



Eugene City Council

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EUGENE CITY COUNCIL AGENDA

September 23, 2020

12:00 p.m. CITY COUNCIL WORK SESSION

Due to Governor Kate Brown's Stay Home, Save Lives Executive Order to combat the spread of Covid-19, this meeting will be held remotely using virtual meeting technology. Information about online or other options for access and participation will be available at <https://www.eugene-or.gov/3360/Webcasts-and-Meeting-Materials>

**Meeting of September 23, 2020;
Her Honor Mayor Lucy Vinis Presiding**

Councilors

Emily Semple, President
Mike Clark
Chris Pryor
Betty Taylor

Jennifer Yeh, Vice President
Greg Evans
Claire Syrett
Alan Zelenka

12:00 p.m. CITY COUNCIL WORK SESSION

- 1. WORK SESSION: Fire Response Update**
- 2. WORK SESSION: Eugene-Springfield Fire Merger Update**

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EUGENE CITY COUNCIL AGENDA ITEM SUMMARY



Work Session: Eugene Springfield Fire Merger Update

Meeting Date: September 23, 2020
Department: Eugene Springfield Fire
www.eugene-or.gov

Agenda Item Number: 2
Staff Contact: Chris Heppel
Contact Telephone Number: 541-682-7100

ISSUE STATEMENT

The City Council will be provided with an overview on the merger of the Eugene and Springfield fire departments. On May 27, 2020, the Eugene Budget Committee recommended to the City Manager that the City Council hold a work session on the Ground Emergency Medical Transportation (GEMT) funding, Ambulance Transport Fund (ATF), overall funding of the fire department and update on the Eugene Springfield Fire (ESF) merger progress. ESF anticipates multiple informational work sessions with the City Council in FY21. During this first work session, the Interim Fire Chief will provide a historical perspective of the consolidation of fire departments, budget highlights, and current challenges of transitioning to a single department and common governance.

BACKGROUND

In June 2007, the Cities of Eugene and Springfield implemented the 3-Battalion Integrated Response System that effectively eliminated jurisdictional boundaries for the purposes of emergency fire, rescue, fire-response EMS, hazardous materials and ambulance transport. The system dispatches the closest and most appropriate resource regardless of jurisdiction.

In early 2009, the Eugene Fire and EMS Department and Springfield Fire and Life Safety Department commissioned a Cooperative Services Feasibility Study with Emergency Services Consulting International (ESCI) ([Attachment A](#)). The study determined a merger was both feasible and advisable for the two cities.

Elected officials also received, as background for the December 7, 2009 Joint Elected Officials meeting, a detailed report explaining what the consolidation would entail in each functional area of the department. At that meeting, members of the Springfield City Council voted unanimously in support of initial steps, while members of the Eugene City Council voted to consider the matter further while meeting as a single body.

Based on the ESCI report, the Eugene and Springfield city managers and fire chiefs took preliminary steps toward a functional consolidation of the Eugene and Springfield fire departments. The goal was to improve service effectiveness as well as produce cost efficiencies by moving towards a metro fire service model. The term “functional consolidation” refers to a

September 23, 2020, Work Session – Item 2

consolidation of some of the administrative and support functions of the fire departments (such as the 3-Battalion integrated response system currently in use by the cities). The functional consolidation is not a full merger of the two departments but is a series of incremental (and reversible) steps toward a full merger, assuming those steps prove successful.

In July 2010, the two departments entered into a “functional consolidation” which involved the sharing of several key management and administrative positions through an inter-governmental agreement (IGA). This led to a reshuffling of responsibilities and a new organizational structure to manage the functional consolidation. With staff attrition and additional experience with the functional consolidation, administrative positions have been adjusted to meet the changing needs of the department ([Attachment B](#)).

There have been many achievements in the decade since we began including, but not limited to: a) consolidating labor agreement among both cities and International Association of Fire Fighters, Local 851; b) implementing a new schedule for the line along with a new rostering system; c) sharing logistics for distribution of materials and supplies including the roll out of medication vending machines in the fall of 2020; and d) co-locating all of administrative services staff to the Emergency Services Center.

Despite those achievements, some challenges remain while the organization is in the “functional consolidation” phase. Many departmental governance processes remain duplicated or triplicated including budget development, timekeeping systems, accounts payable, apparatus purchasing and maintenance, recruitment and matriculation of represented, and general services employees.

PREVIOUS COUNCIL DIRECTION

[May 27, 2020, Budget Committee](#)

Recommend that City Council hold a work session on the GEMT funding, ATF, overall funding of the fire department, and update on the Eugene Springfield Fire merger progress.

[October 26, 2011, Work Session](#)

Informational work session on Eugene-Springfield Fire Service Merger Update.

[January 20, 2010, Work Session](#)

Move to functional consolidation with follow-up reports indicating effectiveness (no motions, work session only).

[December 7, 2009, JEO Eugene and Springfield City Councils](#)

Ambulance Transport Funding

Recommendations to council:

1. That all three jurisdictions remain prepared to allocate a level of General Fund support as necessary for the continued high – quality provision of this core service.
2. That the Eugene and Springfield City Councils authorize initial steps toward merger of their fire departments.
3. That exploration begins immediately of more sustainable public funding options
4. That marketing of FireMed subscriptions be enhanced and expanded in an effort to

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- generate additional revenues to lessen reliance on general fund tax support.
5. That the Lane County Board of Commissioners act immediately to reconfigure the boundaries of the county's Ambulance Service Areas so as to provide for an urban – rural split between Eugene and Lane Rural Fire/Rescue.
 6. That work proceeds as rapidly as possible regarding provision of a regional mobile healthcare system, featuring tiered levels of response (and cost) available to patients depending on the nature of the emergency with a report to elected officials by the end of calendar year 2010.
 7. That public ambulance service provider agencies continue to lobby the Oregon legislature and U.S. Congress for larger – scale long-term solutions.

MOTION AND VOTE: Councilor Ortiz, seconded by Councilor Clark, moved to approve recommendation Nos. 4 and 6 as is; No. 5 to be approved with the words 'upon direction of the Eugene City Council' added to it; No. 7 worded to indicate that the Joint Elected Officials would work with their respective agencies to use the United Front to educate representatives about and to promote support for long-term stable funding of Medicare reimbursement for ambulance transport.

Councilor Zelenka offered a friendly amendment to accept their commendations and to refer the seven recommendations to the three jurisdictions for further discussion and action. Councilor Ortiz accepted the friendly amendment. PASSED: 8:0, Eugene City Council; 5:0, Springfield City Council; 3:1, Lane Rural Fire/Rescue District, Board Member Brown opposed.

Functional Consolidation of the Springfield and Eugene Fire Departments

Elected Official Options:

1. Continue separate operations (do nothing).
2. Authorize City Managers to take initial steps toward functional consolidation with follow-up reports to determine future direction.
3. Authorize functional consolidation and full merger of departments.
4. Provide other direction.

MOTION AND VOTE: Councilor Zelenka, seconded by Councilor Clark, moved to accept and forward the report and recommendation to the Eugene City Council for a work session and action. PASSED: 8:0, Eugene City Council.

MOTION AND VOTE: Councilor Pishioneri, seconded by Councilor Ralston, moved to authorize the City Managers to take initial steps toward functional consolidation with follow-up reports to determine the future direction of it. PASSED: 5:0, Springfield City Council.

COUNCIL OPTIONS

This is informational only to provide an update about the fire service merger. Subsequent work session(s) will be scheduled in FY21 to provide updates on GEMT and the ATF.

ATTACHMENTS

- A. [ESCI Cooperative Services Feasibility Study](#)
- B. [FY21 Organizational Chart](#)
- C. [FY20 Eugene Springfield Fire Annual Report](#)
- D. [FY20 Standards of Coverage](#)

FOR MORE INFORMATION

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Eugene Fire & EMS and Springfield Fire & Life Safety, Oregon
Cooperative Services ~ Feasibility Study

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Phase I: Project Initiation; Data Analysis and Stakeholder Interviews

Objective I-1 Project Initiation

The project was initiated on March 17 and 18, 2009. ESCI's (Emergency Services Consulting International) project manager met with the Eugene/Springfield project managers to develop and approve an action plan for the Cooperative Services – Feasibility Study. Based on the details found in the scope of work, the study action plan identifies:

- Primary tasks to be performed
- Person(s) responsible for each task
- Timetable for each phase, objective, and task
- Resources required
- Possible obstacles or problem areas associated with the accomplishment of each objective

Further, the action plan ensures that all participants have a comprehensive understanding of the project's background, goals, and expectations.

Objective I-2 Agency Administrative/Operational Information/Data Acquisition

This objective enables ESCI to acquire the baseline data needed for analysis, benchmarking, modeling, and developing recommendations. EFD (Eugene Fire & EMS Department) and SFLS (Springfield Fire & Life Safety Department) provided the ESCI project team with documentation concerning all organizational elements including:

- Past and current fire department studies
- Community growth management plans
- Current and proposed land use plans
- Comprehensive planning documents
- Local and regional census data
- Organization information and documents
- Strategic planning documents and Standards of Cover
- Policies, procedures, SOGs and financial data
- Emergency incident data
- Service delivery practices

- Current service delivery objectives and targets
- Other relevant information

Objective I-3 Stakeholder Interviews

The purpose of this objective is to solicit input, insight, perspective, and cultural viewpoint of the internal and external stakeholders regarding their expectations of the current service delivery system. Through these interviews, ESCI is able to identify critical organizational and cultural issues, and potential barriers to future system changes. During a two-day period, ESCI team members met with and interviewed various stakeholder groups. Interviews included city officials, executive fire officer staff, administrative human resource, finance personnel, and representatives of the various labor groups.

The scope of the information gathering purposely focused on the individual strengths, weaknesses, opportunities, and threats of cooperative services to the two emergency service organizations. It is important to note that the biggest share of the information solicited and provided during this process was provided in the form of “people inputs,” some of which are perceptions as reported by stakeholders. All information was accepted at face value without an in-depth investigation of its origination or reliability. The project team reviewed the information for consistency and frequency of comment to identify specific patterns and/or trends.

ESCI's observations are compiled into four groupings, vital issues, challenges and concerns, opportunities and current successes, and benefits. Vital issues are those essential to one or both cities; any one which might be a deal breaker of future cooperative efforts. Challenges and concerns would not necessarily thwart efforts, but could present an impediment or roadblock to mutual programming and collaboration. While these groupings harbinger warnings to halt or slow organizational changes, there were as many inputs ascribing potential benefits and successful enterprises already established.

The three battalion concept was frequently mentioned first when discussing current successes. It is evident from the comments ESCI received, individuals are seeing benefits and anticipating further collaboration between the fire departments.

Vital Issues (Deal Breakers)

- If cooperative efforts costs are more than current expenditures for either city
- Fear that “the level” service to the City would go down

- If one or both cities lack a level of control and input
- If formed, a new district would be viewed as empire building
- Transparency of the organization would need to continue if the fire department is separated from the City
- Need for support from union membership
- Budget crisis “current economy;” \$8 million deficit has escalated into \$12.5 million
- If financially there is no benefit
- If collaboration creates another layer of government
- Governance model would need to have all employees with a single reporting point
- Concern for FireMed program moving to Eugene

Challenges and Concerns

- Have reservations of starting projects and programs when not one organization
- Governance model
- Which individuals are in key leadership roles of combined agency
- Cost allocation of services across all departments in the cities
- Fees for sustainability, HR, finance, wellness, diversity, reducing the carbon foot print
- Perception expressed by individuals (outside of fire department personnel) of the two fire organizations as “us and them” and differing standards to which personnel are accountable
- Handling of diversity in the two cultures (fire department)
- Total compensation comparables of the bargaining groups
- Current service is good and it would be difficult to accept a lower level of service
- That any “new agency” would have revenue generation ability and that the patrons of each city (Eugene and Springfield) would have some control
- Debt (City of Eugene) on the training center and the 13th Street station, Springfield lease/purchase agreements
- Contracted BLS transport services in the City of Eugene
- Some difference between certification levels of personnel; Eugene FD’s are based on DPSST (Department of Public Safety Standards and Training) and Springfield FLS on NFPA (National Fire Protection Association)
- Training divisions that are operating at the maximum point and the need to combine the two organizations
- A concern of over promising and under delivering
- Start up costs (hard and soft)

- Alignment: SCBAs (self contained breathing apparatus), uniforms, apparatus color, PLL (prescribed load list), and identity; name, arm patch, apparatus, facilities and other items
- Possible layoffs
- Perception of difference in attitudes on customer service
- Cultural differences
- The two cities would have to come up with a costing model that is consistent

Opportunities and Current Successes

- Three battalion program
- Monthly meetings between Metro (operations) Command staff of EFD and SFLS
- Positive feelings towards the leadership abilities of both city managers (expressed by various stakeholders at multiple levels of both cities)
- Upbeat relationship between the two cities, particularly good with counterparts
- Renumbering of fire stations and apparatus
- Developed and underdevelopment of Metro SOPs versus individual fire department policies (Program includes other agencies besides EFD and SFLS)
- Monthly meetings between the two fire chiefs to discuss operational, administrative, prevention, training issues, and cooperative efforts
- Fire and life safety codes are comparable and could be easily aligned
- Success of the joint ambulance summit seen as a harbinger of relations, with the two city councils, mayors, county commissioners, and other officials in attendance. Six guest speakers, the two hospital CEOs, the two fire unions, and joint official task force
- Political shift of the cities; not just economies
- Possibility to pattern the model used by the Metropolitan Wastewater Management Commission (MWMC)
- A positive change of direction with training between the departments, seen as an outreach
- Different strengths of the fire departments would have a synergistic effect on a combined organization
- Fire-Med program
- Cities have the ability and capacity to provide a level of support
- Existing programs in place that include: officer development, hiring, hose loads, guidelines, policies and procedures, and recruit training

Potential Benefits

- Even without any direct savings, there is wisdom in the prospect of joining the two organizations. Efficiencies, effectiveness, and cost avoidance in operations, functionality, and administration.
- Fire and life safety codes are comparable and could be easily aligned
- Eugene's training center with classrooms, driving grounds, burn building, and props in a single location (cost avoidance from developing another facility independently)

Phase II: Analysis and Benchmarks

Objective II-1 Evaluation, Review, and Benchmarking of the Current Organizations

The objective of this task is to conduct a thorough analysis of Eugene and Springfield fire protection services. The organizational analysis is based on the elements included in the following tasks:

- Task 1: Review of City/County Comprehensive Plans; ISO (Insurance Services Office) rating evaluation; past studies and recommendations; and a thorough review the following documents:
 - o Most current ISO rating schedule and evaluation
 - o City/County Comprehensive Plans
 - o Internal and external organizational audits
 - o Internal and external operational audits
 - o Current level of service definitions and goals
 - o Past studies and evaluations of the organizations
 - o Review current community risk analysis
- Task 2: Organization Overview – A broad-spectrum overview of the organization evaluating:
 - o Governance models
 - o Responsibilities and line of authority
 - o Compliance with attributes of successful organizations
 - o History and general description of the fire departments today
 - o Administrative/management models
 - o Administrative and HR services
 - o Chain of command
 - o Organizational structures
 - o Review all divisions and programs
 - o Operating budgets, funding sources, fees, taxation, and financial resources
 - o EMS budget resources
 - o Support services
- Task 3: Staffing – Review the staffing levels of the fire departments. Areas considered include:

- o Review and evaluate administration, fire marshal's office, and support staffing levels
 - o Review and evaluate operational staffing levels
 - o Review staff allocation to various functions, divisions, and facilities
 - o Review labor agreements
 - o Review Standards of Coverage
 - o Analyze current staffing performance for incidents
 - o Review firefighter / EMS staff distribution and reliance on firefighter/paramedics assigned to EMS units (ALS/BLS)
- Task 4: Financial Profile – Review the past, present, and future financial picture of each fire department. Areas to be considered include:
 - o Revenue and AV growth trends
 - o Review taxation and tax rates
 - o Review and evaluate current and future operational costs
 - o Review and cost staff allocation to various functions, divisions, and facilities
 - o Review capital assets and facilities
 - o Review EMS and other revenue (subsidization)
 - o Analyze current debt service of each organization
 - o Billing services
- Task 5: Capital Assets and Capital Improvement Programs – Review status of current major capital assets (facilities and apparatus) and methods of financing capital needs.
 - o Facilities – Inventory of fire stations, administration, support services, and training facilities
 - o Apparatus / Vehicles – Inventory of primary emergency response apparatus

Community Fire Protection Insurance Rating (ISO)

ISO reviews the fire protection resources in communities and provides a Public Protection Classification™ (PPC). The PPC is the rating system from which many insurance companies base fire insurance rates. The rating system evaluates three primary areas: the emergency communication and dispatch system, the fire department, and the community's pressurized hydrant or tanker-based water supply. The overall rating is then expressed as a number between 1 and 10, with 1 being the highest level of protection and 10 being unprotected or nearly so. It is also important to note that, according to the ISO website information on the

PPC™ minimum criteria, “...(T)he ISO generally assigns Class 10 to properties beyond five road miles...” from a fire station.¹

The ISO reviews fire protection in three major categories. The categories are:

- Communication (10 percent)
- Water Supply (40 percent)
- Fire Department (50 percent)
 - o Credit for Ladder Service
 - o Credit for Distribution
 - o Credit for Company Personnel – 15.00 plus points²
 - o Credit for Training

Sometimes, ISO penalizes municipalities that demonstrate a relative difference between the capabilities of the fire and water components by assessing divergence points. Such penalties represent a reduction of score to reflect a deviation between the relative ISO Class of the fire department compared to water supply. For example, if a water supply system scores at a relative Class 3 and the fire department surveys at a relative Class 6, the overall rating is very likely to include a significant penalty in the form of divergence points.

The Insurance Services Office last surveyed the EFD in January 2008 and SFLS in April 2005; ISO assigned the Eugene FD a Class 3 rating and Springfield FLS a Class 3. A rating breakdown of the most recent ISO surveys is shown in the table below in Figure 1.

Figure 1: Summary of ISO Credit by Classification

ISO Classification	EFD	SFLS	Maximum
Communication – Receiving and Handling Alarms	6.35	6.50	10.00
Water Supply	37.18	34.21	40.00
Fire Department Creditable Points	35.91	37.59	50.00
Divergence Reduction ³	(4.23)	(5.11)	N/A
Total Creditable Points	75.21%	73.19%	100.00%

¹ Information obtained from the Insurance Services Office website, www.isomitigation.com.

² Fire departments that meet the ISO standard for emergency personnel on duty receive the maximum credit. Departments that exceed requirements are awarded credit above the maximum.

³ Divergence is a reduction in credit to reflect a difference in the relative credits for fire department and water supply.

EFD received 75.21 percent and SFLS 73.19 percent credit of out of a possible 100 percent. To improve on the ISO rating would require increases of approximately five and seven points respectively.⁴

There are four areas included in the ISO survey. Of the four the fire department section of the FSRS (Fire Suppression Rating Schedule) is a review of engine and ladder-service companies, equipment carried, response to fires, training, and the number of available firefighters. The following figure (Figure 2) provides a detail of the classification credits assigned to the fire departments in the 2008 ISO surveys.

Figure 2: ISO Credit – Fire Department

Fire Department Classification	EFD	SFLS	Maximum
Credit for:			
Engine Companies	9.80	9.16	10.00
Reserve Pumpers	0.98	0.99	1.00
Pump Capacity	5.00	5.00	5.00
Ladder Service Companies	2.65	2.40	5.00
Reserve Ladder Service Companies	0.53	0.30	1.00
Distribution	2.15	3.22	4.00
Company Personnel	6.61	6.84	15.00
Training	8.19	6.30	9.00
Total	35.91%	34.21%	50.00%

In the fire department classification, two areas that would have the greatest positive impact on the ISO rating of the fire departments is an increase in the number of personnel and ladder service companies. Credit for company personnel is the "... (A)verage number of equivalent firefighters and company officers on duty with existing companies."⁵ For ladder services companies, "... (T)he number of ladder and service companies and the equipment carried."⁶

A community's PPC™ can affect the decisions that insurers make about the availability and price of property insurance. Many insurance companies make at least some use of the classification to price fire policies, determine which types of coverage to offer, or to determine deductibles for individual homes and businesses. Notwithstanding the community's classification, individual insurance companies establish their premiums, not the Insurance

⁴ EFD's ISO rating is a retrograde from an ISO Class 2.

⁵ ISO (Insurance Services Office, Inc., classification details.

⁶ Ibid.

Services Office. The particular system that any given company uses when calculating premiums for property insurance may be affected by that company's fire-loss experience, underwriting guidelines, and marketing strategy. This makes it extremely difficult to generalize how any improvement or decline in the PPC™ will affect specific insurance policies or premiums.

The figure below illustrates how insurance premiums may vary for two typical structures under a couple of insurance companies' current rating schedules. While representing reasonable examples of the affect of the PPC™ on insurance premiums, the value of the premium credits for the different PPC™ ratings vary between insurance companies. Information for this example is taken from a report published by the League of Minnesota Cities entitled *The ISO Fire Protection Rating System*.⁷

Figure 3: Representative Insurance Premiums by Fire Protection Class

Fire Class	\$150,000 Residence	\$1,000,000 Office Building
1	\$670	\$2,950
2	\$670	\$2,980
3	\$670	\$3,020
4	\$670	\$3,040
5	\$670	\$3,060
6	\$670	\$3,120
7	\$670	\$3,230
8	\$777	\$3,330
9	\$972	\$3,440
10	\$1,072	\$3,710

According to the report, there are some points to note regarding the insurance premium chart above:

- "In this schedule, no additional credit is given on residential property for a fire class better than 7. The reason has largely to do with the role that water supply plays in the ratings. Having a better water supply helps in fighting fires in larger commercial structures, and therefore is reflected in a better rating. But for most residential fires a lesser water supply is actually needed, and having more than that available really doesn't help the fire district fight that particular residential fire any better. There's some variation among insurance companies (e.g., some might allow additional credit for class 6, others might lump classes 7 and 8 together for rating purposes, etc.) but this general pattern is fairly typical for residential premium structures."

⁷ Pete Tritz, October 2004.

- “Not all insurance companies use the ISO classifications. This is especially true for residential coverage. Some companies have their own rating systems based on their own historical loss data for the area rather than on an evaluation of the fire protection in the area. Other insurance companies use their own systems for rating the fire protection for a particular property; a company might classify properties based on the individual property’s distance from a fire station and water supply, for example.”

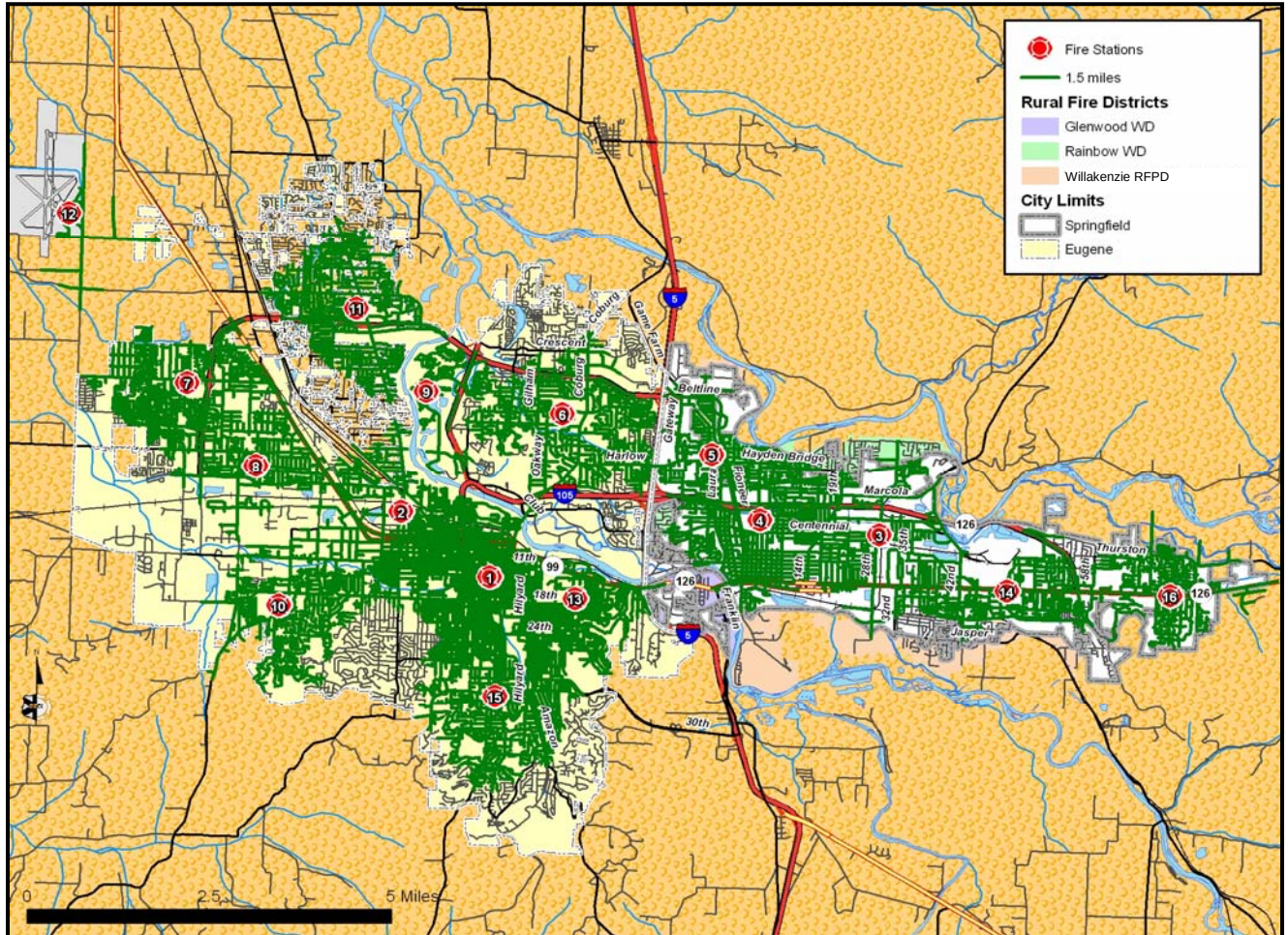
The location of fire stations affects ISO ratings through engine and ladder company distribution credit in Section 561 of the PPC™ schedule. This section accounts for just a four point maximum out of 50 possible points for fire department. Because of the relatively few points awarded for distribution, it rarely is the most effective way to pursue PPC™ improvement. For example, the number of personnel available (Section 570) is worth 15 of the possible 50 points, and firefighter training (Section 580) is worth nine points. In a typical fire department, significant improvements in the quality, quantity, and documentation of training can result in greater credit improvements at much less cost than the addition or movement of fire stations to improve credit under the distribution section.

While distribution credits in the PPC™ may not be the most important factor in the decision to add facilities, this issue affects the community’s rating classification and should be given consideration.

An examination of travel coverage based upon the PPC credentialing criteria by the Insurance Services Office reveals that to receive maximum credit for coverage, all “built-upon” portions of a community need to be within 1.5 road miles of an engine company and 2.5 road miles of a ladder or service company. In order to determine the distribution of engine companies across built-upon areas, ISO reviews the response area of each existing engine and identifies the number of fire hydrants within that area. ISO analyzes whether there are geographic areas of a city/district outside of the existing engine company response zone where at least 50 percent of the number of hydrants served by the largest existing response area that could be served by a new engine.

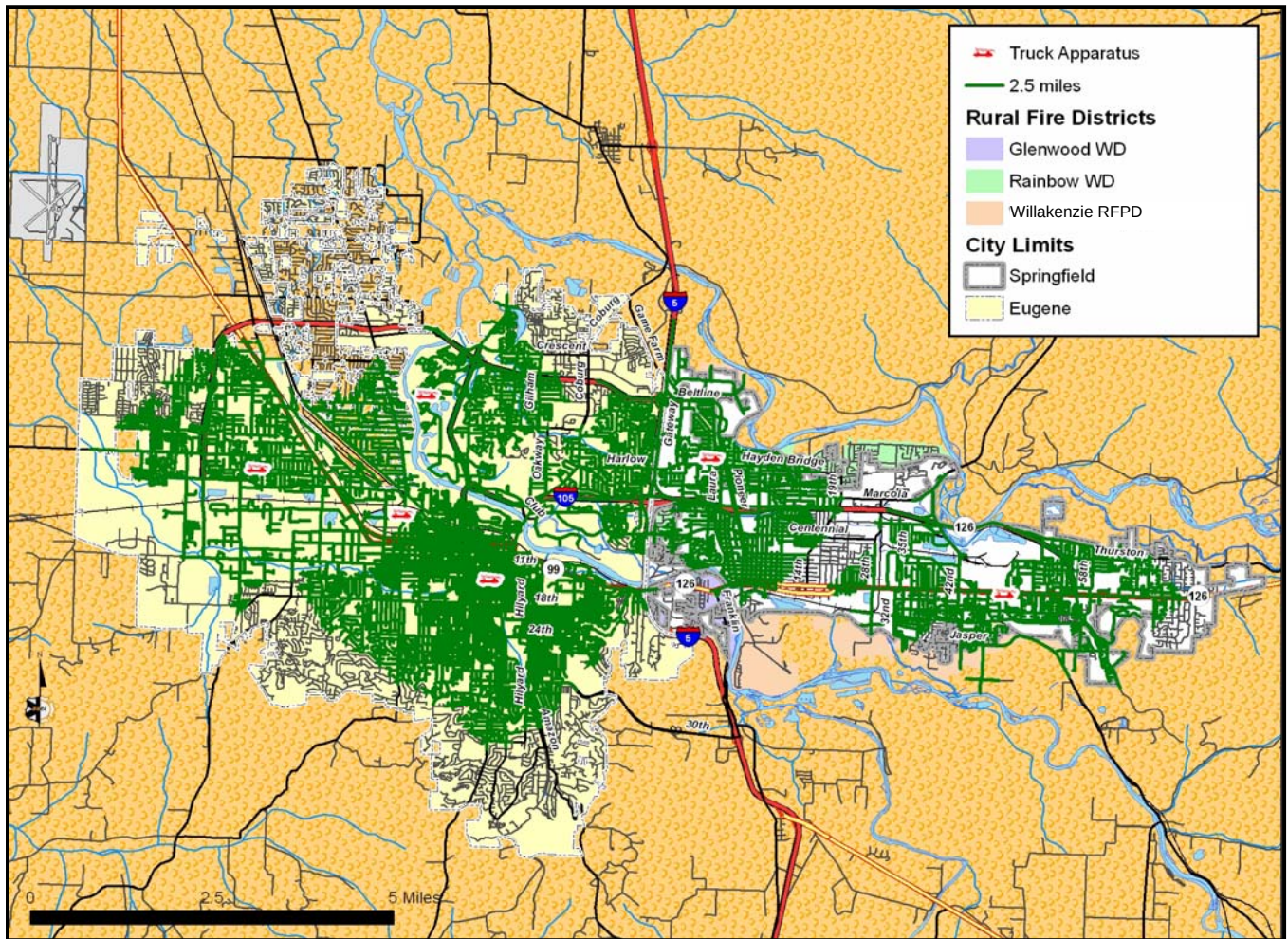
For ISO purposes, the response area is measured at 1.5 miles of travel distance from each engine company over existing roadways. In order for a structure to be in a protected rating for insurance purposes, it should be within five miles of a fire station. There are a few areas of the contract service areas that would be affected by a five-mile distance.

Figure 4: ISO Engine Distance Coverage



Similarly, to achieve optimum credit for the number of truck companies⁸, ISO reviews the response area of each existing ladder company and identifies the number of fire hydrants within those zones. ISO analyzes whether there are additional geographic areas of the City outside of existing ladder response areas where at least 50 percent of the number of hydrants served by the largest existing response area could be served by a new truck. For ISO purposes, the response area is measured at 2.5 miles of travel distance from each ladder company over existing roadways.

Figure 5: ISO Truck Distance Coverage



⁸ The term ladder truck is synonymous with ladder, aerial device, elevating platform, and aerial platform. The terms have to do more with the equipment carried on the apparatus and the tasks they are used for on the fire ground.

Positive Attribute 1: The ISO engine distance as well as the truck company coverage maps clearly indicates seamless and exceptional coverage to the service area.

Internal and External Organizational and Operational Audits

Organizational audits involve instances where an organization consents or is compelled to allow an individual, group, or company to conduct an assessment. An audit may be limited to a single aspect or program (finance for example), or so broad as to cover all activities. Audits often evaluate the quality, effectiveness, and efficiencies of programs as well as compliance with laws and regulations.

EFD and SFLS have each conducted organizational audits within the last two years. Eugene FD produced their 7th annual edition Standards of Response Cover in January 2008 and Springfield published a Standards of Cover and Deployment Study in April 2007. The City of Springfield also performed an employee survey in February 2009 that included all municipal departments of the city.

Eugene Fire and EMS Department has received accredited agency status by the CFAI (Commission on Fire Accreditation International). The CFAI program is a comprehensive self-assessment and evaluation model for fire and emergency service organizations. The program offers fire and EMS agencies a process of continuous improvement and involves an initial site visit, annual updates, and re-accreditation every five years. The process seeks to improve a fire departments level of professionalism, while enhancing service delivery. It helps in determining risks and fire safety needs, evaluating performance, and provides a method for continuous improvement.⁹

In January 2002, the City of Springfield completed an in-depth feasibility study. That study examined the probable financial outcome of shifting responsibility for fire protection and EMS from a municipally-based fire department to a fire protection district. The preferred option of feasibility was the annexation of SFLS to an existing fire district, with Willakenzie Fire District being identified as the most feasible and practical partner. Springfield City Council approved this option as a reasonable, stable, long-term solution to funding fire and emergency services. However, the Lane County Boundary Commission denied the City's request for annexation.

⁹ Program description, CPSE (Center for Public Safety Excellence), CFAI (Commission on Fire Accreditation International).

Current Level of Service Definitions and Goals

Springfield Fire & Life Safety

Springfield FLS has adopted standards of cover. The agency measures day-to-day performance using data provided by the dispatch center. Turnout time, distribution, and concentration performance measures provide a means to assess and manage the ongoing deployment capabilities of SFLS.

SFLS compiles monthly reports of each of the following criteria:

- Turnout time performance by unit for emergency events
- Turnout time performance by unit for non-emergency events
- Travel time performance by unit for emergency events
- Travel time performance by unit for non-emergency events
- Overall travel time performance of first alarm assignment

These reports are reviewed by the battalion chiefs for identification of any response time anomalies.

Quarterly reports are prepared on:

- The overall travel time performance by shift
- Travel time performance by first-due units for both emergency and non-emergency events
- Overall performance

The review of performance levels by the operations chief identifies any response time abnormalities.

Annual performance review and evaluation includes:

- Overall response by type of call
- Overall response by month of the year
- Overall response by day of week
- Overall performance of alarm processing times
- Overall performance of turnout times

- Turnout time performance by each unit
- Travel time performance by each unit
- Travel time performance by first alarm assignment
- A pin map showing the location of all responses. The map is color coded showing responses within the goal as green, responses within 60-seconds of the goal as yellow, and those beyond 60-seconds as red. The purpose of the map is to show if call distribution beyond the response time goal exhibits any discernable pattern.
- Number of EMS calls per unit
- EMS calls by main complaint
- Utilization ratio of each individual company
- Call workload by hour of day (for use in determining potential of peak activity units)

Performance expectations are communicated throughout the Springfield organization. In some instances, the very awareness of certain information motivates improved performance. Areas in which this result has been experienced include data collection, reporting accuracy, and turnout times.

Eugene Fire & EMS Department – Level of Service

Eugene Fire & EMS Department has developed response standards and goals.¹⁰ Response areas are classified by risk. Risk Area A includes all territory within the Eugene city limits or the River Road Water District (entirely within the Eugene UGB). This area, while varying somewhat in density and land use, includes a relatively high number of industrial, commercial, and residential structures.

Territory classified as Risk Area B includes the primarily rural property located in the four fire protection districts served by EFD. Each of the districts lies mostly outside the UGB. These areas contain agricultural or forest land and associated structures, with some rural residential development. For the most part, these areas are not served by municipal water systems, nor are they equipped with a fire hydrant network. Travel time for the two zones is:

- (Zone A) travel time for all units needed for effective initial response to arrive on scene: 10 minutes or less for 80 percent of calls
- (Zone B) travel time for 15th person on scene (when this level of response is required): 11 minutes or less for 80 percent of calls

¹⁰ Information is excerpted from the City of Eugene Fire & Emergency Medical Services Department, Standards of Response Coverage, January 2008.

Figure 6 shows the boundaries of these two risk areas (Risk Area A and B) in relationship to the department's overall response area.

Figure 6: Eugene FD – Risk Map

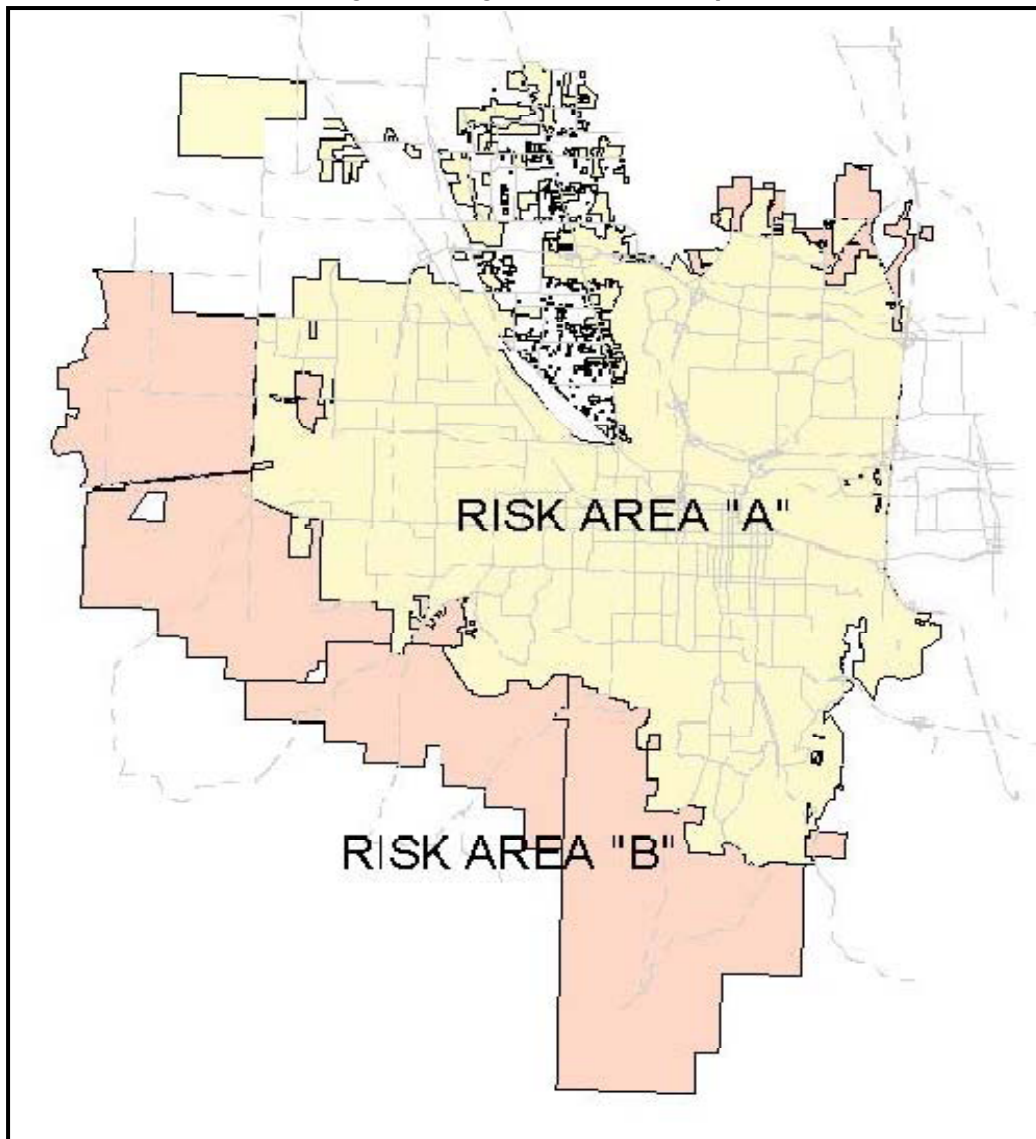


Figure 7 compares the performance measures adopted by the two departments.

Figure 7: Performance Measures

Performance Measure	Eugene FD	Springfield FLS
Call Processing	2 minutes or less for 80% of all calls	2 minutes and 28 seconds for 90% of all calls
Turnout Time	2 minutes or less for 80% of all calls	90th percentile, 2 minutes and 30 seconds for all emergencies
Distribution	<ul style="list-style-type: none"> Risk Area A: 5 minutes or less for 80% of all calls Risk Area B: 9 minutes or less for 80% of all calls 	90th percentile, first SFLS unit on scene within 6 minutes and 30 seconds
ASA plan response time standards (turnout time + travel time) are as follows:	<ul style="list-style-type: none"> Urban/Urbanizable (zone 1) Less than 10 minutes 85% of all calls Suburban (zone 2) Less than 20 minutes 85% of all calls Rural (zone 3) Less than 45 minutes 85% of all calls 	<ul style="list-style-type: none"> Urban/Urbanizable (zone 1) Less than 10 minutes 85% of all calls Suburban (zone 2) Less than 20 minutes 85% of all calls Rural (zone 3) Less than 45 minutes 85% of all calls Frontier (zone 4) More than 45 minutes 85% of all calls
Low rise residential or commercial property fires	3 engine companies, 1 truck company, 2 chief officers, 1 medic unit	3 engines, 1 truck, 1 chief officer and 1 ambulance (15 personnel) within 9 minutes and 15 seconds of dispatch 90 percent of the time
Medium rise residential or commercial property fires	4 engine companies, 2 truck companies, 2 chief officers, 1 medic unit	3 engines, 2 trucks, 1 ambulance and 2 chief officers (18 personnel) within 10 minutes and 30 seconds of dispatch 90 percent of the time
High rise	5 engine companies, 2 truck companies, 2 chief officers, 2 medic units	3 engines, 2 trucks, 1 ambulance and 2 chief officers (18 personnel) within 10 minutes and 30 seconds of dispatch 90 percent of the time
Vehicle and brush type fires	1 engine company – increases seasonally to 2 – 3 engines/brush engines/water tenders	1 engine (grass or brush) and 1 chief officer (4 personnel) will arrive within 8 minutes and 15 seconds of dispatch 90 percent of the time
Emergency medical situations and motor vehicle crashes	1 engine company or 1 truck company, 1 medic unit	1 engine and 1 ambulance (5 personnel) will arrive within 8 minutes and 30 seconds of dispatch 90 percent of the time
Confirmed flammable liquid hazardous material situations	Not expressed	3 engines, 1 truck, 1 ambulance, and 1 chief officer (15 personnel) will respond within 10 minutes and 30 seconds of dispatch 90 percent of the time
Water rescue situations	On-duty Water Rescue Team, 2 engine companies, 1 medic unit, 1 chief officer	1 engine, 1 rescue boat, 1 ambulance and 1 chief officer (9 personnel) will arrive as soon as reasonably possible considering accessibility

In addition to the more common performance measures in Figure 7 above, EFD has two measures not shared with Springfield. They apply to airport operations:

- Airport response – small aircraft, 1 ARFF (Aircraft Rescue Fire Fighting) unit, 1 engine company, 1 chief officer, 1 medic unit
- Airport response – large aircraft, 1 ARFF unit, 1 truck company, 1 engine company, 2 water tenders, 1 chief officer, 1 medic unit

Positive Attribute 2: The performance measures of EFD and SFLS are well-suited for measurable benchmarks.

Engines and Ladder Trucks

Effective fire ground operations depend on a defined command system capable of separating firefighters into coordinated units consisting of the necessary personnel, equipment, and expertise to accomplish assigned tasks. The typical command system will use two specific task-level groups to provide this separation. These two groups are called engine companies and ladder/truck companies. EFD and SFLS both use engines and ladder trucks in delivering fire suppression services.

The most efficient use of personnel and equipment exists in operations where engine and ladder/truck companies have different responsibilities clearly spelled out by the department. Such an approach leads to an aggressive, well-balanced fire attack, with ladder companies opening up ahead of advancing engine companies.

Engine companies are trained and equipped to:

- Provide water: Sometimes this begins with the use of tank water, quickly followed by an uninterrupted supply of water from hydrants, drafting sources, or tankers.
- Select and stretch hose lines: Choosing the correct hose lines depends on the severity and intensity of the fire. The initial fire attack should begin with a combined flow of 200 gpm backed up within reasonable time by an additional line with a flow of at least 200 gpm.
- Operate nozzles: Proper operation will provide protection for firefighters and fire victims, limit fire spread, or bring the fire under control. The proper choice depends on:
 - o Fire extent
 - o Distance to the fire
 - o Fire flow requirements
- Remove endangered occupants: Firefighters must search the interior for victims and remove them to a safe location. Note: this is usually the function of a ladder or rescue company, but engine companies must be able to complete this task as well.

Ladder companies are trained and equipped to:

- Locate and remove endangered occupants: This usually means first determining the location and extent of the fire, the number of persons endangered, and their physical and emotional state.
- Treat the injured: In the absence of specific emergency care units, or when those units are overwhelmed, ladder companies may have to provide emergency care.
- Provide forcible entry and gain access: This is necessary to get attack teams into the building and endangered occupants out. Gaining access is the process of removing barriers to allow engine companies to put water directly on the fire, e.g., opening concealed spaces and pulling ceilings.
- Ventilate: Ventilation is the systematic removal of products of combustion from the structure to protect occupants and provide a tenable atmosphere for fire fighters.
- Check for fire extension: The complete check of all areas in and around the fire to ensure that the fire is extinguished, beginning in the area in which there are potential victims or savable property.
- Raise ladders: Placement of ground ladders and/or aerial apparatus to the fire building and exposure building for rescue or to provide firefighter access and egress.
- Control utilities: Initiate and maintain control of electricity, water, gas, HVAC systems, etc.
- Provide adequate fire ground lighting: For interior operations along with electricity for power tools.
- Operate elevated master streams: Provide personnel and equipment for correct use of ladder pipes, platform pipes, etc.
- Perform salvage: Cover building contents to protect from water damage, remove both water and the products of combustion from the building, and cover building openings to protect the contents from the elements.
- Perform overhaul: Ensure the complete extinguishment of the fire, place the structure in a safe condition, and (if possible) return it to use.

Organization Overview

The purpose of this objective is to provide a broad-spectrum overview of the Eugene Fire & EMS Department and Springfield Fire & Life Safety. For each task a description is made of department processes independently, a comparison of methods used, and an evaluation compared to best practices. The central focus of each assessment is to determine commonality, identify opportunities for cooperation, and describe any barricades to integration.

Eugene – Overview

The City of Eugene is the second-largest city in Oregon, with a population of approximately 154,620 and an incorporated area of 43.4 square miles.¹¹ Located in western Oregon's southern Willamette Valley, the community was first officially recognized with the establishment of a post office in 1850. It was formally incorporated in 1862 as Eugene City, after early settler Eugene Skinner, and then renamed two years later as the City of Eugene.

Eugene Fire & EMS Department provides fire, rescue, emergency medical, code enforcement, hazardous materials response, and fire/injury prevention education services to the citizens of Eugene and to five neighboring special districts through long-standing contractual agreements. Eugene FD provides fire protection in an area of 43.4 square miles in the City and to a total 72.8 of the 4,554 square miles in Lane County. The department also is the ALS (Advanced Life Support) and ambulance transport agency to 438 square miles (ASA #4), under the Lane County ASA Plan.¹²

Of the 345,878 Lane County residents, EFD protects 53.49 percent; over half of the total population. Eugene Fire & EMS' primary service area for fire and first response medical calls is limited to city limits of Eugene. The area consists of a relatively traditional community distribution pattern, a major university featuring a densely developed downtown business core with well-established residential neighborhoods surrounding it. There are areas of industrial and commercial development outside the downtown core as well. This arrangement lends itself reasonably well to a traditional fire station location network based on emergency incident response pattern experience.

A noteworthy exception to this is the urban transition area, which includes the largely unincorporated tracts of River Road, Santa Clara, and the Highway 99 Industrial Corridor. The majority of the urban transition area lies within Eugene's Urban Growth Boundary (UGB). It is anticipated that all property within the urban transition area will eventually be annexed to the City of Eugene, although a definitive timeline has not been established for this transition. As a result, the area contains a growing number of parcels that have been annexed into the city interspersed among many unincorporated properties. Eugene Fire & EMS is charged with

¹¹ Information is excerpted from the City of Eugene Fire & Emergency Medical Services Department, Standards of Response Coverage, January 2008.

¹² Ibid.

providing fire protection and EMS first response to only the annexed properties, while the rural fire districts continue to service the unincorporated tracts.

In addition to the areas within city limits, Eugene Fire & EMS is the provides fire protection and EMS first response to four rural fire protection districts – Bailey-Spencer RFPD, Eugene RFPD #1, Willakenzie (west) RFPD, and Zumwalt RFPD, as well as the River Road Water District. This coverage is provided and maintained through long-standing intergovernmental contracts with each district. With the exception of the River Road Water District, the districts serve neighboring rural areas lying mostly outside of Eugene's established UGB.

Springfield Overview

The City of Springfield is located in Lane County, Oregon, separated from Eugene, primarily by Interstate 5. Springfield was named after a natural spring located in a field or prairie within the current city boundaries. In 2008 the city reported a population of 58,005.¹³ Springfield Fire & Life Safety protects an estimated 7,900 additional citizens through service contracts. Incorporated as a city in 1885, Springfield is one of the larger cities in Oregon (9th in population), just behind Medford and ahead of Corvallis.

Springfield Fire & Life Safety provides fire protection in an area of 18.798 square miles within the 4,554 square miles of Lane County. The department also is the ALS (advanced life support) ambulance transport agency for the east/central ambulance service area under the Lane County ASA (Ambulance Service Area) Plan.¹⁴ The ASA (ASA #5) consists of about 2,000 square miles with a population of approximately 90,000. The current UGB (Urban Growth Boundary) would allow the municipal service area of the city to eventually increase to 22.809 square miles.

Of the 345,878 Lane County residents, SFLS protects about 19.06 percent of the population. In addition to the areas within the city limits, the department provides service to portions of Willakenzie Rural Fire Protection District, Rainbow Water District, and the Glenwood Water District.

The service area of SFLS is mostly a mix of urban and suburban residential and commercial development with some perimeter rural and hillside forest land interface. The services provided

¹³ Population Estimates for Oregon and Its Counties and Incorporated Cities: April 1, 1990 - July 1, 2008, Prepared by Population Research Center, PSU, March 2009.

¹⁴ Lane Code Chapter 18, Lane County Ambulance Service Area Plan.

in each of these areas vary significantly. The differences are based on infrastructure, resource availability, and the frequency and types of emergencies.

Figure 8 provides a summary of the population and size of the service areas of the two departments.

Figure 8: Service Area Statistics

Jurisdiction	Population	Area (sq mi)
City of Eugene	154,620	43.4
Bailey-Spencer RFPD	572	5.0
Eugene Fire District #1	1,048	9.8
Willakenzie RFPD	1,020	1.2
Zumwalt RFPD	1,404	11.6
River Road Water District	8,520	1.8
Sub-total	167,184	72.80
City of Springfield	58,005	18.80
Glenwood FPD	1,241	1.00
Willakenzie RFPD	1,804	2.00
Rainbow Water District	4,869	2.00
Sub-total	65,919	22.80
Total	233,103	105.60

Over two-thirds (approximately 67.40 percent) of the population in Lane County is served by the two departments.

Governance Models

City of Eugene – Governance

The current Eugene City Charter was adopted in 1976 and has been amended numerous times since then. The city operates under a council/manager form of government. The city council develops and adopts policies to direct the city organization, and employs a professional administrator (city manager) to oversee all city employees. The city is organized into six departments:

- Central Services
- Fire and EMS
- Library, Recreation, and Cultural Services
- Planning and Development
- Police
- Public Works

The City Council has eight members. Councilors are elected by geographic ward on a nonpartisan ballot for staggered four-year terms. The mayor serves as the city's ceremonial head, political leader, and chair of the city council. The mayor is elected by the city at large on a nonpartisan ballot for a four-year term.

City of Springfield Governance

Springfield incorporated in 1885, operating today under a city charter recently amended by the Springfield General Grant of Powers. The mayor and the city council make up the legislative branch of Springfield's city government. Each of the six members of the City Council is elected by citywide vote and represents an area of town called a ward. The mayor is also runs for office in a citywide election. The mayor and council appoint a number of the city staff, including the city manager.

The individual departments of the City of Springfield include

- City Manager's Office
- Development Services
- Finance and Courts
- Fire and Life Safety
- Human Resources
- Information Technology
- Library
- Police
- Public Works

Responsibilities and Line of Authority

The Cities of Eugene and Springfield are governmental entities formed under the laws of the State of Oregon and are located in Lane County. Both operate municipal fire departments that provide fire protection and other emergency and non-emergent services.

Eugene and Springfield have formalized organizational structures that have delegated the responsibility, authority and accountability to individuals and departments. In Springfield responsibility for fire prevention, fire suppression, and EMS (emergency medical services) are

assigned to the Department of Fire & Life Safety. As manager of the department, the fire chief reports to the assistant city manager.

The city of Eugene has tasked these emergency service activities to the Eugene Fire & EMS Department. Management of the department is under the authority of a fire chief who reports to the city manager of the City.

In each city a formal reporting relationship, includes lines of authority and responsibility for decision making that follow typical municipal hierarchy and span of control. Systems are in place to ensure effective coordination of employee activities of both departments, internal and external to the cities.

Persons who are responsible for the administration of fire and emergency medical services are faced with a complex task made even more difficult by the realities of modern society. Today's emergency managers must consider and evaluate many elements that may dictate the amount and method of emergency service delivery to respective communities. The level of risk inherent within a community, the capabilities of the existing emergency system, the community's political climate, an organization's internal culture, local economic constraints, and external resources all influence the establishment of goals and objectives aimed at improving fire and emergency medical services.

Administrative/Management Models

A well-designed organizational structure should reflect the lines of responsibility and authority within the agency, provide for the equitable distribution of the workload, and clearly define the official path of internal communication. The lines of an organizational chart visually clarify accountability, coordination, and supervision. Detailed job descriptions should provide the particulars of each job within the organization, helping to ensure that each individual's specific role is clear and focused on the overall organization mission.

Span of control, also known as span of management, is a human resources management term that refers to the number of subordinates a supervisor can effectively manage. Developed in the United Kingdom in 1922 by Sir Ian Hamilton, the concept of span of control evolved from the assumption that managers have finite amounts of time, energy, and attention to devote to their jobs. In his research of British military leaders, Hamilton found that leaders could not effectively oversee more than three to six people directly.

This generally accepted rule of thumb is still considered relevant today and applies not only to the military, but also correspondingly to the fire service. It is important to note that all managers experience a decrease in effectiveness as their span of control exceeds the optimal level. In other words, the limitations implied by span of control are not shortcomings of individual managers, but rather of managers in general. In addition, it is important to understand that span of control refers only to direct reports rather than to an entire corporate hierarchy (all personnel in the fire department).

*Extending span of control beyond the recommended limits engenders poor morale, hinders effective decision making, and may cause loss of the agility and flexibility that give many entrepreneurial firms their edge.*¹⁵

Organizational charts in the next section show the current organizational structures for each of the fire departments. A discussion on recommended organizational structures follows.

Eugene Fire & EMS Department – Lines of Authority and Chain of Command

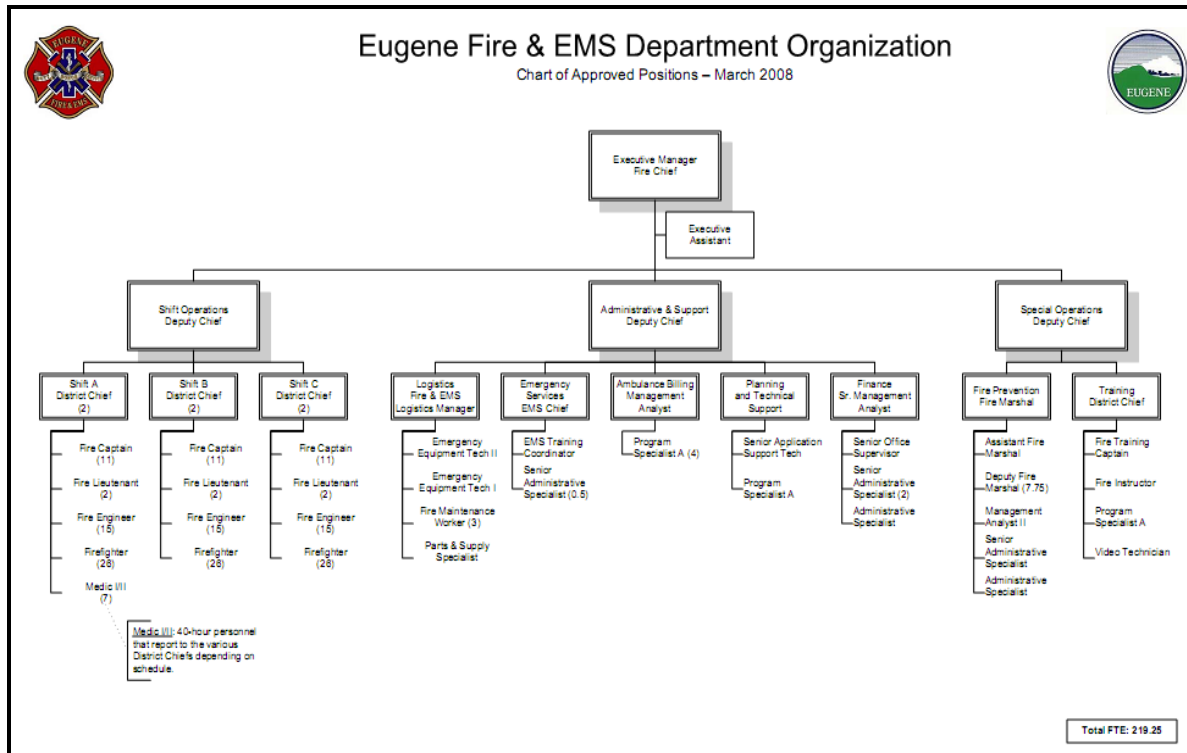
Fire protection in Eugene was first organized on April 3, 1872, as the Eugene Hook and Ladder Company Number 1. The department has been in continuous operation since that time and is now known as the Eugene Fire & EMS Department (EFD). EFD began providing ambulance transport services in 1981 and continues to provide this service to a large part of central Lane County. EFD is one of only approximately one hundred thirty agencies worldwide to be officially accredited by the Commission on Fire Accreditation International, Inc.

The Eugene City Manager appoints the fire chief, who is responsible for organizing and administering the fire department. The department is organized into three functional divisions: shift operations; special operations, training, and prevention; and administrative and support services. EFD is arranged as a traditional top-down hierarchy with three main branches under the oversight of the fire chief: shift operations, administration and support, and special operations (Figure 9).¹⁶

¹⁵ Hendricks, Mark, *Span Control*, Entrepreneur, January 2001.

¹⁶ Position of lieutenant was eliminated during the most recent labor negotiations.

Figure 9: Eugene FD – Organizational Chart



Three deputy chiefs and an executive assistant report directly to the fire chief. The deputy chiefs, manage the activities of seven district chiefs, a fire marshal, an EMS chief, a logistics manager, two management analysts, and the technical support section. The deputy chief of shift operations has six direct reports. While supervising six subordinates is on the high end of span-of-control, district chiefs of operations generally manage daily department operations independent of supervision.

EFD has 26 occupation classifications for a total of 44.25 FTEs in administration and support positions. In contrast, there are seven classifications for the 175 FTEs on the operational side of the fire department. These are in keeping with the City of Eugene's classification structure.

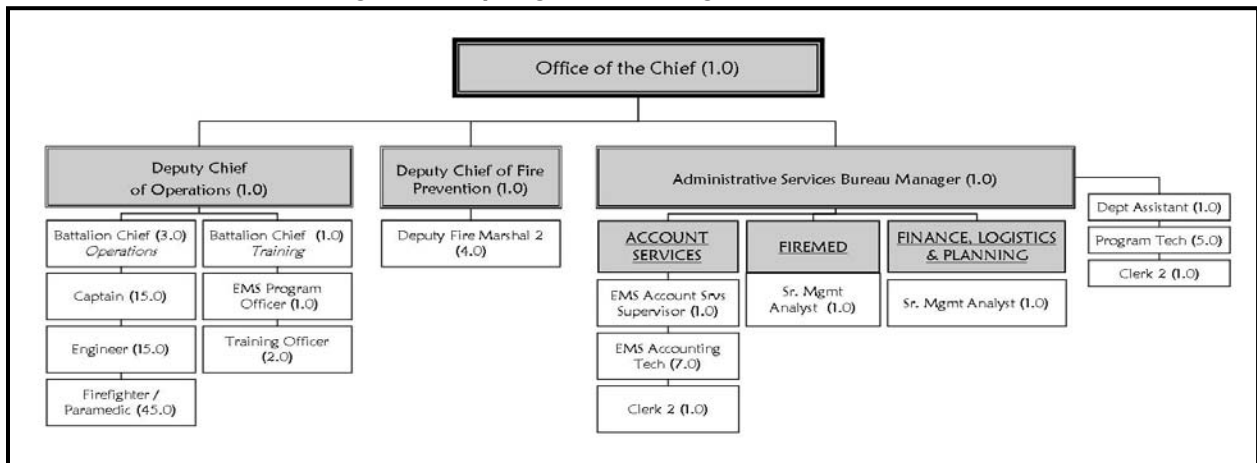
Job positions should include a title that makes the most sense to the organization and to customers. Titles need to be consistent and well managed but, sometimes a special title is adopted more as a means of employee recognition than position function. Consistency in applying job titles throughout the department is important both internally and externally. We recommend that EFD should review the 26 administrative and support classifications with the goal of reducing the number and complexity of job titles.

Springfield Fire & Life Safety – Line of Authority and Chain of Command

Fire suppression was first organized on January 4, 1886 as Springfield Fire Company. The department has been in continuous operation since that time and is now known as Springfield Fire & Life Safety (SFLS). Springfield began providing ambulance transport services in 1981 and continues to provide this service to a large part of central/east Lane County.

The city manager appoints the fire chief who works as an at-will employee without written agreement or term. The fire chief is responsible for the organization and administration of the fire department. SFLS is organized in top-down hierarchy that includes administration, management, and operational levels as depicted below (Figure 10).

Figure 10: Springfield FLS Organizational Chart



The fire chief is responsible for the direct supervision of three individuals, a number that we consider to be an appropriate span of control.

We make no recommendations for improvement specific to the governance of SFLS.

Positive Attribute 3: The administrative/management models, lines of authority and chain of command, and organizational structures of the Eugene and Springfield are similar.

Attributes of Successful Organizations

Foundational Policy

Efficient and effective governmental organizations are guided by clear policies and rules that lay the foundation for effective organizational culture. Policies and rules should set the boundaries for expected and acceptable behavior while not discouraging creativity and self-motivation.

A comprehensive set of departmental operating rules and guidelines should contain at least two primary sections.

1. Administrative Rules – This section would contain all of the rules that personnel in the organization are required to comply with at all times. Administrative rules, by definition, require certain actions or behaviors in all situations. Specifically, administrative rules should contain sections which address:
 - Public records access and retention
 - Contracting and purchasing authority
 - Safety and loss prevention
 - Respiratory protection program
 - Hazard communication program
 - Harassment and discrimination
 - Personnel appointment and promotion
 - Disciplinary and grievance procedures
 - Uniforms and personal appearance
 - Other personnel management issues
2. Standard Operating Policies (SOPs) – This section should contain “street-level” operational standards of practice for personnel of the department. SOPs are different from administrative rules in that variation is allowed in unique or unusual circumstances where strict application of the SOP would be less effective. The document should provide for a program of regular, systematic updating to assure it remains current, practical, and relevant. SOPs should be developed, approved, and enforced under the direction of the fire chief.

Eugene Fire & EMS – Rule and Standard Operating Policies (SOPs)

Eugene maintains a city personnel manual, and the fire & EMS department has administrative rules, and department SOPs. The city provides separate policy manuals including financial administration and human resource information. The department itself has policies covering fire department administration, apparatus, communications, emergency incidents, equipment, facilities, operations, prevention, and training. Copies of all documents are available via the city intranet.

Policies in the Eugene Fire & EMS Operations Manual include a purpose, scope, and responsibility statement, a section titled what the law allows, and the policy or procedure. The basis for responsibility is related to a person's position in the department with higher rank having

progressively more responsibility. Dates on the each policy detail the inception, effective, revision, and date for review. Some policies include the revision number.

Springfield Fire & Life Safety – Rule and Standard Operating Policies (SOPs)

Springfield maintains a city personnel manual and the fire & life safety department, administrative rules, and department SOPs. The city provides separate policy manuals including financial administration and human resource information. The department itself provides policies covering fire department administration, apparatus, communications, emergency incidents, equipment, facilities, operations, prevention, and training. Copies of all documents are available via the city intranet.

Each department's policies were given a general review for quality and content. The documents are well organized and include the appropriate policies either required by law or focused on reducing the risk of civil liability including a sexual harassment policy and family medical leave policies. Other policies cover routine procedures such as shift change, personal protective equipment, and uniform use. Policies or guidelines to be followed in actual emergency incident response or support are also provided.

EFD, SFLS, and a number of neighboring fire departments are moving toward a unified set of SOPs. Known as the Metro-Lane County Operations Manual, participating departments have first developed emergency operations policies.

Positive Attribute 4: Fire service providers are developing a single set of SOPs. Operating with common SOPs increases efficiencies at emergency incidents, offers cost avoidance in development, and most importantly contributes to firefighter safety.

Administrative and HR Services

Human resource management (HRM) is based on the assumption that workers and members of organizations are individuals with varying goals, desires, needs, and wants. As such, the workforce should never be thought of as an inanimate business resource. Because people represent the very foundation of any successful organization, HRM should take a positive view of workers, assuming that all wish to contribute productively; and that the main obstacles to any endeavor result from a lack of knowledge, insufficient training, or process failure.

Careful attention must be paid to managing the workforce to achieve maximum productivity for the organization and high satisfaction for the individual. A safe working environment, fair treatment, and recognition for a job well done are key components to job satisfaction.

It is important that the organization's members know to whom they should go when they have a problem, question, or issue related to their relationship to the department or city. In large companies, a human resource department typically handles this function. Staff within such a department addresses questions, issues, and tasks related to appointment, benefits, performance, discipline, promotion, or termination of employees.

HRM functions in all but the smallest businesses are a combined effort of the human resource department, legal counsel, supervisors, chiefs, managers, and company officers. The table below (Figure 11) catalogs HR management in both cities for creation and maintenance of job descriptions, rules, and employment agreements.

Figure 11: Human Resource Functions

	Eugene FD	Springfield FLS
Human Resource Management	City of Eugene HR Division Alana Holmes, Director	City of Springfield HR Department Bill Spiry, Department Director
Job Descriptions Maintained	All positions through HR division	All positions through HR department
Rules and Policies Maintained	City personnel manual, administrative rules, and department SOPs.	City personnel manual, administrative rules, and department SOPs. Available on intranet.
Employment Agreements	IAFF (International Association of Fire Fighters) Local 851 AFSCME Local 1724	IAFF Local 1395 SEIU Local 503

A comparison of wages, benefits, and other property rights in the IAFF agreements is made in the following objective.

Organizational Structures

BusinessDictionary.com says: organizational structure is the formal and informal framework of policies and rules, within which an organization, how it arranges its lines of authority and communications, and allocates rights and duties. Expressing organizational structure as an allocation of responsibilities to functions and processes is common. EFD and SFLS's organizational structures are in many ways comparable, but with differing styles. A variation in styles results from department priorities on objectives.

Springfield uses a greater percentage of personnel on FireMed than Eugene because SFLS administers the FireMed function of other EMS providers. The result is that a significant amount of non-tax revenue is available to fund the SFLS FireMed operation and other functions. If this revenue were not captured, either another source of funding would need to be found or programs would have to be reduced or eliminated.

Administration and Support Staff

In simplest terms, the primary job of administrative and support staff is to make sure that the firefighting and emergency medical personnel have the ability and means to do their job on the emergency scene. Support and administrative services are vital to the success of the fire department. With insufficient oversight, planning, documentation, training, and maintenance, the operational sections of the department will fail any emergency test. However, like other parts of the fire department, that part of the organization requires resources to function properly.

The ratio of administrative and support jobs is commonly compared to total positions of the fire department to gain a sense of the relative amount of resources committed to this important function. A suitable balance of the two components is essential to the success of the emergency mission of every fire department. A number of emergency workers adequate to be realistically able to fight fire, carry out rescue, and provide other emergency services at the expected level is fundamental to the delivery of fire protection. This age of increased regulation however, also makes it important that the documentation and oversight of administrative and support personnel take place.

EFD is managed and supported by 44.25 and SFLS 30.00 FTE personnel. A side by side comparison of position, title, and number of FTEs for each fire department is detailed in Figure 12 below.

Figure 12: Administration and Support Services Staffing

Position – Title	Eugene FD		Springfield FLS	
Administration and Support Staff	FTEs		FTEs	
Fire Chief	1.00	Executive Director, Fire/EMS Services	1.00	Fire Chief
Deputy Chief	3.00	Fire/EMS Deputy Chief	2.00	Deputy Chief Operations Deputy Chief Prevention/Haz Mat (Fire Marshal)
District Chief	3.00	EMS Chief District Chief Fire Marshal	0.00	
Assistant Fire Marshal	1.00	Assistant Fire Marshal	0.00	
Deputy Fire Marshal	7.75	Deputy Fire Marshal 1 Deputy Fire Marshal 2	4.00	Deputy Fire Marshal 2
Battalion Chief (Administrative)	0.00		1.00	Battalion Chief, Training
Training Officer	3.00	Fire Training Captain Fire Instructor EMS Program Officer	3.00	Training Officer EMS Program Officer
Management Analyst	1.00	Mgmt Analyst, Senior	2.00	Management Analyst Senior
Analyst	2.00	Management Analyst 1 Management Analyst 2	0.00	
Officer Supervisor	2.00	Office Supervisor, Senior Application Support Technician, Senior	1.00	EMS Account Services Supervisor
Program Technician	6.00	Program Specialist	12.00	Program Technician EMS Accounting Technician
Executive Assistant	1.00	Executive Assistant	1.00	Departmental Assistant
Administrative Specialist	5.50	Administrative Specialist Admin Specialist, Senior	2.00	Clerk 2
Emergency Equipment Technician	2.00	Emergency Equipment Technician I Emergency Equipment Technician II	0.00	
Fire Maintenance Worker	3.00	Fire Maintenance Worker	0.00	
Fire/EMS Logistics Manager	1.00	Fire/EMS Logistics Manager	1.00	Service Bureau Manager
Parts and Supply Specialist	1.00	Parts and Supply Specialist	0.00	
Video Technician	1.00	Video Technician	0.00	
Total FTEs	44.25		30.00	

A total of 74.25 FTEs are dedicated to the administrative and support services of EFD and SFLS. Statistically, the departments are maintaining a 20.18 percent (EFD) and a 27.78 percent (SFLS) ratio of administrative and support staff to total personnel (SFLS is 22.00 percent excluding FireMed staff). Each agency should determine the proper ratio of administrative/support and emergency positions dependent on local need. Other fire departments similar in size and character generally tend to maintain between 15 to 20 percent administrative and support jobs in the system.

The higher ratio observed at SFLS is attributable to the inclusion of FireMed and EMS accounting technicians who provide service to 23 governmental agencies under terms of intergovernmental agreements. As with SFLS, EFD has five FTEs committed to EMS billing and for that reason has a slightly higher ratio of administrative and support personnel. Secondly, both departments provide ALS and EMS transport services. Given the type and level of services provided the observed ratio is considered appropriate.

Emergency Services Staff

It takes an adequate and well-trained staff of emergency service responders to put the apparatus and equipment to its best use in mitigating an emergency incident. Too few workers at an emergency scene lessens the effectiveness of the response and increases the risk of injury to those at the scene.

Direct customer services in field operations are provided with 253 (FTE) personnel: 175 in Eugene FD and 78 in Springfield FLS (Figure 13).

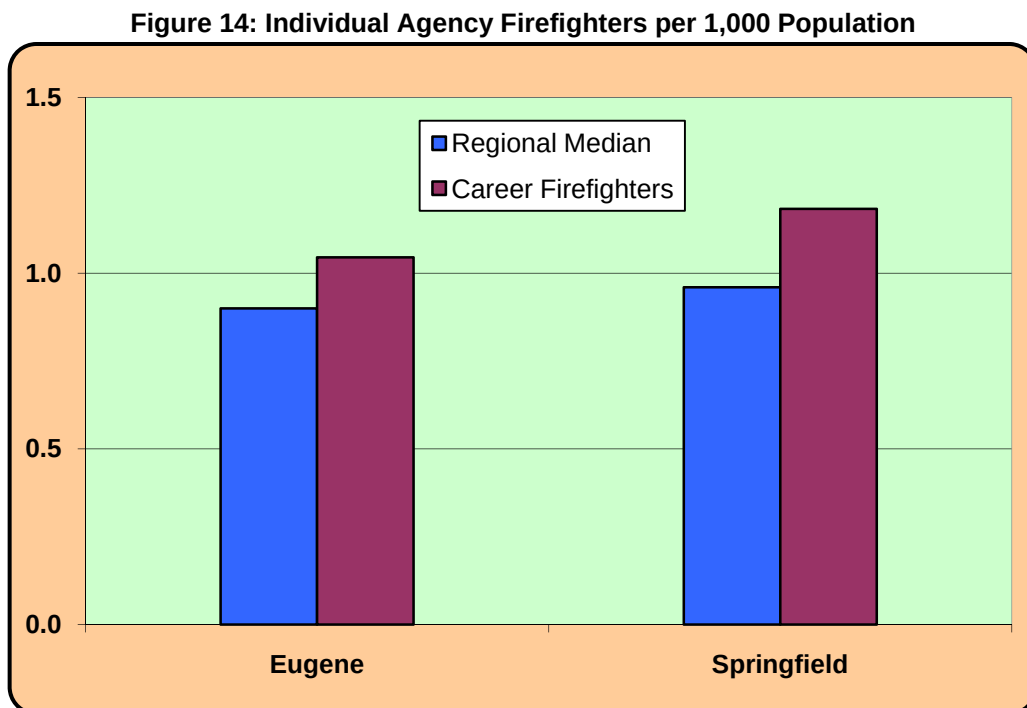
Figure 13: Operations/Field Personnel

Position – Title	Eugene FD	Springfield FLS
Operations/Field Personnel	FTEs	FTEs
District/Battalion Chief	6.00	3.00
Fire Captain	39.00	15.00
Fire Engineer	45.00	15.00
Firefighter/Paramedic	0.00	45.00
Medic I	3.00	0.00
Medic II	4.00	0.00
Firefighter	78.00	0.00
Total FTEs	175.00	78.00

A minor difference in the title of the supervisor of daily operations between the two departments is considered to be insignificant (district versus battalion chief). Both departments have

personnel cross-trained to provide ALS (advanced life support). EFD has seven personnel that are exclusively assigned EMS (emergency medical services) duties.

Examination of emergency service staffing begins with available emergency service personnel compared to other communities of similar size and nature. The following chart, using benchmark data from the National Fire Protection Association's Fire Department Profiles 2007, provides an overview of the staffing level of the departments on the basis of firefighters per 1,000 population.¹⁷ In all instances, calculation includes the population of the contractual areas served by the departments.

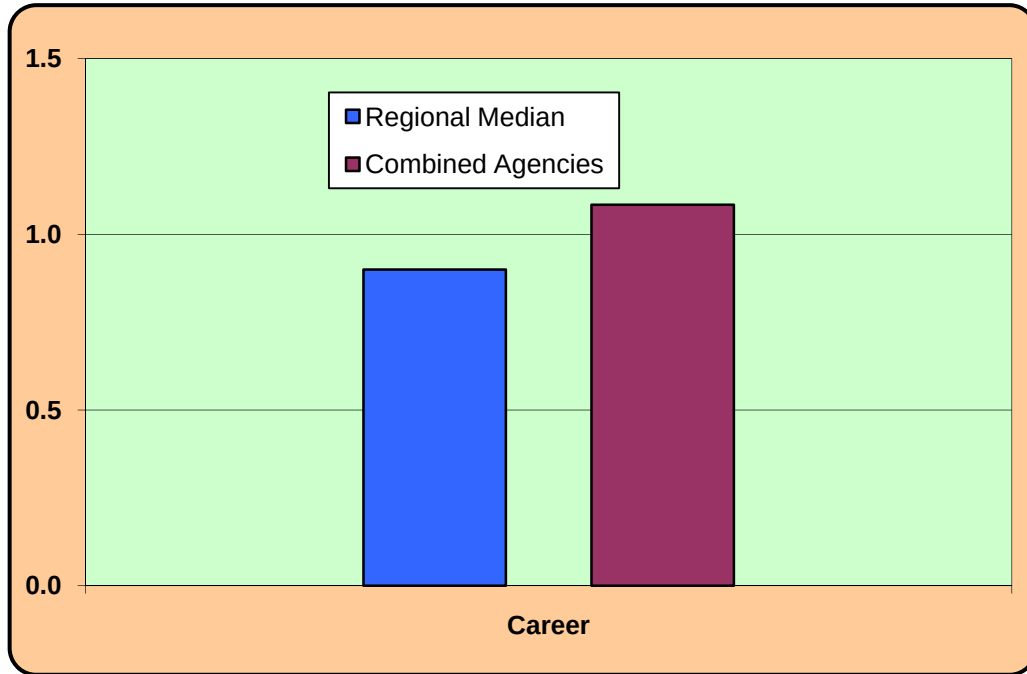


The chart (Figure 14) illustrates that each agency has a slightly higher than median level of career firefighters when compared to other western cities of similar size and character. Variations in the comparators for the two departments are related to the categorization of agency population being served. The higher than median benchmark in both cities is because the agencies provide ALS and EMS transport, wherein many western fire departments of a similar size and character do not.

¹⁷ NFPA, "NFPA report: U.S. Fire Department Profile Through 2007, November 2008, by M.J. Karter, Jr. and Gary P. Stein.

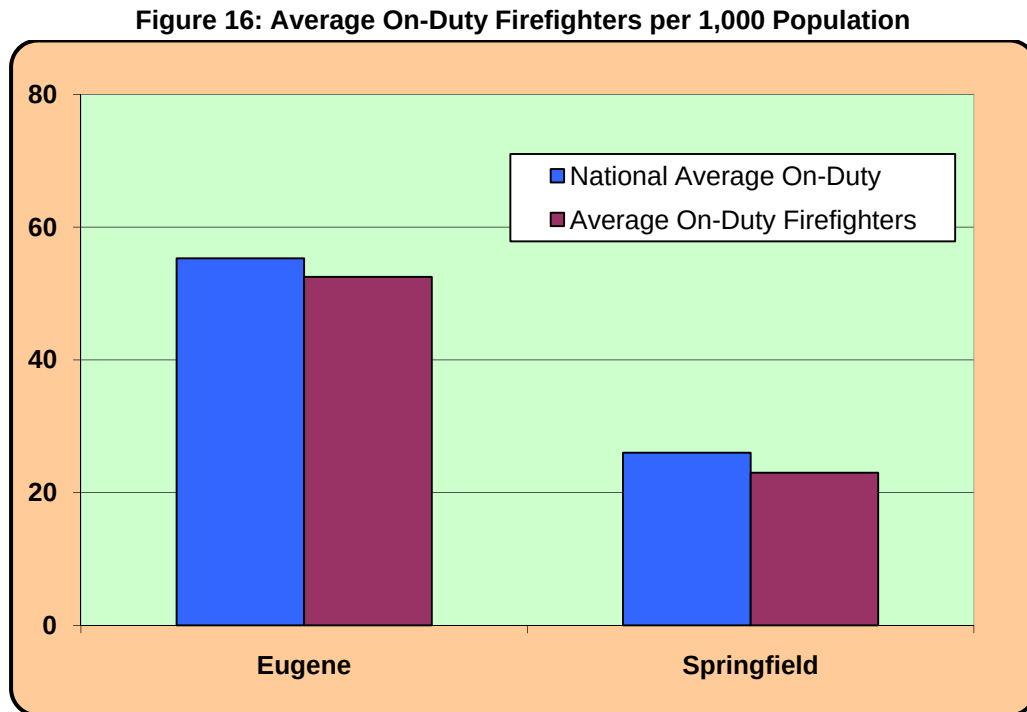
Combining the populations served by EFD and SFLS and again presenting a comparison of firefighter per 1,000 population is shown (Figure 15).

Figure 15: Combined Comparison of Firefighters per 1,000 Population



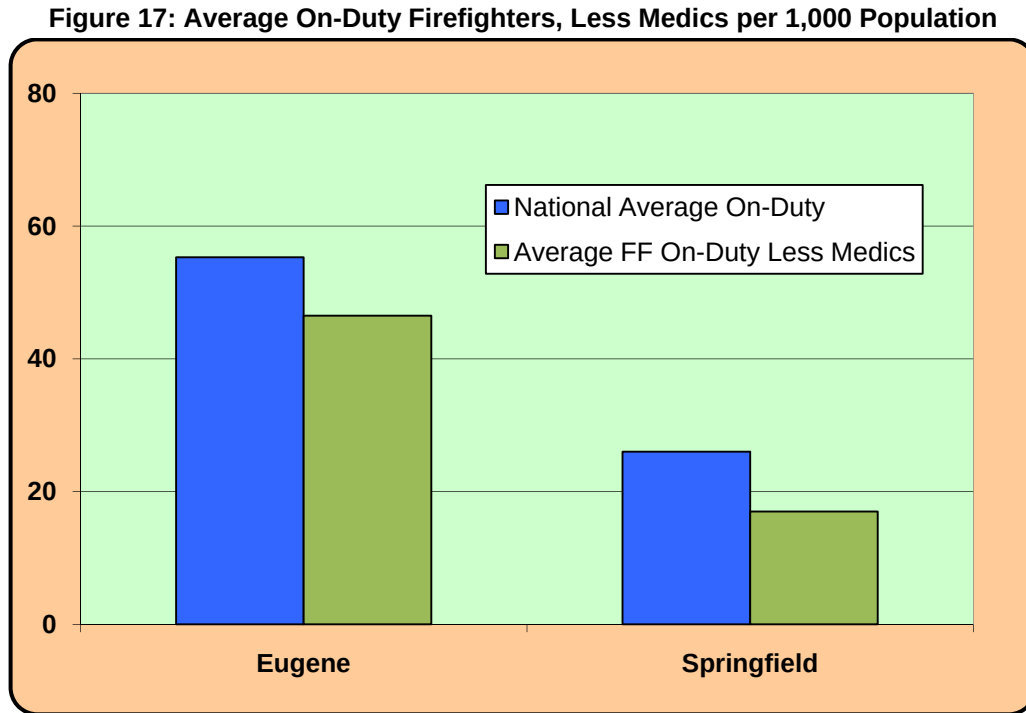
The combined personnel of EFD and SFLS of 1.08 firefighters per 1,000 population is slightly higher than median of the comparables. As with the comparison in Figure 14: Individual Agency Firefighters per 1,000 Population, the higher than median benchmark in both cities is because many larger departments do not provide ALS and EMS transport.

While the number of career firefighters maintained by each department is important, a measurement of response-ready personnel provides some indication of the ability of the agency to react quickly to emergencies. The chart below (Figure 16) compares the average number of on-duty firefighters with the national average of on-duty firefighters in similar communities.



The on-duty staffing of EFD compares to about the 95th percentile and SFLS the 88th percentile of the national average of similarly sized (population) cities.

EFD and SFLS each staff three medic units that provide ALS and transport services. At any given time a number of cross-trained firefighter/paramedics may be caring for patients or involved in transport activities and unavailable for fire response. The following figure compares the national average of on-duty firefighters without the medic unit staffing.



Excluding medic unit staff, EFD is about the 84th percentile and SFLS is at the 65th percentile of the national average of on-duty staffing for similarly sized (population) cities. To maintain a similar level of staffing without cross-trained firefighter/paramedics would likely decrease service and certainly increase cost. Additionally, EFD routinely moves the fire suppression crew from Ladder 8 to a reserve ambulance to cover medical calls. This strategy further reduces, fire, rescue, and EMS first response capabilities for the Danebo area.

Divisions and Programs

EFD and SFLS have an internal framework to the organizations defining the division of tasks, resource deployment, and how activities are coordinated. Divisions have authority, responsibility, and accountability for programs. Figure 18 lists the divisions and programs for the two fire departments.

Figure 18: Divisions and Programs

Eugene FD	Springfield FLS
Divisions and Programs	
Office of the Chief	Office of the Chief Administrative Services Bureau
Administration and Support Emergency Services Ambulance Billing Planning and Technical Support Finance	Emergency Medical Services EMS Account Services FireMed
Special Operations Fire Prevention Training Special Teams: Hazardous Materials, USAR, Water Rescue, ARFF Services and special details	Fire Marshal Fire Prevention Hazardous-Materials
Shift Operations	Fire Operations
	Fire and Life Safety Training

While it appears there are differences in how activities and programs are organized, it is really a matter of department size. EFD being larger has a level of executive management to maintain an effective span of control.

Operating Budgets, Funding Sources, Fees, Taxation, and Financial Resources

Governmental Fund Types

The City of Eugene has one GF (General Fund) that accounts for central business services, public safety services (including fire department), cultural/leisure services, and some public development services. Likewise, Springfield uses a GF account that serves as the primary reporting vehicle for current government operations. It accounts for the general operations of the City including the library, police and fire department, public works, municipal court, planning, and general administration.

Special Revenue Funds

Eugene has ten funds to account for restricted resources designated for specific uses including HUD (Housing and Urban Development) block grant resources and the 9-1-1 excise tax.

Springfield uses nine funds to account for the proceeds of specific revenue sources including the Fire Local Option Levy Fund and the Police Local Option Levy Fund. On November 7, 2006 voters in the City of Springfield authorized renewal of the fire/life safety local option levy. Voters approved renewing the levy for four additional years by a 58.28 percent to 41.72 percent margin.

Capital Projects Funds

Eugene has four funds to account for the accumulation of resources for the acquisition, construction, and maintenance of capital facilities. The City funds these through special assessment, bonding, or transfer from the GF. By contrast, Springfield has sixteen funds to account for financial resources used for the acquisition or construction of major capital facilities (other than those finances by proprietary funds).

Proprietary Funds

The cities have proprietary funds for activities that are similar to the character to the private sector. Eugene has ten in all and Springfield has nine. Some of the funds are designated as enterprise funds. These account for the goods and services financed through user charges. Eugene has five funds of which the fire department is a benefactor of three, the municipal airport fund, the ambulance transport fund, and the permit and information center (plans review). Springfield has six enterprise funds including the ambulance fund.

