3,175,335
Benefits and Taxes	199,444	1,033,625	(124,242)	1,108,827
Training	100,000	115,850	0	215,850
Operating Expense	789,361	350,974	(208,000)	932,335
Supply and Expense	174,995	159,000	0	333,995
Repair and Maintenance	473,126	156,000	0	629,126
TABOR Contingency Reserve	395,229	237,308	0	632,537
Interagency Cost	0	30,000	0	30,000
Debt	791,864	135,389	0	927,253
Capital	701,229	456,111	0	1,157,340
<b>Total Expenditures</b>	<b>4,305,205</b>	<b>5,510,557</b>	<b>(673,165)</b>	<b>9,142,597</b>

Cost decreases in wages and benefits under a merged BMFPD and RFPD total \$673,165 for the baseline year.

*Merged BMFPD and RPD Forecast Revenue, 2011 – 2016*

Figure 141 details the calculation of consolidated revenue for the merged organization, projected through 2016. Included in the property revenue is the assumption that the entity's tax rate will be established at a mill rate of \$6.033 per \$1,000 of TAV. All other line items have been increased by the ten-year average annual CPI-U of 2.45 percent.

**Figure 142: Merged BMFPD and RPD Consolidated Revenue, 2011 – 2016**

Description	Consolidated 2011 Budget	2012	2013	2014	2015	2016
Property Tax/City Transfer	6,739,893	7,978,032	8,074,072	8,169,914	8,193,823	8,325,561
Specific Ownership Tax	350,000	358,575	367,360	376,360	385,581	395,028
Delinquent Taxes	100	102	105	108	110	113
Fire fees/Permits	0	0	0	0	0	0
ColoTrust Interest Income	47,000	48,152	49,331	50,540	51,778	53,047
Interest Apportionment	250	256	262	269	275	282
GF Interest	2,500	2,561	2,624	2,688	2,754	2,822
Ambulance	400,000	409,800	419,840	430,126	440,664	451,461
Bad Debt Recovery	0	0	0	0	0	0
Training	5,000	5,123	5,248	5,377	5,508	5,643
BMFPD IGA	0	0	0	0	0	0
Airport/Interagency	10,000	10,245	10,496	10,753	11,017	11,287
Hazardous Material Response	100	102	105	108	110	113
Grants	105,000	107,573	110,208	112,908	115,674	118,508
Pension State Contribution	35,000	35,858	36,736	37,636	38,558	39,503
Miscellaneous	10	10	10	11	11	11
Donations	0	0	0	0	0	0
Rental Income	2,050	2,100	2,152	2,204	2,258	2,314
<b>Total Revenue</b>	<b>7,696,903</b>	<b>8,958,488</b>	<b>9,078,549</b>	<b>9,199,002</b>	<b>9,248,124</b>	<b>9,405,691</b>
Mill Rate	6.033	6.033	6.033	6.033	6.033	6.033

Merged BMFPD and RPD Forecast Expense

Figure 143 depicts the estimated consolidated fire expenses for the merged organization. Personnel and fringe benefits are increased by 3.00 percent per year; all other line items have been increased by the ten-year average CPI of 2.45 percent. Debt is included at the current amortization schedule. Capital/vehicle replacement is included utilizing the vehicle replacement schedule prepared by ESCI.

**Figure 143: Merged BMFPD and RPD Consolidated Expense, 2011 – 2016**

Description	Consolidated 2011 Budget	2012	2013	2014	2015	2016
Salaries	3,175,335	3,270,595	3,368,713	3,469,774	3,573,868	3,681,084
Benefits and Taxes	1,108,827	1,142,092	1,176,355	1,211,646	1,247,995	1,285,435
Training	215,850	155,013	158,811	162,702	166,688	170,772
Operating Expense	932,335	946,286	969,470	993,222	1,017,556	1,042,486
Supply and Expense	333,995	322,630	330,534	338,632	346,929	355,429
Repair and Maintenance	629,126	389,280	398,818	408,589	418,599	428,855
TABOR Contingency Reserve	632,537	235,558	241,368	243,572	245,639	251,934
Interagency Cost	30,000	30,735	31,488	32,259	33,050	33,860
Debt	927,253	927,253	927,243	801,805	666,416	666,416
Capital	1,157,340	668,063	684,184	700,453	716,873	733,450
<b>Total Expenditures</b>	<b>9,142,597</b>	<b>8,087,506</b>	<b>8,286,984</b>	<b>8,362,654</b>	<b>8,433,613</b>	<b>8,649,719</b>

Merged BMFPD and RPD Summary of Operations

Summarized in Figure 144 is the forecast revenue and expenditure activity for 2011 through 2016 for a merged BMFPD and RFPD.

**Figure 144: Merged BMFPD and RFPD Operations Consolidated, 2011 – 2016**

Description	Consolidated 2011 Budget	2012	2013	2014	2015	2016
Beginning Fund Balance	9,092,508	8,546,814	9,417,795	10,209,360	11,045,708	11,860,218
<b>Revenue</b>	<b>7,696,903</b>	<b>8,958,488</b>	<b>9,078,549</b>	<b>9,199,002</b>	<b>9,248,124</b>	<b>9,405,691</b>
<b>Expenditures</b>						
Salaries	3,175,335	3,270,595	3,368,713	3,469,774	3,573,868	3,681,084
Benefits and Taxes	1,108,827	1,142,092	1,176,355	1,211,646	1,247,995	1,285,435
Training	215,850	155,013	158,811	162,702	166,688	170,772
Operating Expense	932,335	946,286	969,470	993,222	1,017,556	1,042,486
Supply and Expense	333,995	322,630	330,534	338,632	346,929	355,429
Repair and Maintenance	629,126	389,280	398,818	408,589	418,599	428,855
TABOR Contingency Reserve	632,537	235,558	241,368	243,572	245,639	251,934
Interagency Cost	30,000	30,735	31,488	32,259	33,050	33,860
Debt	927,253	927,253	927,243	801,805	666,416	666,416
Capital	1,157,340	668,063	684,184	700,453	716,873	733,450
Under Spending 2011 Budget	(900,000)	0	0	0	0	0
<b>Total Expenditures</b>	<b>8,242,597</b>	<b>8,087,506</b>	<b>8,286,984</b>	<b>8,362,654</b>	<b>8,433,613</b>	<b>8,649,719</b>
<b>Ending Fund Balance</b>	<b>8,546,814</b>	<b>9,417,795</b>	<b>10,209,360</b>	<b>11,045,708</b>	<b>11,860,218</b>	<b>12,616,191</b>

The summary for operations shows that revenue and the ending fund balance will increase each year through 2016.

Conclusion

The strategy of merging BMFPD and RFPD is considered feasible. Revenue is relatively constant with the individual agencies while operating expenses are forecast to initially decrease. This strategy would not alter services, service levels, or change response time performance. BMFPD and RFPD have the most in common of the four agencies; both are FPDs, have a contract for shared personnel, have comparable geographic response areas, and maintain similar capital apparatus.

## **Overarching Strategy 9 – Merge BMFPD and RFPD and a Portion of GSRFPD and Merge Glenwood Springs and a Portion of GSRFPD**

### Level of Cooperation

- Governance

### Timeline for Completion

- Long Term

### Section

- Administration

### Affected Stakeholders

- BMFPD, GSFD, GSRFPD, and RFPD

### Objective

- Provide improved service to the western portion of GSRFPD.

### Summary

A merged BMFPD and RFPD would not address the opportunity to improve service to the western portion of GSRFPD. With the inclusion of the western section of the District in the merger of BMFPD and RFPD it possible to reduce emergency response times to the area. The separation of the proposed annexation area will create a transfer of assessed property tax value and ultimately property taxes from that portion of GSRFPD to the new merged district. The remaining area would continue as the GSRFPD.

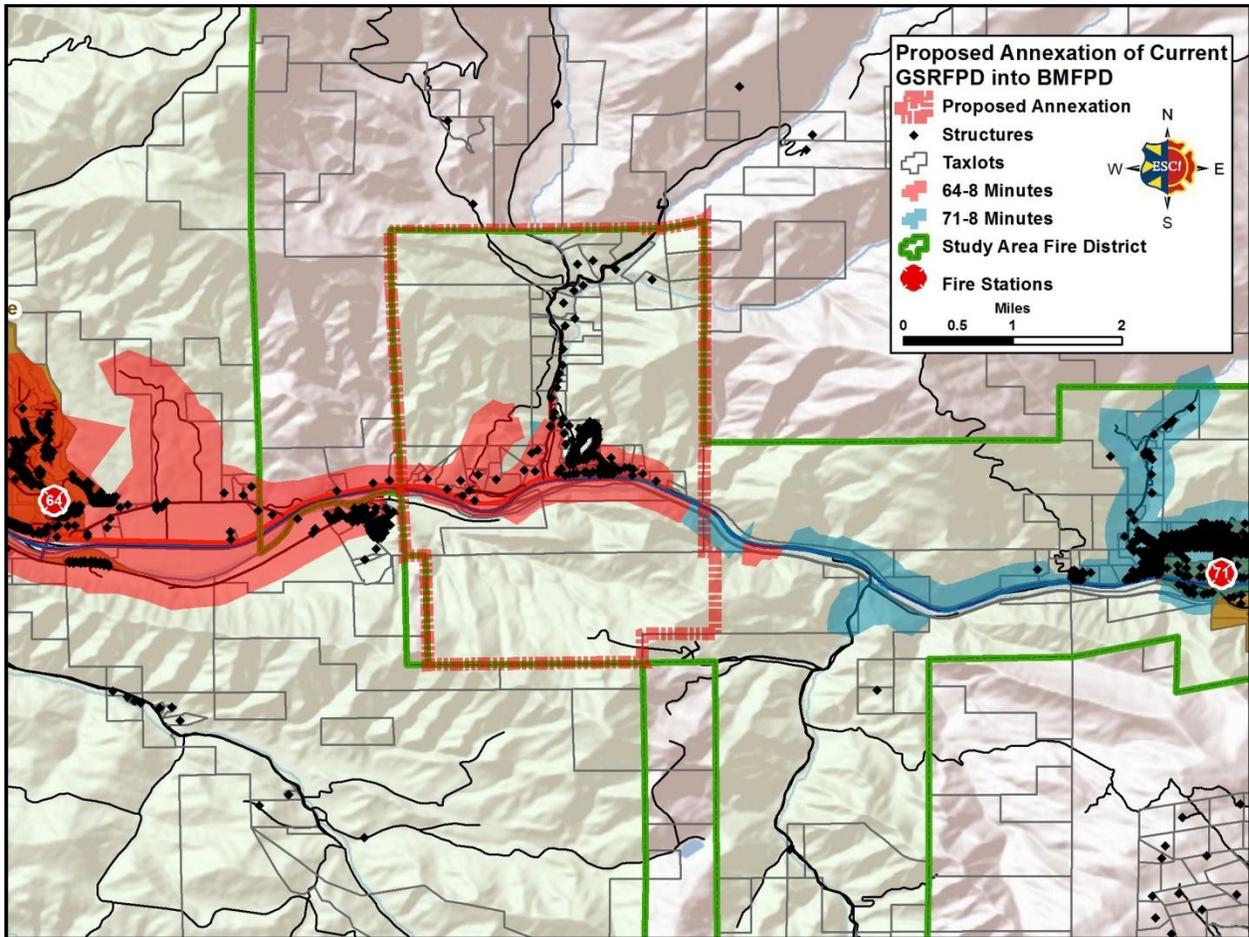
### Discussion

As discussed in Overarching Strategy 8 – Merge BMFPD and RFPD, it is possible to merge fire districts through the equalization of mill levy rates or using the lowest mill rate with approval of the governing boards. In this overarching strategy the western end of the GSRFPD would be included in the merger in an effort to reduce response time to the area. The proposed annexation would involve:

- Area: Approximately 8.5 square miles, 12.1 percent of the total area of GSRFPD (excludes the City of Glenwood Springs). The Canyon Creek Estates subdivision is within the proposed annexation.
- Structures: 142 structures. This equals approximately 10.7 percent of the structures in GSRFPD (excludes structures in the City of Glenwood Springs).
- Tax lots: 167 tax lots categorized as private ownership and not tax exempt (Source: Garfield County Assessor data).

The following map shows the proposed annexation area and response times.

Figure 145: GSRFPD Area of Proposed Annexation



The merged fire district would have a tax levy rate that is lower than the current GSRFPD mill levy. With a lower rate, no public vote is required for the annexation to occur; only a vote of the GSRFPD and the annexing board of directors is needed for the annexation to occur. The GSRFPD BODs would need to decide if, for purposes of transparency and community buy-in, it prefers to allow the citizens to vote on the proposed annexation of the area by following the traditional legal consolidation approach.

### Critical Issues

- Policy Level
  - A transfer authority for fire and EMS from the City Council to the GSRFPD BOD must occur.
  - A transfer of authority of the designated portion of the District from the GSRFPD BODs to the BODs of the merged BMFPD and RFPD.

- Staff level
  - No changes in staffing levels would occur for the GSFD under this overarching strategy.
  - Staffing for the merged BMFPD and RFPD and western portion of GSRFPD would remain the same as discussed in Overarching Strategy 8 – Merge BMFPD and RFPD.
- Financial Considerations
  - A transfer of the western area of GSRFPD, the City of Glenwood Springs, GSFD, and GSRFPD will need to analyze the impact of a reduction in property tax revenue.
  - Glenwood Springs and GSRFPD have special tax levies for payment of a general obligation bond and vehicle replacement. The annexed area would no longer be required to pay on these bonds which would increase costs to the remaining properties.

### Guidance

GSRFPD would need to approve the inclusion and the transfer of the designated portion of the District and any portion of assets into the merged BMFPD and RFPD. The GSRFPD BODs would also abdicate policy decisions to the governing board of the merged BMFPD and RFPD. Additionally the newly formed district will need to:

- Conduct regular joint board and fire chief meetings.
- Conduct regular command staff meetings to discuss proposed changes.
- Engage operational employee groups in regular discussions, fielding questions and providing responses. Reassure employees to the extent possible but always be honest. Don't speculate but express your collective intentions. There is no such thing as over-communicating when job security is at stake.
- Consider establishing a focus group of external stakeholders to use as a sounding board on the concept of an annexation. Select people of influence and keep them engaged. Listen carefully to their advice and concerns. As with employees, be honest and don't speculate but express your collective intentions.
- Develop a communication strategy to keep the citizens of the combined service area informed as implementation appears a likely result of the discussions.

### Fiscal Considerations

The separation of the proposed annexation area will create a transfer of assessed property tax value and ultimately property taxes from GSRFPD to the new merged district. ESCI has not completed an in-depth review of the proposed area TAV but for illustration purposes will apply a reasonable average to determine the estimated financial impact to the remaining District and the merged District. The square miles and number of structures in GSRFPD was used to allocate

the TAV of the annexed and remainder of the District. The figure below depicts the calculation of this percentage:

**Figure 146: Percentage of Impacted Area and Structures (Conceptual)**

Description	Amount	Percentage
Acres	8.5	12.1%
Number of Structures	142	10.7%
<b>Average</b>		<b>11.4%</b>

Total TAV of the annexation area is calculated at 11.4 percent. This percentage was used to determine the forecast TAV for both the new district and the current district:

**Figure 147: Forecast TAV Impact 2011 – 2016 (Conceptual)**

Year	GSRFPD	Allocated to Merged District	Net/Remaining GSRFPD
2011	93,231,470	10,628,388	82,603,082
2012	71,228,843	8,120,088	63,108,755
2013	71,300,072	8,128,208	63,171,864
2014	71,656,572	8,168,849	63,487,723
2015	72,014,855	8,209,693	63,805,162
2016	72,374,929	8,250,742	64,124,187

Allocation of Annexed GSRFPD Area Forecast Revenue, 2011 – 2016

GSRFPD will see a reduction in revenue for all future years after the annexation of the western portion of the District. The amount of revenue reduction from 2011 to 2016 is shown in the following figure. Property tax revenue was calculated at the GSRFPD 2011 mill levy rate of 6.305.

**Figure 148: Forecast Revenue Impact on Current District, 2011 – 2016 (Conceptual)**

Year	Net/Remaining TAV GSRFPD	Revenue Loss with Mill Levy of 6.305
2011	82,603,082	67,012
2012	63,108,755	51,197
2013	63,171,864	51,248
2014	63,487,723	51,505
2015	63,805,162	51,762
2016	64,124,187	52,021

Conversely, annexation of the western portion of GSRFPD to the merged BMFPD and RFPD will increase revenue. A calculation of the forecast changes is shown in growth as shown in Figure 149.

**Figure 149: Forecast Revenue Impact on Merged District, 2011 – 2016 (Conceptual)**

Year	Remaining GSRFPD	Revenue Gain with Mill Levy of 6.033
2011	10,628,388	64,121
2012	8,120,088	48,988
2013	8,128,208	49,037
2014	8,168,849	49,283
2015	8,209,693	49,529
2016	8,250,742	49,777

The merged District mill levy rate of 6.033 is lower than the current GSRFPD levy rate of 6.305.

#### Expenditures

Expenditures for a merged GSFD, GSRFPD and the merged BMFPD, RFPD and annexation of the western portion of GSRFPD are not projected to change under this strategy.

#### Conclusion

Financially this strategy is not considered feasible. Operating expenses remain unchanged for each of the agencies, revenue would be reduced for the remaining GSRFPD, and increase for the merged BMFPD, RFPD, and the annexed western portion of GSRFPD. This strategy does offer a reduced response time for the annexed western portion of GSRFPD. However, the same result can be expected with implementation of Strategy B – Adopt Dropped Border Response.

## Strategies for Efficiency

The Strategies for Efficiency are listed in the next section of this report. They each fall into one of the general partnering strategies listed above, and represent various steps along the continuum of partnering. Some are dependent upon others and some can be implemented independent of other actions. They are categorized into the following major headings:

- Level of cooperation, i.e. Functional Consolidation, Operational Consolidation, Merger
- Timeline for completion
- Affected section, i.e. Administration, Operations, Support Services
- Affected stakeholders
- Objective(s)
- Summary of strategy
- Discussion of strategy
- Guidance
- Fiscal considerations

Timelines are described as short, mid, or long-term. Short-term is considered to occur within one year to 18 months; mid-term is from three to five years; and long-term is generally thought of as anything beyond five years. The timelines are flexible because most partnering strategies are interdependent, which necessitates cross-strategy integration of planning and implementation.

It is important to point out that BMFPD, GSFD, GSRFPD, and RFPD are already actively working to implement select concepts. Regardless of the existing level of implementation, we provide detailed information on all strategies to provide the reader with a complete picture of the cooperative potential. For instance, RFPD provides BMFPD with personnel to staff and response from Fire Station No. 64; however, we include a discussion of a like strategy (Strategy D – Provide for Joint Staffing of Fire Stations and Apparatus) as an element of the report. Not including this discussion within the framework of the report yields an incomplete depiction.

The discussion of each cooperative strategy includes a listing of the affected agencies. In most instances, programs are limited to BMFPD, GSFD, GSRFPD, and RFPD but may influence the programs of other agencies. On occasion ESCI lists several strategies that could include involvement with other emergency service providers that would be mutually beneficial to all

participants. Consequently, the summary description may indicate bearing on more agencies than would seem intuitive.

The following summary table listing each of the strategies with the objective, level of cooperation, timeline, organization section, and affected agencies precedes the detailed discussion.

**Figure 150: Summary Table of Overarching Strategies**

Overarching Strategy (See page for detail)	Objective(s)	Level of Cooperation	Timeline Short, Mid, Long	Section	Affected Agencies
Overarching Strategy 1 – Status Quo (Continuation of Current Efforts of Cooperation), page 186	<ul style="list-style-type: none"> <li>Keep fire departments independent for greatest local control.</li> <li>Capture efficiencies of selective functional strategies.</li> </ul>	Administrative	Short Term	Administration	BMFPD, GSFD, GSRFPD, and RFPD
Overarching Strategy 2 – Administrative Consolidation, page 188	Improved administrative efficiencies with a single combined administrative function for the four fire agencies.	Administrative	Long Term	Administration	BMFPD, GSFD, GSRFPD, and RFPD
Overarching Strategy 3 – Operational Consolidation, page 195	Combine all operational elements of all three agencies into a singular function to promote improved efficiencies by eliminating some duplication	Operational	Long Term	Administration	BMFPD, GSFD, GSRFPD, and RFPD
Overarching Strategy 4 – FA (Fire Authority), page 201	<ul style="list-style-type: none"> <li>Combine all administrative, operations, and support services of the three emergency service providers.</li> <li>Form a governing board (fire authority) with representation from each of the four fire agencies.</li> <li>Retain local control.</li> </ul>	Governance	Short to Mid Term	Administration	BMFPD, GSFD, GSRFPD, and RFPD
Overarching Strategy 5 – Formation of a New Fire District, page 213	Combine all operational elements of all three agencies into a singular function to promote improved efficiencies by eliminating some duplication.	Governance	Long Term	Administration	BMFPD, GSFD, GSRFPD, and RFPD
Overarching Strategy 6 – Annexation of the City of Glenwood Springs into GSRFPD, page 217	<ul style="list-style-type: none"> <li>Annex the City of Glenwood Springs into the GSRFPD.</li> <li>Combine all GSFD operational and administrative elements with GSRFPD and abdicate policy decisions to the GSRFPD.</li> </ul>	Governance	Short Term	Administration	City of Glenwood Springs property owners, GSFD, and GSRFPD

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Overarching Strategy (See page for detail)	Objective(s)	Level of Cooperation	Timeline Short, Mid, Long	Section	Affected Agencies
Overarching Strategy 7 – Align Mill Levy Rates and Annex FPDs, page 222	<ul style="list-style-type: none"> <li>Align the tax mill levy rate for the agencies to expand the possibility of potential cooperative efforts include creation of a merge single district.</li> <li>This strategy would need to occur after the strategy for annexation of the City of Glenwood Springs into Glenwood Springs Rural Fire Protection District has been implemented</li> </ul>	Administrative	Mid to Long Term	Administrative	BMFPD, GSFD, GSRFPD, and RFPD
Overarching Strategy 8 – Merge BMFPD and RFPD, page 225	Merge all administrative, operations, and support services of the two fire districts.	Legal	Mid Term	Administrative	BMFPD and RFPD
Overarching Strategy 9 – Merge BMFPD and RFPD and a Portion of GSRFPD and Merge Glenwood Springs and a Portion of GSRFPD, page 235	Provide improved service to the western portion of GSRFPD.	Governance	Long Term	Administration	BMFPD, GSFD, GSRFPD, and RFPD

**Figure 151: Summary Table of Partnering Strategies**

Partnering Strategy (See page for detail)	Objective(s)	Level of Cooperation	Timeline Short, Mid, Long	Section	Affected Agencies
Strategy A – Develop a Joint Support and Logistics Services Division, page 254	<ul style="list-style-type: none"> <li>Develop a joint Support Services Division that promotes improved operational readiness and achieves procurement efficiencies by eliminating duplication in the acquisition and distribution of supplies.</li> <li>Create a uniform set of standards for apparatus, small equipment, PPE (personal protective equipment), emergency supplies, and IS/IT services.</li> <li>Develop a joint preventative maintenance and repair service program for physical assets, apparatus, small equipment, and IS/IT systems.</li> </ul>	Functional	Long Term	Support Services	<ul style="list-style-type: none"> <li>BMFPD, GSFD, and RFPD</li> <li>Consider expanding scope of strategy to include neighboring fire agencies</li> </ul>
Strategy B – Adopt Dropped Border Response, page 260	Improve service delivery to each agency by sending the closest unit to an emergency call for service without regard to jurisdiction.	Functional	Short Term	Emergency Operations	<ul style="list-style-type: none"> <li>BMFPD, GSFD, GSRFPD, and RFPD</li> <li>Consider expanding scope of strategy to include neighboring fire agencies</li> </ul>
Strategy C – Develop Uniform Pre-Incident Plans, page 262	Provide a system of shared operational plans for use during emergencies and non-emergent incidents.	Functional	Mid Term	Emergency Operations	BMFPD, GSFD, RFPD and other Regional Emergency Service Providers

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Partnering Strategy (See page for detail)	Objective(s)	Level of Cooperation	Timeline Short, Mid, Long	Section	Affected Agencies
Strategy D – Provide for Joint Staffing of Fire Stations and Apparatus, page 266	<ul style="list-style-type: none"> <li>• Provide for distribution of facilities and deployment of full-time personnel consistent with a regional standard of cover.</li> <li>• Provide consistent fire and emergency services within areas efficiently before, during, and after development.</li> <li>• Provide potential solution for understaffing/vacant positions that the departments are holding at this time in anticipation of a regional or joint deployment strategies.</li> <li>• Augment full-time deployment with volunteers where possible.</li> </ul>	Functional	Short Term	Emergency Operations	BMFPD, GSFD, and RFPD
Strategy E – Provide Regional Incident Command and Operations Supervision, page 270	<ul style="list-style-type: none"> <li>• Provide for IC (Incident Command) supervision of emergency operations.</li> <li>• Provide for supervision of on-duty and volunteer personnel during routine operations.</li> </ul>	Functional	Short Term	Emergency Operations	BMFPD, GSFD, and RFPD
Strategy F – Purchase and Implement an Electronic Staffing Program, page 273	Provide a uniform electronic system that combines telephone callback, personnel scheduling, and includes payroll and administrative features.	Functional	Long Term	Administration and Emergency Operations	BMFPD, GSFD, and RFPD
Strategy G – Develop Standard Operating Guidelines, page 276	Provide guidelines for operation during emergencies and non-emergency incidents and activities.	Functional	Short Term	Emergency Operations	BMFPD, GSFD, RFPD, and other Regional Emergency Service Providers

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Partnering Strategy (See page for detail)	Objective(s)	Level of Cooperation	Timeline Short, Mid, Long	Section	Affected Agencies
Strategy H – Shared Specialty Teams, page 278	Provide specialty teams or specialty functions by allocating and distributing resources to achieve minimum cost and maximum operational benefit.	Functional	Mid Term	Emergency Operations	BMFPD, GSFD, RFPD, and other Regional Emergency Service Providers
Strategy I – Provide Joint Standards for Service Delivery, page 280	<ul style="list-style-type: none"> <li>Establish standards as set out with Colorado Department of Public Safety, Division of Fire Safety Job Performance Requirements (BMFPD and GSFD are currently non-compliant, RFPD is partially compliant).</li> <li>Establish joint, regional Standards for Service Delivery Policy, defining services, service levels, and response times to the 90th percentile so that adequate system planning can take place.</li> <li>Develop a system-wide reporting structure to standardize the collection and reporting of relative compliance with the Standards for Service Delivery Policy.</li> </ul>	Functional	Short to Mid Term	EMS and Emergency Operations	BMFPD, GSFD, GSRFPD, and RFPD
Strategy J – Implement the Use of Peak Activity Units (PAUs), page 284	Provide special response units in areas of high incident activity and for replacement of units attending training sessions or called to cover special events.	Functional	Mid Term	EMS, Emergency Operations, and Training	BMFPD, GSFD, and RFPD

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Partnering Strategy (See page for detail)	Objective(s)	Level of Cooperation	Timeline Short, Mid, Long	Section	Affected Agencies
Strategy K – Develop Deployment Standards, page 287	Develop deployment standards that establish the distribution and concentration of emergency resources, of both fixed and mobile assets.	Functional	Short Term	EMS and Emergency Operations	BMFPD, GSFD, GSRFPD, and RFPD
Strategy L – Shared Public Education/Public Information, page 290	Provide Public Education and Public Information services for the combined service area.	Functional	Mid Term	Administration and Fire Prevention	BMFPD, GSFD, and RFPD
Strategy M – Shared or Common RMS (Records Management System), page 292	Establish a shared or common electronic RMS (Records Management System), including NFIRS compliant software for all three agencies.	Functional	Mid Term	Administration and Emergency Operations	BMFPD, GSFD, and RFPD
Strategy N – Shared Intern Program, page 294	<ul style="list-style-type: none"> <li>• Augment career staffing.</li> <li>• Provide surge capacity staffing.</li> <li>• Develop a training program and pool of recruit candidates for career positions.</li> </ul>	Functional	Mid Term	Administration, Training, and Emergency Operations	BMFPD, GSFD, and RFPD
Strategy O – Shared Volunteer Services, page 296	Combine existing volunteer cadre into a single pool of resources for all three agencies.	Functional	Mid Term	Emergency Operations and Training	BMFPD, GSFD, and RFPD
Strategy P – Shared Administrative Services, page 298	<ul style="list-style-type: none"> <li>• Cost avoidance through shared administrative and support services and elimination of duplicated efforts.</li> <li>• Efficiencies through specialization of job duties.</li> </ul>	Functional	Mid Term	Administration	BMFPD, GSFD, and RFPD
Strategy Q – Align Operational Staffing Schedules, page 300	Establish a 48-hour on-duty and 96-hour off-duty 56-hour workweek for operational personnel.	Functional	Mid Term	Emergency Operations	BMFPD, GSFD, and RFPD

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Partnering Strategy (See page for detail)	Objective(s)	Level of Cooperation	Timeline Short, Mid, Long	Section	Affected Agencies
Strategy R – Implement Criteria Based Dispatching, page 302	Send the most appropriate unit to an emergency based on medical criteria established by experts in the field.	Functional	Short Term	Emergency Operations	BMFPD, GSFD, and RFPD
Strategy S – Implement a Training RMS (Records Management System), page 304	Provide a fully integrated comprehensive training records management system (RMS).	Functional	Mid Term	Training	BMFPD, GSFD, and RFPD
Strategy T – Develop Mutual Training Strategies, page 307	<ul style="list-style-type: none"> <li>• Provide purpose and direction for training program management and delivery.</li> <li>• Combine strengths and resources to:                             <ul style="list-style-type: none"> <li>○ Overcome current training obstacles and deficiencies.</li> <li>○ Provide a comprehensive and integrated training structure.</li> <li>○ Develop a mutually beneficial training program.</li> <li>○ Train and certify a cadre of knowledgeable and skilled emergency responders.</li> </ul> </li> </ul>	Functional	Short to Mid Term	Training	BMFPD, GSFD, and RFPD
Strategy U – Develop an Annual Shared Training Plan, page 310	<ul style="list-style-type: none"> <li>• Provide standardized and consistent training.</li> <li>• Provide a well-trained emergency workforce.</li> <li>• Provide long-term vision and direction for training delivery.</li> </ul>	Functional	Short Term	Training	BMFPD, GSFD, and RFPD

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Partnering Strategy (See page for detail)	Objective(s)	Level of Cooperation	Timeline Short, Mid, Long	Section	Affected Agencies
Strategy V – Consolidate Training into a Single Training Division, page 313	<ul style="list-style-type: none"> <li>Eliminate duplicated efforts in training emergency responders.</li> <li>Create a single unified training division.</li> </ul>	Functional	Mid Term	Training	BMFPD, GSFD, and RFPD
Strategy W – Develop and Adopt Training Standards, page 316	<ul style="list-style-type: none"> <li>Adopt uniform training guidelines.</li> <li>Adopt uniform certification standards.</li> </ul>	Functional	Short Term	Training	BMFPD, GSFD, and RFPD
Strategy X – Develop a Shared Training Manual, page 318	Provide consistent, standardized training procedures.	Functional	Short Term	Training	BMFPD, GSFD, RFPD, and other Regional Emergency Service Providers
Strategy Y – Develop a Shared Fire and EMS Training Facility, page 321	<ul style="list-style-type: none"> <li>Provide training facilities readily available to the three fire departments.</li> <li>Develop and maintain the knowledge and skills of emergency services personnel</li> </ul>	Functional	Mid Term	Training	BMFPD, GSFD, RFPD, and other Regional Emergency Service Providers
Strategy Z – Implement and Cooperatively Use a Video Conferencing System, page 324	<ul style="list-style-type: none"> <li>Provide standardized, consistent, and high-quality classroom training.</li> <li>Reduce training staff hours required for curriculum delivery.</li> <li>Increase in-service time of emergency response apparatus.</li> </ul>	Functional	Short Term	Training	BMFPD, GSFD, RFPD, and other Regional Emergency Service Providers
Strategy AA – Develop a Single Apparatus Refurbishment/Replacement Plan, page 327	<ul style="list-style-type: none"> <li>Create a single set of emergency apparatus specifications.</li> <li>Provide single-source uniform emergency apparatus.</li> </ul>	Functional	Long Term	Emergency Operations	BMFPD, GSFD, RFPD, and other Regional Emergency Service Providers

