

Rockville/Springdale Fire Protection District,

Utah

Emergency Services

Master Plan

June 2016



Emergency Services Consulting International
Providing Expertise and Guidance that Enhances Community Safety

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Executive Summary

Emergency Services Consulting International (ESCI) was engaged by the Rockville/Springdale Fire Protection District (RSFPD) to complete an Emergency Services Master Plan. This report is the culmination of that process.

ESCI thanks the Fire District Board of Directors and the staff of RSFPD for their outstanding cooperation in the preparation of this report. All involved were candid in their comments and provided a tremendous amount of essential information. Special appreciation is offered to Board Chair Luci Francis and Fire Chief Ryan Ballard in acknowledgement of the time, effort, and resources they provided for this plan.

The Master Plan begins with a review of the current service delivery provided by RSFPD, including programs, administration, management, service delivery performance and financial health. All areas are evaluated and discussed in detail and specific recommendations are provided, where applicable.

The report is presented in the following sections:

Report Section I: Evaluation of Current Conditions

An analysis of current conditions is documented in nine survey sections, reviewing the RSFPD administration, governance, staffing, personnel management, service delivery, support programs, and capital assets. Each component of the evaluation includes an introductory explanation of the subject area and discussion of observations and desirable outcomes and identified best practices.

Following the general information about each element, specific observations and an analysis of any significant issues or conditions that are pertinent to the topic are discussed. Observations are supported by data collected during the information gathering process, through analysis of the collected data, and from the collective emergency services experience of the ESCI project team.

Criteria, developed over many years, and used to evaluate the fire department include relevant guidelines from the national accreditation process, the National Fire Protection Association (NFPA) standards, federal and state mandates for fire and EMS systems, recommendations by various organizations such as the Center for Public Safety Excellence (CPSE), and generally accepted best practices within the fire and EMS industry.

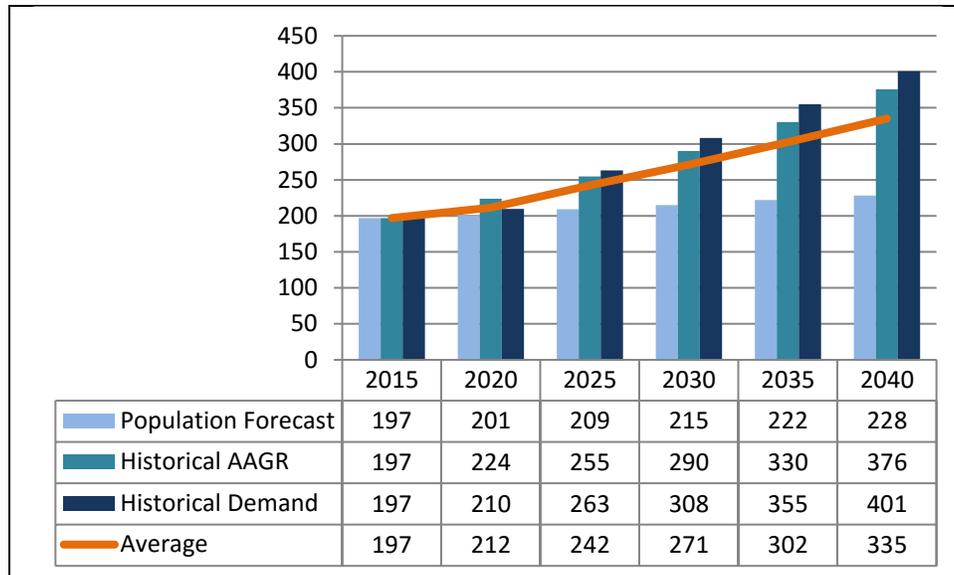
The evaluation of current conditions offers the district a detailed assessment of existing operations and provides the ESCI project team with a snapshot in time, the basis from which the balance of the Master Plan is developed.

Report Section II: Future System Demand Projections

Following the evaluation of current conditions, the report continues to analyze the service delivery demands expected to confront RSFPD in the future. Existing demographics are identified and compared to U.S. Census Bureau data, historical annual growth data, and historical service demand for development of projected future system workload.

The service area is experiencing a modest growth rate, which is expected to continue through 2040. Projections indicate the effect on RSFPD service delivery as charted below:

RSFPD Service Demand Projections, 2015-2040



The number of emergency incidents experienced is expected to increase as the population grows. However, population is not the only factor impacting future demands. ESCI has also considered current land use and future land use plans, combined with a community risk analysis, to develop workload projections forecast through 2035.

It is important to note that the district experiences a significantly different service demand than is found in most communities due to its proximity to the entrance to Zion National Park. Service demand analysis and comparisons are typically based on service area population, because population correlates directly to the occurrence of fire and medical emergencies. However, the resident population of RSFPD does not correspond with data and comparison to similar small agencies due to the high level of transient population that visits the district while touring the national park.

Report Section III: Future Delivery System Models

The current conditions analysis and system demand projections form the foundation from which ESCI has developed strategies for the delivery of services in the district in the future.

This report cites multiple future system model modifications, included both short-term and long-term initiatives that are identified in the interest of improving and maintaining future system integrity. Each initiative is discussed in detail and guidance is provided.

The discussion of future delivery systems begins with an explanation of the importance of developing response time standards and targets, viewed by ESCI as an important next step needed if RSFPD is to be able to appropriately plan for the future. Guidance is offered regarding how the district can assess critical

tasking, risk analysis and staffing performance from which response time performance objectives can be established.

Short and mid-term strategies and models are discussed next. The section prioritizes recommendations as follows:

- Priority 1 – Items Involving Immediate Internal Safety Concerns
- Priority 2 – Considerations That May Present Legal or Financial Exposure
- Priority 3 – Matters That Address a Service Delivery Issue
- Priority 4 – Considerations to Enhance the Delivery of a Service
- Priority 5 – An Important Thing to Do

The report continues by discussing long-term strategies and needs, including:

- Apparatus Replacement Planning
- Future Apparatus Considerations
- Future Staffing
- Other Staffing Considerations
- Future Station Considerations
- Future Training Site Development
- Exploration of Regional Cooperation Opportunities

ESCI appreciates the opportunity to provide the Rockville/Springdale Fire Protection District with the following report and looks forward to continuing to support the district as it moves forward.

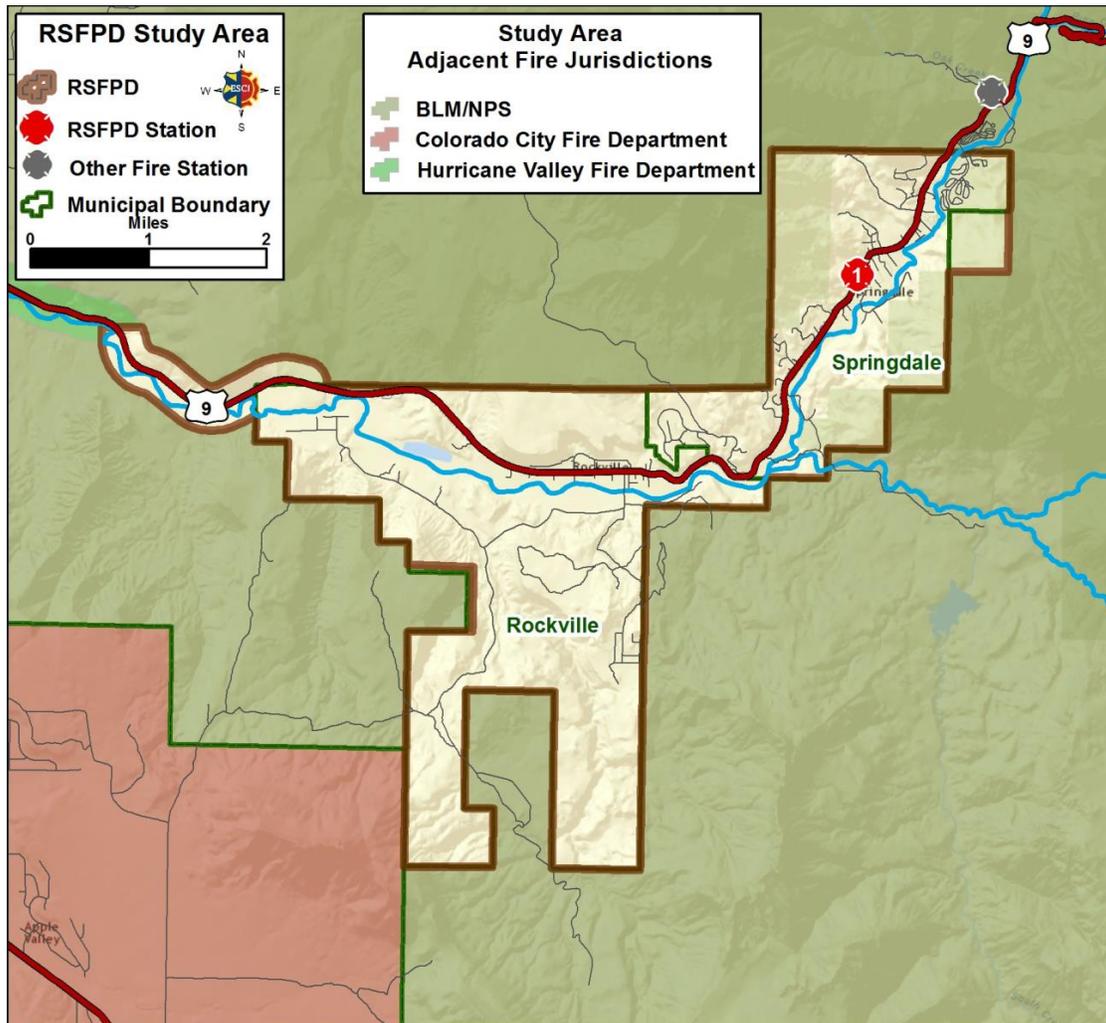
Evaluation of Current Conditions

ORGANIZATIONAL OVERVIEW

The Organizational Overview component provides a summary of the agency's composition, discussing its configuration and the services that it provides. Data provided by Rockville/Springdale Fire Protection District (RSFPD) administrative and management staff, as well as both internal and external stakeholders, was combined with information collected in the course of ESCI's fieldwork to develop the following overview.

The purpose of this section is two-fold. First, it confirms the accuracy of baseline information collected by ESCI and our understanding of the agency's composition. This provides the foundation from which the Emergency Services Master Plan is developed. Secondly, the overview serves as a reference for the reader who may not be fully familiar with the details of the agency's operations. Where appropriate, ESCI includes recommended modifications based on industry standards and best practices.

Figure 1: Service Area Map



The Rockville/Springdale Fire Protection District provides services to an area of approximately 14 square miles, located in Washington County, Utah, and including 4.6 square miles in the town of Springdale and another 8.5 in Rockville. The remainder of the district is a section of coverage along Highway 9 west of Rockville.

The configuration of the service area is primarily a destination residential and recreational community. While the resident population in the district service area is calculated to be 803, the actual number of people in the response area increases significantly during peak recreation periods, reaching a total of 3,640,320 visitors in 2015 according to data provided by Zion National Park.

ESCI routinely uses population data as one of several measures relative to service demand and fire department workload. However, commonly accepted comparisons do not apply in the same manner in RSFPD as they do in most other jurisdictions due to its highly unique demographic configuration.

Governance

The very basis of any service provided by governmental or quasi-governmental agencies lies within the policies that give that agency the responsibility and authority upon which to act. In most governmental agencies, including RSFPD, those policies lie within the charters, ordinances, and other governing documents adopted by the agency. The following table provides a general overview of the district's governance and lines of authority elements.

Figure 2: Survey Table – Governance

Survey Components	RSFPD Observations	Comments and Recommendations
Agency		
A. Agency name	Rockville/Springdale Fire Protection District	
i) preferred acronym	RSFPD	
Governance and Lines of Authority		
A. Governing body	5-member Board of Directors	
i) head of governing body	Board Chair Luci Francis	
ii) key employee of governing body	Fire Chief Ryan Ballard	
iii) meetings	Monthly, last Wednesday of the month	
B. Elected official authority defined	Via Board bylaws and state statute	
C. Fire chief position		
i) hired by contract	No	
ii) term of contract	At will employee	
iii) periodic performance evaluation	Annually	
D. Fire chief/authority defined	In personnel policies and procedure and district bylaws	
E. Policy and administrative roles defined	In personnel policies	

Survey Components	RSFPD Observations	Comments and Recommendations
Attributes of Successful Organizations		
A. Policy, rules, guiding documents	Board bylaws and personnel policy manual and Utah Association of Special Districts guidance	Personnel policy manual is current. Other policy and guiding document content is limited and should be reviewed
i) process for revision provided	As needed basis	Establish regular review process for policy documents
B. Legal counsel maintained		
i) consultation available	District has attorney on contract	
ii) labor counsel	N/A	
C. Financial controls		
i) financial control system	Thresholds identified for purchasing approval unless budgeted expenditure	
ii) financial review	Financial audit performed	
iii) auditor	Savage, Esplin and Radmall, PC	Change auditors every three to five years
iv) frequency of review	Annual	
D. Governing body minutes maintained		
i) availability of minutes	Available on website and on requested	

Discussion

RSFPD is not a city fire department or municipal subdivision of any city but rather is configured as a fire protection district, as provided for under Utah statute, and formed as a special service district. A special service district that is created under Title 17D is a hybrid entity in that it is an independent governmental entity except when it comes to the levy of taxes or assessments, the issuance of debt, or the holding of an election. Those actions must be approved by the governmental entity that created the special service district. In reality, special service districts are still ultimately under the control of their creating entities.

The district’s foundational governance configuration is typical of Utah fire districts, operating under the direction of a five-member Board of Directors (BOD). The BOD hires the fire chief, who is charged with managing the day-to-day operation of the district.

ESCI reviewed the district’s operational configuration and what are considered to be the fundamental attributes that are found in similar and successful fire departments. Observations found that the requisite foundational elements upon which a successful organization is structured are in place in Rockville/Springdale. ESCI identified recommendations regarding some observations in the governance review, as discussed in the following section.

District Rules, Regulations and Administrative Policies

RSFPD has established baseline management documents that consist of Board of Directors Bylaws and a Personnel Policy Manual, along with a few separate, subject-specific policies. The Personnel Policy Manual was last updated in May 2015 and its contents appear to be adequate. The Board Bylaws document does

not reflect an adoption date and its content is somewhat limited. Similarly, operating procedures are limited. Review and revision of all foundational policy and procedure documents is recommended and discussed in further detail in the Management Components section of this report.

Financial Controls

Indications from field interviews are that appropriate purchasing practices are in place. The approach appears to be a transparent and appropriate financial control system.