Internal Service Funds

Municipalities use internal service funds to account for financing goods and services provided by one department to another city department on a cost-reimbursement basis. Eugene has five internal funds to account for these goods and services including a fleet services and risk and benefits fund. Springfield has three internal funds, insurance, vehicle and equipment and for administration of SDC (service development charge) funds.

A complete listing of funding sources for the fire departments is found in Appendix I: Financial Profile.

Financial Profile

This objective focuses on the financial position of the fire departments including historical, current, and future revenue and cost. We calculate the likely financial outcomes of cooperative service proposals to help judge the fiscal viability of alternatives now and in the future. To conduct this analysis, ESCI uses the financial documentation provided by the two cities

including the current budget documents and the cities' CAFRs (Comprehensive Annual Financial Report). In addition, sources such as the Lane County Assessor are consulted. Before exploring possible options, the methodology employed for the analysis is described.

Introduction

Financial analysis is an important part of the evaluation of cooperative efforts. To this end, we develop a computer-driven model budget for each of the fire departments. A modeled budget is designed to fairly represent the monetary policies of each agency equally, to neutralize the normal differences usually found in unilateral fiscal practices, and to account for any financial peculiarities (such as budgetary back loading). The modeling technique assures that an "apples to apples" comparison is made of the agencies, which allows an estimation of the public cost of each department's operation, and provides a means for financial evaluation of the outcome of integration. The modeled budget yields a baseline estimate of the public cost of service; but in addition, the methodology also provides the ability to project the outcome of the consolidation into the future. In this case, we establish a financial baseline for 2009.

Creating a Financial Baseline

The process to convert the financial records of each agency to a model budget requires certain conventions and assumptions. First, the annual budgets of two fire departments are reformatted. We categorize the line item accounts of each into three major classifications: personal services, materials and services, and capital outlay. The classifications are further sub-divided to permit the tracking of program cost (such as fringe benefits, maintenance, and capital purchases). All jobs are identified and indexed to compensation paid during the baseline year (2009). Each position is extrapolated to the model budget based on the costs associated with the job (salary and benefits) for a full year and expressed in FTEs.

We identify all non-tax revenues and subtract them from agency expenditures to produce the estimated general operating tax requirements of each jurisdiction. We consider that the resultant sum fairly estimates the amount of public tax support that each agency requires to sustain the current level of fire and emergency medical services, regardless of the source of the jurisdiction's tax revenues. A corresponding modeled property tax rate is generated for the fire departments by applying the calculated general operating requirements of the organization against the assessed (taxable) value of the current year.

Note that the model tax rate is calculated to permit the *comparison* of the effects of the proposed action only. The model tax rate may not match the actual tax rate of the agency for a number of reasons. For example, any back-loaded program or position will increase the model budget and resultant tax rate because each is calculated on a full year of services. On the other hand, the accumulation of fund balances tends to drive down the modeled tax rate in comparison to the actual rate. We do not intend that the ESCI model budget exactly mimic the agency's current or future budget. Instead, the modeling process provides a stable base by which to measure and compare the effects of a proposed change.

Generally, we use a set of standard conventions when combining the modeled budgets of the individual agencies for analysis. Depending on local situations, we may apply other special protocols to our calculation of the financial impact of restructuring. Regular and special conventions observed in this study are:

- Jobs: To facilitate the analysis, we assume that in combining the agencies an agreement is reached in which all full-time positions are preserved but not necessarily converted to exactly the same jobs in the new organization.
- Job Classifications: Differences exist between the job classifications and structure of the two fire departments. Although we combine the two departments and carryout financial analysis of a consolidation based on the existing organizations, we note that in the long term the departments may need to restructure their administrative and support sections to better suit the new character of any consolidated department.
- Staffing: The model assumes that the existing staffing of all stations continues, with an equivalent number of FTEs positions.
- Compensation: Some job classifications within a department may have more than one level of compensation assigned. If we are not able to identify the actual salary that is paid in such cases, we usually weight our compensation estimate to about 80 percent of the high-end of the salary scale to allow for a tendency (over time) for a group of workers to reach maximum wage. In this case, we were able to use the payroll report to identify existing salaries; consequently, the model makes compensation assumptions that are very close to the actual amounts paid. When merging organizations, we assume that the highest salary paid to similar classifications prevails.¹⁸
- Created Positions: In most circumstances, the salary costs for the jobs of a unified agency are calculated on the highest compensation level of current (or similar) positions. We may assign an assumed compensation to new positions created for the purposes of analysis. Occasionally, some employees or groups are compensated at a rate much higher than comparable positions in the other agencies. In these cases, we usually assume that pay for the higher position is "red circled"; essentially holding the current employee at that level until normal increases in other classifications close the gap.

¹⁸ Specifically, if each agency has the same job classification (i.e. captain) but those positions are paid different salaries, we assume that the compensation of that job in the merged department will be paid at the highest former rate.

When compensation levels appear to be very much higher than comparable positions, we may assign (what we consider to be) a normally expected rate of compensation to avoid adversely weighting the model.

- Governing board expense: Expenses for governance of municipal fire departments is normally absorbed or prorated to the various city departments. Districts usually maintain line item accounts associated with governance expenses (mileage, per diem, reimbursement, elections, insurance, and meetings). When departments are combined in an integration¹⁹, such duplicated expenses are eliminated creating direct savings. Governing body expenses are not factored out of modeled budgets when an alliance²⁰ is considered.
- Capital equipment and facilities: Financial analysis assumes the existing facilities and apparatus are maintained after consolidation.
- Revenue: When a partnering strategy involves unification of the departments through a merger, consolidation, or a new organization (such as forming a fire protection district), the non-tax revenues of the departments is combined. In some instances however, agreed upon terms (IGA, contract) dictate how revenue is collected and distributed.

Calculated Service Cost

A primary reason for this report is to explore the feasibility of cooperative efforts and the feasibility of various options for delivering fire and EMS services to Eugene and Springfield. A key issue in determining the feasibility of any of alternative efforts revolves around the cost of service. This section of the report provides the baseline information on the cost of service as well as other factors that may ultimately influence conclusions and decisions.

We emphasize one point. This analysis provides a “snapshot” estimate of the public tax cost for the current budgetary year, fiscal year 2009. Many forces may act to change the level of tax support in the future including changes in law, revenue, politics, or contracts. Our process uses current revenue and appropriation to generate an estimate of the amount of tax support relative to existing levels of fire and medical services. The analysis allows comparison with the predicted cost of cooperative efforts between EFD and SFLS; it does not predict actual tax rate, current or future.

¹⁹ Integration: Includes organizational changes at the corporate or governance levels and may consist of the creation and/or dissolution of one or more organizations.

²⁰ Alliance: Intergovernmental cooperation via contract for any function or activity the agencies have authority to perform.

The table below (Figure 19) list the estimated equivalent tax support for Eugene FD and Springfield FLS.

Figure 19: Estimated Equivalent Tax Support

FY 2009 Operating Budget		
Component	EFD	SFLS
1. Assessed Value	10,994,414,109	3,471,820,002
2. Total Requirements	30,638,605	16,357,523
3. Total Revenue (except tax)	10,022,628	6,533,383
4. Tax Necessary to Balance (#2 - #3)	20,615,977	9,824,140
5. Equivalent General Tax Rate (#4 / #1)	\$1.875	\$2.830
6. Bonded Debt Service Levy (extrapolated)	872,329	0
7. Equivalent Bond Tax Rate (#6 / #1)	\$0.079	\$0.0
8. Total Equivalent Tax Rate (#5 + #7)	\$1.954	\$2.830

These calculations indicate an equivalent tax rate of \$1.954 per \$1,000 of AV (assessed value) for EFD and \$2.830 per \$1,000 of AV.

Revenue and Assessed Valuation Trends

Fire districts derive operating revenue from a limited number of sources, with advalorem taxation being the most common. In the municipal environment, a fire department typically is allocated a portion of the city's general fund, which generally is funded from a variety of sources. While EFD and SFLS directly compete for revenue like any municipal fire department, the departments have a better position financially with the revenue received from EMS transport. For this reason and to the greatest degree possible, we recommend that any new iteration of the agencies should maintain a broad revenue base for greater financial stability.

EFD Revenue

The foundation of Eugene FD's revenue is obtained from four sources — City General Fund, construction permits, EMS, and contractual services (Willakenzie, Zumwalt, Bailey/Spencer, and Eugene Rural #1 Fire Protection Districts and the River Road Water District). The 2009 budgeted amount of non-tax revenue from EMS is 72.71 percent with 15.56 percent for contracted service. Other sources of non-tax revenue included a SAFER grant, licensing and permit fees, hazardous materials, and other miscellaneous income. The fire department

receives funding from the Airport Enterprise Fund for ARFF services (\$729,071 for fiscal year 2009).

Figure 20 lists the source and amount of non-tax revenue budgeted for EFD in fiscal year 2009.²¹

Figure 20: EFD – Source of Non-Tax Revenue, 2009

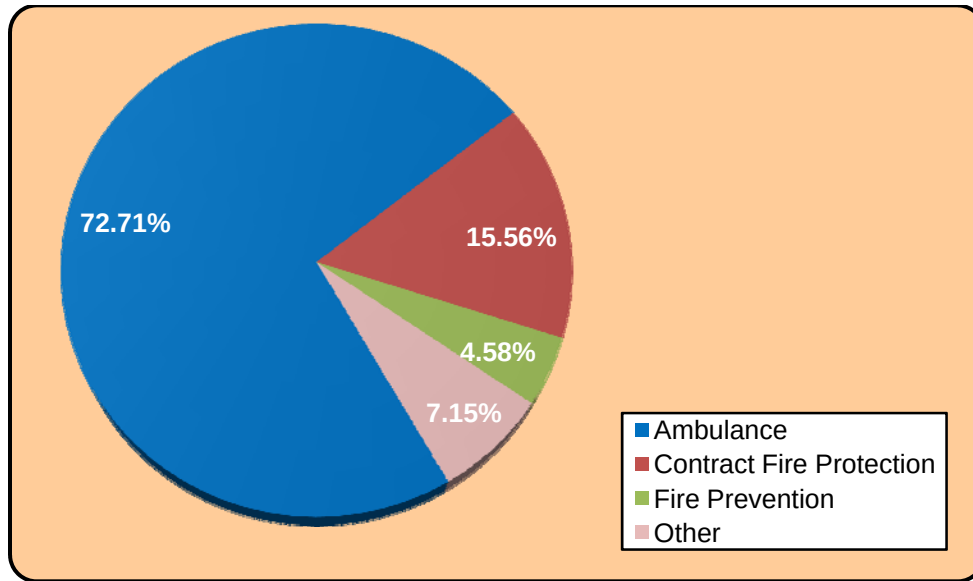
Source	Amount	Source	Amount
SAFER Grant	240,000	Charges For Service-Other	32,943
Fire Charges-River Road	878,191	Recovery-Prior Yr Exp-Other	30,300
Fire Charges-Willakenzie	132,214	Hazardous Materials Spills	5,000
Fire Charges-Zumwalt	226,348	Hazardous Materials State Reimbursable	32,000
Fire Charges-Bailey/Spencer	89,648	License & Permits-Other	46,350
Fire Charges-Eugene Rural #1	233,579	Hazardous Materials Management Project	129,780
Fire Charges-Other	1,000	Fire Charges-Other	1,803
Fire Reimbursable Overtime	10,000	Records Research	2,678
Recovery-Wage Continuation	51,100	Civil Penalty-Misc	3,090
DHS-HSGP/SHSP 2007 Grant	32,500	Fire Plan Check/Inspection Fee	227,000
EMS U of O Standby	96,651	Fire Permit	76,000
EMS Bethel Standby	1,160	Tanks (2/3=Fire, 1/3=BPS)	4,000
Ambulance Charges-Gross	15,156,302	Predevelopment Conference Fee	5,000
FireMed Membership Payments	910,447	Toxics Right To Know	107,206
EMS Write downs	-7,520,813	Fire Charges-Other	40,000
EMS Bad Debt	-1,258,849	Total	10,022,628

The Eugene FD is successfully using a wide variety of sources to capture non-tax revenue. ESCI notes that the EFD training center has capacity to provide a variety of services to outside emergency service providers. We recommend that this source of revenue be expanded. Providing a consistent, high-level of training to other fire departments could have the ancillary benefit of raising the skill level of all regional service providers. This is consistent with objectives outlined in EFD's long range strategic plan.

²¹ Source: Annual Budget, City of Eugene, fiscal year 2009.

Figure 21 is EFD's budgeted non-tax revenue for fiscal year 2009 by percentage.

Figure 21: EFD – Non-tax Revenue Percentage by Source



The 2009 budgeted amount of non-tax revenue from EMS is 72.71 percent, 15.56 percent for contracted service, 4.58 percent from fire prevention, and 7.15 percent for other services.

EFD Fees for Service

The following figures summarize the fees charged by the EFD. Figure 22 lists the rates charged for a variety of inspections.

Figure 22: EFD – Inspection Fee Schedule²²

Inspection Fee Schedule	
Amusement Building, includes haunted house	\$175.00
Carnivals, Fairs, and Exhibitions	\$225.00
Explosives and Blasting Agents	\$100.00
Fireworks, Public Retail Display	\$225.00
Liquid or Gas-Fueled Vehicles or Equipment in Assembly Buildings	\$125.00
Mall, Covered	\$125.00
Places of Assembly	\$175.00
Places of Adult or Child Care, Treatment, and Education	\$175.00
Pyrotechnical Special Effects Display	\$225.00
Special Request Inspections	\$175.00
Tents, Canopies, and Temporary Membrane Structures	\$175.00

²² Charges were effective 01/01/2007.

According to the City of Eugene administrative order, fees include a permit application review, document handling, and a one hour inspection with one inspector. Additional staff and time for inspections and re-inspections are charged per the authorized service rate. For overtime inspections, a two hour minimum shall be charged per person unless the person must be drafted and the charge will be a four hour minimum.

For the next tables, construction and development fees were effective January 1, 2009.

In Figure 23 the hourly rate for an assortment activities performed by EFD. It includes the fee schedule for responding to fire alarms.

Figure 23: EFD – Hourly Rate Schedule

Service	Rate
Fee for fire and life safety inspection, training, and consultation services, regular rate per deputy fire marshal and training staff	\$95.00 per hour, one hour minimum
Fee for fire life safety inspection, training, and consultation services, overtime hourly rate per deputy fire marshal and training staff	\$110.00 per hour, one hour minimum
Record searches and record handling services by support staff including, compiling and assembling requested information into report	\$47.50 per hour
(One hour minimum charge for record searches)	
Site review for a Planning and Development Department site application	\$100.00
Fire Investigation incident report	See Information Request Form for fee schedule
Fire Investigation supplemental report	See Information Request Form for fee schedule
Emergency equipment technical services (testing, servicing, repair of ladders, PPE's, hose, other fire equipment, self-contained breathing apparatus, and fire hydrants)	\$85.00 per hour, one hour minimum
False Alarm Response Fees	
Response fee	\$300.00
Penalty	5% of total due*
Appeal from imposition of costs	\$200.00

**Penalty waived if total amount due is paid within 30 days of notice imposing costs.*

Figure 24 is the fee schedule for permitting and reviewing fire alarm systems in new structures, additions, and tenant improvement projects.

Figure 24: EFD – Fire Alarm System Fee Schedule

Fire Alarm System Fees	
Plan review for new construction up to three floors	\$200.00 + \$50.00 per floor above level 3
Plan review for additions to existing structures	\$175.00
Plan review for tenant improvement projects	\$125.00
Fire alarm system permit fee - devices include FACU, power modules, monitoring or supervisory devices, indicating and initiating devices, relays, etc.	\$1.00 per device, maximum \$250.00
(Fee does not include inspections)	

Figure 25 is the fee schedule for permitting and reviewing fire sprinkler systems in new structures, additions, and tenant improvement projects. It includes both commercial and residential properties.

Figure 25: EFD – Fire Sprinkler Fee Schedule

Fire Sprinkler Fees	
Plan review for new construction up to three floors	\$200.00 + \$50.00 per floor above level 3
Plan review for additions to existing structures	\$175.00
Plan review for tenant improvement projects	\$150.00
Commercial fire sprinklers, 13 and 13R systems	\$1.00 per sprinkler, max \$500.00
(Fee does not include inspections)	
Residential Fire Suppression Systems (based on area of residential structure). (Base fee includes plan review and inspections):	
• 0 to 2,000 square feet	\$310.00
• 2,001 to 3,600 square feet	\$334.00
• 3,601 to 7,200 square feet	\$370.00
• Over 7,200 square feet	\$420.00

Other fee charges are listed as specialty system fees. Fees for specialty systems are (below) in Figure 26. EFD will implement a new ambulance rate and user fee schedule that takes effect on July 31, 2009.

Figure 26: EFD – Specialty System Fee Schedule

Specialty System Fees	
Commercial plan check fee	35% of bldg permit fees when fire code plan review is performed
Residential plan check fee	15% of bldg permit fees when residential plan review is performed
Site development review	\$98.00
High-piled storage (one inspection)	\$150.00
Medical gas system review (one inspection)	\$150.00
Refrigeration system review, includes leak detection system review (one inspection)	\$150.00
HazMat Chemical evaluation/review (HMIS)	\$230.00
Emergency/evacuation plan review and evaluation	\$80.00
Commercial review for water and access	\$100.00
One- and two-family dwelling review for water and access	\$60.00
Alternate fire protection systems - CO2, foam, clean agent, industrial dry or wet chemical, dust explosion, water mist (one inspection)	\$250.00
Commercial kitchen hood suppression systems (one inspection)	\$250.00
Detection systems; liquid and gas leak systems; and fire and explosion detection systems (one inspection)	\$250.00
Emergency generators (one inspection)	\$250.00
Hazardous materials, highly toxic and toxic chemical supply and drainage systems, HPM tools and systems, and cryogenic systems (one inspection)	\$351.00
Paint booths - includes reviews for any spray coating, dry or liquid, and application process, like powder coating. Does not include fire protection system review (one inspection)	\$250.00/ea
Propane tanks exceeding 125 water gallons (one inspection)	\$62.00
Private water mains and hydrant systems (two inspections)	\$317.00
Fire pump (one inspection)	\$225.00
Standpipe, with or without combination system	\$225.00
(fee includes plan review and inspections)	
Water storage tanks (one inspection)	\$300.00
Tank installation, above- and under- ground fuel tanks	\$273.00
Tanks abandoned in place, fuel tanks	\$125.00
Underground fuel tank removal	\$125.00
Each additional tank on same premises	\$50.00

EFD fee schedule for EMS and ambulance service was last updated in May 2008. Figure 27 shows the various rates.

Figure 27: EFD – Ambulance and EMS User Fee Schedule

Emergency and Non-Emergency Transport Rates	Amount
Transport Rate	\$1,600.00 one way ²³
Mileage, Emergency and Pre-scheduled	\$20.00 per mile ²⁴
Two Patient Transport Rate	\$862.50 each, one way
Three or More Patient Transport Rate	\$690.00 each, one way
Aid Call	\$575.00
Waiting Time	\$90.00 per ½ hour after the first ½ hour
Each Extra Attendant	\$150.00
Pre-scheduled Non-emergency Transport Rates	\$575.00 one way
Ambulance Stand-by	\$120.00 per hour
Stand-by On-Scene Coordinator	\$60.00 per hour

Other charges are applied for copies of medic reports, late payments, returned checks, and interest for late payments.

SFLS Revenue

SFLS revenue is obtained from four sources — City General Fund, construction permits, EMS and contractual services (Rainbow, Glenwood, and Willakenzie Fire Protection Districts). Figure 28 lists the source and amount of non-tax revenue budgeted for SFLS for fiscal year 2009.

Figure 28: SFLS – Source of Non-Tax Revenue, 2009

Source	Amount
Ambulance	
Charges for Service	4,918,724
Use of Money & Property	5,000
Miscellaneous Receipts	7,923
Fire Prevention	
Fire Code Permits	102,000
FLS Safety Systems Plan Review	34,000
Re-inspection Fee	250
Referral	500
FLS New Construction Sq Ft Fee	55,000
Contract Fire	
Rainbow FPD	960,788
Glenwood FPD	156,618
Willakenzie FPD	292,580
Total	\$6,533,383

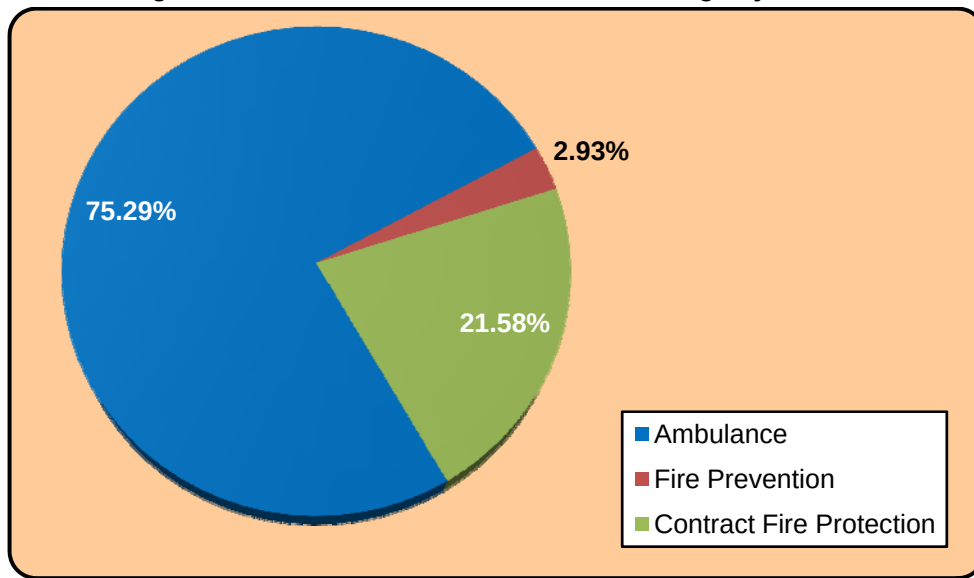
²³ Ambulance and EMS transport fee schedule effective July 31, 2009.

²⁴ Mileage schedule effective July 31, 2009.

Non-tax revenue accounts for approximately 40 percent of funding necessary to balance SFLS's 2009 budget.

In Figure 29, Springfield's budgeted non-tax revenue for fiscal year 2009 is shown by percentage.

Figure 29: SFLS – Non-tax Revenue Percentage by Source



The 2009 budgeted amount of non-tax revenue from EMS is 75.48 percent, 21.58 percent for contracted service, and the remaining 2.93 percent from fire prevention services.

SFLS Fees for Service

SFLS has a number of fees it charges for services and permits. The following figures summarize those fees. Figure 30 lists the rates charged for inspections and FireMed membership.

Figure 30: SFLS – Fees for Service

Type of Fee	Amount
CPR Training	\$10.00 FireMed Members \$25.00 Non-FireMed Members
FireMed Membership	\$52.00 per year per household for regular membership \$47.00 per year per household for Job Care membership
Annual Fire Inspection	\$0.00
1 st Re-inspection	\$0.00
2 nd Re-inspection	\$25.00
Inspection Referral to Fire Marshal's Office	\$60.00 (Inspections exceeding 1 hour, an additional \$15.00 for every 15 minutes or portion thereof)
Annual Fee for Inspection – Hazardous Materials and other Annual Permits	\$325.00 per permit

SFLS has an established fire and life safety permit fee schedule. The fee is 3 percent of the total valuation of the work for systems with a contract value up to \$50,000. Above \$50,000 there is an additional \$3 per \$1,000 or portion thereof. There is a minimum charge of \$120 and additional staff time charge of \$15 for every 15 minutes. The fee schedule is applied to a variety of other permits. Those permits include:

- Automatic fire extinguishing systems and appurtenances
- Fire suppression sprinkler systems
- Commercial kitchen hood suppression systems
- Battery systems
- Compressed gases
- Detection systems, liquid and gas leak systems
- Fire alarm and detection systems and related equipment
- Fire pumps and related equipment
- Flammable and combustible equipment
- Hazardous materials
- Private water mains and hydrant systems

- Private fire hydrants
- Spraying and dipping
- Standpipe systems

An additional fee is collected by the Building Safety Division at issuance of building permits through the Tidemark program. The fee for each residential building is \$0.05 per square foot and \$0.10 per square foot for commercial buildings.

The fee structure for ambulance and EMS user services was adopted by council resolution on April 6, 2009. Figure 31 contains the fee schedule.

Figure 31: SFLS – Ambulance and EMS User Fee Schedule

Emergency and Non-Emergency Transport Rates	Amount
Base Rate	\$1,600.00
Base Rate – non-Lane resident not within SFLS's first-in response area	\$1,700.00
Mileage	\$20.00 per mile – (pro-rated for multiple patients in the same medic unit)
Sit-up Patients	\$800.00 (50% of the base rate)
Sit-up Patients – Non-Lane resident not within SFLS's first-in response	\$850.00 (50% of non-Lane resident base rate)
Aid Call	\$800.00 (50% of the base rate)
Aid Call – Non-Lane resident not within SFLS's first-in response	\$850.00 (50% of non-Lane resident base rate)
Waiting Time	\$60.00 per ½ hour after the first ½ hour
Extra Attendant	\$75.00
Ambulance Stand-by	\$120.00 per hour
Stand-by On-Scene Coordinator	\$60.00 per hour

While it is expected that both fire departments will continue to have revenue from sources other than the general fund. As an exercise, the estimated costs to operate EFD and SFLS were created. Figure 32 shows the estimated tax support to sustain the current level of operation of the fire departments without non-tax revenue.

Figure 32: Estimated Equivalent Tax Support, Less Non-tax Revenue

FY 2009 Operating Budget		
Component	EFD	SFLS
1. Assessed Value	10,994,414,109	3,471,820,002
2. Total Requirements	30,638,605	16,357,523
3. Total Revenue (except tax)	0	0
4. Tax Necessary to Balance (#2 - #3)	30,638,605	16,357,523
5. Equivalent General Tax Rate (#4 / #1)	\$2.787	\$4.712
6. Bonded Debt Service Levy (extrapolated)	872,329	0
7. Equivalent Bond Tax Rate (#6 / #1)	\$0.079	\$0.0
8. Total Equivalent Tax Rate (#5 + #7)	\$2.866	\$4.712

Excluding non-tax revenue from the fiscal year 2009 budget increases the estimated equivalent tax rate approximately 48 percent in Eugene and approximately 67 percent in Springfield.

Figure 33: Rate Variance With – Without Non-tax Revenue

FY 2009 Operating Budget		
Component	EFD	SFLS
Equivalent General Tax Rate without Non-tax Revenue	\$2.866	\$4.712
Equivalent General Tax Rate with Non-tax Revenue	\$1.954	\$2.830
Variance	\$0.91	\$1.88

The difference in the general tax rate is equivalent to the combined total non-tax revenue of EFD and SFLS of \$16,556,011.

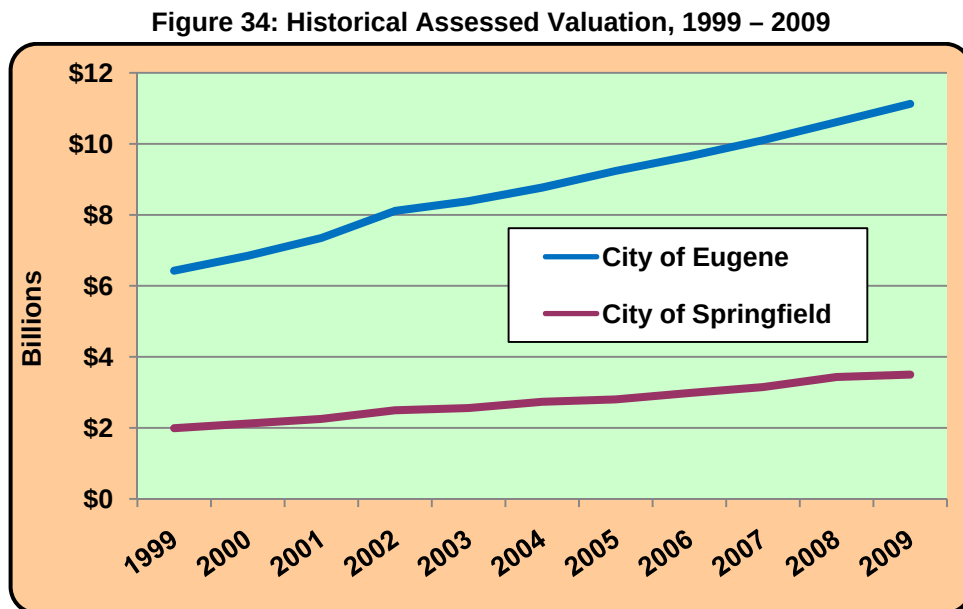
Taxation and Tax Rates

Property taxes in Oregon are collected by the counties and distributed to individual taxing entities (schools, cities, county agencies, fire districts, road districts, public utilities, and other districts). The amount of property tax paid basis is (1) the assessed value of a property and (2) tax rates and bonded debt service of the taxing district.

Generally, an increase in assessed value is limited to three percent unless changes have been made to a property. The county assessor compares the real market value (how much the property is worth, as determined by the assessor, as of January 1 each year) to the maximum assessed value (the 1995 value reduced by ten percent, plus any changes that were made to a property, increased by three percent each year after 1997). The lower of the two values is called the AV (assessed value).

Taxes may increase by more than three percent with a voter-approved ballot measure. Taxes can also increase or decrease due to other changes, such as the amount a taxing district needs to pay for voter-approved bonded debt or property annexations. There are a number of factors that influence governmental revenues, not the least of which are the tax limitation measures known as Measures 5, 47, and 50. These initiatives have had the net effect of limiting government spending by restricting property tax resources. The tax limitation measures have been problematic for nearly all local governments and especially for special districts. Special districts generally have fewer sources of revenue.²⁵

ESCI first examined the AV (assessed valuation) of the two cities from 1999 through 2009 (Figure 34).



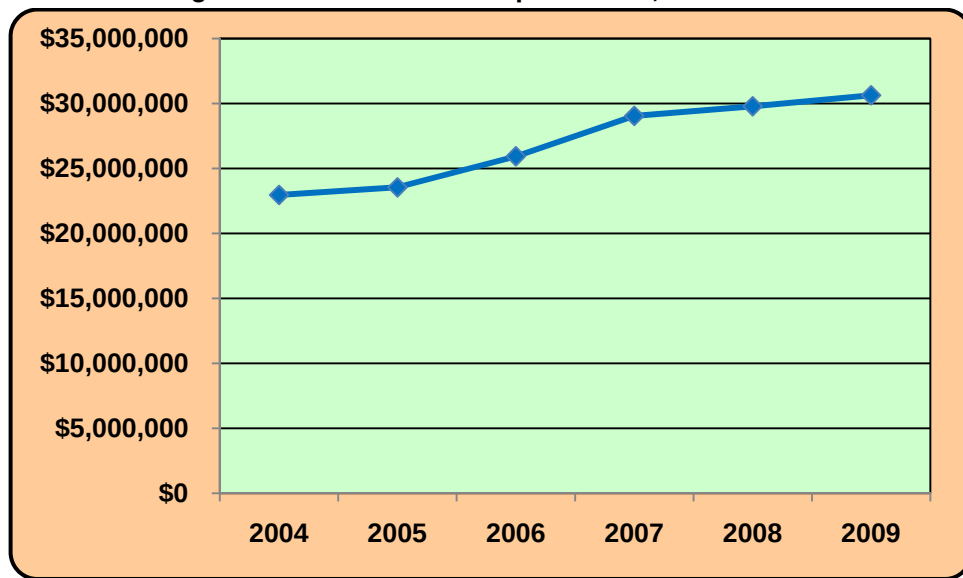
²⁵ This is relevant to special districts in general including those that contract with Eugene and Springfield for emergency services.

Between 1999 and 2009 the City of Eugene's AV has increased 73.15 percent and Springfield's 75.76 percent. After a number of years of strong economic growth, many public entities in Oregon are experiencing a flattening or a downturn in revenue. Figures for the most recent year available (fiscal year 2010) indicate that the AV of Eugene will decrease 1.21 percent and Springfield to increase 2.35 percent; significantly below the ten-year average annual increase of over 6 percent experienced by both cities. The combined AV for Eugene and Springfield in fiscal year 2010 is budgeted to be approximately \$14.5 billion.

EFD Current and Future Operational Costs

Figure 35 shows the historical annual expenditures of the EFD from 2004 through 2009. The amount for fiscal year 2009 is based on the adopted budget. Annual expenditures are inclusive of personal services, materials and services, and capital outlay.

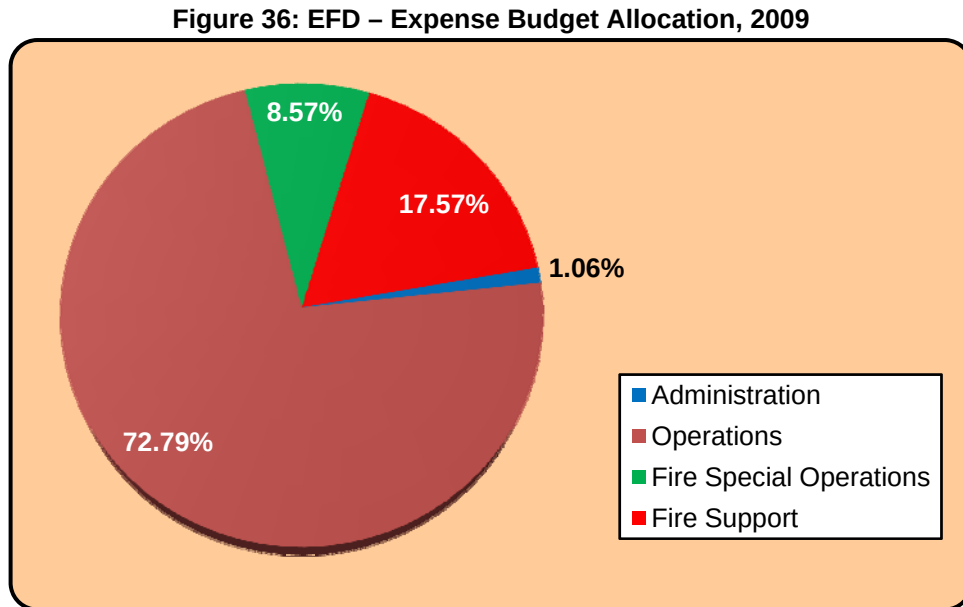
Figure 35: EFD – Annual Expenditures, 2004 – 2009



Between fiscal years 2004 and 2009, expenditures have increased at an annual average of 6.69 percent.²⁶ The method used to purchase capital items can affect how the acquisition is recorded. With a lease/purchase the capital expense is often spread over a number of years, while a purchase is fully recorded in the year acquired. Excluding capital outlay, expenditures increased at an average annual rate of 6.78 percent.

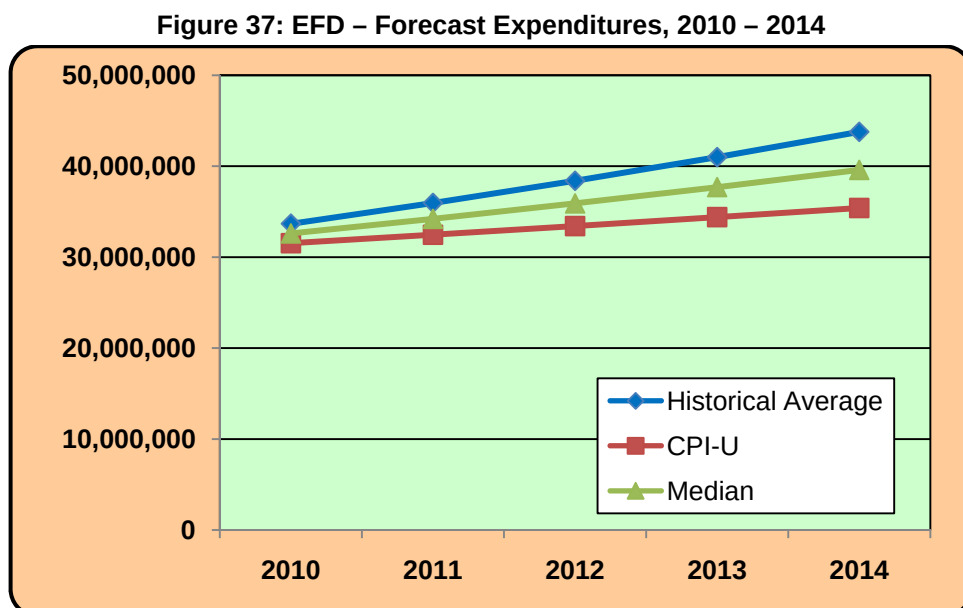
²⁶ 2006 spike in expenditures is consistent with the opening of a new fire station.

The next chart (Figure 36) shows operating expense allocation by division for EFD's outlay portion of the 2008 budget. The four department divisions' expenditures are shown by percentage of the total.



Fire operations were \$21,685,136 (72.79 percent of expenditures) in fiscal year 2008.

To gauge future costs, the ten-year historical annual average and the ten-year average CPI-U was applied to the adopted budget expenditures for fiscal year 2009. In Figure 37 expenses, less capital outlay, are forecast forward five years.

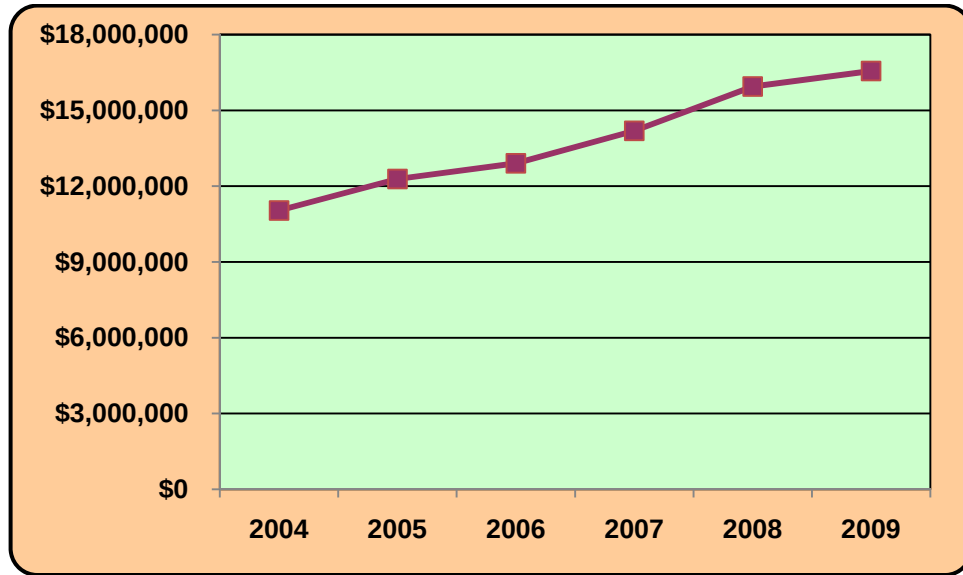


In fiscal year 2014, based on historical and the CPI-U, EFD expenditures are forecast to be \$43,783,261 and \$35,415,218, respectively. The forecasted median in 2014 is \$39,599,240.

SFLS Current and Future Operational Costs

Figure 38 shows the historical annual expenditures of SFLS from 2004 through 2009. The amount for fiscal year 2009 is based on the adopted budget. Annual expenditures are inclusive of personal services, materials and services, and capital outlay.

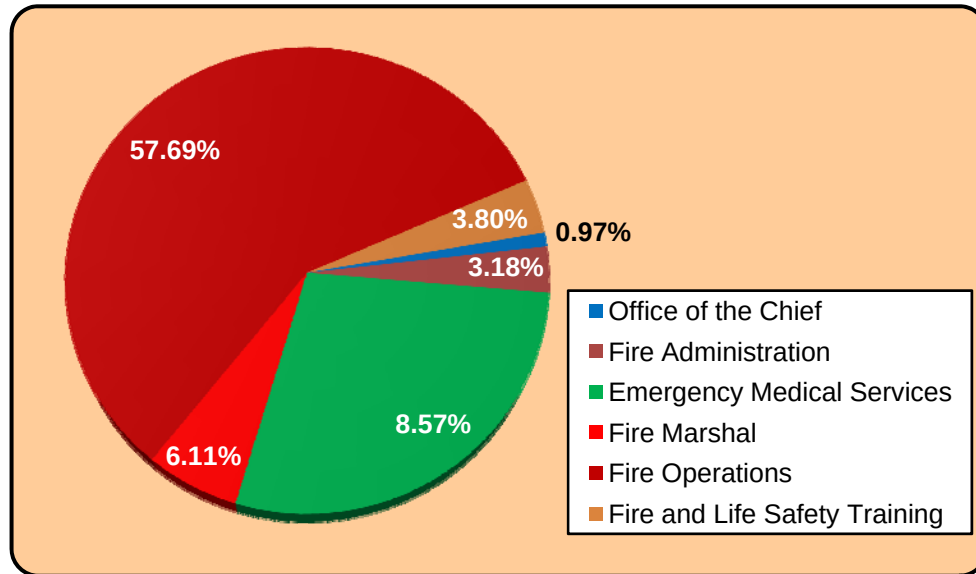
Figure 38: SFLS – Annual Expenditures, 2004 – 2009



Between fiscal years 2004 and 2009, expenditures have increased at an annual average of 10.01 percent. Excluding capital outlay, expenditures increased at an average annual rate of 8.71 percent. While at first glance expenses may seem higher than expected, when weighted against operating costs of FireMed and billing services, revenue benefits exceed outlay.

The next chart (Figure 39) shows how operating expense is allocated for SFLS's outlay portion of the 2009 budget. Six major divisions of the department's budgeted expenditures are shown by percentage. EMS (emergency medical services) includes EMS account services and the FireMed program. Fire prevention and hazardous materials programs are reported with the fire marshal division.

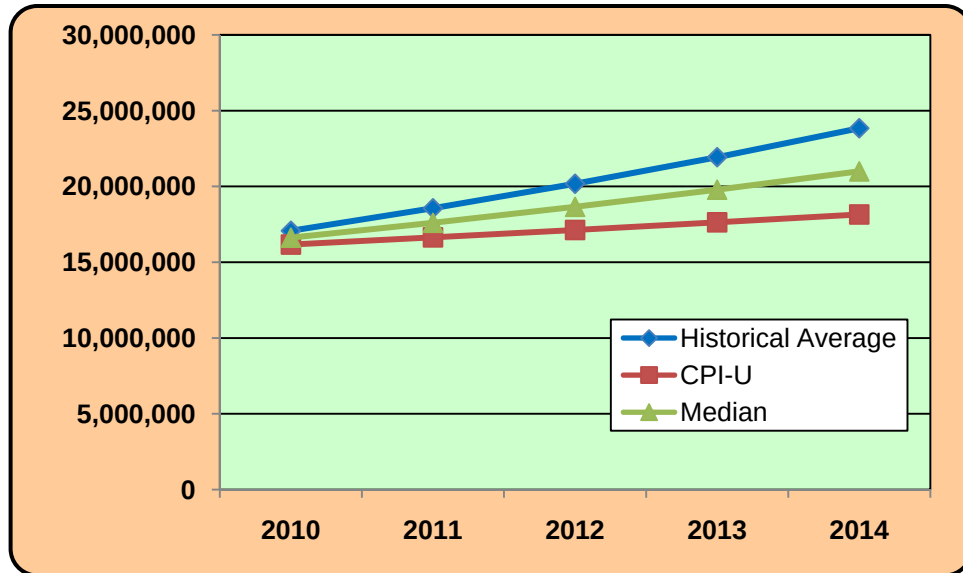
Figure 39: SFLS – Expense Budget Allocation, 2009



Fire operations were \$9,198,334 or 57.69 percent of expenditures in fiscal year 2008. Including the EMS division, the percentage totals 85.95 of expenditures.

To gauge future costs, the ten-year historical annual average and the ten-year average CPI-U was applied to the adopted budget expenditures for fiscal year 2009. In Figure 40 expenses, less capital outlay, are forecast forward five years.

Figure 40: SFLS – Projected Expenditures 2010 – 2014



In fiscal year 2014 (based on historical and the CPI-U) SFLS expenditures are forecast to be \$23,845,489 and \$18,154,303 respectively. The forecasted median in 2014 is \$20,999,896.

Debt Service

Debt is the amount owed for funds borrowed or encumbrances for liabilities. In the case of EFD and SFLS it can be in the form of bonded debt, loans, leases, or an unfunded liability. Debt can be represented by a mortgage, loan note, lease, bond, or other agreement with repayment terms. Each form implies the intent to pay back the amount owed by a specific date. Many municipal corporations use debt as a method for making planned as well as unanticipated capital purchases that they are unable to acquire with current resources.

Eugene FD has a general obligation debt issued October 1, 2002. This voter authorized debt is exempt from the Oregon property tax limit. The fire project bonds, series 2002, have interest rates of 3.00 to 4.65 percent with a maturity date of June 1, 2022.

Figure 41: EFD – General Obligation Bonds Debt Schedule

Fiscal Year	Principal	Interest
Fiscal Year 2008	340,000	278,382
Fiscal Year 2009	350,000	268,184
Fiscal Year 2010	365,000	257,244
Fiscal Year 2011	375,000	245,200
Fiscal Year 2012	390,000	228,324
Fiscal Year 2013	410,000	214,675
Fiscal Year 2014	425,000	199,710
Fiscal Year 2015	445,000	183,347
Fiscal Year 2016	465,000	165,548
Fiscal Year 2017	485,000	146,482
Fiscal Year 2018	510,000	126,113
Fiscal Year 2019	535,000	104,183
Fiscal Year 2020	560,000	80,643
Fiscal Year 2021	590,000	55,443
Fiscal Year 2022	615,000	28,598
Total Obligation	\$6,860,000	\$2,582,076

A second bond debt is non-exempt was issued for construction of the Santa Clara Fire Station. The series 2003 bond is a self-supporting general fund secured debt with interest rates of 2.5 to 4.0 percent.

Figure 42: EFD – Non-exempt Bonds Debt Schedule

Fiscal Year	Principal	Interest
Fiscal Year 2008	210,000	49,395
Fiscal Year 2009	210,000	44,145
Fiscal Year 2010	210,000	38,370
Fiscal Year 2011	210,000	31,755
Fiscal Year 2012	215,000	24,510
Fiscal Year 2013	215,000	16,663
Fiscal Year 2014	215,000	8,600
Total Obligation	\$1,485,000	\$213,438

Final payment of the non-exempt bonds is in 2014.

A new SFLS (Thurston) Fire Station No. 16 opened in June 2009. The 9,650-square foot building cost approximately \$3 million. Financing of the \$2 million loan is backed by the City of Springfield. Annual payments are approximately \$235,000 for the ten-year life of the loan.

The City of Springfield has one lease connected to the fire department. SFLS Engine 3, a Pierce Contender, was acquired on a seven-year lease purchase agreement. Annual payments are \$36,422. Springfield's current strategy is to lease versus buying apparatus in the future due

to a limited availability of capital. No capital leases connected to the fire department were reported for Eugene.

Unfunded liabilities for fire departments are commonly connected to pension funds and workers' compensation claims. Workers' compensation claims may be subject to immediate payment, claims, or established reserves. Reserves funds are set aside to pay long-term job-related injuries and illnesses, or for unresolved claims. The two departments reported a total of 11 open claims; four for EFD and seven for SFLS.

EFD's four open liability claims charged to the fire department have reserves totaling \$51,200. Two of the liability claims involved pending lawsuits, one of which has been settled and the other dismissed. The worker compensation claim summary for February 2009 lists \$161,122 paid, \$214,199 in reserves, and total incurred of \$375,321.

The seven open claims charged to SFLS have an outstanding reserve totaling \$5,049. The worker compensation claim summary for February 2009 lists \$10,341 in claims loss, \$5,290 paid, and \$5,049 in outstanding reserves.

Neither fire department reported any unfunded pension liabilities.

Billing Services

Ambulance transport services require specialized support services in order to operate and ensure compliance with Federal, State, and local laws. Support services for EMS, and EMS transport has some similar aspects to fire operations but some that are specialized. Included are training, logistics, administration, and patient billing. Patient billing is under administrative and support services for EFD. SFLS Account Services provides EMS billing services for SFLS and 19 other government agencies in Oregon.

Cost Allocation

Cost allocation is the identification of costs with cost objectives, also called cost apportionment, cost assignment, cost distribution, and cost reapportionment. There are basically three aspects of cost allocation: (1) choosing the object of costing. Examples are products, processes, jobs, or divisions; (2) choosing and accumulating the costs that relate to the object of costing. Examples are manufacturing expenses, selling and administrative expenses, joint costs, common costs, division costs, responses, and fixed costs; and (3) choosing a method of

identifying (2) with (1). For example, a cost allocation base for allocating firefighting costs would typically be labor-hours, unit-hours, or responses.

To determine the cost of services provided to users, a series of allocations were used to show the costs. Only direct costs were used in the allocations. Direct costs, or discrete costs, are costs that are related to a single type of service and are related to one type of output or user such as, in this case, the two fire departments. Indirect costs not attributed to the fire department budgets are not factored in. Indirect costs, or shared costs, are related to more than one type of service, such as, police and fire department, public works, and parks.

Cost allocations were compared to Eugene and Springfield's fiscal year 2009 adopted budgets to identify the cost per response unit, cost per response, cost per fire station, and cost and revenue per employee.

Cost Per Unit

The number of ready response units has an impact on a fire department's ability to respond to emergencies. In Figure 43 the total costs of only staffed units were included. Figure 44 lists the number and total of each type of apparatus.

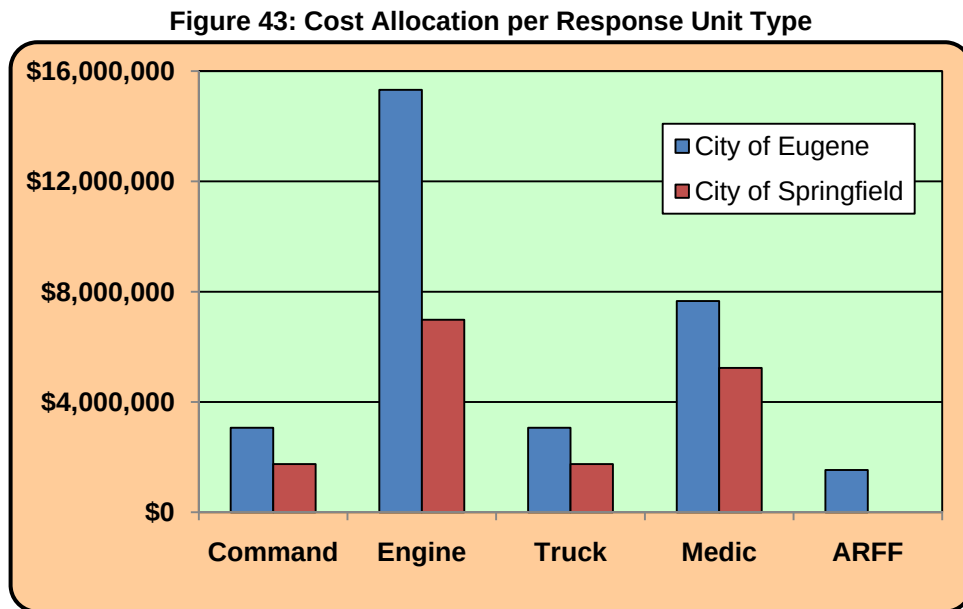


Figure 44: Type and Number of Staffed Units

	EFD	SFLS
Command	2	1
Engine	10	4
Truck	2	1
Medic	5	3
ARFF	1	0
Total Units	20	9

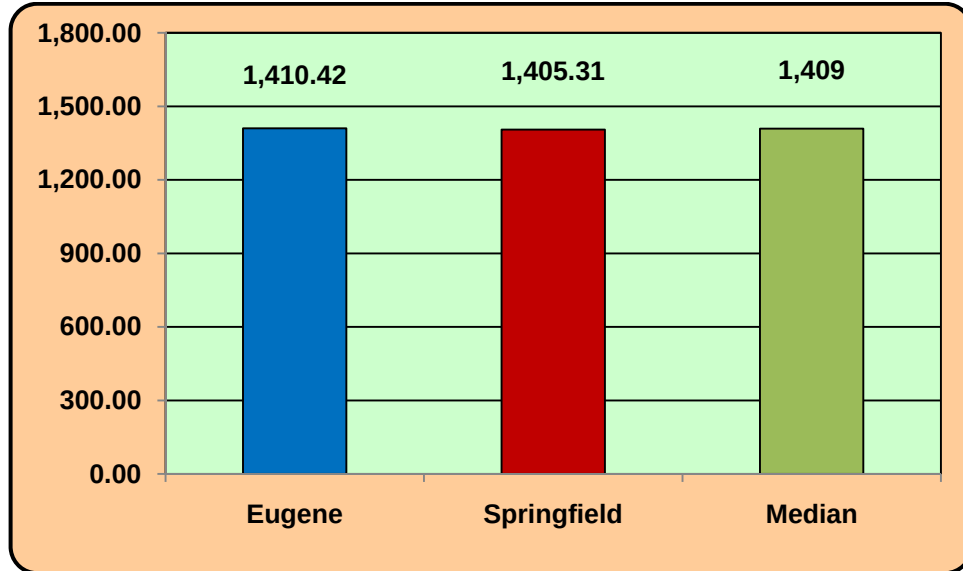
The cost per unit for EFD is \$1,531,931 (20 units), and for SFLS \$1,745,084 per unit (9 units).

Cost Per Response

Comparing the cost per response like any of the other allocation criteria by itself provides an interesting statistic. However, we caution that none of the data should be viewed as a whole answer.

The following figure (Figure 45) illustrates the cost per response based on the adopted fiscal year 2009 adopted budgets and response totals for 2008 of each department.

Figure 45: Cost Allocation per Response



The variation in the cost per response is insignificant. With nearly 33,000 total responses in 2008, per response cost is ever so slightly greater for EFD; approximately \$5.00.

Cost Per Fire Station

The cost to operate fire stations will fluctuate widely. Variables affecting cost allocation include, the size, age, construction type, maintenance, and the number of units and personnel assigned to the station. Figure 46 shows the cost per fire station for EFD and SFLS.

Figure 46: Cost Allocation per Fire Station

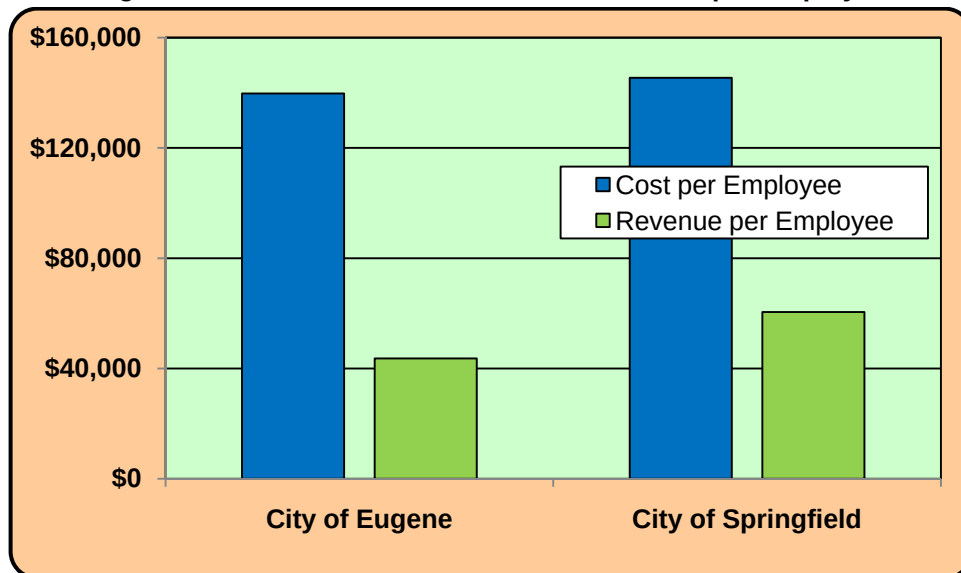
Number of Fire Stations and Facilities		
	City of Eugene	City of Springfield
Fire Stations	11	5
Other Facilities	1	0
Total	12	5
Cost per Facility	2,553,218	3,141,151

The cost per facility differ as expected. One reason is ascribed to the method of accounting. The City of Springfield uses internal charges to account for cost associated with such things as insurance, computer equipment, vehicles, enterprise and building preservation.

Cost and Non-tax Revenue Per Employee

Fire department staffing can vary widely with the number and types of services provided. In the case of EFD and SFLS, both departments provide fire protection, ALS EMS transport, and a variety of other services. A complete listing of services is found in Appendix E: Apparatus Replacement Cost Analysis beginning on page 143. Figure 47 compares the number of FTEs in each fire department and shows the cost and non-tax revenue per employee.

Figure 47: Cost Allocation and Non-tax Revenue per Employee



While the cost per employee is in a range that would be expected when compared to other municipal fire departments in Oregon, the non-tax revenue is abnormal. In ESCI's experience, \$43,669 per employee for EFD and \$60,494 per employee for SFLS, non-tax revenue per employee is above other fire departments.

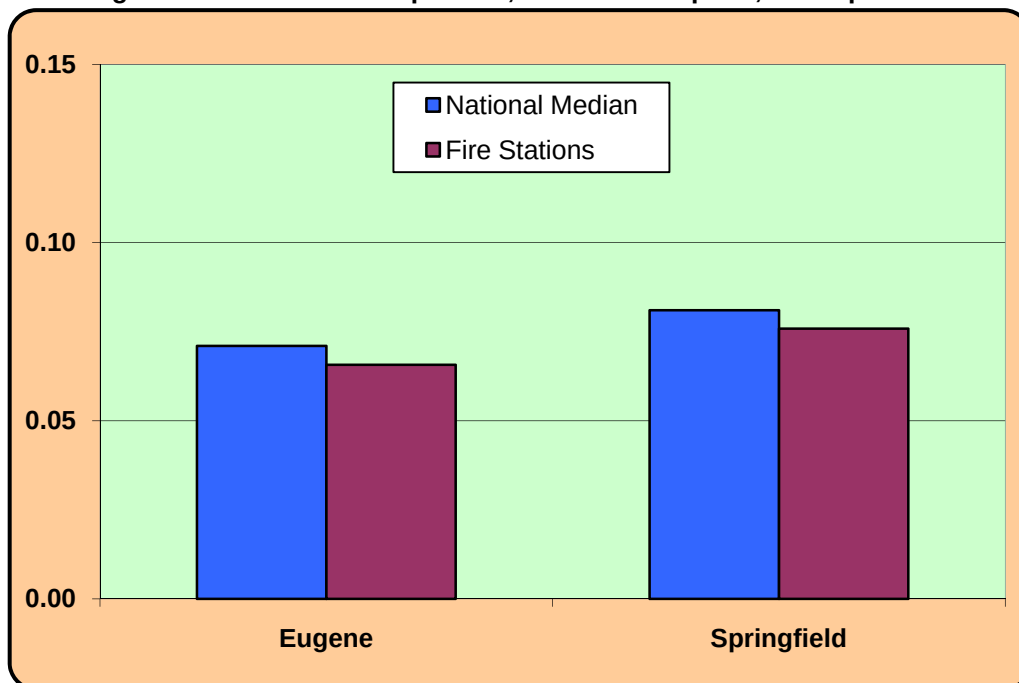
Positive Attribute 5: Eugene FD and Springfield FLS have non-tax revenue sources that are comparably large. Non-tax revenue is an important part of the operating budget of both fire departments.

Capital Assets and Facilities

Fire departments need a balance of three basic resources to successfully carry out their emergency mission: people, equipment, and facilities. Because firefighting is an extremely physical pursuit, the adequacy of personnel resources is a primary concern. But no matter how competent or numerous the firefighters, the department will fail to execute its mission if it lacks sufficient fire apparatus distributed in an efficient manner.

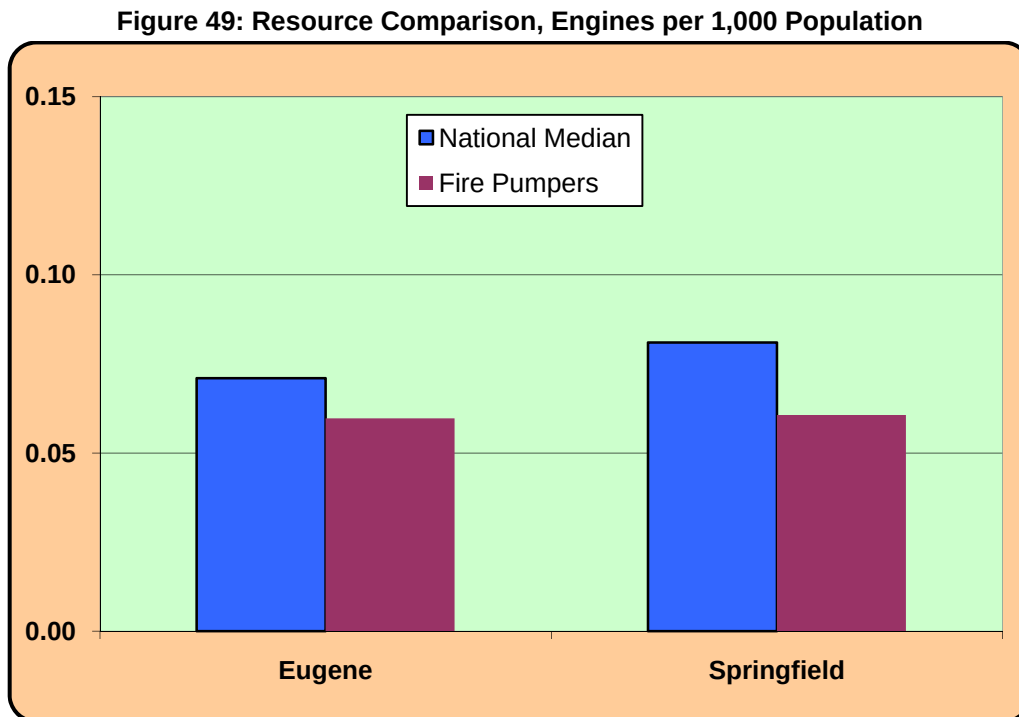
Comparisons of resources against those of similar size communities or service population are made for fire stations, engines, and aerials per 1,000 population served. Figure 48 compares the number of fire stations per 1,000 population of EFD and SFLS with like communities.

Figure 48: Resource Comparison, Fire Stations per 1,000 Population



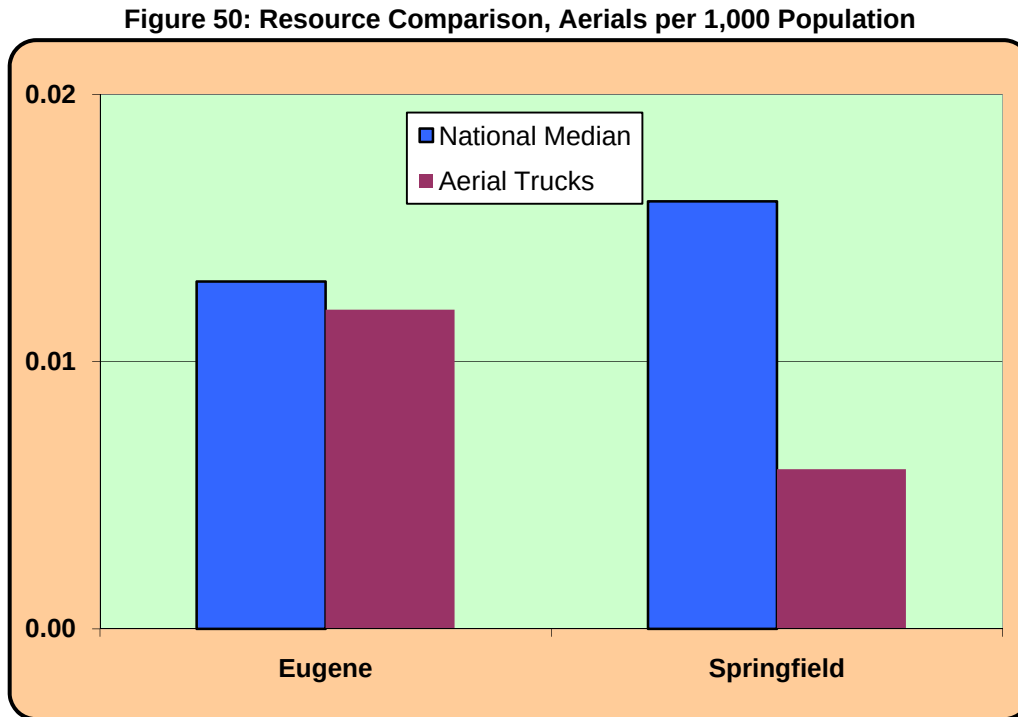
Both Eugene FD and Springfield FLS have slightly fewer fire stations per 1,000 than their comparables. SFLS serves a total population of 65,919 and is compared with agencies between 50,000 to 99,999. With a population served of 167,417, EFD is comparable to agencies in the 100,000 to 249,999 bracket. The same groupings are used in each of the remaining comparisons.

Figure 49 compares the number of fire engines (pumpers) per 1,000 population of EFD and SFLS with the national median.



EFD and Springfield have fewer fire pumpers per 1,000 population served than the median of comparable cities.

In Figure 50, a comparison of the number of ladder trucks (aerials) per 1,000 population served by EFD and SFLS and the national median is shown.



Springfield has significantly fewer aerials and EFD is slightly below the national median per 1,000 population of comparable cities.

Fire Stations

Fire stations play an integral role in the delivery of emergency services for a number of reasons. A station's location will dictate, to a large degree, response times to emergencies. A poorly located fire station can mean the difference between stopping a fire in a single room or losing a complete structure; possibly even saving a life or losing a life. The design of stations needs to be adequate to house equipment and apparatus, as well as meet the needs of the organization members. It is essential to research needs based on call volume, response time, types of emergencies, and projected growth prior to making a station placement commitment. Eugene and Springfield have made locating fire stations a matter of the greater community (region) need. The next section of this report (EFD and SFLS Fire Station Distribution), discusses fire station distribution.

EFD delivers emergency services out of eleven and SFLS from five strategically located fire stations within the city limits.²⁷ Administrative offices for Springfield are housed in City Hall – in addition to the offices of the City Manager, the Finance Department, the Planning Department, the Building Department, the Library, and the Mayor and Council Chambers. City Hall is located at 225 Fifth Street in Springfield. Eugene FD's administration and support services are at 1705 W. 2nd Avenue, Eugene (2nd & Chambers). The facilities house the 9-1-1 center, fire department, police, and 9-1-1 training, and Fire Station No. 2.

The location and a picture of each fire station are in Appendix K: Eugene Fire and EMS Stations and Emergency Apparatus and Appendix L: Springfield Fire & Life Safety Stations and Emergency Apparatus.

Fire Apparatus

Fire service apparatus is expensive albeit vital to an effective and reliable emergency service delivery system. A table (Appendix E: Apparatus Replacement Cost Analysis) provides an estimation of the total and annual contributions and current requirement to fully fund apparatus replacement for both fire departments. Calculations are based on emergency frontline and reserve apparatus and exclude ARFF, state owned, and staff vehicles. The value of all apparatus is estimated at \$22,615,000. Annual contributions to a reserve account to fund replacement are \$1,743,726, with an estimated liability as of January 1, 2009, of \$10,459,071.

²⁷ Fire Station No. 12 (Airport) is dedicated to providing ARFF and the crew is not available for response outside of the airport perimeter.

Figure 51: EFD/SFLS – Fire Station Deployment

Phase III: Future Service Demand and Financial Impact Analysis

Objective III-1 GIS/NFIRS Analysis

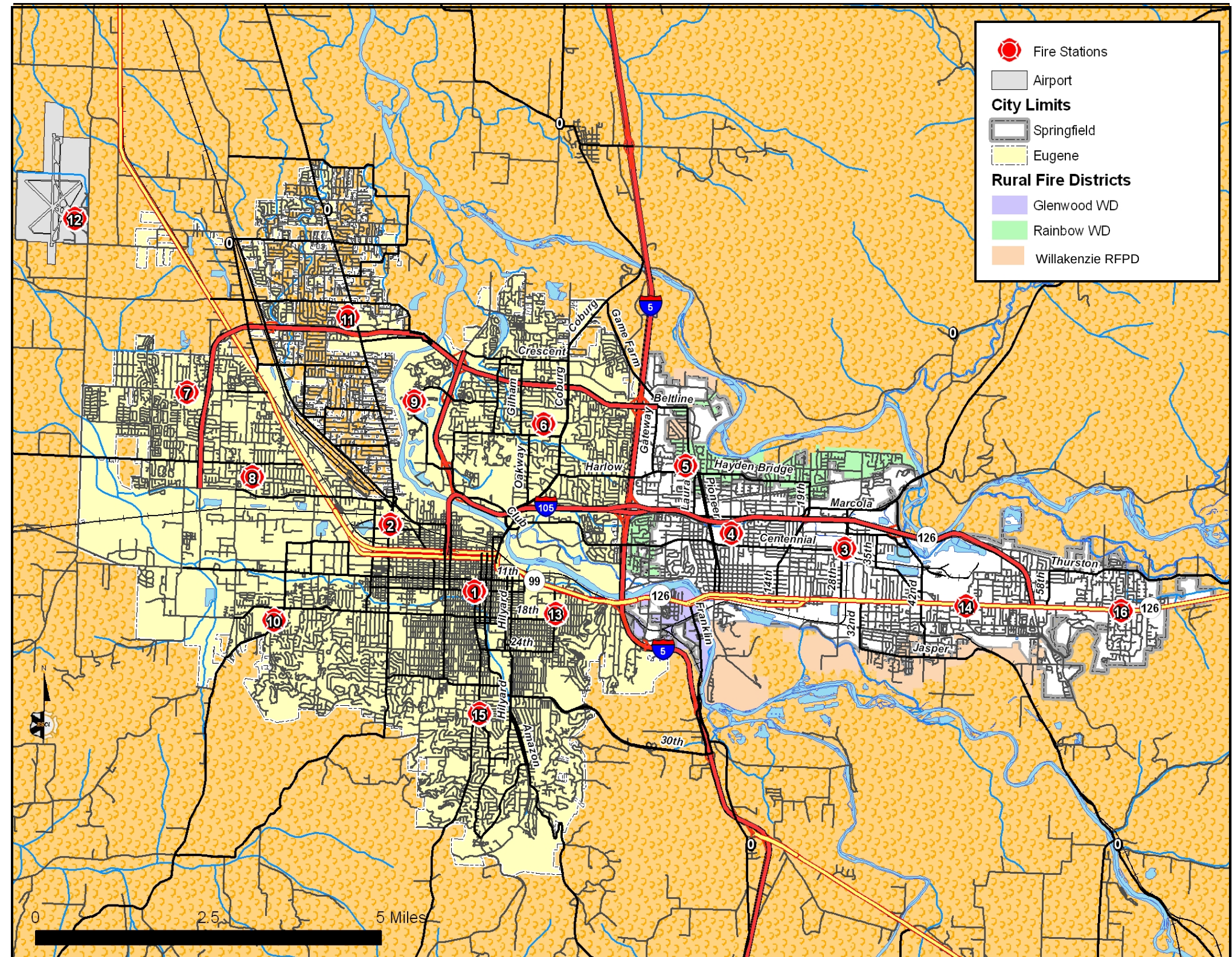
ESCI uses the geographic information system (GIS) software ArcView™ to conduct a response performance criteria analysis (RPCA) of each of the fire departments. Later in the report, RPCA is also used to model emergency response outcomes of interagency options. Combining response data with GIS software produces a geographic depiction of fire department emergency workload and performance. RPCA includes:

- Fire station distribution
- Response area coverage
- Response time history and performance
- Cooperative service models

Standards of cover and deployment documents were reviewed for both departments in the course of the analysis.²⁸

EFD and SFLS Fire Station Distribution

The combined service area of the two departments covers approximately 93 square miles and serves an estimated population of 233,000.²⁹ Strategically positioned apparatus and personnel provide fire suppression, emergency medical care, and rescue services to residents and visitors alike, responding from 16 fire stations. The figure on the right depicts both fire department service areas and the locations of the respective fire stations.



²⁸ EFD Standards of Response Coverage 01-2008. SFLS Standards of Cover and Deployment Study, 04-2007.

²⁹ 2007 estimates from the US Census Bureau.

Figure 52: EFD – Response Area Coverage

EFD Response Area Coverage

Emergency response from EFD fire stations is shown by the figure on the right. The depiction of five-minute travel from each of the stations is based on a one-minute turnout and a four-minute response. To a very large extent, the four-minute travel distance is dependent on geography, the street network, and the speed capability of the emergency apparatus. Consideration is given for negotiating turns and intersections with multi-ton vehicles

The map shows that a majority of the City of Eugene is within a five-minute emergency response from existing fire stations. Notable gaps in coverage exist on the south, east, and west sides of the city (shown as white areas on the map).

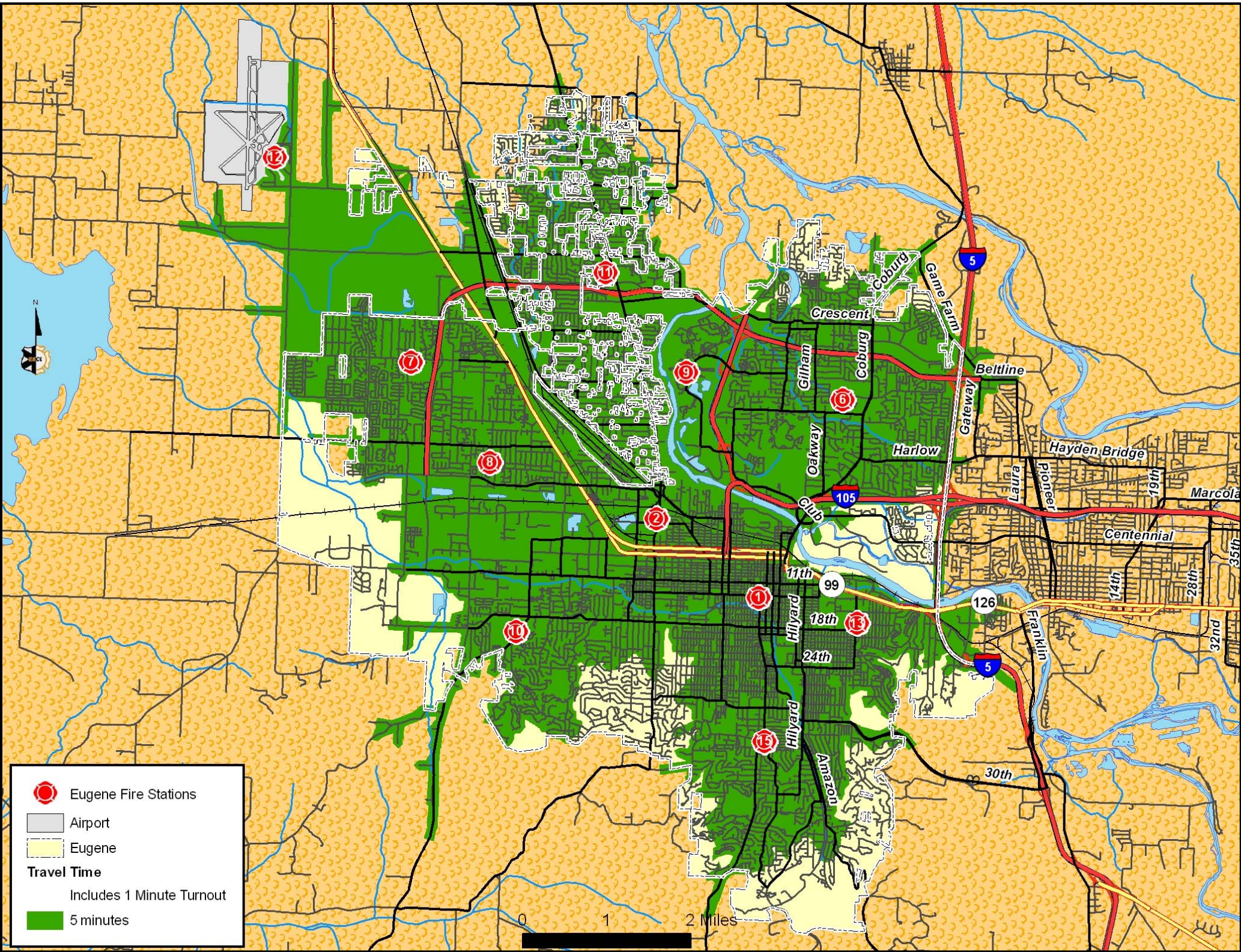


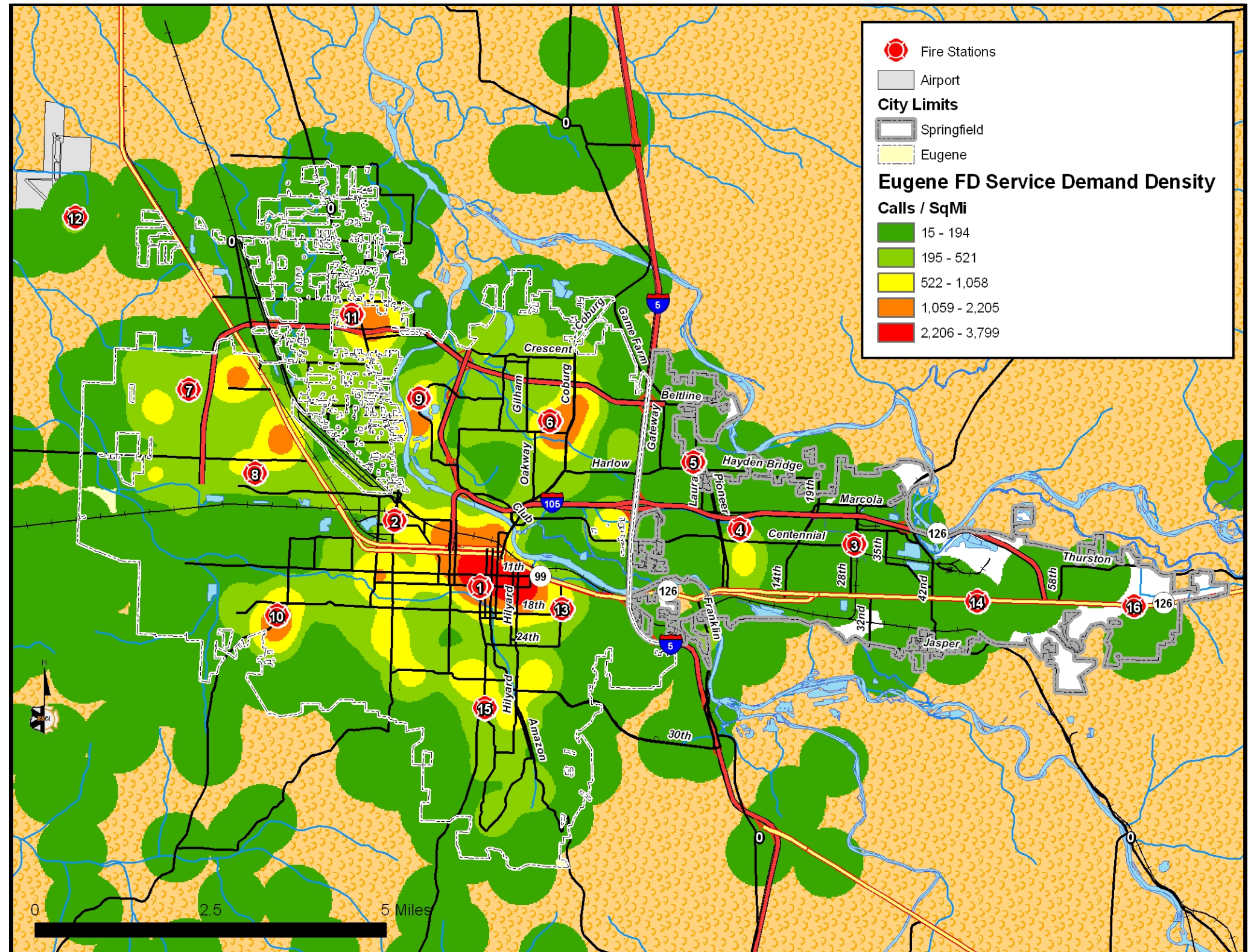
Figure 53: EFD – Service Demand Concentration

EFD Service Demand Concentration

While the ability to respond to all parts of a city within a certain time is important, it is more important to consider where demand for service most frequently occurs, and how the strategic placement of fire stations can assure the efficient provision of emergency service to those areas. The figure to the right illustrates the concentration of service demand within Eugene for the year 2008. Areas of least service demand (15 to 194 alarms per square mile per year) are colored green. Areas of more concentrated demand grade from light green (195 to 521 alarms) to yellow (522 to 1,058 alarms) to orange (1,059 to 2,205 alarms), and areas of greatest demand are colored red (2,206 to 3,799 alarms). The map also shows service demand outside of the city resulting from automatic and mutual aid agreements.

The area of highest service demand is experienced within the downtown response area of Station No. 1, which (importantly) is backed up by Station Nos. 2 and 13. Other areas of comparatively high demand within the EFD response zones are located near Station Nos. 6, 7, 8, 9, 10, and 11. One zone of moderately high EFD demand occurs in the City of Springfield near SFLS Station No. 4.

Examining the travel time model (Figure 52) in the context of service demand (Figure 53), we note that EFD can reach 95 percent of all requests for emergency service from a nearby fire station within five minutes of dispatch, provided that the corresponding apparatus and personnel are available.³⁰



³⁰ Including response outside of the jurisdictional boundaries of the City of Eugene.

Figure 54: SFLS – Response Area Coverage

SFLS Response Area Coverage

Emergency response from SFLS fire stations is detailed in the figure to the right. Five-minute response from each of the stations is measured from the time of dispatch and is based on a one-minute turnout and a four-minute travel time. As was previously mentioned, the distance traveled by emergency equipment during a four-minute response is dependent on geography, the street network, and the speed capability of the apparatus. Consideration is given for negotiating turns and intersections with multi-ton vehicles

The map shows that virtually all of the City of Springfield lies within five minutes of existing fire stations. Minor gaps in coverage exist along the southern border of the city and near Beltline on the north (shown as white areas on the map). The five-minute response area of SFLS Fire Station No. 5 extends into the City of Eugene to the west, well past the boundary line along Interstate Highway 5.

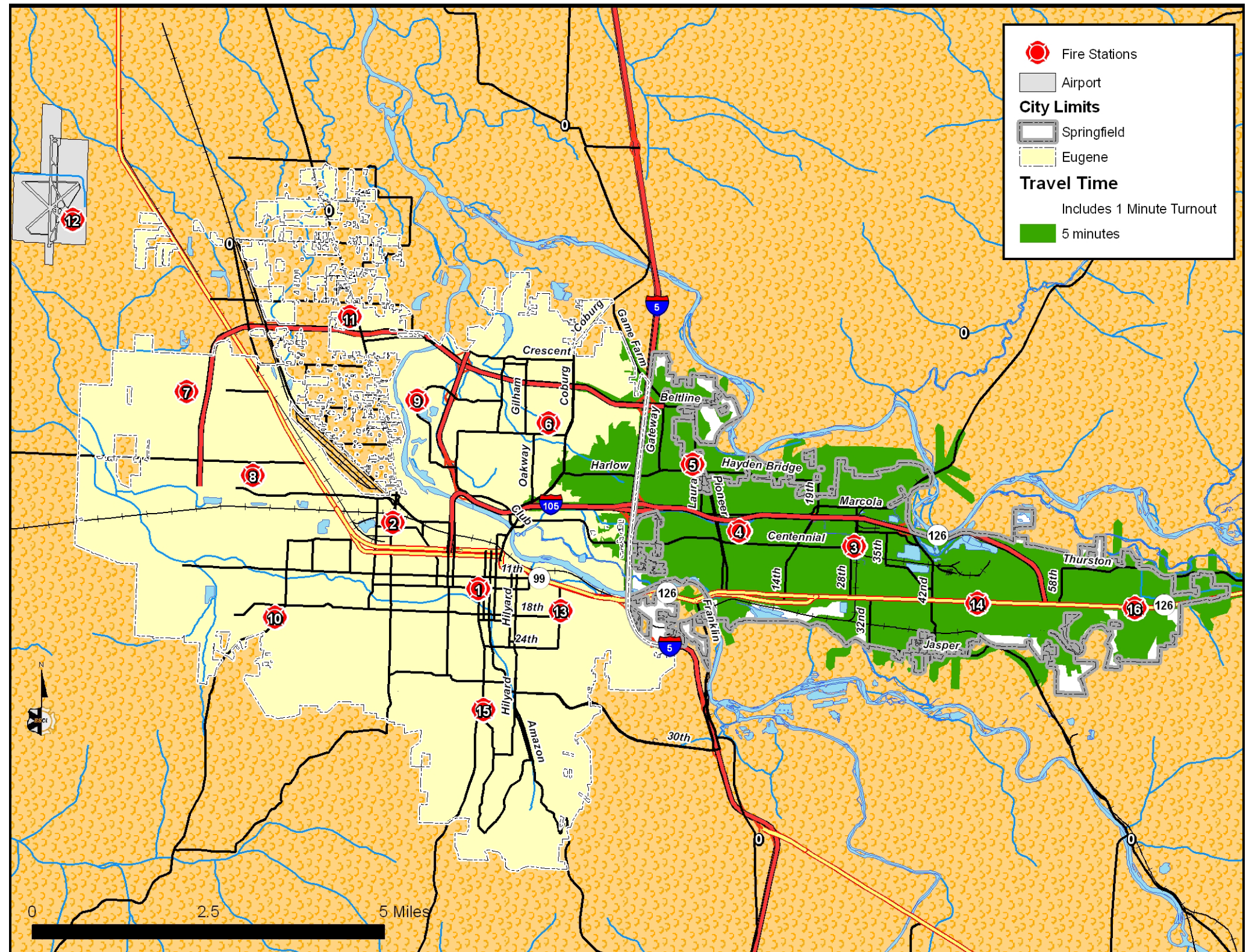


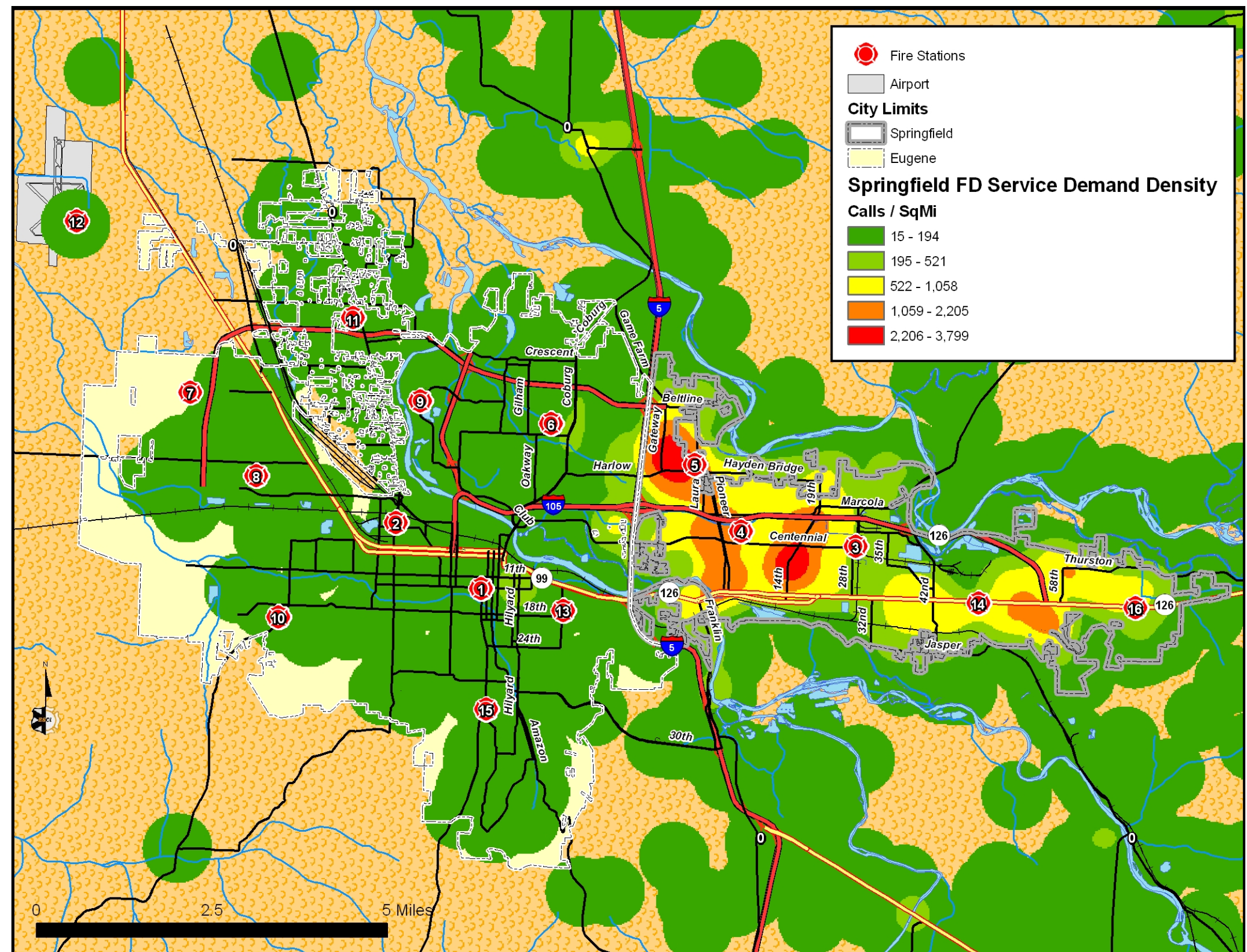
Figure 55: SFLS – Service Demand Concentration

SFLS Service Demand Concentration

As with EFD, it is important to consider where demand for service most frequently occurs, and how the strategic placement of fire stations can assure the efficient provision of emergency service to those areas. The figure to the right depicts the last full year of requests for emergency service by SFLS. Areas of demand grade from low (green) to high (red). The map shows all areas of service demand, including response outside of the City of Springfield resulting from the various service agreements maintained by SFLS.