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Partnering Strategy (See page for detail)	Objective(s)	Level of Cooperation	Timeline Short, Mid, Long	Section	Affected Agencies
Strategy BB – Complete the AVL and MDC/MDT Project, page 331	<ul style="list-style-type: none"> <li>Provide AVL (Automatic Vehicle Locator) information transmitted to dispatch for use during emergency and non-emergency incidents.</li> <li>Provide standardized MDC/MDT (Mobile Data Computer or Mobile Data Terminal) in emergency apparatus.</li> </ul>	Functional	Mid Term	Emergency Operations	BMFPD, GSFD, RFPD and other Regional Emergency Service Providers
Strategy CC – Develop a Regional Juvenile Fire Setter Intervention Network, page 336	Provide an effective means for intervening in juvenile-set/caused fires.	Functional	Short Term	Fire Prevention	BMFPD, GSFD, RFPD, other Emergency Service Providers, and allied healthcare professionals
Strategy DD – Create a Unified Occupational Medicine Program, page 338	Provide a fire-service related occupational and health program.	Functional	Mid Term	Administration	BMFPD, GSFD, RFPD, and other Regional Emergency Service Providers
Strategy EE – Create a Unified Wellness and Fitness Program, page 341	<ul style="list-style-type: none"> <li>Provide a wellness and fitness program that promotes the improved health and well-being of personnel at all ranks.</li> <li>Increase fitness levels and decrease injuries.</li> <li>Reduce frequency and number of sick/sick injury incidents.</li> <li>Reduce the number of days used for sick/sick injury leave.</li> </ul>	Functional	Mid Term	Administration	BMFPD, GSFD, and RFPD
Strategy FF – Develop Uniform Fees for Service, page 344	Provide fire departments with a uniform schedule of fees for service.	Functional	Mid Term	Administration	BMFPD, GSFD, and RFPD

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Partnering Strategy (See page for detail)	Objective(s)	Level of Cooperation	Timeline Short, Mid, Long	Section	Affected Agencies
Strategy GG – Align Pay and Benefits, page 347	<ul style="list-style-type: none"> <li>Demonstrate a continued collaborative relationship between labor and management by providing a model wage and benefit package.</li> <li>Align the effective dates and provisions of wage and benefit packages to create a smooth path for unification between participating agencies at a future date, if this option is chosen.</li> <li>Elimination of duplicated effort in developing wage and benefit packages.</li> </ul>	Functional	Long Term	Administration	BMFPD, GSFD, and RFPD
Strategy HH – Adopt a Single Fire Code and Amendments, page 354	<ul style="list-style-type: none"> <li>Provide for a unified fire prevention code with a single set of local amendments.</li> <li>Provide local amendments as deemed necessary that can be applied to new construction, remodels, and tenant improvements uniformly.</li> </ul>	Functional	Mid Term	Fire Prevention	Garfield County, the Cities of Glenwood Springs, New Castle, Rifle, and Silt, and BMFPD and RFPD.
Strategy II – Provide for Shared EMS Supervision, page 354	Provide a single point for training, recertification of all EMS personnel in the organizations.	Functional	Short Term	EMS	BMFPD, GSFD, RFPD, and other Regional Emergency Service Providers
Strategy JJ – Provide Joint EMS Supply Purchasing and Logistics Services, page 357	Standardize supply purchases through group purchasing and standardize supply distribution.	Functional	Short Term	EMS	BMFPD, GSFD, RFPD, and other Regional Emergency Service Providers
Strategy KK – Create Shared Methods to Provide Medic Unit Surge Capacity, page 360	To prepare to accommodate medic unit service demands that exceed normal operating conditions in the event of a large scale EMS incident or local disaster.	Functional	Short Term	EMS	BMFPD, GSFD, RFPD, and other EMS Providers

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Partnering Strategy (See page for detail)	Objective(s)	Level of Cooperation	Timeline Short, Mid, Long	Section	Affected Agencies
Strategy LL – Provide System-Wide Guidelines for EMS Response, page 363	<ul style="list-style-type: none"> <li>Define EMS response times so that adequate system planning can take place.</li> <li>Establish parameters for maximum response times including response time definitions on a per-call basis.</li> <li>System-wide reporting structure with standardized collection and reporting of response times.</li> </ul>	Functional	Short Term	EMS and Emergency Operations	BMFPD, GSFD, and RFPD
Strategy MM – Develop System-Wide Deployment Plan for Paramedics, page 367	<ul style="list-style-type: none"> <li>Provide guidelines for deployment of paramedic resources.</li> <li>Ensure that the closest available paramedic arrives within the established system response parameters.</li> </ul>	Functional	Short Term	EMS and Emergency Operations	BMFPD, GSFD, and RFPD
Strategy NN – Develop Centralized EMS Billing, page 369	Provide a single internal source for EMS billing services.	Functional	Short Term	Administration	BMFPD, GSFD, and RFPD
Strategy OO – Provide BLS and Inter-Facility EMS Transport Services, page 371	<ul style="list-style-type: none"> <li>Provide for an integrated EMS system between the fire agencies and area hospitals.</li> <li>Provide consistent emergent and non-emergent inter-facility EMS transport service.</li> <li>Provide additional EMS unit and personnel resources.</li> <li>Increased ambulance service revenue.</li> </ul>	Functional	Mid Term	Administration, EMS, Operations	BMFPD, GSFD, RFPD, Valley View and Grand River hospitals, and specialty care facilities

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Partnering Strategy (See page for detail)	Objective(s)	Level of Cooperation	Timeline Short, Mid, Long	Section	Affected Agencies
<p align="center">Strategy PP – Annex Unprotected Property into a Fire Protection District, Page 374</p>	<ul style="list-style-type: none"> <li>• Provide for fire and EMS service to the area adjacent to BMFPD, GSFD, GSRFPD and RFPD.</li> <li>• Deliver fire and EMS to unprotected areas consistent with adopted response standards.</li> <li>• Provide parity for finances of services to unprotected areas.</li> </ul>	<p align="center">Functional</p>	<p align="center">Mid Term</p>	<p align="center">Policy, Administration, EMS, and Operations</p>	<p align="center">BMFPD, GSFD, GSRFPD, RFPD, and unprotected property adjacent to the FPDs</p>

## **Strategy A – Develop a Joint Support and Logistics Services Division**

### Level of Cooperation

- Functional

### Timeline for Completion

- Long Term

### Section

- Support Services

### Affected Stakeholders

- BMFPD, GSFD, and RFPD
- Consider expanding scope of strategy to include neighboring fire agencies

### Objective

- Develop a joint Support Services Division that promotes improved operational readiness and achieves procurement efficiencies by eliminating duplication in the acquisition and distribution of supplies.
- Create a uniform set of standards for apparatus, small equipment, PPE (personal protective equipment), emergency supplies, and IS/IT services.
- Develop a joint preventative maintenance and repair service program for physical assets, apparatus, small equipment, and IS/IT systems.

### Summary

Throughout nearly every public or private emergency preparedness institution, the state of readiness and effectiveness is highly dependent upon support services. Support services assure the materials necessary to keep an agency operational and functioning are available. The three departments participating in this study provide some form of support services within its organization. Support services offered under a joint support and logistics division can be modular and may include:

- Standardization of apparatus, equipment, and PPE.
- Standardization of fire/EMS/rescue supplies.
- Centralized purchasing and distribution.
- Centralized fleet and equipment maintenance.
- Mobile maintenance services.
- A preventative and safety maintenance program for facilities, apparatus, equipment, and other physical assets.

The purchasing program can create joint bids for supplies and equipment and can achieve additional benefits such as integrated inventory of supplies that can accommodate lag times in deliveries from manufacturers and suppliers.

### Discussion

Support Services Division – At the heart of any fire department are the activities and functions that support the delivery of emergency services. Support Services keeps agency assets in operational readiness and ensure that enough supplies, tools, and equipment are available for emergency workers to mitigate the emergency. The agencies in this study dedicate a certain level of daily effort in maintaining emergency apparatus and equipment.

Although emergency services providers, BMFPD, GSFD and RFPD are also businesses that spend tens of thousands of dollars each year to ensure emergency mission readiness. Like all businesses, fire departments need to be receptive to new practices to maximize the effectiveness of budget dollars. Such practices may take the form of economies of scale, administrative efficiencies, paperwork reduction, technological advances, and innovative cost saving concepts.

Acquiring and maintaining physical assets (facilities and grounds), IS/IT systems, vehicles, and equipment is a labor intensive process requiring good policies and attention to detail. The procurement and distribution of routine supplies is also an important behind-the-scenes process that needs hands-on work and meticulous record keeping. These support services are currently provided by a variety of support and/or suppression employees. Filling the demand for support services is a constant necessity in any organization and vital to ensure the operational readiness of the agency. Key elements of a joint support and logistics services division are:

- Assessment of current assets.
- Assessment of current levels of support service activities.
- Standardization of apparatus, equipment, and supplies.
- Standardization of preventative maintenance programs and recordkeeping.
- Centralization of apparatus and equipment repair and maintenance.
- Provisions for mobile repair and maintenance services during emergency incidents.
- Provisions for in field mobile repair and to perform routine maintenance of apparatus in quarters.
- Centralization of supply and equipment acquisition and distribution.
- Development of a combined facilities and grounds maintenance program.

- Standardization of IS/IT services.

As listed above, a key to realizing the benefits of shared support services is standardization of apparatus, equipment, and supplies. In this exercise alone, standardization assures greater financial and operational efficiency and effectiveness. Fundamentally, this is the most important aspect of forming a joint support division.

Standardizing specifications for the purchase, repair, and maintenance of apparatus, SCBA (self-contained breathing apparatus), communication devices, and miscellaneous equipment often equates to less out-of-service time. Support personnel will need to be certified for repairing and maintaining fewer apparatus and equipment types. Fewer parts need to be stocked for repair and maintenance. Such practices are described as “economies of scale.”

*NFPA 1911* points out that repairs by qualified technicians may provide longer apparatus life, safer operations, and the early detection of maintenance and repair problems.<sup>45</sup> The result is often a short and long-term saving on rolling stock and small equipment. A centralized repair and maintenance facility cooperatively organized as a support services division ensures that routine maintenance and repairs of physical assets are completed in a timely manner. Maintaining public assets in this way is a demonstration of stewardship.

The standardization of apparatus, equipment, and supplies plays strongly into the overall effectiveness and efficiency of daily emergency operations. Standardized support functions are a key part of unified emergency operations and response.

Logistics Services – A multi-agency purchasing program could improve management of each agency’s supply chains, and lends itself well to expansion to other agencies in the region for even greater efficiency. In theory, the agencies would collectively create or contract for a logistics center to manage procurement and distribution. The logistics center would work with all of the agencies to standardize supplies and equipment. The program would follow state and organizational purchasing guidelines and make supplies and equipment available to all of the member agencies.

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<sup>45</sup> National Fire Protection Association, *Standard 1911: Standard for the Inspection, Maintenance, Testing, and Retirement of In-Service Automotive Fire Apparatus*, 2007 Edition.

Distribution can be managed internally or through agreements with suppliers to gain the advantages of collective purchasing and supply: 1) a larger, collective bid process for supplies can achieve lower prices and attract additional competitors; 2) the logistics center can negotiate terms of the conditions of the sale that might not be available to smaller purchasing centers; and 3) it can conduct collective bidding processes that are applicable to all of the agencies.

Coordination is important to the success of a joint purchasing program. All three agencies currently conduct purchasing of virtually all supplies and equipment independently. As such, a joint effort will reduce the work required by any single agency to provide purchase and provide supplies.

### Critical Issues

- Coordination issues
  - A cross-functional committee of system purchasing agents and EMS system participants can work together to design standardized purchasing rules for each participating agency.
  - The committee can provide a standardized equipment list for the agencies. The agencies can share bidding processes so that the bidding procedure used by the purchasing agent can be used by all agencies.
  - Agencies must work closely with the cross-functional committee to ensure that the goods are received and distributed to the appropriate location.
  - Fire agencies should have agreements in place to specify inventory and purchasing plans.
- Receiving and distribution considerations
  - Fire agency partners should design distribution plans to deliver goods directly to the appropriate location. Using a joint purchasing system, the agencies will no longer have to receive goods at the agency; instead, they can receive goods at the central warehouse for storage. At the point of utilization, the appropriate amount of on hand supplies can be delivered to the appropriate station, thus reducing storage space requirements at these facilities.
  - The agencies can jointly determine the proper level of inventory to maintain within the system. The use of system-wide inventory planning ensures that the most cost-effective inventory management can be established for the system participants. This is referred to as “Just-In-Time” Inventory. To a great degree, a just-in-time inventory process relies on the efficient monitoring of the usage of materials and ordering replacement goods that arrive shortly before they are needed. This simple strategy helps to prevent incurring the costs associated with carrying large inventories of raw materials at any given point in time.
- Financial and fiscal considerations
  - Marginal costs of creating system-wide purchasing infrastructure should be compared against the reduced level of effort of individual agencies.

- Cost savings can be achieved through reducing inventory carrying costs, reducing transaction costs, and achieving economies of scale through larger volume purchasing.
- The participating agencies should agree on contributions to account for more difficult to discern costs such as freight charges and unit costs for warehousing space.

### Guidance

- Develop a system-wide, cross-functional committee to explore a joint purchasing process.
- Work with elected officials to adopt purchasing requirements that help the agencies meet purchasing goals and guidelines.
- Establish standards for fire and EMS system equipment and supplies.
- Establish inventory standards and methods for distributing equipment and supplies.
- Develop specific standards for apparatus, equipment, PPE, SCBA, communication equipment, and supplies.
- Inventory and evaluate current physical assets, apparatus, equipment, and operational/facility supplies.
- Contract for or reconfigure the three agencies (and potentially other partner agencies in the region) to provide logistics and supply services.
- Determine support components necessary to add regional partners, ensuring that incremental costs are borne by joining agencies and economic benefit is quantified for each participant over the long term.
- Evaluate current levels of support functions and identify successful elements to incorporate into the joint program.
- Create PLLs (prescribed load list) for apparatus (sometimes referred to Standardized Inventory List, or SIL).
- Ensure that all aspects of a joint support division are based upon recognized local, state, and national standards as well as manufacturers' recommendations for repair and maintenance.
- Determine the most efficient and effective location for support functions.
- Develop a mobile maintenance/repair program for emergency field repairs, diagnostic and minor repairs that otherwise do not warrant vehicle movement from its primary response area to the maintenance facility.
- Evaluate a mobile maintenance/repair program for in district O&M (overhaul and maintenance) for all three agencies.
- Explore opportunities for contracting support and logistics services to other emergency service agencies in the area.
- Evaluate the value of outsourcing support services.

### Fiscal Considerations

- Financial support may be necessary, as the three agencies will be required to meet the costs of creating or modifying existing logistics systems.

- The soft costs generated by cross-functional committee meetings necessary to accomplish objectives of the program.
- New, additional, or reassignment of FTEs to operate support service functions.
- Incremental costs of transitioning to standard apparatus, PPE (Personal Protective Equipment), SCBA (Self-Contained Breathing Apparatus), and small equipment.
- Conversion of existing facility or acquisition of real property for a logistics, support services, and maintenance center.
- Expected cost savings and operational benefits will result from:
  - Elimination of duplication of services, administration, supplies, parts, and equipment.
  - Standardization of equipment, parts and operational/facility supplies.
  - Effective acquisition, accountability, and distribution of supplies and equipment.
  - Bulk purchasing.
  - Preventive maintenance of physical assets, apparatus, and equipment for optimum safety and readiness.
  - The elimination or reduction of “outside” costs for repair, maintenance, and servicing of physical assets and equipment.

#### Policy Actions

- BODs and city council approval and requisite funding.

## **Strategy B – Adopt Dropped Border Response**

### Level of Cooperation

- Functional

### Timeline for Completion

- Short Term

### Section

- Emergency Operations

### Affected Stakeholders

- BMFPD, GSFD, GSRFPD, and RFPD
- Consider expanding scope of strategy to include neighboring fire agencies

### Objective

- Improve service delivery to each agency by sending the closest unit to an emergency call for service without regard to jurisdiction.

### Summary

As neighboring agencies sharing a long, common boundary and in many cases the same constituents (residents of one agency may commute to work in the other agency(s) and vice versa), there is a need to erase the boundary between the agencies when providing emergency service to the public.

### Discussion

The process of sending the closest unit to an emergency without regard to jurisdiction is an expectation by most citizens of their government. Today, citizens expect prompt, fast response times and are less concerned about if it is an emergency unit from the jurisdiction in which they reside. It is commonly said that when an emergency strikes, people don't care what it says on the door of the apparatus, what color it is or what the patch says on the shoulders of the uniforms, just get there quickly! This is perhaps the easiest efficiency to implement and is a simple expansion of automatic aid. Coordination must take place between agencies to ensure that move-ups are used appropriately so as not to create a significant subsidy situation by any single fire department/district. No one single agency is sufficiently large enough to handle multiple incidents of magnitude. Thus, sharing each other's resources is mutually beneficial.

### Guidance

- Consider deployment strategies that send the closest units to an incident.

- Consider using automatic vehicle locators (AVL) tied to the dispatch center.
- Support the regional adoption of standard operating procedures.
- Consider joint staffing of units (RFPD joint staffing currently in practice in BMFPD)

*Fiscal Considerations*

- Depending on demand and workload equity, one agency may consider financial remedies, such as contracts for service in a particular area to mitigate costs.
- Costs can be incurred for equipment such as AVLs, and associated software.

*Policy Actions*

- Develop a regional committee to evaluate cost/benefit of system wide dropped border response plan.
- Fire management present strategy to elected officials for adoption.
- BODs and city council approval.

## **Strategy C – Develop Uniform Pre-Incident Plans**

### Level of Cooperation

- Functional

### Timeline for Completion

- Medium Term

### Section

- Emergency Operations

### Affected Stakeholders

- BMFPD, GSFD, RFPD and other Regional Emergency Service Providers

### Objective

- Provide a system of shared operational plans for use during emergencies and non-emergent incidents.

### Summary

Pre-incident plans are an important part of the emergency response system to provide essential information on specific structures and processes. Through timely planning, strategy and tactics can be developed before an emergency occurs. Pre-incident planning involves evaluating protection systems, building construction, contents, and operating procedures that may impact emergency operations.

Pre-incident plans should be kept up to date with a minimum of an annual review. The plans should be used in company training, and should be distributed to all mutual/automatic aid partners. The standards set forth in *NFPA 1620, Standard for Pre-Incident Planning*,<sup>46</sup> should be followed to guide in the development of a regional pre-incident planning system.

### Discussion

A firefighter typically works in an alien environment of heat, darkness, confusion, and extreme danger. Often, a firefighter's first visit to a building is when he or she is summoned to an emergency at the facility; the very time that the internal environment of the structure may be at its worst. Contrary to Hollywood's portrayal of the inside of a building on fire, visibility is likely to be nearly zero due to smoke. A lack of familiarity with the layout of a structure can easily cause a firefighter to become disoriented and subsequently suffer injury.

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<sup>46</sup> NFPA, *Standard 1620: Standard for Pre-Incident Planning*, 2007 Edition.

It is important that firefighters and command staff have accurate information readily at hand to identify hazards, direct tactical operations, and understand the proper use of built-in fire resistive features of some structures. This can be accomplished by touring structures, developing pre-incident plans, and conducting tactical exercises — either on-site or tabletop.

An ideal pre-incident planning system uses standardized forms and protocols. Data is collected in a consistent format. Information is presented in a manner that permits commanders and emergency workers to retrieve it quickly and easily. All require the use of consistent methods for collection, verification, storage, presentation, and update of emergency plans.

The most successful programs use pre-incident planning software to assemble the data, create plan documents and “quick data” forms, and store the information for easy retrieval. Above all, no program is successful without thorough incorporation of the pre-incident plans in frequent classroom and on-site training exercises.

Operational and management staff should assist in making software and formatting decisions. Goals for the identification and development of target hazard pre-incident plans should be established. The uniform pre-incident planning program should be reviewed at least annually to assure the accomplishment of goals, the improvement of the program, and the appropriate entry of new target hazards. Properties that should have pre-incident plans include those having:

- A potential for large occupant load
- Occupants that are incapable of self-rescue
- Structure size larger than 12,000 feet
- Facilities that process or store hazardous materials and/or equipment
- Buildings with built-in fire protection systems
- Buildings that pose unique hazards to firefighters during an incident
- Wildland hazards

Pre-incident plans should be a quick and easy reference tool for company officers and command staff. The plans should be formatted for easy adaptation to electronic media. At a minimum, a pre-incident plan should include information on but not be limited to:

- Building construction type
- Occupant load
- Fire protection systems
- Water supply

- Exposure hazards
- Firefighter hazards
- Utility location and shutoffs
- Emergency contact information

Completely revised and upgraded from a recommended practice to a standard, the 2010 edition of *NFPA 1620: Standard for Pre-Incident Planning* provides criteria for developing pre-incident plans for use by personnel responding to emergencies. Pre-planning is a key component of first responder effectiveness, and *NFPA 1620* spells out the process and provides excellent information on the development and use of pre-incident plans and should be used as a reference. *NFPA 1620* addresses the protection, construction, and operational features of specific occupancies to develop pre-incident plans. The 2010 edition also contains pre-incident planning case histories and information addressing special or unique characteristics of specific occupancy classifications, as well as sample forms for pre-incident planning.

Personnel should receive regular familiarization training using the completed pre-incident plans. The plans must be made available on all emergency apparatus of the agencies. Routine use of pre-incident plans by all responders will assure that the plans are correctly used at major emergencies.

#### Guidance

- Inventory current pre-incident plan policies, hardware, software, format, and level of development in each agency.
- Evaluate commonality between current systems of pre-incident planning.
- Consider the establishment of an ad-hoc committee to develop building criteria and data for inclusion in pre-incident plans.
- Develop a timeline for the implementation, completion, and review of pre-incident plans.

#### Fiscal Considerations

The cost to each of the three fire departments for developing uniform pre-incident plans will be predicated on:

- Current hardware and software assets.
- Cost to upgrade or purchase hardware and software.
- Number of facilities/buildings with existing pre-incident plans versus those to develop.
- The pace of new development requiring pre-incident plans.
- Personnel costs to gather and assemble plans.

- Personnel soft costs of on-duty staff assigned pre-incident planning tasks.
- Unquantifiable potential for prevention of injury or death to emergency responders and the public.

The cost of diagramming software programs designed specifically for drawing pre-fire plans starts around \$400. More advance versions with 3-D capability increases the initial software cost to \$700. Versions that integrate with a pocket PC would add an additional \$300. This and other diagramming software programs can be added onto existing fire prevention/inspection programs.

#### Policy Actions

The outcomes of this type program are somewhat hard to quantify, however it is easy to understand the concept of the safety benefits to responding personnel equipped with this data.

- Fire department management policy action required before proceeding with the program.

## **Strategy D – Provide for Joint Staffing of Fire Stations and Apparatus**

### Level of Cooperation

- Functional

### Timeline for Completion

- Short Term

### Section

- Emergency Operations

### Affected Stakeholders

- BMFPD, GSFD, and RFPD

### Objectives

- Provide for distribution of facilities and deployment of full-time personnel consistent with a regional standard of cover.
- Provide consistent fire and emergency services within areas efficiently before, during, and after development.
- Provide potential solution for understaffing/vacant positions that the departments are holding at this time in anticipation of a regional or joint deployment strategies.
- Augment full-time deployment with volunteers where possible.

### Summary

Practicality and external influences seldom allow fire station placement to match perfectly with a fire department's deployment strategy. Reasons include the availability of property, land use laws, roadway infrastructure, construction cost, traffic patterns, geography, and projected station workload. Given that the area protected by a fire department may change through annexation, merger, and inter-local agreement, a perfect fire station location today may be a poor location in the future. Because of these and other factors, it is virtually impossible to place fire stations in an ideal location and not overlap the response areas of other fire stations or departments. Jointly staffed stations and/or response units create more alternatives for fire departments studying the deployment of emergency resources.

Fire departments often know how many firefighters are needed for the best possible protection; however, departments are infrequently able to afford to staff at such levels. Sharing personnel from different agencies can help to bring staffing levels closer to the optimum. All three agencies have identified that there are overlapping personnel on the fire department rosters.

### Discussion

The NFPA published an updated state-by-state study of the needs of the U.S. fire service. The Colorado version of the report *Colorado: Four Years Later – A Second Needs Assessment of the Fire Service*<sup>47</sup> states that for Colorado, responses from 165 of the 337 fire departments in the state were analyzed and:

*Of fire departments that protect communities of at least 10,000 population, depending on population interval, 0-100% have fewer than 4 career firefighters assigned to first-due engine companies. It is likely that, for many of these departments, the first arriving complement of firefighters often falls short of the minimum of 4 firefighters needed to safely initiate an interior attack on a structure fire, thereby requiring the first-arriving firefighters to wait until the rest of the first-alarm responders arrive.*

*Based on these observations and calculations, the report concluded that, in every population interval roughly two-thirds to three-fourths of fire departments nationally have too few fire stations to provide the indicated coverage. Specifically, if 1.5 miles is used for communities of 10,000 or more and 2.5 miles is used for smaller communities, with optimal location used for both, then the national study found that 65-76% of departments have too few stations, except for communities of 500,000 to 999,999 population, where the percentage was 82%.*

The study fire agencies now rely on each other for resources during routine and non-routine emergencies. Without question, if facilities are distributed and personnel deployed regardless of jurisdictional boundaries (and consistent with a regional standard of cover) the likelihood of those resources being located where needed most increases. The crucial question is how to pay for shared resources in a manner that assures equity for all taxpayers.

The funding of jointly staffed fire stations and apparatus should be based on local law, authority, and policy. There are many examples of innovative cooperative agreements between jurisdictions that maximize the value of emergency resources. For instance, the cities of Portland and Gresham, Oregon, jointly staff a fire station that is located to respond efficiently to emergencies in both cities. For the first five months of each year, a three-person ALS fire company is housed and supported in the station by the city of Gresham. During the remaining seven months of the year, a Portland Fire and Rescue four-person ALS engine responds from the station. As change occurs in the protected area, the two cities can easily adjust liability by altering the time each operates the fire station. The agreement assures timely and effective

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<sup>47</sup> NFPA, *A Needs Assessment of the Fire Service, Colorado*, John R. Hall, Jr., Ph.D., Michael J. Karter, Jr., Fire Analysis & Research Division, NFPA, 1 Batterymarch Park, Quincy, MA 02169-7471, June 2004.

emergency response while a financial balance is maintained that benefits the taxpayers of both cities. Other examples include:

- A JRA (Joint Response Area) whereby Boulder FPD and Mountain View FPD, CO jointly staff a transport unit to their mutual benefit.
- RFPD providing two full-time personnel to BMFPD at Fire Station No. 64 for EMS and initial fire response.

With creation of a single training division, some provision is needed to offer response area coverage while other emergency units travel to a training center. Jointly staffing a PAU (Peak Activity Unit)<sup>48</sup> with multi-agency personnel could protect vacant response areas during those times. Jointly staffing fire apparatus can also be a very practical option for providing resources from a fire station located in an area able to serve more than one jurisdiction. Last, cooperatively providing specialty apparatus used for infrequent (but often high-risk) emergencies is an effective means to distribute the cost of such apparatus over a wider financing base.

Examples of methods used to jointly staff fire stations and apparatus include:

- Combined personnel from different fire departments staff a fire station.
  - One fire department supplies a firefighter for each shift and another fire department contributes an apparatus operator/engineer and an officer. The workforce is made up each day of personnel from both fire departments.
- Personnel from different fire departments staff a fire station on a set schedule.
  - One fire department staffs the fire station on two of three shifts. The other department staffs the fire station on the third shift.
- Fire departments apportion responsibility for staffing and support of a fire station for a given number of months.
  - One fire department staffs and supports the fire station for a given number of months each year. During the remaining months, the other fire department provides staff and support.
- Two fire departments jointly staff a fire station with personnel from both fire departments, and operate more than one piece of emergency apparatus.
  - One fire department staffs a fire engine and the other department staffs a medic unit in the same fire station.

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<sup>48</sup> “Peak Activity Unit” or PAU for short, is a crew that is assigned for a specific period of high demand. A PAU unit can improve response times by being pre-positioned out where there are calls for service expected and there are not enough stations. PAUs also help during periods of simultaneous calls and multiple unit responses when all the assigned units on the fire are committed for several hours.

- One fire department staffs a fire station but extends first alarm response from that station to another jurisdiction. The second fire department compensates the first based on an agreed cost/benefit formula.
- Two fire departments exchange in-kind first alarm response.
  - One fire department provides first alarm response into another fire department's area in exchange for like service from that agency.

### Guidance

- Training issues
  - The personnel used for joint staffing of fire stations and apparatus should be trained to provide a service level (including EMS) for seamless integration into emergency operations of all cooperating fire departments.
- Deployment considerations
  - The fire departments should execute deployment plans collaboratively prior to entering into joint staffing agreements.
  - Several of the joint staffing examples involve personnel from different fire departments staffing fire stations and apparatus together. Developing a common wage and benefit plan will help to alleviate real or perceived issues of equity between personnel.
  - Provide a regional IC (Incident Command) for supervision of emergency operations and for oversight of on-duty personnel.
- Financial considerations
  - Marginal costs of deploying personnel in joint staffing ventures will be determined based on the agency, and on personnel costs.
  - Startup costs may include additional training as well as the supplies and equipment needed to support the stations and fire response units. A portion of the cost for additional training and equipment could be immaterial, if as part of the cooperative initiatives the three departments also adopt joint deployment standards, training standards, and a joint purchasing program.

### Fiscal Considerations

- Joint staffing of fire stations and apparatus is a logical step towards a unified regional fire department.
- Joint staffing provides fire departments with a method to meet deployment standards when:
  - It is not economically feasible for either fire department to staff a fire station or fire apparatus independently.
  - Fire departments have common borders and underserved territories.

### Policy Actions

- BODs and city council approval and requisite funding.

## **Strategy E – Provide Regional Incident Command and Operations Supervision**

### Level of Cooperation

- Functional

### Timeline for Completion

- Short Term

### Section

- Emergency Operations

### Affected Stakeholders

- BMFPD, GSFD, and RFPD

### Objective

- Provide for IC (Incident Command) supervision of emergency operations.
- Provide for supervision of on-duty and volunteer personnel during routine operations.

### Summary

A dedicated on-duty battalion chief (BC) routinely has authority and responsibility for all aspects of day-to-day operations and personnel management of each of the study fire departments. A battalion chief assumes command of emergency incidents and may also be assigned for the management of various fire department programs.

### Discussion

A battalion chief typically provides administrative oversight, supervision, and leadership to the operations personnel of the fire department. The work of the BC is performed under the direction of the fire chief, assistant fire chief, or division chief; but considerable latitude is usually granted to the battalion chief to initiate action and exercise independent judgment. Battalion chiefs assigned to shift work are usually responsible for management of emergencies, operational personnel, fire stations, apparatus, equipment, training functions, and related activities. Other programs commonly administered include oversight of training, fire prevention, or administrative divisions.

Most fire departments maintain a span of control of five or six fire stations per battalion chief. Occasionally, a battalion chief may oversee as many as eight fire stations. The total number of units, personnel, geographic location, and emergency response demands usually determines the reasonableness of the span of control. As the number of fire stations, units, and personnel under a battalion chief supervision increase, their ability to conduct activities outside of incident

command usually reduces, which may negatively impact response times to emergencies. A point is reached where proper supervision cannot be accomplished with large spans of control. In that case, some tasks will be overlooked or work will not be completed.

A battalion chief usually responds as incident commander to emergencies requiring multiple fire department units, hazardous materials incidents, or emergencies involving special circumstances. The incident commander is responsible for all aspects of the response including the development of incident objectives and management of all incident operations. Typically, there are additional staff member positions assigned to an incident that report directly to the incident commander. Those positions may include: division supervisors, a safety officer, information officer, and liaison officer. These positions may be filled as an incident expands or contracts depending on the needs of the incident commander.

The role of the safety officer is to develop and recommend actions to assure the health and safety of emergency workers. The role of the public information officer is to develop and release incident information to the media, incident personnel, and appropriate agencies and organizations. The role of the liaison officer is to serve as the point of contact for assisting and cooperating agencies that may be involved in an incident.

The general staff under the incident commander includes operations, planning, logistics, and finance/administration. These responsibilities (as with those of the command staff) remain with the incident commander until such time that they may be assigned to another qualified individual.