An annual audit is performed by a public accounting firm as is appropriate. The same firm has been used for approximately five years. ESCI recommends that auditors be changed every three to five years to assure objectivity and to get differing financial perspectives.

Key Recommendations:

- Review and update foundational policy and procedural documents.
- Change financial auditors every three to five years.

Organizational Design

The structural design of an emergency services agency is vitally important to its ability to deliver service in an efficient and timely manner while providing the necessary level of safety and security to the members of the organization, whether career, paid-on-call, or volunteer. During an emergency, an individual's ability to supervise multiple personnel is diminished; industry standards recommend a span of control of four to six personnel under stressed situations. This is a recommendation carried forward from military history and has shown to be effective in emergency service situations.

In addition, employees tend to be more efficient when they know to whom they report and have a single point of contact for supervision and direction. A recent research project conducted by the Columbia University, Northwestern University, and University of Queensland, Australia, found that,

...when there are tasks that require teamwork, people get more done when there are leaders and followers. Without a clear chain of command, members often become sidetracked with grabbing power and lose track of the task at hand.¹

The following table summarizes the organizational design components of the RSFPD.

¹ "Why Hierarchies are Good for Productivity," *Inc.* September 2012, p 26.

Figure 3: Survey Table – Organizational Design

Survey Components	RSFPD Observations	Comments and Recommendations
Organizational Structure		
A. Structure type	Traditional top down hierarchy	
B. Descriptions of all jobs maintained	In place for all positions	
i) job descriptions updated	As needed basis only	
C. Employment agreements	No other employment agreements are in place.	
Chain of Command		
A. Defined Chain of command	Defined in organizational chart	In reality most go to the chief
B. Span of control	5 to 1 ratio but open door policy	
C. Hiring/Firing authority	Fire chief. Consultation with the Board on new appointments	
Formation and History		
A. Organization formed	1983	
B. History maintained	Informally. Records maintained according to Utah state retention guidelines	
i). Individual or group responsible	District clerk	

Organizational Structure

To operate effectively the structure of a fire district needs to be clearly defined in the form of an organizational chart. The chart institutionalizes the agency’s hierarchy, identifies roles and reporting authority, and helps to assure that communication flows appropriately, as well as limiting opportunities to circumvent the reporting structure.

RSFPD has developed an organizational chart that achieves this purpose and generally operates under a traditional top-down manner with understandable lines of authority. The fire chief reports directly to the Board of Directors; the fire marshal and fire captain report to the fire chief and an EMS captain. The district clerk reports directly to the board. However, the district clerk position was vacated after ESCI’s initial field work and clerical services are now being provided by contract. The fire chief’s span of control is reflected on the organizational chart as a three to one ratio; however, it was indicated that essentially all personnel report to the chief in practice. Moving forward, it will be important to monitor the fire chief’s span of control.

Service Area and Infrastructure

The size and composition of a fire district’s service area affects the type and number of personnel, fire stations, and vehicles that are needed to provide services efficiently. Sometimes complex decisions need to be made regarding the deployment strategies employed to properly position resources based on land area, geography, risk and similar factors. Following is a summary of the district’s service area and service infrastructure resources.

Figure 4: Survey Table – Service Area and Infrastructure

Survey Components	RSFPD Observations	Comments and Recommendations
General Description of Agency		
A. Agency type	Fire Protection District	
B. Area, square miles	14	
C. Headquarters	Fire Station 1	
D. Fire stations	1	
E. Other facilities	None	
F. Population served	803, plus a very large transient population	
Service Delivery Infrastructure		
A. Emergency vehicles		
i) engines	2	
ii) engine, reserve	0	
iii) ladder truck	0	
iv) ambulance	1	
v) squad/wildland	1	
vi) rescue	1 (Out of service) ²	
vii) water tender	0	
viii) brush	2	
ISO Rating	3	
A. Total fire district personnel, uniformed and civilian	35	
Admin full time	1 fire chief 3 captains	
i) administrative and support personnel, part-time	1 fire marshal (contract employee) 1 district clerk (position was vacated and service contracted out after ESCI's initial data collection)	
ii) administrative and support personnel, volunteer	0	
iii) operational personnel, full-time	0	
iv) operational personnel, part time (paid on call)	20 EMS 12 Fire (Includes 3 Captains listed above)	

Discussion

The district deploys its people and apparatus from a single fire station located in Springdale, providing coverage to what is a widely dispersed geographic area. Particular challenges are presented in the district with regard to response performance as a result of inclement weather and periods of high recreational traffic congestion.

A unique situation exists in the district in regard to its service population. The resident population is approximately 803. However, transient populations generated by visitor traffic to Zion National Park

² Vehicle was replaced subsequent to ESCI's initial field visit.

present a very different service delivery situation, relative to most communities. In 2015, the park reported 3,640,320 visitors, almost all of whom travel through the study area and many of whom frequent hotels and restaurants in the communities. The table below lists visitor history based on data provided by Zion National Park.

Figure 5: Zion National Park Visitor Count, 2011 - 2015

Year	Visitors
2015	3,640,320
2014	3,189,696
2013	2,807,387
2012	2,973,607
2011	2,825,505

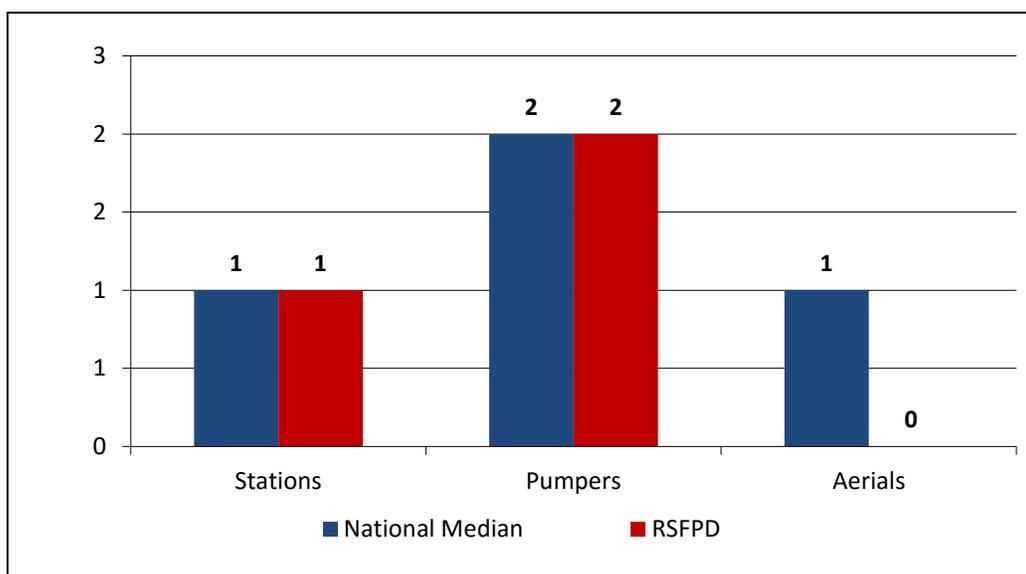
The number of visitors is clearly significant and the trend is consistently moving upward, as shown in the table. However, the numbers, while large, do not translate directly into an equivalency to resident population. The visitors are mobile, generally younger, and are in the area for short periods of time. As a result, they do not generate an incident workload for the fire and EMS system that is same as it would be if the numbers represented resident population.

With those factors in mind, a detailed assessment of current service delivery and effectiveness is provided in the Service Delivery and Performance section of this report.

The district's continuing test will be that of making the most prudent staffing and facility placement decisions based on weighing multiple considerations including risk exposure, response times, access challenges, deployment, community expectations, and fire district capacity. Those decisions are difficult given the financial considerations that must be taken into account.

In the following chart, a comparison of fire stations, pumpers (engines) and aerial trucks is provided mirrored against national median data.

Figure 6: Capital Asset Comparison



Relative to national comparators, RSFPD has a similar number of pumps and fire stations relative to similar sized organizations based purely on resident population.

Emergency Response Type and Frequency

RSFPD responded to 197 requests for assistance from the citizens of the district and its visitors in the 2015 reporting year. As is typically found, the vast majority of incidents are of an emergency medical nature. The district’s emergency calls for 2015 are listed in the following table.

Figure 7: Survey Table – Emergency Response Type and Frequency

Survey Components	RSFPD Observations	Percent of Total Incidents
Incidents		
A. Fire	9	4.57%
i) value of property exposed to fire, most recent year	Not recorded	N/A
ii) value of property lost to fire, most recent year	Not recorded	N/A
B. Overpressure rupture/ explosion	1	0.51%
C. EMS/rescue	144	73.10%
D. Number of EMS transports	83	--
E. Hazardous condition	9	4.57%
F. Service call	3	1.52%
G. Good intent call	4	2.03%
H. False call	24	12.18%
I. Special incident type	3	1.52%
J. Total	197	100.00%

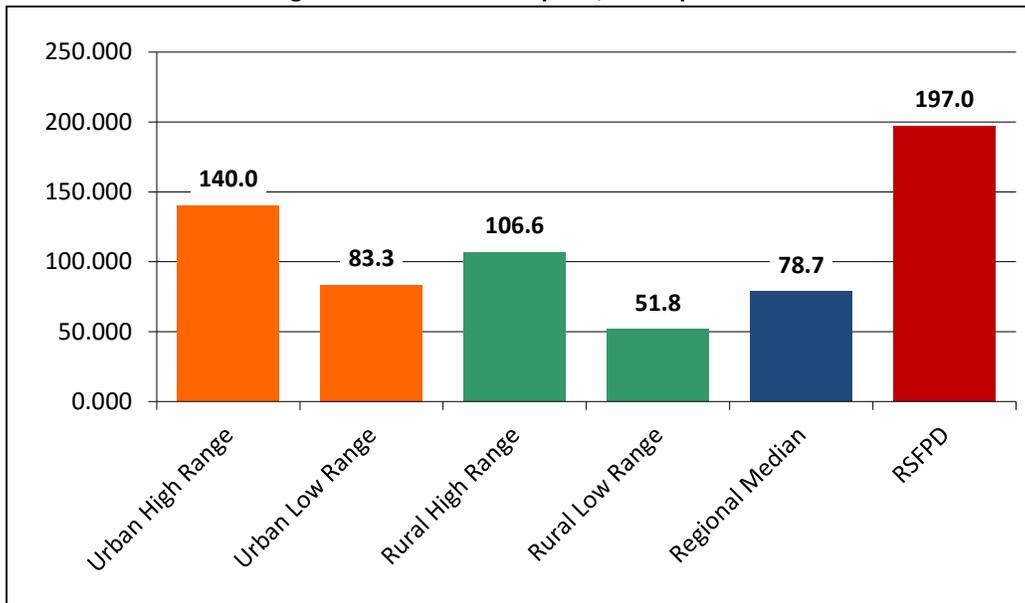
Discussion

In 2015, 73.10 percent of RSFPD’s incidents involved response to medical emergencies. Of those, 57.64 percent involved a patient transport. The percentage is slightly lower than what is typically found in similar

sized fire departments. A total of 9 incidents were reported as fires in the reporting year, of which five were wildland fires, two were rubbish fires, and two were not otherwise classified. Based on ESCI's experience, the incidents are consistent with the ratios seen in similar agencies. Additional detail on emergency response, service delivery effectiveness, and response performance is provided in the Service Delivery and Performance section of this report.

ESCI compared the number of total emergency incidents to which the district responded in calendar year 2015 to a variety of regional comparators based on data provided by the National Fire Protection Association, as shown in the following figure.

Figure 8: Total Incidents per 1,000 Population



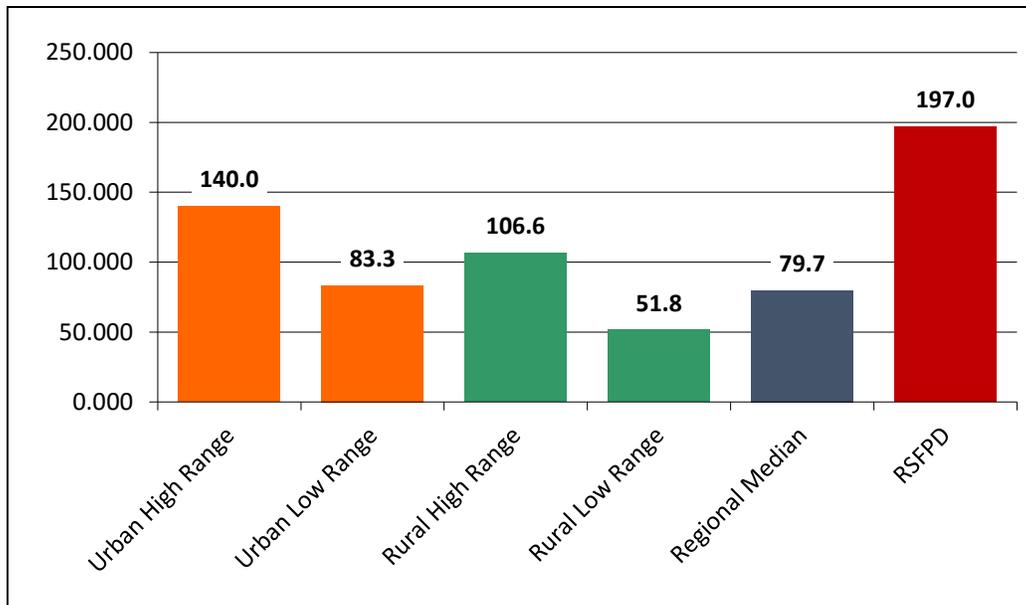
The available comparative data differs from most jurisdictions, as well as ESCI's experience, indicating that total emergency incidents in the district are higher than those found in comparable jurisdictions based on data from the National Fire Protection Association (NFPA). However, this comparison needs to be put into perspective. Benchmark data available through NFPA is based entirely on resident population and does not consider geographical size or population density of the particular area. The data from which these comparable figures are extracted does not delineate between volunteer or career departments, nor does it segregate those departments heavily involved in the provision of emergency medical services, particularly transport service, which results in an increased workload due to patient transportation times.

The data also cannot take into account a jurisdiction like RSFPD, which sees a significant transient and recreational population that is not factored into the per 1,000 population numbers. So the variation in the chart above should be considered from that perspective.

To add clarification for a point of reference, the NFPA benchmark data used is based on the district's service population of under 2,500, the category applied in the above chart. Because of the significant transient population found in the study area, ESCI completed another calculation. Simply as a relative

comparison, using the next highest population range in the data, which is a population of 2,500 to 4,999, the following findings are realized.

Figure 9: Total Incidents per 1,000 Population Based on 2,500 to 4,999 Population Range



The increased population range was added with the idea of more closely approximating what may be an actual population, including transient, on a given day. However, the adjustment changes only the regional median number and only insignificantly, so the analysis is not conclusive.