The areas of highest service demand for SFLS occurs in areas served by Stations 3, 4, and 5; while an area of moderately-high demand shows up in an area served by Stations 14 and 16. Some moderate demand is evident within the City of Eugene just west of the Interstate 5 highway.

Analyzing the travel time model (Figure 54) in the context of service demand (Figure 55), we note that SFLS can reach 91.4 percent of all requests for emergency service from a nearby fire station within five minutes of dispatch, provided that the corresponding apparatus and personnel are available.³¹



³¹ Including response outside of the jurisdictional boundaries of the City of Springfield.

Response Time History and Performance

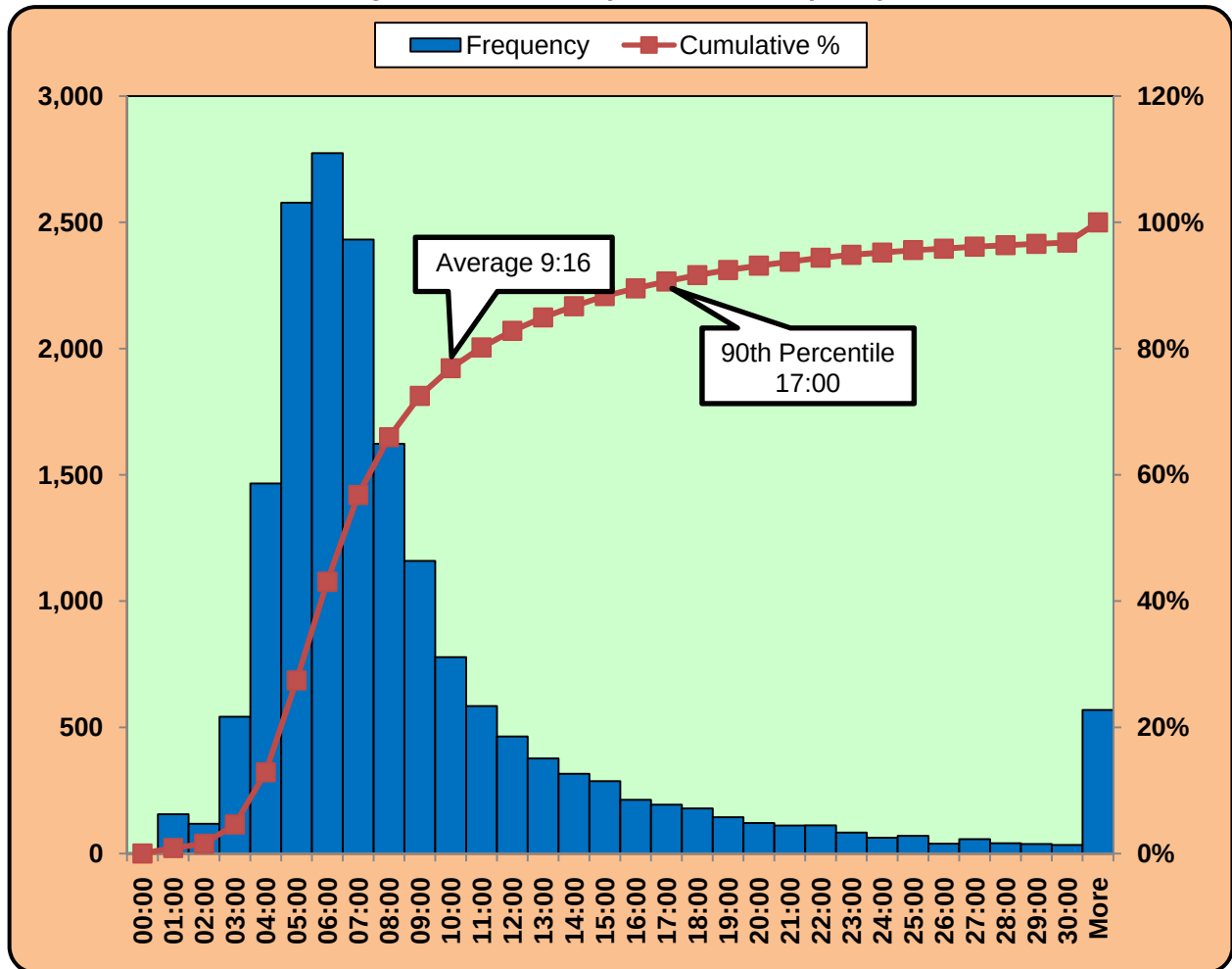
Total Response time is the interval between the initiation of a request for emergency assistance (most often through a phone call to 9-1-1) and the arrival of emergency equipment at the scene. Multiple elements string together to make total response time, beginning with the time required for a call taker at the 9-1-1 center to gather information and to subsequently dispatch the appropriate emergency unit(s). An accepted standard for modern communication centers is to initiate emergency dispatch within 60 seconds of the 9-1-1 call. The time required for call taking and dispatch is generally outside of the control of firefighters; although the time required by emergency personnel to react to the dispatch, don appropriate protective gear, mount emergency apparatus, and begin travel (turnout time) is within their control.³² Once travel to the emergency scene has begun, the time required for response is dependent almost entirely on roadways, traffic, and geography.

³² For this reason, dispatch time is not included as part of this analysis.

EFD Response Time

The dataset provided by EFD internal records management systems for year 2008 provides details from the time of dispatch (when the fire department was notified) until arrival at the scene. Using data from year 2008, the following chart (Figure 56) illustrates the overall response time frequency of EFD from the time of dispatch until arrival at the scene. Mutual aid calls and non-emergent calls were removed from this response time analysis. Response times in excess of 60 minutes were considered anomalous and also removed from the analysis.

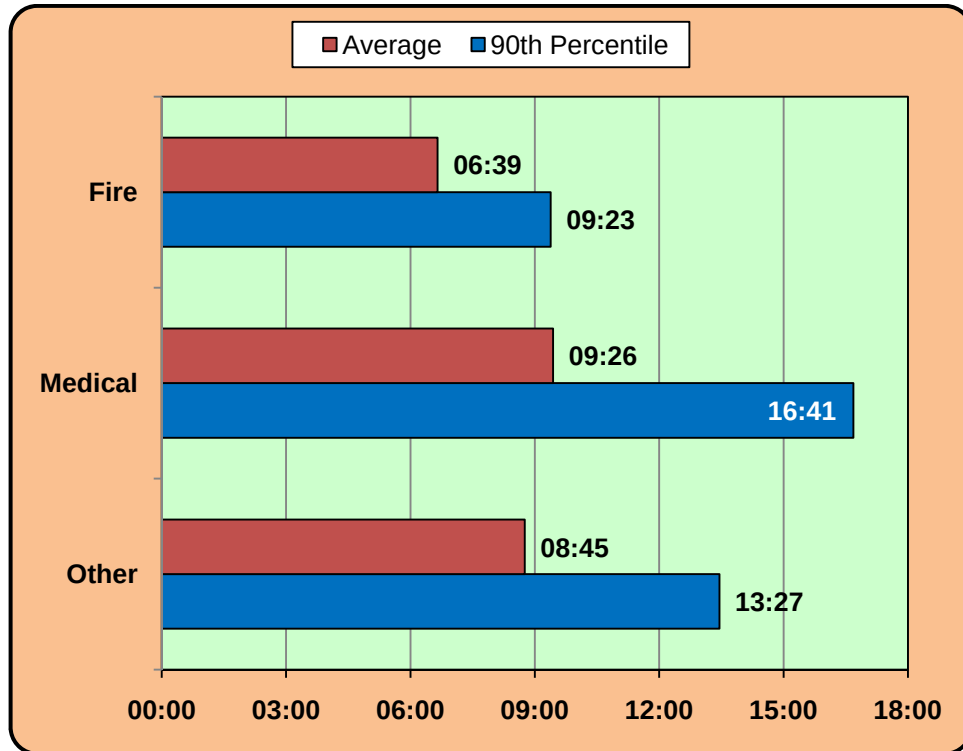
Figure 56: EFD – Response Time Frequency



The most frequently recorded response time in 2008 was within the six-minute range, while the average response time of all calls was 9 minutes 16 seconds. Ninety percent of all requests for emergency assistance in the City of Eugene were answered within a 17-minute response time.

Response time may vary depending on the type of call reported and on the dispatch protocols, as the following chart (Figure 57) illustrates. For example, not every EFD station houses an ambulance. If the type of emergency dictates that only an ambulance is dispatched, response time may be longer depending on the location of the emergency and the relative position of the ambulance. In Figure 57 below, “other” refers to calls that are neither an actual fire nor a medical/rescue (for example, a fire alarm sounding).

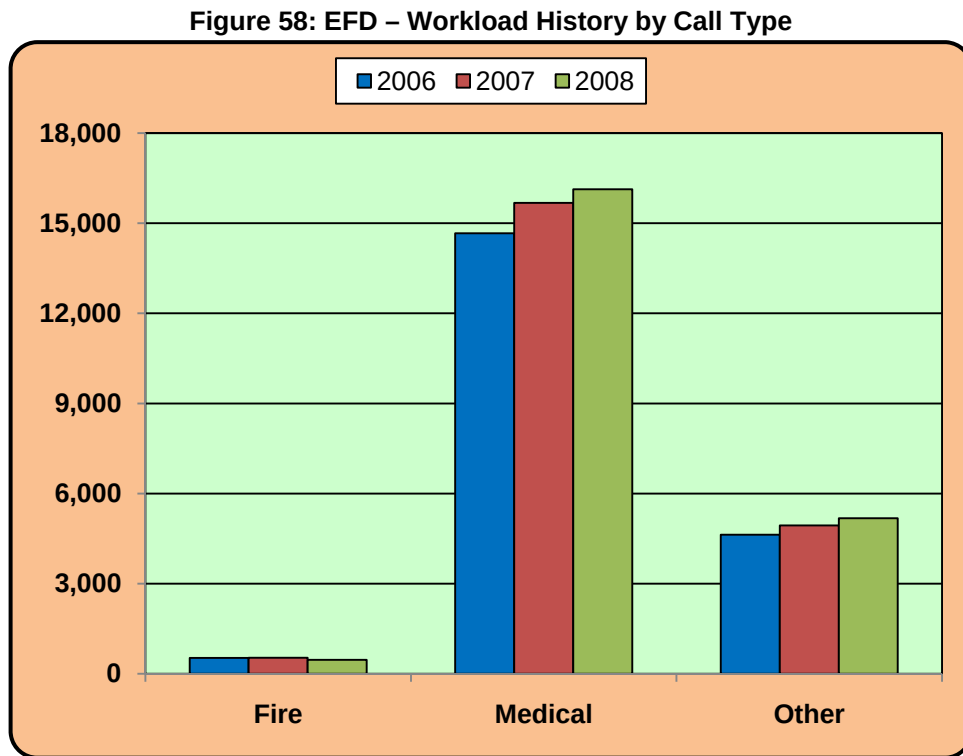
Figure 57: EFD – Response Time by Call Type



The figure above lists the average and the 90th percentile response times for each of the three call types. Of the 90th percentile times, response to fires is the fastest at 9 minutes 23 seconds; followed by other alarms (13 minutes 27 seconds); and, finally, with medical calls being the longest at 16 minutes 41 seconds.

In addition to the previously mentioned reason for the longer response times experienced for medical emergencies, the fact that medical calls account for most of the requests for assistance in Eugene also affects response times. Higher medical call volumes tend to increase the frequency of simultaneous emergencies, especially at certain times of the day. Such events deplete available resources, which equates to increased response times overall.

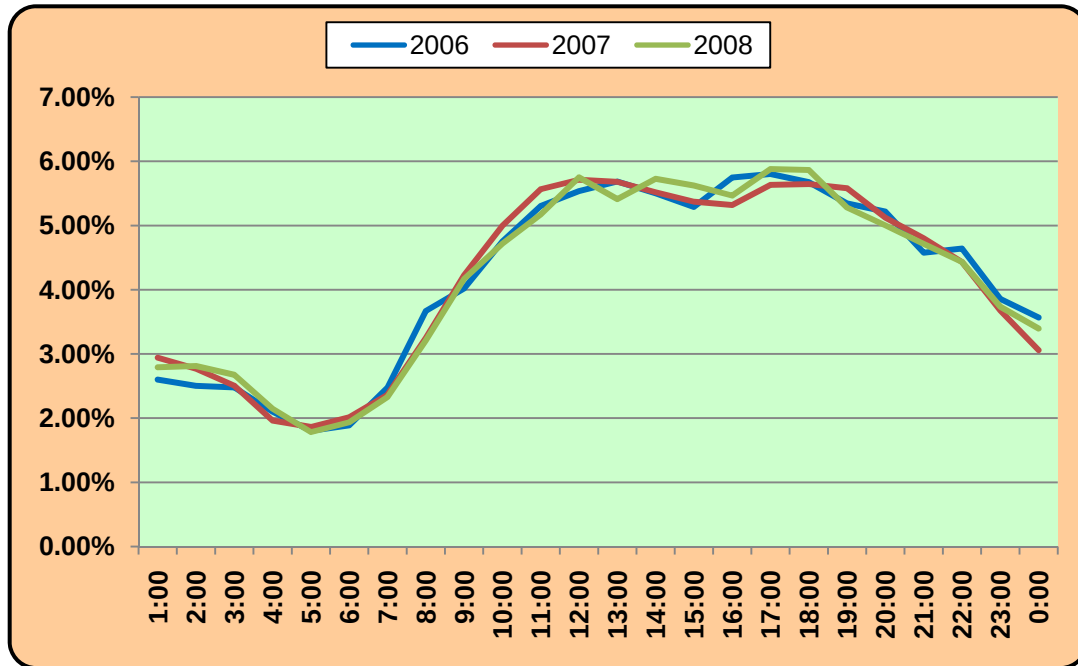
The following chart (Figure 58) details the workload history of EFD by call type for the last three calendar years.



The workload trend of EFD fire response has remained nearly the same for calendar years 2006 through 2008, while response to medical emergencies and other emergencies have shown a steady increase.

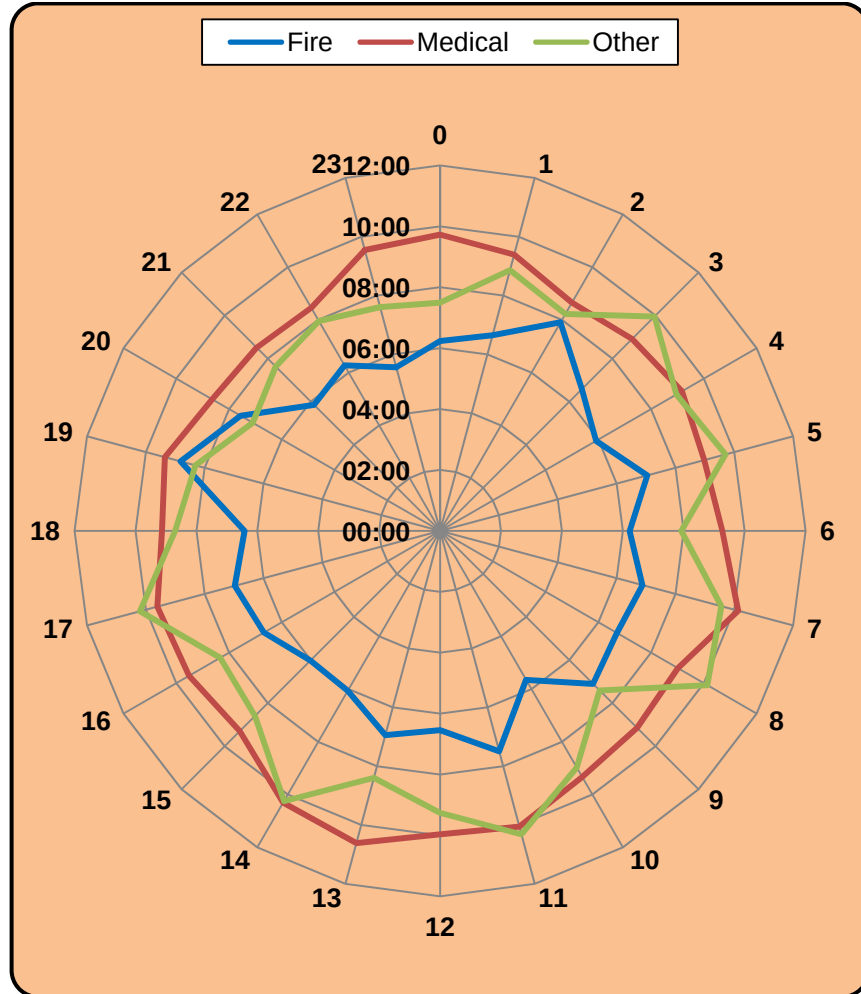
Response times can also vary by time of day in reaction to workload and traffic conditions. The chart below (Figure 59) details EFD workload by time of day for the last three calendar years. Eugene, similar to other departments nationwide, experiences an increase in service demand at about 6:00 a.m., peaking by late morning. The service demand levels sustain themselves during the day but begin to abate by the early evening hours.

Figure 59: EFD – Workload by Hour of Day, 2006 – 2008



The average hourly response time for EFD emergency incidents during 2008 varied by call type as well but remained unexpectedly consistent around the clock as illustrated in the following chart (Figure 60). Slight increases in response time are noted during the busier times of the day.

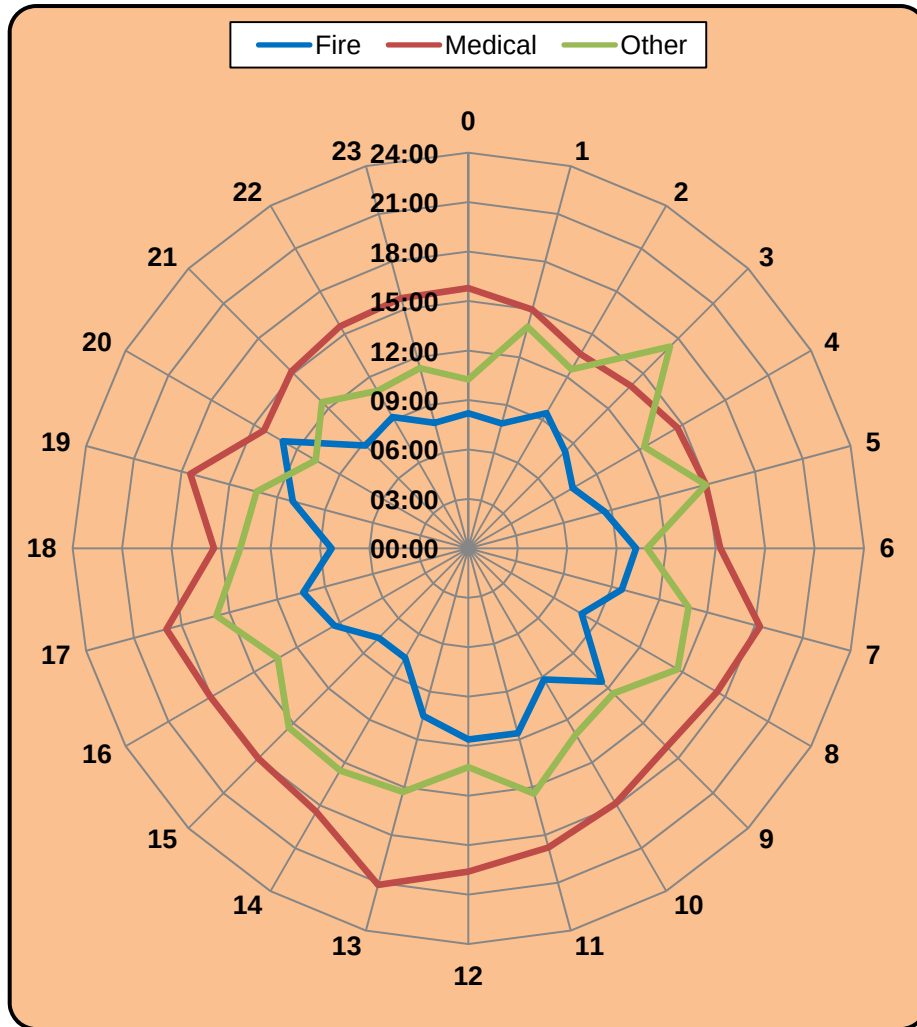
Figure 60: EFD – Average Response Time by Hour of Day



Average response time is one useful measure to determine the effectiveness of the geographic-based coverage, although it would be more significant to determine how well the majority of emergency service demand is being serviced. One useful way to determine how well demand-based coverage is achieved is by examining response time to a larger percentage of the incidents, in this case 90 percent of all call types.

The 90th percentile response time for emergency incidents occurring within the City of Eugene were longer during the busier times of the day, especially for medical/rescue calls as shown in Figure 61 below.

Figure 61: EFD – 90th Percentile Response Time by Hour of Day



SFLS Response Time

A SFLS response time analysis was conducted for the City of Springfield as an element of a Standards of Cover and Deployment Study in 2007 by ESCI.³³ Because of the freshness of the data and a desire to keep costs of this process as reasonable as possible, that information is used in this section of the report.

³³ Standards of Cover and Deployment Study, City of Springfield, Oregon, Department of Fire and Life Safety, April 2007.

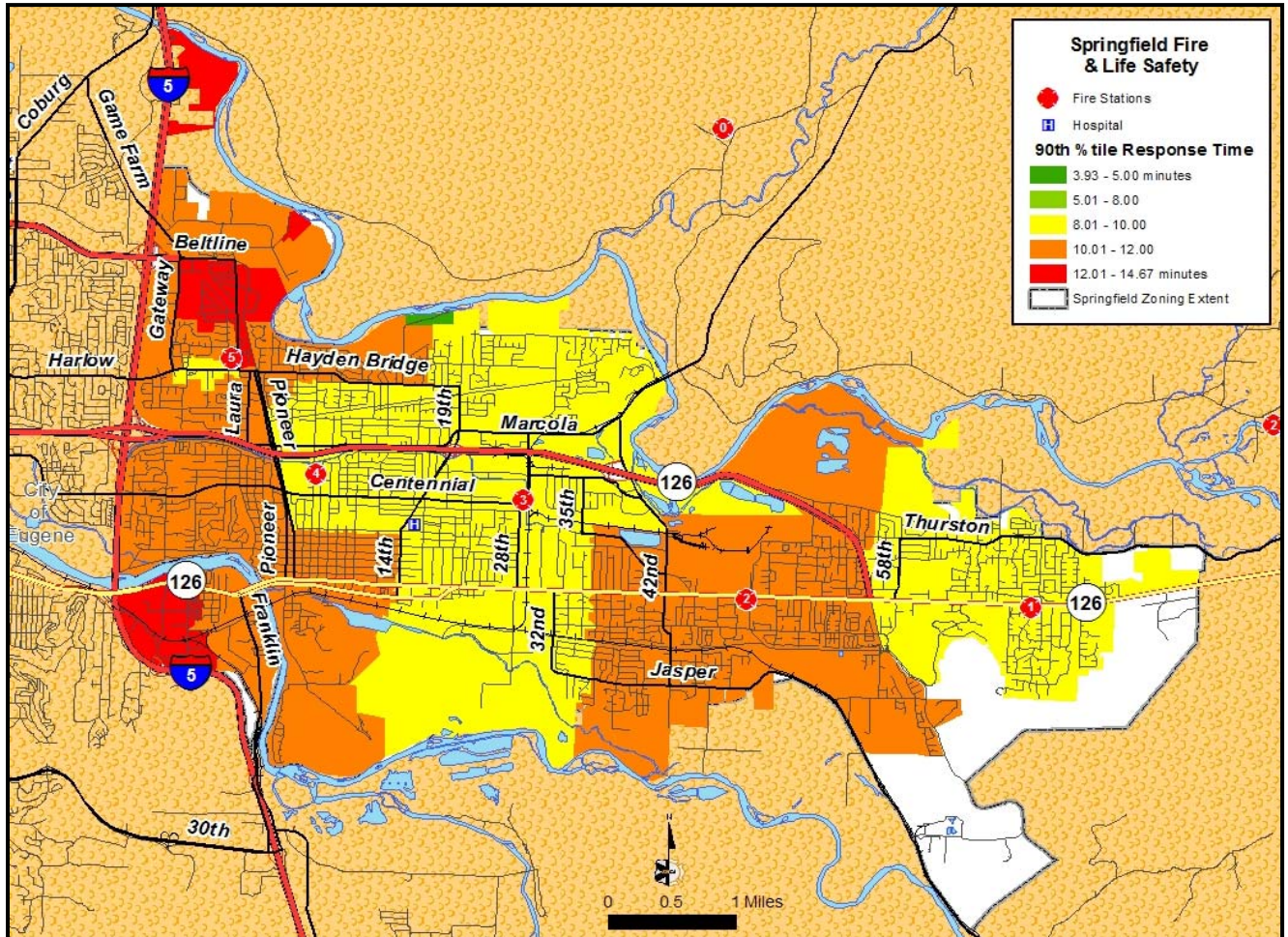
As shown in Figure 62, SFLS covers 80 percent of its calls in 5 minutes 19 seconds and 90 percent of its calls in 6 minutes 25 seconds. In 2006, the response time of 74.8 percent of the calls was under five minutes.

Figure 62: SFLS – Station Response Time Performance

2006 – Priority 1 Calls Only inside the City				
	Calls	90 th Percentile	80 th Percentile	Average
Fire Station No. 1	591	06:08	05:16	04:18
Fire Station No. 2	1,014	06:19	05:10	04:00
Fire Station No. 3	925	06:00	05:05	03:56
Fire Station No. 4	1,313	07:11	05:37	04:22
Fire Station No. 5	955	06:07	05:06	04:08
Overall	4,798	06:25	05:19	04:09

Figure 63 combines the 90th percentile turnout times with the 90th percentile travel times to illustrate the 90th percentile response time performance of SFLS by geographic response area. The area in red shown between the I-5 and Hwy 126 markers is a district with first due automatic response by the EFD. This map reflects only the performance from SFLS units, and does not take into account the possible quicker response from EFD Fire Station No. 3.

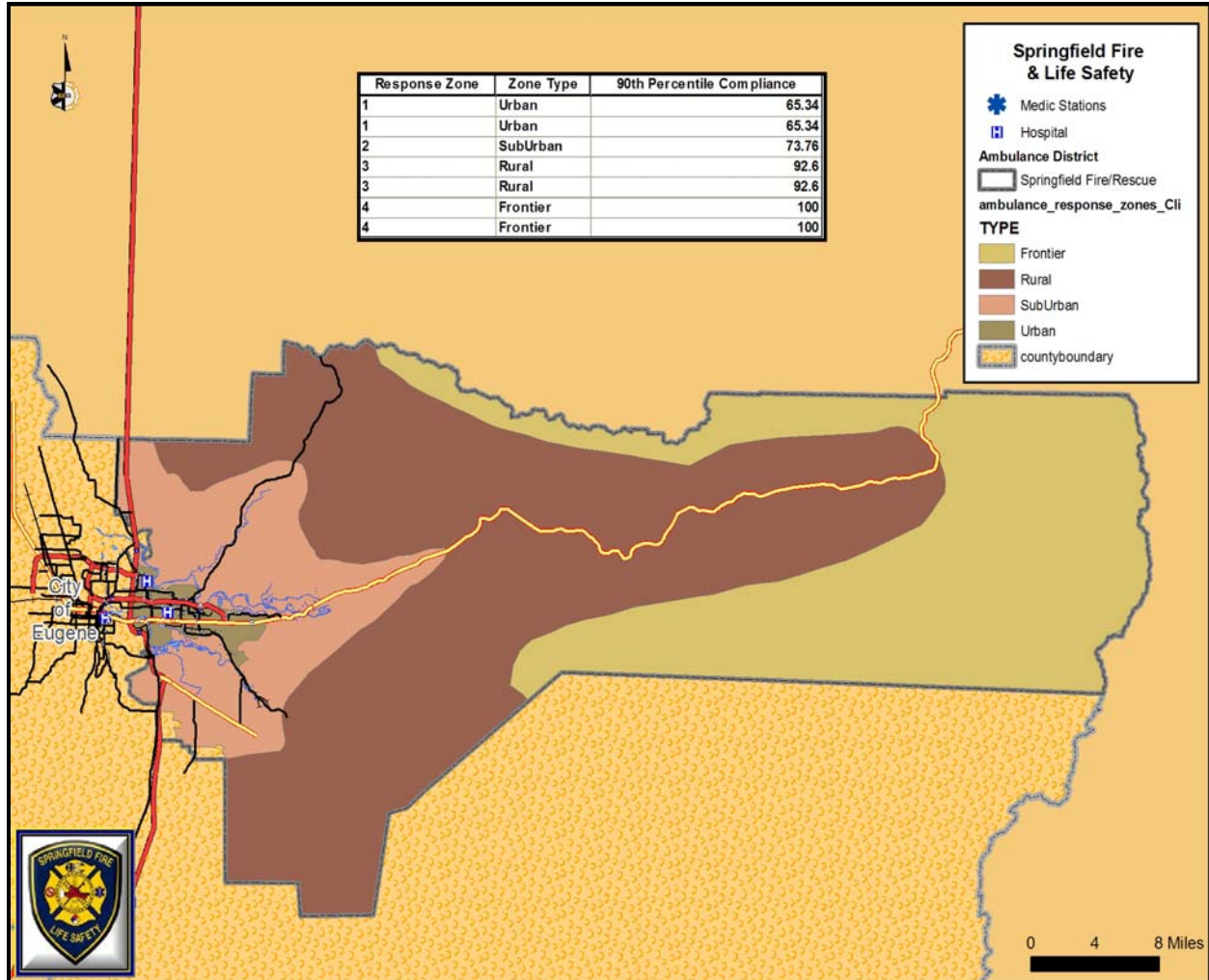
Figure 63: SFLS – 90th Percentile Response Time by Beat



The following map (Figure 64), illustrates the urban, suburban, rural, and frontier zones in the ambulance service area along with the 90th percentile response time performance rating for emergency medical incidents. Based on this analysis, the 90th percentile response time target of 10 minutes was obtained 90.8 percent of the time in urban zones, the 20-minute target in suburban zones 91.8 percent of the time, the 45-minute rural zone target 92.6 percent, and the

frontier zone target 100.0 percent of the time.³⁴ The Ambulance Service Area response time standards were met in all four zones.

Figure 64: SFLS – ASA Response Time Performance by Zone

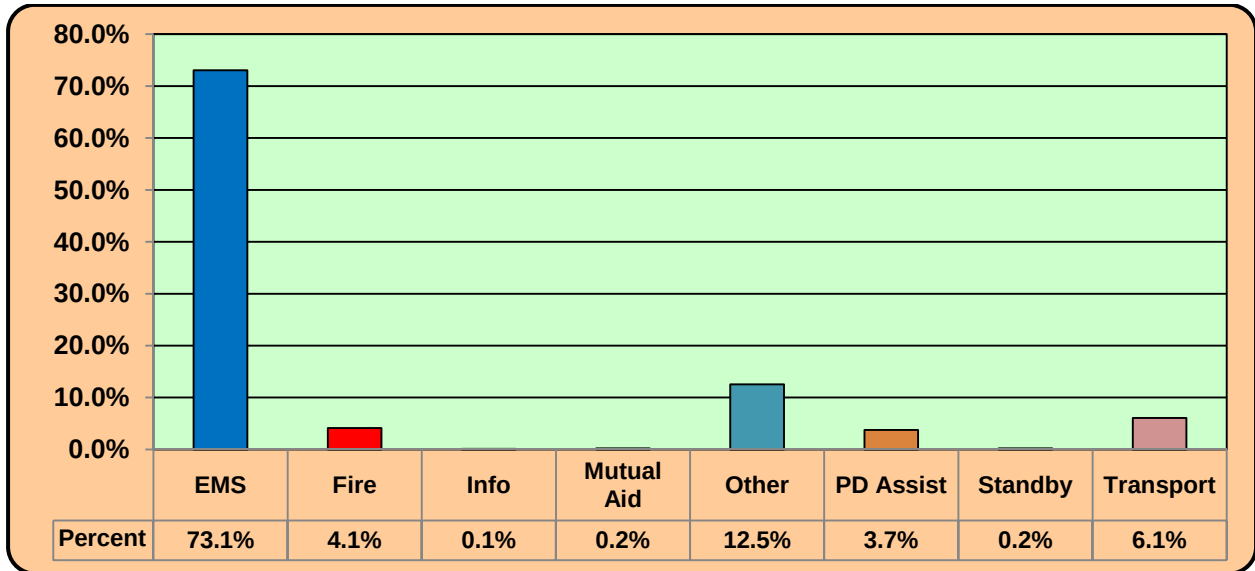


Based on the data for 2005 and 2006, SFLS experienced a stable volume of requests for service over the two years reviewed. Fire incidents, emergency medical calls and all other types of alarms have been individually consistent as well. This may change based on commercial and residential development and as demographic factors such as aging of the population occurs.

³⁴ Routine scheduled transport calls are excluded from this calculation.

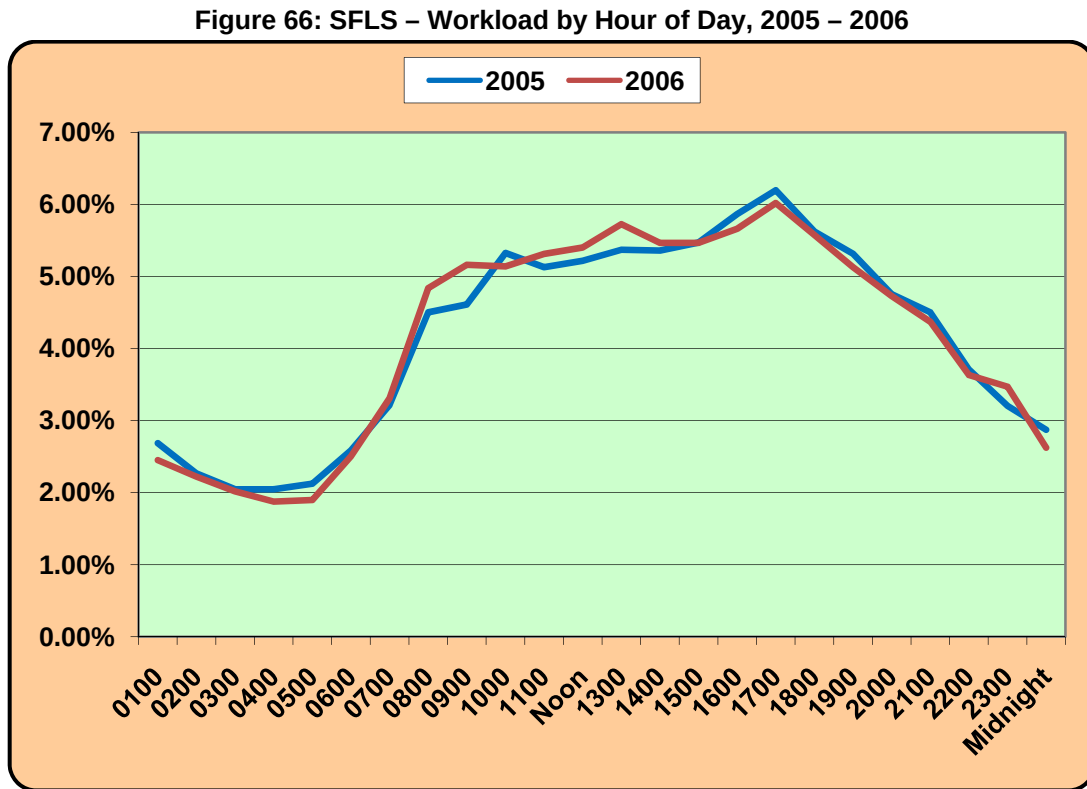
As illustrated in Figure 65, the bulk of the workload for Springfield Fire & Life Safety is handling requests for emergency medical aid. This is not unusual for departments that provide first responder and/or ambulance transport.

Figure 65: SFLS – Workload History by Call Type, 2005 – 2006



The hours of peak activity can strain an under-equipped or under-staffed department. Understanding when peak activity occurs begins the process of developing deployment strategies and needs assessment.

Figure 66 depicts the distribution of calls by the hour of day.



Call activity for begins to climb about 6:00 a.m., peaking at 11:00 a.m. It decreases slightly during the afternoon, only to increase during the rush hours of 4:00 and 5:00 p.m. By 6:00 p.m., calls begin to decline throughout the late night and early morning hours. This pattern follows the typical active hours of most people's daily activities.

Figure 67: EFD/SFLS Combined Service Demand Concentration

RPCA Outcome of Interagency Options

Previously, the existing resources of the fire departments are considered individually to determine how effective each is in meeting the local demand for emergency service. In the preceding analysis (beginning with Figure 51 on page 71), GIS modeling is used to examine emergency service coverage, demand, and response. Here, the same methodology is used to describe the outcome of fully integrating the emergency service resources and operations of EFD and SFLS.

Combined Service Demand

Figure 51 on page 71 shows service areas of both fire departments and the location of the 16 EFD and SFLS fire stations. The map here (Figure 67) overlays the combined emergency service demand of both departments to the resource map. As before, service demand on the map grades from low (green) to high (red). The resulting service demand map shows that demand levels are generally higher in the central region, with zones of highest demand notably in Eugene's downtown area and in Springfield's west side.

Positive Attribute 6: With a combined service area of over 93 square miles serviced demand coverage is in excess of 90 percent.

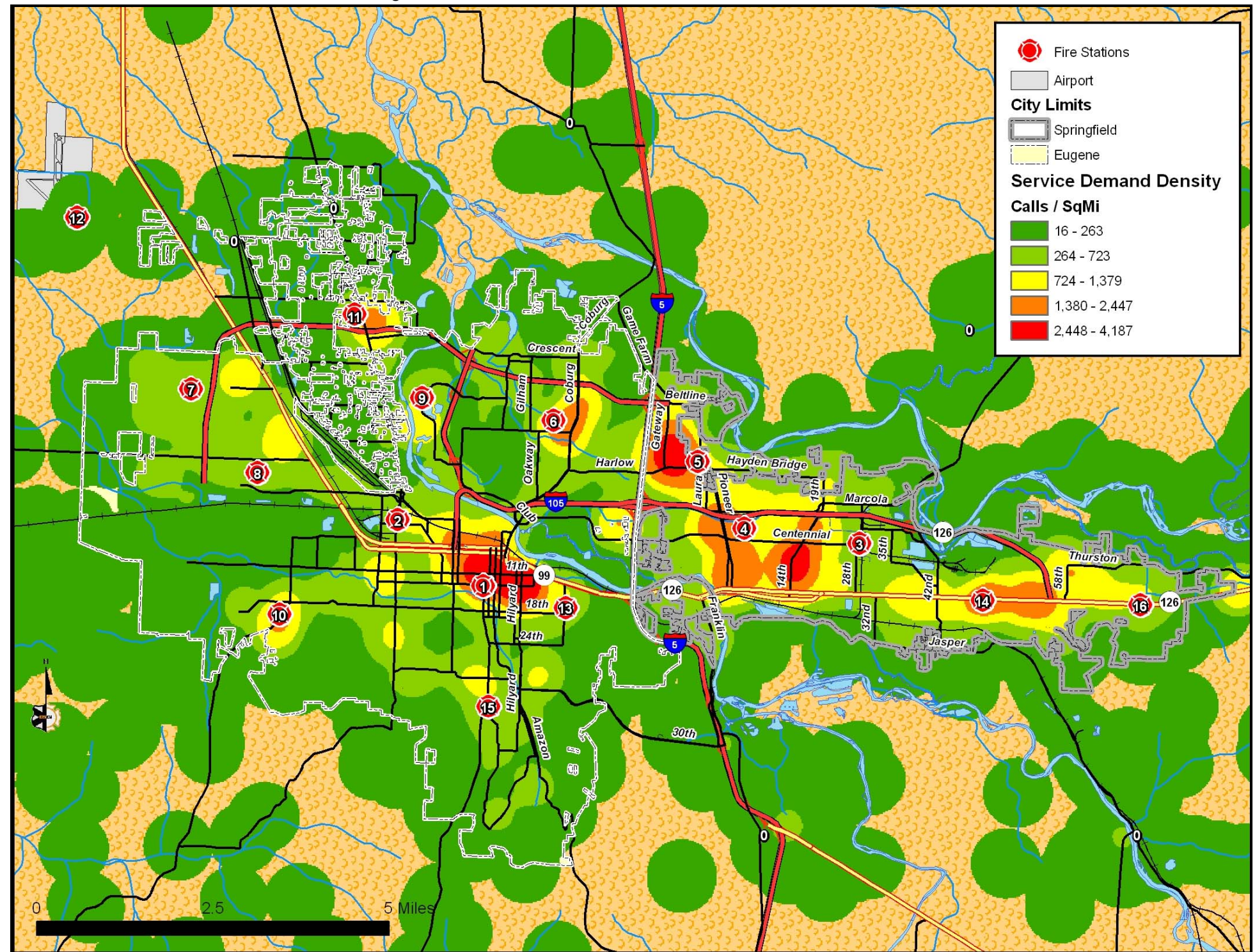


Figure 68: EFD/SFLS Combined Response Area Coverage

Combined Coverage

Figure 68 combines the two departments' travel time models, showing the area included within a five-minute response (one-minute turnout and four-minute travel) from the 16 fire stations. The figure demonstrates that areas along southern borders of the cities (including the rural fire districts) and in the east central zone of Eugene may require more travel time (greater than four minutes) to reach. The combined coverage of the 16 fire stations is adequate to reach well over 90 percent of all demand for emergency service (including that outside of the jurisdictions), as shown by the previous map (Figure 67), provided that the corresponding apparatus and personnel are available.

Positive Attribute 7: Existing fire station placement provides excellent service demand coverage for both fire departments.

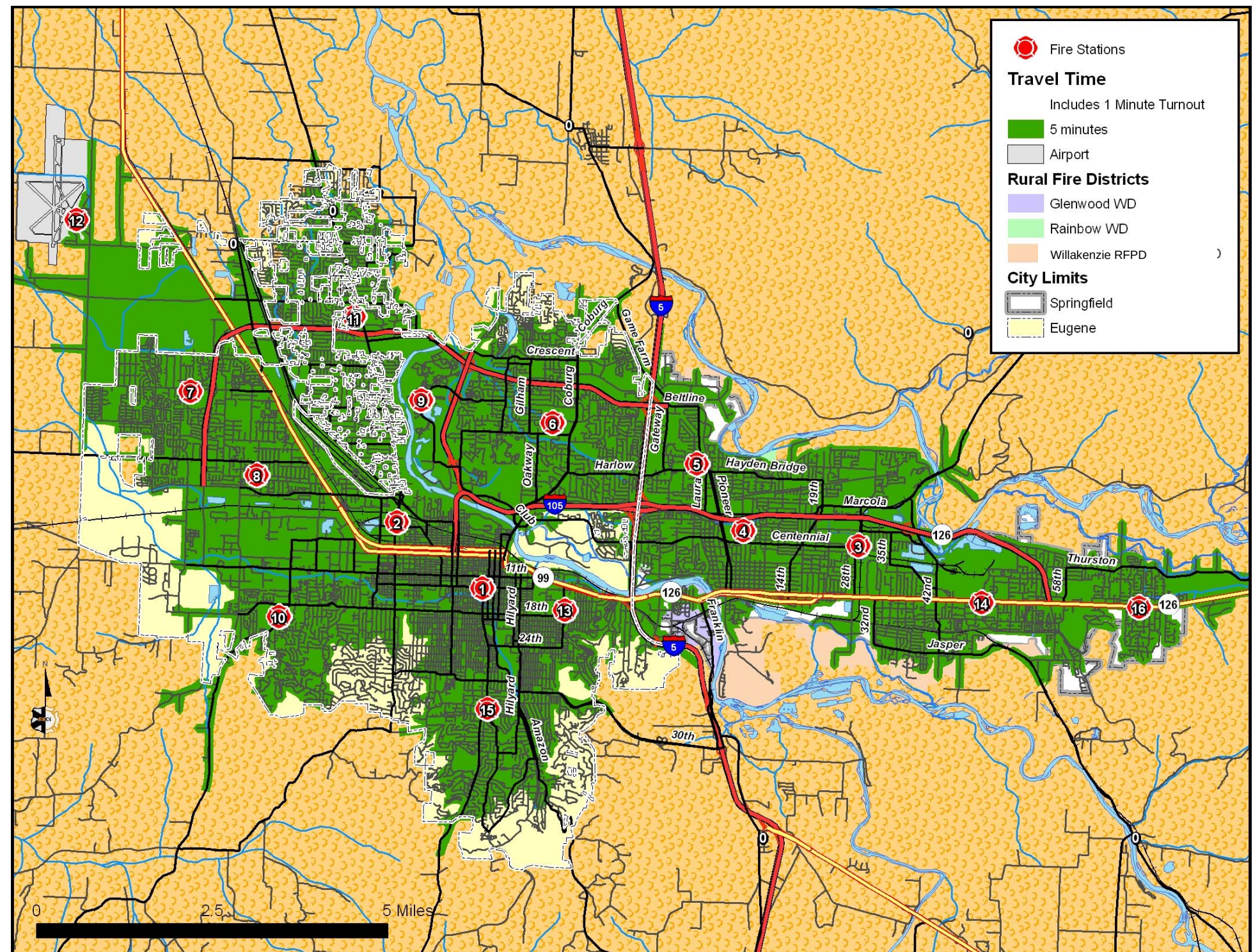


Figure 69: EFD/SFLS Ambulance Response Area Capability

Combined Ambulance Coverage

Since not all fire stations are equipped with ambulances, and because the response time objective for an ambulance is different than that of a first arrival fire engine, Figure 69 details the assigned base of the area's eight ambulances and the associated travel time capability. In the map, a five minute response (including a one-minute turnout) polygon is highlighted with green. Response times zones of seven and nine minutes are also shown, bordered in brown and pink respectively.

While ESCI used the location where ambulances are stationed, the characteristics of EMS transport activities means that units are often out of position, on calls, or at hospitals.

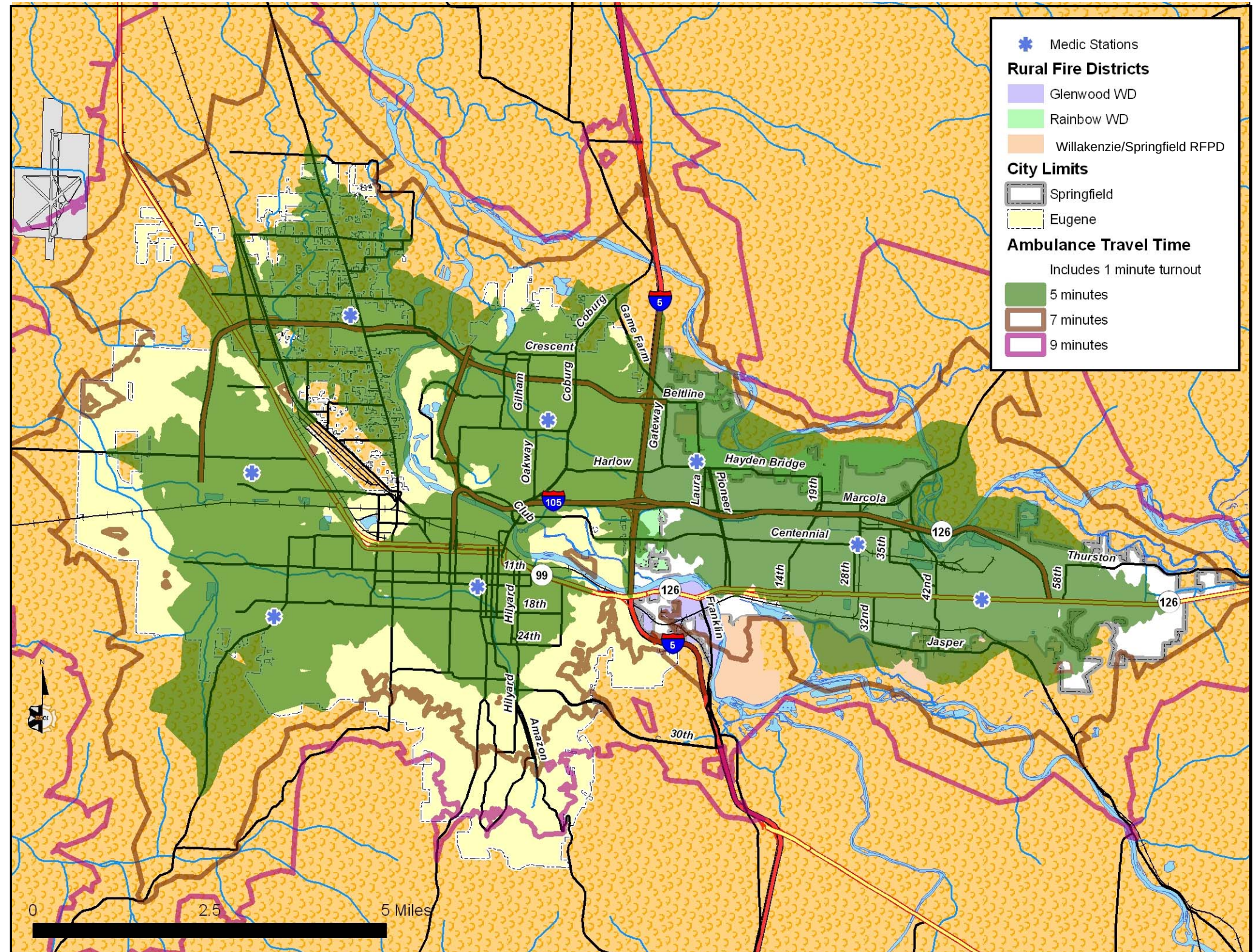
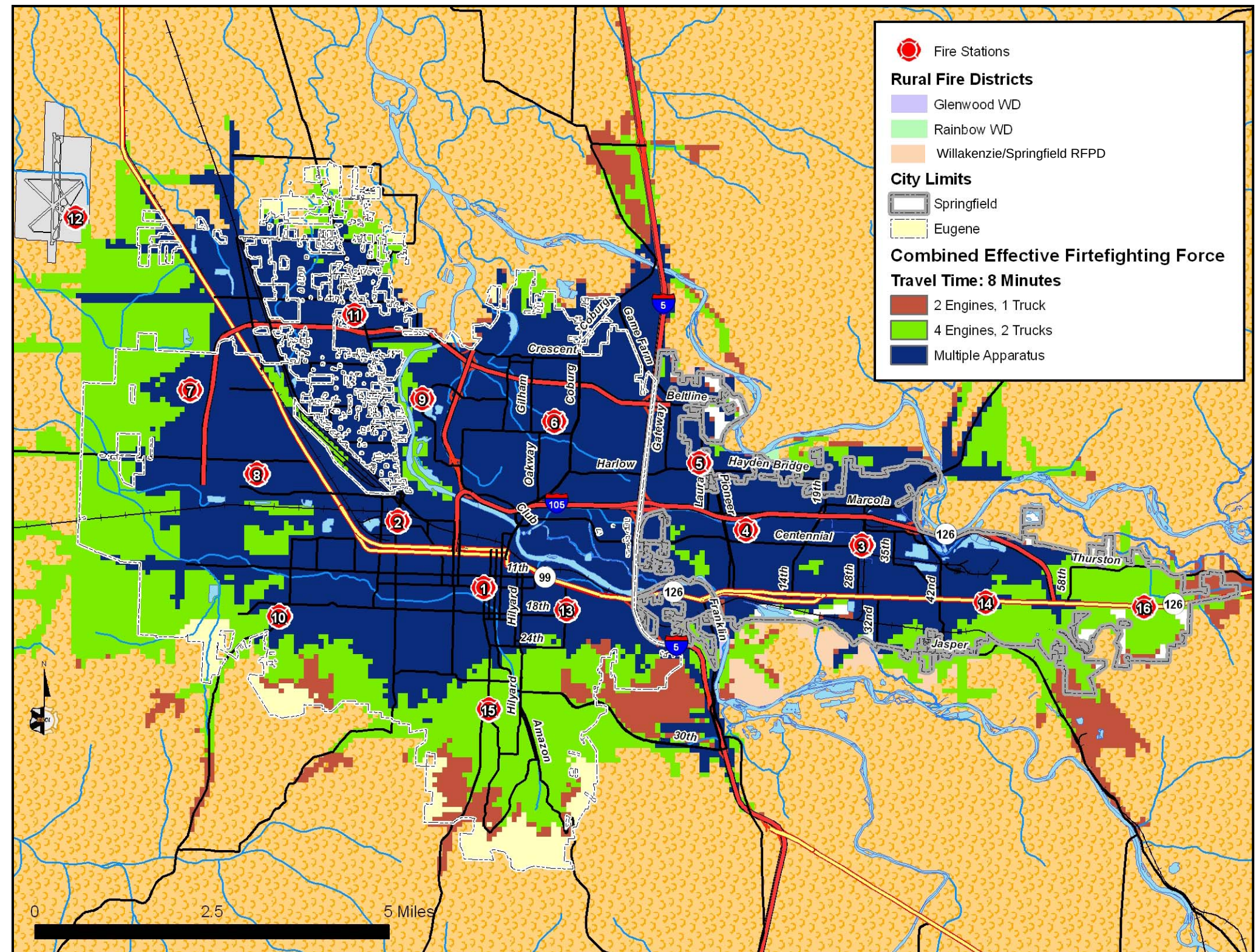


Figure 70: Combined Effective Firefighting Force Area

Combined Effective Firefighting Force

Eugene and Springfield have each adopted emergency response standards that are independent of NFPA Standard 1710.³⁵ Doing so is an accepted good management practice. In this case, however, the NFPA Standard does provide a useful means by which to measure the force potential of a fire protection system. Among other requirements, NFPA 1710 calls for the arrival of the entire first assignment (enough apparatus and personnel to effectively combat a fire based on the level of risk of the property) within nine minutes of dispatch 90 percent of the time. This is to ensure that enough people and equipment arrive soon enough to be effective in controlling a fire before substantial damage occurs.

In the map on the right (Figure 70) the combined fire force of EFD and SFLS are used to depict the outer response limits (colored brown) of an effective firefighting force consisting of two engine companies, one ladder truck company, and an incident commander.³⁶ In addition, the force limits for four engines and two ladder trucks are shown as green, while blue depicts coverage considered appropriate for high risk occupancies.



³⁵ National Fire Protection Association, *NFPA 1710, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments*, 2004.

³⁶ This is considered as an effective firefighting force for a residential occupancy. Other occupancies may require more personnel and equipment dependent on risk.

Phase IV: Opportunities and Options

Objective IV-1 Concepts of Strategic Restructuring and Cooperative Efforts

The ESCI Project Team explored the concept of Cooperative Organizational Relationships, Strategic Re-Structuring, and Cooperative Operational Efforts. In this phase and objective of the project ESCI offers information on the options and opportunities available to the cities, including:

- General partnering strategies
- Motivating factors
- Critical issues
- Fiscal factors
- Success factors
- Restructuring pitfalls
- Cooperative alternatives
- Opportunities for success

General Partnering Strategies

Many public agencies are experiencing a period of transformation. Previous rapid economic development in areas surrounding the major population centers of the nation drove a demand for more sophisticated fire and emergency medical protection. More recently, a poor economy is motivating business and municipal corporations to freeze hiring, reduce or eliminate programs, and search for other cost saving measures. Many community fire departments have existed virtually independent of each other for decades, with only the narrowest scope of shared services. Perhaps abruptly, but not surprising, these fire departments find themselves challenged to anticipate and provide urban-style emergency service with reduced resources.

As communities grow to the extent that previously isolated neighborhoods blend, economies and emergency service demands become interdependent. A city relies on suburban residents to support the city's economy, while suburban residents depend on the city for jobs and commerce. The loss of a business to fire or disaster in one community now directly affects the quality of life in another.

A long-standing premise of public policy holds that cities are the logical service providers in urban settings – logical, though, may not be the most efficient. As it turns out, the emergency service need of rapidly developing cities and the surrounding unincorporated area is most effectively met by larger, regionally-based fire protection agencies. This is because the successful outcome of emergency service is highly dependent on the rapid mobilization of significant numbers of personnel and equipment. Regional fire protection agencies inherently have the ability to field greater numbers of emergency workers and equipment while capitalizing on efficiencies of scale in management and oversight.

Today, fire departments are sophisticated and indispensable channels for all forms of emergency service, including natural and man-caused disaster management, fire and accident prevention, and pre-hospital care. In the process, the role of many fire agencies has transformed to regional emergency service providers. At the same time, numerous service providers, having already experienced a public service funding crisis, are in a dire predicament. Financial change originally brought on by tax limitation laws or other policy shifts squeezed the ability of communities to unilaterally finance and manage needed change. Now those communities are faced with the added burden of an economic recession. However, even before communities began experiencing the current funding crisis, pressure was being applied by residents and others to lower cost and increase service.

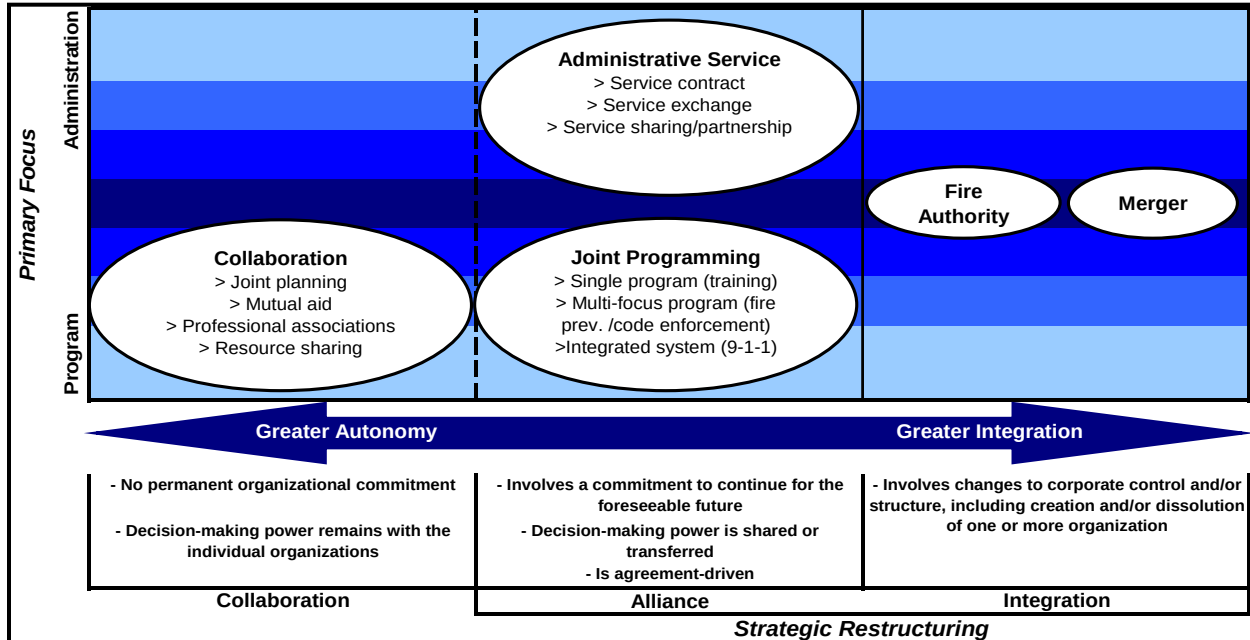
The movement toward more intergovernmental cooperation in the delivery of emergency service goes by many names, including unification, regionalization, consolidation, and merger. Formerly, literature and studies concerning such matters in local government have been nearly non-existent and common terminology has not materialized. A contemporary work, however, concerning the integration of nonprofit agencies (including public protection, public safety, and disaster preparedness) offers some standard terminology and yields insight to driving forces and pitfalls.³⁷

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

³⁷ 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.

programs. Strategic restructuring may be thought of as a continuum that ranges from jointly managed programs (such as mutual aid agreements) to complete organizational mergers. The typology includes two primary modes of strategic restructuring (Alliance and Integration), each with two general subtypes. The authors of the study provide a visual representation of the continuum as a Partnership Matrix, which we adapt here for application to fire and emergency medical service.³⁸

Figure 71: The Partnership Matrix



Collaboration

Although it is included as an element of the matrix, collaboration is not considered a form of strategic restructuring. 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 of fire departments 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, this is true of Eugene and Springfield. Many times, close collaboration between two or more organizations eventually leads to alliance and integration.

³⁸ La Piana Associates Inc, *The Partnership Matrix*, Strategic Solutions for Nonprofit Organizations, 1999.

Positive Attribute 8: Eugene FD and Springfield FLS are involved in mutual and automatic aid and contracting of service at the regional level.
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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 review of ORS (Oregon Revised Statutes) confirms that the State of Oregon grants fire districts the power to contract for a broad range of purposes relating to the control or prevention of fire.³⁹ Frequently, such contracts are referred to as intergovernmental agreements (IGAs). IGAs permit an individual government unit to provide services to another, share resources, improve service and to save money at the program level (Text of ORS Chapter 190.003 through 190.030 is found in Appendix B: ORS Chapter 190 Excerpt).

An alliance involves organizational restructuring that includes a formal commitment to continue shared or transferred decision-making power under the terms of some type of formal agreement or contract. However, it does not involve any change to the corporate or governing structure of the participating organizations. The alliance category includes two general subtypes applicable to fire protection – joint programming and administrative service agreements.

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 departments 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

³⁹ ORS 190.010, Chapter 190 — Cooperation of Governmental Units; State Census; Arbitration, 2007 Edition, Government Cooperation; Census; Arbitration, Miscellaneous Matters, Intergovernmental Cooperation.

strategies. Often, these programs 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.⁴⁰ This strategy joins two or more fire departments through the execution of an IGA. The resulting fire department 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 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.

The unique feature of an administrative service alliance is that existing governing bodies are preserved. The management team of the allied fire department reports to each political body, usually 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 is funded by IGA, usually through the melding of individual budgets or by the apportionment of cost in accordance with a predetermined formula.

Alliances 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 some a higher level of comfort in making the decision to unify fire service across a geographical region. The Metropolitan Wastewater Management Commission (MWWC) is an alliance between the Cities of Eugene and Springfield. Each city separately maintains their own local sanitary sewer systems in addition to coordinating with each other on the regional treatment system.

A disadvantage of an administrative service alliance 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

⁴⁰ 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.

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. This is the case with the MWMC, for over 25 years effectively operating and maintaining the regional wastewater treatment facilities for the Cities of Eugene and Springfield.

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 departments can join to form a single entity. This approach merges not only programs and organizations but also the units of government. State laws addressing political subdivisions usually detail a process for integration; however, an important distinction is probably relevant here. Fire departments that exist as independent governmental entities (such as fire districts) usually may merge, consolidate, or annex other independent units (fire districts) in accordance with process set forth by law. In our experience though, local laws do not usually include a process for the integration of the individual service elements of city governments (such as municipal fire departments) without consolidating the municipalities themselves.

Because the integration of fire protection service involves a change in governance of one or more entities, the process is usually guided by statute. Single purpose governmental units (such as fire districts) typically have the power to merge and consolidate with other service providers much more freely. Cities may annex to neighboring fire districts to take advantage of economies of scale and to more effectively plan for an orderly expansion of the city within its urban growth boundary. Typically, the only integration option generally available to cities that have no joint boundary with an existing fire district is to form a new fire protection entity (fire district) that encompasses all of the desired territory. Two processes for integration of fire and emergency medical service are generally provided in law – creation of a fire authority and the merger of two or more entities.

Fire Authority

Some states provide a process for the creation of regional fire protection units called fire authorities.⁴¹ 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.

For example, the laws of California and Colorado include the formation of fire authorities. The Orange County Fire Authority (California) supplies fire suppression/prevention and emergency services to 22 cities plus unincorporated Orange County. The agency serves an area of more than 551 square miles, including a residential population of 1,380,000. The Poudre Fire Authority (Colorado) was created by the integration of the City of Fort Collins and the Poudre Valley Fire Protection District. The agency serves 235 square miles and a population of 156,608 residents.⁴² Closer to home, Washington lawmakers passed legislation in 2006 authorizing Regional Fire Authorities.

In these cases, officials of the member-governments oversee the management of the fire authority. The mayors of the cities and a representative of the unincorporated county provide Orange County Fire Authority governance. The Fort Collins mayor, the city manager, and one city council member serve on the Poudre Fire Authority Board of Directors, in addition to two representatives of the Poudre Valley Fire Protection District.

Consolidation

Many states differentiate between the words "consolidation," and "merger," giving special legal meaning and process to each. We tend to use the terms interchangeably in referring to a type of integration defined by law that joins existing units of government, or that dissolves existing units of governments and creates a new regional service provider in their place.

⁴¹ Our limited review of State Law finds no reference to the creation of a fire authority in Oregon. We include a description of the strategy here to assist in understanding of other alternatives.

⁴² Additional information on the Orange County Fire Authority and the Poudre Fire Authority is available at <http://www.ofa.org> and <http://www.poudre-fire.org>.

In most cases, states give contiguous fire districts the power to merge. Oregon statutes include such a process, referring to it as "merger; consolidation." We include that part of Oregon Law pertaining to the consolidation of fire districts as found in ORS 198.885, beginning on page 139 of this report. The statute applies only to fire districts, although other provisions of the law do address contracting between cities and fire districts.⁴³ For the purpose of this report, however, a service contract between a city and a district is considered as an alliance and not as integration.

Motivating Factors

When organizations are asked to list reasons for undertaking strategic restructuring, respondents most often cite internal decisions to increase the effectiveness and/or efficiency of their organization.⁴⁴ Notwithstanding the tax limitation issues and economic reality facing many communities, most perceive that they undertake strategic restructuring to improve the quality and/or range of service. This implies that most organizations approach the decision to carry out an alliance or integration because of forecasting and planning.

Least mentioned reasons for restructuring are funding issues; but not surprisingly, when funding is judged as a motivator, those involved in the development of an intergovernmental alliance are less likely to mention it than those organizations undertaking complete integration.⁴⁵ An alliance is less threatening to an organization's autonomy than integration. The recognition of imminent financial problems can cause some to take greater organizational risk.

Organizations tend to consider the options of alliance and integration when the agencies experience certain events. Often, a sudden interruption of the status quo may occur (such as the loss of a CEO, a financial crisis, or a rapid change of the community or service demand) that compels significant change. Other times, forward-thinking individuals of the policy body or administration may champion the idea through opposition. Frequently, these same leaders work against their own self-interest, especially in promoting integration. Last, the political or operational climate in which the agency operates may change in a way that forces the agency to change the way it does business.

⁴³ (Merger; Consolidation) ORS 198.885, Merger of districts.

⁴⁴ 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 15.

⁴⁵ Ibid.

Success Factors

The success of a strategic restructuring depends on many things. In our experience with dozens of alliances and integrations however, leadership is the single factor that most frequently determines success. Nearly always, a key staff or council or board member champions the concept garnering the support of the various affected groups (political, labor, member, and community). In addition, 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, the research by Kohm, Piana, and Gowdy identifies five factors that most often seem to contribute to the successful implementation of an alliance or integration.⁴⁶ The five are:

- Leadership that believes strongly in the partnership and demonstrates this belief, often by acting selflessly to maintain it.
- Multiple forms of communication to keep all persons (board, staff, members, and community) up to date about plans, problems, and benefits concerning the partnership.
- Face-to-face communications with partner organizations in the form of meetings, training, and other forums to build trust and understanding among staff.
- 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.
- 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.

Restructuring Pitfalls

Organizational alliances and integrations fail for many reasons. Sometimes law prohibits the idea at the outset. Other times the proposal may be doomed by the unfavorable outcome of a public election, or the reality of finance. These issues aside however, four major pitfalls can cause even the most feasible alliance or integration to go wrong. We think of these pitfalls as the “Four Horsemen” of failed partnerships. Specifically, the four are command, communication, control, and culture.

Command

Undertaking any partnership absolutely requires that effective leadership be demonstrated consistently at all levels. Policymakers and administrators must guide their respective agencies, yet (at the same time) they must cooperate with partner organizations. Differing leadership

⁴⁶ Ibid, page 22.

styles may tend to cause repressed friction at best and open conflict at worst. Problems with sharing control and making decisions sends the wrong message to the members of the organization, which can lead to an unraveling of even the best proposal.

Communication

Silence or limited information from leaders about potential or upcoming partnerships breeds fear, mistrust, and misinformation among affected persons. The leaders of collaborating organizations must agree to communicate actively with all affected groups. Everyone must be provided the same information at the same time. Most importantly, leaders must demonstrate two-way communication skills by carefully listening to (and acting on) the concerns of all constituents.

Control

Frequently, the strategic restructuring process is compared to a marriage. As the saying goes, "Marriage is when two people become as one; the trouble starts when they try to decide which one."⁴⁷ As in marriage, strategic restructuring often fails because of organizational or personal ego issues.

The tenets of leadership require that someone be in charge; but in the interest of greater good, some of those in leadership positions must agree to yield power. Some who are used to operating in a position of control may have trouble adjusting to new roles that require more collaboration. Personal sacrifice in the interest of community good may not always win out.

Culture

Two schools of thought exist regarding organizational culture. The first camp views culture as implicit in social life, naturally emerging as individuals transform themselves into social groups (tribes, organizations, communities, and nations). The second camp offers that culture is comprised of distinct observable forms (language, use of symbols, customs, methods of problem solving, and design of work settings) that people create and use to confront the broader social environment. This second view is most widely used in the evaluation and management of organizational culture, but the first is no less important when considering bringing two discrete organizations into a closer relationship.

⁴⁷ Source unknown.

The general characteristics of a fire department encourage the creation of a culture unique to that organization. The paramilitary structure, the reliance on teamwork, and the hazards of the work build strong bonds between the members who tend to share group behaviors, assumptions, beliefs, and values. Bringing two such groups together with cultures formed through different experiences always results in a change to both organizational cultures. If the partnership is successful, no one culture will overcome the other; instead, a new culture will evolve from the two. Occasionally, organizational cultures are just incompatible. In those cases, a form of cultural warfare may ensue which will eventually cause the partnership to fail.

Leaders must be aware of organizational culture and its role in the wellness of the agency's soul. Early recognition by leadership of the importance of culture to the success of a partnership can help to overcome differences and build on strengths.

Objective IV-2 Available Organizational Options and Potential Outcomes

Oregon State Law provides for a number of cooperative opportunities, organizational relationships, and processes to maximize fire and emergency services. ESCI provides a detailed profile of each partnering model that is available to the cities. A discussion of the joint programming, strategic restructuring, alliances, and joint operation models include:

- Cooperation
- Collaboration
- Consolidation
- Contract for services
- Full integration
- Future inclusion of other agencies

The discussion of potential cooperative efforts between Eugene and Springfield and other possible partners includes:

- Governance model
- Identified strength in regional partnerships
- Analysis of support services including:
 - o Human resources
 - o Information technology

ESCI elaborates on the possible outcomes on operations, staffing levels, standards of cover, deployment, and relationships with outside agencies as the result of cooperative service models

Organizational Options For Eugene FD and Springfield FLS

Based on the foregoing discussion, Eugene and Springfield may choose to restructure either through alliance or through integration. Specifically, the agencies can form an alliance by uniting one or more organizational programs (joint programming), or the agencies can enter into an administrative service alliance. If complete integration is chosen, the agencies may execute a complete consolidation in accordance with the provisions of ORS, with or as a fire protection district.

In all cases, one should remember that while the scope of this report is limited to the two fire departments, other regional players do exist. Geography, the transportation system, jobs, and other demographics unavoidably connect Eugene and Springfield to the other fire and EMS agencies of the region. The options presented by this report are intended to assist policymakers in making a decision; however, no decision should necessarily be limited to any one of the concepts or options presented here. Many of the ideas discussed by this report could now (or at a later time) be expanded to include other emergency service providers if greater efficiency or economics are a likely result.

Joint Programming Alliance

While the cities want this report to focus on the feasibility of an administrative alliance or a complete integration, we include a list of joint programming options here to assure completeness. Such options available to EFD and SFLS include the unified development and delivery of many of the existing administrative, support, and operational programs of the fire departments (not unlike the three-battalion system shared by the two departments). We list some of the most common types of collaborative programs Figure 72, with a short explanation of each.

Existing Alliances

Currently, the Eugene FD and Springfield FLS have entered into an interagency response agreement, three-battalion system, automatic aid, and other partnerships in order to enhance service and capitalize on efficiencies. Through the years, the two fire departments have made varying levels of effort to train together as they operate in a geographically contiguous area. Consequently, in those areas of similar operational interest, EFD and SFLS have jointly trained

to ensure greater interoperability, including hazardous materials, EMS, USAR, water rescue and high-rise operations.

Potential Alliances

In Figure 72 below we list some of most common types of programs with a short explanation of each. The table summarizes each concept with the strategy, objective, timeline, affected organizational section, and priority for implementation. The listing order has no bearing on weight or relative importance of the potential alliance.

Figure 72: Summary Table of Joint Programming Concepts

Strategy	Objective	Timeline Short, Mid, Long	Section	Priority High, Medium, Low
A - Develop standard operating guidelines	Provide guidelines for operation during emergencies, emergent and non-emergent incidents.	Short-term	Emerg Opn	High
B - Share specialty teams	Share specialty teams by allocating and distributing resources to achieve minimum cost and maximum operational benefit.	Midterm	Emerg Opn	High
C - Develop a joint support and logistics services division	Develop a joint Support Services Division that promotes improved operational readiness and that 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 program for physical assets, apparatus, small equipment, and IS/IT systems.	Long-term	Support Services	Low
D - Establish a fire investigation team	Provide fire cause determination through cooperative effort by sharing investigative resources and personnel.	Short to Midterm	Fire Prevention	Medium

Strategy	Objective	Timeline Short, Mid, Long	Section	Priority High, Medium, Low
E - Develop a public fire safety education coalition	Provide for the cost effective, regional dissemination of public fire safety education.	Midterm	Fire Prevention	Medium
F - Develop a juvenile fire setter intervention network	Provide an effective means for intervention in juvenile set/caused fires.	Short-term	Fire Prevention	Medium
G - Create a unified occupational medicine program	Provide a fire service-related occupational and health program.	Midterm	Admin	Low
H - Create a unified wellness and fitness program	<p>Provide a wellness and fitness program that promotes the improved health and well-being of personnel in all divisions, at all ranks.</p> <p>Increase fitness levels and decrease injuries.</p> <p>Reduce frequency and number of sick/sick injury incidents.</p> <p>Reduce the number of days used for sick/sick injury leave.</p>	Midterm	Admin	Low
I - Adopt and implement a regional computerized training records management system	Provide a fully integrated comprehensive training records management system (RMS).	Midterm	Training	High
J - Develop and adopt common training standards	<p>Adopt uniform training guidelines.</p> <p>Adopt uniform certification standards.</p>	Short-term	Training	High
K - Complete the development of a training manual	Provide consistent, standardized training procedures.	Short-term	Training	High
L - Implementation and cooperative use of a video conferencing system	<p>Provide standardized, consistent, and high-quality classroom training.</p> <p>Reduce training staff hours required for curriculum development and delivery.</p> <p>Increase in-service time of emergency response apparatus.</p>	Short-term	Training	High

Strategy	Objective	Timeline Short, Mid, Long	Section	Priority High, Medium, Low
M - Develop an annual training plan	Provide standardized and consistent training. Provide a well-trained emergency workforce. Provide long-term vision and direction for training delivery.	Short-term	Training	High
N - Consolidate training into a single training division	Eliminate duplicated efforts in training emergency responders. Create a single training division.	Short-term	Training	High
O - Consolidate fire and EMS training facilities	Provide training facilities readily available to both fire districts. Train and maintain the skills of emergency services personnel.	Midterm	Training	Medium
P - Develop mutual training strategies	Provide purpose and direction for training program management and delivery. Combine strengths and resources to: 1) Overcome current training obstacles and deficiencies, 2) Provide a comprehensive, and regionally integrated training structure, 3) Develop a mutually beneficial training program, and 4) Train and certify a cadre of knowledgeable and skilled emergency responders.	Short to Midterm	Training	Medium
Q - Develop uniform fees for service	Provide both fire departments with a uniform schedule of fees for service.	Midterm	Admin	Low
R - Adopt a single fire code	Provide for a Uniform Fire Code with a single set of local amendments. Provide local amendments to apply for new construction, remodels, and tenant improvements.	Midterm	Fire Prevention	Medium

Strategy	Objective	Timeline Short, Mid, Long	Section	Priority High, Medium, Low
S - Develop uniform EMS recertification training and EMS supervision	Provide a single point for recertification of all EMS personnel.	Short-term	EMS	Medium
T - Provide for joint staffing of stations and apparatus	Provide for distribution of facilities and deployment of personnel consistent with a standard of cover. Provide consistent fire and emergency services in all areas efficiently before and during, and after development.	Midterm	Emerg Opn	Low
U - Acquire AVL, and MDC or MDT capabilities	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.	Midterm	Emerg Opn	Medium
V - Develop uniform pre-incident plans	Provide a system of shared uniform operational plans for use during emergencies and non-emergent incidents.	Short-term	Emerg Opn	Medium
W - Develop uniform incident reporting guidelines	Develop uniform incident reporting standards for emergency operations. Evaluate performance against standards.	Short-term	Emerg Opn	Medium
X - Provide system-wide guidelines for fire response	Define response times including maximum response times and response time definitions so that adequate system planning can take place. Establish parameters for maximum response times on a per-call basis. Develop a system-wide reporting structure to standardize the collection and reporting of response times.	Short to Midterm	Emerg Opn	Medium

Strategy	Objective	Timeline Short, Mid, Long	Section	Priority High, Medium, Low
Y - Implement the use of peak activity units (PAUs)	Provide units in areas of high incident activity, coverage for units attending training sessions, and staffing for special events.	Midterm	Emerg Opn	Low
Z - Provide system-wide guidelines for EMS response	Define 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. Develop system-wide reporting structure to standardize collection and reporting of response times.	Short to Midterm	EMS	High
AA - Provide joint EMS supply purchasing and logistics services	Standardize supply purchases through group purchasing and standardize supply distribution.	Short-term	EMS	High
AB - Undertake the purchase and implementation of an electronic staffing program	Provide a uniform electronic system that combines telephone callback, personnel scheduling, and includes payroll and administrative features.	Short-term	Admin	Medium
AC - Develop deployment standards	Develop deployment standards that establish the distribution and concentration of emergency resources, both fixed and mobile.	Short-term	Emerg Opn	Low
AD - Consolidate fleet services-maintenance and repair	Provide a cost effective consolidation of fleet services for both agencies.	Long-term	Support Services	Medium
AE - Develop single emergency preparedness program	Provide a seamless emergency preparedness program	Midterm	Admin	Medium

Each of the listed program concepts represents a viable management option for the two departments. We generally view the concepts as being relatively simple to develop and

execute. The cost associated with implementation of any would generally not exceed the combined budgetary allocation for the corresponding programs of the districts.

Alliance, Contracting for Services – IGA (intergovernmental agreement)

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 Oregon Revised Statutes (ORS) confirms that the State of Oregon grants local governments the power to contract for a broad range of purposes.⁴⁸ Specifically, ORS 190.007 declares intergovernmental cooperation as a matter of “statewide concern.” ORS 190.010 bestows local government with the authority to enter agreements that provide a function or activity:

- “By a consolidated department.”
- “By jointly providing for administrative officers.”
- “By means of facilities or equipment jointly constructed, owned, leased or operated.”
- “By one of the parties for any other party.”
- “By an intergovernmental entity created by the agreement and governed by a board or commission appointed by, responsible to and acting on behalf of the units of local government that are parties to the agreement.”
- “By a combination of the methods described.”

Clearly, Oregon Chapter 190 grants very broad authority to local governments wishing to enter a formal partnership leading to an alliance. Frequently, such contracts are referred to as intergovernmental agreements (IGAs). Oregon IGAs permit individual organizations to share resources, improve service, and to save money at the program or organizational level. Operation of the regional wastewater program is organized under terms of an IGA.

An alliance involves organizational restructuring that includes a formal commitment to continue shared or transferred decision-making power under the terms of some type of formal agreement or contract. However, it does not involve any change to the corporate or governing structure of the participating organizations. The alliance category includes two general subtypes applicable to fire protection: joint programming and administrative service agreements.

The two cities may choose to enact an administrative service alliance through the execution of an IGA. Depending on the form of the agreement, the resulting fire department could feature a

⁴⁸ ORS Chapter 190, *Cooperation of Governmental Units*, 2007 edition.

single organizational structure or, alternatively, one administrative structure but two separate operational divisions (EFD and SFLS). In both cases, existing city council governance is unchanged, although a joint oversight board may be formed for the purposes of alliance management. In our experience, administrative service alliances that foster a single structure are generally more successful.

The statutes that enable administrative service contracts (ORS 190) do not grant the resulting organization taxation authority. Consequently, the overall funding of a service alliance must remain wholly with the original governing agencies. Usually, an allied fire department is funded based on the adoption of an annual budget by all participating jurisdictions and the subsequent cost sharing. Funding formulas usually weigh the relationship of one or more variables such as population, emergency response, and assessed value to appropriate cost within the participating agencies. Of the three, we view assessed value as most closely representative of actual fire risk. Specifically:

- Population – Very difficult to establish reliably in areas outside of municipalities. People who reside in one area may work, play, and conduct commerce in another causing the actual number of persons to fluctuate widely throughout a region each day. Residential population does not link directly to risk or workload as evidenced by the fact that lowest alarm load typically occurs during early morning hours when functional population is closest to certified population.
- Emergency response – Open to wide fluctuation depending on environmental and other factors. The number of alarms may not be representative of real workload; for example, one large emergency event lasting many hours or days versus another response lasting only minutes and resulting in no actual work. Emergency response is open to manipulation by selectively downgrading minor responses, by responding off the air, or through mutual aid.
- Assessed value – Is established every year for each governmental entity by a third party under the legal guidelines established by the state. Usually, higher valued structures carry greater risk to the community from loss by fire. Fire departments are charged with being sufficiently prepared to prevent that very loss to the community.

Integration through Consolidation, Merger, and Annexation

Oregon Law also allows cities to consolidate or merge with other nearby or contiguous cities.⁴⁹ The process is somewhat rare in Oregon, but the best-known example of consolidating city government probably occurred in the mid-1960s when the cities of Delake, Oceanlake, and Taft joined with the unincorporated communities of Cutler City and Nelscott to create Lincoln City. A similar consolidation of Eugene and Springfield governance goes well beyond the scope of this

⁴⁹ ORS Chapter 222, *City Boundary Changes; Mergers; Consolidations; Withdrawal*, 2007 edition.

work, not to mention that the idea to consolidate city governance just to bring the fire departments together is most likely a political non-starter. Accordingly, we reject city consolidation as an option.

As mentioned, Oregon Law includes a means for cities to annex to adjoining fire districts.⁵⁰ Under this statute, if one or both of the cities annexed to a district, responsibility for fire protection (including governance and funding) in the annexed area transfers to the district. Passage of an annexation requires the approval of the voters of both the district and the affected city. After annexation, property owners of the annexed territory are subject to the district's tax levy within Oregon constitutional limits. If the ballot question includes a proposal to enact a new permanent tax rate for fire protection, passage requires approval by a majority of voters when at least 50 percent of eligible voters cast a ballot or that it passes in a general election held in an even-numbered year.⁵¹

Last, and similar in process and outcome to the annexation strategy, the partner agencies could opt to undertake the creation of a new fire district encompassing the jurisdictional territories of all three. ORS Chapter 198 details a process for district formation. In this case, the resulting ballot question would include both the simultaneous dissolution of a fire district and the establishment of a new permanent tax rate for fire protection.

We judge both annexation and district formation to be viable strategies that could lead to the integration of the partner agencies.