Assembling an effective response force on the scene of an emergency incident in a timely manner will often lead to a successful outcome and provide a necessary level of firefighter safety. To assemble enough personnel to complete the tasks of extinguishing a moderate-risk structural fire may require 15 or more personnel. One of the important tasks on an emergency incident is command. Incident command is integral to the safety of responding personnel. A battalion chief in the command role is the officer assigned to remain outside of the structure or incident area to coordinate emergency mitigation efforts, evaluate results and redirect mitigation operations, plan for, and request more resources, and monitor conditions in order to protect firefighter safety.

In lieu of complete and formal unification between BMFPD, GSFD, and RFPD, an agreement to share incident command staff members across the combined service area could result in

efficiencies not possible individually. This opportunity would possibly increase the level of service across the region, and to a greater degree in BMFPD.

#### Guidance

- Use standards of coverage and deployment documents to determine an appropriate level and number of incident commanders for the combined area.
- Create a formula for allocating the cost of a regional incident command program. Examples of factors for costing include; population, incidents, valuation, and coverage desired.

#### Fiscal Considerations

- Cost apportionment of shared incident commander (battalion chief) could be an incremental increase or decrease in the cost to an agency.

#### Policy Actions

- Analysis of cost/benefit of strategy.
- Management policy decision required before proceeding with strategy.
- BODs and city council approval and requisite funding.

## **Strategy F – Purchase and Implement an Electronic Staffing Program**

### Level of Cooperation

- Functional

### Timeline for Completion

- Long Term

### Section

- Administration and Emergency Operations

### Affected Stakeholders

- BMFPD, GSFD, and RFPD

### Objective

- Provide a uniform electronic system that combines telephone callback, personnel scheduling, and includes payroll and administrative features.

### Summary

GSFD and RFPD contact personnel for regular full time staffing and initiate personnel shift assignments in a variety of ways. The task of notification and filling vacancies has traditionally been done via telephone, with someone having to make personal contact to fill each opening. Many departments across the country have purchased software programs for handling this function.

A key feature of these systems is that through the use of a touch-tone phone or computer, employees can access the system using a secure ID and password. Supervisors have the advantage of an automated system for personnel management that improves efficiency in staffing.

### Discussion

In 1998, the Long Beach (California) Fire Department made the decision to purchase an electronic staffing program with automated telephone callback system that combines scheduling at the fire station level, payroll, and administrative functions.<sup>49</sup> Evidence of the benefits described by Long Beach and other fire departments provide testimony to the rapid recovery of the initial cost of acquiring this type of software. Some of those benefits of a staffing program include:

- Automatically identify and contact replacement personnel.

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<sup>49</sup> JEMS, Innovation in Action, Workforce Wonder, December 1999, Vol.24, No.12.

- Notify personnel of an emergency recall.
- Automatically notify personnel of training, meetings, or organizational events.
- An accurate system for compiling and tracking a daily roster.
- Ensure equality in overtime distribution following all FLSA guidelines.
- Eliminate dependency on a single person(s) for staffing.
- Individual is personally responsible for own calendar.
- Automatically populates data fields in other RMS programs.

Selecting a single electronic staffing program is one aspect in efficient coordination of the staffing resources of the three departments. The scheduling of training, personnel notification, unit staffing, and administrative assignments, along with the development of many other initiatives in this report, will benefit from the use of one electronic staffing program.

One staffing software program was designed to be accessible with or without a computer network, and will accept requests and make contact with staff members by telephone<sup>50</sup>. The program is capable of placing outbound phone calls or delivering messages by pager, fax, or e-mail. The software can make multiple phone calls simultaneously and is considered a solution for emergency and other staffing recalls.

### Guidance

- Involve human resources personnel, payroll, training, and labor in the development of specifications and the purchase of an electronic staffing program.
- Train key personnel in the use and maintenance of the software program.
- Network with other fire departments that have been successful in deploying an electronic staffing program.
- Consider deploying on a regional basis.
- Create a staffing policy to accommodate management and legal requirements.
- Provide personnel with initial instruction and on-going support.
- Make available pocket size how-to-use cards for personnel.
- Work to implement the entire staffing program at the same time. Experience has shown that fire departments implementing the system all at once realize the full potential of the system more quickly and experience fewer administrative problems overall.
- Explore options for integrating the electronic staffing program with other future software programs, including fire and EMS RMS, payroll, electronic logbook, and CAD.

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<sup>50</sup> TeleStaff, PDSI, (Principal Decision Systems International), acquired by Kronos Incorporated, May 2011.

*Fiscal Considerations*

- The cost of the system depends on the type of hardware requirements and software purchased.
- Annual maintenance agreement costs.
- Personnel costs for deployment of software and training.
- Reduction in management time spent on staffing.
- Potential savings in overtime costs from staffing errors.
- Accurate payroll records.

*Policy Actions*

- Management policy decision required before proceeding with strategy.

## **Strategy G – Develop Standard Operating Guidelines**

### Level of Cooperation

- Functional

### Timeline for Completion

- Short Term

### Section

- Emergency Operations

### Affected Stakeholders

- BMFPD, GSFD, RFPD, and other Regional Emergency Service Providers

### Objective

- Provide guidelines for operation during emergencies and non-emergency incidents and activities.

### Summary

Standard operating guidelines are organizational directives that establish a standard course of action. In other words, Standard operating guidelines (SOGs) are written guidelines that clearly spell out what is expected and required of personnel during emergency response and non-emergency activities. They provide a mechanism to communicate legal and administrative requirements, organizational policies, and strategic plans to the members. In short, they get everybody “reading from the same sheet of music.” A comprehensive set of SOGs displays in significant detail how the department intends to operate.

Standard operating guidelines are used at both administrative and operations levels of the fire departments. SOGs are not intended to duplicate technical information or provide step-by-step instructions for doing the job. The knowledge and skills that personnel need to perform specific job tasks—manage programs, fight fires, provide medical care, etc.—are addressed in technical protocols and professional training. SOGs, conversely, describe related considerations: safety, use of supplies, equipment maintenance, duties and rights of personnel, command structures, coordination with other organizations, reporting requirements, and so forth. Stated differently, SOGs don’t describe how to do the job (technical skills), they describe the department’s rules for doing the job (procedural guidance).

They are analogous to a playbook, providing direction yet allowing for individualized adjustments to situations. Currently, GSFD and RFPD have informal processes of developing

and maintaining SOGs based on prioritized risk and need. BMFPD has no SOGs currently.

There is an opportunity to collaborate and combine SOGs on a regional level for improving handling of emergency incidents and daily operations. RFPD recently initiated the process of developing with BMFPD and GSFD regional SOGs.

### Discussion

Standard operating guidelines will improve administrative control and efficiencies, support on-scene safety, efficiency, and effectiveness of personnel. With personnel from all three agencies trained in using the same procedures, they can approach an incident or situation with an understanding that everyone will proceed in a similar fashion. Additionally, the standard operating guidelines must reflect any legal mandates affecting the department. A robust, and frequently reviewed set of SOGs will lead to organizational consistency, more efficient administrative controls, improved expectations by personnel, and greatly reduce or eliminate potential organizational confusion.

### Guidance

- Keep the guidelines in electronic format for ease of updating.
- Assign an individual or division to be responsible for, regularly review and maintain SOGs.
- Give initial and recurring education to personnel in their use.
- Provide for continual use of the standard operating guidelines during administrative duties and routine incidents and at each training session.
- Provide for a periodic appraisal of the guidelines to maintain currency with changes in tactics, strategy, and equipment.
- Consciously keep guidelines non-specific to allow for adaptation to particular incidents by the supervisor.

### Fiscal Considerations

- The elimination of duplicated staff effort in the creation and updating of standard operating guidelines will reduce soft costs.
- Instructional time optimized during multi-agency training sessions by excluding time devoted to adapting to differing procedures.

### Policy Actions

- Fire department management policy action required before proceeding with the program.
- BODs and city council approval and requisite funding.

## **Strategy H – Shared Specialty Teams**

### Level of Cooperation

- Functional

### Timeline for Completion

- Mid Term

### Section

- Emergency Operations

### Affected Stakeholders

- BMFPD, GSFD, RFPD, and other Regional Emergency Service Providers

### Objective

- Provide specialty teams or specialty functions by allocating and distributing resources to achieve minimum cost and maximum operational benefit.

### Summary

Specialty teams are group(s) made up of individuals having areas of expertise in roles outside the level of training considered as normal for fire suppression personnel. Public expectation has increasingly focused on fire departments as the logical source to staff, equip, train, certify, and maintain specialty teams. A specialty team may concentrate on one or more disciplines. Examples of specialty teams for BMFPD, GSFD, and RFPD include:

- Hazardous materials
- Technical rescue
- Confined space/trench rescue
- Water rescue
- Critical Care transport
- ICS overhead
- Wildland team
- Search and Rescue
- Rehabilitation
- Honor guard
- Chaplaincy

### Discussion

The ability of every fire department to be fully equipped for every conceivable incident, with all personnel trained and certified to the highest level is impractical; but the reality is that any fire department will occasionally encounter unique incidents that require specialized equipment and

personnel. Specialty teams based only in one fire department commonly respond to fewer requests for service, which results in greater cost per incident.

While the cost effectiveness of shared specialty teams is important, keeping skill and interest levels of personnel high is essential. Personnel who train less and who use skills infrequently are arguably at greater risk when working under dangerous conditions. Shared specialty teams are more effectively able to maintain high skill, knowledge, and ability because such teams typically train and respond to emergencies more frequently.

It is reported that the Garfield County Search and Rescue Team has a limited ability to provide a timely initial response. The team composed of volunteers is under authority and management of the Garfield County Sheriff. An option that could provide for improved initial response is to integrate search and rescue with the existing established volunteer programs operated by the fire departments.

#### Guidance

- Determine the need for specialized teams for the combined service area. Consider including other neighboring agencies, including Carbondale FPD and Grand Valley FPD.
- Establish a single set of standard operating guidelines. It is very important that all departments operate by the same procedures when using shared resources.
- Meet with the Garfield County Sheriff and discuss options regarding the Search and Rescue Team and services it provides.

#### Fiscal Considerations

- The elimination of duplicated effort in equipping, training, and staffing may reduce overall program costs.
- Evaluate the cost of the Search and Rescue Teams budget and associated cost and what financial impact the team would have on the fire agencies.

#### Policy Actions

- Management policy decision required before proceeding with strategy.

## **Strategy I – Provide Joint Standards for Service Delivery**

### Level of Cooperation

- Functional

### Timeline for Completion

- Short to Mid Term

### Section

- EMS and Emergency Operations

### Affected Stakeholders

- BMFPD, GSFD, GSRFPD, and RFPD

### Objective

- Establish standards as set out with Colorado Department of Public Safety, Division of Fire Safety *Job Performance Requirements* (BMFPD and GSFD are currently non-compliant, RFPD is partially compliant).
- Establish joint, regional Standards for Service Delivery Policy, defining services, service levels, and response times to the 90<sup>th</sup> percentile so that adequate system planning can take place.
- Develop a system-wide reporting structure to standardize the collection and reporting of relative compliance with the Standards for Service Delivery Policy.

### Summary

Response times are one of the most frequently used methods of measuring system performance. Fire agencies and policymakers require a gauge by which to measure the effectiveness of the system and a method by which to make decisions. Because the economic cost of providing emergency services is highly sensitive to response times, a small change in response time requirements may cause a significant change in cost. Policymakers must therefore carefully consider the balance between the economic cost and community risk.

### Discussion

While conducting research for the Commission on Fire Accreditation International, Inc. (Center for Public Safety Excellence),<sup>51</sup> members of the initial task force spent considerable effort examining the factors that make up the time required to be notified of and respond to a fire emergency. A thorough understanding of the relationship of time and the progression of an emergency was fundamental to defining optimum service levels. In the process of this work, the

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<sup>51</sup> *Creating & Evaluating Standards of Response Cover for Fire Departments*, Fourth edition, Chapter 2, page 1, Commission on Fire Accreditation International, Inc, 2003, Chantilly, VA.

task force noted that many fire departments are collecting data on emergency response but are not necessarily using that data to measure response times.

Commonly, a problem occurs when fire departments use different timeframes in collecting and reporting response time statistics. For example, if a department does not include alarm processing or turnout time in its definition of response, the department's response statistics may be unfairly weighted because only travel time to the emergency is measured and reported. On the other hand, a department that does include alarm time and processing time in its collection of data may be compared unfavorably to a department that does not.

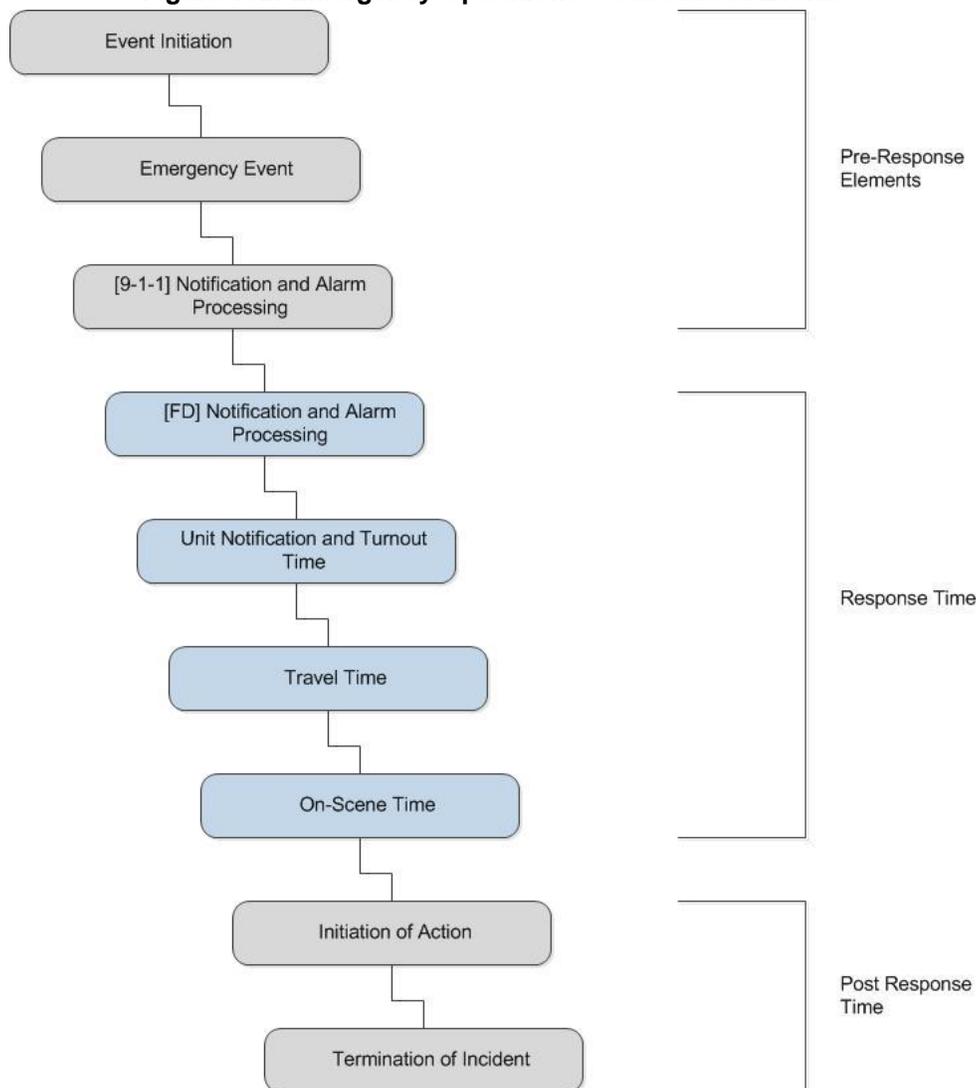
Emergency call processing and dispatch functions are provided by the Garfield County Emergency Communications Authority. All dispatch functions should be measured and monitored by standards and metrics consistent with *NFPA 1221*. *NFPA 1221* specifies the time in which alarms and calls must be answered and units dispatched. The 2007 edition requires 95 percent of alarms to be answered within 15 seconds and 99 percent to be answered within 40 seconds. Similarly, the standard requires 95 percent of emergency call processing and dispatch to be completed within 60 seconds, and 99 percent to be completed within 90 seconds.<sup>52</sup>

The International Association of Fire Chiefs (IAFC) makes recommendations for response times and has established a "Cascade of Events" to assist responders in understanding response intervals for emergency operations. Irrespective of the standard used, system regulators establish an appropriate response time reporting method for their local communities. While call processing and dispatch functions are external for the agencies, those dispatch functions should also be measured and monitored by the system and standards for dispatch should be established.

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<sup>52</sup> *National Fire Protection Association, Standard 1221: Standard for Installation, Maintenance, and Use of Emergency Services Communications Systems, 2007 Edition.*

**Figure 152: Emergency Operations – Cascade of Events**



### Critical Issues

- Data issues
  - BMFPD, GSFD, and RFPD should collaborate with the county dispatch center to ensure that the data points can be captured by the center.
  - The dispatch center should develop methods to regularly report on the response performance using industry standard fractal reporting methods on the time partitions listed in this strategy.

### Performance considerations

- Establish standards for response performance for urban, suburban, and rural deployment areas. Standards would be one foundation of cooperative or regionalization efforts.
- Determine and implement valid and reliable response performance reporting methods.

- Report to the respective communities annually, via open public meetings, or published annual reports, on the actual performance as measured against the performance objectives. Contained in this report should be:
  - Geographic areas and circumstances in which the requirements are not being met
  - Predictable consequences of any deficiencies
  - Steps necessary to achieve compliance

#### Fiscal Considerations

- Costs for personnel, equipment and facilities can be significant depending on what standards have been set. The higher the standard in terms of faster response or adding more resources to an emergency means placing more personnel and equipment into the overall system of coverage, which in turn drives cost.
- Marginal costs of providing committee work.
- Reporting will require additional resources and data from all agencies and from the dispatch center and may involve hardware or software costs.

#### Policy Actions

- Management policy decision required before proceeding with strategy.
- BODs and city council approval and requisite funding.

## **Strategy J – Implement the Use of Peak Activity Units (PAUs)**

### Level of Cooperation

- Functional

### Timeline for Completion

- Mid Term

### Section

- EMS, Emergency Operations, and Training

### Affected Stakeholders

- BMFPD, GSFD, and RFPD

### Objective

- Provide special response units in areas of high incident activity and for replacement of units attending training sessions or called to cover special events.

### Summary

As part of collaborative efforts, BMFPD, GSFD, and RFPD may enter into agreements such as training, occupational medicine, public education, and standards of response for deploying resources. Maintaining adequate emergency capability during these and other activities may require the use of non-traditional staffing strategies.

One such method is to staff additional emergency response units as needed. These units are sometimes referred to as Peak Activity Units (PAUs). A PAU (i.e., fire engine, medic, ambulance, or aerial device) can be staffed for a scheduled event, for periods of peak demand, or to cover a response zone while other fire personnel attend training. Adding PAUs as an adjunct to current staffing patterns adds flexibility to fire department emergency operations.

### Discussion

A traditional fire company is staffed and continuously available 24-hours per day to respond to emergencies. Move-ups (the repositioning of a fire company to cover understaffed response zones due to emergencies or training) have been a long-standing practice for many fire departments. Only recently as a result of more powerful analytical tools have some fire departments become more aggressive with move-ups, spawning such terms as “dynamic redeployment,” “system status management,” and PAUs.

For the purpose of this discussion, we assume that a PAU would be operated by three personnel and would be made available for response 12 hours per day, six days per week. A

PAU can be activated for a scheduled event, for periods of peak demand, or to cover a response zone while other fire personnel attend training. Adding PAUs as an adjunct to staffing patterns adds flexibility to fire department emergency operations.

It should be noted that a PAU would have staff assigned that may work a different schedule than the hours worked by typical firefighters. An example of this type of staffing schedule is shown in the figure below. A total of four suppression personnel, two officers and two firefighters work a 48-hour work week. Each person is assigned two 12-hour shifts and one 24-hour shift. Under this arrangement when working a 24-hour shift, it is possible that a person could be assigned to fill a vacancy of another company during the second 12 hours.

*Note: Any discussion of alternative working schedules is only hypothetical and is used here as a way of illustrating this partnering strategy. Any and all proposed changes to work schedules and working conditions must be thoroughly examined, discussed and approved by the governing board.*

**Figure 153: Sample Schedule for Staffing a PAU Engine**

Sample Schedule for Staffing a PAU Engine						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Officer – 24 hours	Officer – 12 hours	Officer – 12 hours	Off	Off	Off	Off
Firefighter – 12 hours	Firefighter – 12 hours	Firefighter – 24 hours	Off	Off	Off	Off
Off	Off	Off	Officer – 24 hours	Officer – 12 hours	Officer – 12 hours	Off
Off	Off	Off	Firefighter – 12 hours	Firefighter – 12 hours	Firefighter – 24 hours	Off

Other possible configurations for staffing PAUs include but are not limited to:

- Staff a PAU with overtime/callback/part-time personnel to meet individual situations. A PAU may be deployed for training sessions, fire prevention activities, special community events, and anticipated peak activity periods.
- Staff an engine available 12 hours per day, four days each week. The staffed hours would be adapted to cover the time when the greatest number of calls for service typically occurs.
- Staff an ambulance with two personnel available 12 hours per day, seven days each week. The staffed hours would be adapted to cover the time when the greatest number of calls for service typically occurs.
- Staff a PAU with personnel eight hours per day, five days each week.

### Critical Issues

- Discussions involving any changes to work schedules and or working conditions must be thoroughly examined, discussed and approved by the governing board.

- Training issues
  - The personnel used to provide PAUs will need to be included in on-going training activities.
  - The personnel on PAUs must be cross-trained to understand the management structures and oversight capabilities of each host agency.
- Roles and responsibilities
  - Clearly define roles and responsibilities of the personnel on PAUs. The roles and responsibilities should be clearly communicated to all personnel and not limited to those assigned to a PAU.
  - The three agencies should have integrated electronic reporting mechanisms for incident reports. Personnel that staff PAUs should not have to learn multiple reporting methods based on where they happen to be temporarily assigned.
  - Lines of supervision for PAUs must be clearly defined.
- Financial and fiscal considerations
  - Agencies will need to determine how the cost of PAUs will be allocated if personnel staffing PAUs are shared.
  - If a PAU has EMS responsibilities, it may be necessary for some agencies to purchase integrated patient care reporting systems so that personnel can provide patient care reports irrespective of where they are assigned.

### Guidance

- Do not limit potential options for non-traditional staffing.
- Develop guidelines for uniform incident reporting.
- Establish standards for deploying personnel between agencies.
- Align agencies to provide appropriate oversight irrespective of where the personnel are assigned.
- Ensure agency support for standardized personnel services.

### Fiscal Considerations

- Financial support will be necessary and a process for allocating costs between agencies will be required.
- The agencies must determine whether and what type of hardware and software will be needed for incident reports.

### Policy Actions

- Management policy decision required before proceeding with strategy.
- BODs and city council approval and requisite funding.

## **Strategy K – Develop Deployment Standards**

### Level of Cooperation

- Functional

### Timeline for Completion

- Short Term

### Section

- EMS and Emergency Operations

### Affected Stakeholders

- BMFPD, GSFD, GSRFPD, and RFPD

### Objective

- Develop deployment standards that establish the distribution and concentration of emergency resources, of both fixed and mobile assets.

### Summary

All agencies have policies for deploying resources, albeit at times informal and undocumented. Developing standards for response and coverage will formally define the distribution and concentration of the fixed and mobile assets of an emergency organization. The process of standards development includes reviewing community expectations, setting response goals, and establishing a system of measuring performance. The resulting plan includes all aspects of the community and organization that are required to create response standards and to determine the ideal use of resources. Deployment Standards are closely tied to Standards for Service Delivery, discussed earlier in this report.

### Discussion

The deployment of resources should adhere to the following analysis:

- Demand
  - Analysis and geographic display of current service demand by incident type and temporal variation.
- Distribution
  - Overview of the current facility and apparatus deployment strategy, analyzed through Geographical Information Systems software, with identification of service gaps and redundancies.
- Concentration
  - Analysis of response time to achieve full effective response force.

- Analysis of company and staff distribution as related to effective response force assembly.
- Reliability
  - Analysis of current workload, including unit hour utilization of individual companies (to the extent data is complete).
  - Review of actual or estimated failure rates of individual companies (to the extent data is complete).
  - Analysis of call concurrency and impact on effective response force assembly.
- Performance
  - Analysis of actual system reflex time performance, analyzed by individual components (to the extent data is available).
  - Benchmark services levels against comparable agencies and industry standards.
  - Identify various deployment and service delivery options based on the analysis performed.

### Critical Issues

- Exercise caution when developing deployment standards. Even minor changes when setting service level objectives can have broad impact.

### Guidance

- Review existing deployment standards (whether formal or informal) and response time standards.
- Prior to developing or modifying deployment standards, elected officials, administration, and staff should be educated on and have a clear understanding of the process.
- Develop deployment standards collectively and have agreements in place to specify deployment plans.
- Differentiate between urban, suburban and rural areas of the combined communities and set deployment accordingly.
- Developing a deployment standard is a loop process. For example, if after establishing service level expectations the resultant response plan is found to be too expensive, the organizations might need to re-challenge the community's elected leaders to lower service expectations, or to find additional funding.

### Fiscal Considerations

- Changes, however minor, in current service level goals may result in dramatic change to the deployment and distribution. A change in service level goals may require:
  - New facilities or modifications to existing ones
  - New or redeployed apparatus
  - Additional or redeployed personnel
- Marginal cost of staff time to develop a standard of cover.

### Social Considerations

- Changes in service and deployment goals can have a positive and/or negative impact on the community. Positive attributes of improved, more efficient service goals would mean resources arrive sooner than in the current format. Alternatively, changes could also mean slightly slower responses elsewhere in the system. These types of changes require fire management understand all impacts educate the public.

### Policy Actions

- BODs and city council members need to be fully educated and have complete understanding of broader impacts, specifically financial impacts.
- Fire management should present plans to elected officials for adoption and support.

## **Strategy L – Shared Public Education/Public Information**

### Level of Cooperation

- Functional

### Timeline for Completion

- Mid Term

### Section

- Administration and Fire Prevention

### Affected Stakeholders

- BMFPD, GSFD, and RFPD

### Objective

- Provide Public Education and Public Information services for the combined service area.

### Summary

Public education activities in BMFPD, GSFD, GSRFPD, and RFPD involve fire marshals, administrative staff, career, part-time, and volunteer firefighters. The same personnel also perform other ancillary duties, from plan reviews, inspections and pre-incident plans to community relations and public information. Public education is an important component of fire prevention and a defined mission of each of the fire agencies. Incident response is an expensive endeavor, thus, an incident avoided is a significant expense avoided.

### Discussion

Successful public education programs use a range of communication methods, many of which cannot be limited to a specific geopolitical boundary. Television, radio, and newspapers for instance, are regional media that overarch jurisdictional limits delivering information to citizens in a wide variety of communities. For fire safety campaigns to be most effective each must be designed to target a specific audience and each must be crafted for the means of delivery.

Development of a shared public education/information program will help to standardize fire safety messages across the region and work to reach more of the target audience. This, in turn, will allow for reduced cost to each agency through sharing, while improving the quality of programs in those communities with few or no public education resources. Costs can also be reduced through quantity purchasing of handouts and other public education materials. Increased training can be made available to the public education staff, engine company crews, and others to enhance the quality of the fire prevention effort.

Combining the existing positions into a team that serves the region allows for the strengths of each individual to be aligned best with the broader organizational needs. Surge capacity is also gained when one area or the other is suffering from a workload spike.

### Guidance

- Formalize the arrangement through a written agreement.
- Involve others from outside the area and from non-traditional groups (insurance industry, educators, State of Colorado Division of Fire Safety, media).
- Create standardized messages that can be used across the region.
- Learn from others. Model the program after other successful regional public fire safety education programs.
- Evaluate the needs of the combined service area and develop a list of skills required to meet those needs.
- Realign the individuals currently performing their tasks for the separate organizations into the tasks that best match their skill sets, consistent with the organizations need, while balancing the workload.

### Fiscal Considerations

- The elimination of duplicated staff effort in the creation and distribution of public fire safety education messages reduces soft costs.
- Cost savings can be achieved through group purchasing of materials and other media.
- Departments currently without a high presence in public education efforts would see a cost increase.

### Policy Actions

- Management policy decision required before proceeding with strategy.
- BODs and city council approval and requisite funding.

## **Strategy M – Shared or Common RMS (Records Management System)**

### Level of Cooperation

- Functional

### Timeline for Completion

- Mid Term

### Section

- Administration and Emergency Operations

### Affected Stakeholders

- BMFPD, GSFD, and RFPD

### Objective

- Establish a shared or common electronic RMS (Records Management System), including NFIRS compliant software for all three agencies.

### Summary

A common Incident Reporting database is key to the success of several other opportunities (strategies) for efficiency outlined in this report. For example, if the delivery system is regionalized to any degree, units and stations are jointly staffed, or the use of Peak Activity Units were to be implemented, the crews from all three agencies must be familiar with the incident reporting program, without regard to the employer they report to or the jurisdiction they respond to. By establishing a common or shared Incident Reporting software system, that additional level of complexity is eliminated.

### Discussion

Currently, two departments are using Zoll (SunPro – Zoll Medical Corp.) to a point and one is using ERS (Emergency Reporting System) for incident reporting. BMFPD uses ERS while GSFD and RFPD use a Zoll product. Both RMS are compliant incident reporting programs. By sharing the backbone of the stronger, more developed and utilized of the two systems, cost avoidance and common data collection can be established. By expanding on either of these systems, a product can be leveraged to the benefit all three agencies, and a common database would be established. This virtually eliminates any confusion about records retention or different data being gathered, potentially leading to conflicting policy decisions between the three agencies.

### Guidance

- Ensure that all three agencies' policies and procedures are standardized and aligned or at least, not in conflict with each other as it relates to incident RMS.
- Form a regional working group and examine the possibility of creating a single RMS system for all three agencies.
- Decide upon an existing system to expand and use, or initiate planning for a RMS new system

### Fiscal Considerations

- Expansion of an existing RMS program currently used by one or two of the departments will undoubtedly require additional funding and resources. A comparison should be considered to examine the cost of expanding a single RMS system into a regional program to include all three agencies.
- Costing of if an entirely new system is implemented, or maintain status quo.

### Policy Actions

- BODs and city council members and staff should be fully educated and have an understanding of the benefits of a single shared RMS.
- Management policy decision required before proceeding with strategy.

## **Strategy N – Shared Intern Program**

### Level of Cooperation

- Functional

### Timeline for Completion

- Mid Term

### Section

- Administration, Training, and Emergency Operations

### Affected Stakeholders

- BMFPD, GSFD, and RFPD

### Objective

- Augment career staffing.
- Provide surge capacity staffing.
- Develop a training program and pool of recruit candidates for career positions.

### Summary

An intern program can provide much needed staffing augmentation where hiring additional career firefighters can tend to be costly in both time and resource. A regional intern plan with all three agencies is an advantageous pathway to train and prepare and a cadre of new firefighters. A standardized baseline of training should be adopted and modeled by all the departments in order to make this program beneficial to the region. It will be beneficial to the career firefighters by increasing staffing levels, and to the interns themselves as a pathway to a career. All three agencies could also benefit from implementation of such a program in a variety of administrative areas such as fire prevention, training, and logistical support.

### Discussion

Intern programs are not unique in the fire service. ESCI is familiar with a FPD in Washington that assigns three interns (the district uses the term intern for volunteer personnel) per shift to work alongside career personnel. Two interns are certified as FFI, in hazmat operations, EMT-Bs, and are qualified to drive medical aid cars and engines. A third EMT intern is a qualified EMT-B, trained in hazardous materials awareness, and can operate medical aid cars.

While these programs are not without cost (Personal Protective Equipment or PPE, training, “hire” screening processes), it is an affordable approach. While ESCI does not advocate the replacement of career personnel with interns or volunteers where hiring is possible, the financial

circumstances that many fire departments are facing can make hiring additional career personnel impossible. With an intern program, the agencies can invest in potential career firefighters by recruiting from within the intern ranks.

### Guidance

- Review other intern and reserve programs
- Develop recruitment program, position requirements and standards.
- Program needs to meet Colorado Division of Fire Safety Firefighter I certification requirements.

### Fiscal Considerations

- PPE and uniforms per intern, approximately \$2,000.
- Conduct pre-employment screening of candidates: medical physical, psychological, background investigation, and physical ability.

### Policy Actions

- Management policy decision required before proceeding with strategy.
- BODs and city council approval and requisite funding.