Budgets and Finance

No emergency services agency, whether a municipal fire department or a fire protection district, can survive without adequate funding. This funding, which may come from a variety of sources such as ad valorem taxes, fundraisers, donations, or standby fees in the case of RSFPD, allows the agency to purchase the necessary equipment to fulfill its mission. Without adequate funding that is also sustainable, an organization is destined for failure.

In the current economy, most communities are searching for ways in which to reduce expenditures while maintaining levels of service. Simultaneously, emergency services organizations are finding it increasingly difficult to deliver the services that the community desires and are often asking for more funding to adequately supply the expected levels of services.

The following figure provides a summary of RSFPD's tax revenues, operating budget, and debt. The representations presented here illustrate the total district expenditure budget including personnel, supplies/materials, and capital expenditures, information that will be used in future analyses in this report.

Figure 10: Survey Table – Operating Budget and Financial Resources

Survey Components	RSFPD Observations	Comments and Recommendations
Finance Overview		
A. Designated fiscal year	Calendar	
B. Assessed property value, current year	\$224,138,729 (2015)	This is the non-BOE adjusted district taxable value
C. Revised current year general operating fund budget, fire district	Total 2016 adopted budget \$753,634 (Personnel Services, \$513,258; Operating, \$191,163; Capital, \$22,500; Debt Service, \$26,713)	Estimated cash carried forward \$750,644
D. General fund property tax, city levy – current budget year	\$40,356; 0.000241 (2015)	Total district levy
i) levy rate (last 5 years)	0.000246 (2010), 0.000273 (2011), 0.000270 (2012), 0.000272 (2013), 0.000251 (2014), 0.000241 (2015)	
ii) general fund levy collection rate – prior year	\$47,565; 0.000251 (2014)	Total district levy
E. Bonds, fire district	None	
i) levy rate	N/A	
F. Other tax levy, public safety	Standby fee	Based upon property type/use/sq footage; non-ad valorem fee
i) levy rate	N/A	

FISCAL ANALYSIS

This section provides information on the financial condition and outlook of the district. It begins with a review of selected national, state, and local economic data to provide for the district's current condition and forecast outlook. Historical revenues and expenses are examined, highlighting key aspects and factors affecting the Rockville/Springdale Fire Protection District revenue and expense trends. Finally, using information provided by district staff and regional economic contextual information, a forecast of revenues and expenses through 2021 is provided. This presentation and analysis, as well as various staffing and funding cases modelled, relied on the financial documentation provided by the district. Additional information sources included: the U.S. Census Bureau, the U.S. Department of Commerce Bureau of Economic Analysis, the Utah Revenue Assumptions Working Group, the Utah State Tax Commission, the Utah Department of Workforce Services, the Utah Economic Council, and the Washington County Clerk/Auditor. ESCI developed the assumptions used in the forecast, which were subsequently reviewed by district staff.

Economic Context

Economic data from Washington County and Rockville/Springdale to the extent available suggests that the local economy is recovering from the 2008-2011 recession but has yet to fully recover. Economic activity including levels of employment, home sales/values and per capita income among other measures, while recovering from their lowest levels, are still below their pre-recession peaks. The trends that follow provide context for district board members to make assumptions about growth potential of existing revenue sources relative to the timing of financial needs of the district.

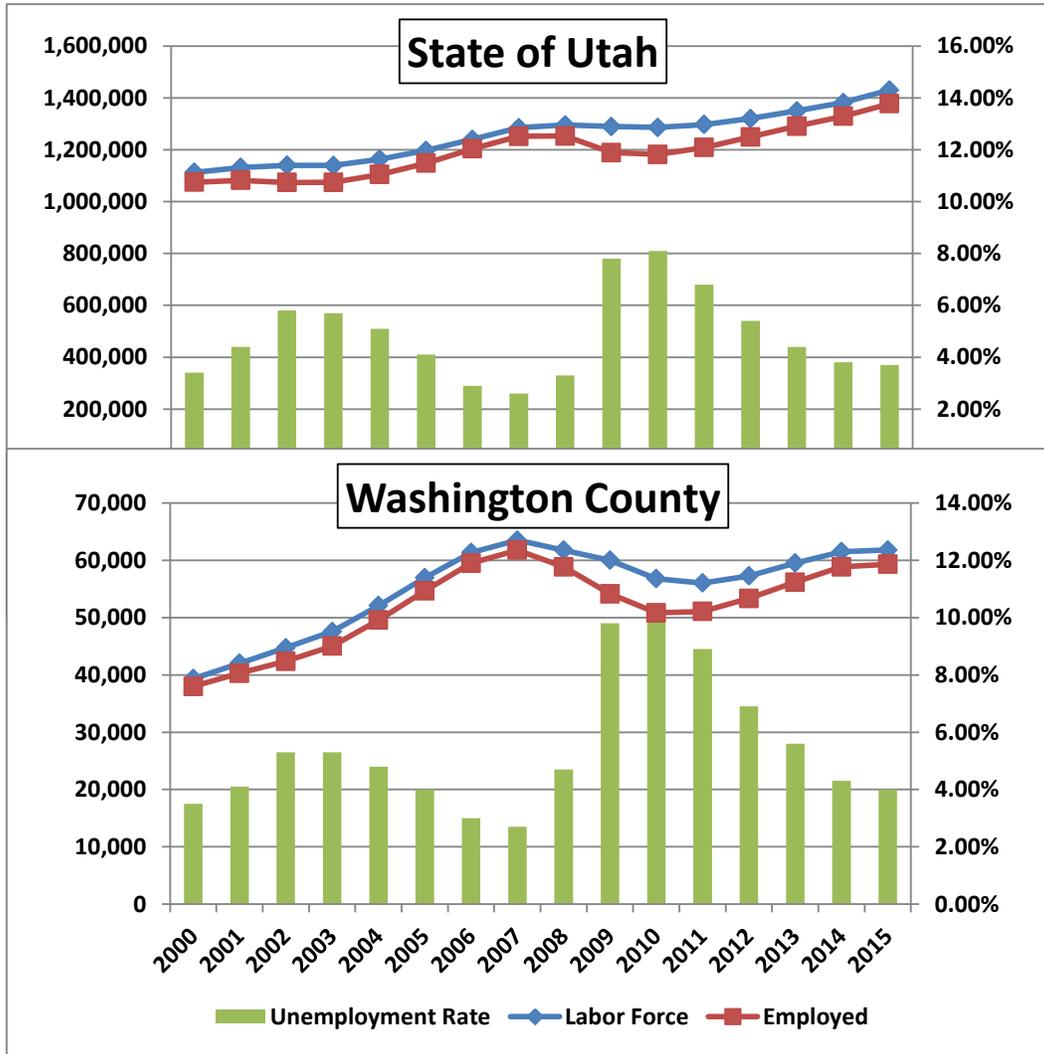
Figure 11 (below) shows trends in total non-farm employment, available total labor force, and unemployment rates first across the state of Utah and in Washington County from 2000 through 2015. As shown, non-farm employment peaked at just over 1.25 million jobs statewide in 2008. Washington County peaked a year earlier at 61,762 jobs in 2007. Statewide non-farm employment dipped to just over 1.18 million jobs by 2010, the same year Washington County reached its low of 50,821. The state job loss was just under 71,000 jobs or 5.7 percent while the county lost 10,941 jobs or 17.7 percent, almost triple the statewide rate.

Unemployment levels statewide, which had climbed from 3.4 percent in 2000 to almost 6 percent by 2003-4, hit a pre-recession low in 2007 of 2.6 percent. The unemployment rate statewide shot up to 7.8 percent in 2009 and peaked at 8.1 percent in 2010, after which it began a steady decline over the next four years stabilizing at an average 3.75 percent for 2014-15. Washington County unemployment rates trended similarly to the statewide rates, reaching pre-recession lows in 2007 of 2.7 percent. However, Washington County experienced a more severe employment decline than observed statewide, jumping to 9.8 percent in 2009 and reaching a high of 10.5 percent by 2010. As with the statewide unemployment rate trend, Washington County saw a gradual decline from the 2010 high to an average rate of 4.15 percent for the period 2014-15.

By 2015 not only had the state rebounded from jobs lost to the recession but by 2012 it had nearly matched the peak employment levels seen in 2008. By 2015, total state non-farm employment had reached almost 1.38 million, almost 10 percent more than the pre-recession peak seen in 2008. State

levels continue to climb at a steady rate. Washington County has recovered to a large degree but not at the rate observed statewide. By 2014, at 58,842 jobs, the county had not quite reached the pre-recession peak of 61,782 jobs seen in 2007 still shy by just under 5 percent. In fact, the rate of job growth had almost leveled off between 2014 and 2015, with the county adding 467 jobs year-to-year for a job gain of less than 1 percent.

Figure 11: State of Utah/Washington County Non-Farm Employment, Available Labor Force, and Unemployment Rate



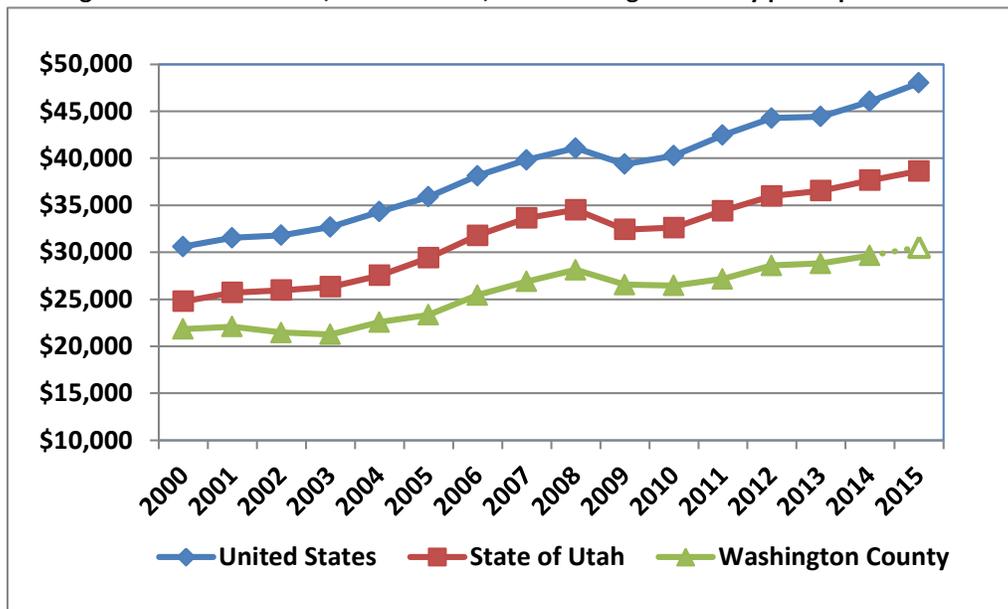
Source: Utah Department of Workforce Services

The following figure shows per capita income for the United States, the State of Utah, and Washington County for the period 2000 through 2015 (except Washington County, which is projected for 2015). From the 2000 census, per capita income increased gradually in the U.S. through 2003 after which it increased at a higher rate to its pre-recession peak in 2008. Per capita income statewide increased through 2003 at a slower rate than across the U.S.; however, in Washington County per capita income actually reached a

low point in 2003 prior to again rising to its pre-recession peak in 2008. Recession per capita income lows were reached in all cases by 2009-10.

National, state, and county per capita income recovered generally by 2011 and have since surpassed the pre-recession peaks. U.S. per capita income is increasing at its pre-recession rate while state and county rates are increasing but at slightly lower rates than the pre-recession run-up. Over the period 2005 through 2015, national per capita income increased from \$35,904 to \$48,016, a 33.7 percent increase, while state per capita income increased from \$29,398 to \$38,641 for a 31.4 percent increase. Washington County per capita income increased from \$23,353 to a projected \$30,548 for the same period for an increase of 30.8 percent or about 3.1 percent per year.

Figure 12: United States, State of Utah, and Washington County per Capita Income



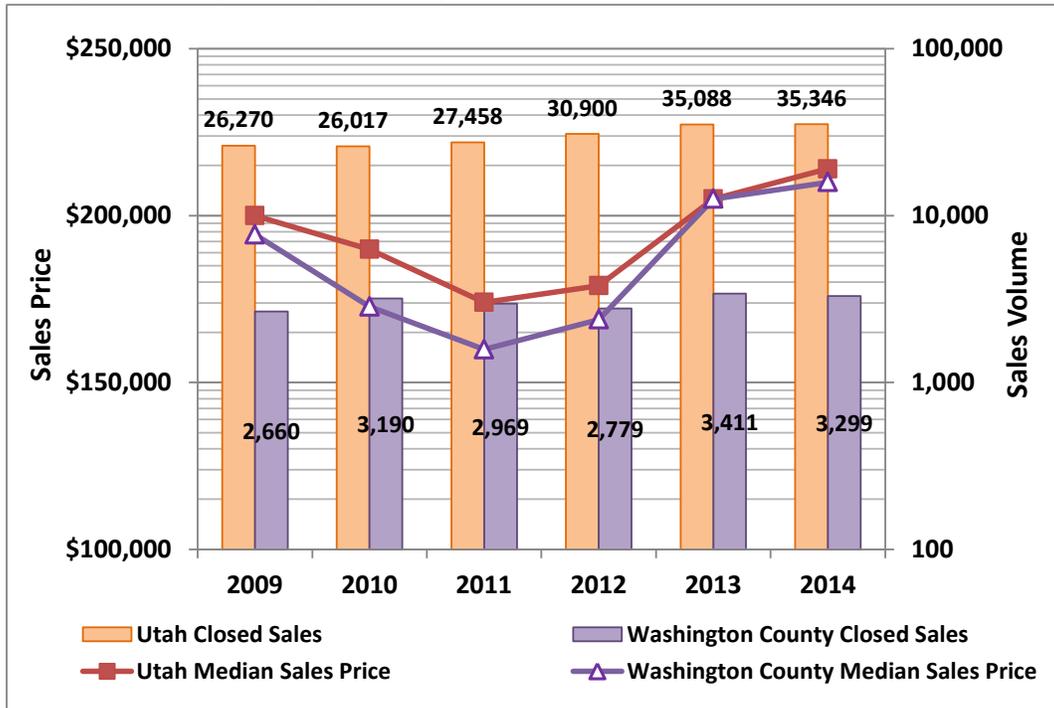
Sources: U.S. Dept of Commerce Bureau of Economic Analysis, Utah Revenue Assumptions Working Group, Utah State Tax Commission, Washington County CAFR, 2014

Figure 13 (below) shows the median annual sales price and annual number of sales for single-family homes statewide and in Washington County from 2009 through 2014, year to year in October. Although statewide sales volume continued to rise throughout the depths of the recession, median home prices plummeted \$26,000 or 13 percent between 2009 and 2011. However, values across the state had fully recovered by 2013. In fact, by 2014 median home values statewide had actually risen to 7 percent above their 2009 values, a solid trend which appears to be continuing.