Rural Fire Protection Districts

State Law governs the formation and authority of Oregon fire districts. Oregon Revised Statutes (ORS) Chapter 478, *Rural Fire Protection Districts*, serves as the principal act of each fire district; but, as special units of local government, all fire districts are also subject to other statutes, foremost of which includes ORS Chapter 198, *Special Districts Generally*. There are over 300 rural fire protection districts providing a wide range of emergency services to communities throughout the state.

Oregon first authorized rural fire protection districts to assure unincorporated communities with a means to protect lives and property from fire. The system has worked wondrously for many years, undoubtedly saving countless persons and preserving billions of dollars of property in the

⁵⁰ ORS 198.866, *Annexation of city to district*, 2007 edition.

⁵¹ ORS 198.815 (5), 2007 edition.

process. During the time that the law has been in effect, however, the State and the nature of fire protection have changed a great deal. Cities and rural communities have grown to the extent that previously isolated villages and neighborhoods now blend, becoming regional centers with interdependent economies and service demands. At the same time modern fire protection has evolved to encompass much more than just extinguishing fires. Today, fire departments are sophisticated and indispensable channels for all forms of emergency service, including natural and man-caused disaster management, fire and accident prevention, and pre-hospital care. In the process, the role of many fire districts has transformed from that of a *rural* to *regional* emergency service provider.

The transition to regional fire protection is occurring in many parts of Oregon. Specifically, the urbanized area surrounding the City of Portland includes two regional fire protection districts: Tualatin Valley Fire and Rescue and Clackamas County Fire District No. 1. The two departments serve a combined population of over 600,000 in 400 square miles, including 14 cities. Other areas of the State have chosen to convert municipal fire protection systems to regional fire protection districts, including Klamath Falls (Klamath County Fire District No. 1) and White City (Jackson County Fire District No. 3). However, the phenomenon of regional emergency services is not unique to Oregon. For example, regional fire and EMS agencies protect large population centers in the areas around Los Angeles, Denver, and Seattle.

The principal act (ORS Chapter 478) also addresses the governance of Oregon fire districts. An elected board made up of five electors who are either landowners or residents administers each fire district.⁵² A district may by ordinance prevent firefighters and other employees of the district from serving as directors.⁵³ The directors may propose to the voters that the district be divided into sub-districts for electing board members from specific communities within the district.⁵⁴ Using sub-districts could assure that representation from specific areas (cities and unincorporated areas) would occur. The board hires or appoints a fire chief to manage the affairs of the district.

Oregon fire districts are funded primarily through property tax levies. The levies fall under the \$10 per \$1,000 of assessed value cap for local government. Many fire districts also provide funding through fees for service such as ambulance transport, fire prevention inspection fees,

⁵² ORS 478.050, *Qualifications for directors*, 2007 edition.

⁵³ *Ibid.*

⁵⁴ ORS Chapter 478.225, *Election subdistricts; petition for formation; election*, to 478.234, *Subdistricts for nomination or election of directors*, 2007 edition.

and response on transportation routes. Since the implementation of tax limit measures 47 and 50 in the 1990s, all fire districts of the state operate under a “permanent” tax rate. Current non-tax revenue generating activities of EFD and SFLS could continue under a fire district.

Available Options for Assimilating EFD and SFLS

There are a limited number of options available for EFD and SFLS to assimilate EMS and fire services beyond joint programming and an alliance. The options involve the conversion of a fire department to an RFPD (rural fire protection district). Oregon Law includes four strategic routes: formation, annexation, merger, and consolidation. We outline the basic issues of each tactic below. None of the options are overly complex to implement; however, because each represents a legal process, execution of any of the alternative strategies requires a certain attention to detail. Guidance by legal counsel experienced in such matters is necessary throughout the process.

Fire District Formation

The process to form a fire district is detailed in the principal act, ORS 478 *Rural Fire Protection Districts*, and in ORS 198 *Special Districts Generally*. Because the cities of Eugene and Springfield lie within the jurisdiction of Lane County, any proposal to form a new district must gain the approval of the County Commission.

Annexation of City to a Fire District

Eugene and Springfield may choose to annex to an existing fire district by adopting a resolution proposing the annexation.⁵⁵ When a city annexes to a district, responsibility for that service in the city transfers to the district. Additional territory brought into the city in the future automatically accrues to the district.⁵⁶ Importantly, after annexation the fire district’s permanent tax rate limit applies to the whole of the city for the purpose of fire protection services. City taxpayers are taxed by the fire district for fire protection and by the city for other governmental services. The combined total of the tax rates of the city, the fire district, and other general purpose taxing entities must fall within limits set by principal acts and under the constitutional limit of \$10 per \$1,000 of assessed value.

The elected board of the district remains in place after annexation; however, State Law does include a provision allowing subdivision of the resulting territory for the purpose of

⁵⁵ ORS 198.866, *Annexation of city to district; approval of annexation proposal; election*, 2007 edition.

⁵⁶ ORS 198.867 (3) (a), *Approval of annexation to district by electors of city and district; certification; effect of annexation*, 2007 edition.

representation.⁵⁷ Consequently, successful action by a city in annexing to an existing fire district could result in a change on the governing board of the fire district if the action includes a proposal for subdivision. Subdivision can be limiting in the long-term; therefore, we recommend that the governing bodies solve representation issues through pre-annexation negotiation.

Clackamas County Fire District No. 1 has recently annexed two cities into the district. The City of Milwaukie city council agreed to reduce the amount of property tax revenue they collected by an amount equal to the cost taxpayers would pay to the fire district for a period of three years. Voters overwhelmingly approved annexation. At the same election, the City of Oregon City sought approval for annexation without offering any reduction in the amount they would collect and the ballot measure failed. A subsequent election where the city council of Oregon City agreed to reduce collections to an amount equal to the tax levied by the fire district passed.

Objective IV-3 Fiscal Analysis and Benchmarking of Partnering Options

ESCI uses a computer-driven model budget for EFD and SFLS to compare the actual public costs for each agency and as a tool for analyzing the financial consequences of the proposed partnering options. Each model of cooperative restructuring catalogs the subsequent financial outcome including cost, cost saving, and cost avoidance. Budget modeling and trending are employed as a part of this study to forecast a financial result by:

- Measuring the effects of proposed organizational changes
- Review current vacancies and long-term attrition opportunities
- Predicting cost, saving, or cost avoidance
- Analysis for long-term financial stability

Funding mechanisms are identified and comprehensive outcomes are provided for each of the proposed cooperative efforts.

Effects of Proposed Organizational Changes

The primary reason for this study was to investigate cooperative efforts and to determine feasible options for providing fire and EMS services to the cities of Eugene and Springfield. A key to determining the feasibility of any of the alternatives revolves around the effects of proposed organizational changes. This section of the report provides information on staffing, current and future vacancies, the cost of service, and long-term finances of proposed changes.

⁵⁷ ORS 198.866 (2), *Annexation of city to district; approval of annexation proposal; election*, 2007 edition.

The existing alignment of fire stations and deployment of apparatus and personnel is considered excellent for responding to emergencies in Eugene and Springfield. In the section titled, Phase III: Future Service Demand and Financial Impact Analysis, the discussion focuses on the coverage of service demand. The outcome of combining EFD's and SFLS's 16 fire stations results in coverage of well over 90 percent of all demand for emergency service (includes the service area of contracted districts).

Proposed changes in the organizational structure for a consolidated fire and EMS agency, through an alliance or consolidation, is directed at maintaining or improving on the current level of service to Eugene and Springfield. It is possible to maintain service level objectives and achieve cost avoidance, with efficiencies from realigning and restructuring the combining organization.

A concept for staffing of administration and support services of a combined fire and EMS department (Figure 73) lists position/title and the number of FTEs.

Figure 73: Concept of Administration and Support Services Staffing

Position – Title	
Administration and Support Staff	FTEs
Fire Chief	1.00
Deputy Chief - Division Manager Administration Operations Special Operations	3.00
EMS Chief	1.00
FM/Deputy Chief	1.00
Assistant Fire Marshal	1.00
Deputy Fire Marshal 1	4.75
Deputy Fire Marshal 2	7.00
District/Battalion Chief – Training	1.00
Training Officer	2.00
Fire Training Captain	1.00
Fire Instructor	1.00
EMS Training Coordinator	1.00
Executive Assistant/Departmental Assistant	2.00
Management Analyst	3.00
Program Technician	5.00
Service Bureau Manager	1.00
Admin Specialist/Clerk 2	3.00
Admin Specialist, Senior	1.00
Clerk/Assistant	2.00
IT Position	1.00
Emergency Equip Tech I	1.00
Emergency Equip Tech II	1.00
Fire Maintenance Worker	3.00
Fire/EMS Logistics Manager	1.00
Parts and Supply Specialist	1.00
EMS Account Services Super/ Management Analyst 1	1.00
Officer Supervisor, Senior	1.00
EMS Accounting Tech/Program Specialist (10 FTE billing)	13.00
Video Technician	1.00
Total FTEs	65.75

Short term it is feasible to exploit real vacancies (those that currently exist) and anticipated attrition in administrative and support positions. The conceptual staffing results in a decrease of 10.5 FTEs (74.25 to 63.75).

Figure 74 shows is a concept of the number of FTES for staffing operations of a consolidated EFD and SFLS.

Figure 74: Concept of Operational Staffing

Position – Title	
Operations/Field Personnel	FTEs
District/Battalion Chief	9.00
Fire Captain	54.00
Fire Engineer	60.00
Firefighter/Paramedic	45.00
Medic I	3.00
Medic II	4.00
Firefighter	78.00
Total FTEs	253.00

The number of FTEs assigned to emergency operations is equal to the combined authorized staffing of EFD and SFLS in fiscal year 2009.

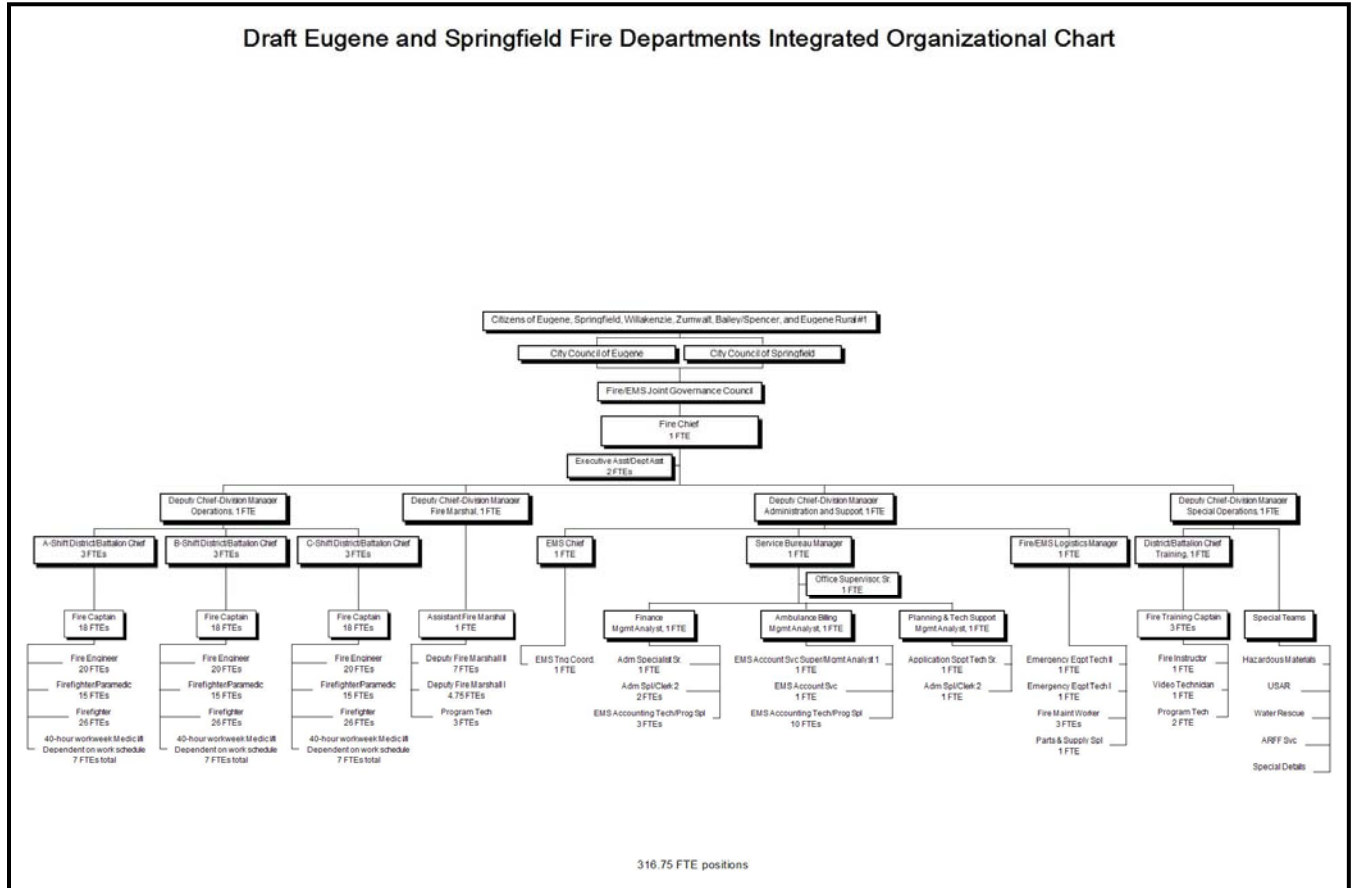
Figure 75 shows the total FTEs of a consolidated EFD and SFLS and the change from the number of FTEs in fiscal year 2009.

Figure 75: Total FTEs of Consolidated EFD and SFLS

Positions	FTEs	Change From Baseline
Administrative & Support	63.75	-10.50
Operational	253.00	0.00
Total FTEs	316.75	-10.50

The following figure (Figure 76) combines the restructured administrative and support with the operations and presents a concept for an integrated organizational structure.⁵⁸

Figure 76: Concept Organizational Chart



The organizational structure is shown as one concept. Detailed discussions should follow any decision to proceed with integrating the two fire departments. To assist in discussion a transitional organizational structure is found in Appendix N: Concept Integrated Organizational Chart.

Financial Result of EFD – SFLS Integration, Baseline

The same service at reduced cost is always desirable. Increased cost accompanied by better or more service is frequently acceptable, but sometimes increased cost becomes a political lightning rod if accompanying benefits are perceived as few. Whether that happens or not in this case depends greatly on how the citizens of the area see the change, and how politics

⁵⁸ A larger copy of the organizational chart is found in Appendix M: Concept Transitional Organizational Chart.

drives the issue. Certainly, a frequently mentioned “killer” issue conveyed during the stakeholder interviews for this work was increased cost.

Figure 77 shows the baseline cost of an integrated EFD and SFLS. The modeling uses the staffing model with 316.75 FTE. The bonded debt is not included in the calculation. If the two fire departments do pursue a consolidation under the fire district model, the liability could be transferred to the new organization. For this example the assumption is that the bonded debt remains where it was incurred.

Figure 77: Baseline Cost of EFD – SFLS Integration, Fiscal 2009

Baseline Cost		
Component	Consolidated	Difference
1. Assessed Value	14,466,234,111	0
2. Total Requirements	46,143,803	- 851,275
3. Total Revenue (except tax)	16,556,011	0
4. Tax Necessary to Balance (#2 - #3)	29,587,792	- 851,275
5. Modeled Tax Rate (#4 / #1)	\$2.045	EFD \$0.170 SFLS -\$0.784

Based on fiscal year 2009 costs modeling shows that an integrated fire department would result in a lower total cost to operate. This could be achieved over several years of attrition. The total cost avoidance would be \$851,275. However, the modeled tax rate would increase in Eugene and decrease significantly for Springfield. The costing can be addressed by creating an IGA and budget that extrapolates the net savings of a jointly operated fire department. Figure 78 takes the cost savings and apportions them by the percentage of assessed valuation of Eugene and Springfield.

Figure 78: Apportionment of Cost Savings

	Assessed Valuation	Percentage	Cost Avoidance	Tax Rate	Rate with Apportioned Savings	Difference
Eugene	10,994,414,109	76.00%	646,973	\$1.954	\$1.816	- \$0.14
Springfield	3,471,820,002	24.00%	204,301	\$2.830	\$2.771	- \$0.06
Total	14,466,234,111	100.00%	851,275		\$2.045	

Based on our modeling, the City of Eugene would realize a net cost avoidance of \$646,973 and Springfield \$204,301.

The consolidation of the two fire departments does accrue benefits to the communities. Although operational benefits are one outcome of a consolidation, financial consequence predicted for integration looks promising. A financial projection of the operational cost model suggests that integration requires less budgetary resources than if the agencies do nothing. Considering remarks made by city officials concerning the importance of demonstrable cost reduction, we conclude that full integration of EFD and SFLS is feasible at this time.

Phase V: Findings, Preferred Option and Action Steps

Objective V-1 Timeline and Action Steps

Any options/opportunity analysis and strategic plan presents organizational leaders with a series of challenges. Successful timing and implementation of the options requires that significant issues be addressed, regardless of which option and opportunities are chosen.

ESCI has provided Eugene FD and Springfield FLS direction, instruction, and a timeline for potential alternative organizational relationships that include:

- Findings – Feasibility of each opportunity of shared service
- Preferred Option – The preferred option or options as developed by ESCI senior staff
- Policy Action – Necessary policy action to be taken by the elected bodies
- Process Issues – Strategic planning, legal considerations, management, governance, and funding
- Timeline – Recommendations in this study provide general completion timelines offered to guide the agencies in developing a more detailed listing during any formal planning process

Findings

During the process, ESCI determined that the EFD and SFLS had many characteristics that are found in progressive emergency service agencies. A listing of a few characteristics includes the three-battalion program, development of the Metro SOPs, a merged response system, and joint training. Much of the responsibility is directly related to the positive efforts and working relationship fostered by the current leadership. Fire Chief Dennis Murphy and Fire Chief Randy Groves have created an atmosphere that is benefiting the public, employees, and organizations.

It was reported that positive feelings towards the leadership abilities of both city managers (expressed by various stakeholders at multiple levels of both cities) and an upbeat relationship exists between the two cities, particularly good with counterparts. Success of the joint ambulance summit was pointed to as a harbinger of future relations. It was described as a political shift of the cities; not just economies.

Common to both EFD and SFLS is the similar variety of service and programs. No other metro area in the state enjoys the benefit of a single fire and ALS EMS transport system. The system has proven to be effective at maintaining a high level quality service. The FireMed program,

long embraced by both departments, has been copied in other areas of the country with like success.

Summary of Feasibility

This examination presents a continuum of cooperative options, from alliance to integration, available to Eugene and Springfield (see: General Partnering Strategies on page 93). Choosing alliance, the jurisdictions could share in the development and delivery of one or more of many existing programs, such as operating standards, training, and joint fire stations (see: Figure 72: Summary Table of Joint Programming Concepts beginning on page 105); or the agencies could elect to implement a more complete alliance through the enactment of an administrative service agreement. Alternatively, the cities may opt for complete integration by implementing an annexation to an existing fire district or the fire district formation process.

Webster's New World Dictionary defines the word "feasibility" as: "Capable of being done." The scope of work for this project states ESCI will present the feasibility of each opportunity for shared services. From that perspective, all of the strategies allowed by Oregon Law are feasible; however, issues of finance and taxation often determine the practicality of many cooperative ventures of the sort discussed here. That may prove to be the case in the communities served EFD and SFLS.

Collaboration

The continuum of options begins with those that have the greatest level of autonomy – collaboration. Collaboration involves joint planning, mutual and automatic aid, resource sharing, and professional association. With collaboration, there is no permanent relationship and decision-making remains with the individual organizations.

Eugene and Springfield fire departments currently exercise collaborative efforts with other agencies in Lane County and at the state and national levels. Locally, it involves joint planning for emergency response, automatic aid, and SOPs.

Joint Programming (Alliance)

Moving toward greater integration, fire departments will often have joint programs. Joint programming involves a commitment to continue for the foreseeable future, a sharing or transfer of decision-making power, and an agreement. Joint programming may involve a single program (training), a multi-focused program (fire prevention/code enforcement), or an integrated system (9-1-1 dispatch).

Joint programming concept strategies are listed below (see: Figure 72: Summary Table of Joint Programming Concepts on page 105). The strategies include:

- A – Develop standard operating guidelines
- B – Share specialty teams
- C – Develop a joint support and logistics services division
- D – Establish a fire investigation team
- E – Develop a public fire safety education coalition
- F – Develop a juvenile fire setter intervention network
- G – Create a unified occupational medicine program
- H – Create a unified wellness and fitness program
- I – Adopt and implement a regional computerized training records management system
- J – Develop and adopt common training standards
- K – Complete the development of a training manual
- L – Implementation and cooperative use of a video conferencing system
- M – Develop an annual training plan
- N – Consolidate training into a single training division
- O – Consolidate fire and EMS training facilities
- P – Develop mutual training strategies
- Q – Develop uniform fees for service
- R – Adopt a single fire code
- S – Develop uniform EMS recertification training and EMS supervision
- T – Provide for joint staffing of stations and apparatus
- U – Acquire AVL, and MDC or MDT capabilities
- V – Develop uniform pre-incident plans
- W – Develop uniform incident reporting guidelines
- X – Provide system-wide guidelines for fire response
- Y – Implement the use of peak activity units (PAUs)
- Z – Provide system-wide guidelines for EMS response
- AA – Provide joint EMS supply purchasing and logistics services

- AB – Undertake the purchase and implementation of an electronic staffing program
- AC – Develop deployment standards
- AD – Consolidate fleet services-maintenance and repair
- AE – Develop single emergency preparedness program

To the credit of Eugene and Springfield, many of the listed programs have already been or are in the process of being developed. We applaud and encourage the continuation of these efforts.

IGA (Alliance)

Intergovernmental cooperation (see: Alliance, Contracting for Services – IGA (intergovernmental agreement) on page 110) grants cities and special districts broad power to contract with other governmental entities for any function or activity the agencies have authority to perform. Public agencies may enter into service agreements, service exchanges, and sharing/partnerships. Eugene and Springfield Fire Departments have a number of IGAs currently in place, including:

- Three-battalion agreement between Eugene and Springfield
- IGA, Bailey-Spencer RFPD
- IGA, Eugene RFPD No. 1
- IGA, River Road Water District
- IGA, Willakenzie RFPD
- IGA, Zumwalt RFD
- IGA for Regional HazMat through Oregon SFM
- ORS 190 agreement for Regional USAR through Oregon SFM

IGAs are often seen as an intermediary step. An IGA can be compared to dating and courtship; a time to see if a long-term relationship is beneficial, prior to a total commitment.

Fire Authority

The most formal and greatest level of integration involves changes in corporate control. Some states provide a process for the creation of regional fire protection units called fire authorities.⁵⁹

⁵⁹ Our limited review of State Law finds no reference to the creation of a fire authority in Oregon. We include a description of the strategy here to assist in understanding of other alternatives.

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.

While the option of a fire authority is not available to the two cities, the legislative process provides a long-term option. As an example, the State of Washington in 2004 passed legislation authorizing regional fire authorities.⁶⁰ The same could be proposed in Oregon during the next legislative biennium.

Merger

In most cases, states give contiguous fire districts the power to merge. Oregon statutes include such a process, referring to it as "merger; consolidation." That part of Oregon Law pertaining to the consolidation of fire districts is found in ORS 198.885, and provided beginning on page 139 of this report. The statute applies only to fire districts, although other provisions of the law do address contracting between cities and fire districts.⁶¹

Fire Districts

Forming a fire district to encompass the two cities represents a higher form of integration. Such a strategy would involve a change in corporate control and structure, including the creation of a new organization, and/or the dissolution of one or more organization.

State Law governs the formation and authority of Oregon fire districts. Oregon Revised Statutes (ORS) Chapter 478, *Rural Fire Protection Districts*, serves as the principal act of each fire district but, as special units of local government, all fire districts are also subject to other statutes, foremost of which includes ORS Chapter 198, *Special Districts Generally*. There are over 300 rural fire protection districts providing a wide range of emergency services to communities throughout the state.

⁶⁰ Regional fire protection service authorities, RCW 52.26.

⁶¹ (Merger; Consolidation) ORS 198.885, Merger of districts.

Preferred Option

Of all of the feasible options discussed above, our preferred choice is an IGA between EFD and SFLS. This is seen as an intermediary step for a vision of a single fire agency via annexation to a fire district. While a number of fire districts are available for the cities to annex to, those with a current relationship to EFD and SFLS are clearly preferred. This strategy clearly represents the least complex alternative to execute.

Other Considerations

We offer comment on a few additional issues pertaining to the preferred option. The listing is in no particular order or priority.

Partnership

The decision to consider execution of the preferred option represents a partnership between the cities. Well before the governing bodies ever adopt a joint resolution proposing annexation, the two must develop a high degree of trust. Each must understand that the other will act in the best interest of constituencies, and that the business between the councils 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 cities will need to come to agreement on a number of important details. Those matters should be committed to an implementation plan.

Governance

Governance in an annexation falls to the existing board of directors of the fire district. All of the fire districts are smaller with fewer citizens than either of the cities. In a republic, governance should be representative of constituency. Therefore, it is reasonable for the cities and the district to consider a plan to phase the governance of a district toward a mix considered more representative of the new protection area.

Timelines

Choosing annexation over other strategies of disassociation frees the issue from the simple majority or general election requirements. In the case of annexation, the date of March 31 is very important. An annexation order must be filed in final approved form with the Oregon Department of Revenue by March 31 in order for the change to be effective for the fiscal year beginning on July 1. If the deadline is missed, the district's tax levy cannot be imposed on the

territory subject to the boundary change, and the district will receive no revenue until the subsequent tax year.

Employees

The City of Eugene has contracts with the American Federation of State, County, and Municipal Employees, Local 1724 and the IAFF (International Association of Firefighters), Local 851. The City of Springfield has collective bargaining agreements with IAFF Local 1395 and SEIU Local 503 Oregon Public Employees Union, Springfield City Employees Local 995. Oregon statutes also speak to the matter; consequently, though the issue will need to be addressed by the parties, the transfer of employees to a fire district should not be a “deal breaker”. ORS 242.702 requires a civil service system for fire district firefighters; therefore, creation of a civil service commission will need to accompany disassociation.

Negotiation of Assets, Reserves, and Transfer of Property

The successful execution of a plan to annex will ultimately involve the transfer of certain assets and liabilities. The parties need to come to agreement on those details so that the new district can begin to plan the financial aspects associated with long-term service. There is no statutory requirement for transfer, but because we assume the matter is cooperative between the parties, it is reasonable to assume that mutual agreement can be reached. The transfer should include not only the capital equipment and facilities associated with EFD and SFLS but also contracts and reserves necessary for the proper operation of the department.

District Founding Documents

A number of documents will need to be ready for implementation when annexation is ordered. These include rules and regulations, personnel policies, board policies, and adoption of a fire code just to name a few.

Strategic Plan

Systematic planning is critical throughout and after the annexation process. A strategic plan assures that all parts of the organization and community have a place at the table and that goals and objectives result from clearly defined outcomes and benchmarks. Strategic planning should begin with an annexation implementation plan and lead to a long-range plan for the district.

ASAs

The ambulance service areas served by EFD and SFLS are important parts of the financial underpinning of the departments. The departments should make certain early in the process that the contracts with Lane County are transferable to a district.

Recommended Action

First steps are important. If the city councils of the Cities of Eugene and Springfield support the conclusions of this report, policy action by officials needs to focus the efforts of many persons toward the goal of annexation. Without clear direction from policymakers, indecisive or counter-productive work is likely to result. It is also important that the region's other fire departments share in the planning and action steps that follow the adoption of the goal, even if they are not directly affected by it. If all stakeholder groups actively participate in the process, the need for work plan revisions are more easily identified and made to reach the goal.

Therefore, we recommend that the city councils of Eugene and Springfield jointly adopt (through either resolution or ordinance) the outcome of consolidation as the Vision for Regional Fire and EMS delivery. The jurisdictions should resolve to work cooperatively toward carrying out the goal within a specific time. We suggest 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, we believe 18 months to two years 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, 2011; but first, careful consideration should be given to election, budgeting, and taxation cycles to assure the proper timing of organizational startup. As an intermediary step we recommend the establishment of a single fire department through the use of a IGA beginning July 1, 2010.

Once a Vision for Regional Fire and EMS delivery is adopted, the cities should appoint a steering committee that includes representation from all stakeholder groups to plan, communicate, oversee, and direct progress toward consolidation. The committee should be charged to meet regularly to discuss issues of mutual concern regarding the Regional Vision. The group should work to provide cohesive policy direction to the fire chiefs and others regarding the details of reaching the Regional Vision. Activities of the committee might include consultation with staff, other policy makers, or professional experts. In addition, the committee should consider proposals and choose a unified course of action.

Framework for Action

ORS 198.866 provides a process for a city to annex to a special district. A section of the statute is included for reference as Appendix C: ORS Chapter 198 Excerpt, Special Districts Generally, Annexation, on page 137. As always, we emphasize that we are not qualified to give legal advice so any discussion concerning statutory issues must be viewed in that light. We offer our grasp on the cited statutes below and some of the matters surrounding them, but we make no representation that we have consulted all relevant law or that our interpretation of the law is necessarily correct. The partner agencies should consult with legal professionals experienced in public law before embarking on any consolidation strategy. Several Oregon groups (the Oregon Special Districts Association, the Oregon City and County Managers Association, Oregon Fire District Directors Association, and the Oregon Fire Chiefs Association) may provide valuable assistance in this.

Landmarks for Reaching a Regional Fire Protection Vision

- **Consult with service partners.** The Eugene and Springfield governing officials begin a dialog with all of the service partners (and legal counsel) regarding the proposed Regional Fire Protection Vision and the work plan. Establish which district is likely to participate in reaching the goal.
- **Joint adoption of a Regional Fire Protection Vision.** The governing officials formally adopt a Regional Fire Protection Vision. Such action includes the appointment, charge, and timeline goal of a Regional Fire Protection Vision Steering Committee.
- **Organize the Steering 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. Set meeting dates and times. Review and adopt the work plan. Meetings are ongoing, as is the review and revision of the work plan. 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 Steering Committee obtains legal opinion concerning the statutory requirements for annexation of Eugene and Springfield to a fire district. At a minimum, the agencies should determine the following: 1) if an adjustment to the fire district's permanent rate is necessary; and 2) how the timing of the election may influence the finance and taxation systems of the district.
- **Establish the name of the proposed integrated district.** Obtain consensus on the name, logo, mission, vision, values, and organizational structure of the proposed consolidated district. The name should accommodate eventual active participation by other emergency service providers.
- **Determine which directors will serve after election.** Come to an agreement on the need for a succession plan for district governance after the successful annexation.
- **Cities: Adopt the annexation proposal.** The Eugene and Springfield City Councils adopt the annexation proposal and certified copies go to the district board.

- **District: Approve the proposal.** Call for an election. Notify the cities and county.
- **Prepare for the election.** A public education and information campaign needs to be prepared and ready for delivery promptly after the election date is set.
- **Deliver the public education/information campaign.** During the time before the election, voters must be provided with information regarding the annexation and its benefit to the emergency service system. All entities should actively participate in the process to the extent allowed by law.
- **Election is held.** Get out the vote.
- **Annexation is approved.** After an affirmative vote is certified, the county board declares the cities to be annexed to the district.
- **Prepare the founding documents of the district.** During the time leading up to the annexation (if any), prepare supporting documents such as budget, risk management, errors and omissions insurance, bylaws, policies, rules, and procedures.
- **Implement any sidebar agreements concerning governing officials.** At the first meeting of the integrated district, accept any pre-arranged resignations from the board and appoint corresponding city representatives. Swear in new board members. Assign position numbers to each.
- **Inventory and transfer assets.** Capital assets and employees of the former city fire departments are transferred to the integrated district.
- **Disband the Steering Committee.** Once the fire district is integrated and operational, the Regional Vision has been accomplished and the Steering Committee is no longer required.
- **Implement a strategic planning process.** The district board of directors oversees the development of a facility site plan, and equipment replacement plan, and a staffing plan. Investigate and include in the plans collaborative opportunities for joint facilities, equipment, staffing, or operations with other fire protection agencies.

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Appendix B: ORS Chapter 190 Excerpt, Cooperation of Governmental Units

Chapter 190.003 to 190.030 — Cooperation of Governmental Units;
State Census; Arbitration

2007 EDITION

GOVERNMENT COOPERATION; CENSUS; ARBITRATION

MISCELLANEOUS MATTERS

INTERGOVERNMENTAL COOPERATION

(Generally)

190.003 Definitions for ORS 190.003 to 190.130

190.007 Policy; construction

190.010 Authority of local governments to make intergovernmental agreement

190.020 Contents of agreement

190.030 Effect of agreement

INTERGOVERNMENTAL COOPERATION

(Generally)

190.003 Definitions for ORS 190.003 to 190.130. As used in ORS 190.003 to 190.130, “unit of local government” includes a county, city, district or other public corporation, commission, authority or entity organized and existing under statute or city or county charter. [1967 c.550 §2]

190.007 Policy; construction. In the interest of furthering economy and efficiency in local government, intergovernmental cooperation is declared a matter of statewide concern. The provisions of ORS 190.003 to 190.130 shall be liberally construed. [1967 c.550 §3]

190.010 Authority of local governments to make intergovernmental agreement. A unit of local government may enter into a written agreement with any other unit or units of local government for the performance of any or all functions and activities that a party to the agreement, its officers or agencies, have authority to perform. The agreement may provide for the performance of a function or activity:

- (1) By a consolidated department;
- (2) By jointly providing for administrative officers;
- (3) By means of facilities or equipment jointly constructed, owned, leased or operated;
- (4) By one of the parties for any other party;
- (5) By an intergovernmental entity created by the agreement and governed by a board or commission appointed by, responsible to and acting on behalf of the units of local government that are parties to the agreement; or
- (6) By a combination of the methods described in this section. [Amended by 1953 c.161 §2; 1963 c.189 §1; 1967 c.550 §4; 1991 c.583 §1]

190.020 Contents of agreement. (1) An agreement under ORS 190.010 shall specify the functions or activities to be performed and by what means they shall be performed. Where applicable, the agreement shall provide for:

(a) The apportionment among the parties to the agreement of the responsibility for providing funds to pay for expenses incurred in the performance of the functions or activities.

(b) The apportionment of fees or other revenue derived from the functions or activities and the manner in which such revenue shall be accounted for.

(c) The transfer of personnel and the preservation of their employment benefits.

(d) The transfer of possession of or title to real or personal property.

(e) The term or duration of the agreement, which may be perpetual.

(f) The rights of the parties to terminate the agreement.

(2) When the parties to an agreement are unable, upon termination of the agreement, to agree on the transfer of personnel or the division of assets and liabilities between the parties, the circuit court has jurisdiction to determine that transfer or division. [Amended by 1967 c.550 §5]

190.030 Effect of agreement. (1) When an agreement under ORS 190.010 has been entered into, the unit of local government, consolidated department, intergovernmental entity or administrative officer designated therein to perform specified functions or activities is vested with all powers, rights and duties relating to those functions and activities that are vested by law in each separate party to the agreement, its officers and agencies.

(2) An officer designated in an agreement to perform specified duties, functions or activities of two or more public officers shall be considered to be holding only one office.

(3) An elective office may not be terminated by an agreement under ORS 190.010. [Amended by 1967 c.550 §6; 1991 c.583 §2]

Appendix C: ORS Chapter 198 Excerpt, Special Districts Generally, Annexation

Chapter 198.866 through 198.867 — Special Districts Generally

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(Annexation; Annexation Approval)

198.866 Annexation of city to district; approval of annexation proposal; election. (1) The governing body of a city may adopt a resolution or motion to propose annexation to a district for the purpose of receiving service from the district. Upon adoption of an annexation proposal, the governing body of the city shall certify to the district board a copy of the proposal.

(2) The district board shall approve or disapprove the city's annexation proposal. If the district board approves the proposal, the district board shall adopt an order or resolution to call an election in the district unless otherwise provided in subsection (3) of this section.

(3) The district board is not required to call an election if:

- (a) The population of the city is less than 20 percent of the population of the district; or
- (b) The entire boundary of the city is encompassed within the boundary of the district.

(4) Notwithstanding subsection (3) of this section, if 10 percent of the electors or 100 electors of the district, whichever is less, sign and present to the county board a petition requesting an election, the board shall call an election in the district. The petition shall be in conformity, to the greatest extent practicable, with ORS 198.750, 198.760, 198.765 and 198.770.

(5) The order or resolution of the district board shall include the applicable matters specified in ORS 198.745. In addition the order or resolution may contain a plan for zoning or subdistricting the district as enlarged by the annexation if the principal Act for the district provides for election or representation by zone or subdistrict.

(6) The district board shall certify a copy of the resolution or order to the governing body of the city.

(7) Upon receipt of the resolution or order of the district board, the governing body of the city shall call an election in the city on the date specified in the order or resolution of the district board.

(8) An election under this section shall be held on a date specified in ORS 255.345 that is not sooner than the 90th day after the date of the district order or resolution calling the election. [1983 c.142 §2 (enacted in lieu of 198.865); 1993 c.417 §1; 2003 c.219 §1]

198.867 Approval of annexation to district by electors of city and district; certification; effect of annexation. (1) If the electors of the city approve the annexation, the city governing body shall:

(a) Certify to the county board of the principal county for the district the fact of the approval by the city electors of the proposal; and

(b) Present the certificate to the district board.

(2) If the electors of the district approve the annexation, the district board shall:

(a) Certify the results of the election; and

(b) Attach the certificate to the certificate of the city and present both certificates to the county board.

(3) Upon receipt of the certificate of the city governing body and the district board, the county board shall enter an order annexing the territory included in the city to the district. When the county board enters the order, the city territory, together with any territory thereafter annexed

to the city:

- (a) Shall be included in the boundaries of the district; and
- (b) Shall be subject to all liabilities of the district in the same manner and to the same extent as other territory included in the district. [1983 c.142 §3 (enacted in lieu of 198.865)]

Appendix D: ORS Chapter 198 Excerpt, Merger; Consolidation

Chapter 198.885 through 198.915 — Special Districts Generally

2007 EDITION

(Merger; Consolidation)

198.885 Merger of districts; effect. (1) One district or more may merge with another district if the merger is approved by the electors as provided by ORS 198.895 to 198.915 or if it is approved by a local government boundary commission as provided by ORS 199.480 (1)(c). The districts included in the merger shall be considered annexed by and absorbed into the surviving district.

(2) If the merger is approved, the district boards and officers of the merging districts shall turn over to the board of the surviving district all funds, property, contracts and records of the merging districts. Upon the effective date of the merger, the surviving district shall:

(a) Succeed to all the property, contracts, rights and powers of the merging districts, and shall constitute and be a regularly organized district as if originally organized in the manner provided by the principal Act and ORS 198.705 to 198.955;

(b) Uncollected taxes, assessments or charges levied by the merging districts shall become the property of the surviving district and upon collection shall be credited to the account of the surviving district; and

(c) Subject to any debt distribution plan adopted under ORS 198.900, the surviving district shall become liable for all the obligations, legal or contractual, of the merging districts.

(3) Districts providing potable water for domestic consumption, sanitary sewer or surface water quality and quantity purposes under separate principal Acts may merge as provided in this section. The district designated as the surviving district shall have all powers held by the other district under the principal Act of the other district.

(4) A county service district may merge with another district providing different or similar services as provided in subsection (3) of this section. When the county service district is not the surviving district, the merging entities shall enter into an agreement concerning elected representation on the board of the surviving district. The agreement shall provide that no fewer than two members of the board of the surviving district shall be appointed by the board of county commissioners, acting as the governing body of the county service district, to serve until replaced by individuals elected to the office at the next regular district election.

(5) Subsections (3) and (4) of this section do not apply to water authorities or sanitary authorities seeking to provide a different water-related service if the entities that seek to merge with the existing water authorities or sanitary authorities are within the urban growth boundary of a city and the city provides water supply, wastewater treatment or surface water management and treatment. When such entities are within the urban growth boundary of a city, the merging entities must:

(a) Obtain consent for the merger from the city prior to calling an election; or

(b) Comply with the formation process set forth in ORS 450.600. [1971 c.727 §42; 1983 c.336 §22; 1997 c.590 §1]

198.890 Consolidation of districts; effect. (1) Two or more districts may consolidate and form a new district if the consolidation is approved by the electors as provided by ORS 198.895 to 198.915 or if it is approved by a local government boundary commission as provided by ORS 199.480 (1)(c). The districts included in the consolidation shall be considered joined into a single new district.

(2) If the consolidation is approved, the district boards and officers of the consolidating districts shall turn over to the board of the successor district all funds, property, contracts and records of the consolidating districts. Upon the effective date of the consolidation, the successor district shall:

(a) Succeed to all the property, contracts, rights and powers of the consolidating districts, and shall

constitute and be a regularly organized district as if originally organized in the manner provided by the principal Act and ORS 198.705 to 198.955;

(b) Uncollected taxes, assessments or charges levied by the consolidating districts shall become the property of the successor district and upon collection shall be credited to the account of the successor district; and

(c) Subject to any debt distribution plan adopted under ORS 198.900, the successor district shall become liable for all the obligations, legal or contractual, of the consolidating districts.

(3) Districts providing potable water for domestic consumption, sanitary sewer or surface water quality and quantity purposes under separate principal Acts may consolidate as provided in this section. Upon the effective date of the consolidation, the district designated as the successor district shall have all powers held by the consolidating districts under the principal Acts of all of the districts.

(4) A county service district may consolidate with another district providing different or similar services as provided in subsection (3) of this section. The consolidating entities shall enter into an agreement that shall be binding on the successor district concerning elected representation on the board of the successor district. The agreement shall provide that no fewer than two members of the board of the successor district shall be appointed by the board of county commissioners, acting as the governing body of the county service district, to serve until replaced by individuals elected to the office at the next regular district election.

(5) Subsections (3) and (4) of this section do not apply to water authorities or sanitary authorities seeking to provide a different water-related service if the entities that seek to consolidate with the existing water authorities or sanitary authorities are within the urban growth boundary of a city and the city provides water supply, wastewater treatment or surface water management and treatment. When such entities are within the urban growth boundary of a city, the consolidating entities must:

(a) Obtain consent for the consolidation from the city prior to calling an election; or

(b) Comply with the formation procedures set forth in ORS 450.600. [1971 c.727 §43; 1983 c.336 §23; 1997 c.590 §2]

198.895 Initiation of merger and consolidation; procedure when city included in merger or consolidation. (1) The electors of two or more districts may initiate proceedings to merge or consolidate districts by filing duplicate petitions with the boards of the districts to be merged or consolidated. The petitions shall state the names of the affected districts, and the name of the surviving or successor district and whether the merger or consolidation must be approved by each district. If the proposal may be approved by fewer than all affected districts and may be effective only as to the approving districts, the petition shall so specify.

(2) When proceedings have been initiated as provided in subsection (1), (3), (4) or (5) of this section, and the districts or district and city are subject to the jurisdiction of a local government boundary commission, the initiating documents shall be filed with the boundary commission as provided by ORS 199.476.

(3) If a proposed merger or consolidation initiated under subsection (1) of this section includes a proposal to join a city to the surviving or successor district, the electors of the districts and the city also shall file a duplicate petition with the governing body of the city. The signature requirements under ORS 198.755 applicable to a district proposed to merge or consolidate are applicable to the city. A petition under this subsection shall contain all the matters required to be stated in the petition under subsection (1) of this section, except that the petition also shall state:

(a) The name of the city proposed to join the surviving or successor district; and

(b) Whether the merger or consolidation must be approved by each district or city in order to be effective.

(4) The electors of one district and a city may initiate proceedings to join the city to the district by filing duplicate petitions with the board of the district and the governing body of the city. The signature requirements under ORS 198.755 (4) applicable to a district are applicable to the city. A petition under this subsection shall contain the name of the district, the name of the city and shall state that the proposal

must be approved by the district and the city in order to be effective.

(5) Merger or consolidation also may be initiated by resolution adopted or approved by two or more district boards. If the merger or consolidation under this subsection includes a proposal to join a city to the surviving or successor district, the governing body of the city also must adopt or approve a resolution. A resolution adopted or approved under this subsection shall contain all the matters required to be stated in a petition to merge or to consolidate. [1971 c.727 §44; 1983 c.142 §6; 1983 c.336 §24; 1985 c.263 §1]

198.900 Content of petition for merger or consolidation. (1) A petition for merger or consolidation may include a debt distribution plan to be voted upon as a part of the proposal. The plan may provide for any distribution of indebtedness and may require that merging or consolidating districts and any city to be joined to the surviving or successor district remain solely liable for all or any portion of any indebtedness outstanding at the time of the merger or consolidation.

(2) If the merger or consolidation is approved, the district board of the successor or surviving district shall, in accordance with the plan, levy taxes and assessments for the liquidation of any prior existing indebtedness. Such a levy shall be subject to the principal Act of the consolidated or merged district. [1971 c.727 §45; 1983 c.142 §7]

198.902 Application of district petition requirements to cities. The procedures and requirements regarding the preparation, circulation and filing of a petition in a district under ORS 198.705 to 198.955 apply to the preparation, circulation and filing of a petition in a city, except that the duties of the secretary of the district board as described in ORS 198.765 and 198.770 shall be performed by the elections officer of the city. The governing body of a city shall perform the duties of the district board in ORS 198.705 to 198.955 in regard to a petition filed with the city. [1983 c.142 §9]

198.903 Joint assembly of governing bodies of affected districts or cities; order for election; contents. (1) When the governing body of each affected district or city has received a petition under ORS 198.895 containing the required number of signatures or has adopted or approved a resolution, the governing body of the affected entity having the largest population according to the most recent federal decennial census shall call a joint assembly of the governing bodies of the affected entities. The governing body calling the joint assembly shall specify the time and place of the assembly. The secretary of the governing body shall give notice of the assembly to each member of the governing body of each affected entity. The notice shall be given by certified mail.

(2) At the joint assembly, a majority of the members of each governing body constitute a quorum for the transaction of business.

(3) The assembly, by a majority of all members present, shall adopt an order calling an election in each affected entity. The order shall include the matters specified in ORS 198.745.

(4) The order adopted by the assembly may include a plan for zoning or subdistricting the surviving or successor district for the purpose of nominating or electing members of its board if the principal Act for the district provides for election or representation by zone or subdistrict. The plan must describe the proposed boundaries of the zones or subdistricts. If required by the principal Act, the plan also must include a map of the proposed zone or subdistrict boundaries.

(5) If the merger or consolidation is initiated by petition and the petition includes a debt distribution plan, the order adopted under this section shall include that plan. [1983 c.142 §10; 1983 c.350 §7b]

198.905 Certification of election results. The governing body of each affected entity shall meet separately not later than the fifth day after receiving from the county clerk the abstract of the votes cast in the entity in an election on consolidation or merger. At the meeting, the governing body of the entity shall determine the result of the election and certify the result to the governing body of each of the affected entities. [1971 c.727 §46; 1983 c.142 §11]

198.910 Joint meeting of governing bodies of merged or consolidated districts and cities;

election of board members for surviving or successor district; terms. (1) If the proposal for merger or consolidation is approved by a majority of the votes cast in each affected entity required for approval of the proposal, the governing body of the affected entity with the largest population according to the most recent federal decennial census shall call a joint meeting of the governing bodies of the affected entities. The meeting shall be held at a time and place designated by the governing body calling the meeting, not later than 10 days after the canvass of the vote in the entity last canvassed. The secretary of the entity calling the meeting shall give notice of the time and place of the meeting to each member of the governing body of each affected entity.

(2) At the joint meeting, a majority of the members of the governing body of each affected entity constitute a quorum for the transaction of business. The members so assembled shall from among the members elect a number of persons consistent with the principal Act to serve as board members of the surviving or successor district. The board so elected shall immediately meet and organize as provided by the principal Act and shall by resolution declare the districts merged or consolidated and each affected city joined, as the case may be. From the date of adoption of the resolution the merger or consolidation is complete, and the city territory, together with any territory thereafter annexed to the city, is included in the boundaries of the surviving or successor district and shall be subject to all the liabilities of the district in the same manner and to the same extent as other territory included in the district.

(3) Of the persons elected under subsection (2) of this section to serve as board members of the surviving or successor district, three shall serve until June 30 following the next regular district election as defined in ORS 255.005 and the remaining members shall serve until June 30 next following the second regular district election. However, if the principal Act provides for a board of directors of three members for the surviving or successor district, then two members shall serve until June 30 following the next regular district election as defined in ORS 255.005 and the remaining member shall serve until June 30 next following the second regular district election. The terms of office of the members shall be determined by lot. [1971 c.727 §47; 1983 c.142 §12; 1989 c.503 §1; 1993 c.424 §4]

198.912 Apportionment of board members for certain surviving or successor districts.

Notwithstanding ORS 198.910, when, at an election on consolidation or merger, a majority of the votes cast in each affected district is in favor of merger or consolidation or when merger or consolidation of districts is approved by a final order of a local government boundary commission, if two or more of the affected districts each have 20 percent or more of the electors or owners of land within the successor or surviving district, then each such affected district shall be represented on the board elected under ORS 198.910 as follows:

(1) By one member when the percentage of electors or owners of land in the affected district is at least 20 percent but less than 40 percent of the electors or owners of land within the successor or surviving district.

(2) By two members when the percentage of electors or owners of land in the affected district is at least 40 percent but less than 60 percent of the electors or owners of land within the successor or surviving district.

(3) By the number of board members remaining after apportionment of board members under subsections (1) and (2) of this section when, among all of the affected districts, the percentage of electors or owners of land in the affected district is the highest percentage of electors or owners of land within the successor or surviving district. [1997 c.590 §5]

198.915 Election of board members at regular district election. At the first regular election held in the surviving or successor district, two or three district board members shall be elected as provided by ORS 198.910 (3). [1971 c.727 §48; 1993 c.424 §5]

Appendix E: Apparatus Replacement Cost Analysis

Vehicle No.	Year	Make	Useful Life	Remaining Life	Replacement	Reserved Requirement on 1/1/09	Annual Reserve Contribution
Brush 10	1999	IH/E1Interface	15	5	285,000	190,000	19,000
Brush 13	2008	IH/Pierce	15	14	285,000	19,000	19,000
Brush 15	1999	IH/E1 Interface	15	5	285,000	190,000	19,000
C1	2007	Suburban	10	8	85,000	17,000	8,500
C2	2006	Suburban	10	7	85,000	25,500	8,500
Engine 1	2007	Pierce/Velocity	15	13	535,000	71,333	35,667
Engine 10	2007	Pierce/Velocity	15	13	535,000	71,333	35,667
Engine 11	2007	Pierce/Velocity	15	13	535,000	71,333	35,667
Engine 13	2007	Pierce/Velocity	15	13	535,000	71,333	35,667
Engine 14	1997	Pierce Saber	15	3	535,000	428,000	35,667
Engine 15	2008	Pierce/Velocity	15	14	535,000	35,667	35,667
Engine 16	1999	Pierce Saber	15	5	535,000	356,667	35,667
Engine 2	1997	Pierce	15	3	535,000	428,000	35,667
Engine 24	1989	Pierce Arrow	15	0	535,000	535,000	35,667
Engine 26 (reserve)	1994	Pierce Arrow	15	0	535,000	535,000	35,667
Engine 3	2004	Pierce Contender	15	10	535,000	178,333	35,667
Engine 31(reserve)	1995	Pierce Arrow	15	1	535,000	499,333	35,667
Engine 35 (reserve)	1997	Pierce Arrow	15	3	535,000	428,000	35,667
Engine 4	2004	Pierce Contender	15	10	535,000	178,333	35,667
Engine 5	1995	Pierce Saber	15	1	535,000	499,333	35,667
Engine 6	2007	Pierce/Velocity	15	13	535,000	71,333	35,667
Engine 7	2001	Pierce Dash	15	7	535,000	285,333	35,667
Ladder 14	2001	E-One 75'	20	11	965,000	434,250	48,250
Ladder 8	2006	Pierce	20	17	965,000	144,750	48,250
Ladder 9	2006	Pierce	20	17	965,000	144,750	48,250
Medic 10	2006	IH/Lifeline	7	4	255,000	109,286	36,429
Medic 11	2006	IH/Lifeline	7	4	255,000	109,286	36,429
Medic 15 (reserve)	1995	Frontline	7	0	255,000	255,000	36,429

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Vehicle No.	Year	Make	Useful Life	Remaining Life	Replacement	Reserved Requirement on 1/1/09	Annual Reserve Contribution
Medic 16	2008	Lifeline Medic	7	6	255,000	36,429	36,429
Medic 21 (reserve)	2001	Ford/450	7	0	255,000	255,000	36,429
Medic 23	2001	Freightliner	7	0	255,000	255,000	36,429
Medic 24	1996	Freightliner	7	0	255,000	255,000	36,429
Medic 25	2005	Freightliner	7	3	255,000	145,714	36,429
Medic 28 (reserve)	2001	Ford/Braun	7	0	255,000	255,000	36,429
Medic 3	2008	International	7	6	255,000	36,429	36,429
Medic 31 (reserve)	2004	Ford/E450	7	2	525,000	375,000	75,000
Medic 36	2001	Freightliner	7	0	40,000	40,000	5,714
Medic 5	2006	Freightliner	7	4	255,000	109,286	36,429
Medic 6	2006	IH/Lifeline	7	4	255,000	109,286	36,429
Medic 8 (swing)	2008	IH/Lifeline	7	6	255,000	36,429	36,429
Medic 91	2006	IH/Lifeline	7	4	255,000	109,286	36,429
Medic 92	2004	E450/Lifeline	7	2	255,000	182,143	36,429
Rescue 5	1997	Pierce Saber	10	0	255,000	255,000	25,500
Tender 14	1998	Freightliner	15	4	365,000	267,667	24,333
Tower 2	2007	Pierce	20	18	965,000	96,500	48,250
Tower 22 (reserve)	2000	Pierce	20	11	965,000	434,250	48,250
Tower 5	2002	Pierce Aerial	20	13	965,000	337,750	48,250
Truck 1	2006	Pierce	20	17	965,000	144,750	48,250
Water Tender 2	2002	Pierce	15	8	365,000	170,333	24,333
Water Tender 8	2002	Pierce	15	8	365,000	170,333	24,333
Total Annual Funding Requirement					\$22,615,000	\$10,459,071	\$1,743,726

Appendix F: Organizational Systems

Survey Components	Eugene Fire & EMS	Springfield Fire & Life Safety
1. Background Documentation		
A. Comprehensive plan(s)		
i) strategic plan	City of Eugene Fire and EMS Department Strategic Plan, July 2007 – June 2011	City of Springfield Fire & Life Safety Strategic Plan, Revised April 5, 2006
ii) CIP	Capital Improvement Program 2010-15, City of Eugene, Oregon, Draft	City of Springfield, Oregon Capital Improvement Program, A Community Reinvestment Plan, 2009 - 2013
B. ISO classification and survey	Public Protection Summary Report, Eugene Oregon, January 18, 2008	Public Protection Classification Results, Springfield, Lane County OR, April 25, 2008 Public Protection Classification Improvement Statements for Springfield, Lane County, Oregon
C. Organizational audits		
i) internal audits	City of Eugene Fire and EMS Department Standards of Response Coverage, January 2008	City of Springfield Department of Fire & Life Safety Standards of Cover and Deployment Study, April 2007
ii) external audits	Not applicable	Springfield Fire & Life Safety Fire District Feasibility, January 2002
D. Other organizational studies or evaluations	None submitted	City of Springfield, Oregon, Employee Survey Results, February 2009. Springfield Employee Survey, 2008-09, Not Fire.
E. Standards of cover and deployment	City of Eugene Fire and EMS Department Standards of Response Coverage, January 2008	City of Springfield Department of Fire & Life Safety Standards of Cover and Deployment Study, April 2007
i) community risk analysis	Section 3 – Risk Assessment	Chapter 4: Community Risk Analysis
ii) service definitions	Page 53, Call Types and Effective Response Force	Page 87, Critical Task Analysis
iii) service goals	Section 5 – Service Level Goals	Chapter 7: Performance Measures
F. Financial documentation		
i) annual budget	FY09 Annual Budget FY09 Proposed Budget Summary	City of Springfield Financial Detail, (Database FY2010): Budget
ii) comprehensive annual financial report	Comprehensive Annual Financial Report, Fiscal Year Ended June 30, 2008	City of Springfield Oregon Comprehensive Annual Financial Report, Fiscal Year Ending June 30, 2008

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Survey Components	Eugene Fire & EMS	Springfield Fire & Life Safety
iii) salary classifications & schedule	City of Eugene Salary Schedule, 07/01/08	Appendix A, IAFF Local 1395, page 36 Appendix A and B, SEIU Local 503, City Employees Local 995 Appendix A and B City of Springfield Performance Pay Plan By Bargaining Unit, Effective January 1, 2009 to June 30, 2009
iv) authorized staffing	Reference Tab 18 for FY09 Annual Budget, Page E.20, FTE Summary and worksheets.	Reference Tab 14 Payroll Report. Reference Tab 18 summary reports and worksheets.
v) employee benefit schedule	Contract Between City of Eugene and American Federation of State, County, and Municipal Employees, Local 1724, Effective through June 30, 2012. Contract Between City of Eugene and International Association of Firefighters, Local 851, Effective July 1, 2007 through June 30, 2009.	Collective Bargaining Agreement Between the City of Springfield & IAFF Local #1395, July 2, 2007 – June 30, 2010. Collective Bargaining Agreement, SEIU Local 503 Oregon Public Employees Union, Springfield City Employees Local 995, and City of Springfield, Expires June 30, 2009.
vi) financial audits	Comprehensive Annual Financial Report, Fiscal Year Ended June 30, 2008	City of Springfield Oregon Comprehensive Annual Financial Report, Fiscal Year Ending June 30, 2008
2. Organizational Documents		
A. Annual report	City of Eugene fire and EMS Department Annual Report, Fiscal Year 2008	None submitted
i) divisional reports	City of Eugene fire and EMS Department Annual Report, Fiscal Year 2008	Annual Report of Fire Prevention Programs for the City of Springfield Fire Marshal's Office for Calendar Year 2006 (Reference Tab 23) 2008 Department Training Report (Reference Tab 24)
B. Organizational chart	Eugene Fire and EMS Organization, Chart of Approved Positions, March 2008 Eugene Fire and EMS Functional Organizational Chart (undated)	Reference Tab 1 Organizational Chart with FTEs
C. Organizational plans		
i) strategic plan	City of Eugene Fire and EMS Department Strategic Plan, July 2007 – June 2011	City of Springfield Fire & Life Safety Strategic Plan (Revised April 5, 2006)
ii) work plan	City of Eugene Fire and EMS Department Work Plan, July 2007 – June 2011, Last Revised 2/11/09	None submitted
iii) affirmative action plan	City of Eugene Affirmative Action Plan Questionnaire	None submitted

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Survey Components	Eugene Fire & EMS	Springfield Fire & Life Safety
iv) CIP	Capital Improvement Program 2010-15, City of Eugene, Oregon, Draft	City of Springfield, Oregon Capital Improvement Program, A Community Reinvestment Plan, 2009 - 2013
D. Service agreements		
i) ASA	ASA 4	ASA 5
ii) mutual aid	Lane County Fire Defense Board Oregon USAR Task Force	Lane County Fire Defense Board Ambulance Mutual Aid Agreement
iii) automatic aid	Eugene F&EMS with Santa Clara RFPD Eugene F&EMS with Lane Rural Fire/Rescue Eugene F&EMS with Lane Co FD No.1	Springfield F&LS with McKenzie F&R
iv) interagency agreements	3-Battalion Agreement between Eugene and Springfield IGA, Bailey-Spencer RFPD IGA, Eugene RFPD No. 1 IGA, River Road Water District IGA, Willakenzie RFD IGA, Zumwalt RFD IGA for Regional HazMat through Oregon SFM ORS 190 agreement for Regional USAR through Oregon SFM	3-Battalion Agreement between Eugene and Springfield IGA, City of Eugene Dispatch Contract (ref Tab 4) ORS 190 agreement for Regional USAR through Oregon SFM
E. Labor agreements		
i) sworn employees, non exempt	Contract Between City of Eugene and International Association of Firefighters, Local 851, Effective July 1, 2007 through June 30, 2009.	Collective Bargaining Agreement Between the City of Springfield & IAFF Local #1395, July 2, 2007 – June 30, 2010.
ii) non-sworn employees, non exempt	Contract Between City of Eugene and American Federation of State, County, and Municipal Employees, Local 1724, Effective through June 30, 2012.	Collective Bargaining Agreement, SEIU Local 503 Oregon Public Employees Union, Springfield City Employees Local 995, and City of Springfield, Expires June 30, 2009.

Appendix G: Organizational Overview

Survey Components	Eugene Fire & EMS	Springfield Fire & Life Safety
1. Governance and Line of Authority		
A. Governing body	City of Eugene Mayor and City Council Council: eight members elected to 4-year terms from eight city wards. Mayor: elected at large to 4-year term.	City of Springfield Mayor and City Council Council: six members elected to 4-year terms at large each representing a ward. Mayor: elected at large to 4-year term.
i) head of governing body	Mayor	Mayor
ii) key employee of governing body	City Manager, Jon Ruiz	City Manager, Gino Grimaldi
iii) meetings	Second and Fourth Monday each month, work sessions are held second and fourth Monday preceding the Council meeting, and on the second, third, fourth and fifth Wednesdays at noon.	First and third Monday each month
iv) designated fiscal year	July through June	July through June
B. Elected official authority defined	City Charter	City Charter
C. Fire chief position	Fire Chief Randall B. Groves	Fire Chief Dennis Murphy
i) hired by contract	No written contract	At will employee, no written contract
ii) term of contract	None	None
iii) periodic performance evaluation	Annual	Annual by assistant city manager, based on goals and organizational performance
iv) fire chief's supervisor	City Manager Jon Ruiz	Assistant City Manager Jeff Towery
D. Fire chief/authority defined	By city manager in job description	By city manager in job description
E. Policy and administrative roles defined	City charter	City charter
2. Organizational Management		
A. Mission statement adopted	Serve our community by protecting and preserving life, property, and the environment through prevention, education, medical, rescue, and fire suppression services.	"Protect life, property, and environment."
i) displayed	City website, fire department home page, fire department E-Log home page, SOP	http://www.springfieldfire.org/profile.htm
ii) periodic review	Work plan establishes review schedule	Undetermined
B. Vision established and communicated	Enhance the quality of life for everyone in our service area by embracing their interests, needs, and concerns for a safe and healthy community.	Mission, commitment, vision, and values
C. Values of staff established	Established as part of mission, commitment, vision and values	Established as part of mission, commitment, vision and values

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Survey Components	Eugene Fire & EMS	Springfield Fire & Life Safety
i) organizational focal points	Community service	EMS
D. Strategic or master plan	City of Eugene Fire and EMS Department Strategic Plan, July 2007 – June 2011	City of Springfield Fire & Life Safety Strategic Plan, Revised April 5, 2006
i) adopted by elected officials	Approved by department command team. Plan submitted to the city council.	Revision conducted by ESCi. Undetermined if adopted by governing board.
ii) published and available	Available in EFEMS headquarters and on department website	Available in SFLS headquarters
iii) periodic review	Undetermined	Periodic revision
E. Standards of cover	City of Eugene Fire and EMS Department Standards of Response Coverage, January 2008	City of Springfield Department of Fire & Life Safety Standards of Cover and Deployment Study, April 2007 (Conducted by ESCi)
i) adopted by elected officials	Initially yes. Updates are made available.	Undetermined
ii) published and available	Available in EFEMS headquarters and on department website and intranet	Available in SFLS headquarters
iii) periodic review	Annually since 2003	Periodic revision
F. Human resource management	City of Eugene HR Division, Alana Holmes, Director	City of Springfield HR Department, Bill Spiry
i) job descriptions maintained	All positions through HR division	All positions through HR department
ii) rules and policies maintained	City personnel manual, administrative rules, and department SOPs. Available electronically on Fire Server.	City personnel manual, administrative rules, and department SOPs. Available on intranet.
iii) employment agreements	IAFF Local 851 AFSCME Local 1724	IAFF Local 1395 SEIU Local 503
3. Financial Management		
C. Financial controls	City of Eugene Finance, Julie L. Lindsey Finance Manager	City Finance Department
i) financial control system	Finance guidelines	Finance Department guidelines
ii) financial review	Monthly actual review, Budget mgr over-sight	Supervisors sign for purchases
iii) audit	Required by State Law	Required by State Law
iv) frequency of review	Annual	Annual
4. Organizational Structure		
A. Structure type	Traditional top-down hierarchy with three main branches under the fire chief: Shift Operations, Adm & Support, and Special Operations. A second (functional) org chart is also used. See attached organizational chart.	Traditional top-down hierarchy with three main branches under the fire chief: Operations, Fire Prevention, and Services Bureau. See attached organizational chart.
B. Unity of command issues	None noted	None noted
C. Span of control issues	Two district chiefs; each oversee 5 to 6 stations	None noted

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Survey Components	Eugene Fire & EMS	Springfield Fire & Life Safety
D. Organizational levels defined	No formally defined organizational levels	No formally defined organizational levels
5. General Description of Agency		
A. Agency type	Municipal fire department	Municipal fire department
B. Service area, square miles	Total service area, 72.8 square miles	Total service area, 20 square miles
i) city service area	Eugene, 43.4 square miles	Springfield, 16 square miles
ii) contract service area	Bailey-Spencer RFPD, 5 square miles	Rainbow Water District, 2 square miles
iii) contract service area	Eugene Fire District #1, 9.8 square miles	Willakenzie Fire District, 2 square miles
iv) contract service area	River Road Water District, 1.8 square miles	Glenwood Fire District, 1 square mile
v) contract service area	Willakenzie-Eugene RFPD, 1.2 square miles	
vi) contract service area	Zumwalt RFPD, 11.6 square miles	
C. Headquarters	1705 W. 2 nd Ave, Eugene, OR 97402	City Hall, 225 Fifth Street, Springfield, OR 97477
D. Fire stations	Eleven stations	Five stations
E. Other facilities	Administration, logistics building, and training building/campus	Training division housed at Station 3
F. Emergency vehicles		
i) engine	10 (including 3 reserve)	6 (including one interface engine)
ii) tender	2	1
iii) ladder truck	1-truck, 2 platforms (including 1 reserve), 2 quints	1 quint, 1 ladder
iv) ambulance	10 medic (including 4 reserve)	6 medic
v) command	2 district chiefs	Battalion chief
vi) boat	2 boats, 2 wave runners	
vii) rescue	2 USAR	1 heavy rescue
viii) hazardous materials	2 tractor/trailer (state), 1 decontamination	
ix) specialty units	5 including 2 ARFF engines (including 1 reserve)	
G. ISO classification	Public protection class 3, retrogressed from class 2	Public protection class 3
i) date of most recent rating survey	January 2008	December 2004
ii) fire department creditable points	35.91 of 50 possible	34.21 of 50 possible
iii) relative classification	3	4
iv) divergent reduction	-4.23	-5.11
v) total creditable points	75.21 of 100 possible	73.19 of 100 possible
H. Total fire department personnel, uniformed and civilian	219.25 FTEs	108 FTEs
i) administrative and support personnel, full-time	44.25 FTEs	30 FTEs
ii) administrative and support personnel, volunteer	None	None
iii) operational personnel, full-time	175 FTEs	78 FTEs

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Survey Components	Eugene Fire & EMS	Springfield Fire & Life Safety
iv) operational personnel, volunteer	None	None
6. Communications Provider		
A. Emergency Dispatch Agency	Central Lane 9-1-1 through IGA	Central Lane 9-1-1 through IGA
i) population served	Approximately 250,000	Approximately 250,000
ii) 9-1-1 PSAP – (public safety answering point)	Central Lane 9-1-1	Central Lane 9-1-1
iii) surrounding bordering PSAPs	South Lane 9-1-1, Eastern Lane 9-1-1, and Western Lane 9-1-1	South Lane 9-1-1, Eastern Lane 9-1-1, and Western Lane 9-1-1
iv) surrounding and mutual aid fire departments	All of Lane County	All of Lane County
7. Demographics		
A. Population, entire service area	167,412	65,919
i) city population	City of Eugene: 156,634	City of Springfield: 58,005
ii) contract service population	Bailey-Spencer RFPD: 457	Rainbow Water District: 4,869
iii) contract service population	Eugene Fire District #1: 862	Willakenzie Fire District: 1,804
iv) contract service population	River Road Water District: 7,287	Glenwood Fire District: 1,241
v) contract service population	Willakenzie-Eugene RFPD: 1,014	
vi) contract service population	Zumwalt RFPD; 1,158	

Appendix H: Organizational Staffing

Survey Components	Eugene Fire & EMS		Springfield Fire & Life Safety	
1. Administration and Other Support Staff	FTEs		FTEs	
A. Fire Chief	1.00	Executive director, fire/EMS services	1.00	Fire chief
B. Deputy chief	3.00	Fire/EMS deputy chief	2.00	Deputy chief operations Deputy chief prev/hazmat
C. District chief	3.00	EMS chief District chief Fire marshal	0.00	
D. Assistant fire marshal	1.00	Assistant fire marshal	0.00	
E. Deputy fire marshal	7.75	Deputy fire marshal 1 Deputy fire marshal 2	4.00	Deputy fire marshal 2
F. Battalion chief (administrative)	0.00		1.00	Battalion chief, training
G. Training officer	3.00	Fire training captain Fire instructor EMS program officer	3.00	Training officer EMS program officer
H. Management analyst	1.00	Mgmt analyst, senior	2.00	Management analyst senior
I. Analyst	2.00	Management analyst 1 Management analyst 2	0.00	
J. Officer supervisor	2.00	Office supervisor, senior Application support tech, senior	1.00	EMS account services supervisor
K. Program technician	6.00	Program specialist	12.00	Program technician EMS accounting tech
L. Executive assistant	1.00	Executive assistant	1.00	Departmental assistant
M. Admin specialist	5.50	Admin specialist Admin specialist, senior	2.00	Clerk 2
N. Emergency equip tech	2.00	Emergency equip tech I Emergency equip tech II	0.00	
O. Fire maintenance worker	3.00	Fire maintenance worker	0.00	
P. Fire/EMS logistics manager	1.00	Fire/EMS logistics manager	1.00	Service bureau manager
Q. Parts and supply specialist	1.00	Parts and supply specialist	0.00	
R. Video technician	1.00	Video technician	0.00	
S. Total admin/support FTEs	44.25		30.00	

Eugene Fire & EMS and Springfield Fire & Life Safety, Oregon
Cooperative Services ~ Feasibility Study

Survey Components	Eugene Fire & EMS		Springfield Fire & Life Safety	
T. Percent of administration and support to total personnel		20.18%		27.78% 22.00% without FireMed staff
2. Emergency Service Staff	FTEs		FTEs	
A. District/battalion chief	6.00	District chief	3.00	Battalion chief
B. Fire captain	39.00	Fire captain	15.00	Fire captain
C. Fire lieutenant	0.00	Fire lieutenant	0.00	
D. Engineer	45.00	Fire engineer	15.00	Fire engineer
E. Firefighter, paramedic	0.00		45.00	Firefighter, paramedic
F. Medic	7.00	Medic I Medic II	0.00	
G. Firefighter	78.00	Firefighter	0.00	
I. Total operational staff	175.00		78.00	
J. Fire department total	219.25		108.00	
K. Percent of operational officers to firefighters		34.62%		30.00%
3. Organizational Program Allocation	FTEs		FTEs	
A. Executive (administration)				
i) chief executive	1.00	Fire chief	1.00	Executive director, fire/EMS services
ii) executive staff	4.00	Fire/EMS deputy chief District chief	2.00	Deputy chief operations Deputy chief fire prevention/hazardous materials
iii) executive assistant (non-uniformed)	1.00	Executive assistant	1.00	Departmental assistant
iv) clerical	15.50	Management analyst 1 Management analyst 2 Office supervisor, senior Application support tech, senior Program specialist Admin specialist Admin specialist, senior	6.00	Mgmt analyst, senior Program technician
B. Financial management	1.00	Mgmt analyst, senior	1.00	Mgmt analyst, senior

Eugene Fire & EMS and Springfield Fire & Life Safety, Oregon
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Survey Components	Eugene Fire & EMS		Springfield Fire & Life Safety	
C. Program management				
i) fire prevention	9.75	Fire marshal Assistant fire marshal Deputy fire marshal 1 Deputy fire marshal 2	4.00	Deputy fire marshal 2
ii) public education	0.00		0.00	
iii) EMS	1.00	EMS chief	9.00	EMS account services supervisor EMS accounting tech
iv) training	3.00	Fire training captain Fire instructor EMS program officer	4.00	Battalion chief, training Training officer EMS program officer
v) Human resources	0.00		0.00	
vi) Information technology	0.00		0.00	
vii) support services	8.00	Emergency equip tech I Emergency equip tech II Fire maintenance worker Fire/EMS logistics manager Parts and supply specialist Video technician	1.00	Service bureau manager
D. Service delivery				
i) operational management	6.00	District Chief	3.00	Battalion chief
ii) station management	39.00	Fire captain	15.00	Fire captain
iii) first-line supervision	0.00	Fire lieutenant	0.00	
iv) firefighters/medics	0.00		45.00	Firefighter, paramedic
v) firefighters	123.00	Fire engineer/Firefighter	15.00	Fire engineer
vi) medics	7.00	Medic I/Medic II	0.00	
4. Unit Staff (Fund) Allocation				
A.	3.55	Construction permit fund	0.00	
B.	39.39	Ambulance transport fund	35.05	Ambulance enterprise fund
C.	171.05	General fund	63.95	General Fund
D.	5.26	Municipal airport fund	9.00	Fire local option levy
E. Total FTEs	219.25		108.00	

Eugene Fire & EMS and Springfield Fire & Life Safety, Oregon
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Survey Components	Eugene Fire & EMS	Springfield Fire & Life Safety
5. Employee Contracts		
A. Bargaining unit(s)		
i) IAFF	International Association of Fire Fighters, Local 851 (IAFF), effective July 1, 2007 through June 30, 2009	International Association of Fire Fighters, Local 1395 (IAFF), effective July 1, 2007 – June 30, 2010
ii) AFSCME	American Federation of State, County, and Municipal Employees (AFSCME), Local 1724, effective through June 30, 2012	None
iii) SEIU (OPEU	None	SEIU Local 503 Oregon Public Employees Union, Springfield City Employees, Local 995
B. Employment benefits		
i) social security	Yes	Yes
ii) worker's compensation	The workers' compensation program is self-insured up to \$500,000 per claim. Workers' compensation claims are administered by a third party administrator (TPA)	On March 31, 1999, the City terminated the Workers' Compensation Self-Insurance Plan, which had been implemented in 1991. From that date on, worker's compensation claims have been covered by a third-party carrier, SAIF.
iii) pension	Oregon Public Employees Retirement System (PERS) and the Oregon Public Service Retirement Plan (OPSRP) City of Eugene pays the employee contribution (6% of salary) to these retirement programs, which is deposited into the Individual Account Program (IAP) for both PERS and OPSRP members. Employees hired on or after 8/29/2003 become part of OPSRP (after working for the City for a 6 month waiting period in a position requiring 600 hours in a calendar year), unless membership was previously established in PERS.	Oregon Public Employees Retirement System (PERS) and the Oregon Public Service Retirement Plan (OPSRP) City of Springfield pays the employee contribution (6% of salary) to these retirement programs, which is deposited into the Individual Account Program (IAP) for both PERS and OPSRP members. Employees hired on or after 8/29/2003 become part of OPSRP (after working for the City for a 6 month waiting period in a position requiring 600 hours in a calendar year), unless membership was previously established in PERS.
iv) deferred compensation	All regular full-time and part-time employees can participate in the City's Deferred Compensation Plan	All members of the Association may participate in one or more of the City's offered deferred compensation plans, subject to applicable contribution requirements. Effective October 1, 2007 biweekly 2% of Top Step Firefighter base biweekly salary to the plan of the employee's choice of the offered plans.

Eugene Fire & EMS and Springfield Fire & Life Safety, Oregon
Cooperative Services ~ Feasibility Study

Survey Components	Eugene Fire & EMS	Springfield Fire & Life Safety
v) medical insurance	<p>Employees choose between two self-insured medical plans</p> <ul style="list-style-type: none"> City Health Plan is a Preferred Provider Organization (PPO) plan and uses the ODS PPO network. City Managed Care Plan is Point of Service (POS) plan. Must choose a Primary Care Provider (PCP) 	<p>Employees are provided comprehensive medical and hospital insurance coverage including a Health Incentive Plan (HIP) option which provides a benefit level that conforms to the insuring agreement in effect between the City and Pacific Source in plan year 2004 or a substantially comparable plan. The City may at its sole discretion, offer additional health insurance plan(s).</p> <p>As of July 1, 2007, the City will continue to fund premium payments for the selected medical plan and the dental plan of 95% of the premium of the HIP plan plus 95% of the premium of the City dental plan, or the premium of the HIP plan plus the premium of the dental plan less \$40, whichever is less.</p>
vi) dental insurance	<p>Coverage is provided through the City Health Plan (PPO) for all employees covered under either medical plan</p> <ul style="list-style-type: none"> Annual Benefit Maximum: First calendar year of coverage: \$300 Each succeeding calendar year: \$1,300 	<p>The City provides a comprehensive dental insurance plan with a benefit level that conforms to the insuring agreement in effect between the City and ODS dental plan in Plan year 2001/2002. The plan includes crown coverage that was previously self-insured by the City or a substantially comparable plan. The coverage for new employees will begin the first of the month following a full month of employment.</p>
vii) short and long term disability insurance	<p>Coverage is provided through Standard Insurance Company. There is no cost to the employee; City of Eugene pays the entire premium LTD is provided for IAFF-represented employees who are regularly scheduled to work at least 20 hours per week. If qualified for long term disability benefits, employee receives 60% of basic monthly earnings to a monthly maximum of \$3,000 per month. The Maximum Benefit Period depends on your age at disability</p>	<p>PERS. provides primary Long Term Disability (LTD) insurance coverage. In the event Article 10, Fitness & Physicals, section 10.2, is nullified as provided in Article 10.1, beginning July 1, 2008, the City will provide a supplemental LTD plan with the same waiting period as PERS, a benefit of sixty percent (60%) of monthly pre-disability pay, up to a maximum of \$7,500 per month and offset by benefits from sick leave, Social Security, Worker's Compensation, PERS and unemployment insurance for all full-time employees.</p>
viii) life insurance	<p>Coverage is provided through Standard Insurance Company. There is no cost to the employee; City of Eugene pays the entire premium. Life Insurance: 1 x Annual Scheduled Salary, rounded to the nearest \$1,000, up to a maximum of \$80,000. AD&D: 1 x Annual Scheduled Salary, rounded to the nearest \$1,000, up to a maximum of \$80,000</p>	<p>The City provides life insurance and accidental death and dismemberment insurance to all full time employees and probationary employees beginning the first of the month following the date of employment. Life insurance is provided in the amount equal to the employee's annual base salary plus EMT certification pay up to a maximum of \$100,000.</p>

Eugene Fire & EMS and Springfield Fire & Life Safety, Oregon
Cooperative Services ~ Feasibility Study

Survey Components	Eugene Fire & EMS	Springfield Fire & Life Safety
ix) vision insurance	Coverage is provided through the City Health Plan (PPO) for all employees covered under either medical plan	Optical or vision coverage to full-time and eligible part-time members of the bargaining unit as part of comprehensive health insurance coverage
x) survivor income benefit	Eligible survivors receive benefits as specified by PERS	Eligible survivors receive benefits as specified by PERS
xi) additional life insurance	Optional supplemental Portable Term Life Insurance may be purchased by the employee or their spouse/domestic partner through ReliaStar Life Insurance Company	N/A
xii) sick leave	<p>Bargaining unit members will be credited with sick leave as follows:</p> <p>a. Regular part-time employees working at least 20 hours per week, but less than 40 hours, will receive sick leave credit on a pro-rata basis.</p> <p>b. Upon hire, employees will be credited with their first 6 months of sick leave accruals. No further sick leave will accrue until after 6 months of employment. If an employee leaves city employment during their first 6 months, the value of any sick leave taken beyond that which they would have accrued by their last date of employment will be deducted from their final paycheck.</p>	Employees in the Association will accrue sick leave according to the schedule below for each full bi-weekly pay period.

Sick leave

Length of Continuous Service	Annual Sick Leave Hours Accrual		Accrual Limit	
	Eugene	Springfield	Eugene	Springfield
56 – hour employees	144	156	1,890	3,000 hours
40 – hour employees	96	104	1,350	1,600 hours

Eugene, 56 – hour employee vacation leave

Length of Continuous Service	Vacation Hours Accrued Monthly	Vacation Hours Accrued per Year	Holiday Hours Accrued per Year	Maximum Total Accrual per Year (2x Vacation + Holiday)
Less than 2 years	10	120	156	396
2 but less than 6 years	12	144	156	444
6 but less than 10 years	14	168	156	492
10 but less than 14 years	16	192	156	540
14 but less than 18 years	18	216	156	588
18 but less than 22 years	20	240	156	636
22 years and over	24	288	156	732

Springfield, 56 – hour employee vacation leave

Length of Continuous Service	Days Accrued
Less than 5 years	5
5 but less than 10 years	6
10 but less than 15 years	7½
15 years and over	½ additional day for each year of service beyond 15 of continuous service

Eugene, 40 – hour employee vacation leave

Length of Continuous Service	Hours Accrued Per Pay Period	Hours Accrued per Year	Maximum Total Accrual per Year (2x Vacation + Holiday)
Less than 2 years	3.892	101.2	202.4
2 but less than 6 years	4.538	118.0	236.0
6 but less than 10 years	5.231	136.0	272.0
10 but less than 14 years	5.877	152.8	305.6
14 but less than 18 years	6.523	169.6	339.2
18 but less than 22 years	7.169	186.4	372.8
22 years and over	8.508	221.2	442.4

Springfield, 40 – hour employee leave

Length of Continuous Service	Days Accrued
Less than 5 years	10
5 but less than 10 years	12
10 but less than 15 years	15
15 years and over	1 additional day for each year of service beyond 15 of continuous service

Appendix I: Financial Profile

Survey Components	Eugene Fire & EMS	Springfield Fire & Life Safety
1. City Budget and Process		
A. Designated fiscal year	July 1 st to June 30th	July 1 st to June 30th
i) budget cycle	Annual	Annual
B. Financial control officer	Julie L Lindsey, Finance Manager, Administrative Division	Robert J. Duey, Finance Department Director
i) financial report	Comprehensive Annual Financial Report	Comprehensive Annual Financial Report
ii) financial review	Independent Auditor's Report, Isler CPA, Eugene OR	Independent Auditor's Report, Grove, Mueller & Swank P.C., Salem OR
C. Accounting	In accord with Oregon Budget Law and GAAP, generally on a modified accrual basis.	In accord with Oregon Budget Law using the modified accrual basis method of accounting.
D. Governmental fund types	Finance most governmental functions, 28 in all.	Finance most governmental functions, 29 in all.
i) general fund	One General Fund accounts for central business services, public safety services (including fire department), cultural/leisure services, and some public development services.	One General Fund serves as the primary reporting vehicle for current government operations. Accounts for the general operations of the City including library, police, fire, public works, municipal court, planning, and general administration.
ii) special revenue funds	Ten funds account for restricted resources designated for specific uses including HUD block grant resources and 9-1-1 excise tax.	Nine funds account for the proceeds of specific revenue sources including the Fire Local Option Levy Fund and the Police Local Option Levy Fund.
iii) debt service funds	Three funds account for the accumulation of resources for the payment of debt principal and interest.	Three funds account for the accumulation of resources for the payment of general long-term debt principal and interest.
iv) capital project funds	Four funds account for the accumulation of resources for the acquisition, construction, and maintenance of capital facilities. May be through special assessment, bonds, or transfer from the General Fund.	Sixteen funds account for financial resources to be used for the acquisition or construction of major capital facilities (other than those finances by proprietary funds).
E. Proprietary fund types	City activities similar to private sector, ten in all	City activities similar to private sector, nine in all.
i) enterprise funds	Five funds account for goods and services financed through user charges including the Municipal Airport Fund and the Ambulance Transport Fund.	Six funds account for operations that are financed and operated in a manner similar to private business enterprises including the Ambulance Fund.
ii) internal service funds	Five funds account for goods and services furnished internally including Fleet Services Fund and the Risk and Benefits Fund.	Three funds account for the financing of goods and services provided by one City department to another City department on a cost-reimbursement basis including Insurance Fund, Vehicle and Equipment Fund, and the SDC Administration Fund.
F. General fund revenue sources		

Eugene Fire & EMS and Springfield Fire & Life Safety, Oregon
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Survey Components	Eugene Fire & EMS		Springfield Fire & Life Safety			
i) taxes	Property taxes and contribution-in-lieu of taxes by Eugene Water and Electric Board		Property taxes from City levy, local option levies for police and fire, and general obligation levies. Also, contribution-in-lieu of taxes by SUB, EWEB, Electric Co-Ops, and McKenzie Village.			
ii) licenses and permits	Business licenses and franchises		Business licenses and franchises			
iii) intergovernmental revenues	Grants from federal, state, and local governments as well as state revenue sharing.		Grants from federal, state, and local governments as well as state revenue sharing.			
iv) rental revenue	Rental of city owned property.					
v) charges for services	Charges and fees to public or other agencies including contract fire protection, ambulance services, and fire prevention (plans reviews)		Charges and fees to public or other agencies including contract fire protection.			
vi) fines and forfeits	Include traffic citations, library fines, and city code violations.		Include traffic citations, library fines, and city code violations.			
vii) miscellaneous revenue	Generally interest on investments.		Generally interest on investments.			
viii) interfund transfers	Mostly revenues from other funds to finance central business services.		Mostly revenues from other funds to finance central business services.			
ix) beginning working capital	Unexpended resources from previous years.		Unexpended resources from previous years.			
2. City Revenue Trends						
A. Property tax	Total Assessed Value	Total Direct Tax Rate	Total Assessed Value	Total Direct Tax Rate		
i) fy 1999	\$6,427,464,176	\$7.5452	\$1,992,678,307	\$5.5496		
ii) fy 2000	\$6,846,858,372	\$7.8862	\$2,124,958,597	\$5.5063		
iii) fy 2001	\$7,350,530,511	\$8.1918	\$2,254,884,249	\$5.1838		
iv) fy 2002	\$8,111,366,836	\$8.1841	\$2,496,155,203	\$5.1701		
v) fy 2003	\$8,387,523,842	\$8.4130	\$2,559,245,219	\$5.1514		
vi) fy 2004	\$8,773,097,715	\$9.2200	\$2,736,470,045	\$6.1743		
vii) fy 2005	\$9,240,064,529	\$9.2800	\$2,805,856,167	\$6.1500		
viii) fy 2006	\$9,650,294,916	\$9.1700	\$2,983,283,348	\$6.1000		
ix) fy 2007	\$10,105,025,458	\$9.0500	\$3,149,357,159	\$6.1402		
x) fy 2008	\$10,616,633,066	\$8.1500	\$3,436,084,339	\$6.2048		
xi) fy 2009	\$11,129,059,000	\$7.7300 ⁶²	\$3,502,295,304	\$7.1876		
xii) fy 2010 (forecast)	\$10,994,414,109	\$8.3500 ⁶³	\$3,584,544,859	\$7.2116		
B. Property tax makeup	Operating Rate ⁶⁴	Debt Service	Basic Rate	Police Levy	Fire Levy	Debt Service

⁶² Source: City of Eugene Budget fiscal year 2009

⁶³ Proposed

⁶⁴ Includes the City's base rate plus a library levy and the affect of two urban renewal districts.