## **Strategy O – Shared Volunteer Services**

### Level of Cooperation

- Functional

### Timeline for Completion

- Mid Term

### Section

- Emergency Operations and Training

### Affected Stakeholders

- BMFPD, GSFD, and RFPD

### Objective

- Combine existing volunteer cadre into a single pool of resources for all three agencies.

### Summary

All three agencies have small, specialized groups of volunteers. These groups can be combined and expanded to provide greater benefit to each agency, while reducing the administrative and training workload expended maintaining separate groups.

### Discussion

A single volunteer pool can be drawn from by all three agencies to provide firefighter/technician response, firefighter/operations support, administrative support, or any number of other programs. Separate engine companies or BLS ambulance companies can be made up of volunteer crews to back-fill fire stations when career on responses, or periods of peak demand. This strategy would provide the communities with a level of resource beyond current capabilities and streamline training, administration, and deployment of volunteers.

### Guidance

- A volunteer coordinator should be a combined recruiter, cheerleader, enforcer, problem solver and administrator. This position is important to the success of shared volunteer services.

### Fiscal Considerations

- Limited costs of initial and recurrent training of volunteers and equipment standardization.
- Compensation of volunteer coordinator.

### Policy Actions

- Management policy decision required before proceeding with strategy.

- BODs and city council approval and requisite funding.

## **Strategy P – Shared Administrative Services**

### Level of Cooperation

- Functional

### Timeline for Completion

- Mid Term

### Section

- Administration

### Affected Stakeholders

- BMFPD, GSFD, and RFPD

### Objective

- Cost avoidance through shared administrative and support services and elimination of duplicated efforts.
- Efficiencies through specialization of job duties.

### Summary

BMFPD, GSFD, and RFPD each provide administration and support services with either internal or external personnel or a combination of both assigned to these duties. Specific activities, functions, and positions vary between the fire departments. In each agency oversight and involvement in administration is to a degree responsibility of the fire chief. Fire chief responsibilities include human resources, financial accounting, budgeting, investment and risk management, and strategic planning. Each department has some variation in its approach to debt management, legal and technical services, maintenance, RMS, and the provision of administrative support to the BODs and city council.

In some cases, the administrative functions are virtually identical in areas, which means they are highly duplicative. The activities of the administrative support and management functions are critical to legal, risk management, and fiscal health of the agency. While there may not be positions that could be eliminated, there are certainly areas of specialization that could be developed by realigning existing FTE's (full time employees).

### Discussion

Significant expertise and risk reduction can be achieved by investing in a dedicated human resource specialist position for all three agencies. The same can be said for a dedicated budget/investment analyst and IT specialist positions for these agencies. These positions may be able to be formed by examining current positions and incumbent personnel with requisite

abilities to serve in those specific capacities, then designing or modifying the organizational structure. For example, the cities of Fountain Valley and Garden Grove, CA each share the joint services of a single city clerk. This shared position has resulted in cost savings for both cities, yet the delivery of city clerk services is still robust and intact.

Clearly, some functions reside best with the fire chiefs, however, having well developed technical specialists managing critical support functions in an administrative services division may provide the agencies with expertise beyond what they currently receive simply by reconfiguring assignments. A broader regional shared approach to the use of personnel by combining administrative functions would thereby creating a more efficient system overall.

### Guidance

- Identify and compare similarities in administrative and support systems with the three agencies.
- First identify the skills required for the positions before evaluating the capacity of the incumbent staff members to shift into those specialty or job functions.
- Where a gap exists between skill sets of incumbents and a specialty or job function, seek a well-qualified candidate rather than accept less than is needed for the organization to spare an incumbent's job. Both the incumbent and the organization will be unhappy in the end.
- Evaluate effectiveness of regionally shared administrative staff members. This opportunity may reduce redundancy with staffing, while conserving resources.

### Fiscal Considerations

- Training costs may increase initially.
- Budgetary savings will be dependent on how many positions are combined, or shared.
- Once a baseline skill set is established, efficient and effective decisions will follow, creating unknowable savings in such things as avoided legal action or revenue and budget forecasting that maximizes available tax dollars.

### Policy Actions

- Management policy decision required before proceeding with strategy.
- BODs and city council approval and requisite funding.

## **Strategy Q – Align Operational Staffing Schedules**

### Level of Cooperation

- Functional

### Timeline for Completion

- Mid Term

### Section

- Emergency Operations

### Affected Stakeholders

- BMFPD, GSFD, and RFPD

### Objective

- Establish a 48-hour on-duty and 96-hour off-duty 56-hour workweek for operational personnel.

### Summary

GSFD and RFPD career operations personnel work a 48 hour on-duty and 96 hour off-duty 56-hour workweek. Staffing for emergency operations in BMFPD is with volunteer personnel with four administrative and support employees working a 40-hour workweek that do respond to emergency incidents. Aligning, adopting, and maintaining a single work schedule for operations personnel is necessary to the success of many of the other strategies.

### Discussion

The current 48-hour on-duty and 96-hour off-duty 56-hour workweek is appropriate for the delivery of emergency services to Glenwood Springs, GSRFPD, and RFPD. BMFPD has transitioned to part-time career staffing with two RFPD employees staffing Fire Station No. 64.

### Guidance

- Other strategies are dependent on a single uniform schedule for operations personnel.
- If the fire agencies elect a model of joint operations the need for a single schedule is necessary.
- Should BMFPD hire full-time operations personnel, aligning work schedules with GSFD and RFPD is recommended.

### Fiscal Considerations

- Minimal impact.
- May involve soft costs of staff time for changes to policies.

*Social considerations*

- With many part-time personnel working at multiple fire departments, this is seen as having a positive impact on those individuals that switch between agencies.

*Policy Actions*

- Management policy decision required before proceeding with strategy.

## **Strategy R – Implement Criteria Based Dispatching**

### Level of Cooperation

- Functional

### Timeline for Completion

- Short Term

### Section

- Emergency Operations

### Affected Stakeholders

- BMFPD, GSFD, and RFPD

### Objective

- Send the most appropriate unit to an emergency based on medical criteria established by experts in the field.

### Summary

CBD (Criteria Based Dispatching) is a process whereby callers to 9-1-1 are taken through an algorithm that guides the dispatcher to send the most appropriate medical unit to a patient. The criteria is established by medical experts who default to reasonably low risk decision making, erring on the side of higher medical care for gray area symptoms.

### Discussion

Many fire service agencies in the state of Colorado utilize some form of Emergency Medical Dispatching (EMD) or CBD whether the Clawson Protocols, or other commercially available systems.

Studies have been conducted to evaluate the safety and efficacy of Criteria Based Dispatching in its various forms. One such study had 11,174 patients enrolled. The use of Emergency Medical Dispatch was associated with a significant decrease in the proportion of calls designated as ALS (>11 percent drop), as well as a significant decrease in the number of ALS responses cancelled by BLS (>14 percent drop). The conclusion was that implementation of an Emergency Medical Dispatching system significantly decreased inappropriate ALS dispatching, as defined by decreased rate of ALS cancellations and BLS releases.<sup>53</sup>

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<sup>53</sup> The Use of Emergency Medical Dispatch Protocols to Reduce the Number of Inappropriate Scene Responses made by Advanced Life Support Personnel 2000, Vol. 4, No. 2 , Pages 186-189 Department

Guidance

- Coordinate development of CBD with the Valley View Physician Advisor and Garfield County Emergency Communication Authority.
- Make a formal recommendation to implement EMD to the 9-1-1 Authority Board.

Fiscal Considerations

- Associated expense of purchasing a new system and cost of training required. The expense of a new system could potentially be funded through 9-1-1 user fees.

Policy Actions

- Approval of governing bodies of the agencies.
- Approval of the 9-1-1 Communication Authority Board.

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of Emergency Medicine, Christiana Care Health System (EDB, REO), Newark, Delaware; and Delaware Office of EMS (RWR), Dover, Delaware.

## **Strategy S – Implement a Training RMS (Records Management System)**

### Level of Cooperation

- Functional

### Timeline for Completion

- Mid Term

### Section

- Training

### Affected Stakeholders

- BMFPD, GSFD, and RFPD

### Objective

- Provide a fully integrated comprehensive training records management system (RMS).

### Summary

Computerized RMS provides for ease of data entry, retention, and accessibility. RMSs are designed to provide comprehensive information regarding an individual, company, station, shift, or the entire fire department's training status. Every RMS is designed with the ability to query records and generate a variety of user-defined reports.

The departments individually selected a RMS, resulting in a diversity of products. While the departments attempt to make good use of their systems, not all of the capabilities are presently fully utilized. *NFPA 1401*<sup>54</sup> *Recommended Practice for Fire Service Training Reports and Records* provides standards for RMSs. The standard presents a systematic approach to providing essential information for managing the recordkeeping function of a training division. It includes the types of records, reports, and forms that serve as information tools for effective training administration. It also provides recommended practices related to computerization of records and reports and the legal aspects of record keeping.

### Discussion

In many organizations, an assortment of factors, including a lack of staff support, the time to become proficient with the software, and software limitations, frustrate and prevent users from fully using RMS. The use of a regionally standardized RMS would enhance utilization of the data provided by the system.

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<sup>54</sup> *NFPA 1401: Recommended Practice for Fire Service Training Reports and Records*, 2006 Edition.

With a one standardized RMS, an administrative staff person could provide system wide instruction and help troubleshoot the system. The ability to use the system to its maximum potential and to retain and generate meaningful reports is improved. An environment is created for system users to share knowledge, experience, and assist one another in problem resolution if the data entry is quick, easy and intuitive.

Vacations, overtime work, rotating shift schedules, and normal absenteeism make training schedules very difficult to manage. The ability to track and assess training information would foster the development of a unified training manual and an annual training plan. Future enterprises may benefit from a single RMS, including recruit training, career development, in-service, officer, and specialized training programs. A RMS for training will aid department/division heads in budget planning, training delivery, and with resource and risk management.

### Guidance

- Establish a work group that includes at least one training representative from each department.
- Identify system requirements and needs of each department.
- Evaluate the RMS currently used by each department, including justification for its use.
- Evaluate other available RMS systems.
- Select an RMS that most adequately satisfies mutual requirements, needs, and budget.

Each department should share in the cost of one regional individual to administer and manage the training RMS, including:

- Training RMS management.
- Oversight of hardware and software installation.
- Providing for the initial and on-going RMS training for end users.
- Determine server requirements for training RMS.
- Use an existing or establish a new Intranet/Internet network.
- Provide for RMS maintenance and troubleshooting services.
- Acquire technical assistance for RMS programming.
- Provide for a periodic appraisal of the RMS.

### Fiscal Considerations

- A reduction in duplicated effort (reduces soft costs) in acquiring, learning, and maintaining, individual systems.

- Cost for a dedicated, regional administrative position managing system.
- Economies of scale in the collective purchase, use, and maintenance of a single RMS.
- Cost to purchase, administer, maintain, or modify existing network.
- Personnel costs associated with RMS committee, training, and implementation.

Policy Action

- Management policy decision required before proceeding with strategy.

## **Strategy T – Develop Mutual Training Strategies**

### Level of Cooperation

- Functional

### Timeline for Completion

- Short to Mid Term

### Section

- Training

### Affected Stakeholders

- BMFPD, GSFD, and RFPD

### Objective

- Provide purpose and direction for training program management and delivery.
- Combine strengths and resources to:
  - Overcome current training obstacles and deficiencies.
  - Provide a comprehensive and integrated training structure.
  - Develop a mutually beneficial training program.
  - Train and certify a cadre of knowledgeable and skilled emergency responders.

### Summary

Agreements between public agencies to functionally consolidate certain programs are becoming increasingly common. Such cooperative initiatives are a means to mutually increase efficiency through reduction or elimination of duplication; something not usually achievable by a single entity.

### Discussion

Individuals are assigned responsibility (through job description or by special assignment) for development and delivery of their department's training program. Training programs are carried out, in large part, independently, with varying levels of program development, content, and quality. All persons responsible for firefighter training appear to work towards providing comprehensive programs; but not surprisingly, success is inconsistent. With a mutually established training strategy the departments can develop consistency and improve training results.

The geographical proximity of the departments to one another, the resources, and the available expertise provide an opportunity for training collaboration. Sharing such resources is

considered a fiscally responsible way to fully reach the full potential for the firefighter and EMS training programs. Developing a strategic training plan for their firefighter training is a crucial first step.

A strategic training plan evaluates current training levels and determines future training goals and objectives. The process includes identifying the existing type and level of emergency services, followed by an audit of the certification and skills of emergency workers. Strategies are created to develop curriculum, obtain resources, and produce a training schedule. Currently, each agency adopts their training standards and certification levels for the job classifications independently. A combined strategic training plan drives consistency and continuity between the three agencies and within each agency.

As part of the combined training strategy, a system of competency-based training and skills evaluation is recommended for all suppression and EMS personnel. Competency-based training helps firefighters achieve and retain the required skills for specific jobs. The term “skill” is defined in Merriam-Webster as “A learned power of doing something competently; and a developed aptitude or ability.” We recommend that mutual training strategies include the semi-annual evaluation of individual and company proficiency. Results of the evaluations may then be used to continuously re-evaluate the training strategy over the long term.

### Critical Issues

- Variations between current programs used by the fire departments may initially require personnel to receive additional training.
- Personnel involved in the development of a combined training manual should also be involved with development of mutual training strategies.
- The three agencies should produce a statement attesting to their commitment of developing mutual training strategies.

### Guidance

- Establish a work group to evaluate and develop common training strategies:
  - Identify goals and establish objectives.
  - Set benchmarks.
- Evaluate the other related training topics found in this section:
  - Video conferencing,
  - Annual training plan,
  - Shared training manual,
  - Training facilities,

- Training standards, and
- Record keeping.
- Encourage creativity to apply existing strategies in new and different ways and to develop new strategies.
- Provide for a periodic appraisal of the training strategy, evaluating relevancy, effectiveness, and compatibility with current need.
- Keep strategies in electronic format for ease of updating.

*Fiscal Considerations*

- No significant financial considerations.

*Policy Actions*

- Management policy decision required before proceeding with strategy.

## **Strategy U – Develop an Annual Shared Training Plan**

### Level of Cooperation

- Functional

### Timeline for Completion

- Short Term

### Section

- Training

### Affected Stakeholders

- BMFPD, GSFD, and RFPD

### Objectives

- Provide standardized and consistent training.
- Provide a well-trained emergency workforce.
- Provide long-term vision and direction for training delivery.

### Summary

*NFPA 1500 Standard for Fire Department Occupational Safety and Health Programs*, Training and Education states, "The fire department shall provide training and education for all department members commensurate with the duties and functions that they are expected to perform."<sup>55</sup>

A formalized training plan provides the guidance for meeting training requirements. The plan and subsequent training is used to ensure that firefighters are competent, certified, and possess the ability to safely deal with emergencies. Training priorities are established by evaluating responder competencies to training mandates, requirements, desired training, and with the emergency services being delivered. Contemporary training delivery often revolves around performance or outcome-based training. To a limited extent, BMFPD, GSFD, and RFPD have initiated planning for fire and EMS training collectively.

An annual training plan should reflect priorities by identifying the training that will occur. Training topics, general subject matter, required resources, responsible party, tentative schedule, and instructors are all covered in the plan. Rationale for why certain topics were chosen (or not chosen) is also included in the plan.

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<sup>55</sup> National Fire Protection Association, *Standard 1500 Standard for Fire Department Occupational Safety and Health Programs*, Training and Education, 2007 Edition.

### Discussion

Planning is essential to a successful training division, functioning much like the rudder of a ship. To efficiently plan the direction of a training program, complex factors must be considered, including: training mandates, department type, personnel development, unanticipated need, priorities, and finite training time. Successfully charting a course through such issues can be a daunting and overwhelming task for the lone training officer.

Currently, each agency individually deals with the same or similar fire training responsibilities and issues; inefficiencies exist as a result. A single training plan is an opportunity to combine intellectual resources to exploit the strengths and assets of each department for mutual benefit.

*Efficient training systems are those that identify what they do well and take advantage of the opportunities provided by other systems to supplement their efforts. Inefficient systems are those that try to be all things to all people, and in doing so, squander resources.<sup>56</sup>*

Determining the level of training that will be supported is crucial. Develop the annual training plan accordingly and deliver the training that directly supports those levels. For example, training could be directed at supporting certifications of Firefighter I, Fire Officer I, and Apparatus Operator/Engineer. A pool of instructors who are experts in that subject can be developed from those with the interest, qualifications, and expertise.

Developing and carrying through with a well-conceived and coordinated training plan can improve on-scene safety, efficiency, and effectiveness of personnel. With personnel from each agency trained from the same plan, an emergency incident may be attacked with an expectation as to the level of training and skill set of the responders. The training plan will also assist in the planning and tracking of employee development and certifications.

### Guidance

- Provide a coordinated training plan, including:
  - Conduct didactic sessions via the video conferencing system.
  - Plan regular use of training facilities.
  - Schedule regular single agency, single and multi-company manipulative skill drills.
  - Schedule regular multi-agency, multi-company manipulative skill drills.
  - Calendar annual training conferences, NFA training calendar, evaluate budget and number of potential attendees.

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<sup>56</sup> Department of Homeland Security, FEMA, U.S. Fire Administration, *The Future of Fire Service Training and Education Professional Status: Part Two – Training and Education*, page 1.

- Establish and maintain a training committee that meets regularly. Include at least one training representative from each department:
  - Develop an annual training plan.
  - Publish, distribute, and implement the plan.
  - Provide an orientation for personnel of each department regarding the plan's purpose and contents.
  - Publish monthly training schedules based on the plan.
- Place the annual plan and monthly schedules in electronic format for distribution and ease of updating.
- Provide for periodic reviews and adjustments to the plan.
- Direct all curricula towards risk management.
- Include all hazards in the training plan rather than solely fire-related incidents.

#### Fiscal Considerations

- An elimination or reduction in triplicate staff effort (reduced soft costs) in the creation and updating of multiple training plans.
- Instructional time is increased during multi-agency training sessions with personnel trained to selected certification levels.
- A reduction in costs through coordination of shared training resources and equipment.

#### Policy Actions

- Management policy decision required before proceeding with strategy.

## **Strategy V – Consolidate Training into a Single Training Division**

### Level of Cooperation

- Functional

### Timeline for Completion

- Mid-Term

### Section

- Training

### Affected Stakeholders

- BMFPD, GSFD, and RFPD

### Objectives

- Eliminate duplicated efforts in training emergency responders.
- Create a single unified training division.

### Summary

Responsibility for fire department training programs is often assigned to either one person or a group of people. Two classic forms of providing training are: 1) a training division with assigned personnel or, 2) a company officer is assigned training responsibilities in combination with regular duties. Multiple assignments also tend to underscore the difficulty faced by many officers in trying to balance staff responsibilities. Historically, the training programs for the departments have been managed and operated quite independent of one another.

With the creation of a single training division, the personnel used to perform collateral duties will be positively affected. As specialists it will take fewer individuals to conduct training than is currently required by the fire departments individually.

### Discussion

To varying degrees, the fire department training programs display strengths and weaknesses. The weaknesses are commonly a result of two basic problems influencing agency training officers – multiple responsibilities and a lack of time to “do it all”, forcing the training officer to juggle job responsibilities, which at times seems overwhelming.

Advanced levels of education and training for company officers, and command officers are not adequately addressed. Training officers have expressed a desire to take up these training issues and recognize that officers need to have the knowledge and skills necessary to be successful in supervisory, management, administrative, and executive positions. To provide the

necessary knowledge and skills, an Officer Development Program is being developed. However, a lack of time to research, plan, develop, and conduct the training appears to be a challenge for each agency. Collaborating on this effort increases efficient use of existing resources, enabling additional capacity to be created, thereby facilitating the development of such a program.

Given the resources and expertise within the agencies, there exists an opportunity to eliminate duplication by consolidating the training divisions. The mission of the training division would be to coordinate the administration, management, and delivery of the training program for the three departments. Combining the existing fiscal, supplies, services, and personnel resources would provide greater efficiency of effort. Focused attention on the training requirements by training division members will produce a more efficient training delivery system.

### Guidance

- Of all of the recommended opportunities, this one in particular would require universal participation by the fire departments to be successful. If one of the agencies elect not to participate, the geographical and logistical complexities multiply exponentially.
- Establish a single training division.
  - Provide for the administration of training delivery.
  - Provide opportunities with regular meetings for each agency representative to coordinate training activities.
  - Provide adequate training facilities and office space for training staff.
- Combine the training staff, with an administrator (division head) at the chief level.
  - Chief training officer should report to one supervisor.
  - Chief training officer should have overall training program administration, supervision, and management responsibilities.
- Adequate personnel to administer and provide training for:
  - A joint recruit academy.
  - Recurrence training for Firefighter I and II, and Fire Officers.
  - Officer level training and career development.
  - Apparatus operator/engineer skills and engineer development.
  - Administration and coordination of the EMS training and recertification program.
  - A RMS (records management system) for tracking individual, company, and department training.
  - Adequate clerical support staff.

*Fiscal Considerations*

- Increased efficiencies by eliminating duplication of staff effort in managing individual department training programs.
- Potential for increased instructional capacity through pooled instructors.
- Cost to develop and or modify existing training facilities.
- Cost of any added training aids.
- Personnel costs to staff the training division.
- Operation, maintenance and capital replacement costs.

*Policy Actions*

- Management policy decision required before proceeding with strategy.
- BODs and city council approval and requisite funding.

## **Strategy W – Develop and Adopt Training Standards**

### Level of Cooperation

- Functional

### Timeline for Completion

- Short Term

### Section

- Training

### Affected Stakeholders

- BMFPD, GSFD, and RFPD

### Objective

- Adopt uniform training guidelines.
- Adopt uniform certification standards.

### Summary

Training standards provide the benchmark for training. They define and specify the quantity and quality of training for achieving levels of competency and certification. Industry standards developed by organizations like the National Fire Protection Association (NFPA) and the Colorado Department of Public Safety – Division of Fire Safety. Occasionally, locally developed standards are adopted to address circumstances unique to that area. Manufacturer's recommendations and certifications are often applicable to the use of specialized equipment.

BMFPD, GSFD, and RFPD primarily adhere to the Colorado Department of Public Safety – Division of Fire Safety standards, with training support provided by the International Fire Service Training Association (IFSTA) and internal training manuals. To a lesser degree, the departments apply NFPA and Insurance Services Office (ISO) standards.

### Discussion

By primarily adhering to Division of Fire Safety standards, the departments are foundationally prepared to adopt the same set of standards. The adoption of standards would provide uniformity throughout the training delivery system and would improve inter-agency compatibility. It would further simplify development of a training manual, annual training plan, and data entry and retrieval of computerized training records. Adoption will provide for uniformly trained and certified responders, and will assure increased emergency scene compatibility, efficiency, effectiveness, personnel confidence, and emergency scene safety.

### Guidance

- Establish a work group including at least one training representative from each of the three departments.
  - Identify mandated training standards.
  - Assess all other standards currently used by each fire department, including the rationale for their use.
  - Consider any unique local issues relative to training.
  - Develop a process for the adoption of training standards.
  - Adopt the training standards to which the departments will adhere.
  - Annually review and update training standards.
- Educate personnel on the purpose and application of the standards.
- Provide for continual use of training standards throughout the training delivery system.
- Maintain standards in a readily available format.
- Provide for frequent evaluation and updating of training standards.
- Address and resolve personnel certification issues created by new standards and certifications.

### Fiscal Considerations

- A reduction in duplicated staff effort (reduces soft costs) to develop similar but separate programs based on the same standards.
- A potential for reduced specialized training costs through a larger pool of personnel.
- Responders trained to the same standard provide a more cohesive workforce, increasing efficiencies.

### Policy Actions

- Management policy decision required before proceeding with strategy.

## **Strategy X – Develop a Shared Training Manual**

### Level of Cooperation

- Functional

### Timeline for Completion

- Short Term

### Section

- Training

### Affected Stakeholders

- BMFPD, GSFD, RFPD, and other Regional Emergency Service Providers

### Objective

- Provide consistent, standardized training procedures.

### Summary

Fire department instructors use manuals based on local, state and national standards as a resource to develop lesson plans for classroom and field training. Training sessions provide students with the knowledge, skills, and abilities to perform in emergency and non-emergency situations.

### Discussion

Until now, the fire departments unilaterally selected training materials from a variety of options. Not surprisingly, training and performance varies. The creation and use of a standard training manual will provide for more consistent training, better on-scene coordination, and improved firefighter safety.

As the firefighters of each agency are trained in the same procedures, each can respond to an emergency with the confidence that all responders are prepared to work effectively as a team. This will improve the effectiveness of firefighters from the three agencies by working together as a coordinated emergency workforce. Standardized training procedures improve on-scene safety, efficiency, and effectiveness.

Care should be exercised to prevent a training manual development process from taking too long. To expedite progress, we recommend adopting material from existing model training manuals, hose evolutions, and standard operating guidelines will be helpful. A resource for

obtaining on hand material can be found through the Western Fire Chiefs Association, State of Colorado (Division of Fire Safety), and the National Fire Academy.<sup>57</sup>

Model fire department training material is readily available through the Fire Department Training Network (FDTN), Thomson Delmar, and Oklahoma State University. The International Fire Service Training Association (IFSTA, through Oklahoma State University) and Fire Protection Publications (FPP) have been longstanding producers of training manuals, course curricula, and audiovisual aids for fire departments. NFPA recommended practices and standards can also assist with the development of the training manual. Relevant standards include:

- *NFPA 1401, Recommended Practice for Fire Service Training Reports and Records*
- *NFPA 1403, Standard on Live Fire Training Evolutions*
- *NFPA 1404, Standard for Fire Service Respiratory Protection Training*
- *NFPA 1410, Standard on Training for Initial Emergency Scene Operations*
- *NFPA 1451, Standard for a Fire Service Vehicle Operations Training Program*

The need for training of personnel with specialized duties should be included in the combined training manual.

### Guidance

- Establish and maintain a user group that meets regularly.
  - Include at least one training representative from each department.
- Develop and adopt a single training manual.
- Place the training manual in electronic format for easier updating and to allow access by firefighters.
- Provide for coordinated training of the agencies.
- Provide for regularly scheduled multi-agency drills.
- Provide for a regular evaluation and review of the training manual for applicability to pertinent laws, industry standards, and regional standard operating guidelines.
- Seek out existing procedures for use in development of the training manual.

### Fiscal Considerations

- The elimination of duplicated staff effort (reduces soft costs) in the selection, development, and updating of separate training manuals.

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57 Western Fire Chiefs Association, National Fire Service Library, [www.wfca.com](http://www.wfca.com). Department of Homeland Security, Federal Emergency Management Agency, U.S. Fire Administration, National Fire Academy, Training and Education.

- Instructional time is likely impacted during multi-agency training sessions by reducing or eliminating the time devoted to adaptive or remedial training.
- An emergency workforce trained under a cooperative system is more efficient and effective in reducing property damage and loss during emergency incidents.
- A workforce trained to operate under universal standards will experience fewer emergency scene injuries.
- A workforce trained to operate under universal standards will be more effective in reducing death and injury to the victims of the fires impact.

Policy Actions

- Management policy decision required before proceeding with strategy.

## **Strategy Y – Develop a Shared Fire and EMS Training Facility**

### Level of Cooperation

- Functional

### Timeline for Completion

- Mid term

### Section

- Training

### Affected Stakeholders

- BMFPD, GSFD, RFPD, and other Regional Emergency Service Providers

### Objective

- Provide training facilities readily available to the fire departments.
- Develop and maintain the knowledge and skills of emergency services personnel.

### Summary

Classroom instruction is an essential component of preparing emergency responders with knowledge and skills. A training facility or drill ground is a second indispensable element. Training facilities provide the controlled and safe environment used to simulate emergencies to develop and test the skill sets of emergency workers. Training involves both individual and group manipulative skills development in the operation of firefighting equipment, and fire apparatus.

*NFPA 1402: Guide to Building Fire Service Training Centers*, is a standard that addresses the design and construction of facilities for fire training.<sup>58</sup> The document covers the features that should be considered when planning a fire training facility.

Of the agencies involved in this study, only RFPD maintains a facility with features that meet current standards. BMFPD and GSFD have limited facilities available with some training components but no dedicated training facility. Absent the availability of suitable training facilities, fire departments may forego essential training.

### Discussion

Proficient emergency responders have confidence in their own abilities in handling the emergencies they encounter. Best practices suggest that emergency workers have regular

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<sup>58</sup> National Fire Protection Association, *Standard 1402 Guide to Building Fire Service Training Centers*, 2002 Edition

access to training grounds for repetitive drills and to develop new skills. Training is identified as a vital part of a fire department's safety and accident prevention program. An effective and continuous training program results in safer, more efficient, and effective emergency operations.

It is financially unrealistic to expect that every fire department will build and maintain an independent training facility. Developing a shared single training facility to comply with industry standards concerning classrooms, practice grounds, training tower, live-fire building, and training props *is* fiscally prudent. In addition, the ongoing cost of operating and maintaining a training facility further advances the case for a partnership.

### Critical Issues

- Determine the adequacy of the existing training facilities to meet the needs of BMFPD, GSFD, RFPD, and other potential participants.
- If another property is considered as a potential site for a training center, it should have an environment assessment performed.
  - Conduct a needs assessment before design and construction of a new training center and/or beginning improvement to existing facilities.
  - Consider community and environmental impact of training grounds and training props when determining locations. Pay particular attention to access and egress routes.
  - Select an architect, engineer, and vendor familiar with fire department training centers for oversight of the project. A number of companies have extensive knowledge and expertise in developing complete fire training facilities. Manufacturers of fire training facilities also offer lease packages for financing.

### Guidance

- Establish a user group that meets regularly to include at least one training representative from each fire department.
- Consider development of a limited scope satellite training facility proximate to the eastern section of the response area of the three fire departments.
- We stress the importance that any site selected be spacious enough to provide adequate classroom and training props to simulate different emergency scenarios.
- ESCI recommends that any new fire training center be constructed in a manner sensitive to the environment. Provide an adequate buffer between the training grounds and neighborhoods or businesses.
- Assure easy/safe access and egress routes.
- If possible, select a site easily served by existing utilities including electric, water, gas, and sewer.
- Provide a borderless plan for maintaining adequate emergency response coverage for crews attending training.

- Provide for regular scheduled use of the facilities.
- Secure adequate support for facility and grounds maintenance, and improvements.
- Provide adequate training resources and equipment beyond those carried by on-duty apparatus.
- Live fire training is a crucial element when developing plans for fire training facilities.
- In addition to a gas-fired live training prop, we recommend the purchase of a flashover training prop be given strong consideration.
- Establish policies and procedures for safe and effective use of the facilities.
- Consider jointing insuring against accident and liability.

#### Fiscal Considerations

- Visit fire regional training centers for ideas for training facilities.
- Anticipate an increase in fuel consumption and vehicle maintenance caused by travel to and from the training facilities. Any increase would likely be offset by a comparative reduction in travel by a video conferencing system.
- The cost of new construction or upgrades to existing facilities.
- The shared costs for the use, support, and maintenance of facilities.

#### Policy Actions

- Management policy decision required before proceeding with strategy.
- BODs and city council approval and requisite funding.

## **Strategy Z – Implement and Cooperatively Use a Video Conferencing System**

### Level of Cooperation

- Functional

### Timeline for Completion

- Short Term

### Section

- Training

### Affected Stakeholders

- BMFPD, GSFD, RFPD, and other Regional Emergency Service Providers

### Objectives

- Provide standardized, consistent, and high-quality classroom training.
- Reduce training staff hours required for curriculum delivery.
- Increase in-service time of emergency response apparatus.

### Summary

The ability to connect with interactive video conferencing would allow for a more efficient delivery of didactic training and tabletop exercises. This type of system is designed to increase training delivery efficiency and shared training capabilities.

### Discussion

Following certification, a significant amount of firefighter and EMS continuing education, training, and skills development can be conducted at the local level. The training of new employees, continuing education, and specialized training varies; yet each agency shares the same or similar training needs. As an example, all three departments must provide for training on:

- Infectious diseases
- Blood and airborne pathogens
- SCBA (self-contained breathing apparatus) and respiratory protection
- ICS (incident command system)
- Hazardous materials
- EMS – OTEP training
- Safety
- Confined space
- Wildland refresher training
- Harassment

Evaluations of each fire department's training programs noted that the delivery, quality, and level to which required training is satisfied vary widely. Factors that influence this include:

- Availability of training staff.
- Staff time is often divided between job functions, balancing training versus non-training priorities.
- Level of interest and commitment of individual trainers.
- Access to and availability of training facilities and equipment.
- Ability of on-duty personnel to attend training sessions.
- Availability and cost of replacement crews for personnel attending training.
- Interruptions for emergency response.