While not exactly mirroring the statewide trend in sales volume, Washington County has shown an overall increase in annual sales volume from 2,660 units in 2009 to 3,299 units in 2014, a 24 percent increase. More interestingly, while annual median sales price for Washington County homes has generally mirrored the statewide trend, Washington County homes had been generally lower in cost compared to the state median through 2012, ranging from 2.9 percent lower in 2009 to as much as 8.1 percent lower in 2011. The implication is that Washington County median values lost a bit more than the statewide median

through the recession. By 2012, however, Washington County median home prices had not only recovered losses from the recession but had increased values at a rate faster than the statewide median. As of 2013, Washington County median home prices are very close to the statewide median values, a positive indicator of economic health of the community.

Figure 13: Utah/Washington County Median Home Sales Price and Annual Sales Volume



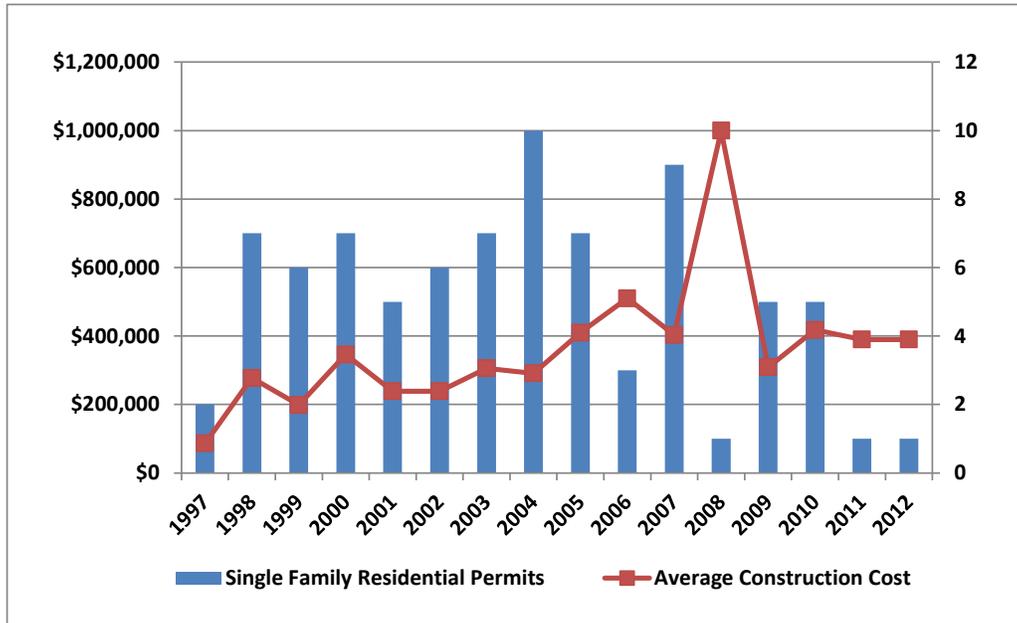
Source: Utah Association of Realtors

Figure 14 shows the number of single-family home permits issued along with average construction cost for the period 1997 through 2012 for the town of Springdale. Average construction costs doubled from 1997-98 through 2005 and permit activity, while quite variable, generally increased year over year up to the recession. By the recession’s low point in 2011, construction activity in Springdale had almost stopped, with only one single-family residential permit issued in each of 2011 and 2012. New home construction costs also decreased somewhat from the increasing trend observed through 2008, leveling off around \$400,000 per home by 2010 and continuing through 2012. While median home prices in Washington County hover around \$205,000-210,000 it is interesting to note that new home construction in Springdale and ultimately sales costs of newly constructed single family homes are significantly (more than double) higher than the county median home sales price.

Census data show that the 2000 median home price in Washington County was \$131,300 while that in the Town of Springdale was \$213,500 or 62.7 percent higher than the county median. By 2013, the county median home price had risen to \$204,300, an increase of 55.6 percent. On the other hand, the median home price in Springdale had increased to \$529,606, an increase of 148.1 percent during the same timeframe. This suggests that housing prices in Springdale may be a significant factor in driving the Washington County median values higher. District firefighters have reported that the lack of volunteers

available in the Springdale area may be due in part to a trend of increasing housing costs relative to per capita income.

Figure 14: Town of Springdale SFR Permits and Average Annual Construction Cost



Source: U.S. Census Bureau

The upper portion of the table in Figure 15 provides population data for Washington County, its largest cities, and several smaller towns including Rockville and Springdale for the period 2010 through 2014. The lower portion of the table specifically addresses the permanent population served by the district, which encompasses the towns of Rockville and Springdale.

Figure 15: Washington County and Selected Town Population Data

Population	2010	2011	2012	2013	2014
Washington County	138,406	141,502	144,643	147,719	151,948
St. George	72,860	73,953	75,308	76,742	78,505
Hurricane	13,786	14,015	14,321	14,588	15,032
LaVerkin	4,062	4,127	4,213	4,164	4,163
Rockville	245	247	251	251	255
Springdale	530	542	546	546	548
District Population	2010	2011	2012	2013	2014
Rockville	245	247	251	251	255
Springdale	530	542	546	546	548
Fire District Permanent	775	789	797	797	803

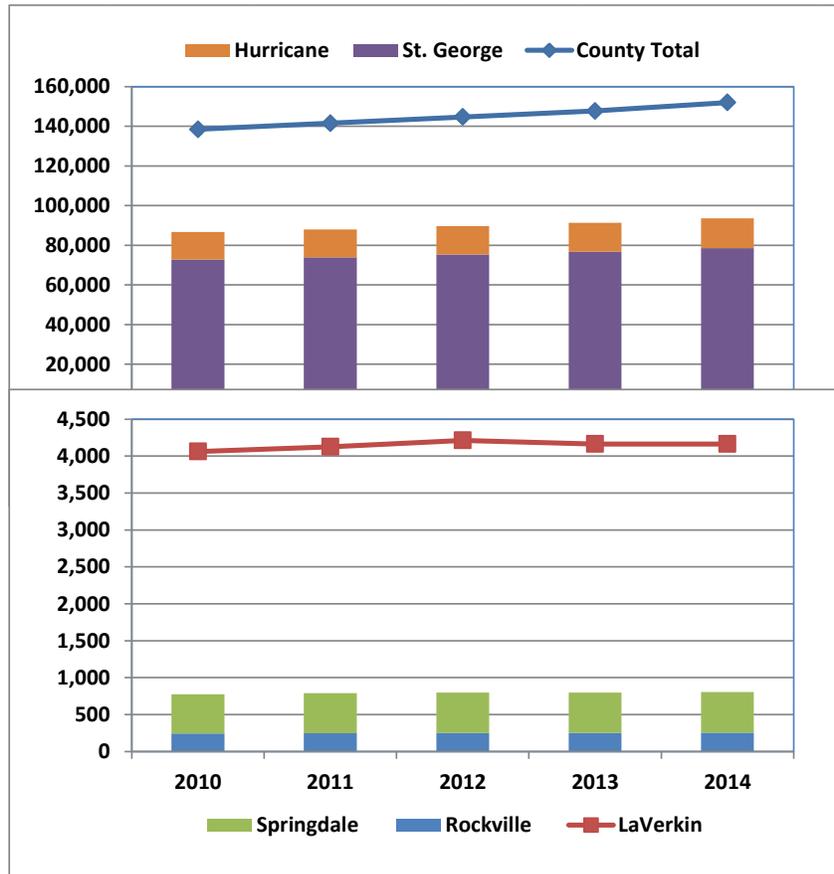
Source: U.S. Census Bureau

The following figure illustrates the population trends graphically. The total county population has increased slightly between 2010 and 2014 from 138,406 to 151,948, an increase of 13,542 or 9.8 percent.

The two largest municipalities in the county, St. George and Hurricane, collectively increased from 86,646 in 2010 to 93,537 in 2014 for a total increase of 6,891 or about 8 percent. These two municipalities make up an average of 62 percent of the total county population. On the other hand, the permanent population of the towns of Rockville and Springdale remained relatively static over the period 2010 to 2014 and the towns themselves represent a relatively small population comprising approximately 0.5 percent of the countywide total.

According to U.S. Census Bureau figures for the 2010 census and the latest available official estimates from 2014, the 18-50 year old demographic for the town of Rockville increased from 16.4 percent of the town’s total population to 24.9 percent over the five-year period. The under 18 demographic fell from 26.8 percent to 17.8 percent, while the over 50 demographic remained relatively unchanged at approximately 57 percent of the total population. Conversely, the 18-50 year old demographic in Springdale decreased from 45.6 to 37.1 percent of the total population while the over age 50 demographic increased from 44.1 to almost 60 percent and the under 18 demographic decreased from 10.3 to 3.4 percent of the total population. This suggests that the total population, male and female, within the demographic most likely able to serve as volunteers (18-49 year olds) within the district has decreased slightly from 272 in 2010 to 251 in 2014. However, this factor is certainly not the only one affecting willingness or ability to serve as a volunteer firefighter or EMS staff member.

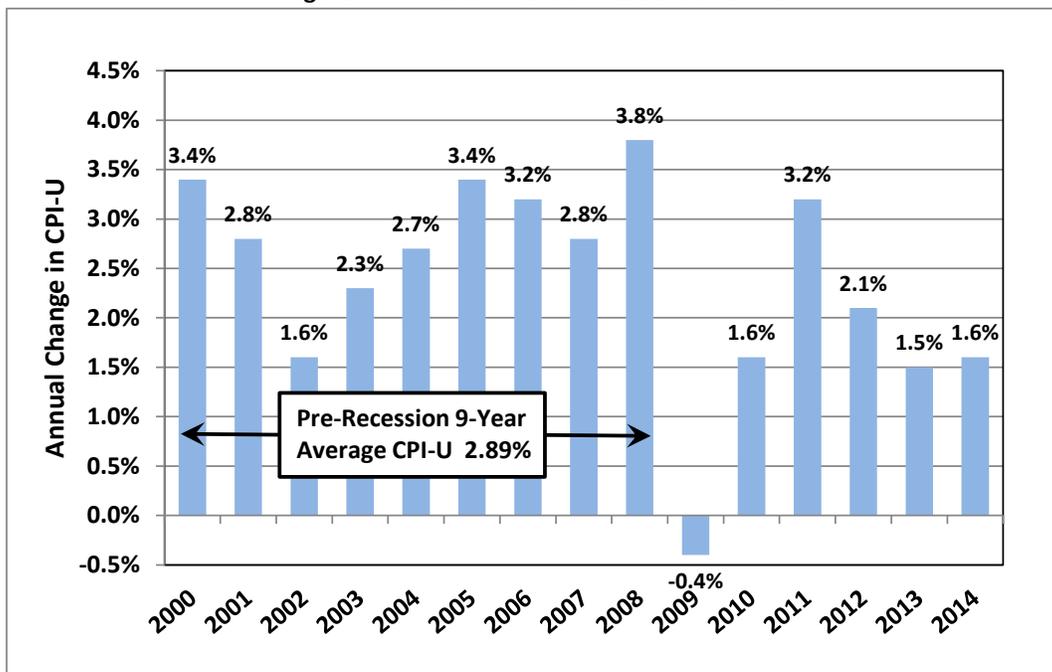
Figure 16: Population Comparison of Washington County and Selected Municipalities



Source: U.S. Census Bureau

Inflation is another measure of economic activity. While an inflation measure specific to the Rockville/Springdale Fire Protection District area is not available, the following figure shows the trend from 2000 through 2014 of the national Urban Consumer Price Index for All Urban Consumers (CPI-U). While fairly variable, in the nine years preceding the recession the average annual inflation factor was approximately 2.89 percent. It was actually -0.4 in 2009 immediately after the pre-recession peak of the economy in 2008 and jumped to 3.2 percent by 2011, generally regarded as the low point in the recession. As the economy began to show signs of recovery, the annual inflation index dropped to 2.1 percent in 2012 and then appeared to stabilize around 1.5-1.6 percent over the next two years.

Figure 17: Inflation Trends: West Urban CPI-U



Source: U.S. Bureau of Labor Statistics

The Utah State Tax Commission compiles information on the taxable retail sales (TRS) at the state and county level, which is often a very sensitive indicator of economic performance tending to track consumer confidence in the overall economy. Figure 18 shows state retail tax receipts for the period 2000 through 2015. For the period 2000-2003, sales tax rose from \$15.3 million to \$16.7 million, increasing at a steady rate of about \$470,000 per year. The trend markedly increased between 2003 and 2007 when the sales tax receipts rose from \$16.7 million to almost \$24 million, a rate of increase of almost \$1.8 million annually. This reflected the tremendous economic surge preceding the recession.

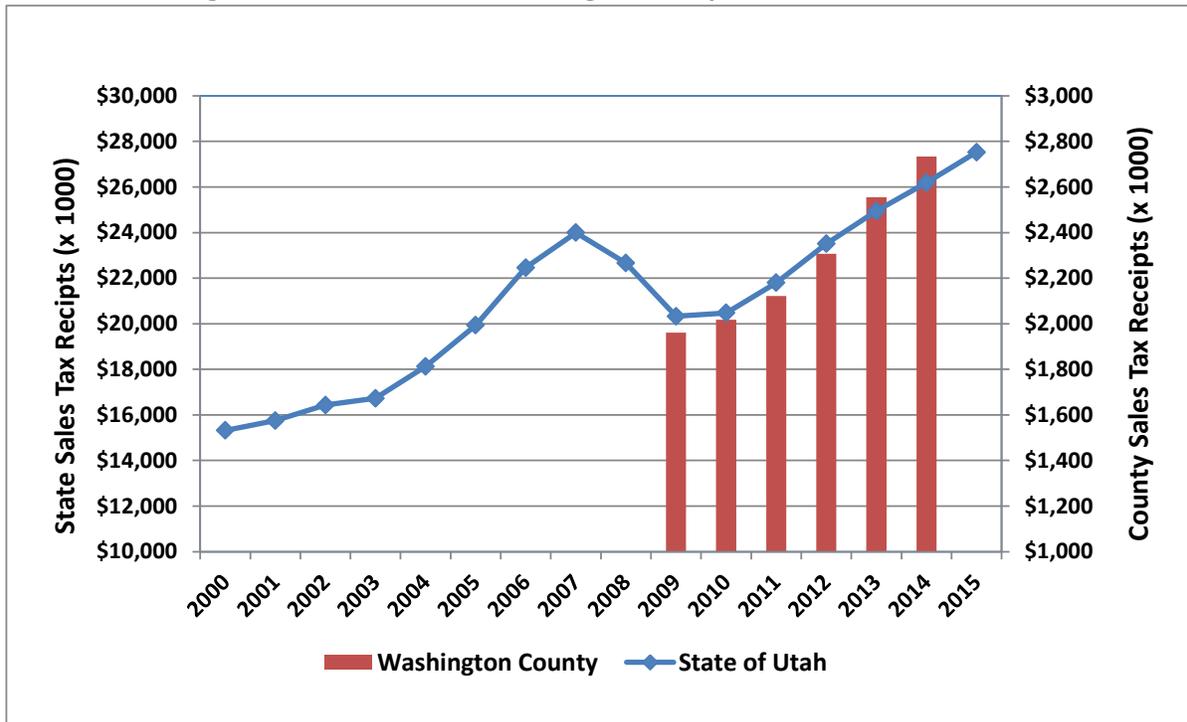
Sales tax receipts statewide had dropped to their lowest point of the recession by 2009, plunging from a high of almost \$24 million in 2007 to \$20.3 million, a drop of 15.3 percent in two years. Receipts remained static through 2010 but then began to rise significantly by 2011. In fact, the rising trend is stronger than the period 2000-2003 and only slightly less than that seen prior to the pre-recession peak of economic activity. Between 2012 and 2013, sales tax receipts had actually surpassed the pre-recession peak of

almost \$24 million. Between 2010 and 2015, sales tax receipts had risen from recession lows of \$20.5 million to \$27.5 million, an increase of \$1.42 million per year or 34.4 percent (\$7.1 million) in five years.