Eugene Fire & EMS and Springfield Fire & Life Safety, Oregon
Cooperative Services ~ Feasibility Study

Survey Components	Eugene Fire & EMS				Springfield Fire & Life Safety			
i) fy 1999	\$7.23		\$0.32		\$4.75	-	-	\$0.80
ii) fy 2000	\$7.54		\$0.32		\$4.74	-	-	\$0.77
iii) fy 2001	\$7.50		\$0.69		\$4.74	-	-	\$0.44
iv) fy 2002	\$7.69		\$0.49		\$4.74	-	-	\$0.43
v) fy 2003	\$7.92		\$0.49		\$4.74	-	-	\$0.41
vi) fy 2004	\$8.80		\$0.42		\$4.74	\$0.66	\$0.36	\$0.41
vii) fy 2005	\$8.81		\$0.47		\$4.74	\$0.66	\$0.36	\$0.39
viii) fy 2006	\$8.72		\$0.45		\$4.73	\$0.66	\$0.36	\$0.35
ix) fy 2007	\$8.68		\$0.36		\$4.72	\$0.66	\$0.36	\$0.38
x) fy 2008	\$7.60		\$0.55		\$4.71	-	\$0.40 ⁶⁵	\$1.02
3. Fire & EMS Expenditure	FY 2004		FY 2005		FY 2004		FY 2005	
A. Personal services	\$19,795,800		\$20,451,681		\$9,019,763		\$10,120,438	
B. Materials & services	\$3,086,600		\$2,983,383		\$1,920,304		\$2,146,474	
C. Capital outlay	\$77,276		\$110,305		\$96,430		\$19,088	
D. Total expenditure	\$22,959,676		\$23,545,369		\$11,036,497		\$12,286,000	
	FY 2006		FY 2007		FY 2006		FY 2007	
E. Personal services	\$22,181,076		\$23,782,804		\$10,332,537		\$11,314,109	
F. Materials & services	\$3,720,249		\$4,086,696		\$2,256,112		\$2,793,388	
G. Capital outlay	\$34,910		\$1,175,760		\$318,770		\$82,068	
H. Total expenditure	\$25,936,235		\$29,045,259		\$12,907,419		\$14,189,565	
	FY 2008		Adopted 2009		FY 2008		Adopted 2009	
I. Personal services	\$24,724,740		\$26,105,380		\$11,926,032		\$12,402,341	
J. Materials & services	\$4,648,553		\$4,533,233		\$2,909,191		\$3,303,412	
K. Capital outlay	\$416,282		-		\$1,108,680		\$854,350	
L. Total expenditure	\$29,789,576		\$30,638,613		\$15,943,903		\$16,560,103	
4. Fire & EMS Revenue	FY 2004		FY 2005		FY 2004		FY 2005	
A.	Gen Fund	\$1,893,973	Gen Fund	\$1,834,025	Gen Fund	\$919,655	Gen Fund	\$1,679,977
B.	Permits	\$183,120	Permits	\$199,107	Ambulance	\$5,584,236	Ambulance	\$5,169,325
C.	Airport	\$564,980	Airport	\$608,997	Fire Levy	\$935,880	Fire Levy	\$1,293,578
D.	Ambulance	\$5,738,688	Ambulance	\$5,867,990				
E.	Total	\$8,380,761	Total	\$8,510,119	Total	\$7,439,771	Total	\$8,142,880
	FY 2006		FY 2007		FY 2006		FY 2007	
F.	Gen Fund	\$1,986,437	Gen Fund	\$2,476,560	Gen Fund	\$1,420,260	Gen Fund	\$1,584,476
G.	Permits	\$206,840	Permits	\$375,023	Ambulance	\$4,516,158	Ambulance	\$4,437,127

⁶⁵ The fire levy was renewed for four years effective in FY08.

Eugene Fire & EMS and Springfield Fire & Life Safety, Oregon
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Survey Components	Eugene Fire & EMS				Springfield Fire & Life Safety			
H.	Airport	\$641,568	Airport	\$690,538	Fire Levy	\$1,379,145	Fire Levy	\$1,536,032
I.	Ambulance	\$6,175,585	Ambulance	\$6,227,107				
J.	Total	\$9,010,430	Total	\$9,769,228	Total	\$7,315,563	Total	\$7,557,635
	FY 2008		Adopted FY 2009		Amended FY 2008		Adopted FY 2009	
K.	Gen Fund	\$3,141,111	Gen Fund	\$2,463,768	Gen Fund	\$1,601,736	Gen Fund	\$1,671,175
L.	Permits	\$414,356	Permits	\$439,054	Ambulance	\$4,470,026	Ambulance	\$4,894,880
M.	Airport	\$673,984	Airport	\$706,237	Fire Levy	\$1,578,768	Fire Levy	\$1,802,523
N.	Ambulance	\$6,198,183	Ambulance	\$6,493,032				
O.	Total	\$10,427,634	Total	\$10,102,091	Total	\$6,299,530	Total	\$8,368,578
5. Fire & EMS Grants								
A. Recent Grants	State Homeland Security – 2007 \$60,088 State Homeland Security – 2008 \$86,799 2005 Federal SAFER Grant – Remaining \$90,000 (SAFER – year 4 of 5 year commitment to keep total fire suppression FTE).				The Department was awarded a Fire Act Grant for a total of \$137,520. Federal funds in this award equal \$110,016. Equipment being purchased include new thermal imaging devices, apparatus bay exhaust systems, and new hose and nozzles.			
6. Debt, Fire & EMS								
A. General obligation debt, exempt from property tax limit	Fire project bonds, series 2002. Interest 3.0% to 4.65%. Issue date 10/1/02, maturity 6/1/22.				No fire department-specific debt noted			
	Principal		Interest					
i) fy 2008	\$340,000		\$278,382					
ii) fy 2009	\$350,000		\$268,184					
iii) fy 2010	\$365,000		\$257,244					
iv) fy 2011	\$375,000		\$245,200					
v) fy 2012	\$390,000		\$228,324					
vi) fy 2013	\$410,000		\$214,675					
vii) fy 2014	\$425,000		\$199,710					
viii) fy 2015	\$445,000		\$183,347					
ix) fy 2016	\$465,000		\$165,548					
x) fy 2017	\$485,000		\$146,482					
xi) fy 2018	\$510,000		\$126,113					
xii) fy 2019	\$535,000		\$104,183					
xiii) fy 2020	\$560,000		\$80,643					
xiv) fy 2021	\$590,000		\$55,443					
xv) fy 2022	\$615,000		\$28,598					
xvi) total obligation	\$6,860,000		\$2,582,076					
B. Non-exempt debt	Santa Clara Fire Station, series 2003. Interest 2.5% to 4.0%. Self-supporting General Fund secured debt.							

Eugene Fire & EMS and Springfield Fire & Life Safety, Oregon
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Survey Components	Eugene Fire & EMS					Springfield Fire & Life Safety				
	Principal		Interest							
i) fy 2008	\$210,000		\$49,395							
ii) fy 2009	\$210,000		\$44,145							
iii) fy 2010	\$210,000		\$38,370							
iv) fy 2011	\$210,000		\$31,755							
v) fy 2012	\$215,000		\$24,510							
vi) fy 2013	\$215,000		\$16,663							
vii) fy 2014	\$215,000		\$8,600							
viii) total obligation	\$1,485,000		\$213,438							
B. Capital lease	None					E3 Engine, Pierce Contender, leased on 7-yr lease for \$36,422/yr. Current strategy is to lease vs. buy apparatus in future due to limited capital available.				
C. Unfunded liability	None noted					None noted				
i) pension fund	None noted					None noted				
ii) workers' compensation	Four open liability claims charged to the fire department with reserves totaling \$51,200. Two of the liability claims involve pending lawsuits. Worker comp claim summary for 2/09 shows \$161,122 paid, \$214,199 reserves, and total incurred \$375,321.					Seven open claims charged to the fire department with outstanding reserves totaling \$5,049. Worker comp claim summary for 2/09 shows \$10,341 claim loss, \$5,290 paid, and \$5,049 outstanding reserves.				
7. Assets & Demand	FTEs	Stations	Inspect.	Emerg.	Fires	FTEs	Stations	Inspect.	Emerg.	Fires
i) fy 1999	197.50	10	Unavail	17,987	2,313	93.25	5	2,773	10,472	270
ii) fy 2000	200.50	10	Unavail	17,876	2,344	97.25	5	2,861	10,948	276
iii) fy 2001	206.25	10	1,116	18,620	2,324	98.25	5	2,754	11,171	271
iv) fy 2002	206.25	10	1,514	18,958	2,057	97.55	5	2,951	11,450	276
v) fy 2003	206.25	10	3,453	17,669	1,955	97.55	5	2,642	11,497	276
vi) fy 2004	209.25	10	2,502	18,054	1,876	107.55	5	3,024	12,177	302
vii) fy 2005	208.00	11	2,208	18,728	1,546	103.05	5	3,016	14,097	240
viii) fy 2006	218.50	11	1,800	19,441	1,844	101.55	5	3,540	16,129	283
ix) fy 2007	219.25	11	812	20,509	2,018	105.05	5	3,719	16,345	257
x) fy 2008	219.25	11	973	21,723	2,019	110.25	5	3,374	18,190	216

Appendix J: Capital Assets and Capital Improvement Programs

Survey Components	Eugene Fire & EMS	Springfield Fire & Life Safety
1. Fire Stations/Structures		
A. Plan maintained	Capital Improvement Program 2010-15, City of Eugene, Oregon, Draft	Capital Improvement Program 2009-13, City of Springfield, Oregon, A Community Reinvestment Plan
i) period of plan (from – to)	2010 through 2015	2009 through 2013
ii) funding mechanism	Varies by project	Varies by project
B. Construction or improvement plans		
i) 2010	Construction of a replacement Aircraft Rescue and Fire Fighting (ARFF) facility (Federal Aviation Administration discretionary funds have been requested in FY10 for this project, \$4,600,000) Land Purchase – New West Side Station (\$500,000 funding not identified) Fire Training Props Development (\$250,000 funding not identified) Command Training Center, battalion chief prop, company officer prop, control station, simulation center software, EOC prop, model city, fire driving simulator and fire & EMS simulations (\$2,500,000 funding not identified, five year project)	No projects listed for the Fire & Life Safety Department
ii) 2011	Fire Training Props Development (\$250,000 funding not identified)	No projects listed for the Fire & Life Safety Department
iii) 2012	N/A	No projects listed for the Fire & Life Safety Department
iv) 2013	N/A	No projects listed for the Fire & Life Safety Department
v) 2014	N/A	N/A
vi) 2015	N/A	N/A

Eugene Fire & EMS and Springfield Fire & Life Safety, Oregon
Cooperative Services ~ Feasibility Study

Survey Components	Eugene Fire & EMS	Springfield Fire & Life Safety
2. Apparatus		
A. Plan maintained		
i) period of plan (from – to)	Account for goods or services furnished internally from one department to another. The Fleet Services Fund provides for acquisition and maintenance of the City's vehicles and radio equipment	Fire apparatus replacement fund contributions are below desired levels. Contributions to the replacement fund have lagged in the past several years due to budget limitations. FY09 and FY10 contributions of \$300,000 made to reverse this trend. At least 3 apparatus scheduled for replacement via lease in FY10.
ii) funding mechanism	Internal charges	Apparatus replacement fund
iii) non-apparatus purchases	Fire & EMS scheduled to replace self-contained breathing apparatus (SCBA) total \$1 million in 2011, mobile data terminals (MDTs) total \$260,000 in 2010, personal protection equipment (PPE) total \$600,000 in 2015, water rescue boat, and fitness room equipment.	Apparatus and equipment is funded in the annual budget: 2006 – \$174,250, 2007 – \$34,011, 2008 – \$505,000, 2009 – \$730,498, 2010 – \$320,200
3. Methods of Financing		
A. General revenue	Project by project	Project by project
B. Reserve fund(s)	Citywide	Citywide
D. General obligation bond	Headquarters fire station, May 2002, voters approved an \$8.68 million bond issue for construction of a new Downtown Fire Station and a Live Fire Training Building	None attached to the Fire & Life Safety Department
E. Lease-Purchase	None for fire and EMS	E3 Engine, Pierce Contender, leased on 7-yr lease for \$36,422/yr. Current strategy is to lease vs. buy apparatus in future due to limited capital available.
F. Grants or gifting	Yes, see financial baseline	Yes, see financial baseline
G. Special fees	Yes, see financial baseline	Yes, see financial baseline

Appendix K: Eugene Fire and EMS Stations and Emergency Apparatus

<div>  </div>							
Fire Station No. 1 (Downtown) 1320 Willamette							
Apparatus Designation	Type	Year	Make/Model	Condition	Minimum Staffing	Pump Capacity	Tank Capacity
C1	Chief	2007	Suburban	Excellent	1		
Engine 1	Engine	2007	Pierce/Velocity	Excellent	3	2,000	500
Truck 1	Truck 100'	2006	Pierce/	Excellent	3		
Medic 91	Ambulance	2006	IH/Lifeline	Excellent	2		
Medic 92	Ambulance	2004	E450/Lifeline	Good	2		
WR1	Boats x 2	1994	Airboat	Fair			
WR6	Waverunners x 2	2001 & 2006	Kawasaki	Fair/Good			
F1	Fire Invest.	1993	Ford	Fair			
<div>  </div>							
Fire Station No. 2 (Whiteaker) 1725 W. 2nd Avenue							
Apparatus Designation	Type	Year	Make/Model	Condition	Minimum Staffing	Pump Capacity	Tank Capacity
C2	Chief	2006	Suburban	Excellent	1		
Engine 2	Engine	1997	Pierce	Good	3	1,500	500
Tower 2	100' Plat.	2007	Pierce	Excellent	3		
Tower 22 (reserve)	100' Plat.	2000	Pierce	Good			
Water Tender 2	Tender	2002	Pierce	Excellent		750	3,000
Rescue 2 (USAR)	Tractor	2004	IH	Excellent			
"	5th Wheel			Excellent			
Lumber Trailer	USAR			Excellent			
Rescue 22 (USAR)	USAR	1987	Chevy/Crew Cab	Excellent			

	Fire Station No. 6 (Sheldon) 2435 Willakenzie						
Apparatus Designation	Type	Year	Make/Model	Condition	Minimum Staffing	Pump Capacity	Tank Capacity
Engine 6	Engine	2007	Pierce/Velocity	Excellent	3	2,000	500
Medic 6	Ambulance	2006	IH/Lifeline	Excellent	2		
Medic 21 (reserve)	Ambulance	2001	Ford/450	Fair			
Engine 26 (reserve)	Engine	1994	Pierce Arrow	Good		1,500	500
	Fire Station No. 7 (Bethel) 4664 Barger Drive						
Apparatus Designation	Type	Year	Make Model	Condition	Minimum Staffing	Pump Capacity	Tank Capacity
Engine 7	Engine	2001	Pierce Dash	Good	3	1,500	500
	Fire Station No. 8 (Danebo) 500 Berntzen Road						
Apparatus Designation	Type	Year	Make/Model	Condition	Minimum Staffing	Pump Capacity	Tank Capacity
Ladder 8	Quint 75'	2006	Pierce	Excellent	3	2,000	500
Water Tender 8	Tender	2002	Pierce	Excellent		750	3,000
Medic 8 (swing)	Ambulance	2008	IH/Lifeline	Excellent			

	Fire Station No. 9 (Valley River) 697 Goodpasture Island Road						
Apparatus Designation	Type	Year	Make/Model	Condition	Minimum Staffing	Pump Capacity	Tank Capacity
Ladder 9	Quint 75'	2006	Pierce	Excellent	3	2,000	500
Haz.Mat. 2 (State)	Tractor	1999		Excellent			
"	5th Wheel			Excellent			
Haz.Mat. 22 (State)	Command	1999	Chevy/Sub.	Excellent			
"	Trailer (small)			Excellent			
Haz.Mat. Decon.	Tow Vehicle	1990	Ford	Fair			
"	Trailer			Excellent			
	Fire Station No. 10 (Bailey Hill) 2002 Bailey Hill Road						
Apparatus Designation	Type	Year	Make/Model	Condition	Minimum Staffing	Pump Capacity	Tank Capacity
Engine 10	Engine	2007	Pierce/Velocity	Excellent	3	2,000	500
Brush 10	Brush	1999	IH/E1Interface	Excellent		500	500
Medic 10	Ambulance	2006	IH/Lifeline	Excellent	2		

	Fire Station No. 11 (Santa Clara) 111 Santa Clara Avenue						
Apparatus Designation	Type	Year	Make/Model	Condition	Minimum Staffing	Pump Capacity	Tank Capacity
Engine 11	Engine	2007	Pierce/Velocity	Excellent	3	2,000	500
Medic 11	Ambulance	2006	IH/Lifeline	Excellent	2		
Medic 31 (reserve)	Ambulance	2004	Ford/E450	Good			
Engine 31(reserve)	Engine	1995	Pierce Arrow	Good		1,500	500
	Fire Station No. 12 (Airport) 28827 Douglas Drive						
Apparatus Designation	Type	Year	Make/Model	Condition	Minimum Staffing	Pump Capacity	Tank Capacity
Airport 1	ARFF	2004	Oshkosh/Stryk	Excellent	2	1,500	1,500
*Airport 2 (reserve)	ARFF	1991/2009	Oshkosh	Excellent	Factory Rebuilt	1,500	1,500
Disaster Trailer	Trailer						

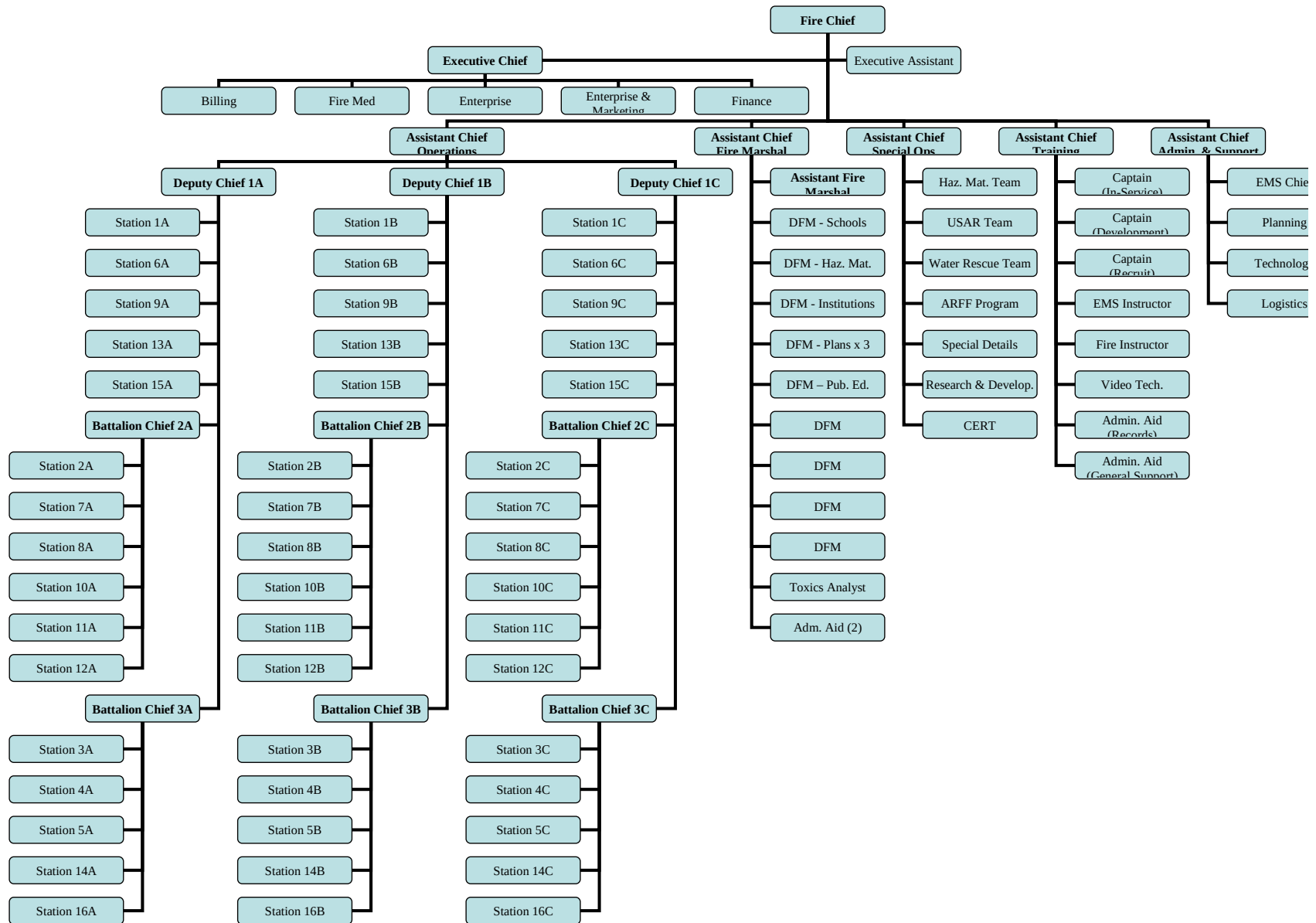
	Fire Station No. 13 (University) 1695 Agate Street						
Apparatus Designation	Type	Year	Make/Model	Condition	Minimum Staffing	Pump Capacity	Tank Capacity
Engine 13	Engine	2007	Pierce/Velocity	Excellent	3	2,000	500
Brush 13	Brush	2008	IH/Pierce	Excellent		1,000	500
	Fire Station No. 15 (South Hills) 80 E. 33 rd Avenue						
Apparatus Designation	Type	Year	Make/Model	Condition	Minimum Staffing	Pump Capacity	Tank Capacity
Engine 15	Engine	2008	Pierce/Velocity	Excellent	3	2,000	500
Brush 15	Brush	1999	IH/E1 Interface	Excellent		500	500
Medic 15 (reserve)	Ambulance	1995	Frontline	Fair			
Engine 35 (reserve)	Engine	1997	Pierce Arrow	Good		1,500	500
(no photo available)	Logistics						
Apparatus Designation	Type	Year	Make/Model	Condition	Minimum Staffing	Pump Capacity	Tank Capacity
Medic 28 (reserve)	Ambulance	2001	Ford/Braun	Poor			

Appendix L: Springfield Fire & Life Safety Stations and Emergency Apparatus

 <p>Fire Station No. 3 (28th Street) 1225 North 28th Street</p>							
Apparatus Designation	Type	Year	Make/Model	Condition	Minimum Staffing	Pump Capacity	Tank Capacity
Engine 3	Engine	2004	Pierce Contender	Excellent	3	1,250	850
Medic 3	Ambulance	2008	International	Excellent	2		
Medic 23	Ambulance	2001	Freightliner	Good			
 <p>Fire Station No. 4 (5th Street) 1475 5th Street</p>							
Apparatus Designation	Type	Year	Make/Model	Condition	Minimum Staffing	Pump Capacity	Tank Capacity
Engine 4	Engine	2004	Pierce Contender	Excellent	3	1,250	850
Engine 24	Engine	1989	Pierce Arrow	Fair		1,500	750
Water 4	Boat	2000	Bowlton Jet	Excellent			
Water 24	Boat	1988	Rotocraft	Excellent			
 <p>Fire Station No. 5 (Gateway) 2705 Pheasant Street</p>							
Apparatus Designation	Type	Year	Make/Model	Condition	Minimum Staffing	Pump Capacity	Tank Capacity
Engine 5	Engine	1995	Pierce Saber	Good		1,250	750
Tower 5	Truck	2002	Pierce Aerial	Excellent	3	1,500	150
Medic 5	Ambulance	2006	Freightliner	Excellent	2		
Medic 25	Ambulance	2005	Freightliner	Good			
Rescue 5	HD Rescue	1997	Pierce Saber	Good			

 Fire Station No. 14 (48th Street) 4765 Main Street							
Apparatus Designation	Type	Year	Make/Model	Condition	Minimum Staffing	Pump Capacity	Tank Capacity
Engine 14	Engine	1997	Pierce Saber	Good		1,250	750
Ladder 14	Aerial	2001	E-One 75'	Good	3	2,000	500
Tender 14	Tender	1998	Freightliner	Good		1,000	2,500
812	Utility	1981	International 4x4	Fair			
 Fire Station No. 16 (Thurston) 6853 Main Street							
Apparatus Designation	Type	Year	Make/Model	Condition	Minimum Staffing	Pump Capacity	Tank Capacity
Engine 16	Engine	1999	Pierce Saber	Good	3	1,250	750
Medic 16	Ambulance	2008	Lifeline Medic	Excellent	2		
Medic 36	Ambulance	2001	Freightliner	Excellent			
(no photo available)	Storage						
Apparatus Designation	Type	Year	Make/Model	Condition	Minimum Staffing	Pump Capacity	Tank Capacity
Medic 24	Ambulance	1996	Freightliner	Fair			

Appendix M: Concept Transitional Organizational Chart



CC Agenda - Page 183



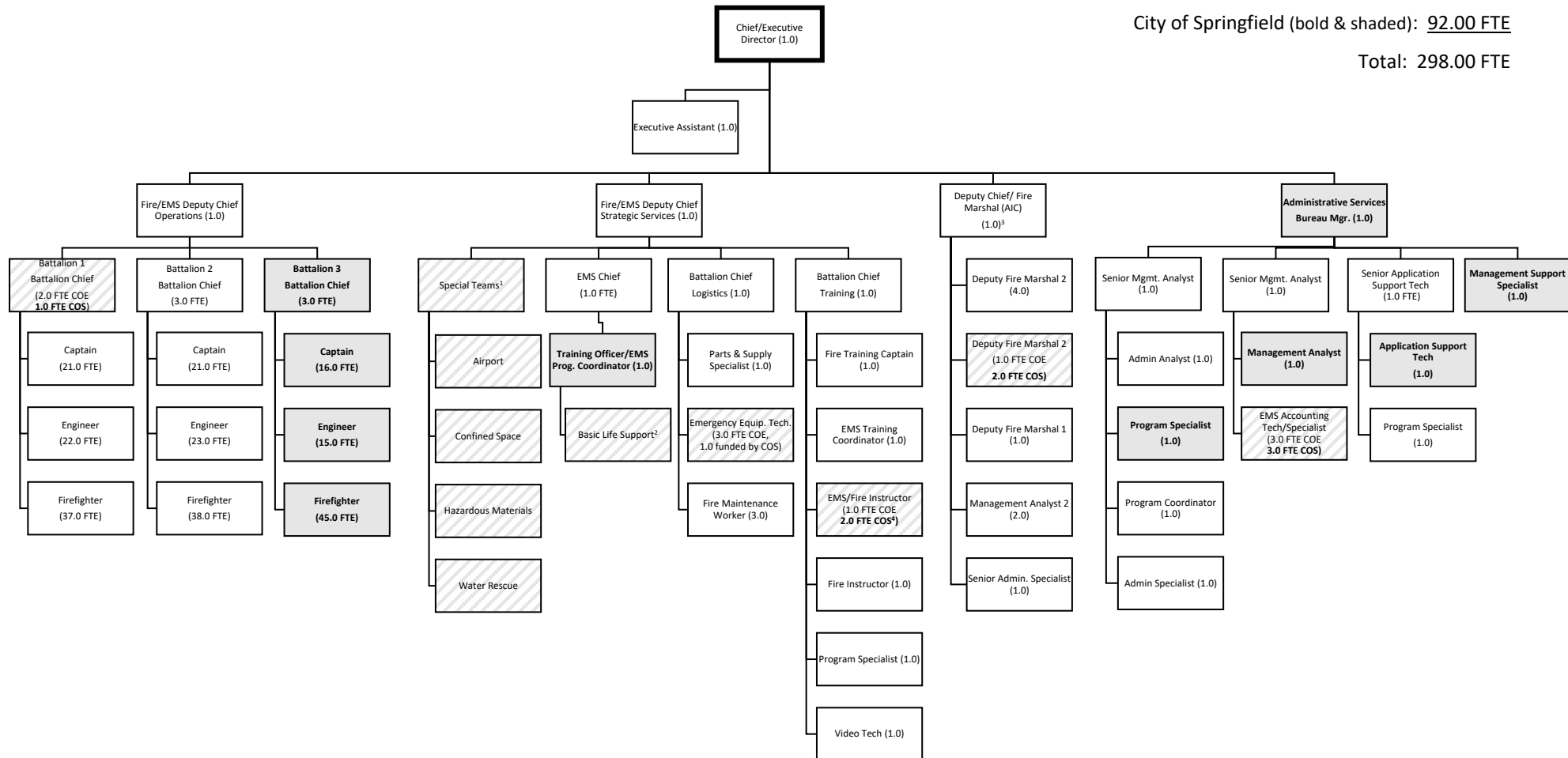
Eugene Springfield Fire Organizational Chart

FY2021

City of Eugene: 206.00 FTE

City of Springfield (bold & shaded): 92.00 FTE

Total: 298.00 FTE

¹Special Teams FTE included in Operations.²Basic Life Support personnel are limited duration. ESF employs 24 individuals in this role.³AIC of authorized Assistant Fire Marshal FTE.⁴1.0 FTE funding eliminated in FY21

EUGENE
SPRINGFIELD



FIRE

FY2020
ANNUAL
REPORT

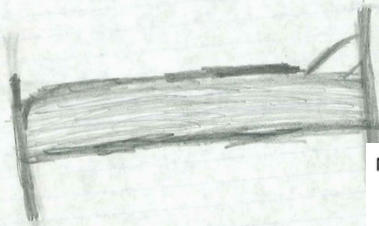


Attachment C





Dear Fireman, thank you for going on all the calls you get even the useless ones, and the sleep you sacrifice. I hope you have a merry christmas.
-syrus



November 30, 2019

I was transported to Peace Health Hosp downtown Eugene. I want to say thank you for your professional & caring service for me. I know you all are busy—but you are
The time you took from your busy schedule was very much appreciated.
Thank you—so very much!
Cliff

To Whom It May Concern,

September 12, 2019

May 10, 2019 was a hard day for me. It marks what I hope will be my one and only ride in an ambulance. The EMS team that met me found me curled in a ball on the street in the parking strip, surrounded by three women who were looking over me, calling for help, and securing my bike. I'd stopped short to avoid plowing into the car that turned in front of me, and my body and a heavy backpack launched over the bike as I dove headfirst into the asphalt. It was probably a near miraculous landing—as best I can tell my head never hit the ground (and yes, I was wearing a helmet). The brunt of what was probably a good deal of force—I was heading downhill and picking up speed when it all happened—dislocated my right elbow and whipped my forearm around 180°.

So when the EMS team got to me, I was rolled onto my side holding my right wrist to keep my arm in traction. After assessing me and assisting a rise to standing, they transferred me to a gurney and drove as gently as possible to the hospital.

Here are some things I remember. I was treated as a whole human being. I was never a collection of injuries. I was treated as a thinking human being. I was listened to and my requests for supporting the arm became part of the plan for holding it in place. I was treated as important. The team's full focus appeared to be on my care during the time I was within it.

I was likely in shock and most definitely dealing with trauma (the elbow was the most obvious, at least to me, but not the only issue). Despite my altered state, it was clear to me that I had excellent care. Honestly, I hope that day will remain one of the worst days in my life. But it is from such terrible moments that we have the chance to recognize things we would not otherwise see—disruptions have a way of doing that. A whole community of people, from the women looking over me to the EMS crew to the trauma unit to the hospital crew to the specialists who are helping me recover, took part in helping me recover and heal.

When I got the enclosed survey I realized I could not fit this message in the frames it provided, so I am writing this letter. Please share with the entire EMS staff how big a difference their work can make in someone else's life. And not just mine, but to my family, friends, and all my students, anyone who depends on me to be there for them. I know how demanding a life of service can be. I know it can be, at times, thankless. Please let this not be one of those times.

From the bottom of my heart, thank you, for all you do, every day, for so many.

Thank you so much for taking us on the best tour ever! I learned so much and it was my best birthday!
November 14, 2019

Love,
Mabel

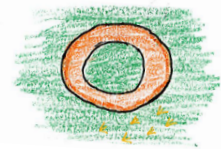
1320 Wilamette St
Eugene, OR 97401

Dear Eugene Springfield Fire Department

All I want to say is Thank You for risking your life for saving our town. Our school was doing a good job of making sure we were OK. When we came back I was relieved to see my school and town. I think if the situation happens again we can be alerted before the fire happens.

Respectfully

Agustin



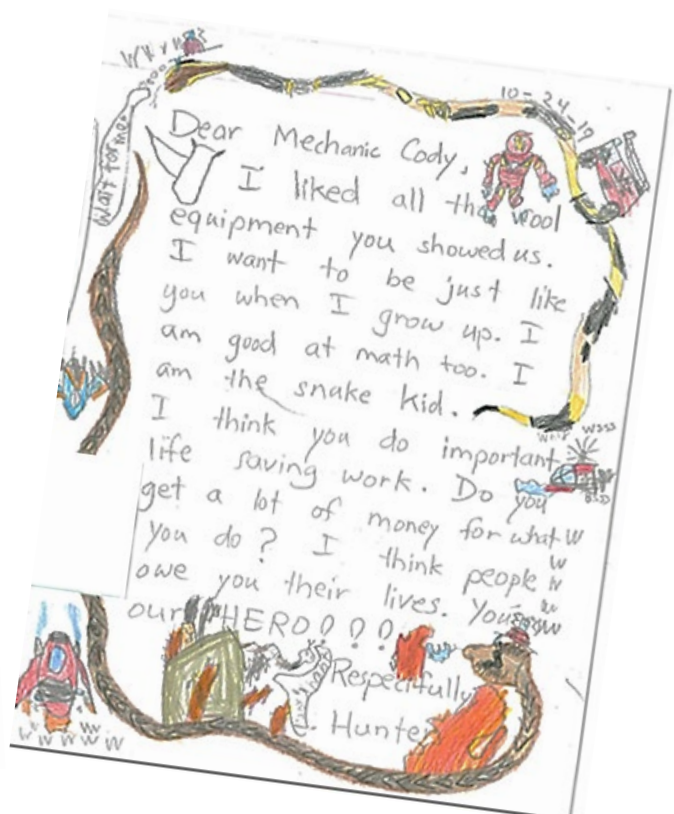
Dear Eugene Springfield Fire Department,

It is the time of year for giving thanks and I wanted to reach out to express my gratitude to four members of your department for their service in responding to a fire this summer.

On September 5, lightning struck a tree in the forest behind our house and started a fire. I called 911 and went into the woods with a rake and a jug of water to see if I could address it while it was still small. I was able to keep it under control, but I didn't have much in the way of tools or experience with fires. I was very relieved when Chief Matt Steinberg and his crew arrived! I believe Jason Ryan and Travis Allen were with him, as was a fourth firefighter but I unfortunately did not catch his name (I attached a photo below in case you recognize him)

I should note that the fire was down a huge hill and about 100 yards into a forest, so it was very difficult to access. They made their way into the site through thick blackberries, helped me put out the remaining embers and hot spots, and then stayed until all evidence of smoke was gone.

Many thanks for the help, I've very grateful. I hope you have a wonderful holiday season.



OUR MISSION

Our mission is to serve our communities by protecting life, preserving property and the environment through prevention, education, rescue, fire suppression, and emergency medical services.

OUR VISION

To deliver efficient and effective services by working together to maintain a progressive, caring, professional organization that remains flexible within a changing environment. We strive to be recognized for our leadership within the region and the state by fostering cooperative working relationships. We work to be innovative, fiscally responsible, and financially stable and secure.

OUR VALUES

We value respect, integrity, accountability, teamwork, service, and adaptability. We measure our success by the satisfaction of the communities we serve, our personnel and our strategic partners.



OUR MOTTO

Courage, Honor, Service



Eugene Springfield Fire FY2020 Annual Report

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Message from the Chief



I am honored to present Eugene Springfield Fire's (ESF) Fiscal Year 2020 Annual Report. The following report is a summary of the activities and achievements of the organization. The content of this report is designed to provide insight into how our efforts are focused on providing the highest level of customer-centered service delivery, while also maintaining accountability and fiscal responsibility.

This past year has presented unique challenges which required collaboration, critical thinking, and innovation to deliver emergency services. During the early phases of the COVID-19 pandemic, ESF was presented with more questions than answers. As a solution-orientated department, members from every fire station, Logistics, the Fire Marshals' Office, and Administrative Services staff served daily while adhering to the rapidly changing safety guidelines. The team at ESF gave 100% each day regardless of challenges they faced. Ultimately, our community did not experience a decrease in service delivery. Due to COVID-19, we have and continue to experience an elevated public health and budgetary challenge. The members of Eugene Springfield Fire will continue to utilize all appropriated resources to sustain the highest level of service delivery to our community.

Over the last decade, the Ambulance Transport Fund (ATF) revenue and reserves have failed to keep pace with the rising cost of service delivery. This is directly attributed to federal reimbursement capitation on more than 80% of all calls. In addition, COVID-19 perpetuated the stress on ATF resources as ESF experienced a counterintuitive 29% decrease in transport volume as the pandemic unfolded in March, April, and May of 2020. In response, the department has established an EMS Taskforce. The EMS Taskforce is charged with reviewing current resource utilization and developing alternative deployment strategies. I expect the EMS Taskforce to leverage efficiencies in the existing system by ensuring each call is met with the right resources, right level of service, and at the right cost.

While our community continues to focus on COVID-19, I'd like to highlight several other areas of continued success and improvement. The department continues to reduce our carbon footprint with the construction of a draft tank for annual apparatus testing, leasing of the Arcimoto Rapid Responder, acquiring a closed loop fire foam testing system, and adjusting logistical service delivery. ESF moved forward with improving informational technologies (IT) usage. Examples include application deployment, data collection, crew scheduling system, and an anytime training environment. Investments in IT resources places the power of communication, operations, scheduling, patient care documentation, and real-time access in the hands of all team members.

The annual report cannot include every positive contribution, but we have strived to highlight the exceptional service Eugene Springfield Fire provides to those we serve. We are honored to serve our community and remain dedicated to providing the highest level of emergency service.

Respectfully,

Chris E. Heppel
Interim Fire Chief
Eugene Springfield Fire

Battalion Two

Station 2



1725 W 2nd Ave. Eugene

Station 10



2002 Bailey Hill Rd. Eugene

Station 12



90177 Northrup Dr. Eugene

Station 7



4664 Barger Dr. Eugene

Station 11

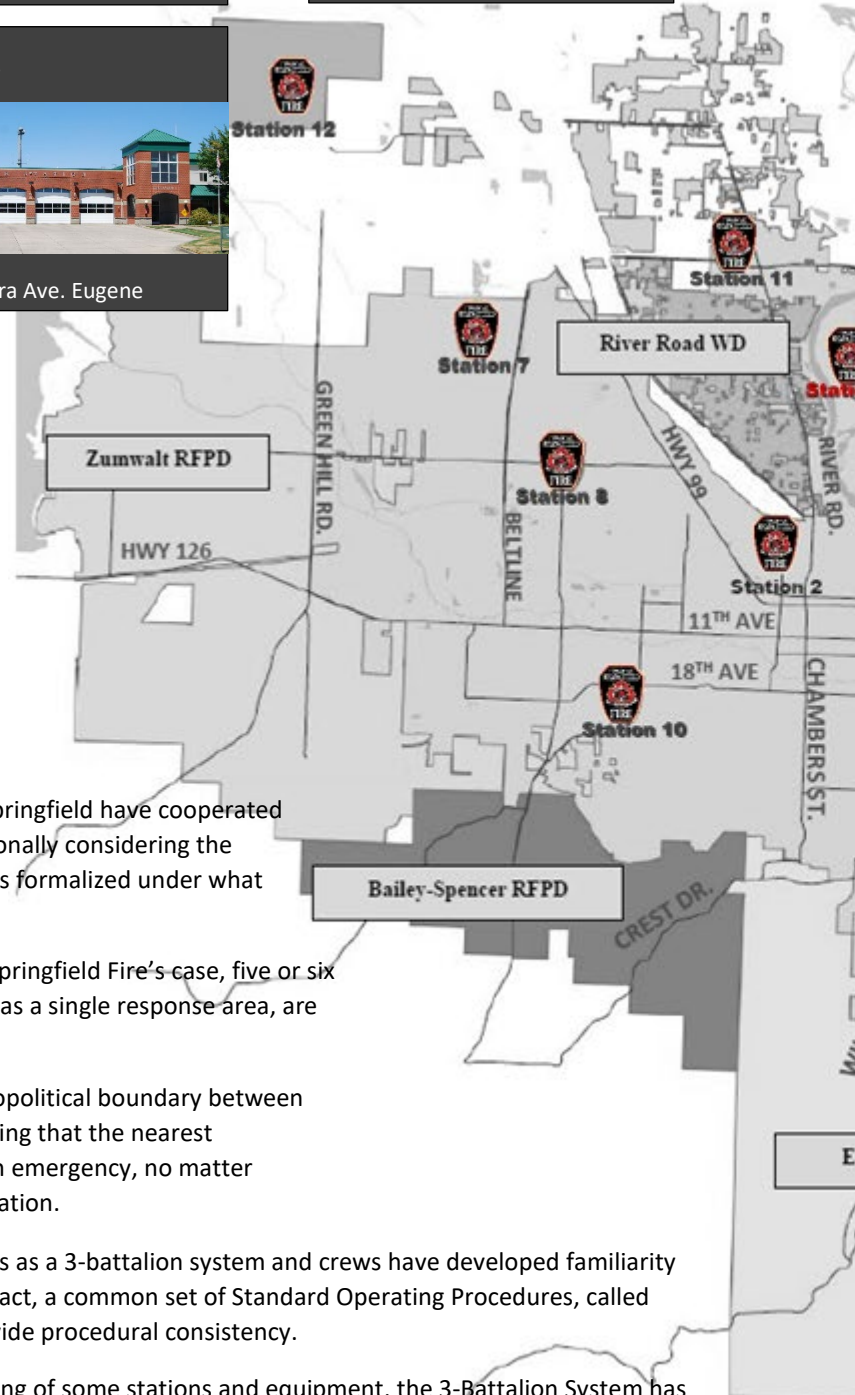


111 Santa Clara Ave. Eugene

Station 8



500 Berntzen Rd. Eugene



The 3-Battalion System

For many years, the fire protection systems of Eugene and Springfield have cooperated under an automatic aid agreement. This made sense operationally considering the proximity of the response areas. In 2007, the relationship was formalized under what became the 3-Battalion System.

A battalion is a group of suppression companies (in Eugene Springfield Fire's case, five or six companies). The combined cities and contract districts, seen as a single response area, are served by three battalions.

The 3-Battalion System provides service regardless of the geopolitical boundary between the jurisdictions, instead employing dispatch protocols ensuring that the nearest appropriate response resources are sent to the location of an emergency, no matter whether they are Eugene units, Springfield units or a combination.

Eugene and Springfield have been operating for over six years as a 3-battalion system and crews have developed familiarity with each other's personnel, equipment and procedures. In fact, a common set of Standard Operating Procedures, called Metro SOPs, have been written, which helps ensure metro-wide procedural consistency.

Implemented at practically no cost other than the renumbering of some stations and equipment, the 3-Battalion System has paid dividends not only in direct emergency response, but also in system backup, as units from either jurisdiction can be moved so as to provide safe coverage metro-wide in the event that many units are committed to a major emergency at a single location.

Battalion One

Station 1



1320 Willamette St. Eugene

Station 6



2435 Willakenzie Rd. Eugene

Station 9



697 Goodpasture Island Rd. Eugene

Station 13

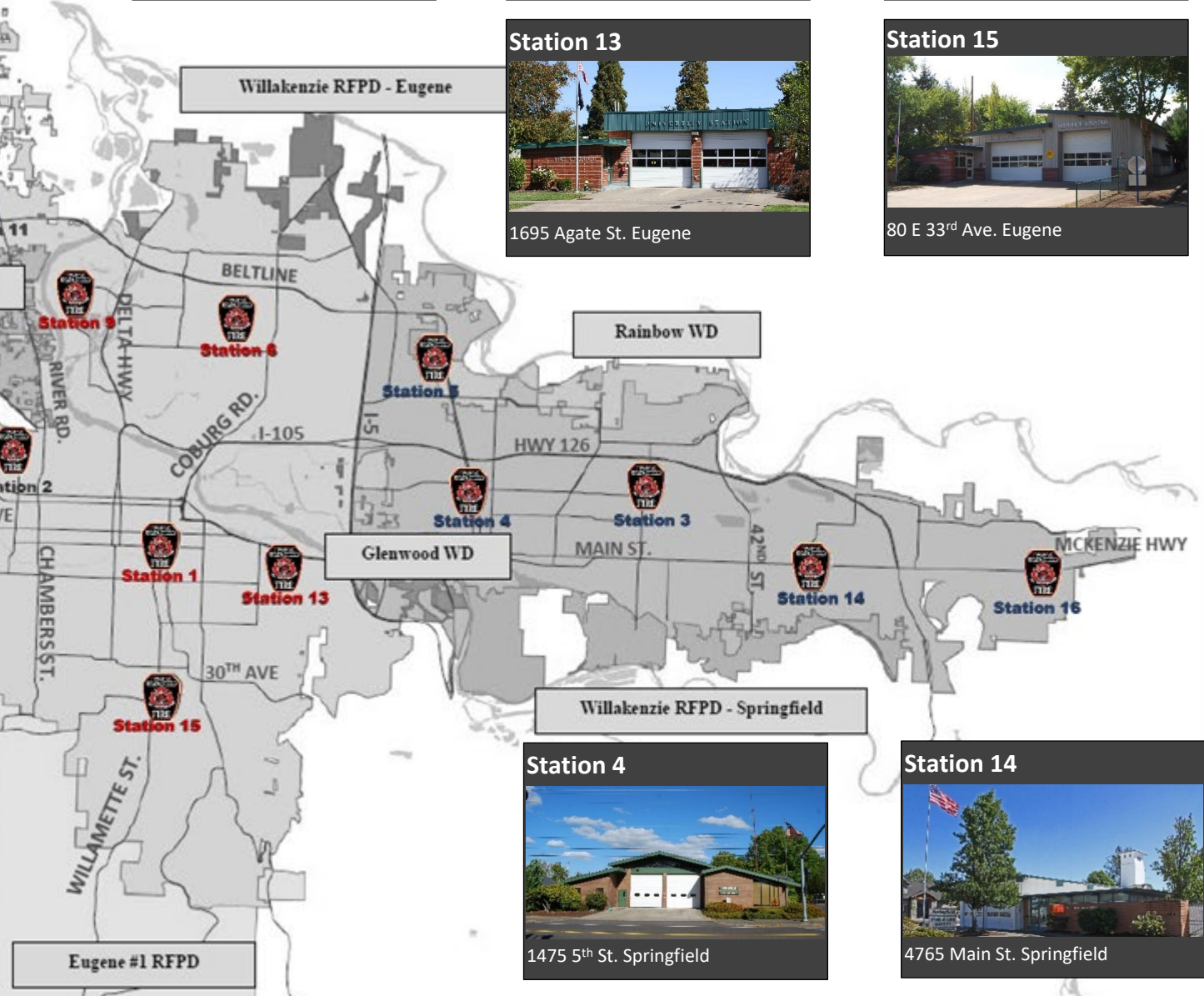


1695 Agate St. Eugene

Station 15



80 E 33rd Ave. Eugene



Station 4



1475 5th St. Springfield

Station 14



4765 Main St. Springfield

Station 3



1225 28th St. Springfield

Station 5



2705 Pheasant St. Springfield

Station 16



6853 Main St. Springfield

Battalion Three



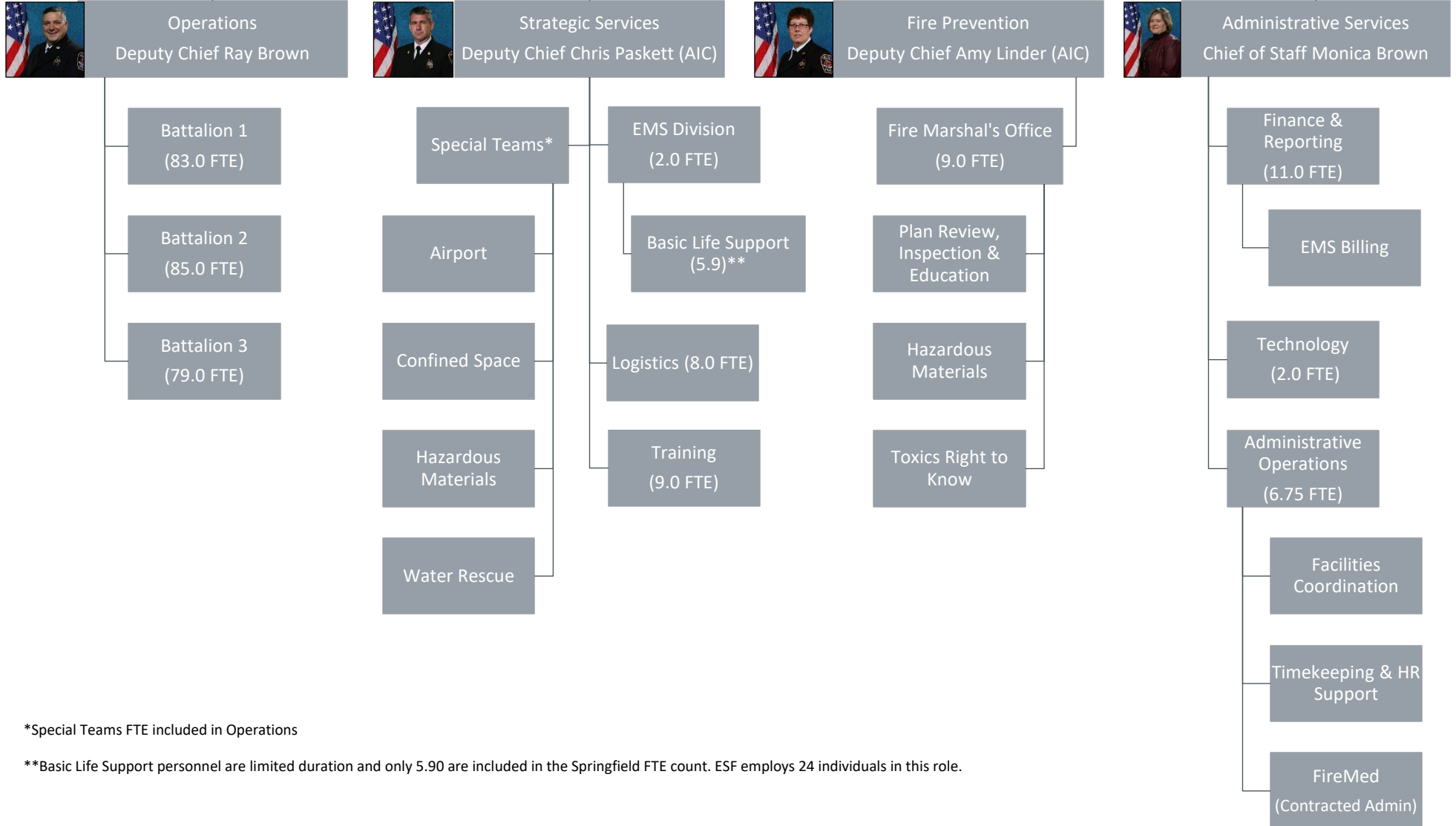
Fire Chief
Chris Heppel, Interim

City of Eugene: 206.00 FTE

City of Springfield: 101.65 FTE

Total: 307.65 FTE

Executive Assistant



*Special Teams FTE included in Operations

**Basic Life Support personnel are limited duration and only 5.90 are included in the Springfield FTE count. ESF employs 24 individuals in this role.

Vital Statistics - Fiscal Year 2020

<u>Calls for Service*</u>	All Call Types	Medical Calls	Fire Calls	Other Calls	Public Assist Calls	Transports
Total	40,849	34,250	599	4,105	1,895	23,824
Eugene	25,516	21,131	426	2,634	1,325	14,629
Springfield	9,211	7,807	135	853	416	5,682
Bailey Spencer RFPD	29	25	0	3	1	19
Eugene RFPD 1	54	37	0	17	0	32
Glenwood WD	258	226	10	12	10	153
Rainbow WD	489	444	7	27	11	263
River Road WD	602	548	9	32	13	362
Willakenzie Eugene RFPD	93	85	1	4	3	58
Willakenzie Springfield RFPD	208	175	7	18	8	106
Zumwalt RFPD	131	92	4	32	3	66
Other	4,258	3,680	0	473	105	2,454
Mid-Valley Ambulance	2,307	2,307				1,124

**Calls by area may not equal total calls due to multiple responses.*

Prevention

Fire investigations	101
Inspections	
New construction	1,447
Code enforcement	832
Hazardous materials	514
Plan reviews	637

Service Areas

Incorporated cities plus contract districts	
Total Population	250,335
Total Area (sq. mi.)	94.3
Springfield plus contract districts	
Population	69,318
Area (sq. mi.)	20.0

Public Education

Station Tours	16
Total visitors	273

Eugene plus contract districts	
Population	181,017
Area (sq. mi.)	74.3

Crew visits/Pub events	55
People contacted	3,498

Combined ambulance service areas	
Total population	287,824
Total Area (sq. mi.)	1,625.6

Losses from fires

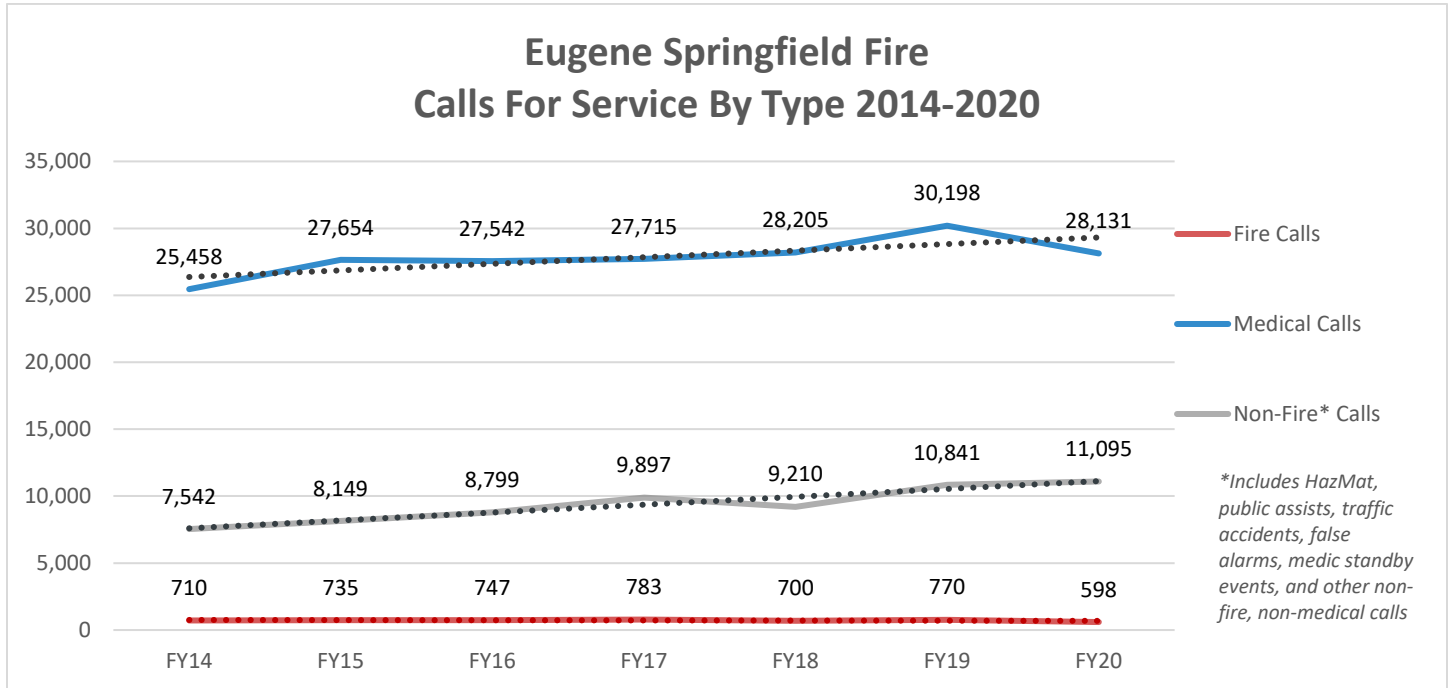
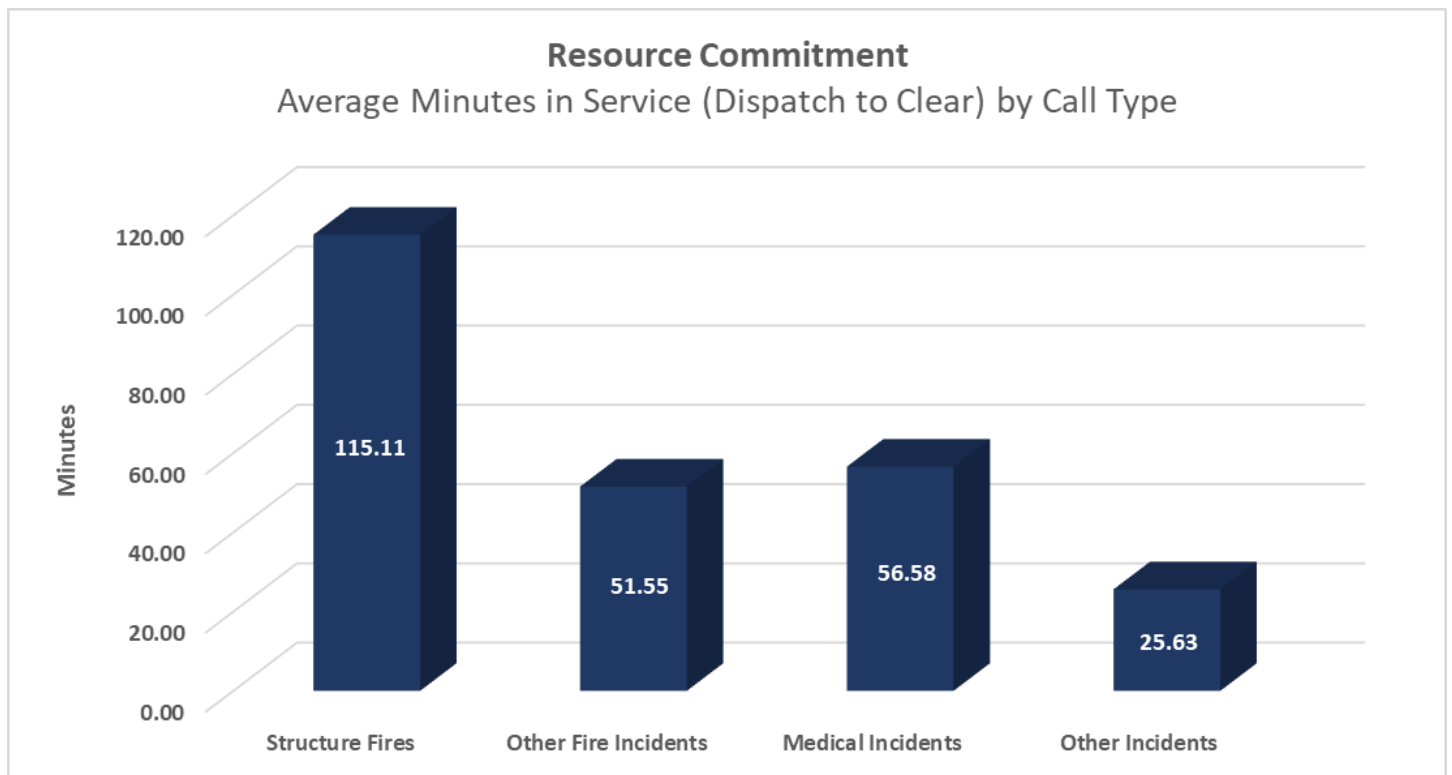
Structure fires	\$4,110,600
Vehicle fires	\$777,150
Outside fires	\$34,600
Dumpster fires	\$66,270
All other fires	\$13,700

Springfield ambulance service area	
Population	92,596
Area (sq. mi.)	1,452.2
Eugene ambulance service area	
Population	195,228
Area (sq. mi.)	173.4

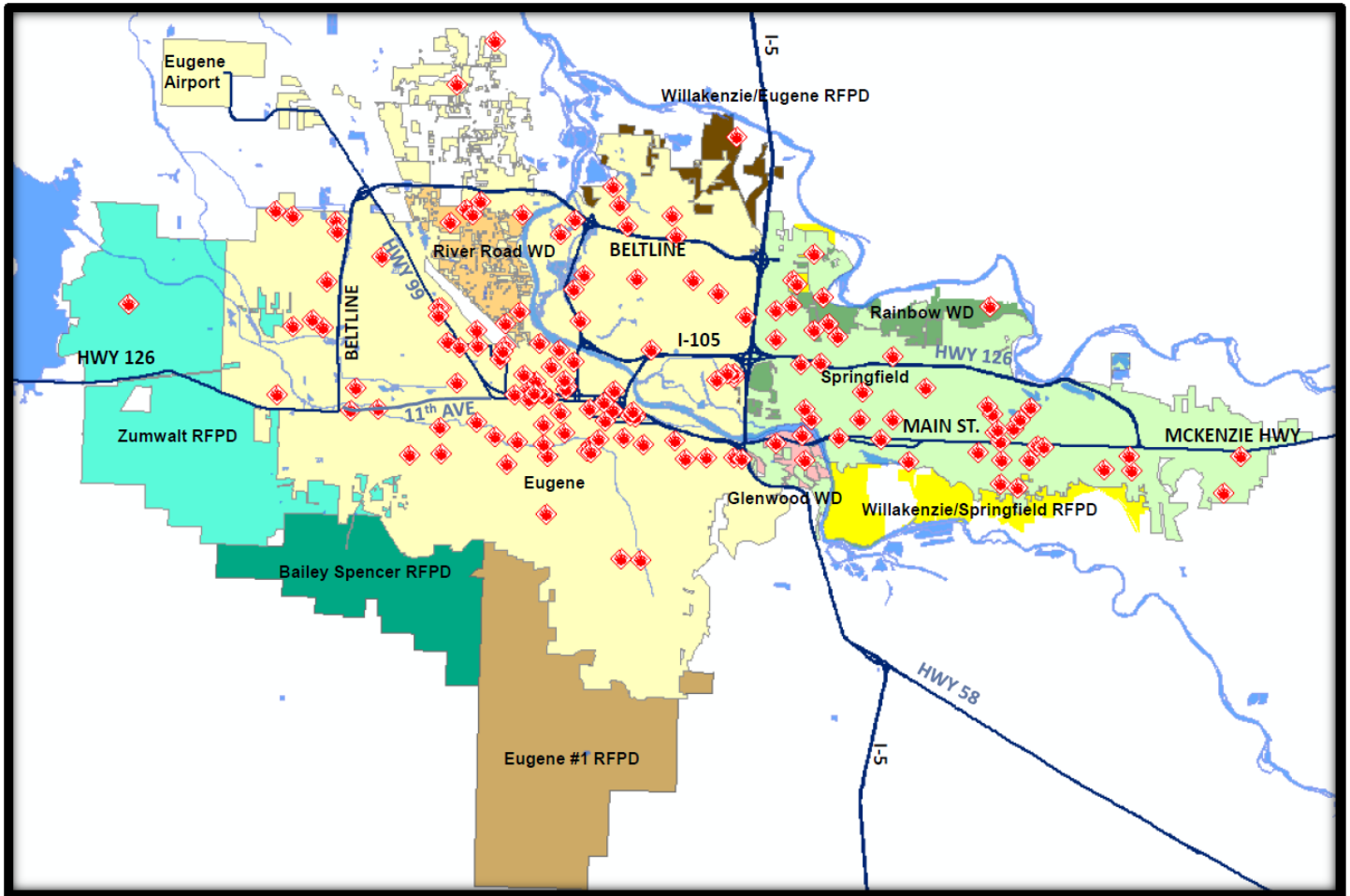
Civilian fire-related injuries	10
Civilian fire-related deaths	0

Calls for Service

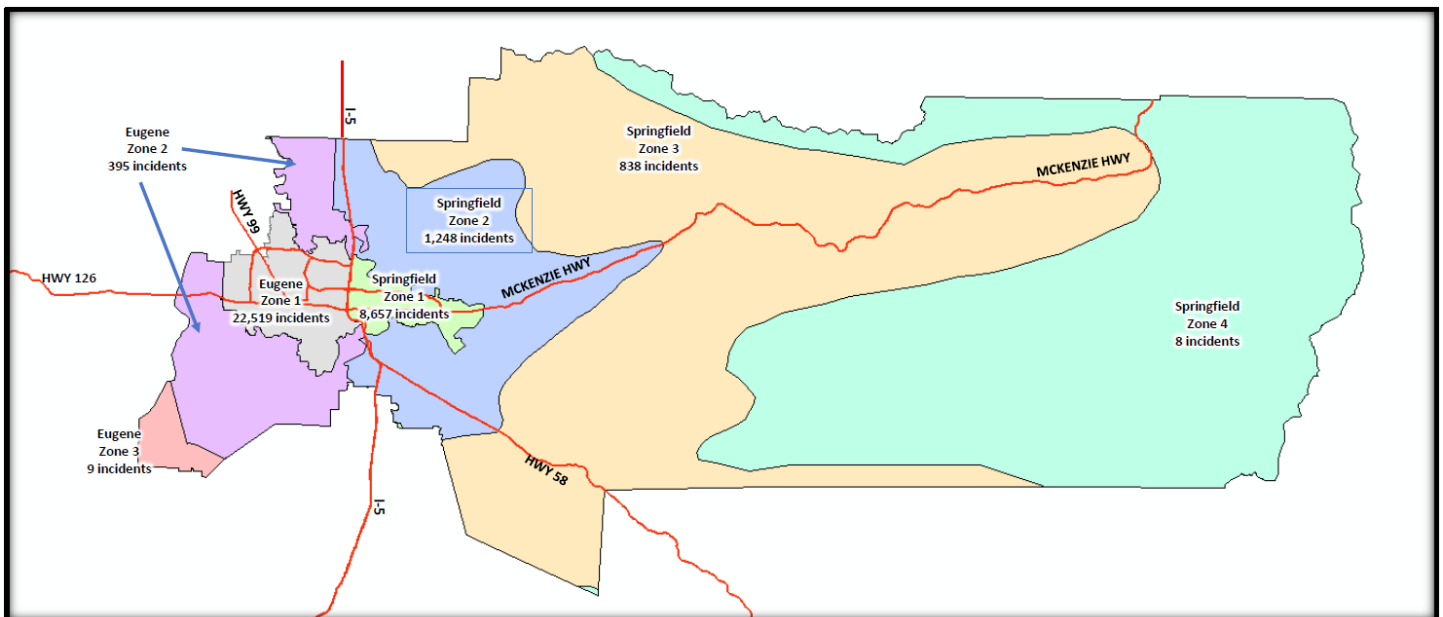
Where do we respond? The vast majority of calls for service are located in the metro areas of Eugene and Springfield. The most densely represented geographic area of calls is the downtown area of Eugene. ESF units also regularly respond to calls outside the metro area. The majority of these calls are ambulance responses as ESF's Ambulance Service Areas (ASAs) extend beyond the geographic boundaries of the metro area.



Structure Fire Responses by Service Area



EMS Calls by Ambulance Service Area (ASA) Zone



Department Budget

Eugene Springfield Fire's FY20 approved budget totaled \$68.3 million, representing an increased spending authority of 4.4% over FY19. Personnel costs, including wages, overtime, and fringe benefits, accounted for 79.6% of the expenditure in FY20. The remaining 20.4% covers materials and supplies. Notable large expenses in FY20 were a payment to Oregon Health Authority for the FY18 Ground Emergency Medical Transport filing that resulted in \$990,144 being returned to Fire, and Conflagration costs of \$212,095 for the Department's October 2019 California wildfire response.

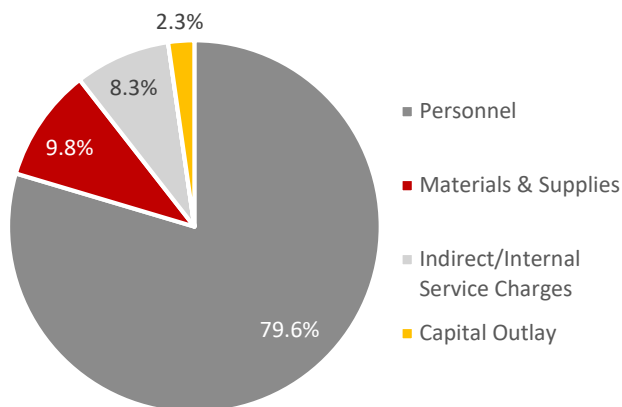
In FY20, the department had 307.65 full-time equivalent (FTE) positions. There were 256.9 FTE assigned to Shift Operations for fire suppression and medic transport and 50.75 FTE were assigned to the Fire Marshal's Office, Training, Logistics, and Administration.

Eugene Springfield Fire was awarded several grants in FY20 to help further our public safety mission. An Oregon Health Authority Healthcare Preparedness Program provided \$47,000 for Active Violent Incident response training. The Oregon Office of the State Fire Marshal granted \$5,000 for an emergency response exercise for Local Emergency Planning Committee (LEPC) members. ESF also received funds from the U.S. Department of Health & Human Services (HHS) CARES Act for response to the COVID-19 pandemic, including \$122,262 for lost Ambulance Transport revenue, \$120,653 for General Fund expenses, and \$192,572 for Ambulance Transport Fund expenses.

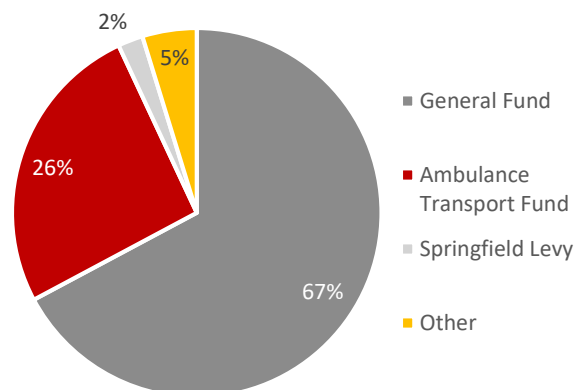
ESF FY20 Approved Budget	ESF	Eugene	Springfield
Personnel	\$54,432,516	\$38,361,419	\$16,071,097
Materials & Supplies	\$6,730,009	\$3,660,854	\$3,069,155
Indirect/Internal Service Charges	\$5,671,306	\$3,817,460	\$1,853,846
Other	\$3,050	\$3,050	\$0
Capital Outlay*	\$1,542,000	\$0	\$1,542,000
Total	\$68,378,881	\$45,842,783	\$22,536,098

*Capital purchases are included in Indirect/Internal Service Charges in Eugene and distinct in Springfield

ESF FY20 Approved Budget



FY20 Funding Sources



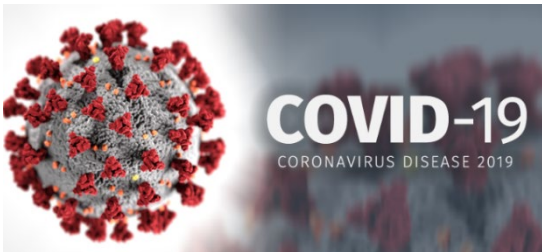
FY20 in Review

In March 2020, the Cities of Eugene and Springfield responded to the emerging COVID-19 pandemic by declaring a state of emergency and standing up fully staffed Emergency Operation Centers (EOC) to help manage the dynamic response. These EOCs functioned using National Incident Management System (NIMS) components and drew employees from both cities in areas including operations, finance, logistics, planning, public information, and general command staff. The EOCs were co-located at the Emergency Services Center campus, home to Eugene Springfield Fire administration, allowing collaboration and communication between the Cities. ESF supplied the Incident Commanders for both the Eugene and Springfield EOCs, as well as several other positions. The number of staff assigned to the EOCs grew quickly and, at the height of their operation, there were over 150 full time employees providing 7 day-a-week coverage for the two operation centers.

Eugene Springfield Fire is dedicated to providing high quality care to our community in the midst of COVID-19. Precautions have been expanded beyond the normal emergency medical services measures of using gloves with every patient to include respiratory and eye protection. When treating respiratory or known COVID patients, gowns are donned as well. ESF also expanded the use of our recently purchased video laryngoscopes, which allow responders to maintain distance when placing an airway. During the initial weeks of the COVID-19 response, ESF projected an N95 mask shortage



and began to source alternative means for respiratory protection for responders. We acquired Air Purifying Respirators (APR), which are an effective protection against COVID-19 airborne particulates and droplets. These masks are currently utilized in all scenarios in which fire and EMS responders may encounter a COVID positive patient, and will serve as a stopgap measure until the supply chain of medical grade N95 masks is restored.



COVID-19 is a new virus and information is changing constantly. ESF Infection Control Officers are continually monitoring developments in the medical and scientific community to be able to educate the department on the latest discoveries.

ESF works collaboratively with Lane County Public Health and the Oregon Health Authority to adhere to the latest guidelines for infection prevention. Exhalation filtering devices have been added on all aerosol generating procedures. On equipment where this can't be done, crews have been instructed to limit their use to outdoors or ensure that there is enough ventilation to reduce the risks of exposure. Dispatch is using enhanced call taker questioning specific to COVID-19 symptoms and is having patients meet crews outdoors to limit ESF's exposure to households and care facilities where our most vulnerable patients reside. In compliance with social distancing guidelines, ESF has limited in-person training to small groups and instituted more distributive learning delivery methods. This continues to be a challenge as demonstration of high-risk, low-frequency skills is necessary for continuing education requirements.

The COVID-19 pandemic has been a centennial event. Eugene Springfield Fire, in conjunction with our city department partners, continues to serve our community during this time. It has been 100 years since a similar event and there has been no road map to follow. During the early phases of this incident, we were presented with more questions than answers. We all continue to be concerned about our families, friends, community and general health. However, thanks to the dedication and patience of our team, our leadership, and our community, we are moving in a positive direction. The community is shifting from a response to a recovery phase, but there is a lengthy road ahead. While we will see more challenges, Eugene Springfield Fire remains committed to sustaining the services our communities need.

Reducing Environmental Impacts

Creative Work Environment

Logistics Saves Money, Keep Crews in their First Response Area, and Reduces Environmental Impact

Annually, each fire engine in the department must make multiple trips to the logistics building at the 2nd and Chambers campus for a battery of apparatus and equipment tests including pump, hose, and ladder testing.

In May 2020, the Eugene Springfield Fire Logistics Section completed construction of a fire engine drafting and testing tank that allows logistics staff to perform these tests on the same day, resulting in multiple positive outcomes.

Fire apparatus make fewer trips outside of their response areas.

Less travel results in reduced carbon emissions.

Department savings of roughly \$90,000 over 10 years, with the cost of the tank covered in the first year's savings:

Cost of annual pump testing with an outside contractor: approximately \$6,000

Replacement of the vinyl test tank every 2-3 years: \$3,000

Annual fuel cost: \$1,000-\$2,000



The tank was fabricated by Dave Wiltermood and Shayne Teague.

Among the carbon reduction efforts underway by Eugene Springfield Fire is the lease of the Rapid Responder from electric vehicle company Arcimoto.



The Rapid Responder will assist not only with emergency response but also special events with fewer carbon emissions than a fire truck or ambulance. In addition, the vehicle's size allows it to access places that other apparatus cannot such as bike paths and water trails. ESF continues to work with Arcimoto to develop the next generation of rapid responder.



No- Foam Testing System

In April 2020, the Eugene Airport and Eugene Springfield Fire proactively responded to concerns about per- and polyfluoroalkyl substances (PFAS) contamination associated with the testing of firefighting foam with the acquisition of a No-Foam P-574 Firefighting Foam Testing System.

PFAS are manmade fluorocarbon chemicals with unique properties which make them highly resistant to intense heat and repellent to fat, water, and oil. They are found in the aqueous film forming foam that the Federal Aviation Administration (FAA) requires for use at airports certified for aircraft rescue and firefighting. Annual testing of the foam is also required.



In the past, testing involved flowing large amounts of foam onto the ground to collect samples. In many cases, the fluorinated foam infiltrated into ground water and waterways on and around airports. Using flowmeters and input-based testing instead of sample collection, the No-Foam System measures the proportioning and conductivity of the foam, assuring its effectiveness in the event of a fire, while eliminating contamination and reducing costs on wasted foam.

The purchase was facilitated by Eugene Airport Administration and paid for with FAA Airport Improvement Program grant funds.



In 2018, the Logistics Section evaluated the courier service it provides to deliver equipment, supplies and uniform items to outlying stations.

With pre-planning and management of the ordering system, the courier route has been reduced from 5 days a week to 3 days a week, a reduction of up to 40% in station visits.



The result is a savings of hundreds of gallons of fuel annually and the ability to concentrate efforts on equipment maintenance, hose testing, and washing of turnouts.

Challenge Provides Opportunity

The COVID-19 pandemic has necessitated rapid adaptations to daily business routines. To comply with social distancing guidelines and promote a safe work environment, the Cities of Eugene and Springfield have provided staff with options including flexed schedules and telecommuting. ESF has worked hard to implement the technologies and processes needed to support these policies. The reduction in staff travel results in an overall reduction in our carbon footprint.

Young Women's Fire Camp

July 22 -26, 2019

While fire departments in the U.S. have a long history of being predominantly white male, the Young Women's Fire Camp hosted by Eugene Springfield Fire is part of ongoing efforts to engage under-represented populations to consider careers in fire and emergency medical services. This week-long camp is for high school-aged young women and provides a unique experience at no cost to camp participants or their families. The department is fortunate to have a dedicated group of women firefighter/paramedics from within our ranks that come together acting as mentors that guide these participants.

Eugene Springfield Fire welcomed 16 participants to the 9th annual Young Women's Fire Camp in the summer of 2019.



The camp participants are introduced to fire and emergency medical service activities, learn about leadership, build confidence, and learn team-building skills through a combination of instruction and hands-on drills. These drills include rope rappelling, live fire burns, physical fitness training, emergency medical treatment, personal safety awareness instruction, and fire tool manipulation. Also, a wide variety of local community leaders, city leaders, and department personnel speak on topics to inspire and challenge these young women.



Conflagration

In late October 2019, the Office of State Fire Marshal mobilized Oregon firefighters to join firefighting efforts in Sonoma County, California.



A total of 15 taskforces were deployed from Oregon to help battle the Kincade Fire, including a Type 1 Strike Team and a Type 3 Strike Team from Lane County. ESF Battalion Chief Steinberg was deployed as an Assistant Task Force leader with the Type 1 Strike Team.



Oaks Mobile Home Fire and Wildland Incident

Chief Andrew Smith of Goshen Hill Fire expresses thanks for the multi-agency response to this incident in August 2019:

Good Evening,

I wanted to take a moment this evening and send a tremendous thank you to the contacts I have for the Fire and Law enforcement agencies that came today to assist with our Oaks Mobile Home fire and wildland incident.

Minutes after being dispatched it was clear that we had another serious incident on our hands. Our initial engines had fire quickly spreading between three mobile homes and already extending in the wildland towards a hill with homes and structures. For me, this was a repeat of our Bella Casa incident from 2 years ago but with a bigger series of challenges.

It's early and we are still tallying information but my current count is 63 Fire/EMS personnel on scene of this incident in the 4 different divisions with outside support from ODF and ample help from OSP and LCSO. This incident including structure firefighting, wildland exposure, evacuations of nearby homes, issues with BPA overhead lines, EMS patients and more.

I am very lucky to be part of a county that with a unified fire defense board can come together so quickly to provide resources and support on such a magnitude. I will reach out to you independently with specific appreciation for the support from your organizations but know that it made a huge impact today. Simply put - this could have been WAY WORSE than the already bad incident it was.

Thank you all for your assistance!



Fuels Reduction Project with Northwest Youth Corps



Following the allocation of \$200,000 on July 1st, 2019 for fuels reduction work with emphasis on workforce development, the collaborative efforts of the Eugene Springfield Fire Department, City of Eugene Parks and Open Space, and Northwest Youth Corp began. The Southeast Hills Neighborhood Association was selected as the pilot area for this project.

ESF signed contracts with Northwest Youth Corp and Oregon Division of Forestry and initiated Community Education and Outreach. A Community Chipping Weekend allowed community members to actively engage in fuel reduction on their properties.

Several criteria contributed to prioritizing where Northwest Youth Corp began fuel reduction work. This criteria included primary egress routes, ties to previously conducted fuel reduction work, and the number of interested properties in the area. Individual property assessments began shortly thereafter.

Work commenced with the arrival of fall and end of fire season. Oregon Division of Forestry and City of Eugene Parks and Open Space provided training and support.



152 property evaluations completed

204 acres received fuel reduction work

218 main structures (not including sheds or garages) positively impacted by fuel reduction work

Over **9000** hours of workforce development for youth and young adults

Multiple agencies collaborated and brought many levels of expertise together in an effort that culminated with the success of the project.

Community Involvement

Fireworks Alert App Improvements

In FY20, several upgrades were made to the Fireworks Alert app, which ESF developed in 2018 with the help of the City of Eugene's Information Services Department to allow users to report illegal fireworks activity.

Leveraging smartphone GPS technology

The app helps limit reports to only those that Eugene Springfield Fire can respond to by restricting reporting to fireworks incidents that occur within the City of Eugene. The data collected by the app is sent to a database, allowing immediate access to the information for more efficient analysis and reporting.



Photo functionality

Users can now take a photo of illegal fireworks directly from the app, or upload photos that were taken outside of the app.

Android optimization

The app was upgraded to a 64-bit version for Android devices so it will work optimally with both iPhone and Android devices.

Eugene-Kathmandu Sister City

In August 2019, Eugene Springfield Fire Department welcomed a very special guest, Kishor Kumar Bhattarai from the Eugene-Kathmandu Sister City Association. Kishor, who is the prior Fire Chief of Kathmandu located in Nepal, had an unforgettable experience while he was here in Eugene. Kishor spent a week gaining hands on experience taking part in high rise demonstrations on the drill field and repelling down the drill tower during technical rescue demonstrations. Back home Kishor is a member of the Kathmandu Emergency Management Team and was able to take the skills and knowledge he gained while visiting our department and teach others what he learned.



Cooking Fire Safety

Cooking fires are a leading cause of residential fires in Oregon. In conjunction with the Oregon State Fire Marshal's Office, Eugene Springfield Fire Department participated in a Cooking Fire Safety Program during January and February. Audiences were taught many ways to deal with a cooking fire including:

- Prevention tips to help prevent cooking fires before they start
- Safety tips for if a cooking fire does start
- What to do if you cannot extinguish the fire

The top photograph shows an indoor classroom setting where two firefighters in dark uniforms are interacting with a group of children. One firefighter on the left is standing and holding a small flag, while another stands near a whiteboard in the background. Children are seated at a wooden table, some with their hands raised. The room is decorated with alphabet cards and various educational posters. The bottom photograph shows a group of children of various ages gathered outside next to a red fire engine. The engine has "PARAMEDIC ENGINE CO." and "RIT" written on its side. A firefighter is standing near the engine, and a woman is holding a long, thin object (possibly a pole or a prop) that the children are looking at. The scene is outdoors on a paved area.

Every year during National Fire Prevention Month in October, Eugene Springfield Fire crews visit each 2nd grade classroom in Eugene and Springfield in a 2-week window. Crews provide a fun, age-appropriate lesson plan on a fire safety topic relevant to the year's Fire Prevention Month theme.

During the month, Eugene Springfield Fire visited **75 classrooms** and **2,650 students**.

Fire Safety Traveling Trunks are containers loaded with age-appropriate fire safety education material designed for preschool and kindergarten age children. Trunks are designed to be provided to a school or classroom for a teacher to use at their own pace to teach basic fire safety messages. Trunks contain books, DVDs, sing-alongs, puzzles, child size turnouts and puppets.

A black plastic storage bin is filled with various fire-themed toys and books. Visible items include an FDNY play set, a 24-piece fire truck puzzle, a fire truck plush toy, and several children's books about fire safety and firefighters.

Retirements

The following department members retired in FY20. We want to thank each one of these individuals: Battalion Chief Matt Ennis, Battalion Chief Jeff Kronser, Captain James Walter, Fire Training Captain Jean Woodrich, EMS Training Coordinator Karen Anderson, Training Officer Kevin Sundholm, Engineer Stuart Sabatka, and Management Support Specialist Melanie Larson. Thank you for your devotion, time, and courage you have shown serving over the years.

Awards Ceremony

Crews, city staff, families, and award recipients gathered on March 5, 2020, at the Richard E. Wildish Theater in Springfield for the Annual Awards and Recognition Ceremony. The department recognized eight promotions in addition to department awards and certificates including Class I and Class II Commendations, a Medical Service Award, and Safe Operator Awards.

Fallen Firefighters

Oregon Fallen Firefighters Memorial, 9/19/19

Across the country and throughout the world, many memorials have been built to honor the men and women Firefighters who have lost their lives in the line of duty, or simply to honor the job Firefighters perform every day. Every year, on the third Thursday of September, the Oregon Fallen Firefighter Memorial Ceremony is dedicated to honoring Oregonians who have made the ultimate sacrifice. The Oregon Fire Service Honor Guard (OFSHG) coordinates the honors for this event. Eugene Springfield Fire members serving: Deputy Chief (AIC) Amy Linder, Firefighter/ Paramedic Jonathan Hayes, and Management Analyst Dave Gulledge, and Fire Dog Casey.

Bells Across American and Light the Night, 10/4/219-10/6/19

2019 marked the first year of Eugene Springfield's participation in the Bells Across America and Light the Night campaigns in support of our Nation's Fallen Firefighters. On October 6, 119 Fallen Firefighters were honored at the National Fallen Firefighters Memorial. As dusk turned to dark, landmarks, fire stations and residences glowed red in respect to the fallen and their families. Chief Linder, Analyst Gulledge and Fire Dog Casey, representing the OFSHG, conducted a traditional bell ceremony hosted by St. Matthew's Episcopal church and several other houses of worship tolled their bells in remembrance. Eye Beam Event Services helped Light the Night as the drill tower and 2nd and Chambers glowed red in solidarity with the National Fallen Firefighters Foundation.