Many of these issues can be mitigated through the use of a video conferencing system.

Cooperative use of the system will likely:

- Increase compliance with annual training and competency requirements.
- Improve efficiencies at emergency scenes for individual departments and during multi-agency operations.
- Increase training staff productivity through a reduction in curriculum development and delivery time.
- Keep crews in service and in position for emergency response.

### Guidance

- Establish and maintain a user group with one representative from each department.
  - Schedule regular training meetings.
  - Identify common and individual department training needs.
  - Identify and solve mutual training delivery problems.
  - Adopt common training standards.
  - Coordinate the development, distribution, and delivery of training by assigning common training needs.
  - Ensure delivery of mandatory didactic training using the video conferencing system.
  - Provide for periodic review and evaluation of delivered training for compliance with standards.
  - Provide for periodic quality assurance review of delivered training.
  - Develop a formula where each department shares costs associated with operation of the video conferencing system.
  - Provide maintenance and troubleshooting services.
  - Provide system programming services (scheduling, production, editing, and library maintenance).

- Provide VOD (Video on Demand) access to fire stations and to fire department personnel.

*Fiscal Considerations*

- The reduction of duplicated staff effort (reduced soft costs) in the development and delivery of training programs.
- A reduction in material costs associated with duplicated training resources for training delivery.
- A reduction in apparatus fuel costs associated with a reduced travel for training.
- Personnel costs for services to operate and maintain the video conferencing system.

*Policy Action*

- Management policy decision required before proceeding with strategy.

## **Strategy AA – Develop a Single Apparatus Refurbishment/Replacement Plan**

### Level of Cooperation

- Functional

### Timeline for Completion

- Long Term

### Section

- Emergency Operations

### Affected Stakeholders

- BMFPD, GSFD, RFPD, and other Regional Emergency Service Providers

### Objective

- Create a single set of emergency apparatus specifications.
- Provide single-source uniform emergency apparatus.

### Summary

BMFPD, GSFD, and RFPD use and maintain a variety of emergency apparatus types. Among the common types of apparatus each department uses (such as pumpers) equipment of different makes, models, and configurations. A standard specification and procurement process for each apparatus type would result in lower cost, faster production, and training efficiencies.

Procurement of uniform fire apparatus can translate into lower purchase prices, reduction in parts warehousing, and less money, time, and effort spent training drivers and maintenance personnel. Other benefits include greater interoperability, a potential for reducing driver training, and greater confidence and skill level among operators.

### Discussion

The apparatus fleet of the three departments is diverse. Fire apparatus are categorized by function, including pumpers, water tenders, brush units, and medic units. While there is an identifiable need for vehicles from each category in more than one configuration, acquiring and maintaining standard apparatus creates desirable efficiencies. Dissimilar apparatus tends to increase purchase cost, requires additional initial and recurrent training, and results in the need to warehouse a larger parts supply.

The cash price of a pumper frequently exceeds \$500,000. The reasons for such prices are due to the specialized nature of fire apparatus and new and evolving emissions standards.

However, customization, add-ons, and options tend to make each fire apparatus a “one of a kind” vehicle. The costs to equip, maintain, repair, train operators and mechanics, and to warehouse parts only adds to the overall expenditure.

Fire apparatus useful service life varies generally depending on the rate of use, the environment, operating conditions, and the frequency and level of preventive maintenance. A fire pumper with average to heavy use can reasonably be expected to have a 10 to 15-year service life. With light to very light use, service life can reach 20 years; very heavy use may reduce service life to as few as ten years.

Factors influencing fire apparatus service life include technology and economics. At a given time the cost to operate and maintain a fire apparatus passes the economics of rehabilitation, refurbishment, or replacement.

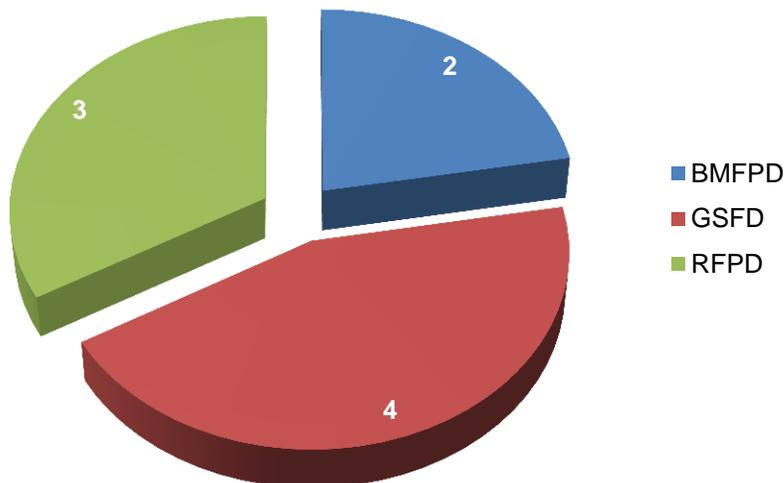
In the following figure ESCI uses these three differences in example apparatus to illustrate how each may impact apparatus operational costs and efficiencies.

**Figure 154: Financial Impact of Apparatus Variance**

Jacob’s and Engine Exhaust Brake	Roll Up and Conventional Compartment Doors	Different Manufacturers
Method of operation	Initial cost difference	Method of operation
Training of operators and maintenance personnel	Different storage layout for equipment	Training of operators and maintenance personnel
Recurring training	Parts for maintenance and repair	Recurring training
Parts for maintenance and repair		Parts for maintenance and repair

A trend is developing within the fire apparatus manufacturing industry. Several manufacturers now offer a line of stock fire apparatus built on custom chassis in addition to a more traditional line of fully custom units. The cost savings of purchasing a stock unit is often 20 percent or more when compared to a custom unit. Additionally if several units are ordered at one time there may be additional savings realized. For illustration of the saving potential, we show the total number of pumpers categorized by department in the following figure.

**Figure 155: Pumper Fleet by Department**



Dividing the nine pumpers with a life expectancy of fifteen years, the fire departments can expect to replace an average of one pumper approximately every other year (20 months). If the conservative figure of \$75,000 is applied as the cost differential between custom versus stock pumpers, the annual saving is \$45,000.

Some fire departments use the option of lease purchasing to fill emergency apparatus need.

Benefits associated with leasing are:

- Leasing may provide a cost advantage over conventional financing by transferring tax incentives (accelerated depreciation) associated with the equipment ownership from the Lessor (the owner) to the Lessee (the user) in the form of lower lease payments.
- Leasing can provide 100 percent financing, conserving cash.
- Leasing can provide a close matching of the lease term and payments to the revenue available to the fire department.

Safety should always be the main consideration when purchasing and operating emergency fire apparatus. When developing emergency fire apparatus specifications and operational procedures, NFPA and other industry standards should be used. Additional guidance on fire apparatus safety devices, response, and training can be found in the *Emergency Vehicle Safety Initiative*.<sup>59</sup>

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<sup>59</sup> Department of Homeland Security, FEMA, U.S. Fire Administration, *Emergency Vehicle Safety Initiative*.FA-272, August 2004, pages iii, iv.

### Guidance

- Assemble data on emergency response apparatus including: age, mileage, operating hours, maintenance costs, cumulative down time, and annual test results. Use the information to create an apparatus replacement schedule.
- Determine the replacement interval and projected life expectancy of each apparatus.
- Examine the merits of extending the useful service life of apparatus through rehabilitation and refurbishment.
- Consider the option of purchasing all categories of fire apparatus from a sole source.
- Develop an emergency apparatus PLL (prescribed load list) for use by the three agencies.
- Mark apparatus in a standard format with striping, decals, and department name following NFPA standards and recommendations from the Emergency Vehicle Safety Initiative.<sup>60</sup>
- Develop a mobile apparatus repair and service response unit.
- Develop central facilities(s) for maintenance and repairs for all emergency apparatus.
- Create Standard Operating Guidelines for the operation, maintenance, and recordkeeping of apparatus. A resource for obtaining sample documents may be found at the National Fire Service Library website.<sup>61</sup>
- Outfit reserve apparatus with the same compliment of equipment as frontline units.

### Fiscal Considerations

- Time and effort savings by preparing fewer bid specifications.
- Effort avoided by conducting fewer bid processes.
- Investigate the letting of apparatus bids for periods longer than one year.
- Cost savings in acquiring emergency fire apparatus.
- Consider the purchase of stock versus custom apparatus.
- Consider leasing versus outright purchase of emergency apparatus.

### Policy Action

- Management policy decision required before proceeding with strategy.

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<sup>60</sup> U.S. Fire Administration, Emergency Vehicle Safety.

<sup>61</sup> FireServiceLibrary.com.

## **Strategy BB – Complete the AVL and MDC/MDT Project**

### Level of Cooperation

- Functional

### Timeline for Completion

- Mid Term

### Section

- Emergency Operations

### Affected Stakeholders

- BMFPD, GSFD, RFPD, and other Regional Emergency Service Providers

### Objective

- Provide AVL (Automatic Vehicle Locator) information transmitted to dispatch for use during emergency and non-emergency incidents.
- Provide standardized MDC/MDT (Mobile Data Computer or Mobile Data Terminal) in emergency apparatus.

### Summary

Automatic Vehicle Location (AVL) provides real-time location information for apparatus. An AVL system consists of a GPS receiver on the apparatus, a communications link between the unit and a dispatch center, and PC-based tracking software for dispatch. The communication system is usually based on a network similar to those used by cellular phone systems.

Mobile data terminals (MDT) permit communication between dispatchers and emergency response vehicles without reliance on voice radio. A digital display on the vehicular MDT shows short messages. Dedicated keys and a touch screen permit an officer to quickly issue commands and status reports. MDTs also function as the communication link between the AVL and CAD software.

Like MDTs, mobile data computers (MDC) permit instantaneous communication between dispatchers and fire apparatus without the need for voice radios. MDCs can also be used for messaging, electronic dispatching, and vehicle monitoring. The units are available with GPS capability. The major difference between an MDT and an MDC is that the latter includes all of the hardware and software abilities of a traditional laptop computer. MDTs, on the other hand, merely function as a link to a larger computer server usually located in the dispatch center.

### Discussion

AVL – The Global Positioning System (GPS) provides the backbone for AVL. GPS is funded by and controlled by the U.S. Department of Defense (DOD). While there are many thousands of civil users of GPS worldwide, the system was designed for and is operated by the U.S. military. GPS provides specially coded satellite signals that can be processed in a GPS receiver, enabling the receiving unit to compute position, velocity, and time. Four GPS satellite signals are used to compute positions in three dimensions and the time offset in the receiver clock.<sup>62</sup>

GPS provides the location of a vehicle with accuracies of about 25 to 30 feet. A geographic location is logged into the vehicle's GPS unit and transmitted along with the unit identification to dispatch. Information displayed may include time, unit speed, and heading. The frequency of updating vehicle information can be set for any variable of seconds or minutes.

If cellular coverage is inadequate, an alternative satellite communications network may be available for certain areas. The communication satellite receives location information from the AVL's satellite transmitter and forwards it to the dispatch center. The dispatch software shows vehicle locations in relation to streets and intersections. Most AVL systems have a feature for two-way mobile messaging that allows e-mail messaging to and from the apparatus over a wireless internet link. Additional options and features that can be added to AVL include:

- Display vehicle position, speed, heading
- Display dispatch addresses and routing suggestions
- Provide visible and audible alerts to crews
- Replay vehicle activity with user defined date and time
- Create unit reports
- Display vehicle status

Benefits of AVL include:

- Display precise location and status of emergency apparatus
- Enhances the ability of commanders to control emergency resources
- Increases apparatus operator safety
- Ability to locate and dispatch the nearest emergency response unit
- Reduces response times
- Uses current investment in GIS data

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<sup>62</sup> Peter H. Dana, *The Geographer's Craft Project*, Department of Geography, The University of Colorado at Boulder.

- Increase in number of units dispatchers can manage appropriately
- Tracking report documentation

MDC/MDT – Mobile data computers and mobile data terminals are computerized devices used to communicate between emergency vehicles and dispatch. MDTs feature a screen on which to view information and a keyboard or keypad for entering information; the terminal may be connected to various peripheral devices. With MDC/MDTs, fire and EMS agencies are more likely to work with up-to-date information. The devices are used during emergency response to locate addresses, anticipate what will be encountered on-scene, receive updated call information, for record keeping, and to gather data used to show trends and patterns.<sup>63</sup>

Prior to electronic media, most information was gathered by officers in the field and was subsequently transmitted to others verbally or via hand written notes and reports. Raw statistical information was usually stored as written documents, a form not well suited to analysis. Now, of course, the computer has taken over most data collection, transmission, dissemination, compilation, and storage.

One school of thought is that MDTs are better suited for fire and EMS service, yet many fire administrators argue that MDCs are superior. A summary of some of the perceived attributes of each is listed in the following table.

**Figure 156: Comparison of Features – MDT vs. MDC**

MDT	MDC
Longer life expectancy	Shorter life expectancy and need for frequent repairs
Brighter screen	Units not bright enough
Less likely to be stolen	Higher potential for theft
No mobility	May be used outside of vehicle as a laptop
Durable	Less durable
Difficult to upgrade	Easily upgradeable
Lower initial cost	High initial cost
Detachable keyboard	Non-detachable keyboard

**Critical Issues**

- Using a cost-benefit analysis to determine which systems (AVL, MDT, and/or MDC) are financially viable for use by the fire departments. A cost-benefit analysis can be used to estimate the total capital investment represented by the purchase of the equipment, and

<sup>63</sup> Public Safety Mobile Data Systems, [www.911dispatch.com/information/mobiledata.html](http://www.911dispatch.com/information/mobiledata.html), October 2004.

for how many vehicles and then establishing if the expenditure is justified by the gains in dispatch, response, and incident command.

- Include in the analysis the cost to train emergency communications and fire department personnel.

### Guidance

- Strongly consider the incorporation of AVL technology into a MDC/MDT system versus a standalone AVL.
- In a white paper report published in June 2005, the author lists five reasons mobile technology projects fail.<sup>64</sup> They are:
  - The complexity of the mobile deployment is underestimated.
  - Solutions are built upon flawed assumptions.
  - Business (operations, dispatch) and IT priorities are misaligned.
  - Hardware-dependent approaches are doomed to failure.
  - Losing sight of the end result during deployment of mobile solutions.
- Anticipate the useful life expectancy of the system and consider leasing or funding replacement.
- Determine time savings for automatic data entry versus manual.
- Security and access issues should be addressed prior to system design.
- Are adequate radio frequencies/channels available for MDT/ MDC?
- Determine interoperability prior to system purchase.
- Exercise caution in the selection process for equipment size and the ability to mount hardware in vehicles. Concern for safety of personnel.
- Involve staff, operations, dispatch, and other key individuals in system design and development.
- Develop operational policy.

### Fiscal Considerations

- Significant costs for the dispatch center equipment and software.
- Procurement costs to install equipment and software both in fire apparatus and at the dispatch center.
- Labor cost to maintain vehicular and dispatch AVL, MDC/MDT equipment, the time required to train workers on the new systems, and for any additional IT staff.
- Cost of system is highly variable dependent on selection of AVL and/or MDC/MDT, or a combined system.

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<sup>64</sup> *The Top 5 Reasons Why Mobile Projects Fail – And What You Can Do About It*, June 2005, Adesso Systems.

Policy Actions

- Management policy decision required before proceeding with strategy.
- BODs and city council approval and requisite funding.

## **Strategy CC – Develop a Regional Juvenile Fire Setter Intervention Network**

### Level of Cooperation

- Functional

### Timeline for Completion

- Short Term

### Section

- Fire Prevention

### Affected Stakeholders

- BMFPD, GSFD, RFPD, other Emergency Service Providers, and allied healthcare professionals

### Objective

- Provide an effective means for intervening in juvenile-set/caused fires.

### Summary

Statistical analysis nationwide clearly demonstrates the growing problem of juvenile fire setting. While fires set by juveniles have always been a problem, fire cause determination and fire data reporting systems have not always been adequate to identify the extent of the phenomenon. Many jurisdictions simply do not realize the extent of juvenile-set fires in their community.

A lack of collective involvement by fire departments, law enforcement agencies, mental health professionals, schools, juvenile court, and other affected interests will limit the effectiveness of the overall fire prevention efforts of the individual departments.

### Discussion

Juvenile fire setting occurs in all communities across the boundaries of every fire agency. The establishment of an effective, multi-discipline, multi-agency Juvenile Fire Setter Intervention (JFSI) Network will allow shared expertise, services, knowledge, and (most importantly) information to the benefit of all agencies and communities. A network of trained professionals from all the needed disciplines, working together, allows for more accurate assessment of individual fire setters to determine the nature and depth of intervention required. A regional program also:

- Allows for sharing the workload between agencies,
- Facilitates appropriate referral to professional services when needed, and
- Makes possible effective prosecution on those few occasions when juvenile set fires are verified as arson.

BMFPD, GSFD, and RFPD are currently able to access intervention resources that are made available county or state-wide via other agencies. Certified intervention personnel are not, however, available in-house.

#### Guidance

- Develop a regional program modeled on already established and successful JFSI networks.
- Include all the needed professional disciplines.
- Provide important, on-going training.
- Involve only those fire agency personnel who desire to participate.
- Formally organize the structure of the network for long-term sustainability.

#### Fiscal Considerations

- Reduced fire loss to the community through reduction in juvenile-caused fires.
- Potential increased training requirement and cost.
- Potential overtime for training and for intervention.

#### Policy Action

- Management policy decision required before proceeding with strategy.

## **Strategy DD – Create a Unified Occupational Medicine Program**

### Level of Cooperation

- Functional

### Timeline for Completion

- Mid Term

### Section

- Administration

### Affected Stakeholders

- BMFPD, GSFD, RFPD, and other Regional Emergency Service Providers

### Objective

- Provide a fire-service related occupational and health program.

### Summary

A single method and source for providing occupational and health services may provide savings through economies of scale. *NFPA 1500, Standard on Fire Department Occupational Safety and Health Programs*, provides the minimum requirements for a fire-service related occupational safety and health program.<sup>65</sup> Along with *NFPA 1500, NFPA 1582, the Standard on Comprehensive Occupational Medicine Programs for Fire Departments*, and related documents, provide guidance for the creation of occupational health programs and for establishing medical requirements for current and future firefighters.

### Discussion

There is a need for all fire departments to have access to a group of professionals with expertise in the occupational medicine field. Occupational medicine is dedicated to promoting and protecting the health of workers through preventive services, clinical care, research, and educational programs. One aspect of a program is keeping up to date with health and safety regulations, standards, and current practices. Occupational medicine specialists review current practices to see if the agencies meet new regulations, make modifications if needed, and assist the departments in adopting any changes.

The importance of employee health and welfare and the potential liability associated with the lack of such programs necessitates that fire departments establish close professional

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<sup>65</sup> *NFPA 1500: Standard on Fire Department Occupational Safety and Health Program*, 2007 Edition.

relationships with occupational medicine specialists to assure that emergency workers are protected by the most up-to-date occupational health and safety programs possible.

Occupational safety and health programs (sometimes referred to as Industrial Medicine) vary in depth, form, and delivery. A fire department may employ a physician part time, contract with a provider organization, or conduct part of a program in-house while contracting for the remaining services. A number of clinics and physicians specializing in occupational medicine are located on the western slope that may meet the needs of the departments.

One such occupational medicine program that ESCI is familiar with uses the fire department wellness coordinator to conduct audiometric, spirometric, and vision screenings before personnel complete their annual physical evaluation. The occupational medicine provider then conducts blood draws at individual fire stations. Consequently, at the time of the medical physical the physician has at his/her disposal not only the firefighter's historical but also current medical screening records.

The medical physical examination, stress test, and all other components of the evaluation are completed as part of the fire department's regular training rotation at a regional training center. Through a professional relationship developed with a medical service provider over several years, the fire department in this example was able to receive this level of service at a very competitive price.

The legal requirements for a fire department occupational safety and health program have been established. How a fire department administers and supports the program determines the success and the resultant benefit. In the example, the department previously had to hire extra staff or pay employees overtime to take annual medical physicals. The occupational medical program resulted in the saving of more than \$15,000 through reduced overtime cost; however, some funding is still required for medical follow-ups and for employees not able to meet the schedule. An additional advantage of using a local occupational safety and health provider is the ability to quickly evaluate and treat non-threatening injuries suffered by employees.

### Guidance

- Determine required and desired specifications for an occupational safety and health program.
- Create a single personnel policy for occupational safety and health.

- Develop a request for proposals (RFP) for soliciting vendors to supply occupational safety and health services.
- Investigate the purchase of audiometric, spirometric, and vision testing equipment for use in conducting in-house medical evaluations. This should include the certification of personnel to conduct the testing.
- Conduct baseline testing for firefighters without previous audio and lung function baseline records.

#### Fiscal Considerations

- The purchase of a single set of testing equipment for audiometric, spirometric, and vision screening requires a capital outlay of approximately \$15,000. Classes for training and certification in audiometry and spirometry average \$1,000 per class, exclusive of salary.
- Occupational medicine programs are often menu driven. Items selected for inclusion in the program determine the final cost. Additional financial factors involve whether the fire departments elect to exceed mandated requirements, perform some of the occupational medicine functions internally, or consolidate the occupational medicine program with interrelated programs. Interrelating programs that share functions include wellness, infectious disease, FIT testing, EMS, and hazardous materials.

#### Policy Actions

- Management policy decision required before proceeding with strategy.
- BODs and city council approval and requisite funding.

## **Strategy EE – Create a Unified Wellness and Fitness Program**

### Level of Cooperation

- Functional

### Timeline for Completion

- Mid Term

### Section

- Administration

### Affected Stakeholders

- BMFPD, GSFD, and RFPD

### Objective

- Provide a wellness and fitness program that promotes the improved health and well-being of personnel at all ranks.
- Increase fitness levels and decrease injuries.
- Reduce frequency and number of sick/sick injury incidents.
- Reduce the number of days used for sick/sick injury leave.

### Summary

Wellness and fitness programs have proven beneficial to employers and employees alike. Onsite visits by licensed wellness experts are part of an all-inclusive program. Services offered under a comprehensive wellness program may include:

- Wellness screening
- Health coaching
- Wellness educational materials
- Support groups
- Presentations
- Fitness evaluations
- Newsletters
- Nutritional information
- Health risk assessment
- Fitness training

### Discussion

The benefits of wellness and fitness programs have, in some instances, been quantified anecdotally without specific documentation. Documented individual incidents and case studies

over a longer period of time have now yielded conclusive data as to their benefits. Two case studies are used here to illustrate this point.

First, during an annual visit for his medical and fitness evaluation, a battalion chief with the Indianapolis, Indiana, fire department was found to have an abnormal heart rhythm. He had considered himself to be in excellent condition, competing in track and field events since 1996. He was immediately removed from duty and sent to a cardiologist for a heart catheterization. He was diagnosed with severe blockages in four coronary arteries. Within two days of his medical evaluation, he underwent quadruple bypass surgery. His cardiologist told him he would not have lived another two weeks without intervention. Remarkably, the battalion chief returned to work and was back exercising within six weeks of surgery. The father of four and grandfather of two is thankful to be alive, attributing his good fortune to the IAFF/IAFC Wellness and Fitness Initiative.

The second example involves a mid-sized fire department employing both career and volunteer personnel. The department was in need of a fitness/wellness program and subsequently contracted with Oregon Health Sciences University (OHSU) to provide an evidence-based program custom tailored for its diverse group of firefighters. The primary goals of the program were to “increase fitness levels and decrease injuries.” Results of the study spanning seven years conducted by OHSU Health Management Services included these findings:

- Greater than 30 percent increase in the number of participants.
- A decrease in average total cholesterol.
- A decrease in average LDL cholesterol from 130 to 120.
- Participants with BP in the high normal range or above dropped from 18.3 percent to 8.5 percent.
- Participants with moderate or high coronary risk dropped from 61.7 percent to 35.4 percent.
- Participants with an overall wellness score of good or excellent increased from 41.7 percent to 58.5 percent.
- Annual number of days lost (workers compensation days) dropped from a high of nearly 300 days to below 50 days. During the study period, the fire department increased the number of career personnel two-fold.

### Guidance

- Determine the components of a wellness and fitness program that would best benefit all departments.
- Involve a broad cross section of employees in the development process.

- Investigate multiple programs and providers for best fit.
- Coordinate activities with established fitness and safety committees.
- Train in-house peer fitness trainer/coaches.
- Incorporate wellness and fitness services as an element of recruit academies.
- Include volunteers, staff, and support personnel in wellness and fitness services.
- Provide initial and recurring wellness education to personnel.
- Provide a newsletter (paper or virtual) for all personnel.
- Incorporate wellness in training sessions.
- Provide for a periodic appraisal of the wellness and fitness program.

### Fiscal Considerations

- The cost per employee of a wellness and fitness program can vary widely. An annual per employee cost may range from as low as \$25 to as high as \$100 depending on many factors, such as:
  - Frequency of employee contact
  - Range of services desired
  - Equipment need
  - Inclusion of ancillary offerings (newsletter, peer fitness coach training)
- The soft costs associated with on-duty time required for wellness and fitness instruction need to be addressed before carrying out a plan.
- Potential cost savings may result from:
  - Reduced work related injury leave days
  - Reduced sick leave usage
  - Reduction in medical benefits used
  - Improvement in employee fitness and morale

### Policy Actions

- Management policy decision required before proceeding with strategy.
- BODs and city council approval and requisite funding.

## **Strategy FF – Develop Uniform Fees for Service**

### Level of Cooperation

- Functional

### Timeline for Completion

- Mid Term

### Section

- Administration

### Affected Stakeholders

- BMFPD, GSFD, and RFPD

### Objective

- Provide fire departments with a uniform schedule of fees for service.

### Summary

BMFPD, GSFD, and RFPD charge a fee for a variety of services. Fees for service include EMS transport, fire fees/permits, rental, training, and intergovernmental agreements. The departments also charge fees for non-routine services to recover costs due to extraordinary or unusual events. Examples include response to and standby for hazardous materials incidents and deployment on wildfires.

The departments differ on which services are (or are not) billed; and, the agencies differ on the rates charged. As the three fire departments follow a policy of greater interagency cooperation, some of those partnership initiatives will necessitate that they also align fee schedules.

### Discussion

Glenwood Springs and the fire districts have adopted service fee schedules that are applied to various functions and services of the departments. Types of service provided and the rates set for providing services is inconsistent. Presently, the cities' and districts' fee schedules are prepared, administered, billed, and collected independently. The fire departments do not charge for all activities. An illustration of dissimilarity in fees is the rate charged for a BLS (Basic Life Support) transport. BLS fees for non-residents range from \$275 to \$800.

Many fire departments charge a fee for non-routine services to recover costs due to extraordinary or unusual events. Below is a description of representative fee types:

- Stand-by Charges – A fee charged for cost necessitated by a one-time or on-going need for general public safety. For example, a fire department may charge a stand-by fee to post an ambulance at a local sports event.
- User Fee – A fee based on actual cost incurred for any service performed by a fire department where these costs require a recall of fire personnel above normal staffing.
- Charge for Service to Non-Tax Supporting Institutions – A fee for the total cost incurred by a fire department for service provided to any non-tax supporting institution.
- Plan Review Fee – A fee charged to review plans for multiple dwellings, commercial, manufacturing, or public assembly units. The fee can be based on a percentage of the total estimated construction cost per structure. This fee off-sets expenses incurred by a fire department during the planning phase of any development or construction.
- Fire Cause Determination Fee – A fee that recovers the fire department's cost of providing service resulting from a violation of the Fire Code.
- Permit Fee – A charge for a fire department permit for special or short-term events.

Other fees for service include agreements where one emergency service provider either wholly or partially supplies services to another. This can be done under a contract for service or an intergovernmental agreement. BMFPD and RFPD have such an agreement for personnel to staff Fire Station No. 64.

BMFPD and GSFD use the same private company to provide EMS billing while RFPD has kept billing in-house. The private service charges 10 percent of billing and have a collection rate below 50 percent. All three departments refer uncollected bills to a collection agency, albeit different agencies and with varying rates for collection, and of success.

### Critical Issues

- Fire agency partners should design a standardized procedure for billing. For example, the process may establish a collection policy for non-payment, billing cycle, recordkeeping, billing service allowance, and oversight rules for the program.
- The agencies should constantly review fees for service for improvements and to capture potential sources of new revenue that may become available.

### Guidance

- Evaluate the existing fee for service schedules. If possible, use one as the basis for developing uniform fees for service.
- Evaluate whether all potential sources of revenue are included in the fees for service schedule.

- Format the fees for service schedule for adoption by each organization as a uniform fee.
- Investigate using a single source for billing for services. It is common to charge a fee for fire inspections. The Benicia (California) Fire Department also uses inspection fees, but with a positive reinforcement twist. Benicia charges \$35 per company inspection. However, if the inspected property is found to be in compliance or complies with fire department instructions before a follow-up visit, the fee is waived. If the occupancy fails to comply, the fee is applied for each fire department visit (usually \$105 for three inspections).

*Fiscal Considerations*

- No significant financial considerations.

*Policy Actions*

- Management policy decision required before proceeding with strategy.
- BODs and city council approval and requisite funding.

## **Strategy GG – Align Pay and Benefits**

### Level of Cooperation

- Functional

### Timeline for Completion

- Long Term

### Section

- Administration

### Affected Stakeholders

- BMFPD, GSFD, and RFPD

### Objective

- Demonstrate a continued collaborative relationship between labor and management by providing a model wage and benefit package.
- Align the effective dates and provisions of wage and benefit packages to create a smooth path for unification between participating agencies at a future date, if this option is chosen.
- Elimination of duplicated effort in developing wage and benefit packages.

### Summary

The purpose of a wage and benefit policy is to memorialize in written form the wages, hours, benefits, and terms and conditions of employment afforded to employees. One way to move forward is to begin the process of aligning wages and benefits of the fire departments during a regularly planned review period.

### Discussion

The development of a single wage and benefit schedule that is acceptable to all organizations will be highly valuable, but will require care and understanding of the issues and concerns involved. The scope of the document includes wages, hours of work, benefits, and other terms and conditions of employment. Documents detail other items of importance to employees and management – matters that may prove difficult to modify without a high level of trust, cooperation, and harmony in the labor and management relationship. The significance of any article in an agreement should never be trivialized. What may seem insignificant to many may be the one item that is essential to others and can disrupt advancement. To illustrate this point, the following example is offered regarding attitudes toward the use of tobacco.

What a group of people believes, values, and feels is not static but continually in flux. Like society, demographic shifts, changing roles in the workplace, and education levels alters perception. For instance, in the not so distant past, smoking was socially acceptable; now, in many situations it is not. Sample language from a fire department policy concerning tobacco use reads as follows:<sup>66</sup>

*“Current fire department uniformed personnel shall not use tobacco products inside the work-site, within or on fire department apparatus, or inside training facilities. All new fire department candidates shall be tobacco free upon appointment and throughout their length of service to the department.”*

The language above was crafted to address a change of belief. While some would see this as a relatively simple issue, it may prove otherwise when applied across the wider spectrum of regional fire protection. It would be unfortunate for fire departments to be successful in many of the strategic partnerships only to be blocked by unilateral issues. Each policy element is important and was included for a reason; however, there are numerous instances in the fire department where collaboration can aid in aligning the terms of employment documents.

The Fair Labor Standards Act (FLSA) provides a second example. By now, FLSA is a familiar component of work hour policies; however, the way that fire departments establish and administer the special rules for firefighters may be different. Public sector fire departments may establish special work cycles for sworn firefighters, which can increase the FLSA overtime beyond the normal 40-hour workweek. Firefighters covered by these special rules are entitled to FLSA overtime only for hours worked in excess of a threshold set by the Department of Labor, unless an agreement provides for a lower threshold. For example, in a 28-day cycle fire fighters are entitled to FLSA overtime only for the time actually worked over 212 hours during that 28-day period. On the other hand, a work cycle of 27 days entitles employees to overtime after 204 hours of work.

The FLSA regulations also permit employers to exclude up to eight hours of sleep time from work when shifts exceed 24 hours in length.<sup>67</sup> For FLSA purposes, hours worked means time when the employee is actually performing services for the employer. These are the only hours that must be included when determining if FLSA overtime is due. Thus, sleep time, "Kelly Day," or other paid leave may not count as hours worked for FLSA purposes. Because of the

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<sup>66</sup> *Memorandum of Understanding*, the City of Carlsbad, and the Carlsbad Firefighters' Association, Inc., January 2002.