It is interesting to note that statewide sales tax receipts actually peaked in 2007 and started to drop by 2008, one year before real estate values started their recession decline. Further, sales tax receipts actually started their current rate of improvement by 2011, when real estate values were at their recession low point. This is again indicative of how sensitive sales tax receipts are to consumer confidence or lack thereof in the economy.

Washington County sales tax receipts are shown for the period 2009 through 2014. The trend is very similar to that shown for statewide values although the rate of post-recession increase is actually a bit greater than seen statewide. Sales tax receipts increased slightly from a low of \$1.96 million in 2009 to just over \$2 million in 2010 after which they increased over the next four-year period to \$2.73 million, an increase of 35.5 percent in four years.

Figure 18: State of Utah and Washington County Taxable Retail Sales Trend

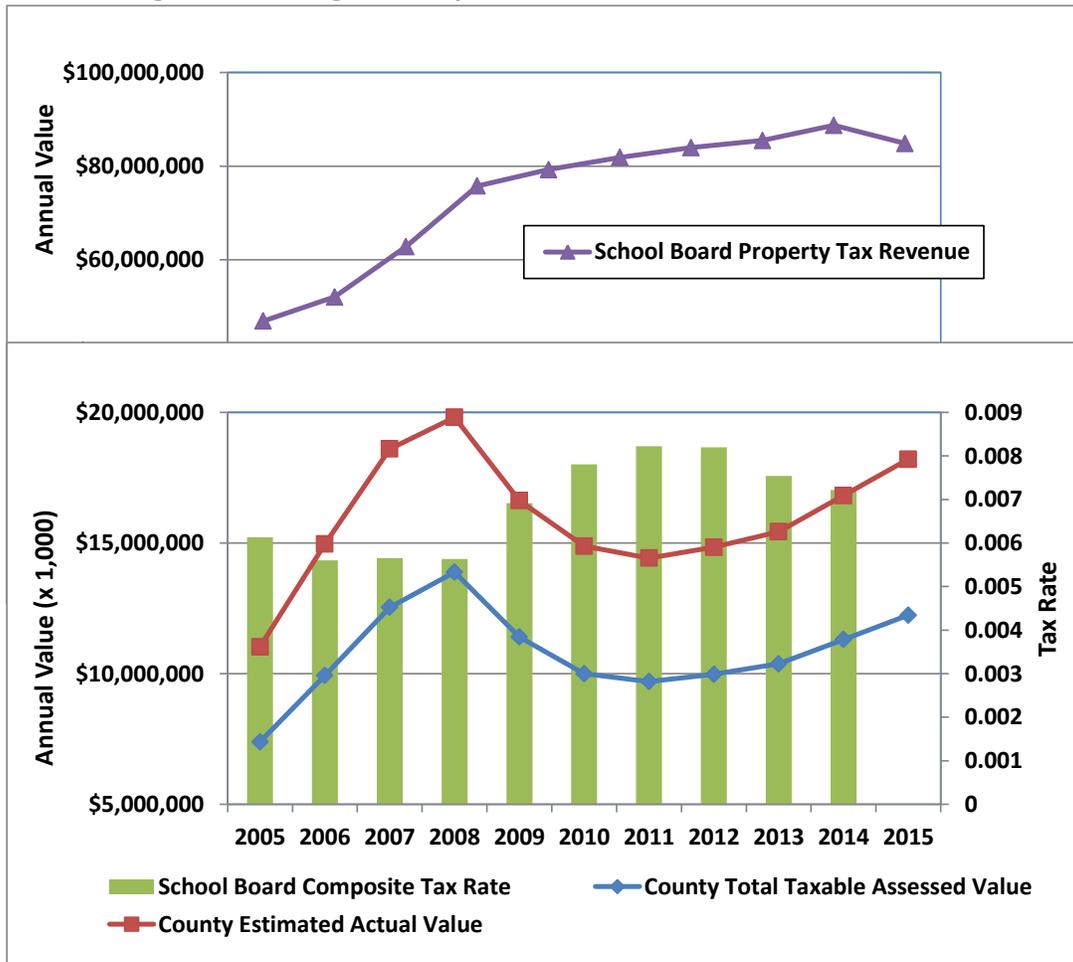


Source: Utah State Tax Commission, Washington County 2014 CAFR

Figure 19 shows Washington County total taxable assessed value and estimated actual value from 2005 through 2015 along with the county school board composite ad valorem tax rate (school board tax rates have the largest impact on residents and are shown for illustrative purposes) through 2014. The footprint for the county general operating fund and school board is the same. Property values climbed at a rapid pace with the rate of increase beginning to taper off as they reached their peak values in 2008. Taxable values rose from \$7.4 billion to \$12.5 billion by 2007, a 70 percent jump in two years. They climbed to their pre-recession peak of \$13.9 billion in 2008. The recession low point was reached by 2011 when

countywide values dipped to \$9.7 billion, a loss of 30.2 percent over three years. Values began to rise slowly over the next two years from \$9.7 to \$10.4 billion and then began to steadily climb at a faster rate over the next two years to their projected 2015 values of \$12.2 billion. While not fully recovered to their pre-recession high, county taxable values are continuing on a strong upward trend that may be more sustainable over the next few years and should see values at or near their 2008 high by 2017-2018.

Figure 19: Washington County Assessed versus Taxable Value and Tax Rate



Source: Washington County School Board CAFR, 2014

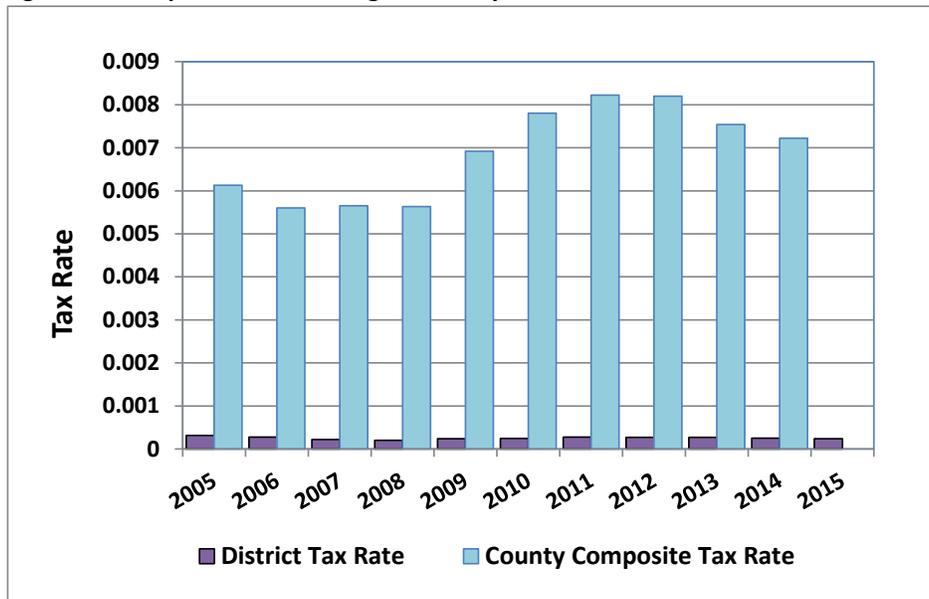
Also shown in the preceding figure are the composite county school board tax rates that are used in conjunction with taxable value to determine total ad valorem revenue available to the school board each year. The county general fund works in a similar manner but with lower rates.

According to the Washington County Tax Assessor, the total tax base is comprised of four components that include locally assessed residential property, locally assessed commercial property, locally assessed personal property, and some fees in lieu (e.g., motor vehicle-boats, trailers, motor homes, motorcycles, etc.).

In generalized terms, the tax rate calculated and imposed by the county commission takes the total approved budget and divides it by the total tax base as outlined above. The tax rate is modified by other items such as the ratio of the past five years' actual collections versus projected and the historical average of the Board of Equalization's (BOE) annual adjustments. The school board works in a similar manner to determine its rates.

Individual, annual ad valorem payments require knowledge of the total taxable value on one's property, the assessment ratio for the property (for example residential property is only taxed at 55 percent of the taxable value while all other property is taxed at 100 percent of taxable value), any exemptions that are due to the property owner, and the total tax rate for the property. Total tax rate will vary by location. For example, the preceding figure shows only the school board composite tax rate used to fund its various operations. Figure 20 shows that properties within the boundary of the Rockville/Springdale Fire Protection District will also pay a district ad valorem tax; there may be other taxes such as county general fund, library funds, and bond funds as well as municipal and/or special service district taxes that comprise the total property ad valorem amount for any given year.

Figure 20: Comparison of Washington County School Board and Fire District Tax Rates



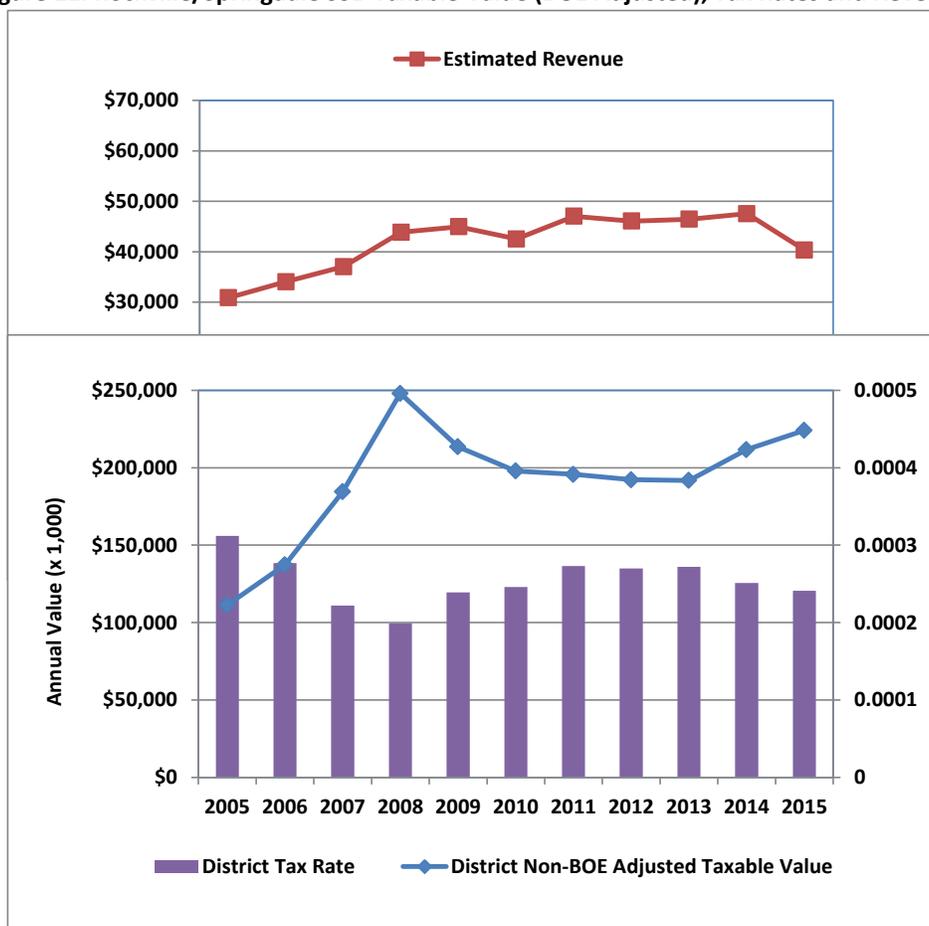
Sources: Washington County School Board 2014 CAFR and State of Utah Certified Tax Rates

Typically, as taxable value goes up, the same tax rate will generally provide the taxing entity with more revenue. In order to maintain the same annual revenue stream, the tax rate is reduced when taxable value goes up, and vice versa. This trend is illustrated in Figure 19. Between 2005 and 2006, when the taxable value was going up at a very high rate, the tax rate was reduced, thereby leading to lesser revenue than would have otherwise been received by the school board. However, the tax rate was not reduced sufficiently to maintain the previous year's revenue amount; therefore, revenue increased despite a reduction in the tax rate. From 2006-2008, while the tax rate was held relatively constant, the revenue still increased significantly from \$52.1 million to \$75.8 million or 45.6 percent in two years. On the other hand, over the next five years the board's revenue increased at a steady rate from \$75.8 million to \$84.8

million or about \$1.8 million per year even as property values dropped precipitously to their 2011 low and then began to rebound. This was accomplished by first raising the tax as values fell and then lowering it as values rose.

Figure 20 shows a comparison of the Washington County School Board tax rates compared to those of the Rockville/Springdale Fire Protection District from 2005 to 2014. While the property tax revenue component of the district revenue stream is relatively minor, a slight trend mirroring the school board tax rate trend is observed. Focusing in on the fire protection district alone in Figure 21, the trend of decreasing tax rates as taxable values rise can be observed; revenue still rises slightly between 2005 and 2008. As values fell during the recession, rates were raised to maintain approximately the same level of revenue as in prior years.