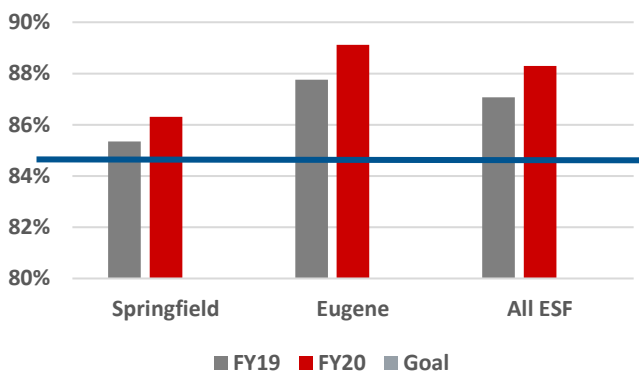
Division Summaries

Operations

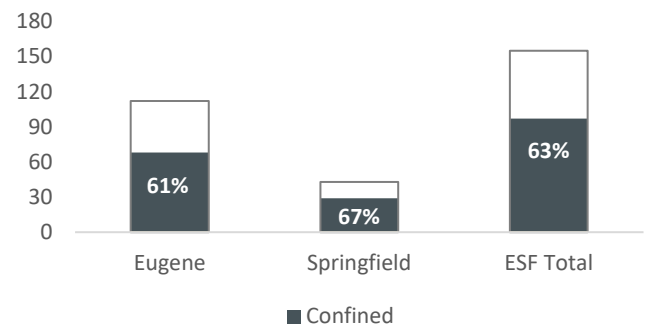
All frontline fire suppression and emergency medical services (EMS) apparatus in the Operations Division are Paramedic units. Every day, 24/7, the fire apparatus are staffed with a Fire Captain, a Fire Engineer, and one or more Firefighters. At least one of those positions is staffed with personnel certified at the Paramedic level. On many apparatus, all of the fire personnel assigned are at the Paramedic level. This ensures that every medical call has at least one Paramedic with Advanced Life Support training and equipment arriving on scene at the earliest possible moment.



Response Reliability



Structure Fires Confined to Room of Origin



Response reliability is the probability that resources assigned to a fire station will be available from that station when a fire or emergency occurs within that area. As the number of emergency calls per day increases, the probability that a needed piece of apparatus will be available when a call is received decreases.





2020 demonstrated once again that Eugene Springfield Fire (ESF) does much more than respond to emergency medical calls and residential structure fires. ESF is an all-hazards department with response to significant motor vehicle accidents, a variety of rescues, and fires that present unusual hazards for the community. As an example of the variety of calls for one forty-eight-hour tour in May, "A" shift responded to: multiple motor vehicle accidents, a grassfire on Gateway, two house fires, and a vehicle into an apartment building. All of this was completed with the added challenge of keeping the community and crews safe while in the midst of a worldwide pandemic.

While responding to emergencies is the priority of the Operations Division, personnel also spend their time completing required training classes, conducting station tours for the public, and maintaining the stations, apparatus, and equipment. Additionally, crews visit grade school classrooms every October during Fire Prevention Month, which is a longstanding custom of Eugene Springfield Fire. During these presentations, an on-duty fire crew provides information on a fire safety message relevant to the Fire Prevention Month theme and provides safety material for each child to take home. In past years, the individual departments delivered this training to different grades. With the merger, the curriculum and public education messages have been standardized and are now delivered consistently to all second-grade classrooms. On February 5, 2020, ESF participated in World Read Aloud Day. Crews read to students in elementary classrooms in support of the annual global literacy advocacy event.



Strategic Services

Emergency Medical Services

Cardiac Survival

Eugene Springfield Fire participates in the Cardiac Arrest Registry to Enhance Survival (CARES). In 2020, the department had a bystander CPR intervention rate of 67%. These were cases where CPR was done prior to EMS arrival. Public automated external defibrillators (AED)s were used in 15.4% of Out of Hospital Cardiac Arrest (OOHCA) cases. ESF is

ESF team members with the Fastest Door-to-Balloon Time for the month receive the Cardiac Award pin through a program administered and awarded by PeaceHealth.

You may see the jellybean-sized pin on team members who have received the award where it has been authorized for wear on the class C uniform, above the name plate.



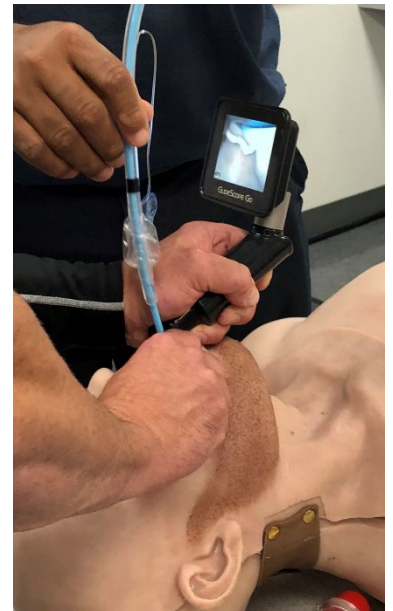
using the smart phone application PulsePoint to track where AEDs are in our community. This application alerts community members when CPR is needed in a public location and indicates where the closest AED is to the cardiac arrest. Eugene Springfield Fire is looking at ways to enhance cardiac arrest survival in our community. Bystander CPR and Public Access Defibrillation play a big role in successful treatment of OOHCA.

Equipment and Operations

In FY20, Eugene Springfield Fire added video laryngoscopy using the GlideScope Go device to all the front-line medic units. This was done at the request of the Supervising Physician. His hope is that, with this device and enhanced training, ESF will have a 90% first pass success rate for placement of Endotracheal devices within the year. With this change, ESF also implemented a change in supraglottic airway devices moving away from the King LTS Airway to the Igel device. We have seen great success with this so far.

Public Education and Training

Eugene Springfield Fire continues to focus on Active Violent Incident (AVI) response. In December, Doctor Nicole Ingalls presented to the department on the effects of blast trauma as part of a multi-year training plan in preparation of the 2021 IAAF World Track and Field Championship, which has now been postponed until 2022. The Oregon Health Authority (OHA) Health, Security, Preparedness and Response (HSPR) program has provided support for this training and the necessary equipment for our personnel and the personnel of our surrounding mutual aid partners.



Basic Life Support System

Our Basic Life Support System (BLSS) employs nine full-time and six part-time Basic Life Support (BLS) Technicians, who operate two 12-hour/day BLS ambulances and one 24-hour/day BLS ambulance. They respond to scene calls with Advanced Life Support (ALS) fire crews and transport BLS appropriate patients to our three local hospitals.

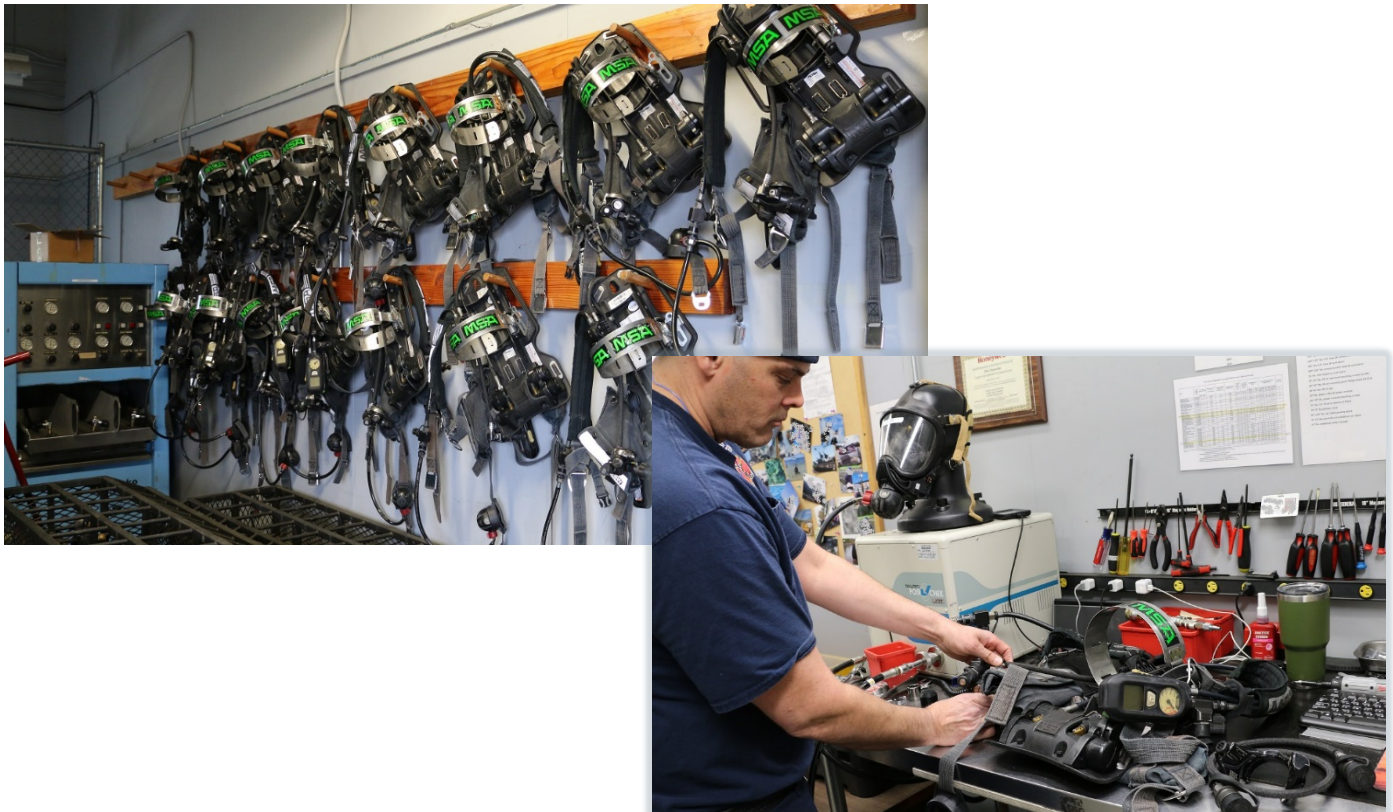
Our BLSS is providing excellent entry-level opportunities into the fire service. BLS Techs are often students pursuing a professional Fire/EMS career, and others are working to become nurses, PAs, and even MDs. Our BLSS schedules and processes are designed to accommodate and support this development. Student friendly shift schedules continue to be evaluated and adjusted as needed.

BLS Academy 08 trained 10 new personnel from October 28 through November 3, 2019, followed by Field Training and Evaluation shifts to ensure our new BLS Techs were ready for response within our system. Since that time, three of these BLS Techs have already become professional firefighters.

Forty-one BLS Tech interviews were conducted from February 10 through February 14, 2020, in preparation for the BLS Academy 09 hiring process. BLS Academy 09 trained six new personnel from June 15 through July 1, 2020, followed by Field Training and Evaluation shifts.

Logistics

The Eugene Springfield Fire Logistics Section is located on the campus of the Emergency Services Center in Eugene. Overseen by a Battalion Chief of Logistics & Safety, this section provides a wide range of equipment, supplies, and maintenance services to support the ongoing mission of the fire department. Fire Maintenance Workers provide regular courier service to all fire stations to restock and resupply a busy organization, as well as testing and repairing over 50,000 feet of fire hose annually and laundering over 1000 sets of firefighting gear. Emergency Equipment Technicians test and maintain the inventory of self-contained breathing apparatus (SCBA) and air compressors and perform annual tests on ladders and fire engine pumps. The Parts and Supplies Specialist serves as the uniform quartermaster for the department.



Fiscal year 2020 saw the Logistics Section complete several significant projects. In keeping with the ongoing goal of supporting more efficient and sustainable operations, logistics employees completed construction of a fire engine drafting and testing tank. Logistics staff can now perform multiple apparatus and equipment tests on the same day, leading to a reduction in the number of times fire apparatus must travel out of their response areas. The result will be increased response reliability (apparatus able to respond to calls in their own area) as well as a reduction in fuel usage/carbon footprint.

The Logistics Section was also a key player in outfitting and supplying crews for COVID-19 related responses. Early in 2020, it became apparent that the COVID-19 pandemic would have sweeping and lasting effects on the supply chain for personal protective equipment (PPE) used by emergency responders. Logistics employees aggressively canvassed local businesses and medical supply outlets to source protective equipment. They also reached out nationwide to secure gowns, N95 masks, respirators, gloves, and face shields to assure that Eugene Springfield firefighters were protected as they continued to respond to calls for service.

Special Teams

Airport Rescue Fire Fighting (ARFF)

A component of the full suite of services provided by Eugene Springfield Fire, Aircraft Rescue Fire Fighting (ARFF) is an important partnership with the Eugene Airport. In addition to aircraft rescue and fire fighting services, ARFF firefighters respond on the airport property to structural fires, fire alarms, hazardous chemical spills and releases, and medical calls, where there is at least one paramedic level crew member on duty. The ARFF service is staffed from a pool of 27 certified fire suppression personnel, of which nine are assigned to each of the three shifts. In addition, one additional line Captain oversees the program and is designated ARFF Program Director.



Confined Space Technical Rescue Team

The Confined Space Rescue Team, apparatus, and equipment are currently assigned to Fire Station 8 located in West Eugene. The team consists of 22 certified personnel deployed on all shifts. Personnel on the team are currently DPSST certified in three areas: high and low angle rope rescue, confined space rescue, and heavy machinery extrication. In addition to their usual Fire and EMS response duties, this crew provides specialized technical rescue services within both Eugene and Springfield city limits and the urban growth boundaries (UGBs) while also providing mutual aid at the request of our strategic partners. Our team responds to emergencies ranging from patients trapped in vehicles down steep embankments, shoring up portions of buildings whose structural elements have been damaged due to a catastrophic accident, to industrial workers entangled in machinery. The team provides private industry, public works, and utility companies their mandated confined space rescue entry teams necessary for their work in “permit entry required” confined spaces. The team is equipped to respond to emergencies that may include below grade entrapment due to trauma or medical issues, electrocution in energized electrical vaults, and low oxygen or poisonous atmospheres sometimes encountered in confined spaces.



Ongoing research and data show the importance of maintenance training for a local team to be capable of providing rescue and support to the community while waiting for higher capacity Federal teams to arrive in the wake of a natural disaster. ESF is working with elected officials to acquire funding for our team to 32 members and to a higher level of rescue certifications. This pending training would allow the team to perform very technical operations at disasters such as floods and earthquakes. The increased levels of training and additional highly specialized certifications we are seeking are for Trench and Structural Collapse rescue. These are needed to maximize our potential earthquake and flood relief operations. The combination of these five disciplines (rope rescue, heavy machinery extrication, confined space rescue, and trench and structural collapse) would allow the expanded team to function as a full Urban Search and Rescue team (USAR) needed to begin mitigating the consequences of potential disasters. Currently due to the COVID 19 Pandemic and the ensuing predicted budget shortfalls, expansion of the team to full heavy USAR capability will need to be put on hold for an indefinite period of time.

HazMat Team

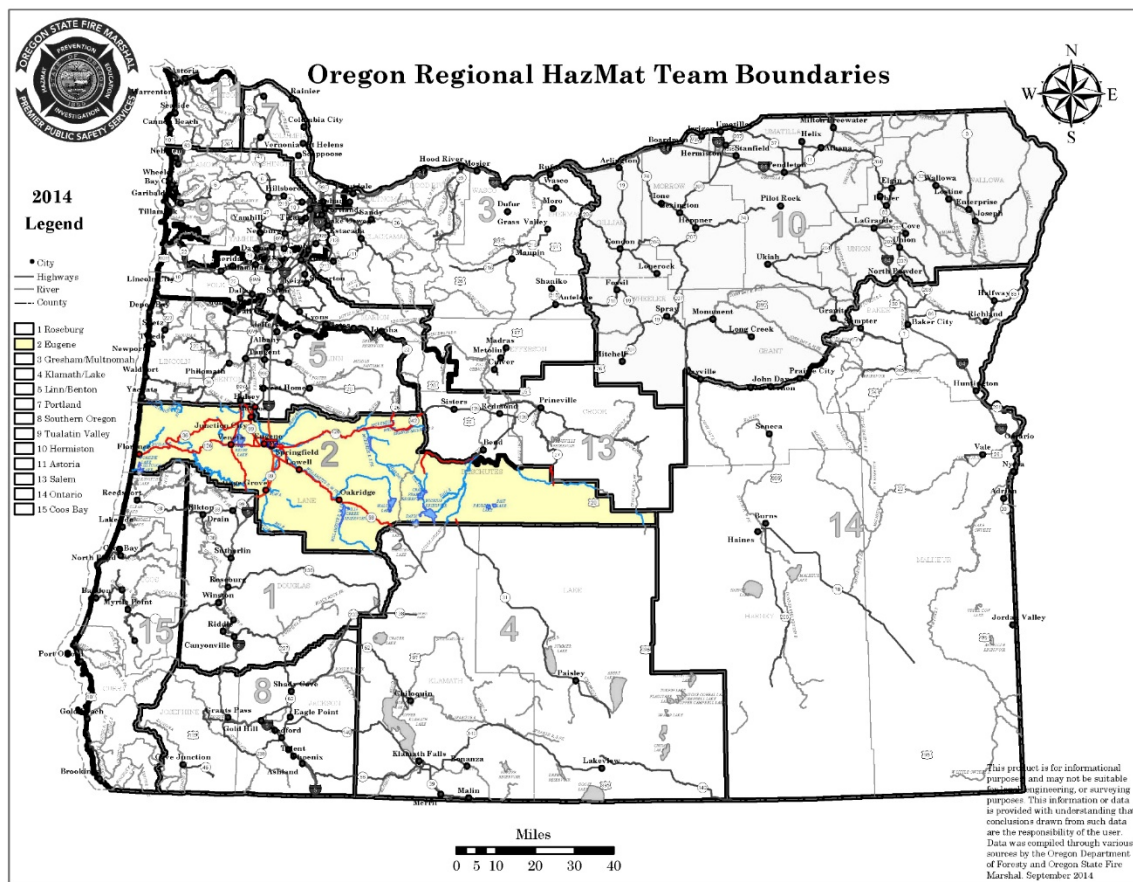
Eugene Springfield Fire is in its 33rd year of hosting the Oregon State Fire Marshal's regional Hazmat Team 2, operating from Station 9. Team 2 is one of 13 teams covering the state and is a collaboration between ESF and Oregon State Fire Marshal (OSFM). Our team consists of 22 technician level responders with a subsection of those specializing in hazards such as radiation, crude oil, petroleum products, biologicals, and chemical industry practices. The team is largely financially supported by the OSFM through the state petroleum load fees fund. This is a dedicated fund that assesses a fee for every gallon of petroleum transported over Oregon highways.

Hazmat 2 provides the majority of the first response staffing for the McKenzie Watershed Emergency Response System (MWERS). MWERS is the first line of emergency response protecting the City of Eugene's sole water source. We also work closely with other local, state, and federal agencies, such as DEQ, EPA, OSP, Eugene Police EDU, and are busy preparing to protect citizens of the metropolitan area and its guests during the 2021 Olympic trials and 2022 world games.



Photo source KVAL News

Regional Hazmat Team 2 covers just under 6,000 square miles stretching from the coast at Florence to the high desert, east of Bend.



Source: Oregon Office of the State Fire Marshal

Water Rescue Team

The water rescue team conducts surface rescue operations in still and swift water conditions surrounding the metro area. Based out of Gateway #5 and Sheldon #6 stations, the team is equipped with boats and equipment to work in many environments. All team members are trained to the Swiftwater Rescue Technician level. In addition to rescue operations, team members assist Public Works with local river water testing several times a year and conduct multiple public education events. Team members respond to 60-70 calls for service annually. Although the peak water rescue season is from Memorial Day to Labor Day, calls for service are received year-round in area rivers and ponds.

In 2020, ESF Water Rescue partnered with Willamalane, Cabela's and Lane Professional Firefighters Local 851 to install a life jacket kiosk at Clearwater Park. The kiosk was constructed completely by private donations and corporate sponsorship. The hope is for swimmers in the area of Clearwater Park to use the life jackets and then return them to the kiosk once they are done for the day. We believe that it is a simple but effective way to save lives.



This has been the vision of several years of planning and work by Captain Riley Martinka, who partnered with Willamalane and Cabela's to make this happen. The station was constructed completely by private donations and corporate sponsorship. Willamalane staff will open and close the station each day. The station will only be open from Memorial Day to Labor Day each year. If we have an early or late water season, we may be able to work with Willamalane staff to keep open longer. We have a policy on our department's procedures regarding the station pending and will be rolled out soon. This is being proactive to our communities' safety!

Training & Development

The Eugene Springfield Fire Training Section has many charges. Foremost among these is the continual facilitation of the ongoing training needs of one of the busiest emergency service systems in the state. Our department employs firefighters dually trained in emergency medicine and firefighting. Most of our employees are certified as Paramedics and thus subject to strict training requirements outlined by the State of Oregon. We hold our firefighters to state mandated standards in highly technical areas, each with their associated training requirements. Some of the areas of training include firefighting tactics and strategy, emergency driving, personnel management, hazardous materials, airport rescue operations, water rescue operations, confined space rescue operations, and medical care for the sick and injured.

Along with this maintenance training for line crews, the training section is responsible for the recruitment, hiring, and training of all new fire suppression and BLS employees. To date, our department has been in a hiring cycle, with up to four new employee academies a year for the last few years. The Training & Development program provides a minimum of 320 training hours per firefighter every two years and in FY20 conducted two academies: BLS Class 9 as well as the seven men and women of Recruit Class 26 who graduated from their 14-week academy on May 1, 2020.

After academies are complete and the recruits are assigned to the line, the training section is responsible for testing them at regular intervals throughout the employee's probationary period. The training section also manages two established employee development programs: the Engineer Development Program and the Officer Development Program. These year-long programs are well-respected by peer departments and produce some of the most proficient graduates for our department in their respective areas. Creation is wrapping up on a new development program, our Chief Officer Development Program, which we will grow to mirror the success of developing our employee base which allows for excellent customer service delivery to the public. After all this development occurs, employees participate in promotional exam processes that are constructed, delivered, and proctored by the training section. These highly competitive exams are held each year and provide the best the department has for future internal promotion. Training is also excited to roll out a new records management system called Target Solutions. This new program will help improve ESF's ability to deliver, record and report our training.

The department has a highly valued 5-acre drill field with many props for training that the training section is responsible for maintaining and maximizing its relevance for crew use. A recent prop addition gained through a grant processes is a propane fire-fueled array of props. These props simulate an LPG tank fire, dumpster fire and fuel spill area fire. These new props allow our firefighters to employ the latest techniques and tactics within their training regimen.



Fire Prevention and Training

Fire Marshal's Office

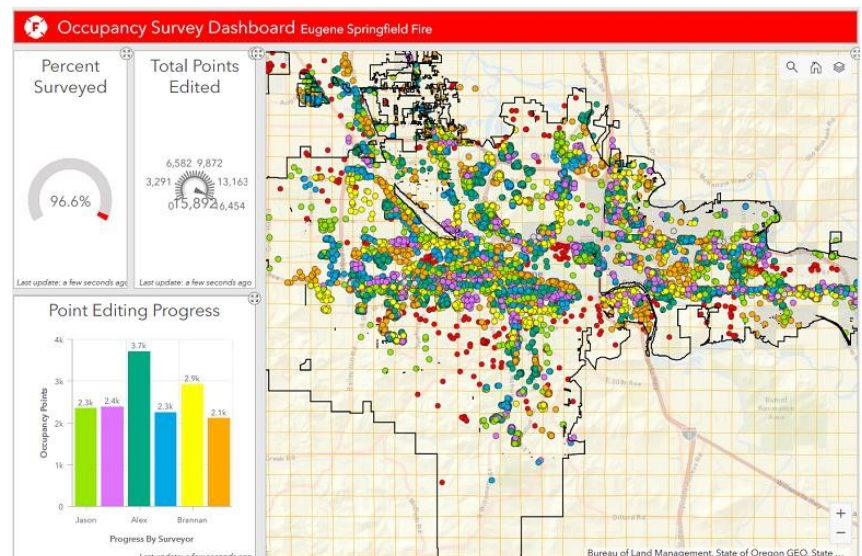
The primary goal of the Fire Marshal's Office (FMO) is reducing life and property loss. These services are presented to the public through code enforcement, control of hazardous materials use, life safety inspections, educational classes, youth fire-setter intervention, fire cause investigations, issuance of operational permits correction of fire code violations in buildings, and plans review and inspection of new construction.

The Eugene Springfield FMO maintains partial exempt jurisdiction status as authorized by statute under the Office of the Oregon State Fire Marshal. An exempt jurisdiction designation allows a fire department control of all fire prevention activities including: new construction plan review, land use planning, fire investigations, youth fire-setter interventions, fire code enforcement, public education, local code adoption, and amendment of the fire code and National Fire Incident Reporting System (NFIRS) reporting.

Community Risk Assessment



Eugene Springfield Fire was awarded an AFG Fire Prevention and Safety Grant for the completion of a Community Risk Assessment project in FY19. This project had two major goals: 1) a Community All Risk, All Hazard Assessment and Plan and 2) update and validate inventory of nonresidential occupancies through County land records, building permits, and site visits. The inventory of commercial occupancies was conducted by a team of temporary employees visiting over 16,000 buildings collecting data on characteristics of the building, hazards and fire safety features. This information will be loaded into our new records management system.



The written Community All Risk, All Hazard Assessment and Plan, completed by a consultant, identifies risks and hazards to our community and assesses their probability of occurrence. Community resources and services are analyzed to determine capability (staffing, equipment, partnerships, training, etc) to prevent, respond and mitigate identified hazards.

Lock Box Standardization

Businesses with fire protection systems are required to install a secure box outside containing keys to the building to allow firefighters quick access without breaking doors or windows, if not absolutely necessary.

In the past, Eugene and Springfield have used two different types of boxes and methods of tracking keys.

Moving forward, a determination has been made to standardize these boxes and implement a new method of key tracking and security. This standardization streamlines processes, making operations more efficient.



Noteworthy New Construction

The last year brought some high-profile construction projects to our area. With the selection of Eugene to host the World Track and Field Championships, plans emerged to replace iconic Hayward Field and a surge in construction activity began for lodging, retail and restaurants to serve the many athletes and fans. If you build it, they will come.

The Fire Marshal's Office is involved in the new construction process from planning to completion to ensure compliance with fire codes such as access, fire protection systems and egress.

Toxics Right to Know

The Eugene Toxics Right-to-Know Program and the Toxics Board were created in 1996 to address community concerns regarding the use of hazardous substances and their release into the local environment by requiring public reporting of hazardous substance use by certain local manufacturers. Under previous existing reporting regulations, this information was not readily available. The program operates in accordance with the City of Eugene charter, subsequent city amendments and ordinances, legal rulings, and state laws.

In FY20, 9 new businesses were added to the program, three as Reporting businesses and six as Non-Reporting. Five businesses ceased operations during this same time period and are no longer part of the program. Also, through the continued efforts of program staff and the Toxics Board, the program has been able to minimize costs and increase efficiencies, thus reducing the annual amount per FTE charged to supporting businesses.



PUBLIC RECORDS REQUEST FORM

Completed requests may be faxed to 541-682-6882, mailed or submitted to: Eugene Toxics Board, 1320 Willamette Street, Eugene, OR 97401. You may also submit a records request form located at the Eugene Toxics Right-to-Know Program website: <http://www.eugene-or.gov/toxics>. When mailing, emailing or faxing a request, if you have an email address to which we can send confirmation that we received your request, please provide it in the space below.

Date of Request:	
Requested By:	Name:
	Address
	Telephone
	Email Address
Please designate one of the	
☐	Request
☐	Call req
☐	Mail doc
☐	Put doc staff use
Type of Request	
☐	Copies



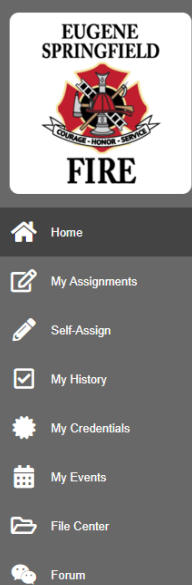
Citizen Guide

to the City of Eugene
Toxics Right-to-Know Program

Under One Roof

In August 2014, the Ambulance Billing sections for the Cities of Eugene and Springfield merged and occupied an office space along with FireMed and Springfield Fire's administrative staff located in Springfield City Hall. In early October 2019, we were able to move and co-located all Administrative Services staff at the Emergency Services Center.

As of April 15, 2020, the FireMed program entered into a new partnership with the Life Flight Network. The partnership involves the transition of the administration of the Fire Med program to Life Flight while Eugene Springfield Fires maintains the management of FireMed. Life Flight is our current local air ambulance provider, which currently administers 16 other ambulance membership programs in Oregon. The transition has provided an opportunity for ESF to realize administrative efficiencies, including reallocating the FireMed FTE to Information Technology Services.



In the last year, the Technology Section on-boarded a new program specialist to assist with administrative support, personnel, software, and hardware tracking within the department. The section also added a third, currently unfilled, technical specialist to provide direct user technical support to the department. The added staff will allow the Technology Section to respond to requests for service in a timelier manner and will allow the section to be more strategic in our technology adoption and the implementation of new software and hardware.

The Technology Section worked to further integrate CrewSense rostering and PeopleSoft for payroll processing, implement TargetSolutions for training records management and training delivery, completed the installation of GETAC mobile computers in Battalions 1 and 2, and began the installation of GETAC mobile computers in Battalion 3. In addition, Fire Marshal's Office implemented ImageTrend Elite for fire incident reporting.

Looking to the Future

U.S. Olympic Track & Field Trials

Preparations had been well underway by the City of Eugene to host the U.S. Olympic Track and Field Trials in June 2020 when the COVID-19 pandemic hit and altered the course of events around the world.

The Trials have been rescheduled for June 18-27, 2021, followed by the International Association of Athletics Federations (IAAF) World Track and Field Championships in July 2022. These are uncertain times and Eugene Springfield Fire will continue to navigate and adapt to the changing landscape as we respond to our community's needs now and in the future.



**U.S. OLYMPIC
TEAM TRIALS**
TRACK & FIELD

Eugene Springfield Fire plans to replace critical firefighting equipment

The Self-Contained Breathing Apparatus (SCBA) is used by firefighters to breathe clean air inside a burning structure or toxic environment. The current SCBA equipment utilized by Eugene Springfield Firefighters has reached the end of its useful service life. In a joint investment supporting the shared services of ESF, the cities of Springfield and Eugene will be allocating funds in FY21 to procure a new SCBA platform for the department. This equipment will feature several upgrades that will bring the department into compliance with current industry standards for specification and performance of firefighting breathing apparatus.



FY21 Fire & EMS Recruit Academy

Applicants who are hired by Eugene Springfield Fire as firefighter/paramedics are placed into a fire academy for 560 hours of training over 14 weeks. Through a combination of classroom lectures, hands-on training on the drill field, EMS skill and protocol orientation, and fitness training, academy attendees learn the critical skills needed to successfully operate at emergency incidents. The "Battalion" configuration of the class allows each student an opportunity to be responsible for the "chain of command" communication on a rotational basis, promoting leadership and personal accountability. Our entire curriculum is focused on operating in the safest manner possible during emergency operations.

Plans for FY21 Academies have been significantly impacted by COVID-19. The Academy that would have taken place in October 2020 has been delayed due to the effect of the pandemic on budget and recruitment resources. Eugene Springfield Fire will hold its next Firefighter/Paramedic Academy in February 2021, with an anticipated 6-8 new recruits.

For More Information

<https://www.eugene-or.gov/120/Fire-and-Emergency-Medical-Services>

<http://www.springfield-or.gov/city/eugene-springfield-fire/>

Recruitment

<https://www.eugene-or.gov/335/Recruitment>

FireMed

<https://eugspfd.firemed.org/>

Ride Along

<https://www.eugene-or.gov/259/Ride-Along>



firedept@ci.eugene.or.us

Administration Offices

1705 W Second Ave.
Eugene, OR 97402
Ph: 541-682-7100
Fx: 541-682-7116



Partnerships and Affiliations

Eugene Springfield Fire is grateful to the many public, private, and nonprofit agencies that have extended the hand of partnership to us in order to help keep our community safe. A short list is given here. There are many others. Thank you.

IAFF Local 851
International Association of Fire Chiefs
Oregon Fire Chief's Association
Oregon State Fire Marshal's Office
Oregon Fire Marshals Association
Lane Council of Governments
Lane County Emergency Management
Lane County Fire Defense Board
Lane County Public Health
McKenzie-Willamette Medical Center
PeaceHealth
Oregon Heart and Vascular Institute
Oregon Burn Center
Randall's Children Hospital
Safe Kids
Looking Glass – Project Safe Place
Bloodworks

Oregon Department of Human Services
Oregon Health Authority
Oregon Department of Forestry
Youth Corp
Rivers to Ridges
Region 5 Training Association
American Red Cross
Automatic Aid Agencies
Mutual Aid Agencies
Life Flight Network
Oregon State Ambulance Association
REACH Air Medical Services
Mid-Valley Ambulance
University of Oregon
Lane Community College
Alpha Phi Sorority
Jerry's Building Supply

11/3/2019

Chief Chris Heppel

Re- the EMT response to my wife's emergency

We have several departments in which we wish to express our thanks.

First, the chap that answered my 911 call following our emergency when my wife Jackie, age 69 fell, could not get up and it was later determined had broken her shoulder.

The fellow taking my call responded by quickly and patiently walking me through and insuring my understanding of what I should do to provide for my wife's safety until help arrived. Things I would not have thought of but in retrospect were very significant.

Please pass along my thanks to those answering the 911 calls. Never having called 911 in the past, it was a real comfort to be walked through a crisis so efficiently and well, knowing the party on the phone had our total well being in mind and focused on a having a successful outcome..

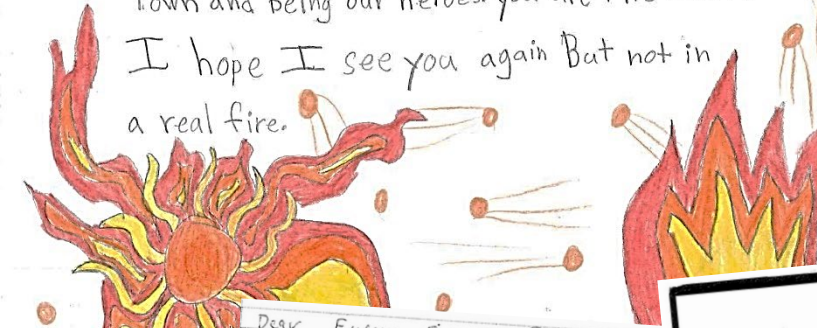
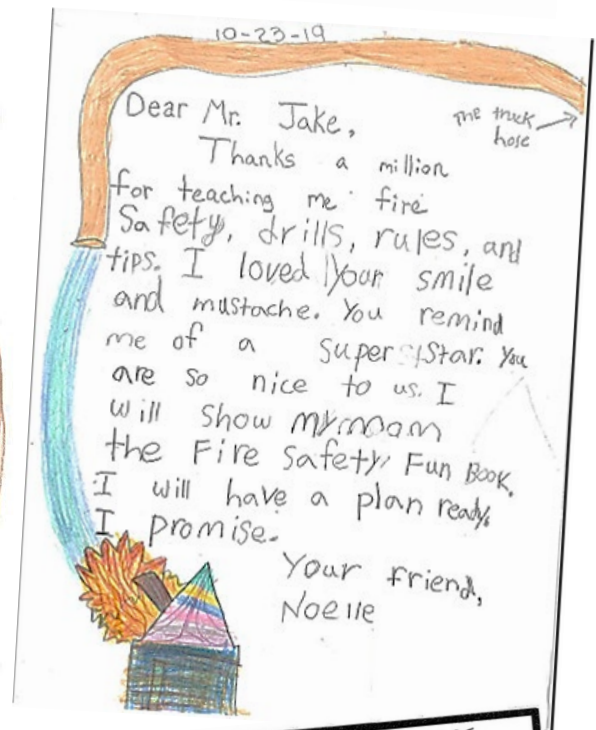
Secondly, the response of the EMT group. It was fast and I watched as both those from the fire truck and the ambulance worked together as a team when they unloaded their equipment, moved efficiently to the house, asked the appropriate questions of me and then examining and preparing my wife to get to her feet.

We are fortunate and thankful that our responders, whether they be the 911 personnel and the fire personnel which helped us but also our police are of the quality they are. All are a gift to our city.

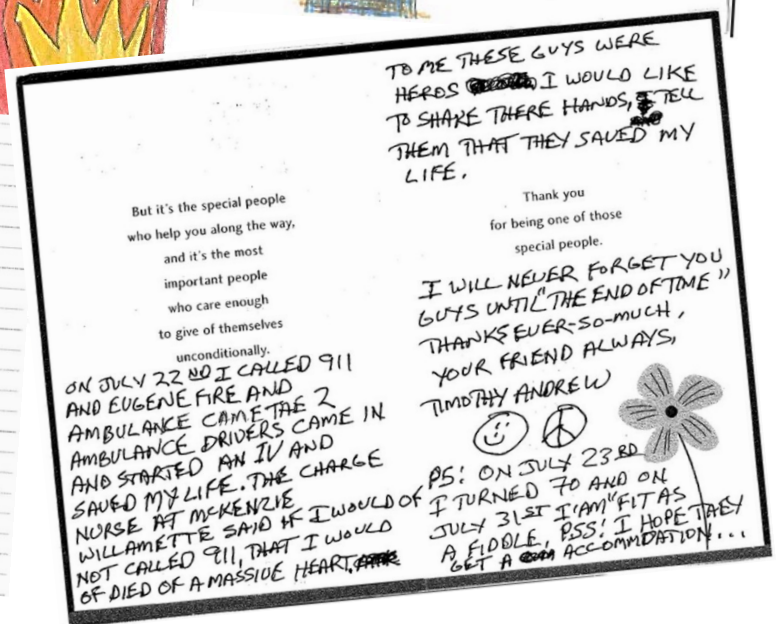
May God bless all of you and please thank all of them for us and we thank you for your leadership.



Dear Captain Clark,
Thank you for teaching us
about the PPE that you wear
in a fire. I especially liked the mask
because you sounded like Darth Vader.
Thanks for Putting out fires in our
town and being our heroes. you are the Best!!!
I hope I see you again But not in
a real fire.



Dear Eugene Fire and Emergency
and Medical.
I would like to personally
Thank You All for putting
out The Fire on Franklin
Blvd. on July 21st. You
show no fear and came
so fast, I know that
we really have the best
fire fighters in the country
Gone Again Thank You
so much.





2020

Standards of Response Coverage Eugene Springfield Fire



Eugene Springfield Fire

Interim Fire Chief:
Chris Heppel

1705 W. 2nd Ave
Eugene, OR 97402

Ph: 541-682-7100
Fax: 541-682-7116

Sept. 23, 2020, Work Session - Item 2

2020 Facts at a Glance

For the Combined Cities of Eugene and Springfield

Fire Service

Sq. Miles: 94.3

Population: 250,335

Ambulance Service

Sq. Miles: 1,625.6

Population: 287,824

Calls for Service: 44,729

Percent Fire and Other: 18.5%

Percent Medical: 81.5%

Billable Patients: 23,716 (65.1% of medical calls for service)

FY19 Budget: \$65.5 million

Eugene: \$44.7 million

Springfield \$20.8 million

Contract Districts:

• Bailey/Spencer Creek	\$125,095
• Eugene Rural #1	\$322,267
• River Road	\$1,094,228
• Willakenzie	\$157,302
• Zumwalt	\$294,299
Total:	\$1,993,191

Full Time Employees (FTE): 308

Fire Response Personnel: 249

Front Line Apparatus: 50 (Fire Apparatus and Ambulances)

- **Fire Apparatus:** 20
- **Advanced Life Support Ambulances:** 7
- **Basic Life Support Ambulances:** 3
- **Command Vehicles:** 6
- **Specialized Equipment/Trailers:** 14

MISSION

To serve our communities by preserving life, protecting property, and the environment through prevention, education, emergency medical services, rescue, and fire suppression services.

VISION

To deliver efficient and effective services by working together to maintain a progressive, caring, professional organization that remains flexible within a changing environment. We strive to be recognized for our leadership within the region and the state by fostering cooperative working relationships. We work to be innovative, fiscally responsible, and financially stable and secure.

VALUES

We value respect, integrity, accountability, teamwork, service, and adaptability. We measure our success by the satisfaction of the communities we serve, our personnel, and our strategic partners.

MOTTO

Courage, Honor, Service

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Executive Summary

Introduction

By definition, a Standards of Coverage report addresses the emergency response resources and deployment strategies necessary to deliver a defined level of emergency service. The primary goal is to portray a snapshot of the current complement of emergency services delivered in a community, identify how they are performing, and reflect on future initiatives to increase efficiencies in the delivery of these services.

In the fire service we often refer to and make decisions based on service level objectives, defined as the number, type, and spacing of resources necessary to meet the response time, on-scene staffing, and risk mitigation objectives set by the Authority Having Jurisdiction (AHJ). The Standards of Coverage report strives to identify these objectives and provide analysis on the department's ability to meet them. Based on the analysis, the report identifies questions and research topics for future analysis.



Eugene Springfield Fire

In 2007, the fire departments of the Cities of Eugene and Springfield began the process of creating a combined department that offered the potential to increase the efficiency and effectiveness of emergency response. In fiscal year (FY) 2010, the Cities signed an intergovernmental agreement combining several administrative and support functions, with a view toward improving overall service while reducing taxpayer costs on a metropolitan level. The officially adopted name of the combined department is **Eugene Springfield Fire (ESF)**. For this report, ESF is used to describe the fire department, and City of Eugene and City of Springfield are used to describe the financial and governance authorities.

In addition to department demographics and statistics, the report presents analysis using the following categories:

Risk Factors

In any service area, a number of community factors combine to create varying levels of risk. These include the geographic area, type and density of development, topography, seasonal factors, water supply, transportation systems, and population demographics. Recognition of changes to the specific mix of community risk factors is a key consideration in service and deployment decisions.

In the analysis described in Section Three, risk areas are established in two ways to better facilitate review. For all emergency services except ambulance transport, the service area is divided into two risk areas. Risk Area A includes Eugene city limits plus the contiguous contract water district and Springfield city limits plus contiguous contract water districts. Risk Area B includes the rural and semi-rural property in the other four special districts. For ambulance transport services, the Ambulance Service Areas are divided into response zones as established in the Lane County Ambulance Service Area Plan, which are routinely used to analyze response times.

On-Scene Operations and Critical Tasks

As presented in Section Four, on-scene operations, identification of critical tasks, and an effective emergency response force are the key elements in determining appropriate staffing levels, number of companies needed, optimal deployment strategies, and priority duties to be performed on the fire ground or emergency incident scene. Effective all-hazards fire departments must be able to work under duress, with limited time and incomplete information to be able to:

- Identify the critical tasks that need to be completed
- Immediately prioritize the tasks.
- Address the number of personnel needed.
- Request and deploy the specific type of apparatus required to complete the identified tasks.

Accomplishing these actions and having a positive influence on the outcome of the incident is heavily influenced by the number and location of fire department operational staff.

Emergency Response Times

As detailed in Sections Five and Six, unit response time is defined as the time interval between the moment a resource is dispatched and the time it arrives at the incident. Public safety industry standards measure response time against a percentile, or a percentage of the calls that fall within set parameters. Based on these measurements, analysis of response times, and assessing community risk, the department has established local response time goals which indicate the level of service that can be expected by the community for fire suppression and ambulance response. Ambulance response goals are also set in compliance with Lane County Code.

Distribution of Resources

As highlighted in Sections Seven, Eight, and Nine of the report, the department currently operates from 16 fire stations, staffing and deploying the following resources:

- 12 engines
- 2 ladders
- 3 trucks
- Airport Rescue and Fire Fighting (ARFF) unit

- 10 ambulances including 7 Advanced Life Support (ALS) units, and 3 Basic Life Support (BLS) units
- Various command, fire prevention, and support units.

The contract non-emergency ambulance provider deploys 4 basic life support units and the contracted critical care transport agency provides one helicopter and can provide critical care ground transport as needed.

Performance Measurement and Quality Assurance

As discussed in Section Ten, organized response to emergencies is performed in a stressful and inherently unpredictable environment. Critical decisions must often be made quickly, without the benefit of complete information, or a methodical risk-benefit analysis. Given this fact, it is expected that errors will sometimes occur. The department consistently seeks to use performance measures as opportunities to learn how we can improve our service and to adjust our policies and procedures accordingly. ESF conducts a comprehensive array of performance measurements and quality assurance programs at the individual, work unit, division, and organizational levels. The programs include regular structured training, after action reviews, medical chart analysis, and other periodic and ongoing performance reviews.

Historical Analysis and Future Planning

Section Eleven details the historical trends and sets the table for future planning. The reality of emergency resources is that the number of calls for service and the total population of ESF's service area have risen dramatically, while the total number of personnel and companies have remained relatively static for more than 30 years. Future analysis will need to be undertaken for ESF to project its ability to meet local standards as well as initial alarm assignment capability stated in *National Fire Protection Association (NFPA) 1710: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments*. This analysis should look at growth and development on a metropolitan level and planning for station locations that will optimize response capability, taking into account factors of greater density, increased call volume, shifting demographics, and other risks.

SECTION ONE: Introduction

Introduction to the Standards of Coverage

Purpose

Standards of Coverage is a comprehensive report that aims to analyze and review community risk, deployment strategies, and past performance as it relates to current distribution of resources and personnel. To produce this report, the department researches and evaluates areas of risk, critical tasks, service level objectives, deployment plans, reliability measures, and historical performance. Through analysis of this data and community demographics, this report offers a current portrait of organizational capabilities and performance. This analysis can serve as a guide for developing policy and operational standards, reflecting the level of service that can be regularly expected within a designated service area.



This Standards of Coverage report provides analysis to address a number of service delivery options, including:

- Deployment options, taking into consideration the degree and location of the various types of community risk and resources available to provide the appropriate level of response for the various services provided by the department.
- Meeting the changing demands for service in various parts of the Eugene-Springfield metropolitan area brought about by shifting demographics and local topography.
- Response and service options into the future.

The Standards of Coverage report can be used as:

- A tool for defining and consistently measuring response performance standards, objectives, and goals.
- A standard for evaluation of fire department resource deployment including defining urban levels of service for use in evaluating land use applications.
- A tool for defining whether future streets are designed to safely and efficiently accommodate emergency fire and medical service apparatus.
- A summary of community risk encompassing life safety, economic, geographic, and environmental aspects.
- An analysis of critical tasks assuming maximum utilization of all personnel under a worst-case scenario, consistent with the department's risk analysis, staffing levels, and goals.
- An analysis of resource reliability based on current staffing models.
- A review of historical performance based on statistical information.
- Recommendations for short-term and long-term strategic decisions.

A Standards of Coverage analysis examines key elements including:

- Community Baselines — highlights history, demographics, and legal organization of designated service areas.
- Risk Assessment — a review of six key elements: fire flow, probability, consequences, occupancy, demand, and service area profile.
- Critical Tasks — identifies critical tasks to determine appropriate level of staffing.
- Staffing levels — the numbers of response-ready personnel and their assignments.
- Performance Measures — highlights standards and goals for response times and identifies cascade of events as well as provides analysis of key response times.
- Distribution — the station and resource locations needed to assure rapid response deployment to minimize and mitigate emergencies.
- Concentration — the spacing of multiple resources arranged so that an initial “effective response force” can arrive on scene within acceptable time frames to mobilize and likely stop the escalation of an emergency commensurate with a specific risk category.
- Reliability — the probability that the resource assigned to a given area will be available to respond first from within the assigned area.
- Historical Perspective — a comparison of current measures to historical data.
- Quality Assurance — highlights department standards for training and certification.
- Recommendations — identify suggestions to address highlighted challenges to improve service.

SECTION TWO: Community Baseline

Overview and Legal Jurisdiction

This report highlights services funded by the City of Eugene, the City of Springfield, and associated contract districts. For the purposes of this discussion, the report presents each city jurisdiction as separate entities and the fire service area as a single entity under the title of Eugene Springfield Fire (ESF).

CITY OF EUGENE



The City of Eugene is the second-largest city in Oregon, with a population of 169,695¹ and an incorporated area of 43.9 square miles. Located in western Oregon's southern Willamette Valley, the community, recognized officially with the establishment of a post office in 1850, formally incorporated in 1862 as Eugene City after early settler Eugene Skinner. The citizenry renamed the community the City of Eugene two years later.

The City of Eugene operates under a Council/Manager form of government under the Eugene Charter of 1976, a general grant of powers charter. The City Council, composed of the Mayor and eight council members, forms the legislative branch of the city government, while the City Manager acts as the administrative head. The City functions under six organized departments – Central Services, Public Works, Library, Recreation & Cultural Services, Planning & Development, Police, and Fire & Emergency Medical Services.

Fire protection in Eugene began on April 3, 1872 as the Eugene Hook and Ladder Company Number 1. The fire department, the City of Eugene's first, has been in continuous operation since inception. In 1981, the department began providing ambulance transport services.

¹ Portland State University

CITY OF SPRINGFIELD



The City of Springfield is the ninth-largest city in Oregon with a population of 60,865¹ and has an incorporated area of 15.7 square miles. Located in western Oregon's southern Willamette Valley, the community's first settlers were Elias and Mary Briggs and their family who arrived in the valley in 1848. Elias Briggs chose for his home a place convenient to a spring of water; in due time this land was fenced in. This enclosure, historically known as the "springfield" eventually became the town's namesake. In 1852, Mr. Briggs began building a town starting with the Mill Race. Later, he collaborated with Mr. Driggs of Linn County and formed the Briggs and Driggs Company. The company built a flourmill and a sawmill in 1853 and 1854 respectively.² In 1885, Springfield incorporated as a city on February 25th. The City adopted its charter March 17, 1893.

The City of Springfield operates under a Council/Manager form of government. The City Council, the legislative branch, consists of the Mayor and six members. The City Council develops and adopts legislation and policies that direct the City organization and appoints a professional administrator, the City Manager, to carry out direction and to manage personnel. The City functions under eight organized departments – Development Services, Finance, Human Resources, Information Technology, Library, Police, Public Works, and Fire and Life Safety.

Fire protection in Springfield began on July 25, 1886.

Services

Fire Services

Eugene Springfield Fire (ESF) operates under five functional divisions: Office of the Chief, Operations, Strategic Services, Fire Prevention, and Administrative Services. Division Managers report directly to the Fire Chief. Services including:

- Fire suppression
- Specialized rescue
- Hazardous materials response, mitigation, and management

² <http://www.ci.springfield.or.us/history.htm>

- Emergency Medical Services (EMS): Advanced life support and basic life support first response and ambulance transport
- Fire prevention, education, and life safety outreach education
- Fire code enforcement and plan review
- Fire investigations
- Routine, on-going, and specialized training
- Logistical support
- Operations analysis
- Financial management, planning, and record keeping



The department's primary fire suppression response area totals 94.3 square miles. Sixteen strategically located fire stations serve response needs of the community. However, equipment and personnel assigned to Fire Station #12 (Airport Station) are not routinely available to respond to incidents off airport property, which covers approximately 2.5 square miles located at the northwest corner of the City of Eugene. The average area covered by each station is approximately 6 square miles.

For the fire service, there are five categories identifying service area classifications³:

- **Metropolitan** – geography with populations over 200,000 in total and/or a population density of over 3,000 people per square mile. These areas are distinguished by mid-rise and high-rise buildings, often interspersed with smaller structures.
- **Urban** – geography with a population of over 30,000 people and/or a population density of over 2,000 per square mile.
- **Suburban** – geography with a population of 10,000 – 29,999 people and/or a population density of between 1,000 and 2,000 per square mile.
- **Rural** – geography with a population of less than 10,000 people or with a population density of less than 1,000 per square mile.
- **Wilderness/Frontier/Undeveloped** – geography that is both rural and not readily accessible by a publicly or privately maintained road.

The department also provides fire suppression services to seven neighboring special districts through long-standing contractual agreements. Neighboring districts served under contract include Bailey-Spencer Rural Fire Protection District (RFPD), Eugene Fire District #1 RFPD, Glenwood Water District, Rainbow Water District, River Road Water District, Willakenzie RFPD, and Zumwalt RFPD.

An analysis of the fire service area reveals that the area mostly falls within three categories: metropolitan within the areas of the two cities and the River Road and Rainbow Water Districts, urban within the Glenwood Water District, and rural within the remaining contract rural fire protection districts.

³ Commission on Fire Accreditation International (CFAI)

Figure 2.1 shows the geographical (population, area, and assessed value) breakdown of the cities and special districts serviced by the department.

Figure 2.1 Primary Service Area Demographics

DISTRICTS	POPULATION	AREA (sq mi)	ASSESSED VALUE
City of Eugene	169,695	45.53	\$30,815,937,995
City of Springfield	60,865	15.79	\$9,110,886,037
Bailey-Spencer RFPD	503	4.99	\$94,153,289
Eugene Fire District #1	952	9.77	\$224,007,748
Glenwood Water District	1,330	0.41	\$98,650,387
Rainbow Water District	5,156	1.41	\$620,125,839
River Road Water District	7,647	1.73	\$834,923,618
Willakenzie-Eugene RFPD	1,003	0.95	\$219,560,966
Willakenzie-Springfield RFPD	1,967	2.35	\$113,107,164
Zumwalt RFPD	1,217	11.38	\$226,334,948
TOTALS	250,335	94.31	\$42,357,687,991

Ambulance Transport Services

In addition to fire suppression services, the department provides advanced life support (ALS) ambulance transport service to Lane County Ambulance Service Areas (ASA) #4 and #5 (see Figure 3.15). The assigned ASAs include the metro areas of both cities and large outlying geographic areas located generally west for Eugene and east for Springfield. The City of Eugene's ASA #4 covers a total of 173.4 square miles, while Springfield's ASA #5 has a total area of 1,507.3 square miles.

Under Federal Medicare regulations, there are three reimbursement categories that identify ambulance transport service area classifications⁴:

- **Urban** – geographic area characterized by higher population density. Areas have at least 50,000 or more people.
- **Rural** – geographic area that is located outside the city area.
- **Super Rural** – geographic area outlining the rural areas and is even farther from city area.

For ESF, the ambulance service area mostly falls within two categories: urban within the metro areas of the cities and water districts; and rural, within the remaining contract districts.

⁴ Medicare

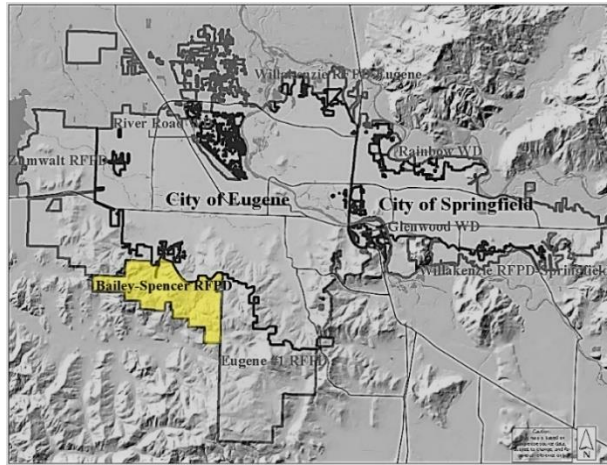
Locally, the department identifies ambulance service areas as follows (for more information, see Ambulance Response Zones on page 41): Urban, Suburban, Rural, and Frontier.

Contract Districts

ESF currently has intergovernmental agreements with seven local districts. These agreements stipulate that Eugene Springfield Fire provides fire protection and investigation services, as well as ALS and BLS emergency medical services. Other services provided in these contracts include hazardous materials response, special rescue call outs, motor vehicle extrication, and water rescue. Each contract district is represented by a board of directors which meet with ESF senior staff annually to review contracts and discuss any issues and concerns across the service area. Below is a brief description of each contract district and contract information:

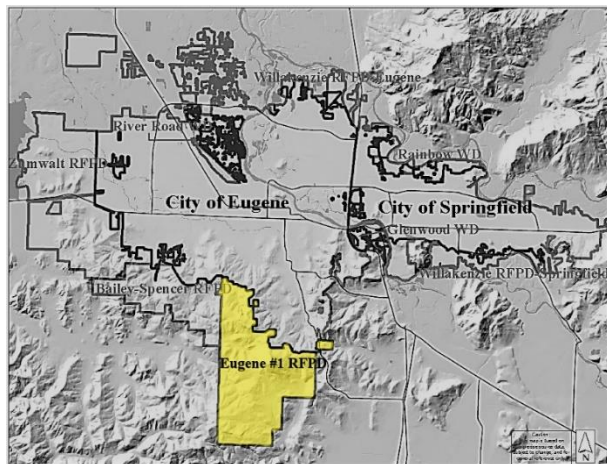
Bailey Spencer RFPD

Population	503
Area (sq mi)	4.99
Assessed Value	\$94,153,289
Location in relation to the Metro Center	SW



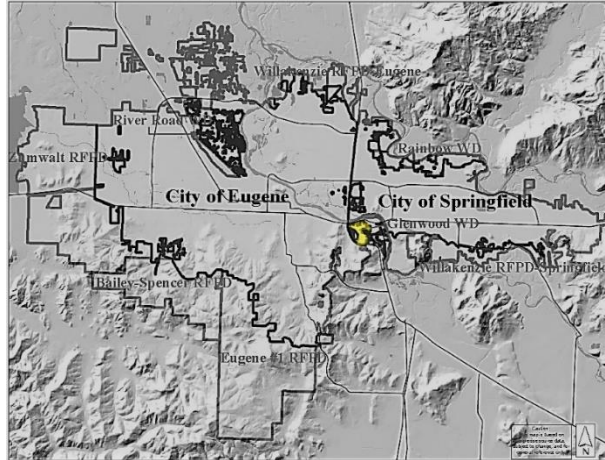
Eugene #1 RFPD

Population	952
Area (sq mi)	9.77
Assessed Value	\$224,007,748
Location in relation to the Metro Center	S



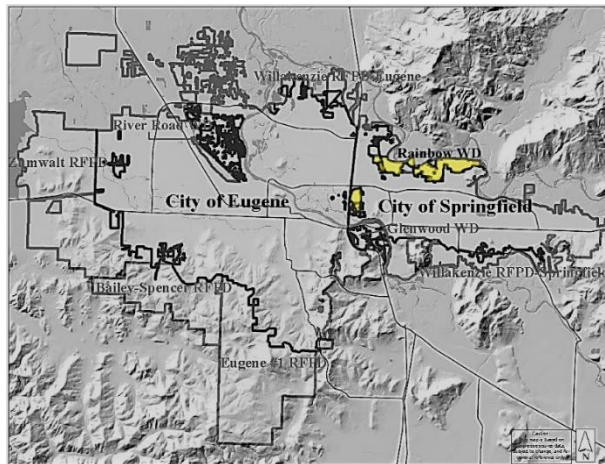
Glenwood WD

Population	1,330
Area (sq mi)	.41
Assessed Value	\$98,650,387
Location in relation to the Metro Center	SE



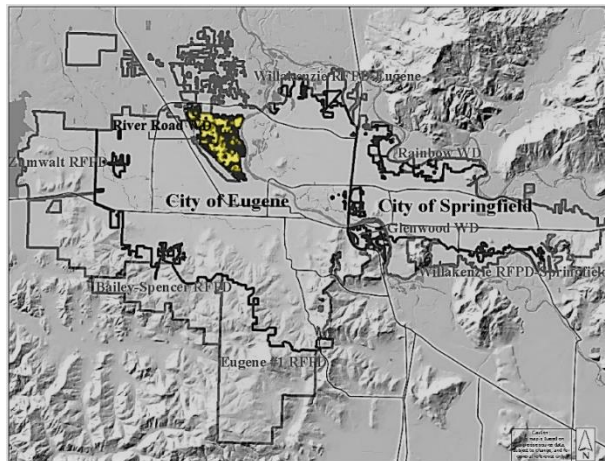
Rainbow WD

Population	5,156
Area (sq mi)	1.41
Assessed Value	\$620,125,839
Location in relation to the Metro Center	NE



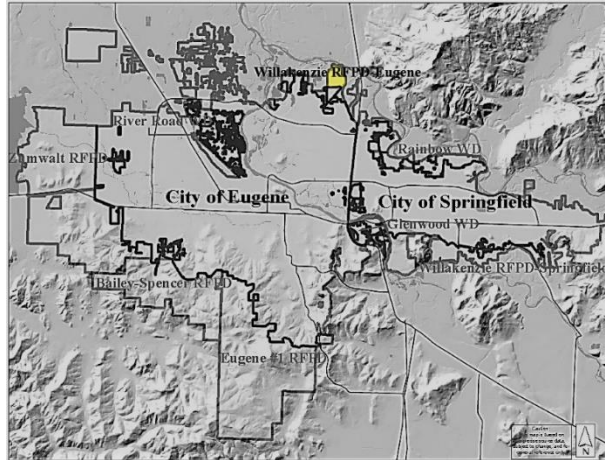
River Road WD

Population	7,647
Area (sq mi)	1.73
Assessed Value	\$834,923,618
Location in relation to the Metro Center	NW



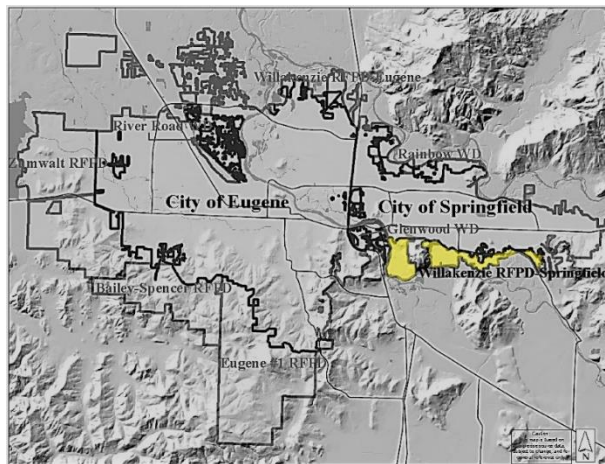
Willakenzie – Eugene RFPD

Population	1,003
Area (sq mi)	.95
Assessed Value	\$219,560,966
Location in relation to the Metro Center	N



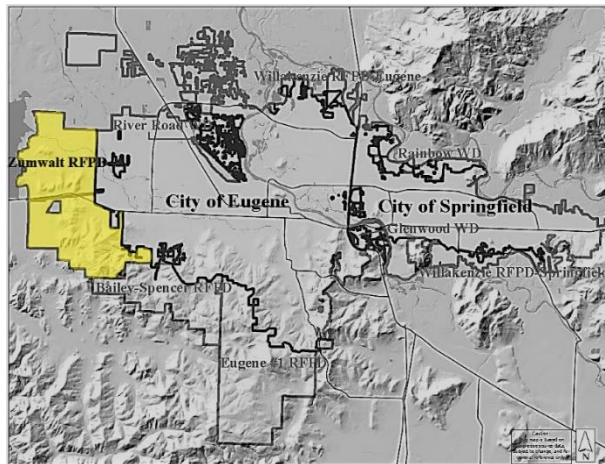
Willakenzie – Springfield RFPD

Population	1,967
Area (sq mi)	2.35
Assessed Value	\$113,107,164
Location in relation to the Metro Center	SE



Zumwalt RFPD

Population	1,217
Area (sq mi)	11.38
Assessed Value	\$226,334,948
Location in relation to the Metro Center	W



Resources

ESF operates fire suppression and ambulance transport services out of 16 fire stations divided into three (3) geographically defined districts: Battalion One (central), Battalion Two (west), and Battalion Three (east). Supervised by a battalion chief, each battalion consists of five to six

fire stations. Staffing includes one employee per battalion chief vehicle, two personnel on ambulances, two personnel on the ARFF engine, and three personnel on all other fire suppression apparatus.

Figure 2.2 breaks down minimum staffing standards by showing the battalion > station > unit level. Not included are specialized resources such as brush rigs that do not have regularly assigned staffing. These resources will be further discussed in Section Seven. Additionally, Figure 2.3 illustrates battalion boundaries and fire station locations.

Figure 2.2 Battalion Boundaries

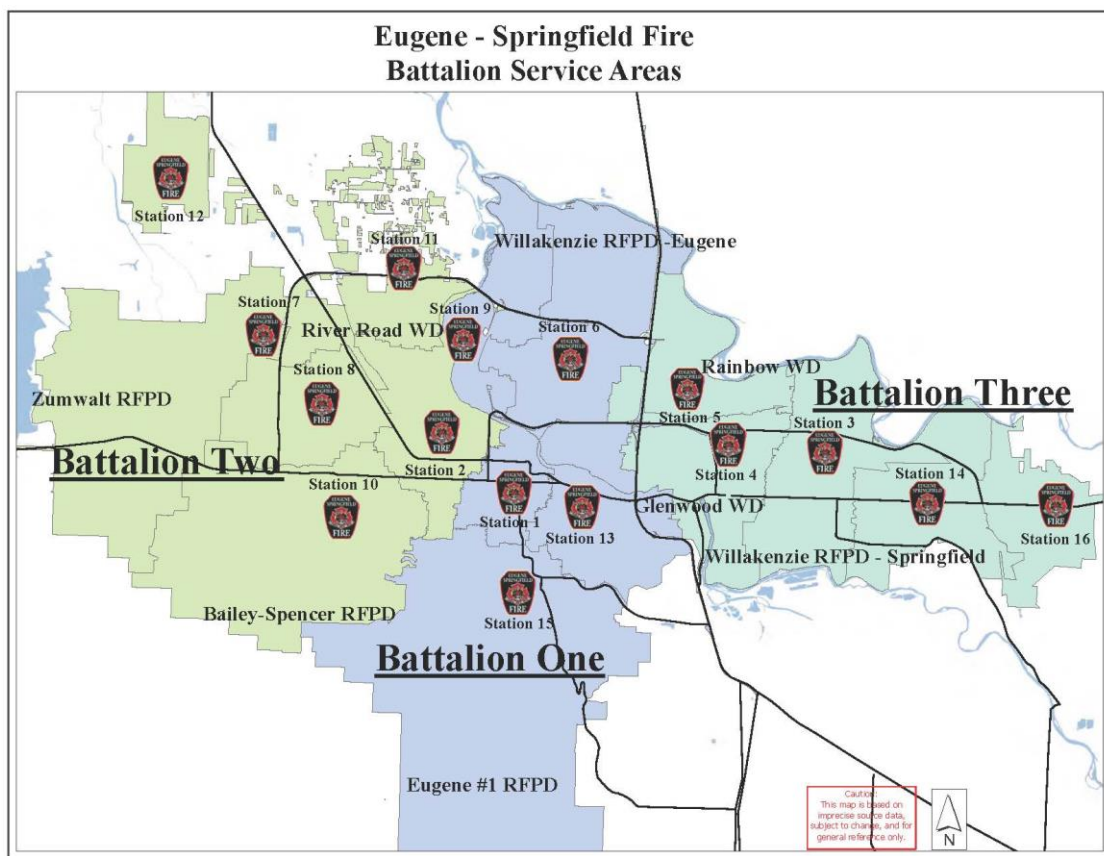


Figure 2.3 Battalion Minimum Staffing Standards

Battalion One: Station/Apparatus		Personnel per Apparatus
Station 1 – Downtown Eugene Station	Battalion Chief	1
	Engine	3
	Truck/Aerial	3
	ALS Medic Unit	2
	BLS Medic Unit (12-hour or peak unit)	2
Station 6 – Sheldon Station	Engine/Ladder	3
	BLS Medic Unit (24-hour unit)	2
Station 9 – Valley River Station	Engine	3
Station 13 – Campus Station	Engine	3
Station 15 – South Hills Station	Engine	3
		23
Battalion Two: Station/Apparatus		Personnel per Apparatus
Station 2 – Whiteaker Station	Battalion Chief	1
	Engine	3
	Truck Tower	3
	ALS Medic Unit	2
Station 7 – Bethel Station	Engine	3
Station 8 – Danebo Station	Engine/Ladder	3
Station 10 - Bailey Hill Station	Engine	3
	ALS Medic Unit	2
Station 11 – Santa Clara Station	Engine	3
	ALS Medic Unit	2
Station 12 – Airport Station	ARFF Apparatus	2
		25
Battalion Three: Station/Apparatus		Personnel per Apparatus
Station 3 – 28th Street Station	Battalion Chief	1
	Truck/Tower	3
Station 4 – 5th Street Station	Engine	3
	ALS Medic Unit	2
Station 5 - Gateway Station	Engine	3
	ALS Medic Unit	2
	BLS Medic Unit (12-hour or peak unit)	2
Station 14 – 48th Street Station	Engine	3
Station 16 – Thurston Station	Engine	3
	ALS Medic Unit	2
		22

SECTION THREE: Risk Assessment

Risk Assessment

Overall community risk management consists of risk assessment and risk control. In analyzing community risk, it is important to review the components of risk, identify unique factors affecting level of risk, and identify the magnitude and scope of the risk of fire, life safety, rescue, and medical emergencies. Additionally, we also look at other hazards that threaten life, safety, property, or the environment within the service area. The analysis discussion includes a review of actual and potential loss.



Community Risk Assessment Components

Developing a comprehensive risk assessment involves six key components: fire flow, probability, consequence, occupancy risk, demand zones, and community profile. These apply to all fire, life safety, rescue, first response EMS, and miscellaneous calls for services. In addition, a parallel risk assessment was conducted for ambulance transport. However, in the case of transport the area served is different; by definition the nature of the service is not “first response,” and the goals for response times are set by Lane County.

- **Fire Flow** — the flow rate of a water supply, measured at 20 pounds per square inch (psi) residual pressure that is available for firefighting.
- **Probability** — the likelihood that a particular event will occur within a given period of time. An event that occurs daily is highly probable. An event that occurs only once in a century is very unlikely. Probability is an estimate of how often an event will occur, based on available local historical data.

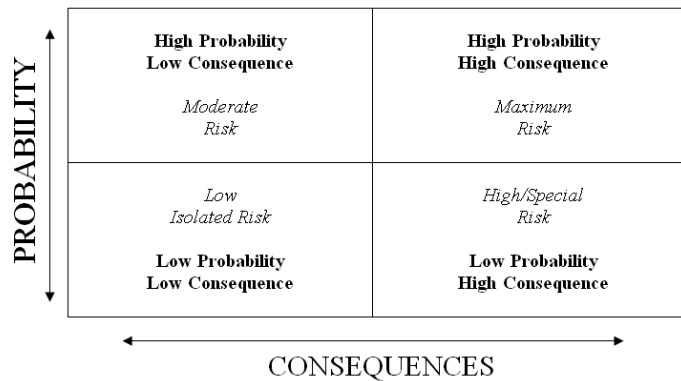
- **Consequence** — has two primary components: 1) *life safety* which includes risks to the lives of occupants and responders from life-threatening situations that include fire, rescue, hazardous substance, and emergency medical events, and 2) *economic impact* representing the loss of property, income, or irreplaceable community assets.
- **Occupancy Risk** — an assessment of the relative risk to life and property resulting from a fire inherent in a specific occupancy or in generic occupancy classes.
- **Demand Zones** — geographic areas utilized to more definitively analyze risk situations. ESF uses three primary types of zones for analytical purposes:
 - *Response Zones*: Zones based on current fire station locations and corresponding to the first-due response area for each of these stations. Fire station placement and resource assignments are determined by desired response time performance, transportation network, population, topography, construction and occupancy character, density, and the relative risk level of a neighborhood or area.
 - *Risk Area Zones*: Zones based on the degree of risk and the expected level of service to be provided.
 - *Ambulance Response Zones*: Zones within the county-established Ambulance Service Area for the purpose of measuring response time compliance with the adopted Ambulance Service Area Plan.
- **Community Profile** — an analysis of the attributes of a specific community based on its unique mixture of demographics, socioeconomic factors, occupancy risks, demand zones, historical trends, and level of service currently being provided.

Through a methodical analysis of the risk dynamics present in a community, a risk assessment evaluation makes it possible to develop logical resource deployment strategies to meet the identified needs. The goal of the risk assessment process is to determine the probability of an event occurring, as well as the potential consequences of that event.

Risk Assessment Matrix

The following matrix shows elements to consider when assessing risk. Each quadrant shows a combination of probability of an event occurring and the consequences should that event occur. Each category of risk represents different emergency resource commitment requirements.

Figure 3.1 – Risk Assessment Matrix



The community risk assessment includes defining inherent differences between a single-family dwelling, multiple-family dwelling, large industrial occupancy or commercial campus, and a high-rise residential or commercial structure, then assigning each occupancy type to a different quadrant of the risk assessment matrix. Fire stations and emergency apparatus are distributed throughout the community to provide prompt initial response to all types of incidents, or resources may be concentrated in high-consequence areas to enable a faster large-scale response to an unlikely but highly consequential event. Even when resources are distributed relatively evenly throughout the community, deployment differs based on type of risk and needs of each particular incident type, or in considering seasonal changes, special situations or other events.

Service Area Factors Unique to the System



Eugene and Springfield’s primary area for fire and first response emergency medical services (EMS) is contained within the city limits of the respective cities and the aforementioned water and rural fire protection districts: Bailey-Spencer RFPD, Eugene Fire District #1 RFPD, Glenwood Water District, Rainbow Water District, River Road Water District, Willakenzie RFPD, and Zumwalt RFPD.

The fire service area consists of relatively traditional community distribution patterns featuring a densely developed downtown business core surrounded by well-established residential neighborhoods. There are areas of industrial and commercial development outside each City’s downtown core. This arrangement lends itself to a traditional fire station location network based on experiential predictions of emergency incident response patterns. Noteworthy exceptions include the urban transition areas located in unincorporated River Road, Santa Clara, and the Highway 99 Industrial Corridor. The majority of these areas lie within Eugene’s Urban Growth Boundary (UGB), and it is anticipated that all properties will eventually be annexed, although a definitive timeline has not been established for this transition to occur. As a result, the area contains a growing number of properties, which have been annexed into the City of Eugene,

interspersed among properties which have not yet been annexed. ESF is charged with providing fire protection and EMS first response to only the annexed properties in this larger area, while service to the un-annexed properties is provided by rural fire protection districts. These noncontiguous annexations have resulted in a growth pattern that does not extend out predictably from the existing city limits but is dispersed in a patchwork fashion throughout the urban transition area. This presents a variety of challenges in meeting the service needs of the entire area. Similarly, City of Springfield's UGB presents a challenge for future response capability in both the Glenwood Water District and Jasper Road areas. Both of these areas represent an opportunity to increase response redundancy through the relocation of existing fire stations.

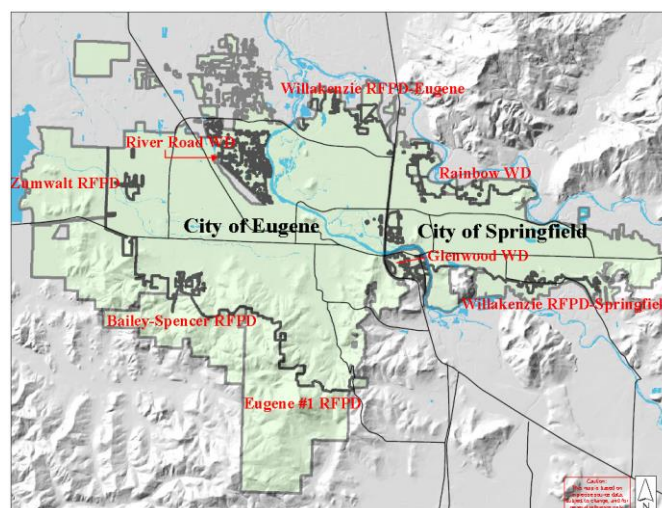
Topography

The topography of the service area protected by the service system is widely diverse. The core metropolitan service areas are relatively flat, although several buttes and hillside ridges define distinct neighborhoods and a portion of the metropolitan boundary. The Willamette River flows along the south edge of the Willakenzie RFPD, through Glenwood Water District and the City of Eugene. The McKenzie River flows along the northern edge of both cities. On the periphery, the terrain varies including rolling to steep hills and broad riparian zones.

Eugene and Springfield contain a significant area of wildland/urban interface in the south hills and southwestern portions of Eugene, and the southeastern portion of Springfield. These areas consist of mostly upscale residential development along winding, narrow, and steep streets, interspersed within heavily forested areas, all of which contribute to increased response times. In addition, this situation presents a significant fire danger during the dry season in late summer and early fall. Public education on this issue has been and continues to be a priority for the department, and fortunately the number of calls for wildfire response service in these areas has remained relatively low.

The rural fire districts, particularly those to the south and west, are less densely populated and developed. In general, they are hilly and forested and often feature long driveways and narrow access roads.

Figure 3.2 Fire Suppression Service Area



Transportation System and Networks

The streets, roads, and highways within the service area are the primary means of delivering emergency resources to fire, rescue, and medical scenes. The main highways running through the cities are Interstate-5, Interstate-105, Highway 569 (Pape-Beltline), Delta Highway, Highway 99, Franklin Boulevard, and Highway 126. In addition, other main arterials include Coburg Road, River Road, Franklin Boulevard, Chambers Street, Jefferson Street, Amazon Parkway, Willamette Street, Roosevelt Boulevard, Main Street, Pioneer Parkway, Gateway Street, 13th, 18th, and 29th Avenues, 28th and South A Streets and Mohawk Blvd. While these transportation routes are usually adequate for the volume of traffic they carry, periods of rush hour congestion significantly slow traffic, including emergency response, along these and other peripheral routes.

The Oregon Department of Transportation has begun construction on several major roadways within Eugene and Springfield. The I-105 Bridge Preservation Project seeks to repair and upgrade the bridges and ramps between the Delta Highway Interchange and downtown Eugene. This project will include installing guard rails, paving, seismic upgrades, and replacing bridge joints. In addition, proposals to improve Highway 569 (Pape-Beltline) have begun, including work at the Beltline/Delta Interchange and a study to review the environmental impact of expanding the area from River Road to Delta Highway to three lanes.



Within the rural areas served by the department, limited road networks, varying contours of terrain, private bridges unable to bear the weight of fire apparatus, and long, narrow, winding private driveways further impede response.

While both cities openly encourage connectivity and the department provides regular input supporting projects that enhance emergency response, several factors that slow or obstruct emergency vehicle response are beyond the department's control. As the cities become increasingly developed and densely populated, more people and vehicles compete for space on aging streets. In an effort to keep neighborhoods safe and livable, residents are favoring street designs that slow traffic and/or transfer it to other streets. Any design that slows the flow of normal traffic will have a similar impact on emergency response. Department personnel work regularly with traffic engineering and transportation staff from both cities to develop compromise solutions that seek a balance between safe neighborhood streets and adequate emergency vehicle access. However, it is inevitable that the trend toward more traffic calming devices will have the unintended consequence of increasing emergency response times.

In the early 1980s and 1990s, Eugene and Springfield began implementation of a citywide traffic signal pre-emption system designed to allow a fire, rescue, or EMS vehicle to request and receive a green light as it approaches a controlled intersection during emergency response. At a considerable investment by the cities, all traffic signals in the metro service area are now equipped with this system, and all emergency response vehicles are equipped with the appropriate signal emitters. While this system enhances the ability to respond to emergencies faster and with greater safety, its benefit is being gradually reduced by the regular addition of the previously discussed traffic calming designs such as narrow streets and roundabouts throughout the metro area.

Development



Downtown Riverfront Site

Several revitalization projects are in progress in Eugene and Springfield. These include the Downtown Riverfront project, which will occupy a 16-acre piece of property previously owned by the Eugene Water & Electric Board. The redevelopment project will be completed in spring of 2021 and will create a new waterfront district containing parks, housing, and businesses.

The area surrounding the University of Oregon has begun large-scale construction projects, including the Knight Research Facility and the reconstruction of historic Hayward Field in preparation to host several upcoming track and field events.



Hayward Field Reconstruction



Park Blocks Design Concept

The city of Eugene is also working on a redesign of the city's park blocks in downtown which has hosted the Eugene Saturday Market and the Lane County Farmers Market for decades. Not only would this project provide permanent, year-round structures to house the Lane County Farmers Market, it would also include a new City Hall.

The City of Springfield has been working to revitalize and improve safety along historic Main Street, which has encouraged new businesses and development. These projects include increased downtown art installations and the Main Street Safety Project, which aims to create a coordinated plan that will save lives, reduce injuries, and lessen property damage due to traffic incidents along Main Street.



Mural Unveiling in Downtown Springfield

Population Growth

The 2019 population estimate for the City of Eugene is 169,695¹. The city has seen an increase of 9.6% in population between 2010 and 2019. In 1970, the population within the city limits was 69% of the total population in the Eugene Urban Growth Boundary. By 2010, this figure had increased to 88%. In 1990, 5.8% of all persons residing in the River Road/Santa Clara area lived within the city limits of Eugene. By 2000, this percentage had increased to 26%, and the 2010 Census shows an additional increase to 38%.

Growth within the Eugene UGB has not been uniform. Population declined in the West University, Fairmount, and Friendly neighborhoods during the 1990s, but increased in the 2000s. Generally, the greatest growth in the 1990s occurred in the Willakenzie (northeast), Bethel (west), and Santa Clara (northwest) areas. The trend continued into the 2000s for growth in these areas. A more detailed analysis of Eugene neighborhood population trends, which includes 2010 Census data analysis, is available from City of Eugene's Planning & Development Department.

The 2019 population for the City of Springfield was 60,865¹. Springfield has seen an increase of 3.3% in population between 2010 and 2019. In 1970, Springfield's population was 26,874, with steady increases throughout the 1970s and 1980s. Over this same period, Springfield annexed 730 acres of land. In the 2002-2007 timeframe, 1,051 dwelling units were added to the service area. This increase (6.20%) is slightly less than the rise in population.

Density is increasing throughout the Springfield area, and higher concentrations of population are appearing in areas that historically have not had population centers. Examples include the infill development in the Jasper Road area, Riverbend areas north of Harlow Road, the Glenwood area, and the older commercial areas. The Jasper-Natron Development (southeast) and

RiverBend Hospital and Master Plan (north) areas will continue to produce large impacts over the next several years.

Water Supply

For the City of Eugene, water is provided by Eugene Water & Electric Board (EWEB). In partnership, the department and EWEB inspect and maintain more than 4,500 public fire hydrants, nearly all within the city limits of Eugene. In addition, private hydrants are inspected by department personnel but maintained by the individual occupancies the hydrants supply. Based on a long-term plan, the department and EWEB are working to replace aging hydrants.

EWEB monitors the volume and pressure in the water mains of all hydrants and staffs 24-hour water system troubleshooters to resolve system problems or pressure requirements. EWEB provides fire flow for the community and routinely adjusts water supply to accommodate firefighting operations. Over the last five years, EWEB has expanded their high elevation reservoir and distribution system to increase fire flow in the South Hills for residential and urban interface firefighting operations. High elevation fire flows have also been improved through the installation of high flow electric fire pumps capable of supporting extensive firefighting operations. These pumps are buoyed by emergency generator power allowing continuous operations during power outages.

Within its UGB, the City of Springfield has three water systems managed by Springfield Utility Board (SUB), Rainbow Water District, and Glenwood Water District, that provide an interconnected and well-supplied water system. SUB inspects and provides maintenance on all publicly owned fire hydrants within their service area. Through an intergovernmental agreement with the City of Springfield, SUB and the City work together to ensure Springfield water quality standards are maintained and that a consistent supply of water is available for emergency services.

SUB hydrants are tested annually for volume and pressure. During normal fire ground operations, the department has not historically experienced issues acquiring and maintaining adequate fire flows. SUB also provides maintenance resources and manages the status of the Glenwood Water District facilities. The Rainbow Water District provides for the water requirements of the unannexed areas of north and west Springfield.



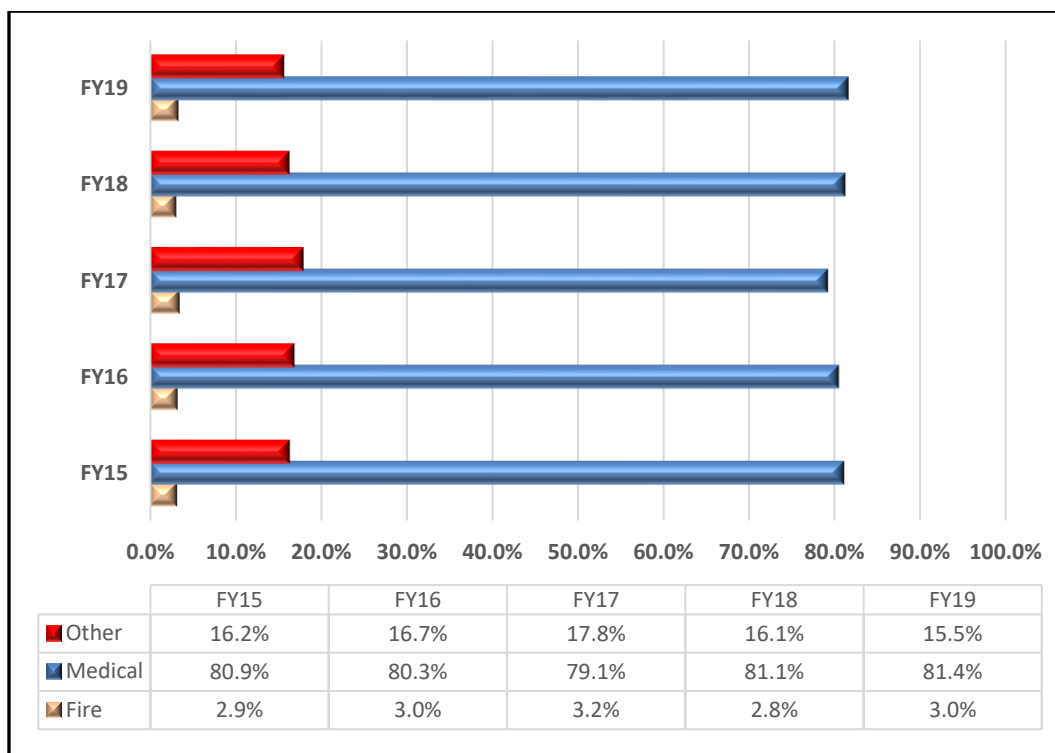
All water systems are maintained in accordance with standards set by the American Water Works Association (AWWA) and in compliance with current Insurance Services Office (ISO) standards for quality and function. Eugene hydrant inspections, maintenance, and replacements are tracked using an automated database maintained by the City of Eugene and EWEB.

For the most part, the rural areas do not have fire hydrants in place. For this reason, the department maintains three water tenders, two located in the City of Eugene and one located in the City of Springfield. These vehicles each carry 3,000 gallons of water to support firefighting in outlying areas. The department also maintains portable pumps to supply water for firefighting purposes in rural areas. In addition, the department has signed mutual and automatic aid agreements with surrounding fire districts to shuttle large amounts of water to fire scenes by rural fire district water tenders.

Incident Type

Response requests are categorized in three main Incident Types: **Fire**, **EMS**, and **Other** based on dispatch activity descriptions. As shown in Figure 3.3, the majority of calls are medical in nature. Service demand is currently driven by distribution of population rather than the characteristics of fixed real property. Because citizens are highly mobile, demand for service in a particular area changes frequently depending upon the time of day, day of week, specific season or event, or other significant and long-term demographic shifts.