<sup>67</sup> The law requires that there be an agreement with the employees to exclude sleep time.

potential overtime liability when FLSA work cycles are changed, these are important issues to have a clear understanding between all parties to an agreement.

It is important to first determine how changes to each article will affect individuals, organizations, and the mission of the fire departments. With more than one fire department involved, the number of potential conflicts can be large, but the reward for resolving them can be equally significant. Experience shows that success in aligning compensation and benefits between collaborating fire departments is the one partnering opportunity that can easily make or break future functional consolidation initiatives.

### Critical Issues

- Strategically involve as many people as practical without burdening the process.
- Determine one individual to be the spokesperson for matters related to partnering strategies.
- Open communication between stakeholders.
- Ensure that there is a process in place to respond to rumors linked to discussions related to wages and benefit discussions. Joint release of information from management is more effective.

### Guidance

- Align policies, procedures, and operating guidelines prior to changes in pay and benefits. This should include required and desired qualifications for job descriptions, titles, and ranks associated with each position.
- Determine how any changes would impact promotional opportunities including existing promotional lists.
- Determine the hiring and promotional date of employees. This basic information will be needed when establishing and merging various employee rosters at a future date.
- Align trade time and rules governing its use.
- If the fire departments decide to enter into an inter-governmental agreement, a point of good faith negotiations could be designing a tiered wage scale, spanning a defined period of time to reach parity.
- The services of legal counsel and an accountant are advised.

### Fiscal Considerations

- Carefully inventory existing liabilities for pensions, disability, compensation time, and accrued leaves before making changes to wages and benefits. In addition, this exercise is important before functionally consolidating operations involving the transfer of employees.
- Project future liabilities and fiscal impacts of changes to wages and benefits.

Policy Actions

- Management policy decision required before proceeding with strategy.
- BODs and city council approval and requisite funding.

## **Strategy HH – Adopt a Single Fire Code and Amendments**

### Level of Cooperation

- Functional

### Timeline for Completion

- Mid Term

### Section

- Fire Prevention

### Affected Stakeholders

- Garfield County, the Cities of Glenwood Springs, New Castle, Rifle, and Silt, and BMFPD and RFPD.

### Objective

- Provide for a unified fire prevention code with a single set of local amendments.
- Provide local amendments as deemed necessary that can be applied to new construction, remodels, and tenant improvements uniformly.

### Summary

Garfield County, the City of Glenwood, and Glenwood Springs RFPD have adopted the 2009 International Fire Code (IFC). The cities of New Castle, Rifle, and Silt operate under the 2003 edition. Each has a series of local amendments. Adoption of a single fire code would benefit the fire departments, developers, and the citizens of the region. One such benefit includes a decrease in the cumulative cost of individually developing local amendments to the fire code.

### Discussion

An extreme illustration of how a fire code can seriously influence fire loss occurred during the Oakland Hills (California) fire of 1991. Water supply issues presented a major problem during most of the incident. Part of the problem was related to the fact that many of the responding emergency units were unable to connect to Oakland fire hydrants. When California adopted a standard 2½-inch threaded connection for all hydrants, the cities of Oakland and San Francisco opted for three-inch connections while keeping a supply of adapters on hand for mutual aid units.

Minimum requirements for water supply, roadway widths, and access for fire apparatus have been adopted by the jurisdictions. What should be of concern is when an area not having minimum requirements is to be annexed or further developed. A new development area can be

required to meet current codes, but in most cases, these regulations cannot be enforced retroactively for existing structures.

The climate and geography of the western slope make it an ideal place for disastrous wildfires to occur. The fire departments universally share the hazard, which disregards geopolitical boundaries. Development of local amendments and ordinances of the fire code address the abatement of urban interface fire hazards; however, while the fire departments are united on some aspects of the issue, the agencies are independent in others. The wildfire hazard is a shared risk that should be addressed collectively.

The fire code includes provisions for appealing decisions. Appeals boards are formed to hear and decide appeals of orders, decisions, or determinations made by a code official about the application and interpretation of the fire code. The creation of an appeals board under a single fire code would eliminate the need for multiple boards.

Each fire department should continually promote fire resistive construction, built-in early warning, and fire suppression systems. During new construction, remodeling, and modifications of existing structures, builders are required to meet fire and life safety codes. The fire code used during initial construction determines the fire protection that will be in place for years and often decades. If only for this one reason, it is incumbent on the departments to adopt and apply a single up-to-date fire code.

### Critical Issues

- A select committee of elected officials, fire prevention staff, building officials, builders, and fire administrators will need to work closely together to design local amendments.
- Some agreements related to current local amendments could be affected by changes or the adoption of new amendments.

### Guidance

- Establish a fire code committee with representation from the fire agencies and the affected building and planning departments.
- Agencies must work closely with all building officials in the adoption of local amendments.
- Develop a model citation program for local adoption as part of the local amendments.

### Fiscal Considerations

- Marginal costs of creating a single fire code should compare favorably against the reduced level of management and administrative effort that will be required individually by the agencies.

Policy Actions

- Management policy decision required before proceeding with strategy.
- Adoption of the IFC and amendments by the BODs, county commissioners, and city councils.

## **Strategy II – Provide for Shared EMS Supervision**

### Level of Cooperation

- Functional

### Timeline for Completion

- Short Term

### Section

- EMS

### Affected Stakeholders

- BMFPD, GSFD, RFPD, and other Regional Emergency Service Providers

### Objective

- Provide a single point for training and recertification of all EMS personnel in the organizations.

### Summary

BMFPD, GSFD, and RFPD provide similar EMS response transport services. Each agency requires EMS training and EMS certification for its personnel, which is coordinated through the CDPHE (Colorado Department of Public Health and Environment). Oversight and medical direction is provided under contract by a common medical director. Generally, the EMS training is based on the certification requirements established by CDPHE. Quality Assurance/Quality Improvement (QA/QI) to oversee the performance of personnel for the fire departments follow Garfield County Protocols. Each of the agencies has one person assigned to provide EMS oversight. Supervision of the EMS system with a shared structure would be efficient, reduce fragmentation and at the same time ensure a single method of overseeing and managing the personnel.

### Discussion

Creating one EMS management process allows the fire agencies to maximize the supervisory capability. A single EMS management and training structure promotes enhanced coordination of resources and expanded abilities to standardize quality and levels of care. Other emergency service providers presently without adequate structure for managing emergency medical service can benefit from oversight that is supported collectively by the three agencies.

However, a single EMS management structure is not without challenges. Some agency personnel may have multiple reporting structures. Using an EMS management structure in addition to a standard fire agency structure could create confusion for field personnel. The

agency managers will have to agree on such issues as personnel issues, cost distribution, roles and responsibilities, and how the EMS infrastructure will be managed.

### Critical Issues

- Training issues
  - Personnel providing ALS supervision must be cross-trained to understand the management structures and oversight capabilities of each agency.
  - Each agency will have to coordinate to ensure that appropriate training is provided to EMS personnel.
  - The agencies must have a method to ensure that the EMS management structure will be used appropriately during EMS events.
- Roles and responsibilities
  - Fire agency partners should clearly define the roles and responsibilities of the EMS structure in the system.
  - The roles and responsibilities should be clearly communicated to personnel.
  - Fire agencies should have integrated digital records management system for patient care reports.
  - QA/QI should be integrated across all participating agencies.
  - Personnel needed for oversight of the system should have the appropriate rank to manage the system.

### Guidance

- Develop a system-wide, cross functional committee to explore an EMS oversight process.
- Maintain standards for EMS system quality assurance and reporting.
- Establish standards and methods for overseeing the day-to-day operations of the EMS system.
- Align agencies to provide EMS oversight.
- Ensure agency support for standardized EMS services. The agency support will be based on the roles and responsibilities established by the cross functional team.

### Fiscal Considerations

- Financial support will be necessary to provide 24-hour coverage and a different level of support will be required for 40-hour EMS oversight.
- The agencies must determine whether and what type of hardware and software will be needed for patient records.
- Marginal costs of deploying additional EMS personnel will be determined based on the agency and on personnel costs. Cost savings may be realized by eliminating duplicated efforts.

Policy Actions

- Management policy decision required before proceeding with strategy.
- BODs and city council approval and requisite funding.

## **Strategy JJ – Provide Joint EMS Supply Purchasing and Logistics Services**

### Level of Cooperation

- Functional

### Timeline for Completion

- Short Term

### Section

- EMS

### Affected Stakeholders

- BMFPD, GSFD, RFPD, and other Regional Emergency Service Providers

### Objective

- Standardize supply purchases through group purchasing and standardize supply distribution.

### Summary

Collaborating for supply and logistics in an EMS system allows agencies to achieve “right-column” pricing on EMS supplies and equipment, to reduce average transaction costs, and to gain the benefits of standardizing equipment. The agencies can work together to create a joint EMS purchasing and logistics program. The purchasing program can create joint bids for supplies and equipment and can achieve additional benefits such as integrated inventory of supplies that can accommodate lag times in deliveries from manufacturers and suppliers.

### Discussion

A multi-agency purchasing program could improve the management of the agencies’ supply chains. In theory, the agencies would collectively create or contract for a logistics center to manage the purchasing process. The logistics center would work with each of the agencies to standardize supplies and equipment. It would follow state and organizational purchasing guidelines to conduct bids for products and then make those products available to all of the agencies.

Distribution can be managed internally or through agreements with suppliers to gain the advantages of collective purchasing and supply: 1) a larger, collective bid process for supplies can achieve lower prices and attract additional competitors; 2) the logistics center can negotiate terms of the conditions of the sale that might not be available to smaller purchasing centers; and 3) it can conduct collective bidding processes that are applicable to all of the agencies.

Coordination of activities is critical to the success of a joint purchasing program. Each of the agencies currently conducts purchasing of EMS supplies and equipment independently. As such, any joint efforts will reduce the level of effort required by each agency to provide joint purchasing services.

### Critical Issues

- Coordination issues
  - A cross-functional committee of system purchasing agents and system participants can work together to design purchasing rules for each agency.
  - The committee can provide a standardized equipment list for agencies.
  - The agencies can share bidding processes, so that the bidding procedure used by the purchasing agent can be used by all agencies.
  - Agencies must work closely with the cross-functional committee to ensure that the goods are received and distributed to the appropriate location.
  - Agencies should have agreements in place to specify inventory and purchasing plans.
- Receiving and distribution considerations
  - Agencies should design distribution plans to deliver goods directly to the appropriate location. Using a joint purchasing system, the agencies will no longer have to receive goods at the agency headquarters; instead, they can receive goods at the appropriate fire station.
  - The agencies can jointly determine the proper level of inventory to maintain within the system. The use of system-wide inventory planning ensures that the most cost-effective inventory management can be established for the system participants.
- Financial and fiscal considerations
  - Marginal costs of creating system-wide purchasing infrastructure should be compared against the reduced level of effort of individual agencies.
  - Cost saving can be achieved through reducing inventory carrying costs, reducing transaction costs, and achieving economies of scale through larger volume purchasing.
  - The participating agencies should agree on contributions to account for more difficult to discern costs such as freight charges and unit costs for warehousing space.

### Guidance

- Develop a system-wide, cross functional committee to explore a joint purchasing process.
- Work with agency administration and staff to adopt purchasing requirements that help the meet purchasing goals and guidelines.
- Establish common standards for EMS system equipment and supplies.
- Establish inventory standards and methods for distributing equipment and supplies.

- Contract for or align agencies to provide logistics and supply services.

Fiscal Considerations

- Financial support will be necessary, as agencies will be required to meet the costs of creating or modifying existing logistics systems.

Policy Actions

- Management policy decision required before proceeding with strategy.
- BODs and city council approval and requisite funding.

## **Strategy KK – Create Shared Methods to Provide Medic Unit Surge Capacity**

### Level of Cooperation

- Functional

### Timeline for Completion

- Short Term

### Section

- EMS

### Affected Stakeholders

- BMFPD, GSFD, RFPD, and other EMS Providers

### Objective

- To prepare to accommodate medic unit service demands that exceed normal operating conditions in the event of a large scale EMS incident or local disaster.

### Summary

The EMS system of Garfield County consists of a limited number of ambulance resources as well as a number of fire first response units, some with paramedic capability to manage routine medical emergencies. Because of the relatively small number of ambulances deployed in the system, there may be times when transport resources are not available to respond to emergencies. This is certainly true in the event of a major emergency or mass casualty incident. Additional capacity is supplied through mutual aid from outside the area. Providing local capacity during surges in demand (called “surge capacity”) by using fire resources may ensure adequate response during disasters, multiple-patient emergencies, and mass casualty incidents.

### Discussion

To prepare for the occurrence of a major incident, plans should be in place to meet the increased demand. Using a cooperative approach between the three fire departments and neighboring agencies, planning together and sharing available resources, surge capacity is increased.

Being prepared to place reserve units in service when needed is the first step. Staffing of additional units that are called to duty can best be accomplished by cooperative re-deployment of appropriately trained personnel. Alternatives that exist include splitting medic crews in instances when two paramedics are normally assigned to one unit. Instead, two units will then be staffed with one paramedic and a Basic Life Support (BLS) responder. When staffing

availability is limited, BLS-only crews may be assigned to transport less critical patients. Responders normally assigned to engine companies may also be transferred to transport vehicles. Other opportunities may be identified to increase capacity, including recall of addition off duty personnel and use of resources from neighboring agencies.

Not all agencies can guarantee ALS response. Without a plan to ensure medic unit surge capacity, performance inequities will exist within the system. Participants can establish partnerships to ensure that capacity is available throughout the system by creating a higher level of operational readiness on the part of those agencies providing ALS services, or by improving the capabilities of those agencies that do not provide ALS or that cannot provide 24-hour service, and by establishing changes to the regional mutual aid plan to ensure that ALS ambulance capacity is available throughout the service area.

Providing ambulance resources necessarily takes away from other capabilities. Making use of fire agencies for surge capacity in the EMS system redirects those resources from other duties. Therefore, simply redirecting current resources may not provide the availability of surge capacity required by the system.

### Critical Issues

- Maintenance of adequate reserve capacity to meet routine expected service needs.
- Training issues
  - The personnel used to provide ALS surge capacity must be cross-trained to at least the same level current service providers. Training in hospital locations, hospital specialty capabilities, route selection, and other ambulance specific criteria must be provided to all fire department ALS personnel.
  - Neighboring partnering agencies not currently providing 24-hour ALS services must ensure that enough personnel are trained to the ALS level. In lieu of providing training to existing personnel, the agencies may increase ALS capabilities through attrition.
  - Dispatchers must be trained in the additional capabilities of fire agency provided surge capacity.
- Deployment considerations
  - Fire agency partners should design deployment alternatives based on the ambulance resource. For example, when ambulance resources decline to “Level 1.” one of the fire agency ambulance services should deploy to a specified location (most likely a fire station). At Level 0, additional fire agency resources could be deployed as determined by the fire agency partners.
  - Positioning of fire agency resources should be predetermined based on the ambulance level and the location of the demand.

- Fire agencies should have agreements in place to specify deployment plans.
- Financial and fiscal considerations
  - Marginal costs of deploying additional EMS personnel will be determined based on the agency, and on personnel costs.
  - Cost recovery could be achieved through joint agreements.

#### Guidance

- Appoint a representative from each agency to evaluate medic unit surge capacity needs.
  - Inventory available resources including reserve medic units and other equipment that may be appropriate for patient transport.
  - Evaluate external resources that may be called upon in the event of a major incident.
- Establish automatic aid agreements with Grand Valley FPD, Carbondale FPD, Gypsum FPD, and Meeker FPD, TransCare Ambulance, and St. Mary's Medical Center.
- Establish a plan for emergency deployment of resources.
- Establish a systematic plan to improve services, including deployment of paramedic resources, and providing appropriate deployment and equipment standards.

#### Fiscal Consideration

- No significant financial considerations.

#### Policy Action

- Management policy decision required before proceeding with strategy.

## **Strategy LL – Provide System-Wide Guidelines for EMS Response**

### Level of Cooperation

- Functional

### Timeline for Completion

- Short Term

### Section

- EMS and Emergency Operations

### Affected Stakeholders

- BMFPD, GSFD, and RFPD

### Objectives

- Define EMS response times so that adequate system planning can take place.
- Establish parameters for maximum response times including response time definitions on a per-call basis.
- System-wide reporting structure with standardized collection and reporting of response times.

### Summary

This partnering strategy is directly related to the strategy, Strategy I – Provide Joint Standards for Service Delivery (see page 280). Dependent on the partnering strategies that are chosen for implementation, the two may be developed simultaneously or independently.

Response times are one of the most frequently used methods of measuring system performance. Fire agencies, policymakers, and physicians require a gauge by which to measure the effectiveness of the system, and a method by which to make decisions. Unfortunately, very little medical research exists to support one response time over another. Further, because economic costs are highly sensitive to response times, a small change in response time requirements may cause a significant change in cost. Policymakers must therefore consider carefully the balance between the economic costs, medical costs and benefits, and social costs of response time requirements.

Response time requirements and response time reporting must therefore be carefully crafted to ensure that the agencies meet medically appropriate response times and are able to document performance according to those response time requirements.

### Discussion

Medical studies on response times are not consistent, nor do they suggest an optimal response interval. Several medical studies suggest that shorter response times lead to improved outcomes in cardiac arrest. A Scottish study<sup>68</sup> noted that reducing response times from 15 minutes to eight minutes (with 90 percent reliability) would increase the predicted cardiac arrest survival from about six percent to eight percent. Improving response times to five minutes would provide for expected survival rates in the range of ten to 11 percent. But other studies are less optimistic. For example, Blackwell and Kaufman discovered that reducing response times to less than eight minutes had little effect unless those times were reduced to less than five minutes.<sup>69</sup>

While the studies are not consistent in their conclusions, one thing is consistent — the studies focus on the most critical one or two percent of the patients. They do not focus on the more common emergencies (i.e. chest pain, diabetic coma, stroke, and respiratory events) at which advanced personnel can have an impact on patient outcomes. Very little reliable scientific data is available to support any response time requirement in these cases. Yet despite the confusing nature of the studies, intuitively we believe that delivering faster emergency services will have an effect on patient satisfaction, it will improve 9-1-1 use in emergency events, and it will improve patient outcomes.

EMS response times are not well defined by the fire departments. Consequently, it is unclear which standards the agencies use to determine if response requirements are met. We recommend that appropriate EMS response intervals be defined and adopted. Definitions should include the time to be measured, including at least the following:

- **Total response time** — the time required for response, measured as the time between when the emergency responder is first notified of an incident by the dispatch agency and when the responder's vehicle comes to a complete stop at the scene (or staging area).
- **Turnout time** — the time measured between when the emergency responder is first notified of an incident by the dispatch agency and when the responder's vehicle begins moving toward the incident.
- **Travel time** — the time measured between when the emergency responder's vehicle begins moving toward the incident and when that the vehicle comes to a complete stop at the scene (or staging area).

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<sup>68</sup> Effect of reducing ambulance response times on deaths from out of hospital cardiac arrest: cohort study. Pell JP, Sirel JM, Marsden AK, Ford I, Cobbe SM. *BMJ*. 2001 Jun 9;322(7299):1385-8.

<sup>69</sup> Response time effectiveness: comparison of response time and survival in an urban emergency medical services system. Blackwell TH, Kaufman JS., *Acad Emerg Med*. 2002 Apr, 9(4)320-1

- **Patient contact time** — the time measured between when the emergency responder's vehicle comes to a complete stop at the scene and medical personnel make contact with the patient(s).

Response intervals for emergency services are not standardized in the western slope. The agencies should therefore, have a universal method to both capture and report on response times. Currently, neither the county nor the EMS system participants have any way of knowing whether the system is performing with any degree of reliability. We recommend that the agencies establish a reporting method for response times that is more than merely reporting on the exceptions. A fractal response time report is much more valuable to the agencies than the current reporting method.

### Critical Issues

- Data issues
  - An integrated, inclusive EMS advisory committee may define data points that will be used in the system to capture and report on response performance.
  - The EMS agencies should collaborate with the dispatch agency to ensure that the data points can be captured by the dispatch center.
  - The dispatch agencies should develop methods to report on the response performance using industry standard fractal reporting methods.
- Performance considerations
  - Fire agency partners should design standard guidelines for response performance. For example, response zones for urban, suburban, and rural deployment areas may be defined to reflect performance variances based on the population density of the communities being served.
  - The agencies should determine valid and reliable performance reporting methods for response performance.
  - The agencies should constantly make improvements to response methods to maximize performance given the available resources in the communities.
- Financial and fiscal considerations
  - Marginal costs of providing committee work and coordination with the county will detract from other services.
  - Reporting will require additional resources from the fire agencies and from dispatch.
  - Only limited out-of-pocket costs will be required, possibly for software and training.

### Guidance

- Establish a technical advisory committee to provide design and development of appropriate data points and reporting methods.
- Create response standards.

- Create standards for reporting for the system.
- Implement data capture and reporting on a system-wide basis.

*Fiscal Considerations*

- No significant financial considerations.

*Policy Actions*

- Management policy decision required before proceeding with strategy.
- BODs and city council approval and requisite funding.

## **Strategy MM – Develop System-Wide Deployment Plan for Paramedics**

### Level of Cooperation

- Functional

### Timeline for Completion

- Short-term

### Section

- EMS and Emergency Operations

### Affected Stakeholders

- BMFPD, GSFD, and RFPD

### Objectives

- Provide guidelines for deployment of paramedic resources.
- Ensure that the closest available paramedic arrives within the established system response parameters.

### Summary

Each of the fire agencies provides ALS first response, but not all agencies have fully incorporated an ALS first response program. Therefore they do not guarantee a paramedic response at all times, from all stations, nor can guarantee that each patient will receive an ALS first response in addition to a medic unit response. From a system perspective, patients may receive less than optimal medical care if the medic unit response time is inordinately long. The fire agencies may improve patient care and patient outcomes if they can guarantee a paramedic first response, especially if the paramedic responds within a plan that includes the response from medic units.

### Discussion

An ALS delivery model may provide additional opportunities for making progress toward integrating the EMS system. The system could make better use of fire agency ALS services where available and eliminate the need for two paramedics on an ambulance when an ALS first response unit is available. This system structure would provide opportunities for ALS first response to enhance participation in the EMS system and at the same time improve service delivery. The system can consider the value of requiring system standards for fire first responders in the context of meeting medic unit standards. The suggestions developed for system improvement should be considered as part of an overall system design plan rather than a focused plan for any individual agency.

### Critical Issues

- Training issues
  - Ensure that response areas not currently receiving 24-hour ALS services receive enough trained personnel. In lieu of providing training to existing personnel, the agencies may increase ALS capabilities.
  - Dispatchers must be trained in the capabilities of fire agency provided ALS services.
  - Increased use of fire personnel for ALS services means that the fire departments must train for operational considerations. Because additional fire personnel may be used to provide ALS intervention, they may not be available for other uses on the scenes of emergencies. Agencies must plan and train for how the personnel will be used.
- Deployment considerations
  - Deployment should be designed with alternatives so that a paramedic arrives on the scene whether it is an ALS fire or medic unit resource. For example, when medic unit resources should be deployed to maximize the distribution of resources.
  - Positioning of resources could be changed to predetermined locations based on the medic unit level and the system demand.
  - Fire agencies should have agreements in place to specify deployment plans between agencies.
- Financial and fiscal considerations
  - Marginal costs of deploying additional ALS personnel will be determined based on the agency, and on personnel costs.
  - Startup costs will include additional training as well as the supplies and equipment needed to equip the appropriate number of ALS fire response units.
  - First response reimbursement for some patients may be possible.

### Guidance

- Map out the current staffing models for each of the fire departments.
- Identify through gap analysis the need for paramedic resources at each responding fire station at each fire agency.

### Policy Actions

- Management policy decision required before proceeding with strategy.
- BODs and city council approval and requisite funding.

## **Strategy NN – Develop Centralized EMS Billing**

### Level of Cooperation

- Functional

### Timeline for Completion

- Short Term

### Section

- Administration

### Affected Stakeholders

- BMFPD, GSFD, and RFPD

### Objective

- Provide a single internal source for EMS billing services.

### Summary

Ambulance transport billing services for GSFD and BMFPD are outsourced to Medical Practice Solutions (MPS) of Albuquerque, NM. MPS's billing service charge for collections is 10 percent. RFPD has an internal billing process. Centralizing the EMS billing process has the potential for improving customer service and increasing revenue.

### Discussion

There is a disparity in the fees charged for EMS services, billing practices, and collection of the agencies. The departments have a unique billing cycle, accounting, collection, and reporting process. Billing services might be best provided by one of the fire agencies with the expertise and internal capacity.

Following an evaluation of the billing services and if no suitable partner agency is available collectively develop an RFP (Request for Proposals). The process should include the establishment of a collection policy for non-payment, billing cycle, recordkeeping, billing service allowance, and oversight rules for the program.

### Critical Issues

- Evaluate the terms and length of contracted billing services with MPS.
- Design a standardized procedure for billing. For example, the process may establish a collection policy for non-payment, billing cycle, recordkeeping, billing service allowance, and oversight rules for the program.
- The agencies should constantly review fees for service for improvements and to capture potential sources of new revenue that may become available.

### Guidance

- Assign an administrative review team to evaluate current billing activities.
- Compare and evaluate existing procedures and overall returns.
- Identify other opportunities that may exist, including other external sources as well as internal billing by one of the three fire departments.
- Select a preferred method and provider and execute appropriate contracts for services.
- Evaluate the existing fee for service schedules.
- Determine that all potential sources of revenue are included in the fees for service schedule. While all departments are now providing the service, this will allow another fire department to provide the service and collect if applicable.

### Fiscal Considerations

- No significant financial considerations.

### Policy Actions

- Management policy decision required before proceeding with strategy.
- BODs and city council policy approval required.

## **Strategy OO – Provide BLS and Inter-Facility EMS Transport Services**

### Level of Cooperation

- Functional

### Timeline for Completion

- Mid Term

### Section

- Administration, EMS, and Operations

### Affected Stakeholders

- BMFPD, GSFD, RFPD, Valley View and Grand River hospitals, and specialty care facilities

### Objective

- Provide for an integrated EMS system between the fire agencies and area hospitals.
- Provide consistent emergent and non-emergent inter-facility EMS transport service.
- Provide additional EMS unit and personnel resources.
- Increased ambulance service revenue.

### Summary

BMFPD, GSFD, and RFPD respond to 9-1-1 EMS incidents in a similar manner, though some variations in deployment and response practices exist. Fire department personnel provide initial medical intervention, patient care, and transportation to the two local hospitals. However, the fire departments do not provide emergent and non-emergent inter-facility EMS transport service. Given that the three agencies maintain a staff of ALS paramedics and EMT-Bs and have an adequate supply of ambulances an opportunity exists to provide inter-facility EMS transport service.

### Discussion

The transfer of patients from one medical facility to another has become a significant issue for Emergency Medical Services (EMS)-hospitals, care facilities and transport agencies. Patient transfers between facilities or between facilities and a specialized care centers have increased as a result of regionalization, specialization, and facility designation by payers. The emergence of specialty systems (e.g., cardiac centers, stroke centers) often determines the ultimate destination of patients rather than proximity of a facility. Additional transfers may be necessary if payers provide reimbursement only for specific facilities within their own plans.

By integrating inter-facility transport service into the EMS pre-hospital system, revenue could be generated. The revenue generated by providing inter-facility EMS transport service could be used to increase system resources. Additional ambulances and personnel would be available to augment the EMS system during peak activity times. These resources could be flexibly scheduled to meet peak and non-peak service needs and times. Integrating inter-facility EMS transport service into a fire-based ambulance service would result in an integrated EMS system.

### Critical Issues

Fire based EMS system administrators must carefully study current and future inter-facility EMS service demands to ensure sufficient resources (e.g. ambulances and personnel). Adequate resources need to be available to provide acceptable service (defined response time goals) for emergency and non-emergency calls. In addition to the assessment of the system, policy development and QA/QI are necessary so that services achieve the agreed upon objectives.

Current EMS inter-facility transport (IFT) components to address:

- Education and training of the EMS personnel
- Legal authority including IFT protocols
- Cost reimbursement and funding for the service
- Integration of the IFT service into the healthcare and transport system
- Staffing, equipment and apparatus requirements
- Medical direction
- Evaluation of “Best Practices”
- Fees for service schedule
- Treatment and Transport protocols
- Evaluate billing services for inter-facility EMS transports, whether using one of the agencies or a private contractor as a system component and the associated cost

### Guidance

- Meet and confer with representatives from all three agencies and other affected agencies (Valley View Hospital and Grand River Medical Center).
- Develop a committee to address how the initiative will be implemented.
- Evaluate other ambulance transport systems that provide inter-facility transport service especially fire-based systems.
- Address identified critical issues
- Present a comprehensive inter-facility EMS transport service plan to the Garfield County Commission for adoption and licensing.

*Fiscal Considerations*

- Inter-facility transport service could provide additional revenue for the EMS transport system.
- Additional equipment, supplies and training costs.
- Inter-facility transport would provide additional personnel and ambulances for the EMS system.

*Social Considerations*

- Emergency personnel generally prefer emergency response and transport over non-emergency transport. A thorough, well thought out and clearly communicated process of implementation would need to be provided.

## **Strategy PP – Annex Unprotected Property into a Fire Protection District**

### Level of Cooperation

- Administrative

### Timeline for Completion

- Mid Term

### Section

- Policy, Administration, EMS, and Operations

### Affected Stakeholders

- BMFPD, GSFD, GSRFPD, RFPD, and unprotected property adjacent to the FPDs

### Objective

- Provide for fire and EMS service to the area adjacent to BMFPD, GSFD, GSRFPD and RFPD.
- Deliver fire and EMS to unprotected areas consistent with adopted response standards.
- Provide parity for finances of services to unprotected areas.

### Summary

BMFPD, GSFD, and RFPD respond to 9-1-1 fire and EMS incidents to areas outside of their jurisdictions. Some responses are through mutual and automatic aid agreements with other emergency service providers. They also provide services to properties that are outside of any organized protection authority. The fire departments are compensated only if they provide EMS transport services. Given that the three agencies maintain facilities, apparatus, capital equipment, and response personnel that benefit these areas there is an inequity. Inclusion of these properties in the FPDs is viewed as an appropriate action given the value received for little or no compensation.

### Discussion

BMFPD, GSFD, and RFPD routinely respond to calls for service outside the fire protection district to pockets of property fully surrounded or adjacent to their boundaries. These areas are not inside the jurisdiction of any fire protection district and therefore do not contribute financially to operation of the agencies. The only revenue received is in those instances where EMS transport services are provided. Lacking an agreement to provide service to these areas, it is often unclear who will respond and to what level of response.

ESCI recommends that the districts form an ad hoc committee to prepare a plan to include the identified areas in the fire protection districts. With approval of the Glenwood City Council and

fire district BODs, the plan should be presented to the Garfield County Commissioners for their consideration and adoption. Annexation of the unprotected areas will provide a planned response and equity of contribution.

### Critical Issues

- Verify all proposed parcels of land are contiguous to the FPDs.
- Receive approval of the Glenwood Springs City Council or fire district BODs.
- Include forestry officials in discussion of parcel annexation into the fire districts.
- Develop a communication plan to inform the public and land owners of the proposal of annexation of property into the fire districts.
- Seek approval of the Garfield County Commissioners.

### Guidance

- Meet and confer with representatives from all three agencies and other affected agencies (County Assessor, State Department of Forestry, BLM, and National Forest).
- Confer with legal counsel of the affected FPDs.
- Empanel an ad hoc committee to develop an annexation plan.
  - Address issues identified by the ad hoc committee.
- Prepare a map and legal description of properties proposed for inclusion in the FPDs.
- Present a plan to the Garfield County Commission for approval.
- Initiate the process to include the identified land parcels into the FPDs.

### Fiscal Considerations

- Annexation of the unprotected property into the FPDs would provide additional revenue at little or no increased operational cost.



## Findings, Recommendations, and Plan of Implementation

Any cooperative venture between the fire protection districts and the city presents the organizational leaders with a series of challenges. Successful implementation of this proposal will require that significant matters be addressed regardless of which form or level of cooperative effort is chosen.

### Findings

During this process, ESCI found that BMFPD, GSFD, GSRFPD, and RFPD had many characteristics that are found in progressive emergency service agencies. A listing of a few characteristics includes a shared EMS medical director, automatic aid, and joint training. Much of the responsibility is directly related to the positive efforts and working relationship fostered by the current leadership. Fire Chief Brit McLin, Acting Fire Chief Gary Tillotson, and Fire Chief Mike Morgan have created an atmosphere that is benefiting the public, the employees, and the four organizations.