Figure 21: Rockville/Springdale SSD Taxable Value (BOE Adjusted), Tax Rates and Revenue



Source: Washington County 2014 CAFR

The following table is a compilation of the 2014 fiscal year of selected countywide, municipal, and special service fire district taxing units in order to compare taxable values and rates to Rockville/Springdale Fire Protection District. The Rockville/Springdale Fire Protection District encompasses the towns of Rockville and Springdale with Rockville making up 16 percent of the district’s taxable value while Springdale makes up 84 percent of district’s taxable value as of 2014. Ad valorem revenue is a relatively small percentage of

the overall district revenue stream compared to total district taxable value. By contrast, the Hurricane Valley Fire Protection District with a taxable value almost 75 percent greater than Rockville/Springdale generates almost 800 percent more ad valorem revenue. Comparing tax rates shows that the 2014 Hurricane Valley FPD rate of 1.093 mills is nearly 4.5 times that of the Rockville/Springdale FPD rate of 0.251 mills.

Figure 22: Washington County and Selected Town and Special District Values, Rates and Revenue

Taxing Unit	Year-End Value (After BOE)	Total Adjusted Value	Current Year Real & Centrally Assessed Rate	Prior Year Personal Prop. Rate	Total Prop. Taxes Charged	Personal Prop. Taxes Charged	Total Taxes Charged
Countywide							
Library	\$10,721,520,635	\$11,549,637,678	0.000269	0.000289	\$2,999,393	\$115,449	\$3,114,842
School District	\$10,721,520,635	\$11,549,637,678	0.007221	0.007544	\$80,515,310	\$3,013,655	\$83,528,965
County General Fund	\$10,721,520,635	\$11,549,637,678	0.000779	0.000837	\$8,685,975	\$334,360	\$9,020,335
County GO Bond Fund	\$10,721,520,635	\$11,549,637,678	0.000247	0.000274	\$2,754,090	\$109,457	\$2,963,547
Municipalities (selected)							
St. George	\$5,998,816,505	\$6,389,782,050	0.001662	0.001784	\$10,183,856	\$467,964	\$10,651,820
Washington	\$1,460,913,045	\$1,499,854,017	0.001505	0.001621	\$2,217,572	\$42,769	\$2,260,341
Hurricane	\$912,481,425	\$998,444,131	0.002432	0.002690	\$2,268,081	\$177,124	\$2,445,205
La Verkin	\$143,853,490	\$152,926,420	0.002532	0.002750	\$374,753	\$13,530	\$388,283
Toquerville	\$76,763,010	\$82,701,452	0.001272	0.001323	\$104,221	\$1,014	\$105,235
Virgin	\$41,610,445	\$43,492,295	0.001304	0.001445	\$55,871	\$934	\$56,805
Rockville	\$32,341,600	\$33,544,805	0.002141	0.001435	\$71,449	\$248	\$71,697
Springdale	\$170,038,510	\$177,201,322	0.000359	0.000393	\$61,472	\$2,347	\$63,819
Special Service Districts (selected)							
Rockville/Springdale Fire	\$202,380,110	\$210,746,127	0.000251	0.000272	\$51,355	\$1,671	\$53,026
Hurricane Valley Fire	\$353,956,995	\$377,818,916	0.001093	0.001112	\$405,687	\$7,396	\$413,083

Sources: Washington County School Board 2014 CAFR and State of Utah Certified Tax Rates

Historical Revenues and Expenses

An analysis of district historical revenues and expenses was completed in order to help identify relevant financial trends, strengths, and weaknesses, and to lay the groundwork for the financial forecast presented in the next section of the report. The historical analysis helps illustrate how the district funds its services – where the money comes from and where it goes.

Historical budget data available from the district was not available in sufficient detail or completeness to provide a highly accurate picture of financial trends. Annual, external financial audits were used together with district-provided budget information to develop the “cash basis” analysis provided below. While the following analysis should be used with a degree of caution, it should also provide the district with a solid basis upon which to develop future policy.

Key Recommendation:

- Develop a more effective annual budgeting process using the standard Utah governmental (or other appropriate) chart of accounts for revenue, expense, debt, and fund balance line items.

In order to establish a long-term fiscal policy to guide the district, the board and district management need to know how much recurring revenue to expect each year balanced against recurring expenditures. Further, the board needs to know what its ending and beginning fund balance will be and how much it needs to hold in reserves to fund operating expenses until various recurring revenues are received, as well as whether it should retain reserves for future capital expenditures (current restricted reserve) and contingencies. Specifically, the board should know exactly how much cash carried forward will be available leading into each fiscal year and whether that cash is to be reserved for specific purposes or not. Further, it needs to understand how the fund balance fluctuates throughout the fiscal year. It also needs to know how much debt it carries and for what length of time.

Budget preparation for management purposes has a different goal from the annual financial audit. One key difference is in the accounting for ambulance billing revenue. It is understood that the board uses an accrual basis for its annual fund accounting; however, management also needs to know its actual cash position throughout the fiscal year. While the financial auditor looks at accounts receivable and may book that as revenue, the manager would be better served looking at annual cash actually received versus what is expected from the given payor mix. Further, while capital asset depreciation and current value is important in terms of the district annual financial statement, it does not directly affect the board’s ability to fund recurring expenses such as staff pay and benefits, utility and maintenance costs, etc.

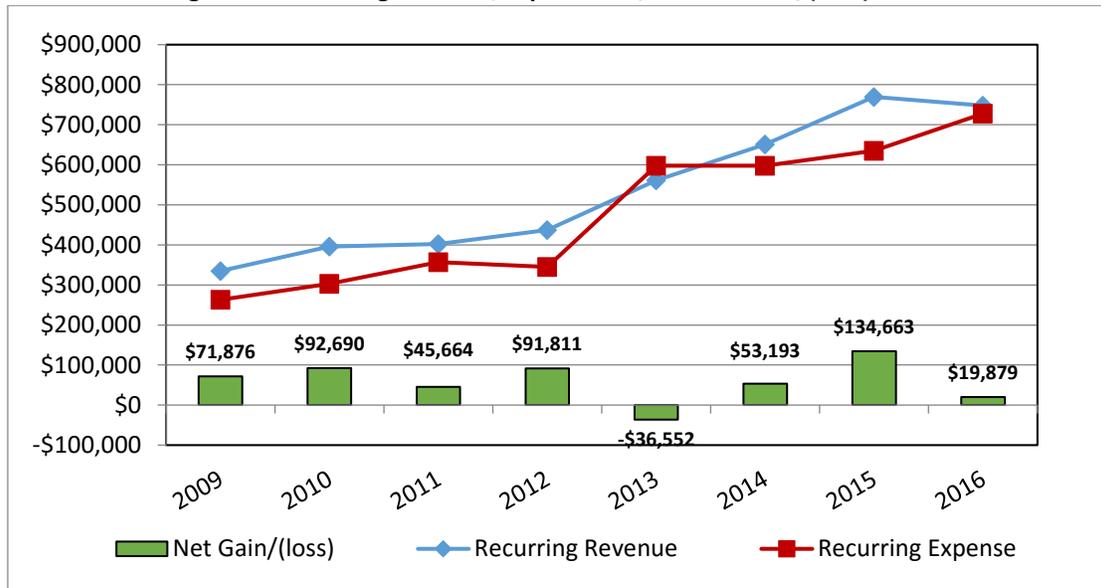
While not part of the ESCI scope, an analysis of monthly cash flow will give the district a better sense of how much it needs to set aside as a reserve for cash forward to cover operating expenses throughout the year until recurring revenues such as property taxes, standby and other fees are received. The ending fund balance as of December 31 each year is a snapshot of the district’s cash status. The beginning fund balance at the start of each year shows the cash position at one point in time. The cash balance will decrease or increase quite often throughout the fiscal year depending upon the timing of expenditures

such as payroll and revenue such as ambulance billing, tax receipts, etc. Typically, ambulance revenues are received throughout the year while the bulk of tax revenues and fees are often received within a several month period.

Understanding this routine fluctuation of cash balance, the board needs to maintain an operating cash reserve throughout the year sufficient to cover expected recurring expenses until the bulk of expected annual recurring revenues are received. This amount will generally be in excess of restricted reserves held for future capital purchases and contingencies. ESCI experience has shown that many jurisdictions retain operating reserves sufficient to cover approximately three months of recurring expenses.

Figure 23 shows the district how its recurring revenue and expense have behaved for the period FY 2009 through FY 2016 as adopted. Expenses are shown in red while revenues are shown in blue. Each year, if recurring revenue exceeds expenses, then there will be a net gain in fund balance at the end of the fiscal year. The net gain or loss in fund balance each year is shown in the green bars and affects the following year's beginning fund balance accordingly.

Figure 23: Recurring Revenue, Expenditure, and Net Gain/(Loss) Trends



Source: Departmental Audited, Adopted, and Proposed Budget Documents

For example, each year from FY 2009 through 2012, recurring revenue exceeded expenses and the district's ending fund balance increased by between \$46,000 and \$93,000, respectively. However, the district's expenses exceeded recurring revenues in FY 2013 and it had to use a portion of its cash reserve to cover the operating loss for the year of approximately \$37,000. Therefore, the beginning fund balance for FY 2014 actually decreased as shown graphically in Figure 24.

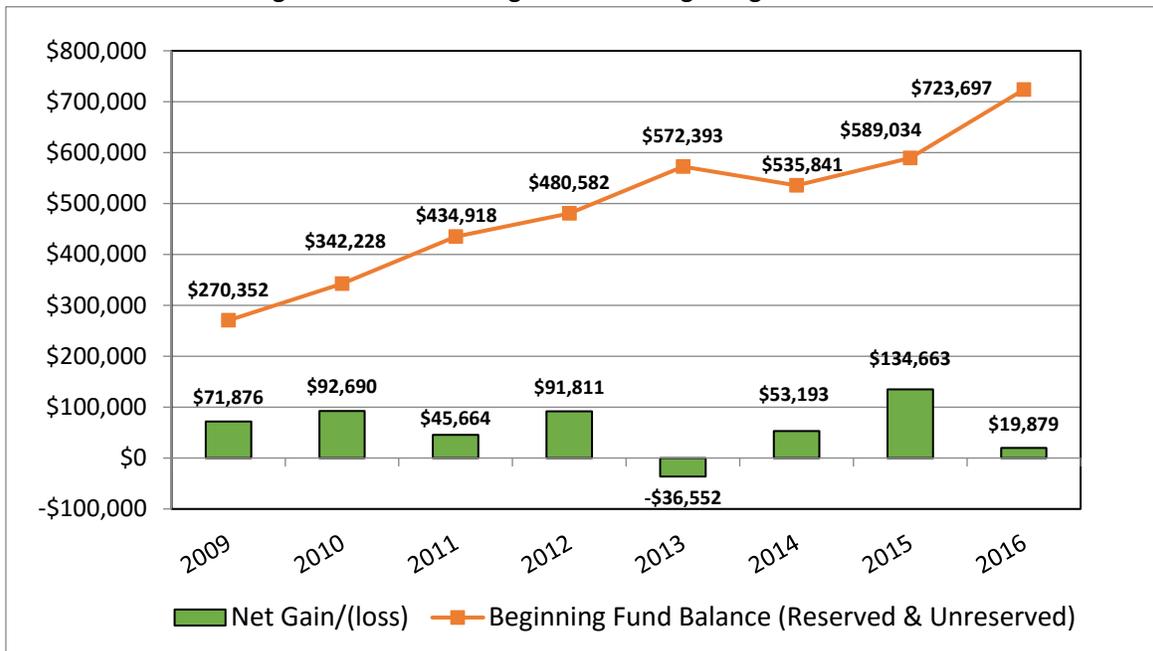
When there is a net gain in fund balance, the district's year-end reserved and unreserved cash balance increases. Conversely, if the district spends more than it brings in each year in revenues, the fund balance will decrease. As can be seen in Figure 24, the beginning fund balance for each subsequent year grew from approximately \$270,000 in FY 2009 to \$572,000 by the end of FY 2012. However, with the net

operating loss in FY 2013, the beginning fund balance carried forward into FY 2014 had decreased by approximately \$37,000 to \$536,000. FY 2014 through FY 2016 show net gains in fund balance, thus the beginning cash balance again began to grow.

The district has been diligent in monitoring its annual fund balance. Historically, the board has been setting aside a portion of its annual fund balance as a restricted reserve to be added to each year as savings in anticipation of having to fund future, large capital expenses such as replacing pumpers, tankers and other major equipment as well as potentially funding major facility repairs or renovations. Further, the board has consulted with outside accounting sources to gain perspective on setting a policy for an annual operating reserve and contingency such as discussed earlier.

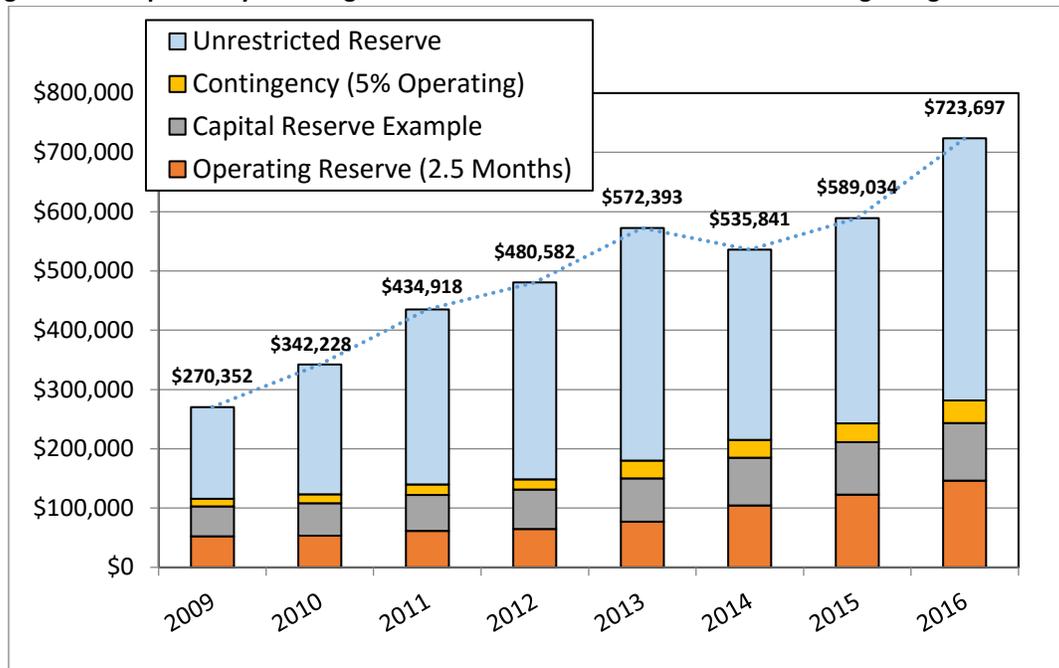
Although this policy has not been set, the board will utilize both outside financial recommendations and information from this study to develop and adopt a reserve policy with specific targets as part of an overall financial strategy. Figure 25 provides a generalized example of how such a reserve policy might look with respect to the beginning annual fund balance using the actual historical fund balance from FY 2009 through adopted FY 2016.