Figure 3.3 Total Incidents by Type per Fiscal Year



Risk Evaluation – General

The department has identified specific risks in certain portions of the service area and deployed resources appropriately to match those risks. For example, the placement of water rescue equipment and trained personnel at fire stations nearest major launch points along the Willamette River for use in water rescue incidents. Another example is the placement of trained personnel

and specialized equipment at the aircraft rescue and firefighting (ARFF) station located at the Eugene Airport. The department continues to evaluate the location of specialized personnel and equipment based on needs of the community.



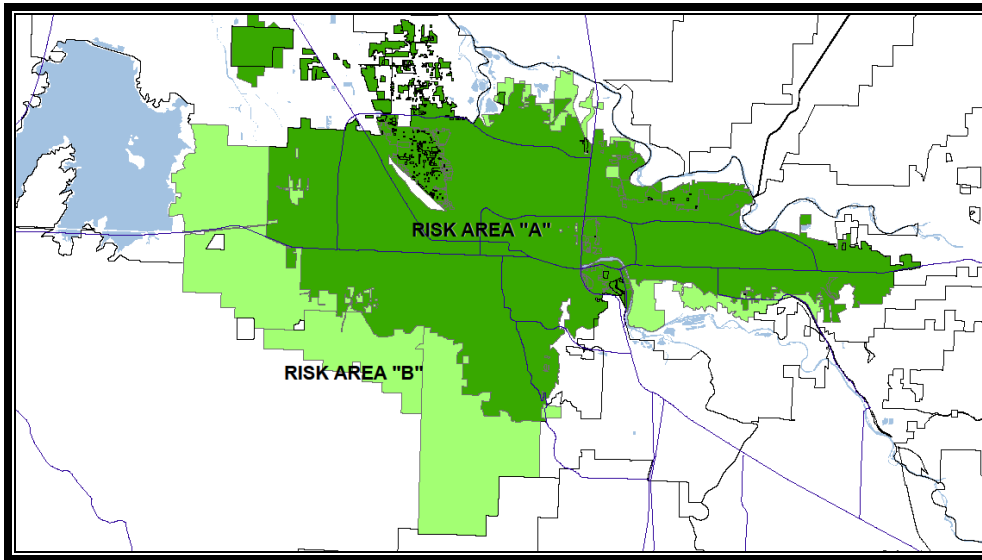
Another risk-based deployment example is the placement of highly maneuverable four-wheel-drive brush engines for steep terrain and off-road operation in the wildland interface zones and rural areas, as well as water tenders for prompt deployment to fires in non-hydrant areas of the contract fire protection districts.

Additionally, construction of new high-rise buildings in the response area is monitored, and the placement of aerial ladder resources may be modified in the future based on ongoing risk analysis.

In looking at the service area in its entirety, the types of structures and occupancies at various risk levels do not fall neatly into small geographic units that would warrant specific resources needed only in those areas. Instead, the department has evaluated actual performance and infrastructure, and classified their service areas into two distinct response zones making up risk area zones. Within these zones, pre-determined response assignments vary according to type of call and structure or property involved. The two zones are:

- **Risk Area A:** Territory classified as Risk Area A includes the cities and the three water districts served by the department. This area, while varying somewhat in density and land use, has a relatively high number of industrial, commercial, and residential structures.
- **Risk Area B:** Territory classified as Risk Area B includes the mainly rural property in the four rural fire districts served by the department. These areas contain primarily agricultural or forest lands and associated structures, with some rural residential development. For the most part, these areas are not served by municipal water systems, nor are they equipped with a fire hydrant network.

Figure 3.4 Risk Area Boundaries



Buildings in the Fire Protection Area

Occupancies

For the purpose of this report, data was gathered from the Lane County Regional Land Information database, which is maintained by the Lane Council of Governments (LCOG). This database tracks land use or inspection category but not the total number of buildings. The following figure represents the department's best calculation of the number of buildings currently located within the fire service area.

Figure 3.5 Buildings by Occupancy Type

Building Occupancy Type	Risk Area "A"	Risk Area "B"
Single Family Residential	64,735	2,369
Multi-family Residential	43,515	41
Group Residential	240	1
Government	408	0
Religious/Charitable	329	10
General Services	4,134	14
Educational Facilities	354	1
Industrial	834	4
Retail & Wholesale	2,897	8
Communication	76	10
Other	558	20
Totals	118,080	2,478

High-rise Structures



The HUB Apartment Complex

High-rise structures, defined as those with six (6) or more stories, pose a unique set of challenges in performing firefighting operations due to the associated life risk and high density of occupants, challenges of deploying personnel and equipment, and the development of support systems needed to sustain high-rise firefighting operations.

High-rise structure locations are a key consideration in decision-making around apparatus placement, especially for the three truck companies on duty. During the past several years, many new high-rise and mid-rise structures have been completed in the Eugene-Springfield metro area, with more in the planning and development phase. Currently, truck companies are deployed at Fire Station 1 (Downtown), Fire Station 2 (Whiteaker), and Fire Station 3 (28th Street). The Downtown Station is located in Eugene's downtown core area, close to the university district, which accounts for the majority of Eugene's high-rise structures. Fire Station 2 (Whiteaker) is positioned further to the west in central Eugene, which contains the largest industrial area. Fire Station 3 (28th Street) is centrally located within Springfield's city limits, which allows for more consistent and timely truck response throughout the Springfield area.

Risk Classifications – Specific

Analytical techniques can be utilized to stratify risks into more definitive risk categories and determine the values exposed to loss, the probability of an event occurring, and the consequences that such an event may have on the community. Primary risk liability falls into five general categories in order of severity: **life risk, community economic risk, environmental risk, historical risk, and dollar loss**. Life and community economic risks are of primary importance and nearly all property associated with those risk categories are located within Risk Area A and, to a lesser extent, Risk Area B. Following are descriptions of the five general risk classification categories:

1. **Life Risk:** Any location that presents a high risk of life loss, such as high-density housing (particularly unsprinklered), high-rise and older remodeled structures, foster care homes, skilled nursing facilities, hospitals, housing within close proximity to hazardous manufacturing or storage, day care centers, and schools.
2. **Community Economic Risk:** Those facilities that have a high dollar value and, if destroyed or damaged by fire, could close or relocate resulting in a severe economic burden on the community through the loss of jobs and/or tax revenue. This category also includes critical infrastructure of primary importance such as utilities, roads, waterways, and bridges.

3. **Environmental Risk:** Any area where a high risk of severe or permanent environmental damage would likely occur in the event of a fire or hazardous materials release.
4. **Historical Risk:** Any structure or property of significant historical value to the community.
5. **Dollar Loss:** Structures that have a high value yet pose a low risk of life loss or community economic impact and are insured against accidental loss. Examples of dollar loss structures are large rural residential and farm structures, as well as some commercial buildings primarily housing large inventories of merchandise.

Probability Analysis

Probability is the likelihood that a particular event will occur within a given period of time. For example, an event that occurs daily is highly probable. Whereas an event that occurs only once in a century is very unlikely. Probability is an estimate of how often an event will occur within a given period of time and should be evaluated for each type of emergency.

Figure 3.6 shows total incidents per fiscal year, beginning in FY15. Figure 3.7 depicts total incidents including type and sub-type by fiscal year. Both show service needs increasing over the period of the analysis. There is a decrease in call volume for FY18, but that is followed by a 10.3% increase in FY19.

Figure 3.6 Total Incidents

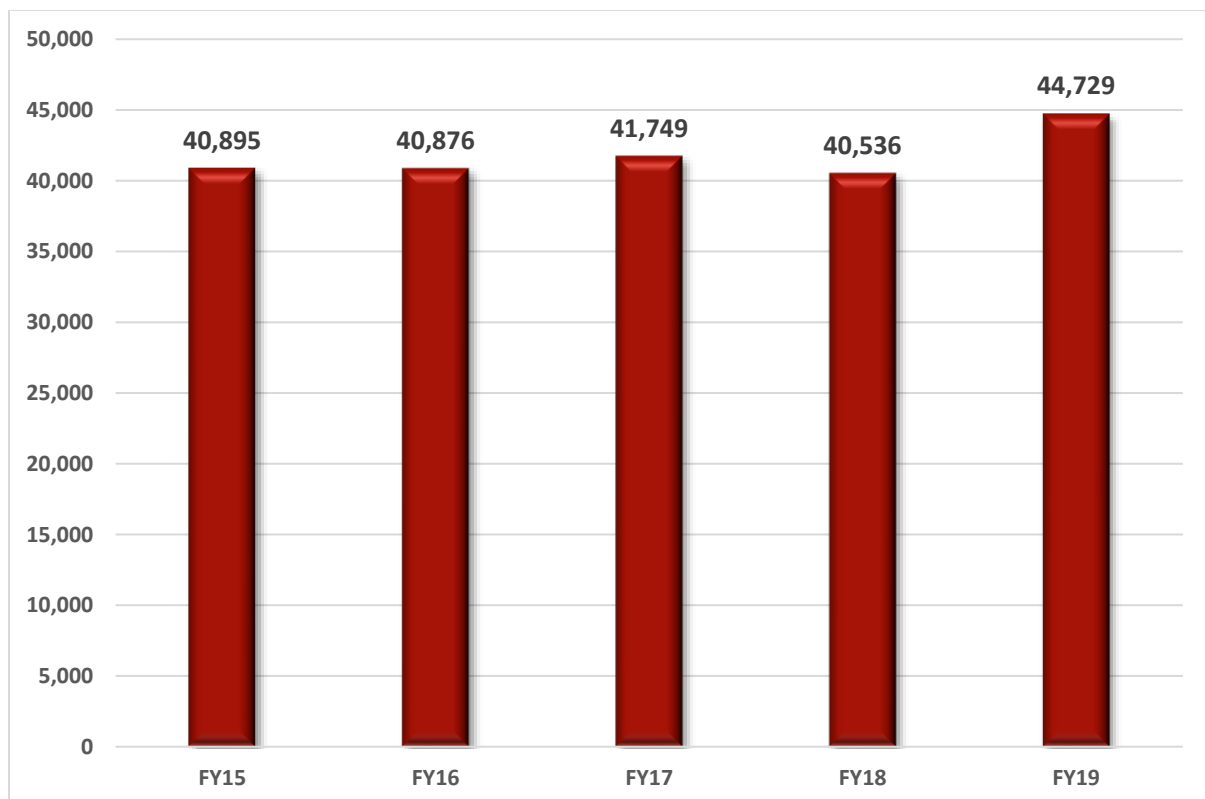


Figure 3.7 Total Incidents by Type

FIRE	FY15	% Total	FY16	% Total	FY17	% Total	FY18	% Total	FY19	% Total
Structure	318	0.8%	318	0.8%	306	0.7%	291	0.7%	350	0.8%
Brush	480	1.2%	453	1.1%	499	1.2%	452	1.1%	601	1.3%
Vehicle	129	0.3%	153	0.4%	143	0.3%	139	0.3%	128	0.3%
Other	257	0.6%	286	0.7%	377	0.9%	253	0.6%	283	0.6%
Subtotal	1,184	2.9%	1,210	3.0%	1,325	3.2%	1,135	2.8%	1,362	3.0%
EMS										
Emergent	24,476	59.9%	24,715	60.5%	24,350	58.3%	24,111	59.5%	26,295	58.8%
N/Emer	8,626	21.1%	8,118	19.9%	8,655	20.7%	8,754	21.6%	10,135	22.7%
Subtotal	33,102	80.9%	32,833	80.3%	33,005	79.1%	32,865	81.1%	36,430	81.4%
OTHER										
Hazmat	200	0.5%	215	0.5%	238	0.6%	241	0.6%	266	0.6%
Pub. Assist	2,824	6.9%	2,853	7.0%	3,435	8.2%	2,611	6.4%	2,512	5.6%
Rescue	986	2.4%	1,025	2.5%	999	2.4%	997	2.5%	1,026	2.3%
Fire Alarms	1,605	3.9%	1,796	4.4%	1,749	4.2%	1,649	4.1%	1,848	4.1%
Misc	994	2.4%	944	2.3%	998	2.4%	1,038	2.6%	1,285	2.9%
Subtotal	6,609	16.2%	6,833	16.7%	7,419	17.8%	6,536	16.1%	6,937	15.5%
TOTAL	40,895	100.0%	40,876	100.0%	41,749	100.0%	40,536	100.0%	44,729	100.0%
Daily Average	112		112		114		111		123	

Fire Incidents

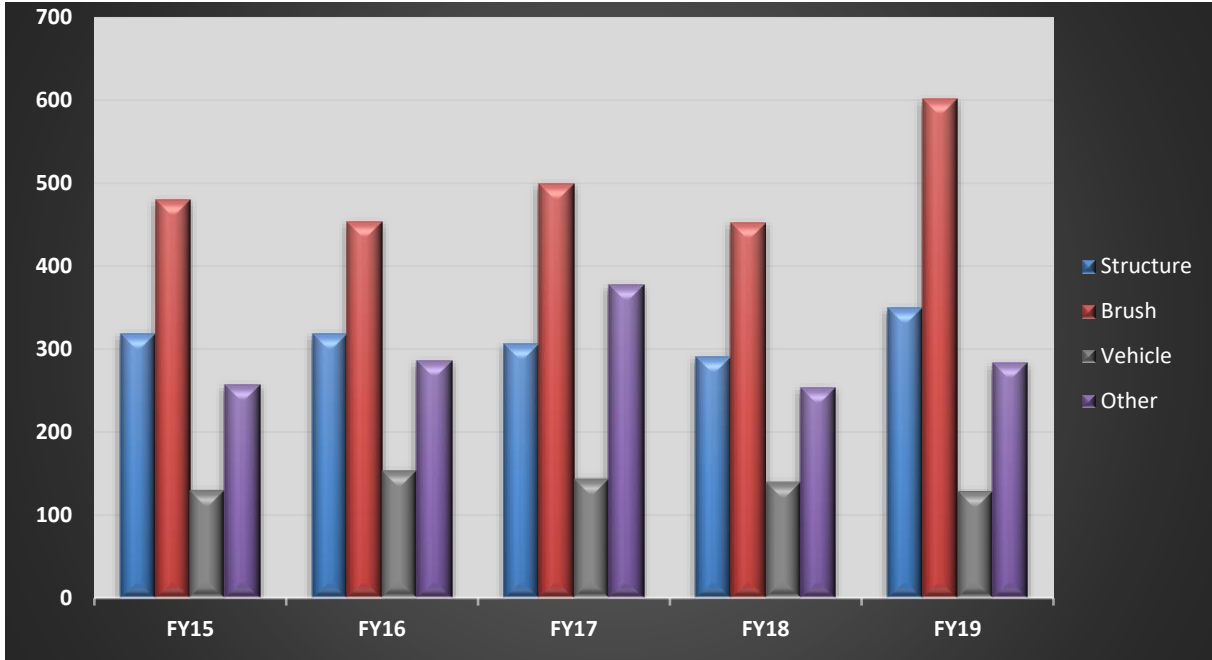
To further analyze the data, the following discussion and figures are shown by city and in total per incident type and sub-type. In analyzing each type of incident, the department evaluated the frequency of incidents over the past three fiscal years, as well as a temporal analysis of aggregate data to determine the demand patterns for response services at various times of the day.

Figure 3.8 summarizes fire incidents by type, city, and fiscal year illustrating frequency. Also included is the daily (24-hour) average for each city and total by fiscal year. One important note is that type categorization is based on information received at time of call, not on the actual nature of call reported by a company officer at the scene. Figure 3.8.1 is a graphical representation of total fire incidents by fiscal year.

Figure 3.8 Frequency of FIRE Incidents

FIRE	FY15	FY16	FY17	FY18	FY19
Structure	318	318	306	291	350
Brush	480	453	499	452	601
Vehicle	129	153	143	139	128
Other	257	286	377	253	283
Total	1,184	1,210	1,325	1,135	1,362
Daily Average	3.2	3.3	3.6	3.1	3.7

Figure 3.8.1



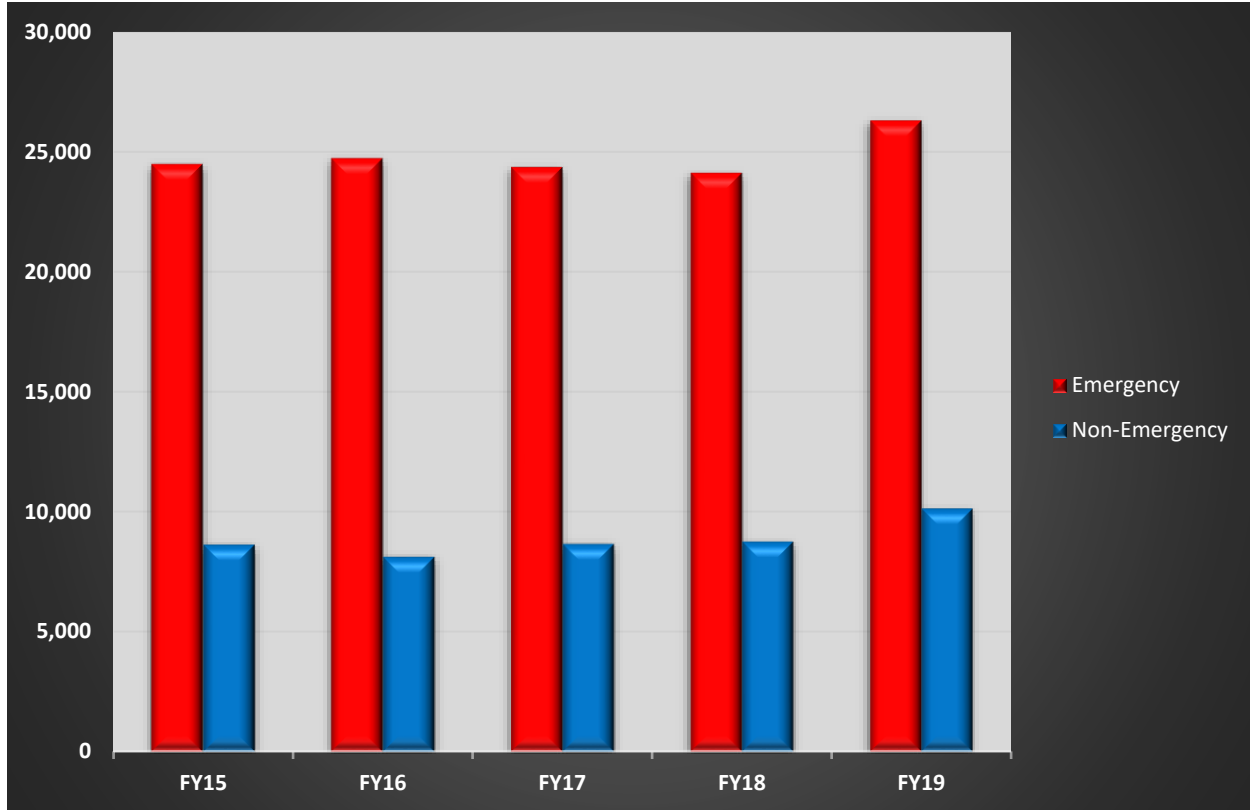
Emergency Medical Services Incidents

Following with the national trend for fire agencies, the majority of calls for service are medical in nature. The department currently responds to approximately 100 such incidents each 24-hour period. Fire companies, including those provided by surrounding rural fire districts, are strategically located throughout the ambulance service areas and provide consistent first response capability. Figures 3.9 and 3.9.1 present total EMS incidents split into emergency and non-emergency incidents by fiscal year>city, and total. An “emergency” is defined by Lane County Code Chapter 18.015 as any non-hospital occurrence or situation involving illness, injury or disability requiring immediate medical or psychiatric services, wherein delay in the provision of such services is likely to aggravate the condition and endanger personal health or safety.

Figure 3.9 Frequency of EMS Incidents

OTHER	FY15	FY16	FY17	FY18	FY19
Emergency	24,476	24,715	24,350	24,111	26,295
Non-Emergency	8,626	8,118	8,655	8,754	10,135
Total	33,102	32,833	33,005	32,865	36,430
Daily Average	90.7	90.0	90.4	90.0	99.8

Figure 3.9.1



Other

The Other category is further divided into sub-categories including hazardous materials, public assistance, rescue, automatic fire alarms, and miscellaneous.

Hazardous material incidents include calls to chemical spills, fuel spills, and fixed facility releases of gases or liquids. For calls of this nature, the department provides services within predetermined boundaries as well as to an expanded service area as defined by state contract. The department supports one of the State of Oregon's 14 regional Hazardous Materials Response Teams, covering all of Oregon Region 2, which includes all of Lane County and a small section of Deschutes County and provides backup to the rest of the State.

Public assistance requests include calls such as lifting assistance for patients in private residences or foster care facilities, leaking fire hydrants, downed power lines, and assisting local law enforcement agencies.

Rescue incidents include non-auto accidents, water rescue, and technical rescue calls that include high angle, collapse, or cave-in emergencies.

Automatic fire alarm calls require an emergency response based on information received in the dispatch center. Statistically speaking, the majority of automatic fire alarms are false. Consequently, many of these calls result in a disregard or cancellation of the responding unit(s) once the responsible party confirms there is no emergency response needed. These calls generally consist of system malfunctions, inadvertent activation, or notification system failure during alarm maintenance. In the most recent analysis of these calls, 42% of these were disregarded or cancelled, and 51% were alarm malfunctions or unintentional activations. The department also tracks automatic alarms that result in an emergency response where damage is recorded or where there was a working fire incident. Forms of damage include but are not limited to water damage from sprinkler system activation or malfunction, smoke from small fires extinguished prior to department arrival, or overheated or short-circuited electrical equipment. The most recent analysis indicates approximately 0.5% of the automated alarm responses had damage recorded.

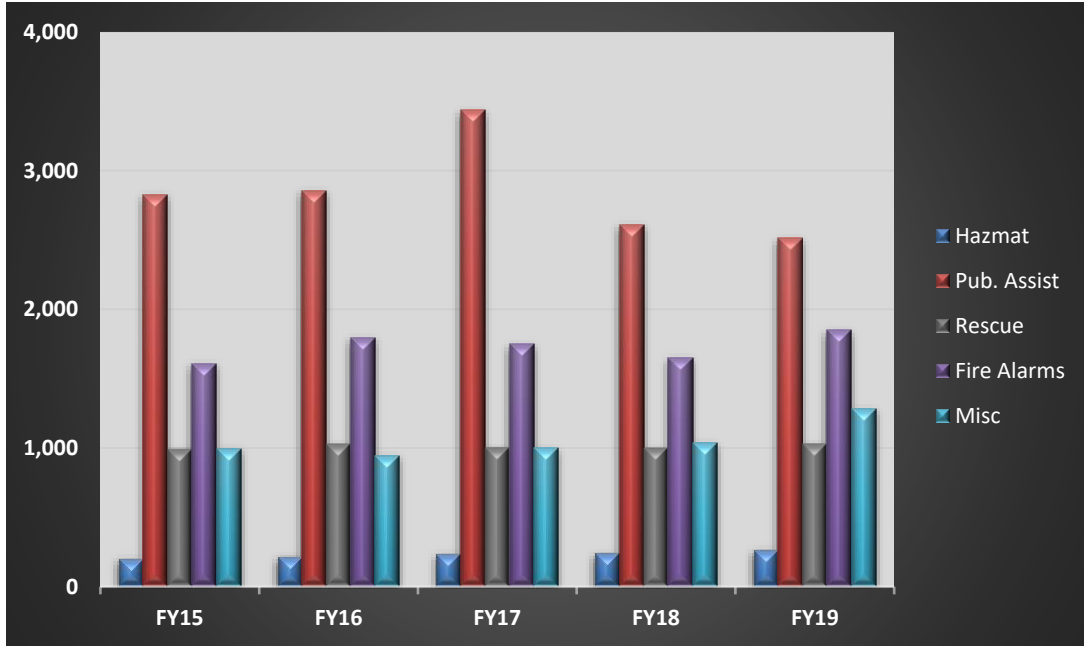
Miscellaneous responses include calls for carbon monoxide alarms, illegal burning, noxious odor investigations, and suspicious conditions. These incidents do not fit neatly into other categories yet represent important and ongoing services that require resources.

The following figures show totals and daily average for each of these sub-categories.

Figure 3.10 Frequency of OTHER Incidents

OTHER	FY15	FY16	FY17	FY18	FY19
Hazmat	200	215	238	241	266
Pub. Assist	2,824	2,853	3,435	2,611	2,512
Rescue	986	1,025	999	997	1,026
Fire Alarms	1,605	1,796	1,749	1,649	1,848
Misc	994	944	998	1,038	1,285
Total	6,609	6,833	7,419	6,536	6,937
Daily Average	18.1	18.7	20.3	17.9	19.0

Figure 3.10.1



Mutual and Automatic Aid Incidents

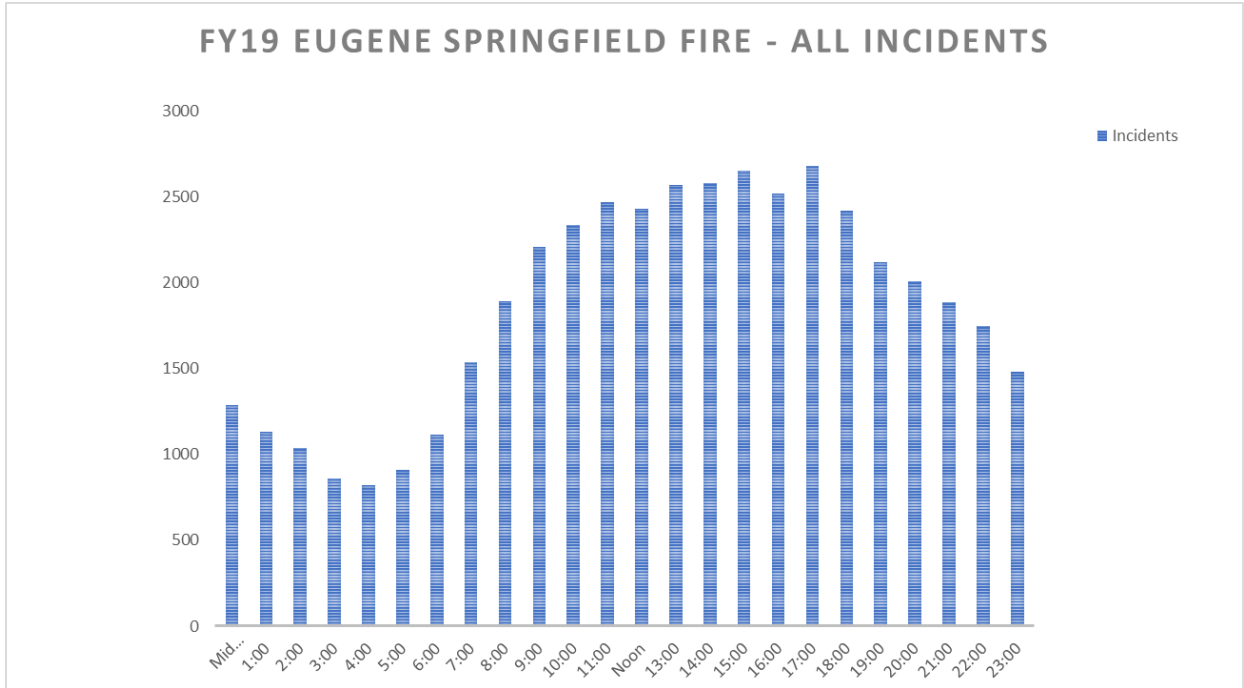
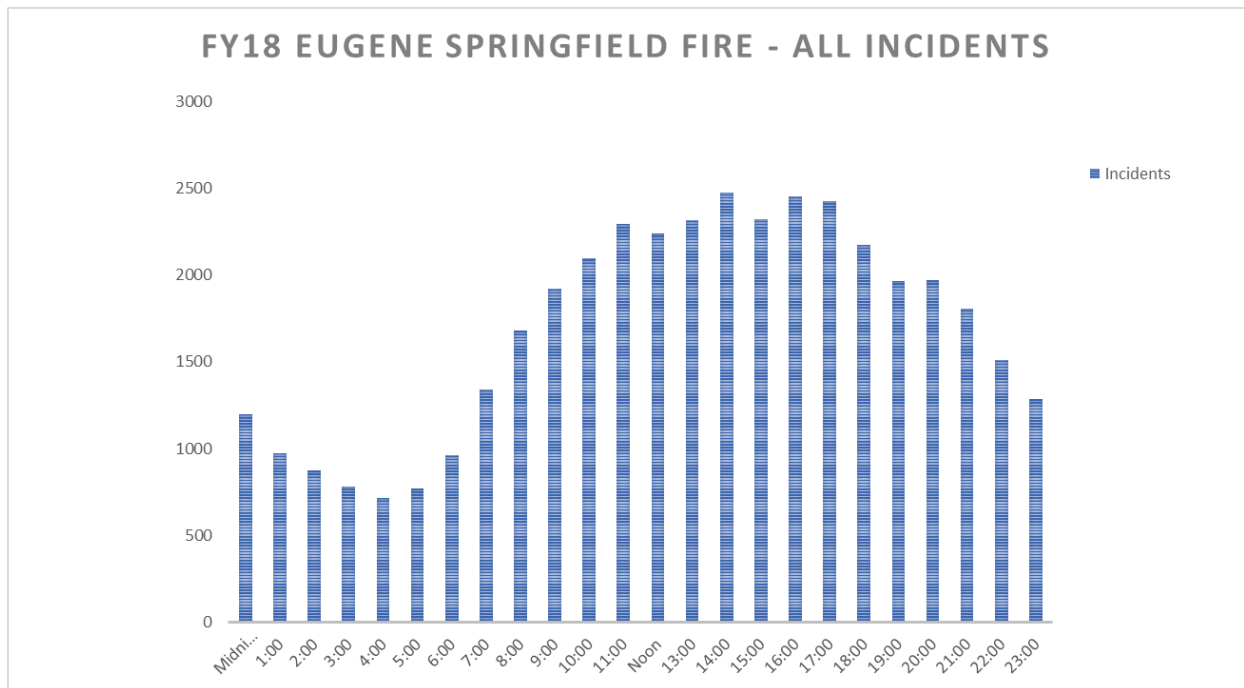
Included in the above numbers are department responses in support of mutual and automatic aid agreements with surrounding jurisdictions. Mutual aid defines services provided to another area at the specific request of the jurisdiction having authority and is granted whenever doing so will not leave areas of primary responsibility with an inadequate level of protection.

Automatic aid refers to agreements that provide a predetermined level of cross-jurisdictional response support on the initial alarm, usually in boundary areas, and without the need for a specific request. The Cities of Eugene and Springfield address metro response by delivering service under the umbrella of their shared fire department in the 3-Battalion System. Prior to the functional consolidation, calls within the other City's service boundary were considered automatic aid incidents.

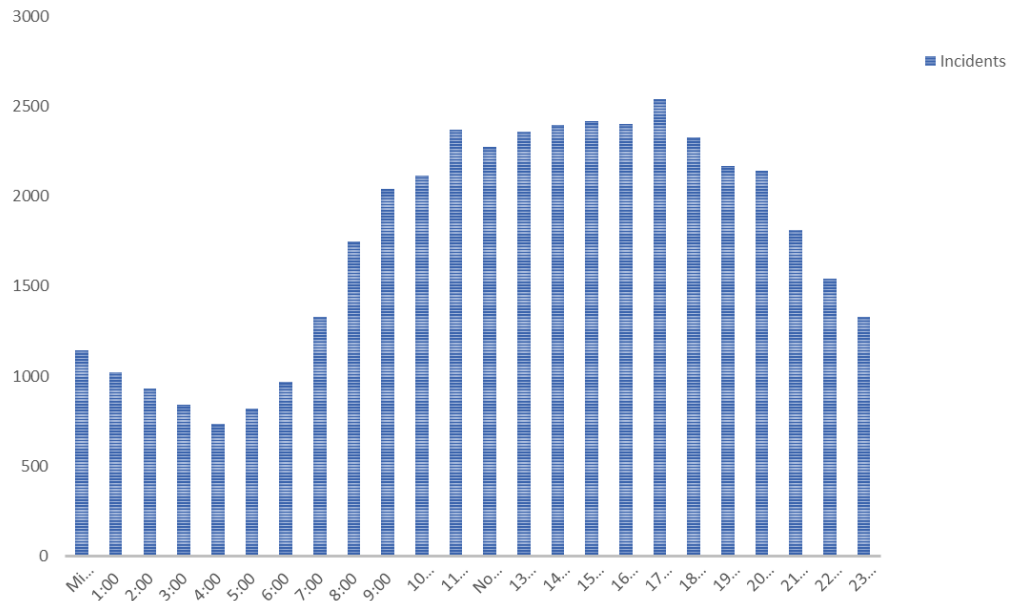
Temporal Distribution of Calls

Calls for service are not distributed uniformly throughout a 24-hour period. Using temporal distribution graphs assists in determining enhanced staffing levels and the need to add peak units during the times of heavy call volume. The figures below illustrate temporal distributions of calls for service for fiscal years 2016 through 2019 by category>time of day using a 24-hour clock. As shown, temporal distribution of call volume has not significantly changed over the past several years.

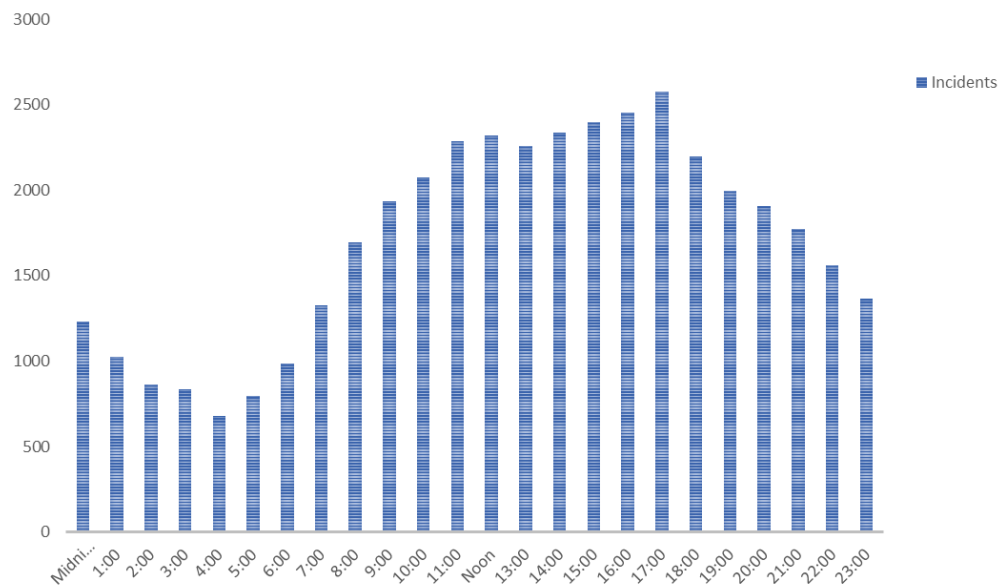
Figures 3.11 Temporal Distribution



FY17 EUGENE SPRINGFIELD FIRE - ALL INCIDENTS



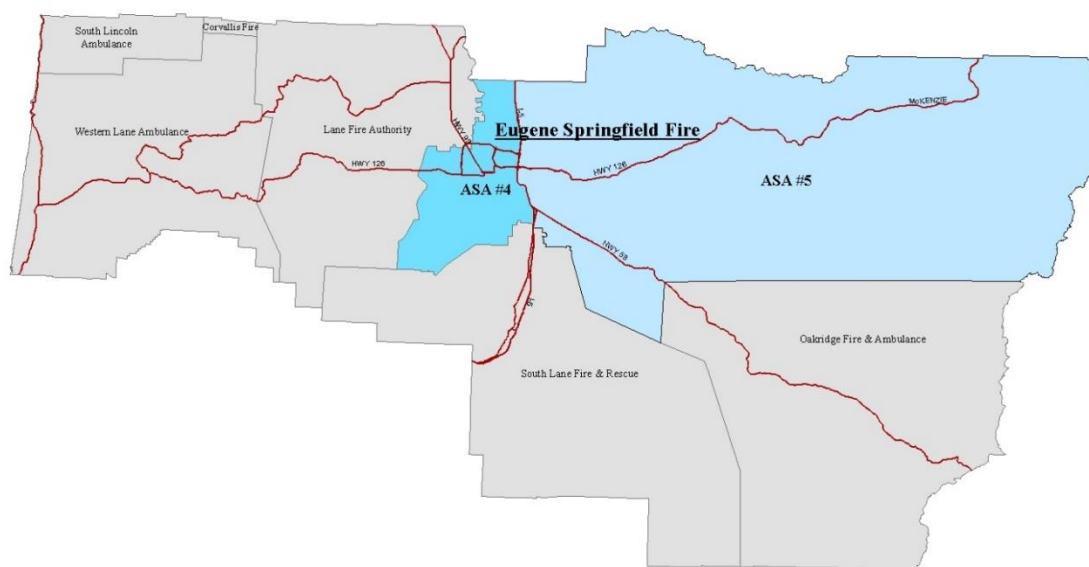
FY16 EUGENE SPRINGFIELD FIRE - ALL INCIDENTS



Risk Evaluation – Ambulance Transport

Since 1981, the department has operated emergency ambulance transport services. Under the authority of the Department of Health and Human Services of Lane County, the department is the authorized advanced life support ambulance provider for the West Central Lane Ambulance Service Area (ASA #4) and East Central Lane Ambulance Service Area (ASA #5) of Lane County. The assigned ambulance service areas represent a significantly larger geographical protection zone than the two cities' fire and first response EMS service areas. Figure 3-14 illustrates the ASA boundaries for Eugene and Springfield.

Figure 3.14 Lane County Ambulance Services Areas



The ESF ambulance transport system includes seven 24-hour advanced life support (ALS) units, one 24-hour basic life support (BLS) unit, two 12-hour peak hour BLS units, and two 24-hour combination units that are dispatched on a last-out basis staffed by an engine crew. A Life Flight air medical transport helicopter is located in South Lane County. Life Flight is available 24 hours per day for remote rescue and long-range, inter-facility, critical care transport services.

Lane County Code Chapter 18 was amended to match the Oregon Administrative Rules so that all ambulance transports are regulated by the ASA holder(s). The most significant implications of the amendments relate to non-emergency inter-facility ambulance transports, including out-of-area inter-facility transports, primarily to and from Springfield's two hospitals. For these services, Cities of Eugene and Springfield have subcontracted with a private provider.

Risk evaluation also addresses ambulance funding, as this is directly tied to service delivery. There is a long-term structural financial deficit in the ambulance transport service funding mechanism. This is primarily attributable to reduced levels of reimbursement received from Medicare (federal) and Medicaid (state) for qualifying patient transports. These decreases have been phased in by the federal government since the passage of the *Balanced Budget Act of 1997*,

which shifted much of the financial burden for covered patient transports from the federal government to local providers. The problem was then exacerbated with the *Medicare Modernization Act of 2003*, which further reduced reimbursements.

In addition to the reimbursement reductions associated with Medicare and Medicaid, the department also provides transport service to patients who are uninsured, underinsured, or otherwise unable to privately pay for their transport costs. These calls frequently result in uncollectable debt, which impacts the ability to cover the overhead costs of the system.

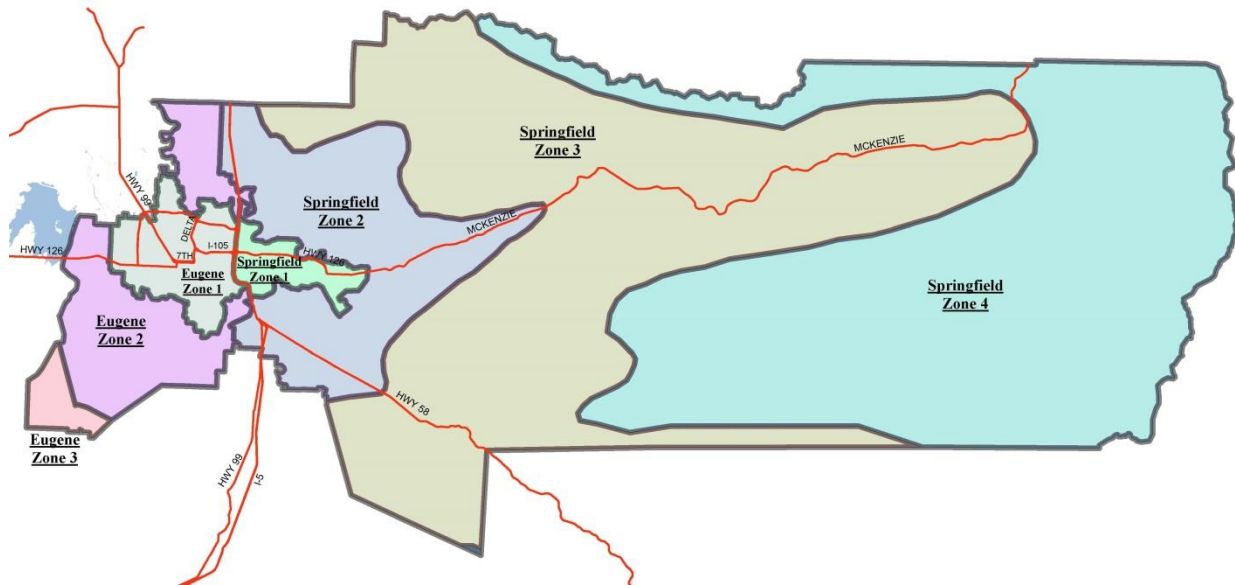
ASA Response Zones

The Lane County Health & Human Services Department developed an Ambulance Service Plan, which has been adopted by the Board of County Commissioners. This plan calls for each ambulance service provider in the county to report quarterly on its ambulance response times for emergency calls. Response time goals are set for various zones, based on population density, proximity to urban areas, terrain, transportation networks, and expected travel time to the area.

Zones 1, 2, 3, and 4 in each ASA correspond roughly to the State of Oregon's established urban, suburban, rural, and frontier designations. ASA #4 (City of Eugene) contains only three zones, since it has no identified frontier territory, and no portions of the ASA that are expected to have greater than a 45-minute response time. ASA #5 (City of Springfield) contains all four zones with a large frontier territory that could have greater than a 120-minute response time. Response zones are generally described as:

- **Zone 1** includes all territory within Eugene and Springfield's Urban Growth Boundaries (UGBs), which are considered urban.
- **Zone 2** includes territory outside the UGBs to the west approximately to Fern Ridge Reservoir, and to the east approximately to the Marcola area in the Mohawk Valley, to approximately Leaburg in the McKenzie Valley, and slightly past Pleasant Hill in the Highway 58 corridor.
- **Zone 3** includes all territory in the ASAs to the west and east of the zones indicated above, which are considered remote rural, but not qualifying as frontier.
- **Zone 4** includes the eastern-most portion of ASA #5 (Springfield), including the area further up the McKenzie River Highway, and surrounding national forest lands both north and south of the highway, which is considered frontier.

Figure 3.15 ASA #4 and #5 Response Zones



Demand for Ambulance Service

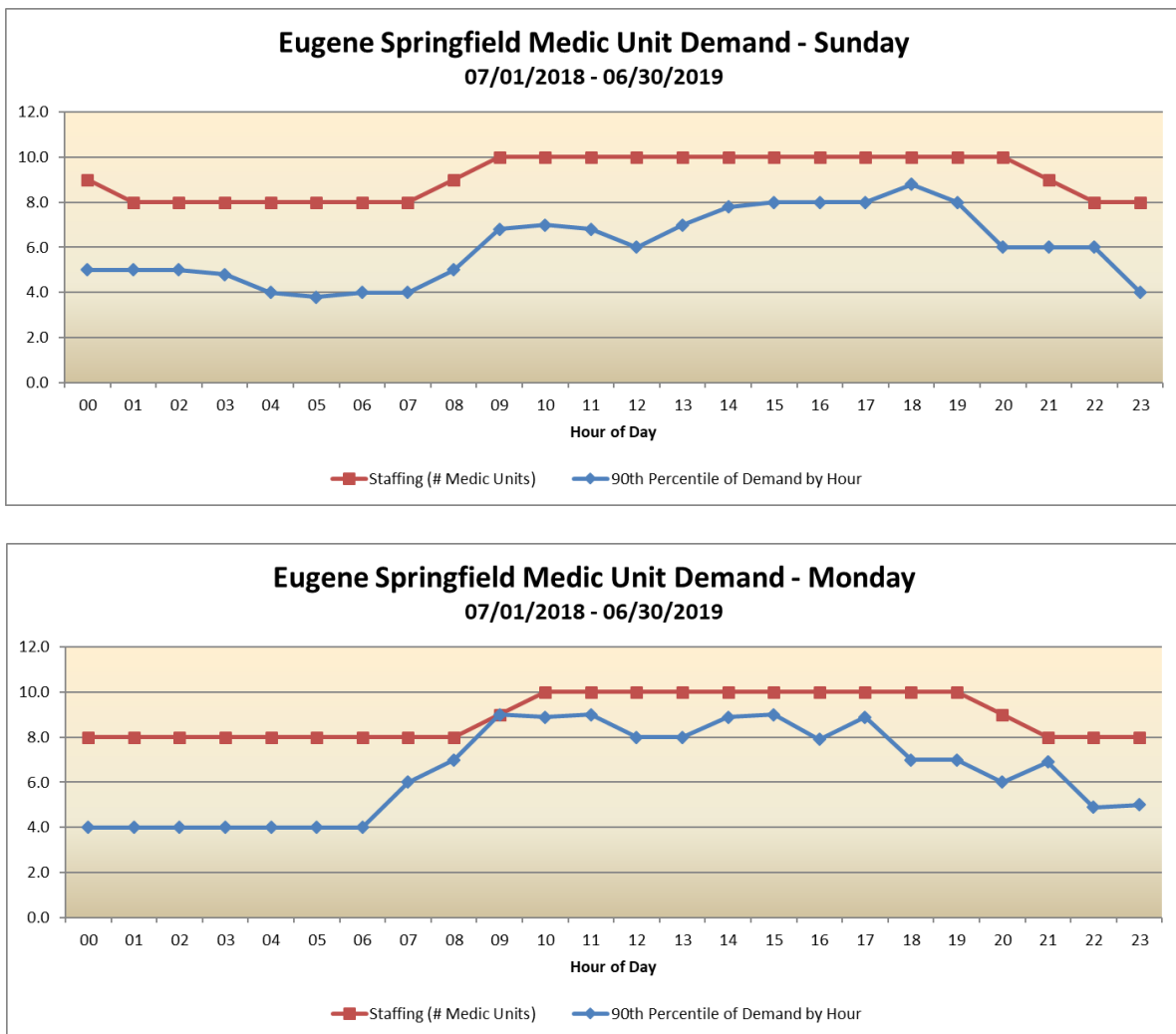
Since the Ambulance Service Area is larger than the fire protection service area, a separate analysis was conducted for ambulance transport. EMS calls are those responded to by engines, engines and medic units together, and medic units only. As shown in the following figures, only a certain percent of these calls results in a transport. EMS calls and ambulance transports comprise a large majority of the total service demands placed on the department. There are relatively fewer staffed resources to handle the total EMS calls and ambulance transport demand generated by the larger ambulance service area because the larger area increases travel time. Figure 3.16 shows the frequency of EMS calls and transports by Fiscal Year. For FY19, the department saw an .25% decrease in medical calls but a 4.7% increase in average number of patient transports per day.

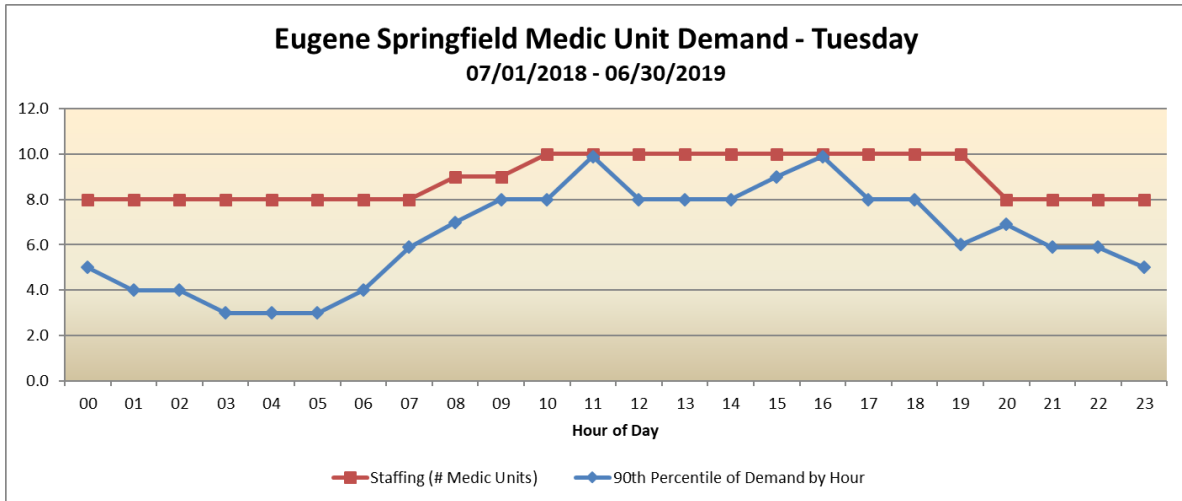
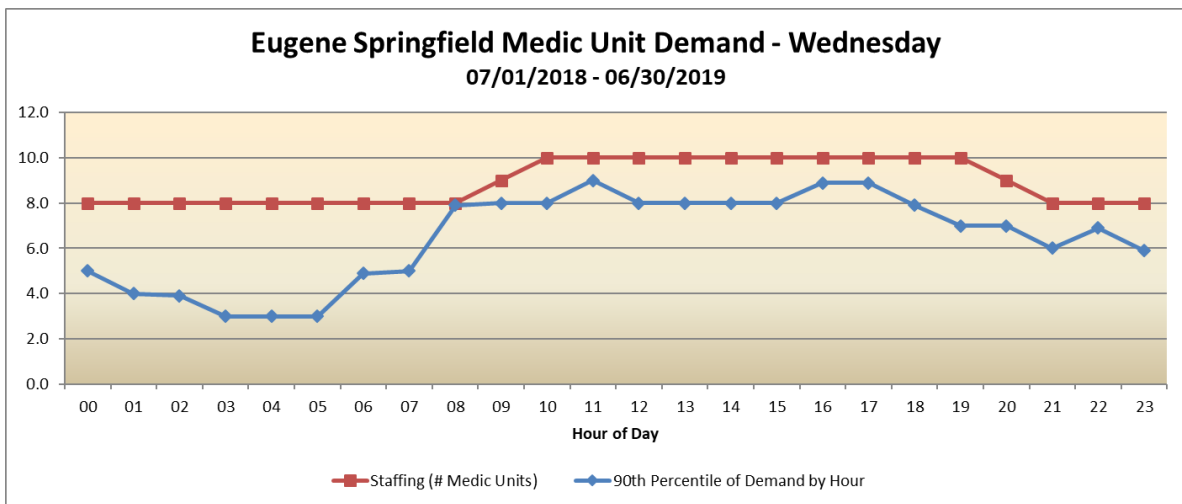
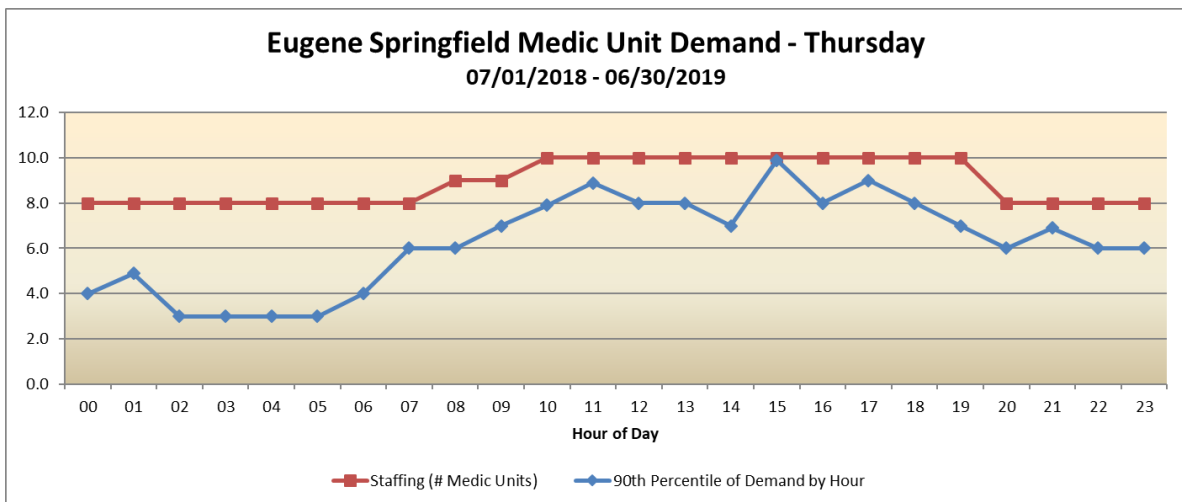
Figure 3.16 Frequency and Percent of Transports

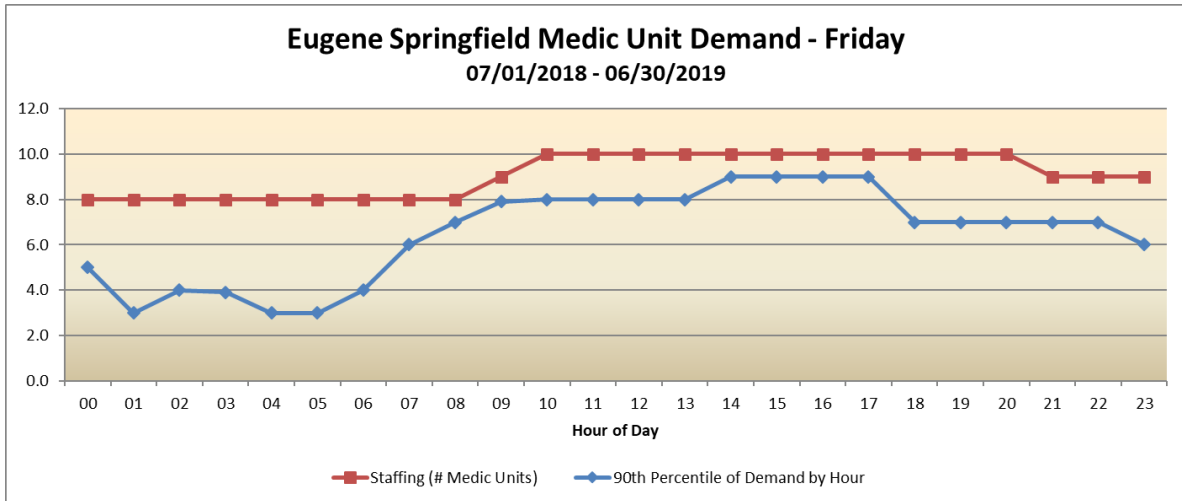
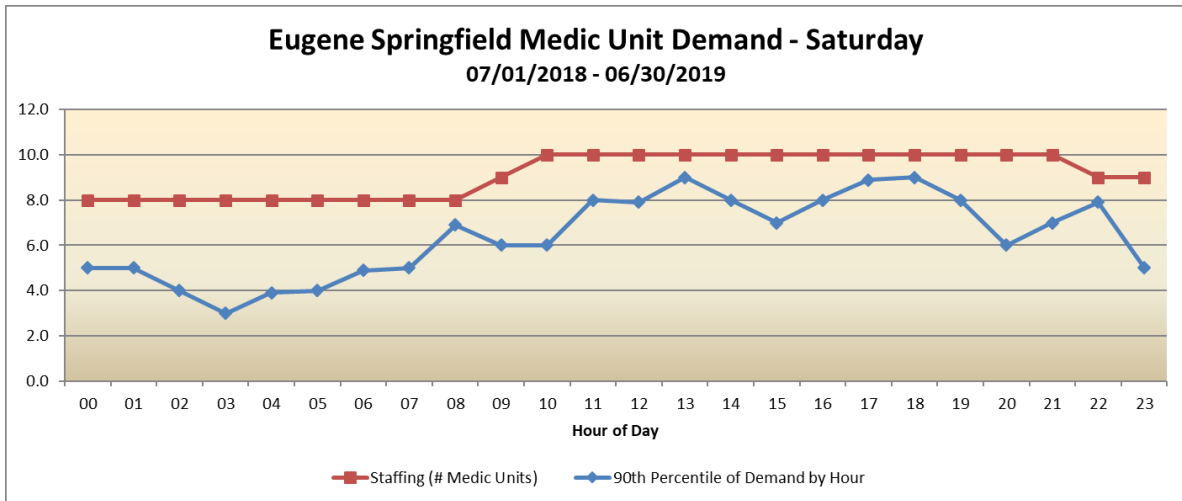
	FY15	FY16	FY17	FY18	FY19
EMS Calls	33,204	34,157	33,922	36,522	36,430
Transports	19,251	19,460	21,498	23,478	24,428
% Transport	57.98%	56.97%	63.37%	64.28%	67.05%
Transport Avg/Day	53	53	59	64	67

To further analyze demand, ambulance calls are displayed using demand charts that compare demand to resources by day of week and time of day. Peak demand is determined by calculating the 90th percentile of all medic unit dispatches and allowing one hour as an average assumption for the amount of time necessary for an ambulance crew to handle a call and become available for another response. The 100th percentile figure is not used because our experience has demonstrated that many calls for service do not require transport, and will therefore, not require a full hour of time to complete. Points above the 90th percentile line represent times when the departments will most likely rely on the combination unit or an automatic aid response from a neighboring transport provider. Medic unit deployment is established based on demand. In the following graphs, the dark purple line with triangles shows staffed ambulances on duty and the red line with squares shows the 90th percentile of incidents based on hour per day.

Figure 3.17 Ambulance Demand Charts







SECTION FOUR: On-Scene Operations and Critical Tasks

On-Scene Operations and Critical Tasks

On-scene operations, identification of critical tasks, and an effective emergency response force are the key elements in determining appropriate staffing levels, the number of companies needed, optimal deployment strategies, and the priority duties to be performed on the fire ground or emergency incident scene. Effective all-hazards fire departments must be able to determine what tasks need to be completed and in what order, the number of personnel needed, and the type of apparatus required to complete the identified tasks to have a positive influence on the outcome of the situation.

On-Scene Operations

The variables of fire growth dynamics, along with property and life risks, combine to determine the fire ground tasks that must be accomplished, and to a certain extent, the order in which they must be accomplished, to preserve life and mitigate loss. Critical tasks are interrelated but can be separated into two basic types: 1) fire control and 2) life safety.

Fire control tasks are those related to applying a fire suppression agent, generally water, on the fire, and removing the products of combustion from an enclosed environment. Life safety tasks are those related to finding trapped, disoriented, or incapacitated victims, and safely removing them from the structure or shielding them from the hazard.

Fire control tasks are generally accomplished by using one of two methods: 1) hand-held hose lines and 2) master streams.

- Hand-held hose lines are mobile and produce water flows up to 250 gallons-per-minute. These are generally used during interior, offensive firefighting activities.
- Master streams are generally used from stationary positions and produce flows up to 1,000 gallons-per-minute or more. They are used primarily during exterior, defensive firefighting activities.





The decision to use either hand lines or master streams depends upon the stage of the fire, the identified threat to life safety and adjoining property, and the specific strategy and tactics employed by the fire Incident Commander (IC) when enough firefighting resources have reached the scene. If the fire is in a growth or pre-flashover stage, firefighters can often make an offensive fire attack into a building by using hand lines to attack the fire and shield trapped victims until they can be safely removed from the structure.

If a fire is in its flashover or post-flashover stage and has extended beyond the capacity or mobility of hand-held hoses, or if the structural damage and the threat of building collapse present a significant risk to the safety of firefighters on scene, the structure may be declared a loss. In this situation, master streams or exterior handlines are positioned to extinguish the fire and keep it from advancing to surrounding exposures.

Life safety tasks assigned are based upon the number of occupants, their location, their status (e.g., awake, unconscious), and their ability to take effective self-preserving action. For example, ambulatory adults need less assistance than non-ambulatory adults or children. The very young and elderly occupants generally require more assistance, which requires greater resource utilization.

The keys to any fire department's success at a fire include a rapid response and efficient fire scene deployment, as well as adequate staffing and coordinated teamwork. These elements are relevant regardless of whether the fire ground tasks are all fire-flow related or a combination of fire flow and life safety.

Before on-scene procedures can be established, the IC must select an initial strategy –Offensive or Defensive, appropriate to the conditions.

- **Offensive Strategy** – This strategy involves an aggressive interior fire attack operation. The top priority with this strategy is to rescue trapped victims. In addition, the offensive strategy is utilized to limit fire spread beyond the area of origin and to reduce fire-related deaths or injuries. This strategy is implemented considering personnel safety, available resources, and the size and scope of the fire. The objective of an offensive attack is to stop the fire and confine it to the area of origin as quickly as possible.

The offensive attack may also apply to wildland fire where firefighting crews directly attack the head, or front of an advancing fire. Although this can be an effective tactic, this mode of attack also poses an increased element of danger that warrants a higher degree of vigilance by the IC and all crew members.

- Another method of offensive attack (sometimes referred to as a transitional attack) occurs when fire crews begin an initial exterior attack, and quickly transition into a coordinated interior attack. This tactic accommodates the Occupational Safety and Health Administration's (OSHA) Two-In/Two-Out requirements for interior fire attack. The objective is to hold the fire in check from the exterior and then move to the interior to affect total extinguishment. The exterior water application is intended to slow the spread of fire until staffing levels and water supplies are adequate to offensively engage the fire.

The transitional attack is an effective tactic to employ when the OSHA Two-In/Two-Out rule cannot be met initially. This OSHA requirement dictates that before at least two firefighters can enter into an environment that is deemed immediately dangerous to life and health (IDLH), an additional two firefighters must be on scene, equipped and in position as a potential rescue team.

- **Defensive Strategy** – This strategy generally consists of an exterior attack designed to confine a fire to the structure of origin. No attempts are made to rescue civilian fire victims from the interior of a structure because in these scenarios, the fire has completely overtaken the structure. A “fully involved” structure is one that is at high risk for collapse, and even modern firefighting protective equipment is not sufficient to allow rescuers to safely enter these super-heated environments.

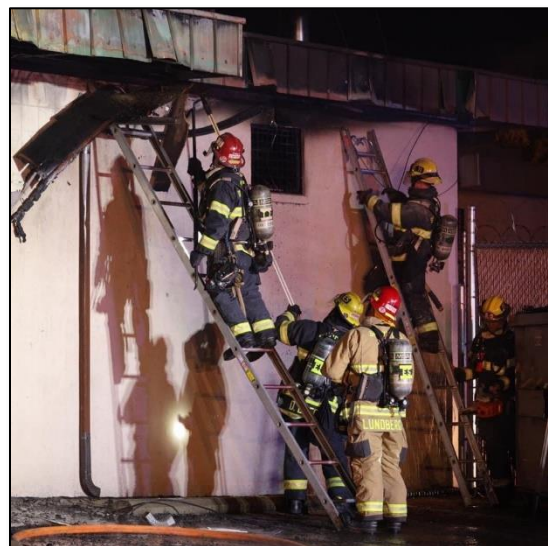
A defensive attack may also apply to wildland fires when crews are deployed well ahead of a fire and attempt to change the fire's course, remove unburned fuels from the fire's path, or decide which neighborhoods can be saved, as well as to maintain safe escape routes for use by fleeing residents.

Because of its greater potential for saving lives and limiting property damage, the department utilizes aggressive offensive attacks whenever possible. The first objective is to identify the location of the fire and any trapped occupants, and to rescue those victims by removing them from the hazard or removing the hazard from them. The second objective is to contain the fire to the building of origin, floor of origin, or room of origin, and to mitigate the IDLH atmosphere.

Critical Tasks-Firefighting

Critical tasks are those that must be conducted in a timely manner by firefighters at structure fires in order to control the fire prior to flashover, or to extinguish the fire in a timely manner. Fire departments are responsible for assuring that responding companies are capable of performing all of the described tasks in a prompt and proficient manner.

Critical tasks are described below. The allocations assume that emergency crews are committed to those assigned tasks using the worst-case



scenario, and would not be available for re-assignment until after the balance of the response package arrives on scene.

The Central Lane 9-1-1 Communications Center (CLCC) is responsible for answering and screening calls for fire and medical service from the public, establishing the correct initial response, and initiating the response notification referred to as tone-out. The first arriving fire officer on scene may amend the response package once conditions have been assessed. Metro Standard Operating Procedures are used to request additional personnel.

Initial Deployment

The initial fire ground actions begin with the arrival of the first company and continue, sequentially or in parallel, as tasks are completed and additional resources arrive. Actions and needs of the very first arriving personnel on the scene may change based on the situation they are confronted with.

Figure 4.1 Personnel Required for Initial Deployment Tasks

TASK	RESIDENTIAL	COMMERCIAL	HIGH RISE	NON- HYDRANT
Size-Up/Command	1	1	1	1
Pump Ops/Water Supply	1	2	2 – 3	2 – 3
Offensive Fire Attack	2 – 4	2 – 4	6	4
Accountability/Safety	1	1 – 2	2 – 3	1
SUB-TOTAL: Initial Attack Personnel	5 – 7	6 – 9	11 -13	8 – 9

Initial Support

Initial support functions occur slightly after the initial attack functions. The first arriving truck company and additional arriving engine companies or medic units perform these tasks. Initial support functions allow the initial tasks to be carried to completion and reinforced, and are identified in the following table.

Figure 4.2 Personnel Required for Initial Support Tasks

TASK	RESIDENTIAL	COMMERCIAL	HIGH RISE	NON-HYDRANT
Truck Ops: Forcible Entry, Search, Ventilation	3	6	9	3
Rapid Intervention Teams	3	3 – 6	3 – 6	3
Salvage & Overhaul	3	3 – 6	3 – 6	3
Back-up Hose Lines	2	5 – 7	5 – 7	2
Incident Safety Officer	1	1 - 2	2 - 3	1
*Air/Light	1 – 2	1 – 2	2 – 3	1 – 2
**Rehab	1 – 2	2	2	2
SUB-TOTAL: Initial Support	14 – 16	21 – 30	25 – 35	15 – 16
TOTAL PERSONNEL	19 – 23	27 – 39	36 – 48	23 – 25
TOTAL FIREFIGHTERS	17 – 19	24 – 35	32 – 43	20 – 21

* Function is performed by Logistics staff.

**Function may be performed by Logistics staff or medic unit personnel.

Secondary Support

It should be noted that secondary support functions are not all conducted concurrently, and in some cases more than one task can be accomplished by the same personnel, reducing the overall number of required personnel. Examples of this include the same truck company of three personnel performing forcible entry, ventilation, salvage, and overhaul through the duration of the incident. On the other hand, there may be instances where a second crew needs to relieve the first fire attack crew prior to the task being completed.

Secondary support functions include:

- Salvage (functions which prevent further property damage)
- Overhaul (functions which ensure that the fire is completely extinguished)
- Fire Investigation
- Firefighter rehabilitation
- Breathing air supply, equipment maintenance, and on-scene lighting support



Secondary support functions may be performed by:

- Fire suppression companies reassigned after initial deployment task completion
- Medic unit personnel
- Additional fire suppression companies called to the scene specifically for this purpose

- Deputy Fire Marshal that responds to the scene at the request of an Incident Commander
- Logistics personnel called to provide air re-supply, lighting and rehabilitation

Depending on the type of occupancy (e.g. large commercial or high-rise), 40 or more firefighters may be needed to accomplish the critical tasks necessary to control the incident in a safe, efficient, and effective manner. While it is possible to anticipate what critical tasks must be accomplished in order to extinguish the fire, it is not always possible to predict how many firefighters it will take to accomplish those tasks. Because the fire scene is unpredictable in many ways, the number of personnel and types of equipment necessary to accomplish critical tasks will vary due to numerous factors:

- Notification and overall response time
- Building construction and size
- Extent of fire involvement/time fire has been burning
- Number of occupants
- Condition of occupants
- Exposures
- Environment
- Fire protection systems
- Resources available
- Effect of initial actions
- Special circumstances, such as firefighter injury or equipment failure

Based on experience, knowledge, historical information, and industry standards, the department determines components of an effective response force. Analyzing statistical data, current staffing projections are accurate for the majority of the working fires within the response area.

The need for more personnel may arise on any fire scene at any time. Fire conditions dictate the response needed for any given fire, even if that response exceeds the requirements listed in this document. The department relies on the experience and professional judgment of their company and chief officers to request additional resources early in an incident, whenever their expertise suggests that those resources might be required. Resources can be readily obtained through on-duty staffing, automatic and mutual aid, or callback of off-duty personnel. It is important to front load incidents with as many resources as is prudent. This is because the reflex time to dispatch and wait for additional units to arrive can place on scene crews in danger or equate to critical tasks not being performed.

Critical Tasks-Fire Marshal's Office

The functions of the Fire Marshal's Office (FMO) on an incident are twofold: to conduct a legally defensible cause, origin, and circumstance investigation that can withstand the rigors of a legal courtroom challenge; and in the case where an incident requires fire code enforcement review, interface with the property owner to ensure fire safety laws are followed.

The incident commander has the legal responsibility to determine the cause, origin, and circumstances of a fire or explosion. The incident commander is charged with choosing who will perform the investigation, and in most cases will defer to the FMO. In the case of a fire or explosion that exceeds the training or ability of the responding firefighters to determine the cause and origin, the incident commander calls for a deputy fire marshal (DFM) to conduct the cause, origin and circumstance investigation. Deputy fire marshals receive advanced training in forensic analysis, evidence preservation, and courtroom testimony specific to arson and incendiary fires and are the fire department's designated fire investigators.



Additionally, the incident commander may determine that a fire safety code enforcement consequence is necessary to ensure that a facility involved in an incident is rendered safe for public occupancy. Similarly, a facility may be recognized as having a fire safety system deficiency as a result of the incident or discovered during the incident. In these cases, a deputy fire marshal may be requested to immediately follow up on the incident to ensure required fire safety systems are returned to normal operating conditions or an equivalent level of protection is implemented through the authority of the Fire Marshal. Utilizing a deputy fire marshal for this purpose permits the emergency responders to return to an alert/ready status to respond to other emergencies and can avoid unnecessary business closures.

Critical Tasks-Emergency Medical Services

As previously stated, the department provides EMS first response and ambulance transport services to a large portion of Central Lane County. Because the majority of the call load involves emergency medical service delivery, every department fire company is qualified as an advanced life support (ALS) first response unit and staffed with at least one paramedic. In addition, all ESF metro medic units are either ALS transport equipped and staffed with a minimum of one paramedic, or able to be upgraded to ALS status by using the engine company paramedics.

In order to preserve the more limited ambulance capacity within the local EMS system, engine and truck companies are dispatched on a first-out basis to perform non-emergency patient evaluations. These calls are generally defined as nonspecific medical evaluations and are

indicated when the caller reports no priority symptoms in response to questioning by a trained call taker.

On arrival, the first response engine company assesses the patient, determines the level of intervention needed, if any, and connects the patient with the appropriate level of assistance. These calls often result in patient evaluation and assistance or treatment conducted by the engine company and no ambulance response.

Options for patient intervention include providing medical evaluation and advice to a patient who does not require transport to a medical facility. In some cases, after a field evaluation has determined that no medical intervention is required, the patient is placed in the care of a relative or other appropriate responsible party who will either monitor the situation or transport the patient to a medical facility by private vehicle.



In certain situations, responding crews can access the local Crisis Assistance - Helping Out On The Streets (CAHOOTS) program. This non-emergency service is provided by the City of Eugene in partnership with the White Bird Clinic. It consists of two non-emergency transport units staffed by civilian emergency medical technicians (EMTs) designed to handle mental crisis intervention, intoxicated subjects, and some eligible social service needs. First response engine crews also have the option of requesting an ambulance transport unit if needed, or if CAHOOTS is already committed to another call.

EMS calls for service can require treatment for more than one patient. These calls include vehicle accidents, chemical exposures, construction or industrial accidents, fires, and any other event that occurs with several people involved. Patient conditions range from minor cuts and bruises to life-threatening illnesses or injuries.

In addition to providing additional EMS system capacity, first-response fire companies also serve to augment the two-person ambulance crews at all emergency medical incidents. This is done to expedite life-saving treatment when required, and to ensure that there are enough trained responders on scene to handle the incident safely and effectively.

Below is a table that illustrates the critical tasks, which must be accomplished simultaneously for five separate life-threatening medical scenarios that occur frequently in our area. While some of these tasks can be done by the same person in rapid sequence, it illustrates the fact that it can take between five and eight people to treat and prepare for transport even one critical patient. Most calls involving the examples below requires the department send five personnel, three on the engine and two on the medic unit. However, more personnel may be requested as needed.

Figure 4.3 Tasks Required for Selected Types of Medical Calls

Critical Tasks	Cardiac Arrest	Stroke	Trauma	STEMI	Sepsis
12-Lead EKG Monitor	X	X	X	X	X
Cardiac Defibrillation	X	n/a	n/a	n/a	n/a
Synchronized Cardioversion	n/a	n/a	n/a	X	n/a
Cardiac Pacing	n/a	n/a	n/a	X	n/a
Airway mgt./Video Laryngoscopy	X	X	X	n/a	X
Rapid Sequence Intubation	X	X	X	n/a	X
End Title CO2 Monitoring	X	X	n/a	n/a	X
CPR	X	n/a	n/a	n/a	n/a
IV/IO/Pharmacology	X	X	X	X	X
Chest Decompression	X	n/a	X	n/a	n/a
Splinting/Bleeding Control/Immob.	n/a	n/a	X	n/a	n/a
Pt. Lifting/Packaging	X	X	X	X	X
Medical Info Collection	X	X	X	X	X

Critical Tasks-Special Operations

The department currently maintains four (4) operational specialties: hazardous materials, confined space rescue, water rescue, and Aircraft Rescue and Fire Fighting (ARFF).

The department utilizes a two-tiered approach to incidents requiring special operations capabilities. Each fire company has personnel trained to the operations or similar level in hazardous materials response, technical rescue, and water rescue, along with limited equipment for these functions. Technical and specialist personnel are available as part of regular fire companies on shift at any given time. These companies respond when dispatched as they would to other emergencies. Upon arrival, they assess whether they can mitigate the emergency with their own resources or if the equipment and expertise of the specialty teams are required.



Hazardous Materials

The Hazardous Materials (Haz Mat) Team is assigned to Fire Station 9 (Valley River). The team operates as one of 14 State of Oregon regional Haz Mat Emergency Response Teams and is approximately 25% revenue-backed by contract with the State. Hazardous materials response and mitigation services are provided on a special call basis to control and mitigate chemical releases. As a regional team, these services are provided to all of Lane County on a primary response basis, and to the rest of the State on a mutual aid response basis to support the other regional

teams. The State reimburses the City of Eugene for Haz Mat responses out of the city limits as well as for training and equipment. Additionally, several department personnel including members of the Haz Mat Team serve on the Lane County Local Emergency Planning Committee (LEPC), for purposes of assisting the community to plan, prepare for, and respond to hazardous releases and incidents.

When an incident presents a hazardous materials spill, release, or exposure requiring skills and equipment beyond the scope of those trained to the Haz Mat Operations level, the department's Hazardous Materials Team is requested.

While enroute, the team communicates by radio and cell phone with the on-scene Incident Commander and various state agencies to begin designing operational priorities specific to the incident. Upon arrival, the Haz Mat Team is designated as the Haz Mat Branch or Group under the Incident Command System (ICS) organizational structure. The Team Leader or Supervisor confers with the Incident Commander to further assess:

- Relevant safety issues and additional resource needs
- Hot, warm, and cold zone designations
- Evacuation and isolation requirements
- Product identification and determination
- Life safety and environmental damage and exposure concerns
- Release mechanism and current status
- Risk/benefit analysis
- Determination of strategy and tactics
- Required notifications

Following this initial briefing with the Incident Commander, the HazMat Team initiates interventions on:

- Reconnaissance
- Developing mitigation plans
- Defensive and/or offensive operations (confine versus contain)
- Debriefing, documentation, and demobilization

General Hazardous Materials Team assignments are as follows:

- Team Leader
- Resource Officer
- Entry Team (2)
- Back-Up Team (2)
- Safety Medical Team

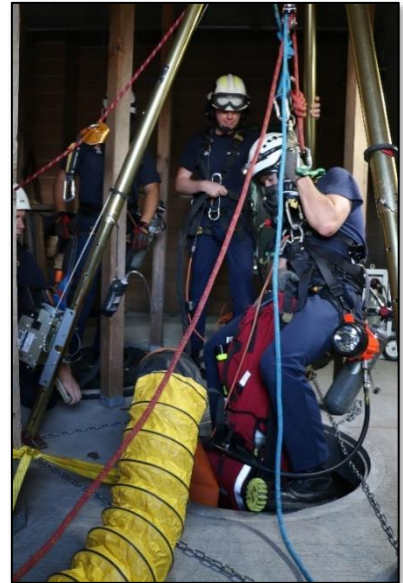
A minimum of one company (3 personnel) is necessary to handle personnel and victim decontamination responsibilities. Additional companies may be used in support roles as needed. These may include:

- Incident Command and Command Staff
- Decontamination support
- Fire suppression standby
- Ventilation
- Scene and perimeter control
- Medical support

Confined Space (CS)

The Confined Space Rescue Team is assigned to Fire Station 8 (Danebo). This station has a heavy rescue apparatus equipped with specialized tools for confined space, high angle, and structural collapse responses. Personnel can be certified in four different disciplines: high-angle rope rescue, structure collapse, below-grade trench rescue, and confined space rescue. Team members maintain advanced certifications for crane/rigging operations, team deployment/logistics management, and air monitoring as well as instruct technical training at the state and national level.

Technical rescue services are provided within the service area, and in some cases, specifically requested by one of the engines, trucks, medic units, or mutual aid departments in need of the services for incident safety. Additionally, industry and governments are required by Oregon Occupational Safety & Health Administration (OSHA) to have a designated confined space rescue team in order to enter certain permit entry confined spaces. The Confined Space Rescue Team functions as the required agency of rescue for each city and several local industries.



Under agreement, training and deployment is coordinated with teams from the Eugene, Springfield, Albany, Corvallis, and Salem fire departments. A cache of heavy rescue equipment is available to meet immediate community needs as well as deployment to other communities.

Upon arrival at an incident scene, the Confined Space Rescue Team is designated as the Rescue Branch or Group under the Incident Command System (ICS) organizational structure. The Team Leader or Supervisor confers with the Incident Commander to further assess:

- Risk/benefit analysis
- Additional resource needs
- Strategy and tactical priorities
- Scene security and control
- Incident documentation
- Air monitoring (confined space)
- Electrical vault or power line concerns
- Fire suppression standby (if applicable)
- Required notifications

Water Rescue Team

The water rescue team conducts surface rescue operations in still and swift water conditions surrounding the metro area. Based out of Gateway #5 and Sheldon #6 stations, the team is equipped with boats and equipment to work in many environments. All team members are trained to the Swiftwater Rescue Technician level. In addition to rescue operations, team



members assist Public Works with local river water testing several times a year and conduct multiple public education events. Team members respond to 60-70 calls for service annually. Although the peak water rescue season is from Memorial Day to Labor Day, calls for service are received year-round in area rivers and ponds. The Willamette River accounts for most of the team's calls for service. Boat launch site options include:

- Aspen Street and West D Street (Springfield, upstream and just east of Eugene)
- Alton Baker Park
- Belt Line Bridge
- Celeste Campbell in Skinner Butte Park
- East Hillcrest Drive
- Valley River Center

The team provides surface boat-based rescue only. Personnel are certified in swift water rescue and maintain state certification for Rescue Boat Operators.

On arrival, the Water Rescue Team is designated as the Water Rescue Branch or Group under the Incident Command System organizational structure. The Team Leader or Supervisor confers with the Incident Commander to:

- Locate witnesses
- Establish last seen point
- Analyze risk/benefit
- Secure and control the scene
- Determine boat launch / no-launch
- Maintain upstream and downstream safety during the rescue

Aircraft Rescue and Fire Fighting (ARFF)



ARFF is a special service that provides emergency response from Fire Station 12 (Airport) located on airport grounds. Station 12 (Airport) is staffed with one company officer and one engineer. To support the airport crew, additional ARFF trained personnel are assigned to surrounding fire stations (Stations 7, 8, 9, or 11), which are the second-in units in an aircraft emergency response. In addition to aircraft rescue and firefighting services, ARFF personnel respond to airport structural fires, fire alarms, hazardous materials and fuel spills, and first response for emergency medical calls for service.

They also perform terminal fire extinguisher inspections, quarterly FAA fuel inspections of aircraft fuel facilities, and fire extinguisher training for all tenants at the airport.

Upon notification of an aircraft incident, the Aircraft Rescue and Fire Fighting Team provides immediate response from the airport fire station, as well as response from nearby fire stations to staff back-up ARFF apparatus. Initial duties include:

- Establish initial incident command
- Establish radio contact with FAA Air Traffic Control, and if possible, the pilot
- Determine nature and extent of emergency
- Determine resources needed and deployment
- Tactics and strategy considerations
- Risks, life hazards, deployment options, and command considerations
- Provide initial fire suppression and containment
- Establish escape paths for passengers and crew members
- Request additional resources as needed
- Coordinate actions of additional resources as they arrive
- Prioritize and accomplish goals as resources allow:
 - Rescue
 - Extrication
 - EMS, Triage, Treatment, and Transportation of victims
 - Water supply
- Maintain overall scene control until relieved by the appropriate federal agency.

Establishment of an Effective Response Force

Once critical tasks have been identified and defined, an effective emergency response force can be established. This force is defined as the number of personnel and amount of equipment that must reach an incident in a specific response zone within the response time goal. An effective response force must be trained and equipped to handle a variety of fire, rescue, special hazard,

and emergency medical incidents, shortly after they are reported. In order to accomplish this, companies and units must be located close enough to the incident to arrive within the prescribed response time for the full assignment of companies according to the risk level of the structure, situation, or event.

A minimum effective initial response force has been determined based on fire flow capabilities, critical fire ground tasking, rapid emergency medical intervention, and adequate and capable special rescue and hazard mitigation functions (see response packages under Call Types and Effective Response Force below).

In areas without fire hydrants, the standard response assignment is supplemented with water tenders to meet the anticipated needs for water supply. Likewise, for specialty functions such as wildland fire response, aircraft rescue and firefighting, or special rescue considerations, response packages are modified or augmented to include special equipment and/or trained personnel.

Apparatus Types

Fire Engines – The department currently staffs twelve (12) NFPA 1901 compliant triple combination pumper apparatus. These are apparatus equipped with a fire pump, hose complement, and water tank. Fire engines are also designated as Type I engines and are given a Class-A designation by the Insurance Services Office (ISO).

Minimum staffing consists of three personnel: one company officer who oversees the company, one engineer/apparatus operator, and at least one firefighter. At least one crewmember on each unit is a paramedic. Each fire company serves dual roles as fire suppression and first response advanced life support (ALS) unit.

The role of the engine company during fire suppression efforts is to provide fire hoses, associated appliances, and a fire pump suitable for firefighting purposes.

Engine/Ladders – The department currently staffs two (2) quad-type suppression apparatus, which serve the same function as fire engines, but are also equipped with a 75-foot apparatus-mounted ladder and carry more ground ladders than a standard engine.

Minimum staffing consists of three personnel: one company officer who oversees the company, one engineer apparatus operator, and at least one firefighter. At least one crewmember on each unit is a paramedic. Each fire company serves dual roles as fire suppression and first response advanced life support (ALS) unit.

Truck/Tower/Aerial - The department currently staffs three (3) ladder truck companies, employing two different types of apparatus. The first is a 100' straight ladder carried on a tractor-trailer, tillered aerial apparatus. The second type has 100' ladder topped with an elevating rescue platform. The primary role of the truck company during fire suppression efforts is to provide forcible entry, vertical and positive pressure ventilation, search and rescue, salvage and overhaul, elevated work above ground level on ladders, and/or elevated master streams for defensive firefighting operations.



The tillered truck is staffed with three personnel; one company officer who oversees the company, and two engineers (one assigned to the cab and the other assigned to the tiller). The platform trucks are staffed with at least three personnel, one company officer who is in charge of the company, one engineer apparatus operator, and at least one firefighter. A minimum of one crewmember on each unit is a paramedic. Each fire company serves dual roles as fire suppression and first response advanced life support (ALS) unit.



Brush Engines – The department houses four Type III brush engines: three in Eugene’s hillside neighborhoods at Fire Station 13 (University), Fire Station 15 (South Hills), and Fire Station 10 (Bailey Hill), and one located in Springfield at Fire Station 16 (Thurston). for rapid deployment to rural interface areas. Brush engines are staffed as needed by on-duty engine companies for rapid deployment to rural interface fires.

The role of the brush engine is to access and fight fire in the wildland urban/rural interface zones. Brush engines are smaller units than

Type I engines, equipped with all-wheel drive, higher ground clearance, and carry hose loads more suited for wildland firefighting applications.

Water Tenders – The department deploys three 3,000-gallon water tenders, utilized in non-hydrant response areas. These resources support structure fire and natural cover fire operations. Water tenders are deployed at Fire Station 2 (Whiteaker), Fire Station 11 (Santa Clara), and Fire Station 5 (Gateway), and are staffed as needed by the engine company at those locations based on call type.

Water tenders are equipped with telescoping fixed-mounted master stream nozzles. These nozzles can flow in excess of 750 gallons per minute. Deployment of this heavy master stream can be of value during fires that require a rapid and mobile application of large volumes of water. The water tender apparatus also carries aqueous film forming foam (AFFF) concentrate. This foam concentrate, when used in conjunction with foam educating master stream nozzles, can generate 3,000 gallons of foam solution using only the water and foam concentrate carried on the apparatus.

The water tenders are used as an ancillary resource at the Eugene Airport. In addition to the supplemental 3,000 gallons of mobile water available on each water tender, the foam component is of particular benefit during aircraft emergencies. On occasion, when larger-than-usual commercial aircraft are scheduled to land at the Eugene Airport, the Federal Aviation Administration (FAA) may upgrade the Aircraft Rescue and Fire Fighting (ARFF) index. The department is equipped to meet this upgraded status by deploying one or more water tenders to meet the additional water and foam flow requirements. Water tenders may also be used during scheduled maintenance of ARFF apparatus.

Aircraft Rescue & Fire Fighting (ARFF) Units –

The department deploys two ARFF apparatus with one of the two staffed 24/7. ARFF units are uniquely configured, each having a 1500 gallon water tank and a 210 gallon foam tank designed for aircraft rescue and firefighting deployment.

Minimum staffing consists of two specially trained firefighters: one company officer who oversees the company and one engineer who is the apparatus operator. Additionally, crews assigned at stations located near the airport are also ARFF trained and provide backup to the designated ARFF crew.



The primary role of the ARFF Company is to remain at the Airport and be available for aircraft rescue and firefighting responses, as per Federal Air Regulations, Part 139.