#### Kudos:

- ❖ BMFPD, GSFD, and RFPD: The relationship fostered by the current leadership is benefiting the public, employees, and the four organizations.

Based on all of the preceding work of developing organizational Strengths, Weaknesses, Opportunities and Challenges (SWOC), evaluation of current conditions, fiscal analysis, and based on our experience with other projects of similar character and scope, we draw certain conclusions regarding Burning Mountains Fire Protection District, Glenwood Springs Fire Department, Glenwood Springs Rural Fire Protection District, and Rifle Fire Protection District, the region, and the opportunities for cooperative efforts. A summary of those findings follow:

- **BMFPD, GSFD, GSRFPD, and RFPD are Interdependent** – The fire departments/districts of Garfield County have historically created long-term plans and generally functioned in an autonomous fashion. Collaboration between departments has been motivated by individual agency need. More recently, internal and external forces have encouraged a more widespread policy of mutual interdependence and cooperation between agencies. The trend is likely to continue as the cost of providing emergency service escalates, and as the uncertain funding system persists.
- **BMFPD, GSFD, and RFPD Value Customer Service** – During the work leading to this report, the fire department and fire districts consistently demonstrated a sophisticated focus toward serving those who live, work, and play in the area.
- **BMFPD, GSFD, GSRFPD, and RFPD Meet the Public's Service Expectation** – While not empirically verifiable, there is a general impression across the region that the fire

department and fire districts do a good job of satisfying the service expectations of the public within the limits of geography, transportation, and funding.

- **Existing Partnerships Reduce Duplicated Effort** – BMFPD, GSFD, and RFPD have eliminated some regional duplication through active interagency cooperation. Examples include automatic/mutual aid, fire station staffing, officer development academy, training, and of great significance, this project. These successful programs hint at the high potential value of a policy encouraging greater intergovernmental collaboration.
- **Volunteers and Part-time Employees Play an Active Role in Fire Protection** – Volunteer and part-time firefighters are an important part of the community and the fire departments. BMFPD, GSFD, and RFPD maintain a roster of committed volunteer and part-time firefighters. The need for volunteer and part-time firefighters in the fire departments will not be eliminated by any of the partnership opportunities detailed in this report. Rather, the intent of one option in particular is to administratively support and strengthen the volunteer program (See: Strategy O – Shared Volunteer Services, page 296) and another to develop an intern program (Strategy N – Shared Intern Program, page 294).
- **Other Organizations Should be Included in Partnership Initiatives** – Organizations outside of BMFPD, GSFD, GSRFPD, and RFPD that participated in this work should be included when developing a partnership plan. Garfield County, Valley View and Grand River hospitals have a large stake in any decisions that could affect or change the provision of fire and EMS services. Carbondale and Rural Fire Protection District, Grand Valley Fire Protection District, DeBeque Fire Protection District, and Gypsum Fire Protection District did not participate in the study, but without question, the districts should be informed, involved, and active participants in any plan development process. Likewise, other entities such as TransCare were not a partner in this study but were involved in this work and have an interest and/or role in a partnership plan.
- **Garfield County is Geographically Diverse and Unique** – The geography of the Garfield County includes a variety of waterways, rock formations, open land, mountains, and rugged terrain. All add to the allure of the region as a desirable place to live or visit; however, such features also include the expectation of the hazards of flooding, snow, wildfire, rockslides, and erosion-related mudslides. Individually, the fire agencies, nor any other fire department in Garfield County, have the resources to mitigate such disastrous events alone.
- **Garfield County Region is Politically Diverse** – The highly varied geography of the County influences where and how people choose to live. Consequently, the cities of Glenwood Springs, New Castle, Rifle, and Silt and unincorporated community gain its political identity from the people who live in it and who participate in the governance of that area. It is no surprise therefore, that the culture and politics within individual communities of the area are as different as the topography.
- **The Regional Transportation System Limits Emergency Response** – Much of Garfield County is remote with a sole route of access and egress. In general, the area lacks the necessary transportation routes that contribute to efficient emergency response. The single major highway that bisects the area east and west Interstate 70, has limited access and egress points that restrict emergency response. Limitations of the transportation system will continue to affect response times in the future, equating to increased protection cost because of the necessity of a greater number of fire stations.

- **Internal and External Forces Act on BMFPD, GSFD, GSRFPD, and RFPD** – Internal pressure from administration and support staff reductions, an overall increase in workload and community expectations, and uncertain funding tend to create a sense of urgency, leading to a general inclination to “do something.” While a merger or consolidation would ultimately provide increased efficiency, the initial complexity of combining the organizations would prove to be so complex to be impractical.
- **An Integration, Alliance, or Consolidation of BMFPD, GSFD, GSRFPD, and RFPD has Local Political Support** – The governing bodies of BMFPD, GSFD, GSRFPD, and RFPD appear to be genuinely interested in improving the efficiency and quality of fire protection and emergency medical service. Officials are open to virtually any suggestion of intergovernmental collaboration that would maintain or improve service without an increase in the burden on taxpayers.
- **BMFPD, GSFD, GSRFPD, and RFPD Policymakers Should Develop a Plan to Implement Partnership Opportunities** – Fire department and fire district administrators, staff, and labor have created a foundation for partnerships and without an adopted statement of commitment from policymakers; progress on valuable initiatives may eventually falter. BMFPD, GSFD, GSRFPD, and RFPD policymakers need to adopt a plan to move ahead with aligning the processes, services, and operations of the agencies wherever possible.
- **Many Opportunities Exist for Cost Avoidance** – An ability to reduce duplication and/or improve efficiency exists for BMFPD, GSFD, GSRFPD, and RFPD. Such opportunities include savings as a result of standardized specifications for fire equipment, the creation of a joint fire training division, administrative services, reducing the number of reserve apparatus, and sharing of unique recourses (like specialty teams), and other unified programs.
- **Consolidation of BMFPD, GSFD, GSRFPD, and RFPD is Feasible** – BMFPD, GSFD, GSRFPD, and RFPD should consolidate under the provision of an FA (Fire Authority) (Overarching Strategy 4 – FA (Fire Authority), page 201). An IGA would result in reduced duplication and increased efficiency at the administrative and operational level. Long-term, extending the agreement with a goal of a single service provider is forecast to save money, reduce the complexity of managing independent organizations, and enhance the ability of the agencies to plan and manage fire and emergency medical service in the region.
- **All Other Cooperative Opportunities are Feasible** – Without exception, all other identified collaborative strategies are feasible.

## Recommendations

It is common for those in the fire service to tout themselves, or their department in terms such as “a pride-driven organization that is at their best every day,” and “the best by test,” or more simply, “the best.” The true mark of quality of the best fire departments however, is those that work continuously for measurable improvement in organizational performance. By undertaking this study of collaborative opportunities, the leadership (city council, board of directors and administration) of BMFPD, GSFD, GSRFPD, and RFPD have begun the task of organizational and system evaluation that is necessary to plan for and reach the goal of truly being the best.

*“Success is peace of mind, a direct result of self-satisfaction in knowing that you did your best to become the best that you are capable of becoming” —  
John Wooden*

We intend no suggestion that BMFPD, GSFD, and RFPD are not already operating at a high level. In fact, we are pleased to report all available evidence shows that emergency services agencies consistently provide excellent service to the citizens of the protected communities. However, in keeping with the notion of continuous improvement wherein an unending loop of performance, measurement, and evaluation leads to system enhancements that would otherwise be impossible, we offer recommendations to assist the City and Districts to implement the collaborative strategies that will best benefit the public.

The success of adopting and implementing cooperative opportunities depends on many things. In our experience with dozens of functional, operational, and legal unifications, leadership is the single factor that most frequently determines success. Nearly always, a key staff, councilor, or board member champions the concept garnering the support of the various affected groups (political, labor, member, and community). Additionally, good leadership fosters an organizational culture receptive to planning, calculated risk taking, and flexibility. The manner in which leaders promote a trusting relationship between all groups and aid two-way communication between them is essential. From these issues, research by Kohm, Piana, and Gowdy identifies five factors that most often seem to contribute to the successful implementation of a partnership or consolidation.<sup>70</sup> The five factors are:

1. A leadership that believes strongly in the partnership and demonstrates this belief, often by acting selflessly to maintain it.

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<sup>70</sup> Amelia Kohm, David La Piana, and Heather Gowdy, “*Strategic Restructuring, Findings from a Study of Integrations and Alliances Among Nonprofit Social Service and Cultural Organizations in the United States*,” Chapin Hall, June 2000.

2. Multiple forms of communication to keep all persons (city council, governing boards, staff, members, and community) up to date about plans, problems, and benefits concerning the partnership.
3. Face-to-face communications with partner organizations in the forms of meetings, training, and other forums to build trust and understanding among staff.
4. Flexibility through an expectation that even in the best-planned partnership unforeseen issues will arise, mistakes will be made, and alternative paths will be identified.
5. Early evidence of benefit to assure everyone that they are on the right track, such as better or less expensive employee benefits or improved facilities.

Kohm, Piana, and Gowdy term the establishment of an ongoing relationship between two or more independent organizations as *strategic restructuring*. The relationship is generally created to increase the administrative efficiency and/or further the programmatic mission of one or more of the participating agencies through shared, transferred, or combined services, resources, or programs. Restructuring may be thought of as a continuum that ranges from jointly managed programs (such as automatic aid agreements) to complete organizational merger.

### **Overarching Recommendation**

Implementation of the feasible cooperative opportunities (as recommended above), addresses a myriad of the administrative, support and operational challenges identified in the course of this study. These efforts will address the fact that BMFPD, GSFD, GSRFPD, and RFPD, are interdependent and as fire and EMS providers they are better equipped to deliver service operating as a single unit than continuing to initiate independent action.

ESCI recommends that, Overarching Strategy 4 – FA (Fire Authority) be the first course of action adopted by the Glenwood City Council and fire district BODs. Establishment of an FA should be under an IGA with terms and conditions developed and agreed upon by the elected officials.

7. Reduction to one fire chief position. The combined service area has three fire chiefs for that represent four fire agencies and the three fire service providers. With a combined career and volunteer workforce of nearly 150 personnel, the size of a unified fire agency is appropriately directed by a single fire chief dedicated to administration duties.

Other position responsibilities are re-aligned and job functions modified to meet the needs of the FA. The conceptual modifications to the administrative functions for an FA reduce overall FTEs by three positions.

8. The service area of BMFPD, GSFD, and RFPD covers 774 square miles including the contracted service area, which is served by nine fire stations (excludes one reserve). A battalion chief configuration is appropriate to the number of fire stations supervised but

not to the distance traveled. However, given the total number of emergency responses per year for the combined agencies that the majority of risk and service demand is located along the Interstate 70 corridor, incident supervision and emergency response readiness could be managed with three battalion chiefs, one per shift. With a single 24-hour battalion chief, the function must be centralized to the combined service area to the greatest extent possible. While no one centroid station currently exists, a location distal to the location of fire administration is the most advantageous location to house the shift battalion chief. This is predicated on the fact that during periods of highest service demand, business hours, additional chief officers would generally be available to respond. Moving forward it is preferable to establish two battalions to serve the FA and should be a goal of the amalgamated organization.

9. An FA accomplished with an IGA (intergovernmental agreement), with each of the agencies retaining taxing authority, governance, maintains local control. An IGA model is considered an interim step for aligning the agencies. The long-term goal should be to merge the four agencies into a single regional fire and emergency service provider.
10. This FA administrative and support staffing concept will result in a cost avoidance of approximately \$289,010 plus applicable benefit decreases primarily in the medical insurance costs. Pay equalization between the departments will result in a slight net increase of personnel costs for an FA; while total compensation is nearly equivalent. The FA strategy makes the assumption that all pay levels will eventually move to the highest level. However, overall operations staffing costs will decrease by \$118,309 plus applicable benefit decreases; primarily in the medical insurance costs.
11. An FA allows the four fire agencies to have input on services to be provided, levels of service, budgets, and governance; policy level decisions. This strategy can provide cost avoidance in administrative, operational, and capital costs. It allows for long-term planning for facilities, apparatus, equipment, and staffing.
12. BMFPD, GSRFPD, and RFPD rely primarily on property taxes for funding. With tax limitation laws, a volatile housing market, and fluctuating gas and oil prices, the amount of revenue collected by the districts is variable. The City of Glenwood Springs has some property tax revenue but relies more heavily on sales tax to support the general fund and thus the fire department. The other source of revenue for the three fire and emergency service providers is revenue from fees for service; primarily EMS and transport services. There is a benefit, balance, and stability with three potential sources of revenue for an FA.

### **Functional Strategic Recommendations**

BMFPD, GSFD, GSRFPD, and RFPD should promptly and systematically implement as many of the feasible strategic opportunities as is possible. It is important that an oversight board exercise proper management of the process, but at the same time it is also important not to get bogged down by bureaucracy. Long-term success of many of the initiatives will depend on short-term evidence of improvement and benefit. Consequently, the continued use of an oversight board is recommended to assure that the process moves forward without delay.

- **Establish an Oversight Board to Plan and Manage the Implementation of Feasible Strategies** – We recommend that the City of Glenwood Springs, BMFPD, GSRFPD, and

RFPD empanel an oversight board comprised of agency representatives and other affected parties. The group should assume responsibility for prioritizing, and determining the sequential order for implementation of all feasible collaborative strategies. The oversight board should have the authority and accountability to initiate all opportunities within established budgetary and governance limitations.

This report cites 41 separate functional strategies through increased collaboration to generally build an improved system by more closely aligning fire and EMS operations. Some of the strategies require financial investments to implement. There is an assumption that the city and districts are able to fund the investments that later pay-back economically, through service improvement or efficiencies gained in internal operations. For the City of Glenwood Springs, BMFPD, GSRFPD, and RFPD it is not a safe assumption that monies will be available to finance or invest in any new activities. Thus, the first order of business has to be to establish a fiscal equilibrium before considering many of the strategic investment opportunities.

The three services provider agencies had and continued to plan and implement cooperative efforts during the development of this report. ESCI applauds these efforts and in moving forward recommends that the elected officials endorse, support, and adopt a policy of cooperation. ESCI envisions this policy would include not just the City of Glenwood Springs, BMFPD, GSRFPD, and RFPD but Garfield County. County commissioners should be appraised and included in actions that would affect types and levels of service. The support of the Garfield County Commissioners is important and essential and likely to impact the success of functional strategies and certainly the recommended overarching strategy.

The following recommendations are judged as being most likely to result in significant improvement to systems and/or programs. Those individual strategies not requiring a substantial investment beyond soft costs and yielding economic or operational efficiencies can and should be considered for implementation at this time. ESCI recommends that these initiatives should be acted on regardless of action on the remaining feasible opportunities. They include:

- Strategy B – Adopt Dropped Border Response
- Strategy C – Develop Uniform Pre-Incident Plans
- Strategy E – Provide Regional Incident Command and Operations Supervision
- Strategy G – Develop Standard Operating Guidelines
- Strategy H – Shared Specialty Teams
- Strategy I – Provide Joint Standards for Service Delivery

- Strategy K – Develop Deployment Standards
- Strategy L – Shared Public Education/Public Information
- Strategy M – Shared or Common RMS (Records Management System)
- Strategy N – Shared Intern Program
- Strategy O – Shared Volunteer Services
- Strategy R – Implement Criteria Based Dispatching
- Strategy S – Implement a Training RMS (Records Management System)
- Strategy T – Develop Mutual Training Strategies
- Strategy U – Develop an Annual Shared Training Plan
- Strategy V – Consolidate Training into a Single Training Division
- Strategy W – Develop and Adopt Training Standards
- Strategy X – Develop a Shared Training Manual
- Strategy Y – Develop a Shared Fire and EMS Training Facility
- Strategy BB – Complete the AVL and MDC/MDT Project
- Strategy FF – Develop Uniform Fees for Service
- Strategy HH – Adopt a Single Fire Code and Amendments
- Strategy KK – Create Shared Methods to Provide Medic Unit Surge Capacity
- Strategy LL – Provide System-Wide Guidelines for EMS Response
- Strategy NN – Develop Centralized EMS Billing
- Strategy OO – Provide BLS and Inter-Facility EMS Transport Services
- Strategy PP – Annex Unprotected Property into a Fire Protection District

It is important that related opportunities be implemented concurrently with the creation of a single training division.

### **Plan of Implementation**

First steps are important. If the governing boards of the districts and Glenwood City Council support the conclusions of this report, policy action by officials needs to focus the efforts of many persons toward the goal of an FA. Without clear direction from policymakers, indecisive or counter-productive work is likely to result. If all stakeholder groups actively participate in the process, the need for work plan revisions are more easily identified and made.

Therefore, ESCI recommends that the BODs of BMFPD, GSRFPD, and the RFPD, and the Glenwood City Council jointly adopt through resolution the outcome of an FA as the fire and

EMS vision. The jurisdictions should resolve to work cooperatively toward carrying out the goal within a specific time; ESCI recommends that the goal be targeted far enough in the future to allow for systematic planning and implementation but not so far as to lose project momentum. From experience in such matters, four to six months is usually considered the minimum amount of time required for planning and implementing these sorts of system changes. We suggest that the agencies focus on reaching the goal by July 1, 2012; but first, careful consideration should be given to budgeting cycles to assure the proper timing of organizational startup.

With adoption of a vision, the agencies should appoint an oversight committee that includes representation from all stakeholder groups to plan, communicate, oversee, and direct progress toward the FA. The committee should be charged to develop a schedule, meet regularly to discuss issues of mutual concern, and deliver progress reports to policymakers; at minimum of monthly. The group should work to provide cohesive policy direction to the fire chiefs and others regarding the details of reaching the vision. Activities of the committee might include consultation with staff, other policy makers, or professional experts.

Mission and vision statements, goals, and objectives provide key organizational management foundations. Development of such organizational underpinnings is important, but communication of them is paramount. Leaders and workers alike need to understand why the organization exists, where it is headed, and how to identify success. While the mission of the FA may seem obvious, if the organization's purpose is left to an individual's imagination, many individual missions may result; which in the end can cause agency members to work at cross-purposes.

A vision statement for the FA should be an explanation of outcomes. It should inspire, energize, and help members to visualize a mental picture of the fire authority's goal. Vision statements ought to describe outcomes that are five to ten years away, though some may be further out in time.

If possible, try to summarize the vision using a single prophetic phrase or statement. Capturing the real meaning of a vision using a memorable phrase can increase the effectiveness of a vision statement. The phrase serves as the trigger to create an image of the vision. An example of a vision statement for Coca-Cola Co. follows:

*Our Vision: Our vision serves as the framework for our Roadmap and guides every aspect of our business by describing what we need to accomplish in order to continue achieving sustainable, quality growth.*

### Other Considerations

We offer comment on a few additional issues pertaining to the preferred option. The listing is in no particular order or priority.

The decision to consider execution of the preferred option represents a partnership between the City and districts. Well before the governing bodies ever adopt a joint resolution proposing an FA (IGA), there be a high degree of trust. Each governing body must understand that the other will act in the best interest of constituencies, and that the business between the boards and city council will be open and honest. As with many human endeavors, communication is the key and reasonable negotiation is the vehicle. In the time before adopting a resolution, the agencies will need to come to agreement on a number of important details. Those matters should be committed to an implementation plan.

Creation of a new identity for the consolidated fire and EMS agency is important. The identity should be created with a global view and an eye on branding. A global name will signal a new birth and the creation of a unique culture while eliminating any appearance of empire building. If it is determined to be in the best interest of the City and districts continue with the existing taxing authorities, ESCI would recommend that creating a new persona is important; however, not selecting a new name should not be considered a “deal breaker.” The option of operating under terms of an IGA as a fire and EMS agency dba (doing business as) and retaining the taxing authority is possible.

### Framework for Action

- **Consult with other Emergency Service Partners:** The governing officials of the City and districts begin a dialog with all of the service partners (and legal counsel) regarding the proposed vision and the work plan. Establish which agencies are likely to participate in reaching the goal. This would include but not be limited to other service purveyors: Garfield County, TransCare Ambulance, Valley View Hospital and Grand River Medical Center, and neighboring fire agencies.
- **Joint Adoption of a Fire Protection Vision:** The governing officials formally adopt a fire and EMS vision for an FA. Such action includes the appointment, charge, and timeline goal of an oversight committee.
- **Organize the Oversight Committee:** The governing officials instruct the committee to formulate and report on all elements of a work plan. Establish leadership roles of the chair and other committee members. Create meeting guidelines and elect leadership. Develop a schedule with meeting dates and times. Review and adopt the work plan. Meetings are ongoing, as is the review and revision of the work plan. The committee performs as a clearinghouse for all information concerning the effort so that service partners speak with a unified voice.

- **Obtain Definitive Legal Advice:** The oversight committee obtains legal opinion concerning the statutory requirements for formation of an IGA between the City of Glenwood Springs, BMFPD, GSRFPD, and RFPD.
- **Establish the name of the Proposed FA:** Obtain consensus on the name, logo, mission, vision, values, and organizational structure of the proposed FA.
- **Determine which Directors and Council Members will serve on the FA Board:** Come to an agreement on the need for number of representatives for an FA governance body.
- **Districts and City Approve the Proposed FA IGA:** The City of Glenwood Springs City Council and district BODs approve the IGA for the proposed FA.
- **Deliver a Public Education/Information Campaign:** During the time that the oversight committee is preparing for the FA, citizens must be provided with information regarding the proposed action and its benefit to the emergency service system. Entities should actively participate in the process to the extent allowed by law. Volunteers should conduct knock and talks throughout all neighborhoods.<sup>71</sup>
- **Prepare IGA Documents of the FA:** During the time leading up to an FA, prepare supporting documents such as budget, risk management, errors and omissions insurance, bylaws, policies, rules, and procedures.
- **Inventory Assets:** Capital assets of the City and districts need to be inventoried to insure equity of contribution and in the event of a disillusion of the FA.
- **Disband the Oversight Committee:** Once the FA is operational, and the vision has been accomplished, the oversight committee is no longer required.
- **Implement a Strategic Planning Process:** The FA BODs oversees the development of a facility site plan, equipment replacement plan, and a staffing plan. Investigate and include in the strategic planning process, facilities and equipment needs, staffing, and RA long-term goals.

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<sup>71</sup> All material must be of a public education/ informational nature only.



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## Appendix B: Summary Table of Organizational Kudos

- ❖ **Glenwood Springs FD has a well-developed system for dissemination of rules, regulations, SOG/SOPs electronically department wide.....53**
- ❖ **Glenwood Springs FD communications has recently improved by sharing information across the organization, seeking input at all levels and establishing an open and supportive environment. ....53**
- ❖ **Rifle FPD is very involved in master and strategic planning as well as systematically evaluating their strengths, weaknesses, opportunities and challenges.....53**
- ❖ **Rifle FPD is aggressively instilling organizational values throughout the work force, and is monitored within annual individual performance evaluations. ....53**
- ❖ **All three agencies: Place a high priority on personnel safety and evaluated procedures, equipment, and apparatus with safety as a critical component. ....70**
- ❖ **BMFPD: Department has Firefighter and Fire Officer of the Year Awards giving recognition to individuals for outstanding achievement. ....70**
- ❖ **All three agencies: Facilities and apparatus are well maintained and kept in a clean and organized fashion that is a positive reflection of the organizational culture. .... 109**
- ❖ **BMFPD, GSFD, and RFPD: The relationship fostered by the current leadership is benefiting the public, employees, and the four organizations.....377**

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<b>BMFPD: Develop a set of administrative policies and procedures. ....</b>	<b>19</b>
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<b>All three agencies: Establish and maintain a database on the number and types of businesses within the jurisdiction in order to adequately determine and mitigate risk factors.....</b>	<b>27</b>
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<b>BMFPD: develop an organizational mission statement.....</b>	<b>33</b>
<b>BMFPD and GSFD: Develop a vision statement. ....</b>	<b>33</b>
<b>BMFPD and GSFD: Develop a strategic plan. A strategic plan is part of the overall development of the mission/visioning process.....</b>	<b>33</b>
<b>All agencies: Develop, adopt, publish, and review annually. ....</b>	<b>34</b>
<b>BMFPD and GSFD: Establish goals and objectives, routinely review and publicize throughout the organization. ....</b>	<b>34</b>
<b>BMFPD and GSFD: Identify and develop performance objectives, and publicize throughout the organization. ....</b>	<b>34</b>
<b>All agencies: Identify and develop performance objectives, and publicize throughout the organization.....</b>	<b>34</b>
<b>BMFPD and GSFD: Develop and adopt a code of ethics.....</b>	<b>35</b>
<b>BMFPD: Develop and adopt SOP/SOGs, rules, regulations, and policies. Train personnel on their use. Review annually. Make easily accessible at each fire station and office in either electronic or hard copy format.....</b>	<b>35</b>

**All three agencies: distribute and have available copies of SOP/SOGs in each fire station and work place. ....35**

**BMFPD and GSFD: Develop a process for creating new SOPs/SOGs. ....35**

**All three agencies: Use SOPs/SOGs during training.....35**

**BMFPD: Annually review for compliance of legal mandates. ....36**

**BMFPD: Include training on policies. ....36**

**BMFPD: .....36**

**GSFD: .....36**

**RFPD:.....36**

**BMFPD:.....36**

**GSFD: .....36**

**RFPD:.....36**

**BMFPD:.....37**

**GSFD: .....37**

**RFPD:.....37**

**BMFPD:.....37**

**GSFD: .....37**

**RFPD:.....37**

**BMFPD:.....37**

**GSFD: .....37**

**RFPD:.....37**

**BMFPD: Make volunteer meetings mandatory.....37**

**BMFPD: Make leadership meetings mandatory and should include captains. ....38**

**BMFPD: Keep meeting minutes and disseminate.....38**

**BMFPD and GSFD: Establish clear vertical lines of communication .....38**

**BMFPD & GSFD: Assemble department leadership to conduct strategic planning.....38**

**BMFPD: Improve Web presence with greater depth of district information. ....38**

**BMFPD and GSFD: Develop and adopt a formal complaint process. ....39**

**All three agencies: Develop a method for the collection of feedback on how the departments are serving the public. ....39**

**BMFPD and GSFD: Maintain primary and backup copies of electronic and hard copy records in secure locations.....40**

**BMFPD and GSFD: Maintain primary and backup copies of electronic and hard copy records in secure locations.....40**

**BMFPD and GSFD: Maintain primary and backup copies of electronic and hard copy records in secure locations.....40**

<b>BMFPD and GSFD: Require password protection on computers and workstations.....</b>	<b>40</b>
<b>All three agencies: secure vehicles within fenced perimeters where possible.....</b>	<b>40</b>
<b>BMFPD and RFPD: Prepare and present a fire management report to the board monthly.</b>	<b>41</b>
<b>BMFPD and RFPD: Prepare and present a fire operational report to the board monthly. .</b>	<b>42</b>
<b>BMFPD and RFPD: Develop an annual fire department report. ....</b>	<b>42</b>
<b>All three agencies: Produce and distribute an annual report officials, elected members, BOD and make available to the public, and placed in each fire station. ....</b>	<b>42</b>
<b>BMFPD and RFPD: Analyze statistical data. ....</b>	<b>42</b>
<b>BMFPD and RFPD: Develop and implement a process of tracking and recording firefighter exposures. ....</b>	<b>42</b>
<b>BMFPD and GSFD: Develop a strategic and master plan. ....</b>	<b>46</b>
<b>All three agencies: Develop a comprehensive CIP (Capital Improvement Plan) including policies and procedures. Complete development of the AMP (Asset Management Plan).</b>	<b>47</b>
<b>RFPD: Create the position of human resource manager. ....</b>	<b>55</b>
<b>BMFPD and GSFD: Review personnel manual on an annual basis.....</b>	<b>55</b>
<b>BMFPD: A set of job descriptions for each position should be developed and maintained. Job descriptions should be reviewed on an annual basis.....</b>	<b>55</b>
<b>BMFPD: Establish a disciplinary policy. ....</b>	<b>62</b>
<b>All three agencies: Use a variety of media, newspapers, and firefighter email/website systems to improve interest during periods of recruitment. ....</b>	<b>62</b>
<b>BMFPD: Require a physical ability test for employment.....</b>	<b>63</b>
<b>BMFPD and GSFD: Evaluate baseline skills of perspective members.....</b>	<b>63</b>
<b>All three agencies: Administer annual competency, physical competence testing.....</b>	<b>63</b>
<b>All three agencies: Administer annual competency, physical competence testing.....</b>	<b>63</b>
<b>BMFPD: Administer semi-annual performance reviews.....</b>	<b>64</b>
<b>BMFPD: Develop a promotional testing process.....</b>	<b>64</b>
<b>All three agencies: Provide annual medical physical examinations. ....</b>	<b>64</b>
<b>BMFPD: Create a safety committee. ....</b>	<b>64</b>
<b>BMFPD: Establish a meeting schedule (at least quarterly).....</b>	<b>64</b>
<b>BMFPD: Publish safety committee minutes, findings and recommendations.....</b>	<b>64</b>
<b>GSFD: Create a position of deputy administrative chief. ....</b>	<b>64</b>
<b>All three agencies: Designate a training officer.....</b>	<b>64</b>
<b>All three agencies: Create the position of training officer/EMS-paramedic coordinator. ..</b>	<b>65</b>
<b>GSFD and RFPD: Create the position of administrative services manager.....</b>	<b>65</b>
<b>GSFD: Consider adding administrative staff. ....</b>	<b>66</b>
<b>BMFPD: Improve response times. ....</b>	<b>68</b>

**BMFPD: Develop and implement a comprehensive fire prevention inspection program, including annual inspections. ....68**

**BMFPD: Explore options with the county for representation and resources for emergency management. ....68**

**GSFD: Fire education needs to be a higher priority. ....68**

**All three agencies: Establish the position of EMS coordinator. ....69**

**All three agencies: Establish deployment standards. ....72**

**All three agencies Continue to recruit and cultivate a volunteer fire suppression contingent while expanding (continuing) the use of career firefighters. ....72**

**BMFPD: Establish tracking of volunteer turnout time. ....73**

**BMFPD: Should establish deployment standards. ....73**

**All three agencies: Maintain current automatic aid agreements and establish new agreements to assure an effective firefighting force is available for critical task staffing for all risk levels. ....74**

**All three agencies: Implement Hazardous Materials-Incident Command certification as a requirement for command level officers. ....76**

**RFPD: Establish a comprehensive accountability program. ....76**

**All three agencies: Develop a multiyear plan for training. ....76**

**All three agencies: Should provide incident safety officer training, develop safety SOPs/SOGs, and use safety officer at all emergency incidents of greater significance and risk exposure. ....77**

**All three agencies: Share specialized training and develop shared specialty teams. ....77**

**All three agencies: Share specialized training and develop shared specialty teams. ....77**

**All three agencies: Share specialized training and develop shared specialty teams. ....77**

**All three agencies: Add a comprehensive vehicle driving program to training. ....78**

**BMFPD: Should include use of care of small tools as part of basic training. ....78**

**GSFD: Explore options of using both BMFPD and RFPD training facilities to provide department personnel hands on training. BMFPD and RFPD: Evaluate and establish procedures for outside use of facility when their personnel are not located on site. ....79**

**RFPD: Add a comprehensive emergency vehicle driving course to the training facility...79**

**All three agencies: Develop a training manual. ....79**

**All three agencies: Establish a procedure to accurately record training hours. ....80**

**All three agencies: Consider sharing regular scheduled night drills for consistency. ....80**

**All three agencies: Consider 360-degree feedback for annual performance evaluation for all personnel. ....80**

**All three agencies: Participate in countywide disaster drills and conduct interagency drills on a local level. ....80**

**RFPD: Consider a fully integrated data base record management system (RMS) for all training records. ....81**

<b>GSFD and RFPD: Develop training records management system (RMS) that records training by company as well as individual. ....</b>	<b>81</b>
<b>All three agencies: Offer a comprehensive officer development program to develop future leadership. Enroll chief officers in the National Fire Academy Executive Fire Officer Program. ....</b>	<b>82</b>
<b>GSFD: Develop goals and objectives for training.....</b>	<b>82</b>
<b>BMFPD and GSFD: Evaluate a system of using certified instructors and proctors.....</b>	<b>82</b>
<b>GSFD and RFPD: Develop an annual training report as part of the department annual report. ....</b>	<b>82</b>
<b>GSFD: Evaluate options for sharing BMFPD and RFPD training facilities.....</b>	<b>82</b>
<b>All three agencies: Evaluate using a fully integrated data base (RMS) for all training records.....</b>	<b>83</b>
<b>All three agencies: Attempt to align existing occupancy inspection frequency goals with the NFPA standard as closely as staffing capacity allows. ....</b>	<b>88</b>
<b>All three agencies: Establish a self-inspection program for low risk occupancies. ....</b>	<b>89</b>
<b>All three agencies: Inspect commercial occupancies annually.....</b>	<b>89</b>
<b>All three agencies: Publish an annual fire prevention report containing an overview of major events, significant changes, and analysis of performance trends. ....</b>	<b>92</b>
<b>All three agencies: Assess the adequacy of basic fire investigation skills and training of line personnel.....</b>	<b>92</b>
<b>All three agencies: Improve the connection between fire experience in the field and prevention/public education planning.....</b>	<b>94</b>
<b>All three agencies: Develop a comprehensive CIP (Capital Improvement Plan) including policies and procedures. Complete development of the AMP (Asset Management Plan). ....</b>	<b>106</b>
<b>All three agencies: Complete development of the AMP (Asset Management Plan). ....</b>	<b>106</b>
<b>All agencies: Develop a CIP (Capital Improvement Plan) including policies and procedures. Complete development of the AMP (Asset Management Plan). ....</b>	<b>107</b>
<b>All agencies: Develop a CIP (Capital Improvement Plan) including policies and procedures. Complete development of the AMP (Asset Management Plan). ....</b>	<b>108</b>
<b>All agencies: Complete development of the AMP (Asset Management Plan). Aggregate like item purchases with a total value of an established “capital value threshold” and include in an asset management plan.....</b>	<b>108</b>
➤ <b>Include capital equipment in vehicle replacement cost estimates. ....</b>	<b>109</b>
➤ <b>Aggregate like multiple equipment which is purchased in quantity with a total value of \$5,000 or more and include in the department’s asset management plan. ....</b>	<b>109</b>
➤ <b>Store PPE (turnouts) in a separate, ventilated room. ....</b>	<b>109</b>

## **Appendix D: Cost Allocation**

Local governments provide services (such as fire protection) based on an assumption of public interest rather than the need for profitability, as in the private sector. Consequently, the limiting market forces of supply, demand, and price are not typically found at the forefront of policy decisions concerning fire protection. While elected officials may spend significant time and effort debating the overall cost of fire protection, it is very unusual that the point of service price is considered. In this light, it is not surprising that local governments find it difficult to establish a fair market price for essential services when entering into partnerships.