Figure 24: Annual Change in District Beginning Fund Balance



Source: Departmental Audited, Adopted, and Proposed Budget Documents

Figure 25: Sample Policy for Designation of Reserves in Relation to Historical Beginning Fund Balance



Source: Departmental Audited, Adopted, and Proposed Budget Documents

Figure 25 shows the historical total beginning fund balance each fiscal year as a blue dotted line with the total amount shown above the line for FY 2009 through adopted FY 2016. The brown bars represent a 2.5-month annual operating reserve each year. This amount is approximately 20 percent of the annual personnel services and operating expense budgets and is often seen as the amount needed to fund the recurring expenses experienced by a department until the bulk of its annual recurring revenues (such as taxes, assessments, etc.) are received. The gray bars represent a programmed approach to a restricted capital reserve fund that grows at the rate of 10 percent per year.

For the purposes of this illustration, a starting amount for the capital reserve fund of \$50,000 is shown for FY 2009. The yellow bars represent a reserve fund for contingencies or emergencies. This is often set at 5 percent of the total annual expenditure budget, and these funds might be used for anything from extraordinary personnel and operating costs due to wildfires, other disasters or other expenses that are unforeseen and are beyond the capability of the adopted budget to absorb. The light blue bars represent unrestricted reserves. While this amount has been growing, the district board has been concerned with growth of the expenditure budget as discussed below. While the unrestricted reserve has been growing overall throughout the period, there is little capacity to increase annual recurring expenses. If that does happen, as will be shown, the beginning fund balance will begin to decline as recurring expenses will exceed revenues leading to annual net operating losses.

Revenues

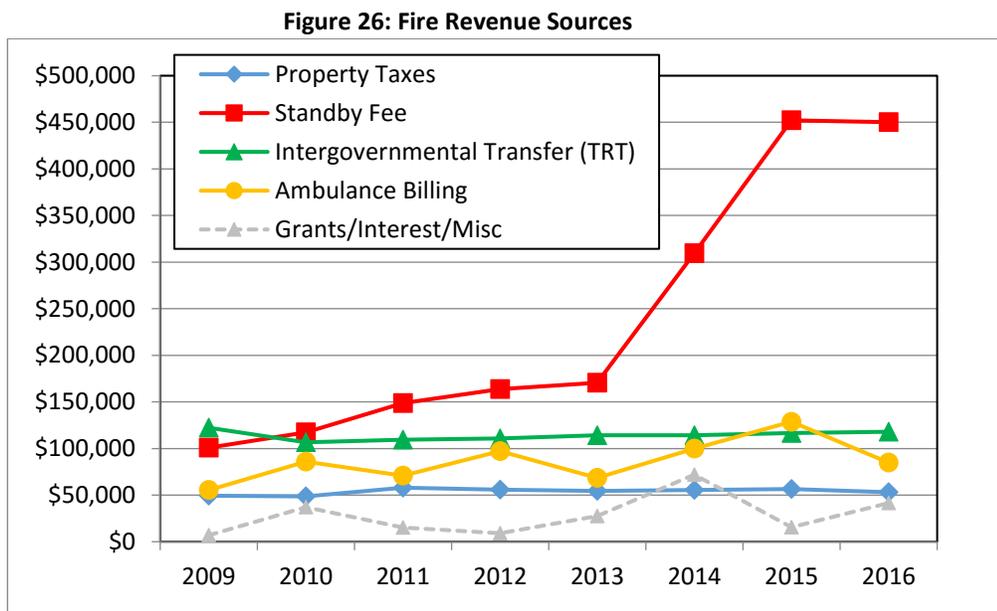
In 1995 Washington County, under its authority to create and modify special service districts, amended the original 1983 enabling resolution (#356) for the Rockville/Springdale Fire Protection District to add ambulance service. Resolution #598 modified Section 3 of the 1983 resolution to read as follows, “The

Rockville/Springdale Fire Protection District is created for the purpose of providing fire protection facilities and health care service within said District...”

Section 4 of the original 1983 enabling resolution further provides that the Rockville/Springdale Fire Protection District may,

...impose fees and charges, levy taxes, and issue bonds for the acquisition, provision, and construction of said services, provide, however, that said tax levy is to provide said services or to repay said bonds and must be authorized and approved by a majority of the qualified electors of the Special Service District at an election for that purpose.

- Revenues from all sources are shown in tabular form later in Figure 29. Fund balance carried forward includes both restricted and unrestricted cash reserves.
- Total fire district recurring revenue from all sources for FY 2016 is projected at \$747,600. Beginning fund balance is projected at \$723,697 and includes both restricted and unrestricted cash reserves. Figure 26 shows individual revenue sources from FY 2009-2016.



Source: Departmental Audited, Adopted, and Proposed Budget Documents

- From FY 2009 through FY 2016, total fire district recurring revenue increased from \$334,890 to \$747,600 or 123 percent. During the same period, beginning fund balance increased from \$270,352 to \$723,697 or an increase of 168 percent.

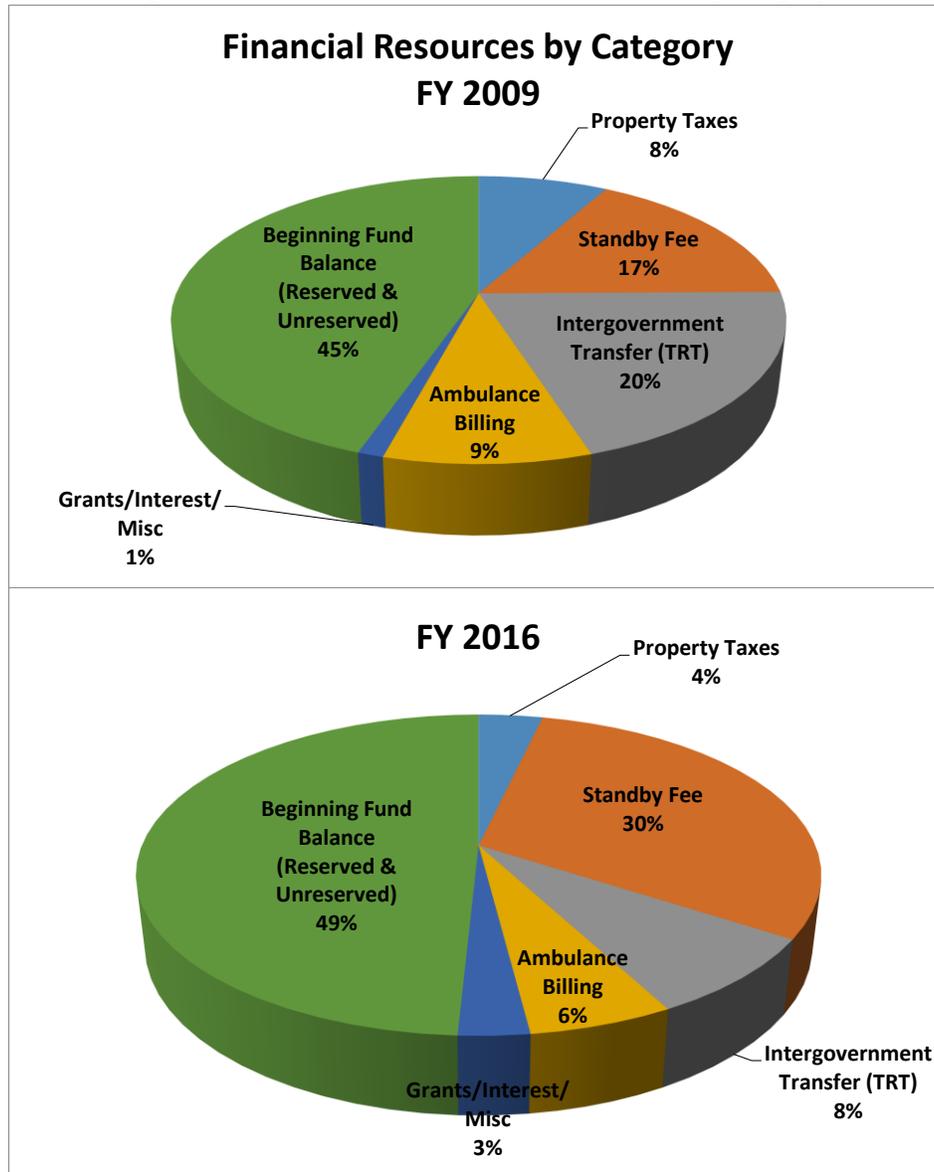
The district imposes a “standby” fee on properties within the district according to a fee schedule. This is the main source of district revenue; the fees are based upon classification and risk for residential and commercial properties. The fees were last updated in 2014 according to the Standby Fee Classification Schedule and Commercial Fee Chart that was provided to ESCI.

- Standby fee increased gradually from FY 2009 through FY 2013 from \$100,886 to \$170,637, a 17.3 percent increase over four years or 4.3 percent annually. However, between FY 2013 and FY 2015

the fee increased significantly from \$170,637 to \$453,810, a jump of 166 percent in two years or 83 percent per year. For FY 2016, the standby fee revenue remains at an estimated \$450,000.

- The standby fee comprised only 17 percent of the total district financial resources in FY 2009 but by FY 2016 it had increased to 30 percent when total fund balance is considered (Figure 27).

Figure 27: Fire Revenue Sources as Percent of Total by Category



Source: Departmental Audited, Adopted and Proposed Budget Documents

The next major source of district revenue is the transfer of a portion of its 1 percent Transient Room Tax (TRT) funding from the town of Springdale under the terms of a 2009 interlocal agreement (Ambulance Service Agreement). State statute authorizes municipalities to, "...impose a transient room tax on rents charged to transients occupying public accommodations in an amount up to 1% of the rents charged..." which, "...may be used for general fund purposes..." Further, state statute authorizes municipalities to

enter into service agreements with other public entities (such as the fire protection district) and appropriate funding to cover the cost of those services and specifically to share TRT funding for that purpose.

The TRT revenue sharing agreement was authorized by town ordinance in 2000 to subsidize ambulance service to the town of Springdale when the district acquired the ambulance service from the town. According to Springdale Ordinance #00-1-1, the town wished to, "...share the tax revenue it receives from the 1 percent bed tax with the district in order to pay the costs associated with...ambulance service." The ordinance contemplated the development of a formal Ambulance Agreement that would lay out the terms and conditions of how the TRT would be shared with the district.

Section 5 of the ordinance states that the,

...town shall share the revenues with the district as described...for the term specified in the Ambulance Agreement, at the end of which time the Town Council shall review the matter and determine whether said tax revenues should continue to be shared.

The ordinance further discussed a sunset of the TRT in the event that alternative funding to support the ambulance service became available. Lastly, the ordinance, section 9, states that the, "...City Council shall actively pursue and shall attempt to identify other alternative and feasible sources of funding which could be implemented in lieu of the bed tax..."

The 2009 Ambulance Services Agreement between the town and the district provides a brief history of the TRT sharing since its inception in 2000. The original agreement called for the town to transfer 100 percent of the TRT, which was reduced to 85 percent in 2005. This continued through 2009, when the current TRT sharing formula was agreed to by both parties.

The agreement states that, "the District shall provide emergency ambulance service to the District, including the Town..." and that the, "District shall put forth its best efforts to ensure the most prompt and highest quality ambulance service that can be maintained under the circumstances [presumably funding]." In exchange, the town would begin to remit to the district approximately \$102,600 of the TRT for the next two fiscal years which would be the base amount plus inflation for the next five years after that. The town has utilized a portion of the TRT as security for a bond to fund water system improvements and the Agreement states that, "...payment of the TRT revenue toward the water tank bond shall always have priority over any payment made to the District from the TRT revenue."

The term of the 2009 Ambulance Service Agreement with the TRT revenue sharing provisions will expire on June 30, 2019. The Agreement does contemplate a potential renewal of the agreement, which may or may not include sharing of the TRT revenue. There would be a review, "...of the amount and manner of payments [of the TRT] which review must be completed no later than June 2018."

Minutes from several Springdale Town Council meetings describe conversations where the ambulance service and specifically the TRT fund sharing issue was discussed. During the June 28, 2006, meeting, district personnel discussed the need for additional funding to support a two-paramedic system and were concerned about reductions in TRT funding. However, council was concerned that call volume was not

increasing and that the town should not bear the total cost of the ambulance service. More significantly, council members pointed out that, "...the ambulance agreement had always anticipated that alternative funding would be sought by the District." The fire chief stated that there, "...wasn't any money available in the community." The mayor and several council members thought grants could be secured to provide for increased operating costs.

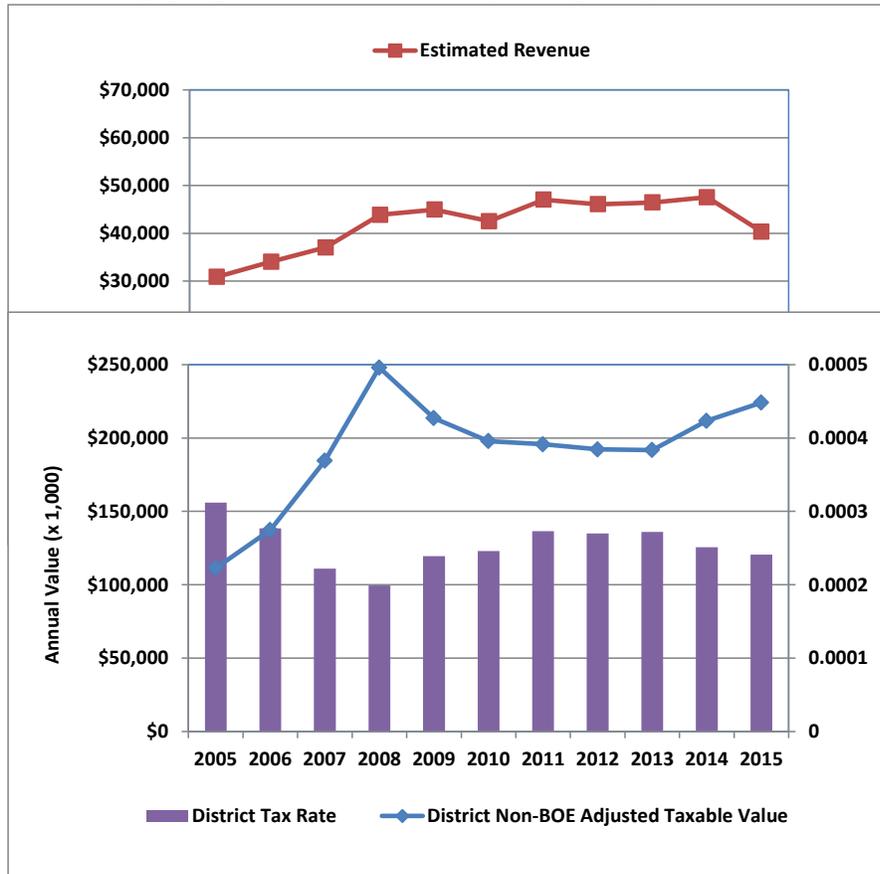
The current Ambulance Services Agreement was discussed during the July 8, 2009, meeting. Council specifically mentioned that the District, "...had to be weaned from the TRT." It was also pointed out that the ambulance service was not able to sustain itself through fees and some concerns were expressed that fire district funding was being used to subsidize the ambulance service and that, "...there were big issues related to the fees levied by the district [standby fees] and utilizing them for the ambulance." The point was made that ambulance and fire costs were budgeted separately, "...because the district had been accused of using ambulance funds for the fire department in the past."