Medic Units (Ambulances) – The primary role of the medic unit is the treatment and transport of the sick and injured within county designated ambulance service areas. Personnel assigned to ALS medic units are trained as firefighters, which helps augment the overall firefighting force. BLS ambulances are single role personnel and are not trained in fire suppression. All medic units carry a full complement of advanced life support (ALS) equipment and are licensed and designated by the State of Oregon as ALS ambulances. A fire suppression paramedic can accompany a BLS ambulance during transport to upstaff the unit to become an ALS ambulance. If this occurs, the fire suppression company is out of service until transport is complete.

Eugene Springfield Fire currently deploys:

- 7 – 24-hour ALS Type I ambulances staffed with at least one paramedic and one EMT-Intermediate.

- 1 – 24-hour basic life support (BLS) Type I ambulance staffed at a minimum with two EMTs.
- 2 – 12-hour BLS Type I ambulances staffed at a minimum with two EMTs.
- 2 – ALS Type I ambulances that can be deployed during peak activity using a fire suppression company that includes at least one paramedic.
- 7 – Reserve Type I ambulances that can be deployed using fire suppression companies or call back personnel in the event of a mass casualty incident (MCI) or special event for medical standby.

Eugene Springfield Fire currently contracts with Mid-Valley Ambulance for certain categories of non-emergency medical transports. Mid-Valley Ambulance currently deploys:

- 2 – 24-hour BLS Type II ambulances staffed with a paramedic and an EMT.
- 2 – 12-hour BLS Type II ambulances staffed with a paramedic and an EMT.

Eugene Springfield Fire currently contracts with Life Flight for critical care transport via air and ground. Life Flight currently deploys:

- 1 – helicopter staffed with a pilot, nurse, and medic.
- Personnel available to facilitate CCT via ground ambulance.

Call Types and Effective Response Force

With critical tasks determined and an effective response force defined, identifying dispatch call types and their commensurate response packages including numbers and types of units deployed on the initial response is required. Below are current response packages that are automated in the dispatch system:

Public Service

- 1 Engine Company or 1 Truck Company

Non-Emergency Medical Check Patient

- 1 Engine Company, 1 Truck Company or 1 Medic Unit
If a fire company and medic unit are equal distance from a call, the fire company is dispatched to maintain the availability of the smaller ambulance resource base.

Emergency Medical

- 1 Engine Company or 1 Truck Company, 1 Medic Unit

Emergency Medical – Cardio-Cerebral Resuscitation (CCR)

- 2 Engine Companies, 1 Medic Unit, 1 Chief Officer

Motor Vehicle Accident

- 1 Engine Company, 1 Truck Company, 1 Medic Unit

General Rescue

- 1 Engine Company, 1 Truck Company, 1 Chief Officer, 1 Medic Unit

Water Rescue

- On-duty Water Rescue Team, 2 Engine Companies, 1 Medic Unit, 1 Chief Officer

Structural Collapse Rescue

- On-duty Confined Space Team, 1 Engine Company, 1 Truck Company, 1 Medic Unit, 1 Chief Officer

Confined Space Rescue

- On-duty Confined Space Team, 1 Engine Company, 1 Truck Company, 1 Medic Unit, 1 Chief Officer

High Angle Rescue

- On-duty Confined Space Team, 1 Engine Company, 1 Truck Company, 1 Medic Unit, 1 Chief Officer

Fire Alarm Activation

- 1 Engine Company or 1 Truck Company
(If a truck company is the closest fire unit, it responds Code-3 and one engine company responds Code-1 as the trucks do not have a fire pump, water tank, or hose compliment.)

Fire Alarm Activation – High-Rise (6 or more stories)

- 2 Engine Companies, 1 Truck Company, 1 Chief Officer

Fire – Non Structural

- 1 Engine Company

Fire – Small Structures (<5,000 sq. ft.)

- 4 Engine Companies, 1 Truck Company, 2 Chief Officers, 1 Medic Unit

Fire – Large Structures (>5,000 sq. ft.)

- 4 Engine Companies, 2 Truck Companies, 2 Chief Officers, 1 Medic Unit

Fire – High-Rise and High-life Hazard Structures

- 5 Engine Companies, 2 Truck Companies, 2 Chief Officers, 2 Medic Units
(Automatic 2nd alarm assignment is activated if smoke is showing on arrival.)

Fire – Natural Cover Fire (October 16th through June 14th)

- 1 Engine Company or 1 Brush Engine or 1 Water Tender

Fire – Natural Cover Fire (June 15th through October 15th)

- 2 Engine Companies, plus 1 Chief Officer
A Brush Engine or Water Tender may be dispatched in lieu of one engine company or as an additional resource.

Airport Response – Small Aircraft

- 1 ARFF Unit, 1 Engine Company, 1 Chief Officer, 1 Medic Unit

Airport Response – Large Aircraft

- 1 ARFF Unit, 1 Truck Company, 1 Engine Company, 2 Water Tenders, 1 Chief Officer, 1 Medic Unit

Automatic Aid, Move-Up, and Mutual Aid

Within the existing interagency system, there are two basic types of aid agreements: Automatic Aid and Mutual Aid. These aid agreements are used to augment existing resources.

Automatic Aid

Automatic aid is a formal agreement between two agencies where one or both parties are dispatched and respond automatically into a portion of the other party's jurisdiction. Under an automatic aid agreement, no request is required for assistance within the boundaries of the agreed-upon area. Automatic aid agreements currently exist with:

- Lane Fire Authority to the north and west (including Santa Clara area) for fire suppression, water tender support, ambulance response.
- McKenzie Fire & Rescue to the east for fire suppression, and medical response.

Additionally, Eugene and Springfield operate under an integrated 3-Battalion System, with two battalions in Eugene and one battalion in Springfield. Units automatically provide suppression and rescue services as a single unified and branded response force where the closest units respond throughout the system without regard to jurisdiction.

Medic Unit Move-Up

As part of the integrated response system, the department utilizes an automatic move-up procedure for those instances when only one medic unit remains available in the metro area. This procedure delineates the standby zone that the remaining unit must respond to and remain in position until dispatched to a call, or other units become available.

Mutual Aid

Mutual aid is a formal agreement between two or more agencies to respond into each other's jurisdiction, upon request, when the requesting agency's resources have been depleted or are projected to be depleted. Under most mutual aid agreements, the requesting party receives resources only if the providing agency can meet the request without depleting its own resources below an acceptable level. Under Lane County Code, a mutual aid agreement between ambulance service providers has this additional provision: "By mutual aid agreement, an ambulance service provider may respond to another provider's Ambulance Service Area (ASA). This plan does not apply to an ambulance that is passing through an ASA." (Lane County Code 18.020)



The department also has mutual aid agreements for fire protection with all Lane County fire departments and districts. These agreements are established through the Lane County Fire Defense Board. Additionally, the department, like all Oregon fire service jurisdictions, has a

mutual aid agreement through the Oregon State Governor's Office, and managed by the Oregon State Fire Marshal's Office, under the Oregon State Emergency Conflagration Act. When invoked, this act provides resources from within the state, and in some cases from other states. The cost of response is reimbursed by the State of Oregon.



SECTION FIVE: Service Level Goals

Service Level Goals

The department's adopted response time standards are stated in this section. These standards are based on the risk analysis of the service areas, the critical task analysis, historical performance, NFPA standards such as NFPA 1710, and in the case of ambulance response time standards, the Lane County Code. These are considered a reasonable response based on the level of risk in the community. The standards provide measures of the service levels provided in the designated areas.

The Standards of Coverage is intended to recognize local authority, available resources, risk, and community expectations. It is the individual communities through their elected officials that determine local standards. By economic decisions with respect to taxation and budgeting, the communities purchase a level of fire and life safety service that is consistent with perceived needs, risks, and available resources. While these decisions may be influenced by such factors as insurance ratings prepared by the Insurance Services Office (ISO), the level of protection available in any community is a local decision that should be made only after rigorous study of local needs and available resources. It will continue to be the department's practice to deploy resources capable of effectively and efficiently mitigating calls for service.

Response Time Goals, All Emergency Incidents

Local response time goals are as follows for all emergency responses.

- Call processing: 2 minutes or less for 80% of all calls.*
- Turnout: 2 minutes or less for 80% of all calls.
- Travel time for first arriving unit in Risk Area A: 5 minutes or less for 80% of all calls.
- Travel time for first arriving unit in Risk Area B: 9 minutes or less for 80% of all calls.

*Central Lane Communication Center (CLCC) is responsible for this metric.

Response Time Goals, Structure Fires

In addition to the times specified for first arriving unit to all calls stated above, the department has established the following goals for initial response arriving to structure fires. For purposes of these goals, Risk Areas A and B are combined, due to the low number of structure fires occurring in Risk Area B.

- Travel time for all units needed for effective initial response to arrive on scene: 10 minutes or less for 80% of calls.
- Travel time for 15th person on scene: 11 minutes or less for 80% of calls.

Response Time Goals, Ambulance Transport

Based on Lane County Code, the following are adopted response time goals for emergency ambulance transport service within assigned Ambulance Service Areas.

- Call processing: 2 minutes or less for 80% of all emergency calls for ambulance transport.
- Turnout time: 2 minutes or less for 80% of all emergency calls for ambulance transport.
- Response time (includes turnout time and travel time): Less than 10 minutes for 90% of all emergency calls in Zone 1 (urban).
- Response time (includes turnout time and travel time): Less than 20 minutes for 90% of all emergency calls in Zone 2 (suburban).
- Response time (includes turnout time and travel time): 45 minutes or less for 90% of all emergency calls in Zone 3 (rural).
- Response time (includes turnout and travel time): 4 hours and 30 minutes or less for emergency calls in Zone 4 (frontier).

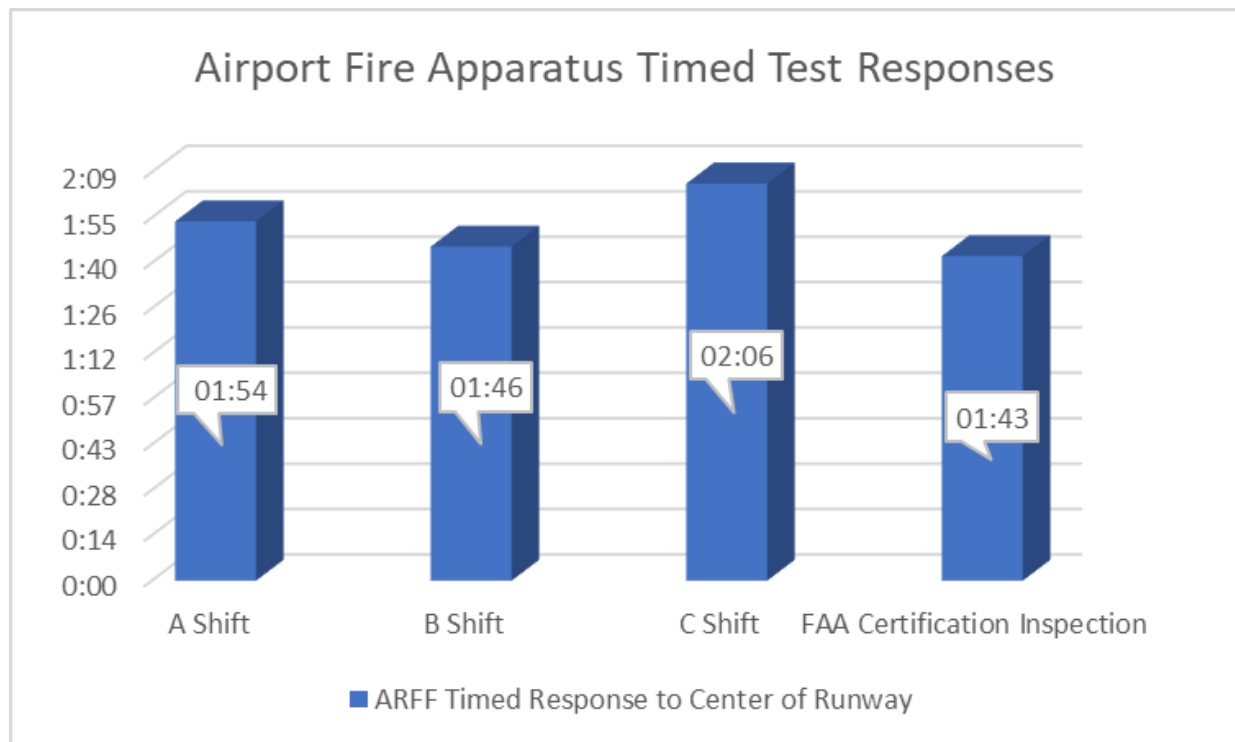
City of Springfield – Additional Standards

Springfield City Council's adopted Strategic Plan includes two response time standards: 1) percentage of fire calls responded to under 5 minutes and 2) the percentage of medical responses by an ambulance under 8 minutes within Springfield city limits. The goal is 80% for fire responses and 90% for medical responses.

Response Time Goals, Eugene Airport

The department has adopted the following goal for aircraft rescue and firefighting response at the Eugene Airport. ARFF response goal is based on the Federal Aviation Administration's (FAA) Regulation Part 139.319(i) (2), the governing regulatory authority. The goal is measured based on the ability to respond to the mid-point of the farthest runway within three (3) minutes. The FAA evaluates the department annually ensuring this goal is met.

Figure 4.3 Tasks Required for Selected Types of Medical Calls



SECTION SIX: Time and On-Scene Performance



The rapid and effective performance of highly coordinated assigned tasks is the hallmark of a successful emergency response force. Time and on-scene performance expectations are the target indicators established for measuring the operational elements including individuals, crews, and work units that comprise the department's response-ready resources.

Performance standards reflect goals highlighted in Section Five as well as components of essential competencies established by the National Fire Protection Association (NFPA), the Federal Aviation Administration (FAA), the American Heart Association (AHA), the National Association of Emergency Medical Technicians (NAEMT), and Oregon Occupational Safety and Health Administration (OR-OSHA).

Time Points and Intervals – The Cascade of Events

Over the years, response time data have been analyzed by the fire service industry using a variety of methods. In order to standardize the terminology used by departments around the United States and Canada, the Commission for Fire Accreditation International, Inc. (CFAI) has developed the following set of definitions used for describing individually recognized components of response time. These elements can be appropriately viewed as an interrelated cascading sequence of events, consisting of a series of points in time separated by intervals. The department has adopted the following definitions, which are consistent with those given by CFAI.

- **Event Initiation** – the point at which events occur that may ultimately result in an activation of the emergency response system. Precipitating events can occur seconds, minutes, hours, or even days before a point of awareness is reached. It is rarely possible to quantify the point at which event initiation occurs.
- **Emergency Event Awareness** – the point at which an individual or technological sentinel (e.g., smoke or heat detector) becomes aware that conditions exist which require an activation of the emergency response system.
- **Alarm** – the point at which awareness triggers an effort to notify the emergency response system. An example of this is the transmittal of a local or central alarm to a designated public safety answering point (PSAP).

- **Notification** – the point at which an alarm or call for assistance is received by the PSAP. This transmittal may take the form of an electronic or mechanical notification process to the point at which a call is received and answered within the jurisdictional PSAP.
- **Call Processing Time** - The time interval from when the alarm (911 call) is answered at the PSAP until response information begins to be transmitted to emergency response facilities and units.
- **Turnout Time** – the interval between the activation of station and/or crew alerting devices and the delivery of specific dispatch information to emergency personnel, and the time when the responding crew notifies the dispatcher that the company is en route. During the turnout interval, crews immediately cease all other activities, don appropriate protective clothing, determine the location of the call, board and start the appropriate response vehicle. The en route notification to dispatch is made when all personnel are aboard the apparatus, and the vehicle begins traveling toward the call location.
- **En Route** – the point at which the responding unit signals the dispatcher that they are responding to the call for service or traveling toward the hospital or other appropriate receiving facility. On calls in which a patient is transported, there are two en route times: en route to the call and en route to the medical receiving facility.
- **Travel Time** – the interval that begins at the time of the en route notification and ends when the responding unit notifies the dispatcher that it has arrived on scene.
- **Arrival (On-scene) Time** – the point at which the first responding unit arrives on scene or the transport unit arrives at the receiving facility. Arrival is determined by actual physical arrival at the address or location of the emergency. Arrival time also include stage time, which is when an apparatus is staged or standing by near the incident location.
- **On-Scene Interval** – the interval which begins at the arrival time on scene and ends with one of the following situations: 1) the official termination of the incident; 2) the point when an ambulance is en route transporting the patient to a receiving facility; or 3) when one or more units have completed the response assignment and are made available to respond to other requests for service. This time interval can be lengthy and may include a variety of fire ground and emergency incident activities. Other factors to consider are access problems associated with campuses, malls, complexes, high-rise buildings, rural locations, and other incidents where a significant amount of area or terrain must be traversed in order to reach the patient or specific location of the incident.
- **Transport Time** – the second travel time interval for a medical transport call, which begins at the termination of on-scene time and ends upon arrival at the hospital or other designated medical receiving facility.
- **Drop Time** – on a medical transport call, the interval, which begins upon arrival at the receiving facility and ends when the ambulance crew has alerted the dispatcher that the unit is restocked, cleaned, and ready to respond to another call for service.

- **Termination of Incident** – the point at which the designated incident commander notifies the dispatcher that the assignment has been completed and the units assigned are available to respond or otherwise committed.
- **Task Time** – the total time interval from dispatch through termination of the incident. It reflects the period of time response resources are committed and unavailable for other service requests.
- **Response Time** – includes the elements of responding to an incident that are directly under the control of the responding agency (i.e., turnout time plus travel time).

Time Methodology Description

There are two basic components to a performance standard: 1) measurable task (e.g., response time), and 2) level of performance. This is normally stated in terms of an average or a percentage (fractile) of the amount of such tasks that fall at or below the desired level (e.g., 80%).

Performance can be measured in several ways, including average (mean), fractile, and median (center value). While average times have some utility, they are not wholly useful measures of performance unless coupled with measures that describe the shape of the performance curve, such as variances or standard deviation. Two fire departments can report the same average response time, yet the two communities receive vastly different services. For example, City A, with a 4-minute average response time, could have response times falling somewhere between 3 and 5 minutes. City B, with the same 4-minute average response time, could have a few calls with a response time of less than one minute and some calls with a response time of 10 minutes or longer. Thus, the use of averages has the effect of concealing, rather than clearly demonstrating, true response performance for an agency. While no single measure tells the entire story, Eugene Springfield Fire has chosen to use fractile measures in performance standards because they represent the large majority of tasks completed in specific timeframes and give a good indication of the level of service our communities can expect to receive.

The following definitions will help complete the analysis picture:

- **Average** – Also known as the mean, it is calculated by adding all of the times and dividing by the total number of incidents.
- **80th and 85th Percentiles** – These are the interval times in 80% and 85% of all incidents respectively.

Exception Reporting

Several factors that are beyond the department's direct control may adversely affect emergency response times. When calculating response time performance, calls that appear, after review, to be exceptions or outliers within the data curve are removed. Examples of exceptions or outliers are:

- Calls initiated as "Code 3" but unit slowed to "Code 1" while en route.
- Calls clearly miscoded by dispatch where this results in invalid data.

The Human Factor

Accurate measurement of time points and intervals described above would require instantaneous and precise communication by response personnel and data entry by dispatch personnel. However, on some calls, this is not the case because members of either group may be performing two or more tasks at one time, or because simple human error has occurred, resulting in a delay or omission of a status report or of data entry. Any such case would have the effect of lengthening, and not ever of reducing, the time interval preceding it.

Response Time Performance Tables

Response times for fiscal year 2015 through fiscal year 2019 are shown on the figures beginning on the following page. The times shown are Code 3, emergency response calls. The first set of tables reflects response times for first arriving apparatus to all areas. As previously identified, Risk Area A includes the city limits, River Road Water District, Glenwood Water District, and Rainbow Water District. Risk Area B includes calls within the remaining contract rural fire protection districts: Bailey- Spencer, Willakenzie, Zumwalt, and Eugene Rural Fire District #1.

It is important to note that in the following tables, turnout time plus travel time does not necessarily equal response time because each mean is derived from a different group of calls. In other words, the calls within a certain percentile for turnout time may not be the exact group of calls that were within the same percentile for travel time.

Figure 6.1 Emergency Response Times to All Areas

FY19 (July 1, 2018 – June 30, 2019)					
		Processing	Turnout	Travel	Response
Eugene Springfield	80th Percentile	00:02:49	00:02:15	00:06:19	00:07:57

FY18 (July 1, 2017 – June 30, 2018)					
		Processing	Turnout	Travel	Response
Eugene Springfield	80th Percentile	00:02:45	00:02:17	00:06:11	00:07:51

FY17 (July 1, 2016 – June 30, 2017)					
		Processing	Turnout	Travel	Response
Eugene Springfield	80th Percentile	00:02:49	00:01:54	00:06:35	00:07:54

FY16 (July 1, 2015 – June 30, 2016)					
		Processing	Turnout	Travel	Response
Eugene Springfield	80th Percentile	00:02:52	00:01:51	00:05:57	00:07:26

Figure 6.1 continued on following page.

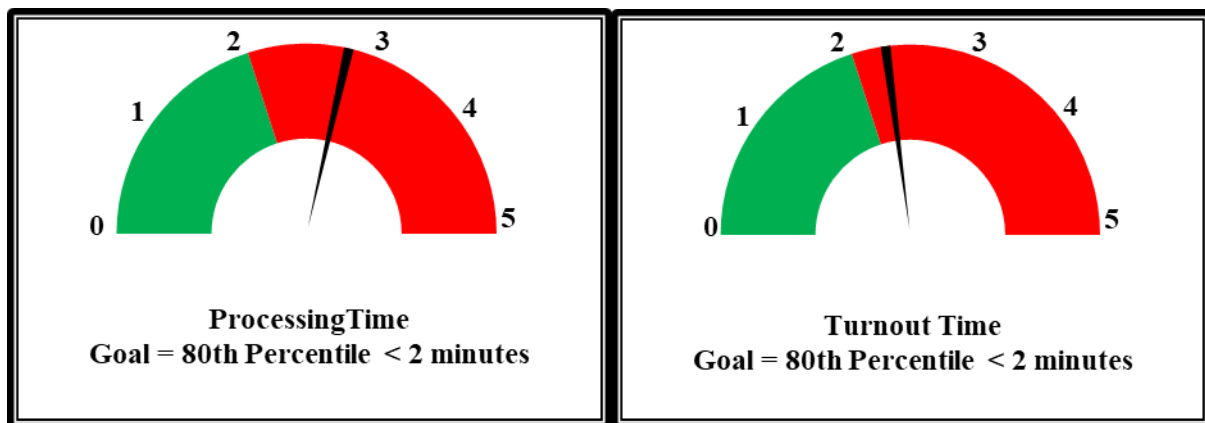
FY15 (July 1, 2014 – June 30, 2015)					
		Processing	Turnout	Travel	Response
Eugene Springfield	80th Percentile	00:02:52	00:01:54	00:06:00	00:07:36

Response times do not include processing time.

FY19 Performance

As posted in Section Five, goals associated with all calls in all areas are as follows. If the indicator is in the green, the department is meeting the goal noted on the graphic. If the indicator is in the red, the department is not meeting the goal noted on the graphic. As shown, the department's turnout time is slightly in excess of the stated goal.

To address this issue, the department is continuing to research alerting technology that will eliminate turnout time delays due to audible station alerting procedures that can take up to 45 seconds on emergency calls. The new system is compliant with *NFPA 1221, Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems*, and offers the ability to pre-alert the first-due station and to dispatch crews simultaneously. It is projected that this technology will assist the department in reaching and maintaining the set goal of 2 minutes.



Data for FY19

Figure 6.2 Emergency Response Times to Risk Area A Calls

FY19 (July 1, 2018 – June 30, 2019)					
		Processing	Turnout	Travel	Response
Eugene Springfield	80th Percentile	00:02:49	00:02:15	00:06:15	00:07:53

FY18 (July 1, 2017 – June 30, 2018)					
		Processing	Turnout	Travel	Response
Eugene Springfield	80th Percentile	00:02:45	00:02:17	00:06:06	00:07:47

FY17 (July 1, 2016 – June 30, 2017)					
		Processing	Turnout	Travel	Response
Eugene Springfield	80th Percentile	00:02:49	00:01:54	00:06:31	00:07:50

FY16 (July 1, 2015 – June 30, 2016)					
		Processing	Turnout	Travel	Response
Eugene Springfield	80th Percentile	00:02:52	00:01:51	00:05:54	00:07:22

FY15 (July 1, 2014 – June 30, 2015)					
		Processing	Turnout	Travel	Response
Eugene Springfield	80th Percentile	00:02:52	00:01:54	00:05:56	00:07:32

Response times do not include processing time.

FY19 Performance Risk Area A

As posted in Section Five, goals associated with all calls in Risk Area A are as follows. If the indicator is in the green, the department is meeting the goal noted on the graphic. If the indicator is in the red, the department is not meeting the goal noted on the graphic.

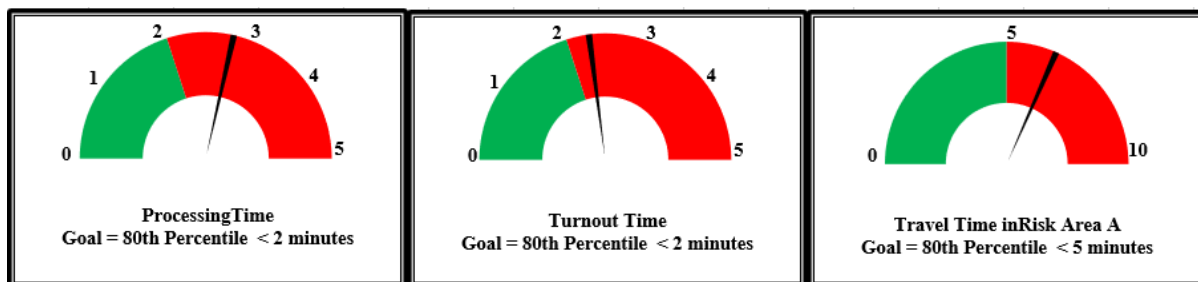


Figure 6.3 Emergency Response Times to Risk Area B Calls

FY19 (July 1, 2018 – June 30, 2019)					
		Processing	Turnout	Travel	Response
Eugene Springfield	80th Percentile	00:03:04	00:02:22	00:09:45	00:11:24

FY18 (July 1, 2017 – June 30, 2018)					
		Processing	Turnout	Travel	Response
Eugene Springfield	80th Percentile	00:02:52	00:02:16	00:09:36	00:11:10

FY17 (July 1, 2016 – June 30, 2017)					
		Processing	Turnout	Travel	Response
Eugene Springfield	80th Percentile	00:02:58	00:01:55	00:09:22	00:11:04

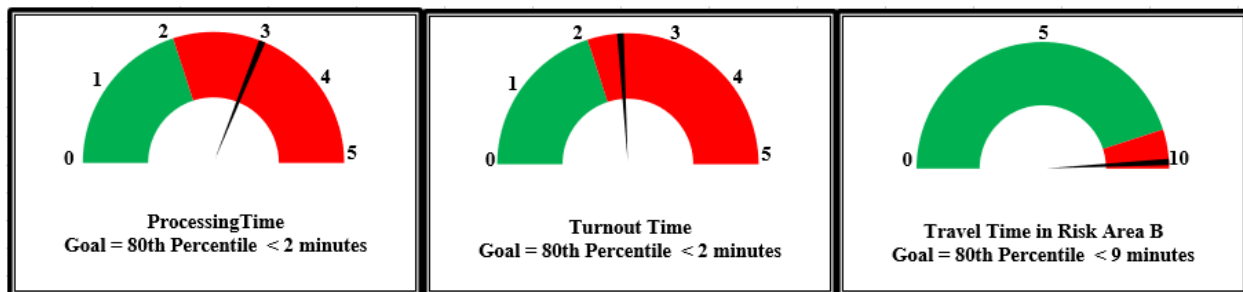
FY16 (July 1, 2015 – June 30, 2016)					
		Processing	Turnout	Travel	Response
Eugene Springfield	80th Percentile	00:02:57	00:01:56	00:09:10	00:10:32

FY15 (July 1, 2014 – June 30, 2015)					
		Processing	Turnout	Travel	Response
Eugene Springfield	80th Percentile	00:03:04	00:02:01	00:09:22	00:10:59

Response times do not include processing time.

FY19 Performance Risk Area B

As posted in Section Five, goals associated with all calls in Risk Area B are as follows. If the indicator is in the green, the department is meeting the goal noted on the graphic. If the indicator is in the red, the department is not meeting the goal noted on the graphic.



Ambulance Emergency Response Times

The ambulance emergency response timetables also include on-scene time, transport time, drop time, and overall task time. While there are not specifically established goals for these intervals, they are shown here as a measure of the timely completion of tasks associated with these calls, as well as the time it takes these units to return to available status.

Figure 6.4 Ambulance Emergency Calls to All Areas

FY19 Ambulance Emergency Calls to All Areas (July 1, 2018 - June 30, 2019)							
	Turnout	Travel	Response	On-Scene	Transport	Drop	Task
Average	0:01:34	0:08:57	0:10:31	0:11:01	0:13:55	0:18:49	0:54:16
90th Percentile	0:03:03	0:16:08	0:17:38	0:17:31	0:22:25	0:32:33	1:14:45
80th Percentile	0:02:28	0:12:49	0:14:18	0:14:39	0:18:27	0:25:23	1:04:55

FY18 Ambulance Emergency Calls to All Areas (July 1, 2017 - June 30, 2018)							
	Turnout	Travel	Response	On-Scene	Transport	Drop	Task
Average	0:01:42	0:09:05	0:10:47	0:10:59	0:14:02	0:17:04	0:52:52
90th Percentile	0:03:16	0:16:20	0:18:02	0:17:31	0:22:22	0:27:53	1:10:22
80th Percentile	0:02:37	0:12:58	0:14:35	0:14:31	0:18:31	0:22:09	1:02:14

FY17 Ambulance Emergency Calls to All Areas (July 1, 2016 - June 30, 2017)							
	Turnout	Travel	Response	On-Scene	Transport	Drop	Task
Average	0:01:31	0:09:20	0:10:50	0:10:51	0:14:16	0:16:37	0:52:34
90th Percentile	0:02:51	0:16:53	0:18:21	0:17:24	0:22:47	0:25:49	1:09:28
80th Percentile	0:02:15	0:13:08	0:14:37	0:14:32	0:18:48	0:20:36	1:01:47

FY16 Ambulance Emergency Calls to All Areas (July 1, 2015 - June 30, 2016)							
	Turnout	Travel	Response	On-Scene	Transport	Drop	Task
Average	0:01:32	0:08:14	0:09:46	0:10:57	0:14:08	0:16:13	0:51:04
90th Percentile	0:02:48	0:14:42	0:16:17	0:17:21	0:22:19	0:23:49	1:07:19
80th Percentile	0:02:14	0:11:17	0:12:53	0:14:26	0:18:38	0:19:08	0:59:51

FY15 Ambulance Emergency Calls to All Areas (July 1, 2014 - June 30, 2015)							
	Turnout	Travel	Response	On-Scene	Transport	Drop	Task
Average	0:01:30	0:08:13	0:09:44	0:10:47	0:14:09	0:15:55	0:50:34
90th Percentile	0:02:49	0:14:52	0:16:26	0:16:56	0:22:00	0:23:29	1:06:56
80th Percentile	0:02:13	0:11:25	0:12:57	0:14:08	0:18:24	0:18:50	0:59:02

Figure 6.5 Ambulance Response Times by Zone

FY19 Q1 Ambulance Emergency Response Time by Response Zone						
Response Time Goal (90%)	Total Calls	Total Calls that meet Lane Code Emergency definition*	Number of Calls Meeting Exception Requirements	Total Number of Emergency Calls	Number of Calls Within Goal Time	Percent of Calls within Goal Time
Zone 1 - Less than 10 minutes	6664	1741	1	1740	1636	94%
Zone 2 - Less than 20 minutes	292	158	0	158	145	92%
Zone 3 - 45 minutes or less	164	78	0	78	71	91%
Zone 4 - Up to 4 hours 30 min	5	0	0	0	0	N/A

FY19 Q2 Ambulance Emergency Response Time by Response Zone						
Response Time Goal (90%)	Total Calls	Total Calls that meet Lane Code Emergency definition*	Number of Calls Meeting Exception Requirements	Remaining Calls	Number of Calls Within Goal Time	Percent of Calls within Goal Time
Zone 1 - Less than 10 minutes	7162	2043	11	2032	1888	93%
Zone 2 - Less than 20 minutes	280	138	2	136	122	90%
Zone 3 - 45 minutes or less	145	82	3	79	72	91%
Zone 4 - Up to 4 hours 30 min	1	0	0	0	0	N/A

FY19 Q3 Ambulance Emergency Response Time by Response Zone						
Response Time Goal (90%)	Total Calls	Total Calls that meet Lane Code Emergency definition*	Number of Calls Meeting Exception Requirements	Total Number of Emergency Calls	Number of Calls Within Goal Time	Percent of Calls within Goal Time
Zone 1 - Less than 10 minutes	6996	4179	52	4127	4056	98%
Zone 2 - Less than 20 minutes	258	136	1	135	131	97%
Zone 3 - 45 minutes or less	149	78	1	77	75	97%
Zone 4 - Up to 4 hours 30 min	0	0	0	0	0	N/A

FY19 Q4 Ambulance Emergency Response Time by Response Zone						
Response Time Goal (90%)	Total Calls	Total Calls that meet Lane Code Emergency definition*	Number of Calls Meeting Exception Requirements	Total Number of Emergency Calls	Number of Calls Within Goal Time	Percent of Calls within Goal Time
Zone 1 - Less than 10 minutes	6593	1801	11	1790	1781	99%
Zone 2 - Less than 20 minutes	268	140	1	139	140	101%
Zone 3 - 45 minutes or less	153	86	1	85	84	99%
Zone 4 - Up to 4 hours 30 min	0	0	0	0	0	N/A

*Lane County Code Chapter 18.015 Definitions: Emergency Calls: 911 call placed in good faith where the caller believes a time-sensitive medical emergency has occurred. The medical emergency is triaged through a State recognized Emergency Medical Dispatch (EMD) protocol to assign a response to the incident according to the criteria the ASA has in place regarding emergency driving protocol. Response Time: The length of time between the notification of each provider and the arrival of each provider's emergency medical service unit(s) at the incident scene.

FY19 Performance

For FY19, Zone 1, 2 and 3 response times all met the response time goal of 90%. This is largely the result of Lane County Code making allowances for an advanced EMT or paramedic who arrives first on a fire engine to “reset the clock” on this metric. ESF requires each fire engine to be staffed with at least one paramedic, which provides a high level of emergency medical care as quickly as possible, notwithstanding potential ambulance delays.

Challenges to meeting response time goals in the Eugene/Springfield area include the following:

- In Zone 1, first response fire apparatus are dispatched Code 3 to medical calls. Medic units are dispatched based on type of call. For lower acuity alpha and bravo calls, the medic unit is dispatched Code 1 for the safety of responders and the general public. For these calls, the medic unit response time makes up the total reported times and not the first response fire apparatus.
- The two hospital facilities capable of supporting advanced care are both located in Springfield, lengthening ambulance travel time for Eugene-based units and reducing time available in assigned response areas.
- Increased call volume has also reduced time available in assigned response areas resulting in medic units responding from locations further away from incidents.
- New development has brought more congestion to an aging street network and a proliferation of traffic calming devices in the community slows emergency response.

Response Time Performance – Structure Fires

For response to a structure fire, the standard stated in Section Five is based upon the time it takes to assemble a fire suppression force of 15 personnel, based on NFPA 1710. In conservatively developing this measure for the department, the time for 15 personnel to arrive on scene was calculated even though for structure fire incidents, the department dispatches an initial response of 19 personnel (see figure 8.2). The following tables show actual response performance for structure fires for the department during fiscal years 2015-2019.

We have included response times for all structure fires and have indicated the travel time for the last-arriving unit of the initial dispatch. This is generally the period of time it takes to assemble an effective initial response force. Many structure fire responses do not actually require the full 15-personnel response. A response of fewer than 15 personnel would usually occur when first-arriving crews determine during their initial size-up that the fire does not require the full first alarm response resources and cancel, or return, some of the responding crews. More detail about on-scene operations is provided in Section Four. For the following tables, travel time for the 15th person to arrive only include structure fire incidents where 15 or more personnel were needed not all structure fires as used in the other measurements.

Figure 6.6

Risk Areas A and B were not separated in these tables due to the low number of structure fires in Risk Area B.

FY19 Structure Fires				
Call Processing 80th Percentile	Turnout 80th Percentile	1st Arriving 80th% Travel Time	Last Arriving 80th % Travel Time	Arrival of 15th Person 80th %
00:01:47	0:03:15	0:04:28	0:10:21	0:09:35

FY18 Structure Fires				
Call Processing 80th Percentile	Turnout 80th Percentile	1st Arriving 80th% Travel Time	Last Arriving 80th % Travel Time	Arrival of 15th Person 80th %
00:01:40	0:02:12	0:04:13	0:10:52	0:08:06

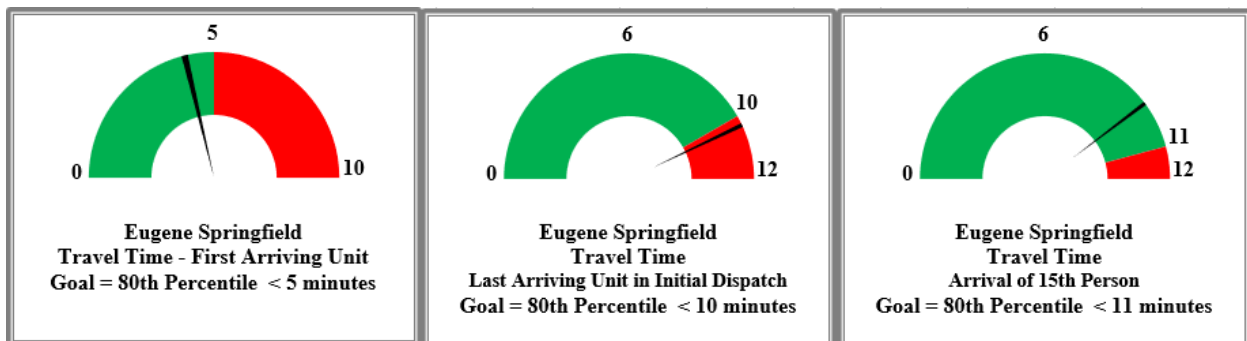
FY17 Structure Fires				
Call Processing 80th Percentile	Turnout 80th Percentile	1st Arriving 80th% Travel Time	Last Arriving 80th % Travel Time	Arrival of 15th Person 80th %
00:01:45	0:01:58	0:04:19	0:10:56	0:08:25

FY16 Structure Fires				
Call Processing 80th Percentile	Turnout 80th Percentile	1st Arriving 80th% Travel Time	Last Arriving 80th % Travel Time	Arrival of 15th Person 80th %
00:01:30	0:01:59	0:04:10	0:11:07	0:07:40

FY15 Structure Fires				
Call Processing 80th Percentile	Turnout 80th Percentile	1st Arriving 80th% Travel Time	Last Arriving 80th % Travel Time	Arrival of 15th Person 80th %
00:01:54	0:02:02	0:04:01	0:10:49	0:07:34

FY19 Performance

As shown below, structure fire incident response is meeting goals on initial arrival and the time required to get 15 persons on scene. The last arriving unit statistics show that improvement can be made. There are several noteworthy issues that might be impacting this data. For example, increased call volume can have apparatus (particularly medic units) far out of their normally assigned area. This in conjunction with increased traffic calming devices and traffic density can have a marked negative impact on response time.



SECTION SEVEN: Distribution of Resources

The term distribution describes resource locations needed to ensure a rapid initial response to emergencies. Distribution is measured by the percentage of the jurisdiction covered by the first-in response company within adopted response time goals.



This view of the response system analyzes fire and EMS resource deployment in terms of a static placement of resources and their theoretical response potential. By taking this theoretical view of the system, it is possible to determine whether or not response standards can be met from existing infrastructure with current staffing levels when all companies and units are in quarters and available for emergency response.

The department uses a variety of factors to determine optimal

locations for fire stations including pertinent national standards including NFPA, the Insurance Services Office (ISO), and the American Heart Association, covering both response time (how fast) and deployment standards (how many and type of resources needed on scene). Site Locator Studies using geospatial analysis have been conducted for the department by the Lane Council of Governments (LCOG). Additionally, time-and-distance studies are performed to measure actual distances and travel times across the service area. The results help the department determine response areas and response order.

The department's current fire station positioning provides for an efficient distribution of the available emergency response resources. In developing this infrastructure, the goal was to balance elements that comprise a favorable fire station site configuration and three additional areas of consideration that the departments apply when selecting station locations. These are:

- **Placement** - Geographic spacing between fire stations that consider natural and human-made obstacles or barriers and provides for coverage efficiency, balanced with depth of coverage through limited response zone overlap.
- **Response Routes** - Proximity and access to multi-directional transportation corridors, sized appropriately for fire apparatus and referred to as run streets.
- **Property Acquisition** - Availability, lot size, and the cost of suitable sites within the parameters of factors noted above.

Currently, the department operates out of 16 fire stations divided into three geographically defined districts: Battalion One (central), Battalion Two (west), and Battalion Three (east), see map 2.1. Staffing minimums are represented below as the minimum number of personnel assigned to each company or unit per shift.

Battalion One (central):

Fire Station 1 – Downtown Station – 1320 Willamette Street

Battalion Chief 1	(1)
Engine 1	(3)
Truck/Aerial 1	(3)
Medic 1	(2)
Medic 71	(staffed by 2 BLS Technicians)

Fire Station 6 – Sheldon Station – 2435 Willakenzie Road

Engine/Ladder 6	(3)
Medic 76	(staffed by 2 BLS Technicians)
Water Rescue (WR)1	(staffed by WR Team Members)

Fire Station 9 – Valley River Station – 697 Goodpasture Island Road

Engine 9	(3)
HazMat 9	(staffed by Engine 9 crew)

Fire Station 13 – University Station – 1695 Agate Street

Engine 13	(3)
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Fire Station 15 – South Hills Station – 80 E. 33rd Avenue

Engine 15	(3)
Brush 15	(staffed by Engine 15 crew)

Battalion Two (west):

Fire Station 2 – Whiteaker Station – 1725 W. 2nd Avenue

Battalion Chief 2	(1)
Engine 2	(3)
Truck/Tower 2	(3)
Medic 2	(2)
Water Tender 2	(staffed by Engine 2 or Truck 2 crew)

Fire Station 7 – Bethel Station – 4664 Barger Drive

Engine 7	(3)
----------	-----

Fire Station 8 – Danebo Station – 500 Berntzen Road

Engine/Ladder 8	(3)
Confined Space	(staffed by on-duty personnel for routine calls, off duty call back for larger incidents)

Heavy Rescue 8 (staffed by Engine 8 crew and call back personnel)

Fire Station 10 – Bailey Hill Station – 2002 Bailey Hill Road

Engine 10 (3)

Medic 10 (2)

Fire Station 11 – Santa Clara Station – 111 Santa Clara Avenue

Engine 11 (3)

Medic 11 (2)

Water Tender 11 (staffed by Engine 11 crew)

Fire Station 12 – Airport Station – 90711 Northrup Drive

Airport 1 (2)

Airport 2 (staffed by 2nd arriving qualified fire company)

Disaster Trailer (deployed by airport operations)

Battalion Three (east):

Fire Station 3 – 28th Street Station – 1225 N. 28th Street

Battalion Chief 3 (1)

Truck/Tower 3 (3)

Fire Station 4 – 5th Street Station – 1475 N. 5th Street

Engine 4 (3)

Medic 4 (2)

Fire Station 5 – Gateway Station – 2705 Pheasant Street

Engine 5 (3)

Medic 5 (2)

Medic 75 (staffed by 2 BLS Technicians)

Water Rescue (WR) 5 (staffed by WR Team Members)

Fire Station 14 – 48th Street Station – 4765 Main Street

Engine/Ladder 14 (3)

Water Tender 14 (staffed by Engine 14 crew)

Fire Station 16 – Thurston Station – 6853 Main Street

Engine 16 (3)

Medic 16 (2)

Brush 16 (staffed by Engine 16 crew)

Support Services (1715 W. 2nd Ave)

Logistics Facility

ALL Truck (staffed by Logistics)

MCI Trailer (staffed by call back personnel)

SECTION EIGHT: Concentration of Resources

Concentration refers to the spacing of multiple resources in proximity in order to assemble an initial effective response force within prescribed timeframes. An initial effective response force is one that has been deemed capable of stopping the escalation of a fire emergency, stabilizing a medical scene, affecting a rescue, and successfully mitigating an incident. Analysis of unit concentration must consider the substantial reliance of all of the region's fire and medical service organizations on mutual and automatic aid. This refers to mixed jurisdiction response packages that may comprise 1st, 2nd, 3rd, or 4th (general) alarm assignments.

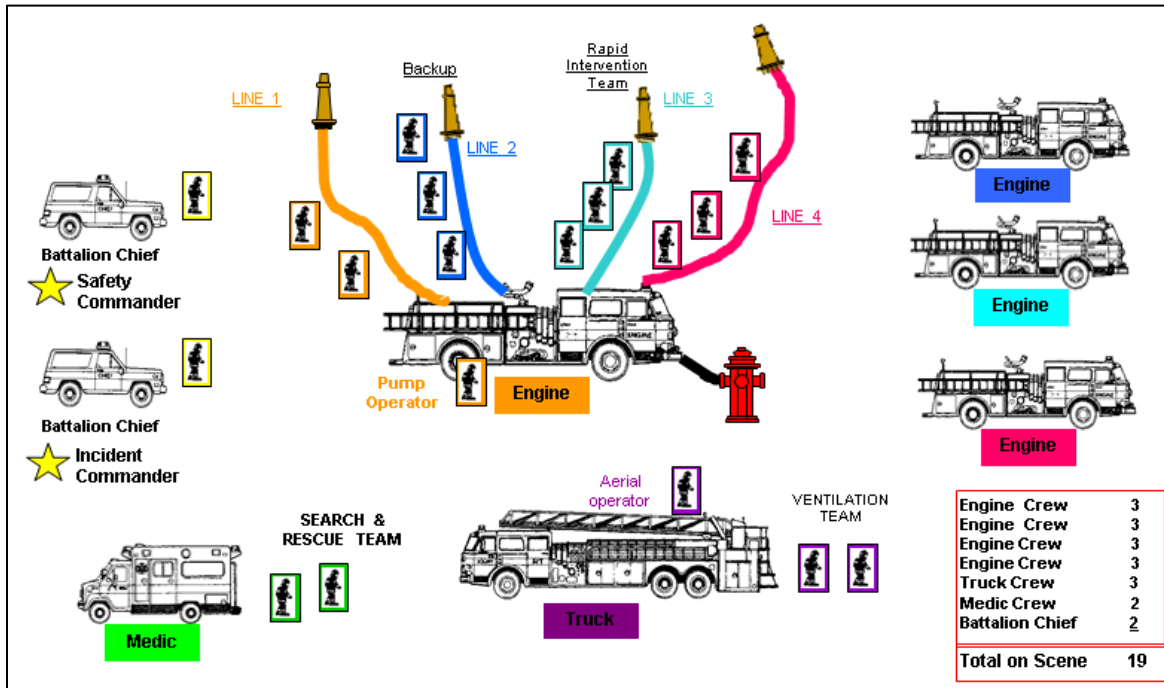
The existing concentration of resources is set to meet the NFPA 1710 goal of providing an effective initial response force despite the incident ultimately warranting such a response. Locally, ESF has adopted a fire response package to deploy 19 firefighters for structure fires (see Figure 8.2). The initial package for structure fire response is comprised of the following:



Figure 8.1 Structure Fire Response Package

TYPE OF COMPANIES/UNITS	NUMBER OF COMPANIES/UNITS	NUMBER OF FIREFIGHTERS
Engines	4	12
Truck	1	3
Medic Unit	1	2
Chief Officer	2	2
Total	8	19

Figure 8.2 Initial Attack: 19 on-Scene



The safety of the public and firefighters should remain a priority when apportioning additional resources and planning for the future. With the ever-increasing challenges posed by rising costs and revenues that are not keeping pace, the desire is to achieve efficiency while still meeting safety standards. As population rises and calls for service continue to increase, adding units to existing infrastructure is one method for increasing concentration of resources. Adding additional units increases the operational safety factor as well as expands coverage, service delivery, and response reliability. It also serves to decrease response times. The department's ability to concentrate resources is increased due to automatic and mutual aid agreements that provide for mixed jurisdiction response packages (see Section Four). In addition, there is the concept of deploying additional resources during periods of peak activity to increase concentration and response reliability, while decreasing response times.

SECTION NINE: Response Reliability

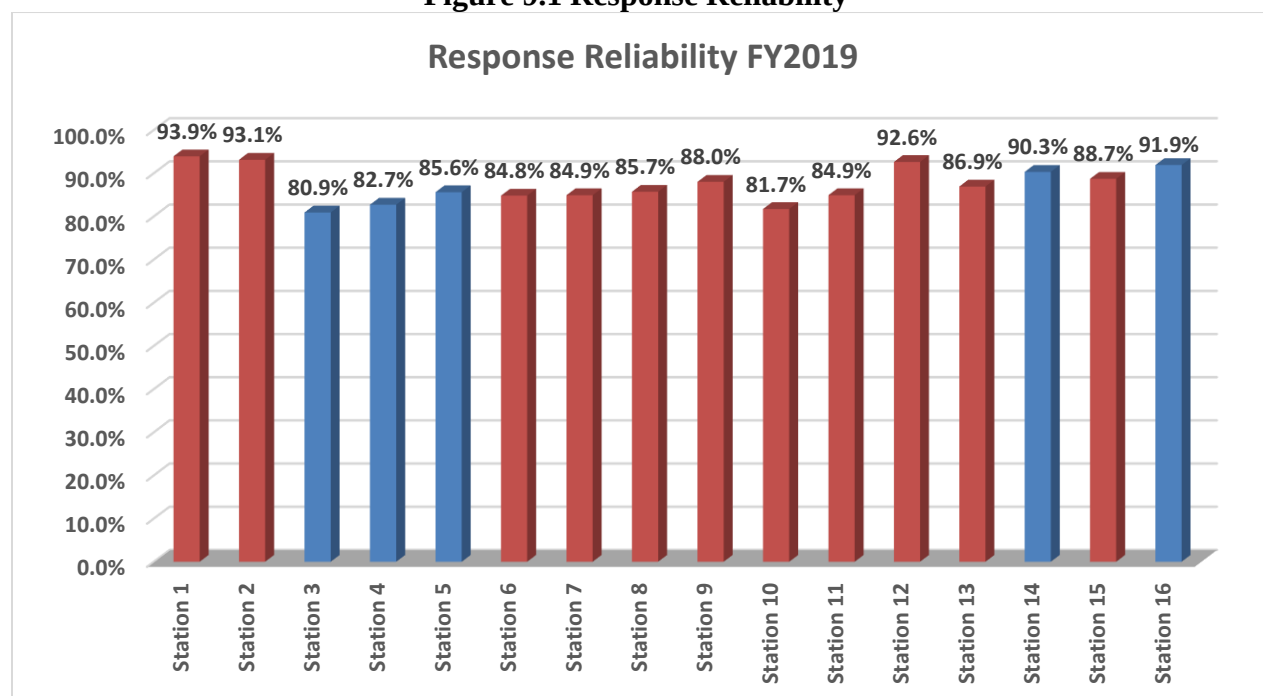
Response reliability is the probability that the resources assigned to an area will be available to respond from within the area when an emergency occurs. Response reliability would be 100% if every company were available in their designated area when a fire or emergency call is received. However, in reality there are times when the first-in company is on a call, out of area, or otherwise unavailable. This requires that a later-due company in the predetermined response order be assigned. If the later-due company is too far away, the call cannot be handled within the desired response time.

As the number of emergency calls per day, training demands, and other activities increase, so does the probability that the first-in company will be out of area or unavailable when a call is received, resulting in decreased response reliability.

Response reliability figures alone are not an entirely accurate measurement of the overall reliability of the system. The system includes dynamically deployed response resources, and units respond outside their normal first-due area covering for units temporarily assigned elsewhere, on other calls, and at training, etc. The primary purpose of measuring response reliability is to show where call volume is significant enough to indicate a need for a greater concentration of resources. Industry-wide, actual response time is a far superior measure of the effectiveness of the entire system.

Figure 9.1 shows response reliability data from across all 3 battalions in FY19. This data illustrates that units were able to respond to calls in their first due area at a rate of 80% or greater throughout the system. Red bars indicate stations within the City of Eugene and blue bars indicate stations within the City of Springfield.

Figure 9.1 Response Reliability



SECTION TEN: Performance Measurement and Quality Assurance



Organized response to emergencies is performed in a stressful and inherently unpredictable environment. Critical decisions must often be made quickly, without the benefit of complete information, or a methodical risk-benefit analysis. Given this fact, it is expected that errors will sometimes occur. The department consistently seeks to use performance measures as opportunities to learn how to improve service and adjust policies and procedures accordingly.

The department conducts a comprehensive array of performance measurement and quality assurance programs at the individual, work unit, division, and department levels. These begin with our recruitment and selection procedures and expand into all functions of the two organizations. Programs include regular, structured training, evaluation, analysis, and special performance reviews conducted in an ongoing manner.

Fire Suppression and Rescue Operations

All current and new emergency response personnel are required to meet and maintain a high standard of professional knowledge and ongoing certification and training.

The minimum requirements for consideration as a firefighter include the following:

- High school diploma or equivalent

- Two (2) years of experience or training in firefighting, emergency medicine, or related fields
- Be at least 18 years of age
- No felony or Class A misdemeanor conviction in the last 24 months
- A valid Oregon driver license
- Possess certification as a Paramedic through the State of Oregon or National Registry.

In addition, candidates for line positions must successfully complete the Candidate Physical Ability Test (CPAT), background check, and psychological evaluation.

An individual hired as a firefighter receives 14 weeks of hands-on and classroom training before assignment to a fire crew as a probationary firefighter. The probationary period continues for an additional nine months focusing on firefighting and emergency medical skills. Probationary firefighters must pass a series of written and practical tests during their probation period.

To be considered for promotion to engineer, firefighters complete the Engineer Development Program. The program requires the firefighter to complete intense self-study curriculum and pass four written and practical examinations covering the full range of duties and responsibilities assigned to the engineer position. The program requires a minimum of 200 hours to complete and normally takes 12 to 15 months.

For promotion to the rank of Captain (company officer), individuals are first required to be NFPA certified as a Fire Officer 1. The candidate then applies and is accepted to the ESF Officer Development Program. This 9- to 12-month course that consists of at least 300 hours of study, with at least three accountability points, combined written and field examinations.

To be considered for promotion to Battalion Chief, an individual must achieve Fire Officer 2 certification from NFPA, complete specified course work and projects, and have a minimum of three years of experience as an officer.

Emergency response personnel are required by the Oregon Department of Public Safety Standards and Training (DPSST) to complete 60 hours minimum of fire suppression recertification training per year, which is audited by DPSST in two-year cycles, and are also required to stay current with all existing and new protocols and procedures. Further, those possessing a Paramedic certificate are required to complete 48 hours of continuing education/professional development every two years.

Quality Assurance

Fire

On an ongoing basis, an integral component of quality assurance is the use of post-incident reviews that focus on major incidents, incidents involving fatalities or serious injury, unique operational situations, or multi-agency responses.

Post-incident evaluations consider the following criteria:

1. System strengths or weaknesses
2. Factors driving decisions
3. Standard Operating Procedures
4. Apparatus and equipment effectiveness
5. Education and/or training needs
6. Building construction factors
7. Unusual circumstances
8. Human factors that contributed to the problem

Emergency Medical Services

A Quality Assurance Program has been in place for the analysis of emergency medical services that the department provides. It is department policy to regularly participate in activities that lead to the development and maintenance of high-quality patient care and customer service, as well as activities that seek to improve the overall level of care.

Key components of the program include:

1. Peer review
2. Chart review
3. Direct observation
4. Physician advisor instruction and review

Incident Reporting and Analysis

Data gathering and analysis of the information determines the effectiveness of service delivery and assists the department in planning for future demand as well as the effectiveness of current service delivery

Effective data analysis relies on the following:

1. The use of the National Fire Incident Reporting System (NFIRS) to standardize reporting format for incidents.
2. Training staff to NFIRS standards.
3. Quality Assurance Program for fire incident reports.

Central Lane Communications Center

The quality improvement program for 9-1-1 Center operations currently includes call triage and dispatch for both emergency medical and fire calls. Dispatch contracts include performance measures which are reported quarterly. Targeted in-service training addresses performance and state certification requirements. Internally, various committees and review panels meet regularly to discuss ways to improve dispatch and suggest changes. These include the Medical Dispatch Review Committee and EMD Steering Committee, which review suggestions submitted from line paramedics regarding real calls and situations.

Emergency Medical Dispatch (EMD)

The 9-1-1 Center uses a software-based triage protocol called Medical Priority Dispatch System (MPDS), implemented in 2002. This system was originally developed by Dr. Jeff Clawson of Salt Lake City, Utah, and is now used worldwide. MPDS includes an integrated quality assurance (QA) system and data program. These together allow for the measurement of a broad range of QA issues, such as adherence to specific EMD instructions. This QA package forms the data basis for much of the ongoing in-service training program.

Department of Public Safety Standards and Training (DPSST)

DPSST is mandated by the Office of Emergency Management (OEM) to set standards for call takers, the entry-level position in the 9-1-1 Center. Prior to beginning work in the center, they attend a Basic Telecommunications Academy (BTA). The BTA requires 80 hours of classroom instruction. This is followed by a 40-hour DPSST-required EMD class with EMD certified instructors. At the conclusion, trainees are required to pass a test with a minimum score of 75%.

In addition to the BTA/EMD academy, new personnel complete an agency-specific Advanced Telecommunicators' Academy (ATA) for an additional 160-200 hours. This training is geared to provide essential job knowledge. At the conclusion of the ATA, trainees are again tested and must attain a 70% passing score. Once in the center, personnel begin field training and evaluation program (FTEP) training. The state has continuing education requirements for recertification.

Communications Field Training and Evaluation Program (FTEP)

The Central Lane 9-1-1 Communications Center has used FTEP since 1993. Communications center personnel are overseen by a certified FTEP coach as part of their training for four different positions within the operation. All personnel are required to reach and maintain a minimum acceptable rating for a 40-hour period before a written exam for 'solo status' is administered. During FTEP training, trainers rate the trainees' work performance against a published set of standards, and Daily Observation Reports are completed. Finally, an End-of-Phase Report is completed by the responsible shift supervisor. At the end of phase training, the trainee takes a test and is required to attain a passing score of 70%.

Fire Dispatch - Performance Standards

Beginning in 1998, the Lane County Fire Defense Board requested the adoption of a set of standards for all 9-1-1 Center personnel relating to fire and EMS dispatching services. These standards were formally adopted on March 15, 2000. Performance measures reported quarterly to the fire dispatch users include:

- Call answer to call entry time: The time the phone is answered to the time when the call is entered into CAD.

- Receive to dispatch time: The time when a call is entered into CAD, to the time the call is toned out for dispatch.
- Accuracy in providing EMD: How often call takers precisely follow EMD instructions when on the phone with a caller.
- Accuracy in dispatching protocol: How often dispatchers follow exact policy or procedure.

SECTION ELEVEN: Historical Analysis and Future Planning

Moving forward, the department will continue to analyze data in order to answer several questions concerning service improvement, including:

- Is the department meeting response time goals? If not, why not?
- Are concentrations effective and cost-efficient for areas served?
- Have there been significant changes in the risk and demand that might indicate a need to increase or otherwise modify staffing?
- Are the current ambulance transport resources sufficient with regard to call volume, call type, and funding mechanisms?

ESF can use several resources to assist with answering these questions. To start, it is important to recognize changes that have occurred historically within the department and community.

Historical Narratives



The Lane Council of Governments conducted a comprehensive Fire Station Location Study for Eugene in 1990, and updated the study in 1993 and 1998. This information was useful in identifying areas that were underserved, based on response times and travel distances from existing fire stations in Eugene.

The findings of these studies and the associated analysis eventually led to the fire redeployment projects of the 1990s. Those

projects, in turn, resulted in the relocation of three Eugene fire stations and the addition of one new facility, which allowed for the redeployment and enhancement of existing emergency response resources to improve coverage throughout the service area.

However, it was assumed, for purposes of the study, that any area in which more than 50% of the calls were reached in 4 minutes or less had adequate coverage. Today we have a clearer definition of standards of coverage. As stated in Section Five of this report, our corresponding goal, based on more recent and more detailed analysis, is a travel time of five minutes or less to at least 80% of emergency calls in Risk Area A.

Additionally, Springfield added a fifth fire station in the Gateway area in 1997, in response to increased development and service demands in that area. A Standards of Coverage study performed by Emergency Services Consulting, Inc. (ESCI), in April 2007, showed that while Springfield's current fire station locations and coverage areas are adequate for the time being, changes would be required in the near future. ESCI recommended the relocation of Fire Station 4 from 1475 Fifth Street to a location closer to downtown Springfield (ideally in the downtown core) to better serve the annexed areas of Springfield located across the river in Glenwood. Additionally, ESCI recommended the relocation of Fire Station 14 at 4765 Main Street to a location farther southeast to support planned development in the Jasper/Natron area.

Over the years, the metro service area has experienced continued increase in traffic volume and congestion which, along with traffic calming projects, slows emergency response. This aspect is discussed in greater detail in Section Three.

The reality of emergency resources is that the number of calls for service has risen dramatically, while the total number of personnel and companies have remained relatively static for more than 30 years, as illustrated in Figures 11.1 and 11.2. From 1981 (when the department assumed responsibility for ambulance transport) until 2018, the number of annual calls for service has risen from 4,291 to more than 44,000. This is an increase of 942%. In that same time period, the number of response personnel has increased only 24%, and response personnel per 1000 population has *decreased* 26%.



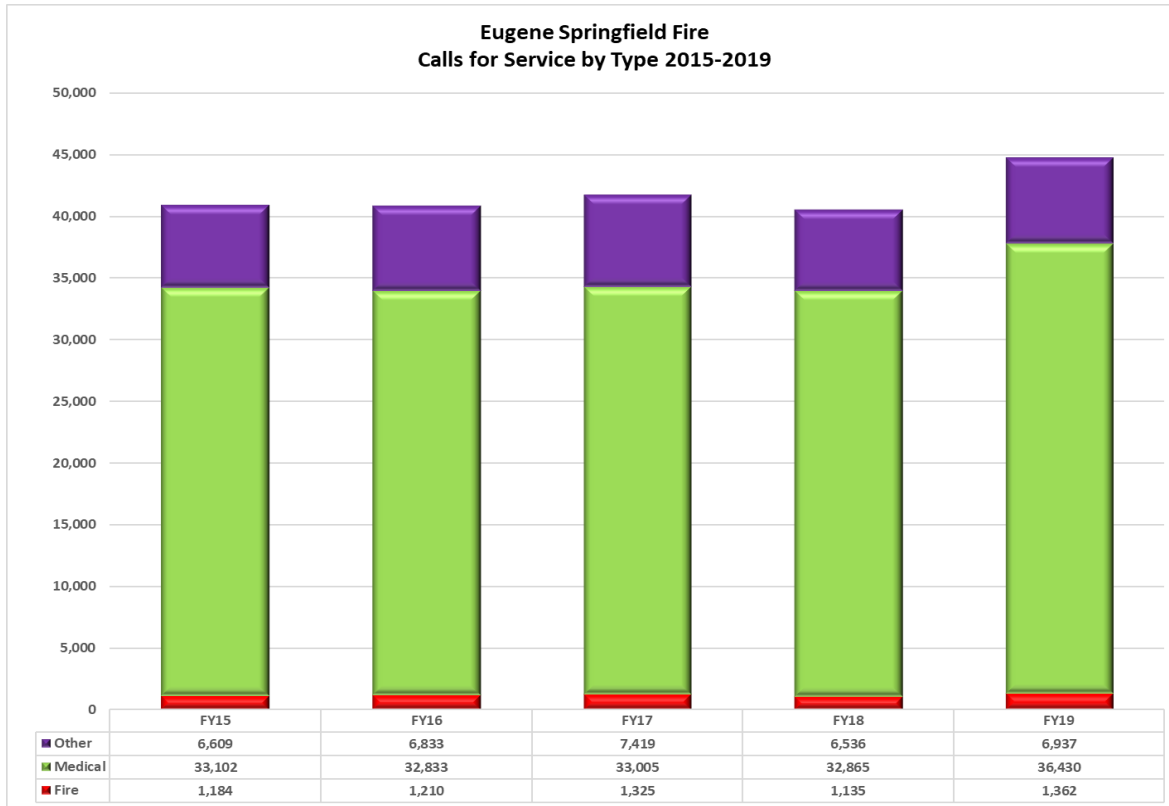
Figure 11.1
Comparison of Staffing, Population, and Calls for Service

Year	Population*	Total Calls	Response Personnel**	FF Per 1000 Population	Shift Staffing	Calls per FF/Medic
1981	147,724	4,291	200	1.3539	58	21.46
1990	157,352	11,221	212	1.3473	61	52.93
2015	239,717	36,593	248	1.0346	68	147.55
2019	250,335	44,729	249	0.9947	70	179.63
% Change 1981-2019	69.46%	942.39%	24.50%	-26.53%	20.69%	737.26%

*1981 and 1990 - Population is for the cities ONLY, 1981 population is from 1980 Census data – 2015/2019 - Population is for cities + contract districts

**Response personnel includes 24-hour line firefighters and battalion chiefs. It does not include 28 Basic Life Support technicians, as they are not 24-hour line firefighters. Position added is the Battalion Chief of Logistics and Safety

Figure 11.2 Call Volume Growth



Historic Assessment of Effective and Cost-Efficient Coverage and Community Risk

Historic assessments have indicated that concentrations are cost-efficient, in that there are no areas with unnecessarily redundant coverage. However, there are areas where coverage is less effective than it could and should be, and greater analysis should be completed in these areas:

1. The South Hills area in Eugene presents some inherent response time challenges with its steep terrain and winding street patterns with limited connectivity. This is a particular concern due to high fire danger in the wildland/urban interface during the dry summer months.
2. The West Eugene area continues to develop and generate more calls for service. Calls have longer response times due to the greater distance from the nearest stations into those portions of the city. This could indicate the need for procurement of property for a new fire station in that area.
3. In the northern part of Eugene, increasing construction and traffic congestion have become a concern in terms of travel time for emergency response.

4. As the Jasper-Natron area of southeast Springfield develops, areas farthest out will present response time challenges. When this area is built-out, relocation of a fire station closer to the area will be considered to meet response time objectives.

While these areas present localized challenges, it should be noted that changes in the service area and increases in call volume, no matter where they occur, have a systemic effect on the entire response network and decrease response reliability. The resulting impact is an overall slower response time performance throughout the service area as resources are spread thin.

In comparing staffing and deployment over the past thirty years (see figure 11.2), there has not been a significant change in total numbers or deployment concepts of personnel. However, community fire risk has significantly increased due to the community becoming a denser, more urbanized environment, the use of ultra-lightweight engineered construction methods, and the change in building contents. The use of polyurethane foam, plastics, and synthetic materials results in increased speed and intensity of fire development. The combination of these three factors point to the need for development of new strategies such as reducing response times to fires, increasing staff to match need in the core downtown areas, advocate for modification of the building codes to include the broad application of active fire suppression systems in all construction, and creation of a robust public education outreach program for existing occupancies that do not have sprinklers.

The greatest change in the increased demand for services has been the large increase in the number of EMS calls, while the number of fire calls has remained constant but relatively static. The demand of calls defined as “other” has also increased. This includes all types of calls other than fires and medical responses, and can largely be attributed to the overall increase in the population being served. The department has absorbed this increase by using existing resources more efficiently and by simply running more calls during a tour of duty.

The increased demand for ambulance services has driven Eugene and Springfield to subcontract with a private provider, Mid Valley Ambulance (MVA), for non-emergency medical transports. Subcontracting non-emergency calls not only improves the overall system capacity, but also allows firefighter staffed medic units to respond to a greater percentage of emergent calls while reducing the demand on those resources for non-emergent transports. As demand continues to increase, further expansion of this tiered-response approach should be expected.

The measure of firefighters per 1,000 population served is often stated as a reasonable comparison of fire departments and their relative staffing levels. However,



the methods used to calculate this ratio can vary considerably, so national department-to-department comparisons may not be accurate or useful. In addition, this measure does not consider other important variables such as area served and community risk. What is useful, however, is calculating this ratio for a single community and its department over time to show changes in relative staffing strength.

Challenges with the Ambulance Transport Fund

In order to continue to provide consistent high-quality public safety services, the department must successfully meet challenges presented by a growing community with high expectations and shifting demographics. Ambulance transport funds, supported primarily through user fees and enterprise programs, are not adequate to sustain the service long-term. Chronic underfunding of federal and state social service systems has led to increased non-traditional call load. As the agency of last resort, fire and ambulance resources are more frequently responding to help community members with issues not traditionally classified as fire or medical emergencies.

A clear trend can be seen where service obligations are quickly outstripping the available resource base. This is especially true for the ambulance transport system. Although there are a number of contributing factors to the current financial situation, the deficit is primarily attributable to the reduced levels of reimbursement the cities receive from Medicare (federal) and Medicaid (state) for qualifying patient transports. These decreases have been phased in by the federal government since the passage of the *Balanced Budget Act of 1997*, which shifted much of the financial burden for covered patient transports from the federal government to local providers. The problem was then exacerbated with the *Medicare Modernization Act of 2003*, which further reduced reimbursements. These changes are the primary contributing factors to the system's current financial dilemma.

To place this situation in perspective it is important to understand that Medicare and Medicaid transports, along with Medicare HMO-covered transports, account for about 80% of the system's current business, and that Medicare covered transports do not reimburse enough to cover the cost of the transport. In fact, the federal government and HMO capitated payments pay only about a quarter of the standard fee for service, and federal law does not allow the cities to bill patients beyond what is allowable under Medicare and Medicaid.

ESF also provides transport service to patients who are either uninsured or underinsured, and unable to privately pay for their transport costs. These calls create a level of bad debt, which frequently requires the cities to initiate collection efforts. Uncollectible debt affects our ability to cover the overhead costs of our system.

Joint Elected Officials Task Force

A Joint Elected Officials Task Force met in 2009 and again in 2011 to study the financial shortfall of the ATF and develop possible solutions. Several of those recommendations below have been acted upon in some capacity:

1. Jurisdictions remain prepared to allocate a level of general fund support as necessary for the continued high-quality provision of this core service.

The cities of Eugene and Springfield have both allocated general fund dollars to support the ATF. As the funding gap widens, the ask for general fund assistance will likely be greater. It was the belief of the 2011 task force that a combination of fees for service, FireMed membership fees, and an independent ambulance taxing authority should be the long-term solution.

2. Eugene and Springfield City Councils authorize initial steps toward merger of their fire departments.

As noted throughout this document, the functional consolidation of the two fire departments has been completed, although a full merger into a single entity under one defined form of governance has not been clearly defined. The recommendation made by the task force of a new service district (general fire service district including ambulance service) has not yet been approved by either city council.

3. Exploration begins immediately of more sustainable public funding options.

Ideas that surfaced included a fire district, health district/county service district, and a local option levy. There has not been a strong push to adopt one specific model.

4. Marketing of FireMed subscriptions be enhanced and expanded in an effort to generate additional revenues to lessen reliance on general fund tax support.

Additional money was allocated into advertising and marketing after this recommendation was made. Efforts to enhance marketing, including modifying the logo and website access, did not result in a precipitous increase in revenue. In fact, overall memberships declined or held flat. In late FY20, the department has contracted out the administration of the FireMed program to LifeFlight which has a broader marketing base and call center. Results will be determined over the next fiscal year.

5. Lane County Board of Commissioners act immediately to reconfigure the boundaries of the county's Ambulance Service Areas (ASA) so as to provide for an urban-rural split between Eugene and Lane Rural Fire & Rescue (now Lane Fire Authority).

ASA boundaries were indeed reconfigured at the request of the task force. The ASA for Lane Rural Fire Rescue, now Lane Fire Authority, was extended to the south and west, which served to keep (at the time) Eugene Fire ambulances in the metro area more frequently, and decreased the reliance on metro resources to provide transport services in rural parts of the county on the west side.

6. Work proceed as rapidly as possible regarding provision of a regional mobile health care system, featuring tiered levels of response (and cost) available to patients depending on the nature of the emergency with a report to elected officials by the end of calendar year 2010.

Work in this arena has focused on the development of non-emergency transportation resources in the Eugene/Springfield area. The task force recognized the inadequacy with a one-size-fits-all paramedic response to the changing landscape of our community

prehospital needs. Adopted non-emergency transport options have included implementation of a fire department based Basic Life Support (BLS) System (as previously mentioned, BLS units are staffed by EMTs and offer a lower tier option of transport), a private non-emergency ambulance contractor, wheelchair transport vehicles, and work site primary provider Med Express. The goal is to match the most appropriate resource to the needs of the prehospital customer. Non-emergency providers have assumed the majority of the interfacility transports (hospital to hospital or skilled care facility to hospital), return transports (hospital to skilled care facility), and out of area transports. Further work in this area should include analysis of a community paramedic model, expansion of CAHOOTS services, and quick response units to handle lower acuity 911 calls in core areas.

7. That public ambulance service provider agencies continue to lobby the Oregon Legislature and U.S. Congress for larger-scale, long term solutions.

The Ground Emergency Medical Transport (GEMT) Supplemental Payment Program was established in Oregon with the passage of Oregon House Bill 4030 (2016). This program provides additional Federal reimbursement via the Oregon Health Authority to eligible providers who furnish qualifying emergency ambulance services to Medicaid recipients. The supplemental payment covers the gap between the total allowable costs and the total reimbursements received for providing services. Due to staff hiring delays and promulgation of administrative rules at the State level, funding was first made available to ESF in FY20 for reimbursement years FY18 and FY19. ESF was eligible for approximately \$1.5 million per year which requires a 20% match from the Cities.

Community Growth, Infrastructure, and Correlating Protection Needs

Continuing annexation activity, required for new development, is extending Risk Area A in the northern and western portions of Eugene and the northern and eastern portions of Springfield, increasing service demands. Multi-story building development in the northeast portion of Eugene and northwest portion of Springfield suggests the need for the addition of a ladder truck.

Overall, ongoing community growth is placing new burdens on established Urban Growth Boundaries. As a result, there is less land available for development and the cities are beginning to experience increasing density of development and infill. This encourages high-density, high-rise, and medium-rise construction, which creates unique stresses on fire and EMS agencies, as it takes additional time and resources to organize sufficient firefighting and emergency medical forces on the upper floors of tall structures.

In turn, urban development brings with it a corresponding increase in traffic congestion. More vehicles share an aging and overburdened street network. The proliferation of enhanced traffic control systems/techniques, the construction of narrower streets, and the addition of traffic calming devices all serve to reduce overall response and reliability capabilities of emergency resources. This means that it will take longer for outlying fire and EMS crews to respond back into core areas of the cities. Consequently, inner city crews must have an enhanced ability to provide hazard mitigation, reducing their dependence on additional resources from outlying fire

stations.

Conclusion

Future analysis will need to be undertaken for ESF to project its ability to meet local standards as well as initial alarm assignment capability stated in NFPA 1710. This analysis should look at growth and development on a metropolitan level and planning for station locations that will optimize response capability, taking into account factors of greater density, increased call volume, shifting demographics, and other risks.

As explained throughout this report, the department has taken, and will continue to take, every reasonable measure to support an adequate level of service for our communities. Thanks to the support of elected leaders, voters, fire redeployment projects, relocation of resources, local option tax levies, and effective asset management, Eugene Springfield Fire has been able to maintain quality service levels throughout the department's history. It is essential to continually evaluate deployment models, training methods, operating procedures, and other aspects of the service with a view toward maximizing protection and minimizing loss. Following the vision built by our citizens and the councils that represent them, ESF will continue to exemplify our motto of courage, honor, and service to our communities.

Appendix

Terminology Glossary and Acronyms

(Adopted with changes from CFAI)

(Note: contains industry standard terms which may or may not have been used in this document.)

Acceptable Level of Risk: The amount or level of risk set through adoption of public policy through law, regulation, or level of service. To deem acceptable, risk is gauged against a benchmark or standard that has been deemed adequate for the jurisdiction.

Accepted Risk: The portion of a problem that is beyond the agency's ability to cope with the consequences and are accepted within the community as a potential loss.

Accreditation: A process by which an association or agency evaluates and recognizes a program of study or an institution as meeting certain predetermined standards or qualifications.

Adequate: Providing what is needed to meet a given objective without being in excess.

Advanced Life Support (ALS): A sophisticated level of pre-hospital care that builds upon basic life support procedures, and includes the use of invasive techniques such as advanced airway management, cardiac monitoring and defibrillation, intravenous therapy and the administration of specified medications, to save a patient's life.

AHJ: Authority Having Jurisdiction

Alarm Processing Time: The elapsed time from the receipt of an alarm by the 9-1-1 communications center and the notification of specific companies that are to respond.

Airport Rescue and Fire Fighting Apparatus: Specialized vehicles capable of immediate fire suppression using foam and other extinguishing agents.

Apparatus: Fire suppression or medical vehicle such as engine, ladder, truck, or medic unit.

Assumption: A situation or condition, which must be considered as existing if the organization, is forced to operate in a specific manner and over which the organization does not exercise any control.

Baseline: The current measurement of performance in an organizational context; a usually initial set of critical observations of data used for comparison or a control. The activities that are currently in place to achieve the organization's goals and objectives.

Basic Life Support (BLS): A primary level of pre-hospital care, which includes the recognition of life threatening conditions and the application of simple emergency lifesaving procedures, including the use of adjunctive equipment, aimed at supporting life.

Benchmark: A benchmark is defined as a standard from which something can be judged. Searching for the best practice will help define superior performance of a product, service, or process.

CAAS: Commission on Accreditation of Ambulance Services.

Community Risk Assessment: The evaluation of fire and other risks taking into account all pertinent facts that increase or decrease hazard in order to define standards of coverage. (See Occupancy Risk Assessment)

Concentration: Spacing of multiple resources arranged so that an initial effective response force can arrive on scene within the time frames outlined in the on-scene performance expectations.

Confined Space/Trench Rescue: All rescues that meet OSHA's definition of confined space in which special breathing apparatus, shoring, explosion proof lighting, and atmospheric monitoring are necessary.

Cost Benefit: Term used to express the value of a component of a system. It is expressed usually as a ratio of cost, expenditure, or to a benefit, a saving of some type. Cost benefit can be measured in either soft or hard currency descriptions.

CCR: Cardio-Cerebral Resuscitation

Critical Incidents: A method of evaluation based on specific examples of above or below average performance.

Deployment: The strategic assignment and placement of agency resources such as fire companies, fire stations, and specific staffing levels for those companies.

Dispatch Time: The portion of response time that begins when the dispatcher receives an alarm and ends when the dispatcher assigns the proper companies to respond to the emergency.

Dollar Value of Total Fire Loss: The assessed value of improvements lost as a result of fire. This is not the replacement value.

Effective Response Force: The minimum amount of staffing and equipment that must reach a specific emergency zone location within a maximum prescribed travel or driving time and is capable of initial fire suppression, emergency medical services, and/or mitigation.

Emergency Operations Center: A central location where those in authority congregate to allow for exchange of information and conduct face-to-face coordination in the making of decisions. The center, often referred to as the EOC, provides for centralized emergency management in major natural disaster and other emergencies.

EMS: Emergency Medical Services.

Engines: Basic fire fighting vehicle equipped with a pump capable of supplying a minimum of 500 gallons per minute, fire hose, and a water tank.

Evaluation: Analysis and comparison of actual performance versus prior plan and stated goals and objectives. The systematic and thoughtful collection of information and decision making. Evaluation consists of having criteria, collecting evidence, and making judgments.

Fire Company: Assigned personnel, apparatus, and equipment.

Fire Confined to Structure: Responses to fire calls where the fire is contained to the structure or structures that were involved when the responding unit first arrived at the scene.

Fire Crew: Personnel assigned to an apparatus.

Fire Out on Arrival: Fire calls in which the fire that initiated the call is extinguished when the responding unit arrives at the scene.

Fire Spread Beyond Structure: Fire calls where the fire first spreads beyond the structure or structures that were involved when the responding unit arrived at the scene.

Fire Pre-Plan: Plan developed to identify hazardous building information and owner information, used during emergency incidents to determine the best course of mitigating an emergency.

Fire Flow Available: The amount of water available for firefighting on a continuous basis. The highest demand upon the water distribution system.

Fire Flow Delivered: The amount of water that can be delivered at the scene of an emergency. It is a combination of three factors: pump capacity available, hose and nozzle configurations, and staffing levels.

Fire Flow Required or Estimated: The quantity of water that should be available for a period of two to three hours at a minimum pressure of 20 psi in a water distribution system.

Fire Protection Environment: The conditions, circumstances, and influences under which a fire protection system must operate. It includes the population, the geographical area, land use, occupancy factors, weather conditions, structural and nonstructural physical situations, financial, political, legislative, and regulatory criteria.

First-Due Area: The portion of a jurisdiction that each response company has been assigned to be the first unit to arrive at the scene of an emergency. Usually the first-in company is responsible for most activities in that area.

First Responder: A term used for the person who is trained and/or certified to be the first to arrive at a scene of a specific type of emergency, i.e. EMS or hazardous materials.

Heavy Extrication: Rescues of persons trapped in road, rail, air, and water vehicles, which require specialized tools and training.

Insurance Services Offices (ISO): A for-profit national organization that evaluates public fire protection and provides rating and classification information to insurance companies for a fee. Some insurers use this rating to set basic premiums for fire insurance.

IAFC: International Association of Fire Chiefs.

IAFF: International Association of Fire Fighters.

IFSTA: International Fire Service Training Association.

ISFSI: International Society of Fire Service Instructors.

Jurisdiction: A population area wherein there is clearly defined responsibility, based on statutory authority, to provide fire and/or emergency medical services. Also called authority having jurisdiction or AHJ.

Ladder Truck: Vehicles that carry a variety of equipment such as ladders, forcible entry tools and rescue equipment.

Level of Service: The resources needed to meet the stated service level objective(s). Level of service is defined only in terms of what is provided and not in terms of effectiveness or of quality.

Median Age of Population: The median age of the population as reported in the most recent census.

Median Age of Residential Structures: The median age of residential structures as reported in the most recent census.

Median Household Income: The median household income as reported by the U.S. Bureau of Labor Statistics for the most recent period reported.

Minimum Staffing per Unit: The minimum number of personnel assigned to staff each type of apparatus or vehicle.

NFPA: National Fire Protection Association.

NFPA Standards: Standards published by the NFPA through the consensus process setting a recognized level of standard for fire service related dimensions, services, installations, vehicles, or equipment specification.

Non-Transport: Responses in which no individuals are transported to a medical facility.

Number of Population by Age: The number of persons in each category within the service area as reported in the most recent census.

Occupancy: The classification given to a building in accordance with a specific building code.

Occupancy Risk Assessment: An assessment of the potential severity of a specific structure in relation to the fire agency's ability to handle the types and severity of emergencies within that structure. Occupancy risk assessment often includes classifying these risks into categories. (See Risk Categories)

Performance Indicator: The desired level of achievement toward a given objective and the ability to demonstrate doing a particular task as specified in the Accreditation process.

PSAP: Public Safety Answering Point.

Resource Exhaustion: Resource exhaustion occurs when a system is out of resources for both initial response and to maintain an area-wide effective response force.

Response: A response to an incident regardless of the number of units or personnel required to respond.

Response Reliability: The probability that the required amount of staffing and apparatus that is regularly assigned will be available when a fire or emergency call is received, i.e. the percentage of time that all response units are available for a dispatch. When a response unit is unavailable, the response time to an emergency in their first due area will be longer, because a more distant unit will have to respond to the call. Response reliability is a statement of the probability that an effective response force may not be provided when a call is received.

Response Time: The total amount of time that elapses from the time that call is dispatched until the responding unit is on the scene of the emergency and prepared to control the situation. Response time is composed of several elements.

Risk: Exposure to a hazard based on the probability of an outcome when combined with a given situation with a specific vulnerability. The level of risk can be described as the probability of a specified loss over a given period of time. All structures, for example, are subject to destruction by fire; however, individual structures vary considerably as to the possibility of loss as a result of their construction, contents, and built-in protection.

Risk Categories:

Maximum/Worst Risk - Occupancies classified as maximum risk will be of substantial size and contain a concentration of properties that present a very high risk of life loss, loss of economic value to the community or large loss damage to property in the event of fire. These risks frequently affect the need for the fire department to have multiple alarm capability and have an adequate assessment of their ability to concentrate resources.

High Hazard Risks - Built-up areas of substantial size with a concentration of property presenting a substantial risk of life loss, a severe financial impact on the community or unusual potential damage to property in the event of fire.

Special Risks - These are areas that require a first due response over and above that appropriate to the risk. These areas should be treated as special risks, and given an appropriate predetermined response.

Moderate Risk - Built-up areas of average size, where the risk of life loss or damage to the property in the event of a fire in a single occupancy is usually limited to that occupancy. In certain areas, such as small apartment complexes, the risk of death or injury may be relatively high. The moderate/typical risks are often the greatest factor in determining fire station locations and staffing due to the frequency of emergencies in this category. To assure an equitable response and to provide adequate initial attack/rescue capability to the majority of incidents, the typical risk is often used in determining needed resources.

Low Risk - Small commercial structures that are remote from other buildings, detached residential garages and outbuildings.

Remote and Isolated Rural Risks - Areas may be classified as remote/isolated rural risks if they are isolated from any centers of population and contain few buildings; for example, rural land with no occupied structures or recreational areas.

Residential Single Family Dwelling Unit: One family unit - house.

Square Miles Served: Number of square miles contained within the boundaries of the service area.

Staffing: The level of personnel assigned to perform the anticipated emergency tasks of a specific fire company for the risk identified in a given district or community. The number of personnel required to perform multiple emergency operations functions such as fire suppression versus EMS or hazardous materials operations.

Standardization: Standardization is a process by which a product or service is assessed against some standard, performance, or quality.

Standard Operating Procedures (SOP): A term used to describe written direction provided to personnel in a manual format.

Transport: Responses that result in one or more persons being transported to a medical facility.

Travel Time: The portion of response time that is utilized by responding companies to drive to the scene of the emergency. Travel time begins when assigned fire companies begin to actually drive to the emergency.

Turnout Time: The portion of response time when fire companies are donning personal protective clothing and boarding their apparatus. The time begins once the companies have been given their assignments and ends when they begin travel time.

Water Rescue: The rescue of persons trapped in rivers, lakes, pools, or flood control waterways.