Usually when a single local government provides fire protection to its residents, that community bears the entire financial burden because of the presumption that everyone benefits from the service. In the case of municipalities, the full cost of the service may not be easily determined because administrative and support expenses are frequently borne by other municipal departments and not documented in the fire department's budget. It all works because individual users of the service are not charged; therefore, the real price of that service is never an issue. On the other hand, when two or more communities share in providing fire protection, elected officials must assure that each community assumes only its fair *pro rata* share of the cost, thereby fulfilling an obligation to act as stewards to the best interest of their respective constituencies.

However, while purely economic considerations may suggest that those who benefit from a service should pay in direct proportion to the level of benefit (the "benefits received" principle), social and political concerns may also enter into the price-setting process. For example, ESCI completed an evaluation of the fire protection system comprised of a city and a fire protection district located in eastern Oregon.<sup>72</sup> The fire district provides no emergency service of its own, contracting instead with the city fire department for all operations within the district's territory. The fire district compensates the city for a percentage of the fire department budget (minus certain budgetary transfers and any funds not spent during the previous year) equivalent to a rolling five-year average of district alarms compared to city alarms.

### **Cost Allocation Options**

What follows is a listing of system variables that can be used (singly or in combination) to allocate cost between allied fire departments. Each option is summarized by the concept, its

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<sup>72</sup> City of John Day and John Day Rural Fire Protection District, Oregon.

advantages and disadvantages, and other factors that should be considered. Regardless of the option(s) chosen to share the cost of fire protection, the resulting intergovernmental service agreement needs to address the issues of full cost versus marginal cost and should be clear about the inclusion of administrative or overhead cost. In addition, service contracts often must reconcile the exchange of in-kind services between the participating agencies.

### Area

The cost of emergency service can be apportioned based on the geographic area served relative to the whole. For instance, the jurisdictional boundaries of the BMFPD, GSFD, GSRFPD, and RFPD represent about 774 square miles. The following figure displays the services area in square miles and the percentage for each jurisdiction.

**Figure 157: Cost Allocation by Service Area**

Jurisdiction	Service Area in Square Miles	Percentage of Total
BMFPD	382	49.354%
GSFD	8	1.034%
GSRFPD	68	8.786%
RFPD	316	40.827%
<b>Total</b>	<b>774</b>	<b>100.00%</b>

Apportionment founded on service area alone may work best in areas that are geographically and developmentally homogeneous.

- Pro: Service area is easily calculable from a variety of sources. Size of service area is generally remains constant with few if any changes.
- Con: Service area does not necessarily equate to greater risk or to greater workload.
- Consider: Service area may be combined with other variables (such as assessed value and number of emergencies) to express a compound variable (such as assessed value per square mile and emergencies per square mile).

### Taxable Assessed Value

The taxable assessed value (TAV) of agencies is established by tax assessors under laws of the state. Usually, higher-valued structures and complexes carry a greater risk to the community from loss by fire; consequently, taxable assessed value also tends to approximate the property at risk within an area. Fire departments are charged with being sufficiently prepared to prevent property loss by fire. Therefore, the cost of contracted fire protection may be apportioned relative to the assessed value of the allied jurisdictions. Typically, TAV is used

to apportion cost of shared service by applying the percentage of each partner’s TAV to the whole. Figure 158 illustrates the allocation of cost by the assessed value of the four agencies.

**Figure 158: Cost Allocation by Assessed Value**

Jurisdiction	Assessed Value	Percentage of Total
BMFPD	438,986,550	29.465%
GSFD	279,553,070	18.763%
GSRFPD	93,231,470	6.258%
RFPD	678,109,670	45.514%
<b>Total</b>	<b>1,489,880,760</b>	<b>100.000%</b>

- **Pro:** TAV is updated regularly, helping to assure that adjustments for changes relative to new construction, annexation, and inflation are included. Because a third party (the assessor) establishes TAV in accordance with state law, it is generally viewed as an impartial and fair measurement for cost apportionment. Fire protection is typically considered a property-related service; thus, apportionment tied directly to property value has merit.
- **Con:** TAV may not reflect the property risk associated with certain exempt property, such as schools, universities, government facilities, churches, and institutions. TAV may not always represent the life risk of certain properties, such as nursing homes or places of assembly, which might dictate more significant use of resources. In addition, some large facilities may seek economic development incentives through TAV exemptions or reductions. Adjustments may need to be made to TAV if such large tracts of exempt property in one jurisdiction cause an imbalance in the calculation. Last, TAV typically includes the value of land, which is not usually at risk of loss by fire. Depending on the local circumstance, however, this may not be a significant factor if the relative proportion of land value to structure value is reasonably uniform over the whole of the territory.
- **Consider:** Discounted TAV depending on the class of property (commercial or residential), which may skew the overall proportion of those properties compared to risk. As an additional consideration, assessors usually establish the AV in accord with the property tax cycle, which can lag somewhat behind the budget cycle of local agencies and the time when service contracts are reviewed or negotiated.

Deployment

The cost for service is based on the cost of meeting specific deployment goals. Deployment goals may be tied to the physical location of fire stations, equipment, and personnel (strategic deployment) or by stating the desired outcome of deployment (standards of cover). For example, a strategic goal could specify the location of two stations, two engines, and four on-duty firefighters. A standard of cover might state the desired outcome of the same deployed resources as two engine companies and four emergency workers on the scene of all structure fire emergencies within eight minutes 85 percent of the time. While both strategic and outcome goals can be used effectively to assist in allocating cost, ESCI views outcome goals to be more

dynamically linked to the quality of service and therefore preferable to strategic goals. This alternative is highly variable due to the independent desires of each community in regard to outcome goals.

A weighted scoring system uses a critical task analysis. This type of scoring system for each agency allows the ranking of each area based on the assigned risk as well as the apparatus, manpower, and Needed Fire Flow (NFF). The following figure (Figure 159) illustrates the allocation of cost by the number of resources deployed to serve each jurisdiction. It includes fire stations and frontline engines and ladder trucks.

**Figure 159: Cost Allocation by Resource Deployment**

Jurisdiction	Facilities	Engines and Aerials	Total	Percentage of Total
BMFPD	4	3	7	33.333%
GSFD	3	4	7	33.333%
GSRFPD	0	0	0	0.000%
RFPD	3	4	7	33.333%
<b>Total</b>	<b>10</b>	<b>11</b>	<b>21</b>	<b>100.000%</b>

- **Pro:** Deployment is intuitively linked to the level of service. The outcome of deployment based on a standard of cover can be monitored continuously to assure compliance. Such deployment can be adjusted if standards are not met. This assures the continuous quality of emergency response throughout the life of a service contract.
- **Con:** Strategic deployment may not equate to better service because such goals are prone to manipulation wherein resources may be sited more for political reasons and less for quality of service reasons. Outcome goals require common reporting points and the automatic time capture of dispatch and response activities to assure accuracy. Record keeping needs to be meticulous to assure the accurate interpretation of emergency response outcomes.
- **Consider:** Contracts for deployment-based fire protection should address the inclusion of administrative or overhead cost, as well as capital asset cost, depreciation, rent, and liability insurance.

### Service Demand

Service demand may be used as an expression of the workload of a fire department or geographical area. Cost allocation based on emergencies would consider the total emergency response of the service area and apportion system cost relative to the percentage of emergencies occurring in the jurisdictions.

**Figure 160: Cost Allocation by Service Demand, 2010**

Jurisdiction	Service Demand	Percentage of Total
BMFPD	641	20.832%
GSFD	1,100	35.749%
GSRFPD	276	8.970%
RFPD	1,060	34.449%
<b>Total</b>	<b>3,077</b>	<b>100.000%</b>

With 18.76 percent of the taxable assessed valuation, GSFD represented 35.75 percent of the calls for service in 2010. This statistic could be misleading as a portion of the service demand for GSFD occurred outside of its jurisdictional boundaries and outside of GSRFPD.

- **Pro:** Easily expressed and understood. Changes in the workload over the long term tend to mirror the amount of human activity (such as commerce, transportation, and recreation) in the corresponding area.
- **Con:** Emergency response fluctuates from year to year depending on environmental and other factors not directly related to risk, which can cause dependent allocation to fluctuate as well. Further, the number of alarms may not be representative of actual workload; for example, one large emergency event requiring many emergency workers and lasting many hours or days versus another response lasting only minutes and resulting in no actual work. Last, emergency response is open to (intentional and/or unintentional) manipulation by selectively downgrading minor responses, by responding off the air, or by the use of mutual aid. Unintentional skewing of response is most often found in fire systems where dispatch and radio procedures are imprecisely followed. Further, service demand does not follow a predetermined ratio to land area. As such, the service demand per square mile ratios may produce large variations.
- **Consider:** Using a rolling average of alarms over several years can help to suppress the normal tendency for the year-to-year fluctuation of emergencies. Combining the number of emergencies with the number of emergency units and/or personnel required may help to align alarms with actual workload more closely; however, doing so adds to the complexity of documentation. In a similar manner (and if accurate documentation is maintained), the agencies could consider using the total time required on emergencies as an aid to establish the comparative workload represented by each jurisdictional area.

### Fixed Rate

The use of fixed fees or rates (such as a percentage) to calculate allocation of shared cost is more common between municipalities and independent fire districts. Occasionally, fixed-rate contracts involve the exchange of in-kind services.

- **Pro:** The concept is simple and straightforward. A menu of service options and the fees corresponding to those alternatives can be developed by the contractor agency. The

contracting agencies can tailor a desired level of service based on risk and community expectation by choosing from the various menu items.

- **Con:** Partnering communities may change (i.e., population, jobs, commerce, structures, and risk) at divergent rates, causing disconnection between the rationales used to establish the fee and the benefit received. A fixed-rate contract may be difficult to coherently link to the services provided and/or received, which can lead to a lack of support by officials and the community.
- **Consider:** Partnering agencies need to assure that provision for rate adjustment is included in the agreement, including inflation. The agreement should address the issue of full cost versus marginal cost. The inclusion or non-inclusion of administrative and/or overhead cost also requires statement, as does the reconciliation of in-kind service exchange. The ownership and/or depreciation of capital assets should be addressed, as should rent, utilities, and liability insurance. In the case of a fixed fee, the agreement should establish how the participation of other public agencies in the partnership would affect cost.

### Population

Payment for service can be based on the proportion of residential population to a given service area. The following figure lists the population by jurisdiction and the percentage of the total number of individuals living in each service area.

**Figure 161: Cost Allocation by Population**

Jurisdiction	Population Served	Percentage of Total
BMFPD	12,676	30.416%
GSFD	9,614	23.069%
GSRFPD	4,213	10.109%
RFPD	15,172	36.406%
<b>Total</b>	<b>41,675</b>	<b>100.000%</b>

- **Pro:** Residential population is frequently used by governmental agencies to measure and evaluate programs. The U.S. Census Bureau maintains an easily accessible database of the population and demographics of cities, counties, and states. Estimates of population are updated regularly. Laypersons intuitively equate residential population to the workload of fire departments.<sup>73</sup>
- **Con:** While census tracts for cities frequently follow municipal boundaries, this is not the case with fire district boundaries, forcing extrapolated estimates, which can fail to take into account pockets of concentrated population inside or outside of the fire district boundaries. Residential population does not include the daily and seasonal movement of a transient population caused by commerce, industry, transport, and recreation.

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<sup>73</sup> The average citizen may easily associate population to emergency workload, but no statistical link can be made between the two.

Depending on the local situation, the transients coming in (or going out) of an area can be very significant, which can tend to skew community risk. Residential population does not statistically link with emergency workload; rather, human activities tend to be the linchpin that connects people to requests for emergency assistance.

For example, if residential population actually determined emergency workload, emergencies would peak when population was highest within a geographic area. However, in many communities where the residential population is highest from about midnight to about 6:00 AM (bedroom communities), that time is exactly when the demand for emergency response is lowest. It turns out that emergency demand is highest when people are involved in the activities of daily life—traveling, working, shopping, and recreating. Often, the persons involved in such activities do not reside in the same area. Additionally, simply relying on population will not account for the effects that socio-economic conditions have on emergency service response activity.

- Consider: The residential population of unincorporated areas can sometimes be estimated by using the GIS mapping capability now maintained by most counties and municipalities. By counting the residential households within the area in question, then applying demographic estimates of persons per household, it may be possible to reach a relatively accurate estimate of population within the area in question. Alternately, residential population can be estimated by using information obtainable from some public utility districts by tallying residential electrical meters within a geographic area and then multiplying by the persons per household.

Glenwood Springs and Rifle experience a daily or seasonal influx of people who are not counted as residential population. This transient population can be estimated by referring to traffic counts, jobs data, hotel/motel occupancy rates, and, in some cases, park visitor statistics. Residential population plus transient population is referred to as functional population. Where functional population is significantly different from residential population, service agreements based on population should be adjusted to account for it.

The study area is unique in that considerable transient population may be present depending on the season or routinely during the daily commute. Basing cost allocation only on residential population may seem to disregard the effect of these transient populations on the regional emergency services system, but ESCI believes that the nature of transient populations and the character of the region result in an equivalent on the four service areas. Residents and visitors to the area tend to traverse throughout the region. Some travel is for work and daily activities, while other is seasonal; such as destination travel related the hot springs, skiing, river adventures, and hunting. ESCI believes that the fact that transient populations shift in this manner tends to negate most disproportionate impacts on the city and districts, creating instead a background effect that need not be considered for the purpose of apportionment.

### Multiple-Variable Allocation

Frequently, even though everyone may agree on the benefit of allied fire protection, officials find it difficult to reach an accord on the cost. The differences between community demographics and/or development, along with changes that occur within the system over the long term, can cause the perception of winners and losers. This can be especially prevalent when a single variable is used to apportion cost. A service contract based on more than one allocation determinate may help solve these problems.

For example, ESCI is familiar with a 9-1-1 dispatch center in Oregon that serves more than 20 fire agencies of all sizes and types—large, small, metropolitan, and rural; on-duty career and on-call volunteer. Here, the service contract includes three determinates applied to each agency.

- Base charge — 10 percent of the dispatch center's budget is divided equally between all agencies. This charge is based on the acknowledgement that each agency is equally responsible to maintain the dispatch center on continuous stand-by, irrespective of size of the agency or its use of the dispatch services.
- Usage charge — 45 percent of the dispatch center's budget is divided between the agencies in accordance with the number of emergency dispatches made for each during the preceding year. The member agencies determined that this charge fairly assesses the overall use of the 9-1-1 dispatch system by each.
- Risk charge — 45 percent of the dispatch center's budget is divided between the agencies in accordance with the relative percentage of each department's AV. The member agencies determined that this charge is relational to each department's community risk and that it is closely associated with the overall ability to pay.

By apportioning the dispatch center cost over three variables, the members of this alliance have been able to reach a long-term agreement that fits the diversity of the partnering agencies. Other partnerships in other geographical areas may require a different solution involving different combinations of variables. In summary, we restate something said earlier: When choosing a cost-sharing strategy for partnered fire protection, it is important to keep any apportionment formula fair, simple, and intuitively logical to assure that the public accepts and supports the endeavor.

### Allocation Summary

The information provided previously serves as a detail of cost allocation factors. Given the lengthy discussion provided with each option, ESCI has compiled the information into a summary table illustrating the distribution of factors among the four agencies. These examples

are for illustrative purposes and may be used as part of a check for fairness of assigning the cost for service.

**Figure 162: Summary of Cost Allocation Factors by Percentage, 2009**

Jurisdiction	Area	Assessed Value	Resource Deployment	Service Demand	Population
BMFPD	49.354%	29.465%	33.333%	20.832%	30.416%
GSFD	1.034%	18.763%	33.333%	35.749%	23.069%
GSRFPD	8.786%	6.258%	0.000%	8.970%	10.109%
RFPD	40.827%	45.514%	33.333%	34.449%	36.406%
<b>Total</b>	<b>100.000%</b>	<b>100.000%</b>	<b>100.000%</b>	<b>100.000%</b>	<b>100.000%</b>

ESCI extrapolated the cost of emergency services using the fiscal year 2011 budgeted amounts using a multiple variable formula. This was applied to the cost allocation factors derived from 2010 data. The dollar amount used in the calculations was the operational budgets for Overarching Strategy 4 – FA (Fire Authority) of \$12,281,551.

In addition to the individual funding alternatives, several multiple-variable scenarios are also provided as examples of how this type of methodology can be modified and applied. The following figures show three multiple cost allocations by variable, the weighted apportionment by percentage, and cost to each agency. The first (Figure 163) allocates costs on the basis of TAV (50 percent) and service demand (50 percent).

**Figure 163: Multiple Variable No. 1, Allocation and Cost Apportionment**

Jurisdiction	Allocation	Cost
BMFPD	25.148%	3,088,596
GSFD	27.256%	3,347,494
GSRFPD	7.614%	935,082
RFPD	39.982%	4,910,379
<b>Total</b>	<b>100.000%</b>	<b>12,281,551</b>

The second (Figure 164) allocates costs on the basis of TA (70 percent) and service demand (30 percent).

**Figure 164: Multiple Variable No. 2, Allocation and Cost Apportionment**

Jurisdiction	Allocation	Cost
BMFPD	26.875%	3,300,639
GSFD	23.859%	2,930,274
GSRFPD	7.071%	868,464
RFPD	42.195%	5,182,175
<b>Total</b>	<b>100.000%</b>	<b>12,281,551</b>

The third example (Figure 165) allocates the cost based on TAV (50 percent), deployment (25 percent), and service demand (25 percent).

**Figure 165: Multiple Variable No. 3, Allocation and Cost Apportionment**

Jurisdiction	Allocation	Cost
BMFPD	28.274%	3,472,437
GSFD	26.652%	3,273,320
GSRFPD	5.371%	659,675
RFPD	39.703%	4,876,119
<b>Total</b>	<b>100.000%</b>	<b>12,281,551</b>

### Appendix E: Summary Table of Stakeholder Interviews

Person	Date	Affiliation or Group
<b>1. Internal</b>		
1. Karen Maddalone-Cochran	6/21/11	Board President, BMFPD
2. John Moore Jr.	6/21/11	Board Member, BMFPD
3. Jim Voorhies	6/21-23/11	Board Member and Treasurer, BMFPD
4. Kevin Erpestad	6/21/11	Board Member and Retired Volunteer Firefighter, BMFPD
5. Megan Richards	6/21-23/11	Board Member, BMFPD
6. Board of Directors	6/21/11	BMFPD
7. Matt Steckler	6/21/11	Mayor, Glenwood Springs
8. Jeff Hecksel	6/21/11	City Manager, Glenwood Springs
9. Dave Sturges	6/21/11	City Councilman, Glenwood Springs
10. Stephen Bershenyi	6/22/11	City Councilman, Glenwood Springs
11. Leo McKinney	6/22/11	Mayor Pro-Tem, Council Member, Glenwood Springs
12. Bill Livingston	6/21/11	Board President, GSRFPD
13. Cindy Orr	6/21/11	Board Member, GSRFPD
14. Tom Morelli	6/21/11	Board Member, GSRFPD
15. John Sandquist	6/22/11	Board Member, RFPD
16. Matt Weisbrod	6/22/11	Board Member, RFPD
17. Board of Directors	6/22/11	BMFPD
18. Brit McLin	6/21-23/11	Fire Chief, BMFPD
19. Gary Tillotson	6/21-23/11	Acting Fire Chief, GSFD
20. Mike Morgan	6/21-23/11	RFPD
21. Connie Guerette	6/21/11	Division Chief of Administration, RFPD
22. Matt Sturgeon	6/22/11	Assistant City Manager, Planning, Rifle
23. Sean Mello	6/21/11	Deputy Chief, BMFPD
24. Orrin Moon	6/22/11	Fire Marshal and Response Captain, BMFPD
25. Thomas Maddalone	6/23/11	Firefighter Captain, BMFPD
26. Michael Monroe	6/21-23/11	RFPD; EMS BMFPD
27. Bill Smith	6/21-23/11	RFPD; EMS BMFPD
28. Jeri Batchler	6/21/11	Firefighter, BMFPD
29. Curt Patterson	6/23/11	Captain, BMFPD, A-shift
30. Ray Lackey	6/21-23/11	Volunteer, BMFPD; Captain Carbondale and Rural FPD
31. DJ Hughes	6/21/11	Volunteer, BMFPD
32. Myia Lackey	6/21/11	Administrative Assistant, BMFPD
33. Captain, Lieutenant, and six Firefighters	6/22/11	RFPD, C-shift
34. Pete Bradshaw	6/21/11	Captain, GSFD, A-shift
35. Firefighters: David Reinhold Doug Trauger Josh Allison Justin Duzyk Bryan Wooten Randy Hill	6/21/11	GSFD, B-shift: Firefighter/Captain Firefighter/PM Firefighter/Engineer Firefighter/PM Firefighter/Engineer Firefighter/Engineer/PM
36. Joseph Koronkiewicz	6/23/11	Firefighter/EMT/Engineer RFPD, C-shift
37. Doug Gerrald	6/22/11	Captain, GSFD
38. Dan Walsh	6/23/11	Firefighter, GSFD
39. Harlan Nimmo	6/23/11	Firefighter, GSFD FD
40. Erin Williams	6/21/11	Administrative Assistant, GSFD

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Person	Date	Affiliation or Group
41. Kevin Whelan	6/21/11	Fire Marshal, RFPD
42. Tim Young	6/22/11	Firefighter/EMTI, RFPD
43. Thad Vroman	6/22/11	Firefighter/EMTB, RFPD
44. Battalion Chief, Two Lieutenants, Seven Firefighters	6/21/11	RFPD, B-shift
45. Rob Willits	6/22/11	Battalion Chief, RFPD, C-shift
46. Firefighters	6/22/11	RFPD, C-shift
47. Eric Daninger	6/23/11	Firefighter/PM, RFPD, C-shift
48. Justin Duzyk	6/23/11	Firefighter RFPD; GSFD, C-shift
49. Matt Mollenkamp	6/23/11	Lieutenant, RFPD, C-shift
50. Greg Bak	6/23/11	Firefighter/EMTI, Volunteer Firefighter BMFPD; RFPD, C-shift; GSFD, BMFPD
51. Ryan Glasman	6/23/11	Firefighter /EMT/Eng. RFPD, C-shift
52. Doug Richards	6/21,23/11	Firefighter/EMT/Engineer/Parachute; Volunteer Firefighter BMFPD; RFPD, C-shift
53. Jennifer Taylor	6/23/11	Firefighter/EMTI, RFPD, C-shift
54. Kevin Alvey	6/21/11	Battalion Chief, RFPD A-shift
55. Rob Jones	6/21/11	Battalion Chief, RFPD
56. Tim Lavin	6/22/11	Firefighter, RFPD; Volunteer Firefighter, BMFPD; Part-time Firefighter GSFD
57. Ron Biggers	6/21/11	Fire Marshal, GSFD
58. Jim Wright	6/21/11	Part Time RFPD, Volunteer Firefighter BMFPD
<b>2. External</b>		
1. Ron Leach	6/21/11	Fire Chief, City of Carbondale and Rural FPD
2. Annick Pruett	6/22/11	CEO, Rifle Chamber of Commerce
3. Russell Long	6/23/11	Bureau of Land Management, Fire Management Officer
4. Greg Russi	6/22/11	Council Member, New Castle
5. Andy Barton	6/22/11	Town Administrator, New Castle
6. Ross Talbott	6/22/11	Apple Tree Trailer Park, Retired Fire Captain, former board chair of BMFPD
7. Carl Stephens	6/23/11	Executive Director Garfield County Emergency Communication Center
8. Robin Unsworth	6/22/11	City Clerk, Glenwood Springs
9. John Angell	6/22/11	Human Resources Director, Glenwood Springs
10. Mike Harman	6/22/11	Director of Finance, Glenwood Springs
11. Millyard / Bush / Betley	6/22/11	Public Works Director and Fleet Maintenance Supervisor, Glenwood Springs
12. Lou Vallario	6/22/11	Sheriff, Garfield County
13. Jim Sears	6/23/11	Sheriff's Office, Garfield County
14. Betsy Suerth	6/23/11	Public Works Director, Garfield County
15. Terry Wilson	6/21-23/11	Police Chief, Glenwood Springs
16. Daryl Meisner	6/22/11	Police Chief, Rifle
17. John Hall	6/21/11	EMS coordinator, Grand Junction; Program Manager, St Mary's CareFlight Medical Services
18. Dave Vroman	6/23/11	Fire Chief, Gypsum FPD
19. David Blair	6/21/11	Fire Chief, Grand Valley FPD
20. Eric Miller	6/21/11	Hazardous Materials Program, CSP (Colorado State Patrol)
21. Chris Bornholdt	6/21/11	County Emergency Manager, Garfield County

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Person	Date	Affiliation or Group
22. Director Alan Hughes Suzy Taylor Aaron Taylor	6/23/11	TransCare Ambulance
23. Dr. Benjamin Peery	6/23/11	Emergency Medicine Physician, Physician Advisor for BMFPD, GSFD, and RFPD, Valley View Hospital
24. Deb Wiekking Nancy Frizzelle	6/23/11	Representatives, Valley View Hospital
25. Trey Fonner	6/21–23/11	Volunteer Engineer/EMT, BMFPD
26. Rick Aluise	6/21 – 23/11	Mayor Pro Tem, Silt
27. Pamela Wood	6/21/11	Town Manager, Silt
28. Andy Schwaller	6/21/11	Building and Planning, GARCO
29. Levy Burris	6/21/11	Police Chief, Silt
30. Cleo Castle	6/21/11	Emergency Room Director, Grand River Medical Center
31. Dustin Dodson	6/21/11	Emergency Room Director, Grand River Medical Center

## Appendix F: Summary Table of Community Input Session Attendees

### Attendees, Monday, August 08, 2011, Glenwood Springs City Council Chambers

Name	Affiliation	Rank (if applicable)
1. Cindy Orr	GSRFPD	Board Member
2. Bill Livingston	GSRFPD	Board President
3. Ron Milhorn	Glenwood Springs Radio KMTS-FM	Local Radio Host/Announcer
4. Erin Williams	GSFD	Administrative Assistant
5. Connie Guerette	RFPD	Administrative Division Chief
6. Richard Cornelius	Citizen	N/A
7. Pete Bradshaw	Citizen	N/A
8. Art Hougland	Private Consultant	Building and Fire Code (Fire Protection Engineer)
9. Sally Servold	Silt Citizen	Business Owner, Glenwood Springs
10. Gary Tillotson	GSFD	Fire Chief
11. Jennifer Kelly	Garfield County Sheriff's Office	Administration, PIO
12. Mike Morgan	RFPD	Fire Chief
13. Rex Rhule	RFPD	Board President
14. Chad Harris	RFPD	Deputy Chief
15. Brit McLin	BMPD	Fire Chief
16. Ron Leach	Carbondale and Rural FPD	Fire Chief
17. Randy Hill	GSRFPD	Firefighter
18. Mike Alsdorf	Citizen	N/A
19. David Reinhold	GSFD	Captain
20. Bryan Wootten	GSFD	Firefighter
21. Josh Allison	GSFD	Firefighter
22. Doug Trauger	GSFD	Firefighter
23. Addy Marantino	GSFD	Firefighter
24. Leif Sackett	RFPD and GSFD	Lieutenant and Firefighter
25. Ron Biggers	GSFD	Deputy Fire Marshal
26. Greg Jeung	Citizen	

**Attendees, Tuesday, August 09, 2011, BMFPD, Fire Station No. 61, Silt, CO**

<b>Name</b>	<b>Affiliation</b>	<b>Rank (if applicable)</b>
1. Orrin Moon	BMFPD	Fire Marshal
2. Rex Rhule	RFPD	Board President
3. Karen Maddalone-Cochran	BMFPD	Board President
4. Cindy Orr	GSRFPD	Board Member
5. Sharon McLin	BMFPD	Resident/Spouse
6. Susan Taylor	TransCare Ambulance	Operations Manager
7. Robert Nye	BMFPD	
8. DJ Hughes	BMFPD	
9. Jenni Hughes	BMFPD	Member's Spouse
10. Jessica Damuth	BMFPD	Member's Spouse
11. Lee Damuth	BMFPD/Garfield County Sheriff's Office	Deputy Sheriff
12. Bob Thrower	BMFPD	Former Firefighter
13. Jim Voorhies	BMFPD	Board
14. Myia Lackey	BMFPD	Administrative Assistant
15. Brit McLin	BMFPD	Fire Chief
16. Mike Morgan	RFPD	Fire Chief
17. Gary Tillotson	GSFD	Fire Chief
18. Chad Harris	RFPD	Deputy Chief
19. Thomas Maddalone	BMFPD	Captain
20. Tony Maddalone	BMFPD	Engineer
21. Josh Johnson	BMFPD	Engineer
22. Ryan Glassman	RFPD	
23. Jeff Kaiser	RFPD	
24. Connie Guerette	RFPD	Administrative Chief
25. Sean Mello	BMFPD	Deputy Chief
26. John Gredig	BMFPD	EMS Coordinator
27. Levy Burris	Citizen/Silt PD	Chief of Police

**Attendees, Wednesday, August 10, 2011, Rifle FPD, Fire Station No. 41, Rifle, CO**

<b>Name</b>	<b>Agency</b>	<b>Rank (if applicable)</b>
Ed Ogden	RFPD	Board Member
Yvonne Long	RFPD	Board Member
Gary Tillotson	GSFD	Fire Chief
Brit McLin	BMFPD	Fire Chief
Kevin Whalen	RFPD	Fire Marshal
Lee Martens	N/A	Citizen
Susan Taylor	TransCare Ambulance	Operations Manager
Ted Morgan	RFPD	Retired
Matthew Mollenkamp	RFPD	Lieutenant
Matt Weisbrod	RFPD	Board Member
Rob Willits	RFPD	Battalion Chief
Mike Morgan	RFPD	Fire Chief
Connie Guerette	RFPD	Administration
Chad Harris	RFPD	Deputy Chief
John Sandquist	RFPD	Board Member
Rex Rhule	RFPD	Board President
Cindy Orr	GSRFPD	Board Member
Mike Braaten	Rifle	Staff
Eric Miller	Citizen	Citizen
Holly Miller	Citizen	Citizen
Tim Barrett	Citizen	Citizen



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