- Following the 2009 revision to the Ambulance Service Agreement between Springdale and the District, the TRT shared revenue gradually increased from \$106,673 in FY 2010 to \$118,000 in the adopted FY 2016 budget, an increase of 10.6 percent or approximately 1.8 percent annually.
- Springdale's fiscal year runs from July 1 to June 30 rather than coincident with the calendar year as is the District's fiscal year. Therefore, should the city not renew the TRT revenue sharing agreement when the 2009 agreement expires, the District will only receive 50 percent of the expected TRT revenue in FY 2019.
- TRT revenue as a percentage of total available financial resources has decreased from 20 percent in FY 2009 to 8 percent by FY 2016 (Figure 27).
- The property tax component of total district financial resources has decreased from 8 percent in FY 2009 to 4 percent in FY 2016 (Figure 27) and is comprised of current year taxes, fees-in-lieu, miscellaneous tax collections, and prior year delinquent tax revenue.
- Current year tax revenue increased steadily from FY 2005 to FY 2008 (Figure 28) from just over \$31,000 to almost \$44,000, a 42 percent increase in three years. Figure 29 shows tax revenue from FY 2009 through FY 2015 from district budget records. These data include more than current year tax revenue as cited above.
- As discussed previously and shown in Figure 28, district tax rates fluctuated with property values in such a way that the district maintained an average annual revenue stream of \$45,000 from FY 2008 to present.
- Grants, interest, and other miscellaneous revenue (such as fire marshal fees) form a small part of the district's revenue stream ranging from 1 to 3 percent and averaging approximately \$27,000 annually.

Key Recommendations:

- It is recommended that the district and the Springdale Town Council work jointly to seek stable alternative funding sources to replace TRT funding shared with the district to support ambulance service. Grant funding is not a good sustained source to fund annual operating and personnel costs.
- It is recommended that the district seek assistance from legal counsel concerning the appropriateness of using funds derived from the Standby Fee to fund EMS costs.

Figure 28: Rockville/Springdale SSD Taxable Value (BOE Adjusted), Tax Rates and Revenue



Source: Departmental Audited, Adopted and Proposed Budget Documents

- The district currently outsources ambulance billing.
- Between FY 2009 and FY 2015, the district has experienced an annual revenue increase from \$55,387 to \$128,728, an average annual increase of approximately \$12,200.

Figure 29: Rockville/Springdale Fire Protection District Revenue Trend

Revenues by Category	2009 Actual	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Budget
Property Taxes	49,366	48,635	58,002	55,994	54,580	55,429	56,480	53,050
Standby Fee	100,886	117,404	148,741	163,621	170,637	309,487	452,143	450,000
Intergovernmental Transfer (TRT)	122,295	106,673	109,544	110,911	114,384	114,270	116,555	118,000
Ambulance Billing	55,387	85,811	70,945	97,139	68,638	99,981	128,728	85,000
Grants/Interest/Misc	6,956	37,106	15,109	9,167	27,513	71,975	15,726	41,550
Loan Proceeds	-	-	-	-	125,500	-	-	-
Recurring Revenues	334,890	395,629	402,341	436,832	561,252	651,142	769,632	747,600
Beginning Fund Balance (Reserved &)	270,352	342,228	434,918	480,582	572,393	535,841	589,034	723,697
TOTAL ALL FUNDING SOURCES	\$ 605,242	\$ 737,857	\$ 837,259	\$ 917,414	\$ 1,133,645	\$ 1,186,983	\$ 1,358,666	\$ 1,471,297

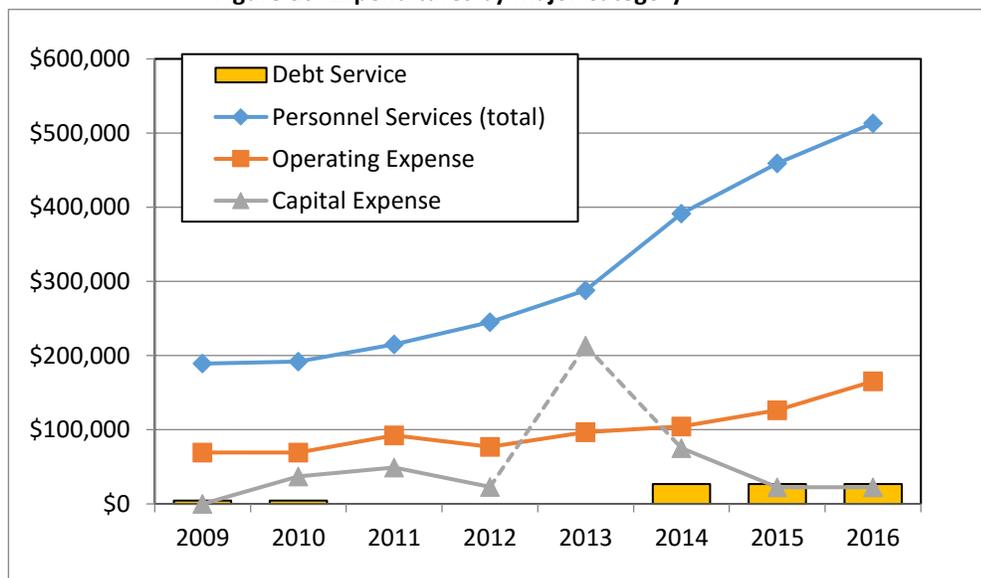
Source: Rockville/Springdale Fire Protection District Year-End Financial Statements

Expenditures

- Total fire expenses for FY 2016 are estimated at \$727,721 (summary table in Figure 33).
- From FY 2009 through FY 2012, total expenses increased by 31.2 percent, rising from \$263,014 to \$345,021.

- The most significant driver of increased annual operating costs for FY 2009 through FY 2016 was the increase in personnel costs.
- Except for a spike in capital expenditures (Figure 30) due to the purchase of apparatus using a combination of reserves and loan proceeds in FY 2013, annual capital expense averages approximately \$33,000.
- Debt service associated with the FY 2013 purchase is almost \$27,000 annually beginning in FY 2014 and extending through the final payment in FY 2019.
- Operating expenses increased gradually between FY 2009 and FY 2014, growing from almost \$70,000 in FY 2009 to approximately \$104,512 in FY 2014, an increase of 50.9 percent or approximately 10.2 percent per year.
- Operating expenses climbed at a significantly higher rate between FY 2014 and FY 2016 from \$104,512 to \$165,250 in FY 2016, a 58.1 percent increase in two years.

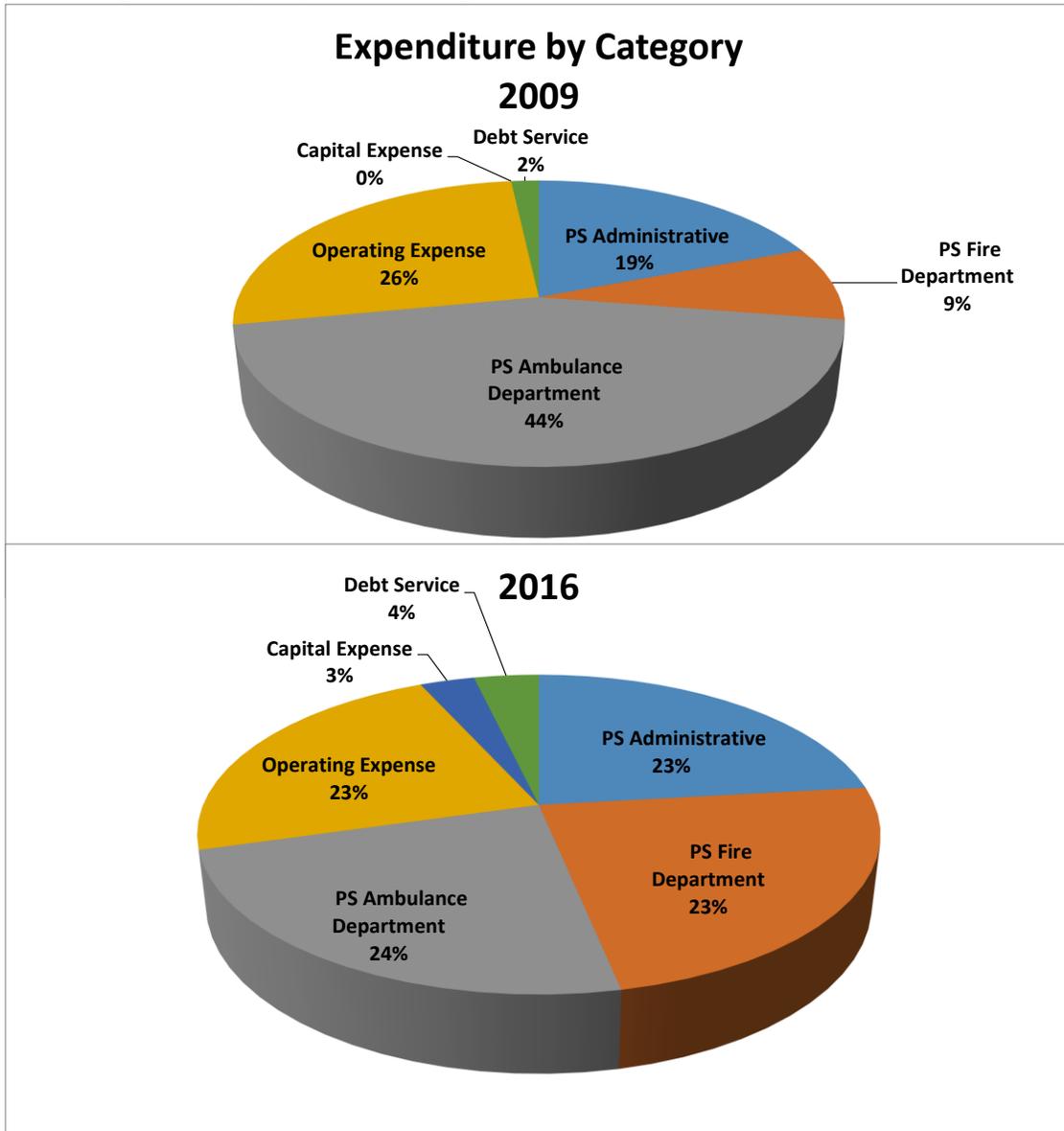
Figure 30: Expenditures by Major Category



Source: Departmental Audited, Adopted, and Proposed Budget Documents

- Personnel services (PS) costs as a percentage of total expenditures have ranged between 60 and 65 percent in years with higher capital expenses, to a more typical percentage between 68 and 72 percent. The exception was during FY 2013 when a major apparatus purchase dropped the personnel services to 48 percent of the total expenditure budget. During a more typical year, personnel services costs are more likely to consume approximately 70 percent of the expenditure budget (Figure 31).
- Operating expenses varied between a low of 16-17 percent for FY 2013-2014, when major capital expenditures were made, and a more typical 22 and 26 percent of the total expenditure budget.

Figure 31: Major Expenditure Categories as Percent of Total FY 2009 versus FY 2016

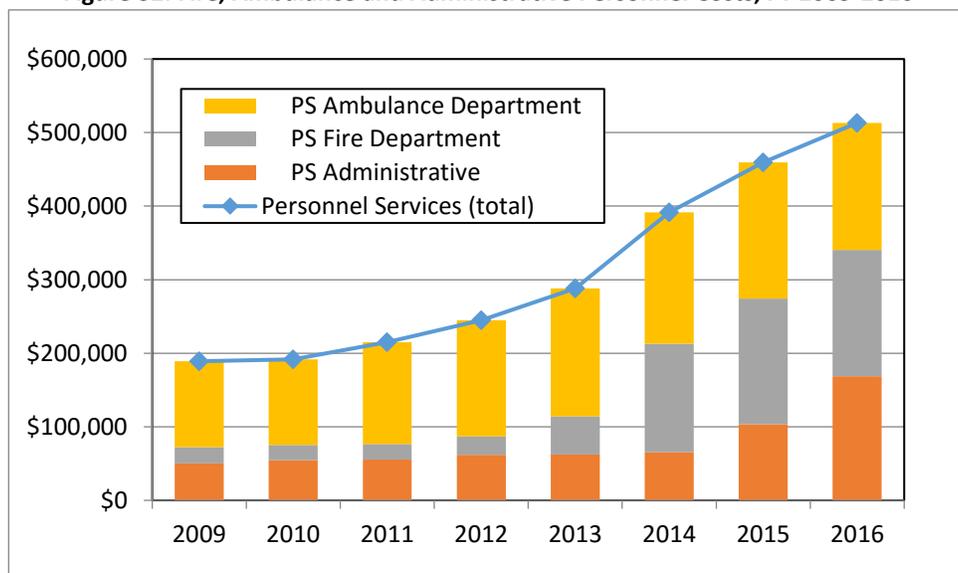


Source: Departmental Audited, Adopted, and Proposed Budget Documents

- Figure 32 illustrates that ambulance staffing was a major component of the total personnel services budget between FY 2009 and FY 2013, although firefighter staffing costs did also increase in FY 2013.
- Total personal services costs rose from \$189,149 in 2009 to \$288,060 in FY2013, a 52.3 percent increase over a four-year period or 13 percent annually.
- A significant increase in personnel costs was experienced beginning in FY 2014 with addition of paid-on-call status for firefighters and subsequently in FY 2015-16 with the addition of a paid fire chief. Other associated personnel costs such as FICA, Medicare/Medicaid, Utah Unemployment, and workers' compensation also increased over the period. From FY 2013 through FY 2016,

personnel costs have risen from \$288,060 to \$513,258 or \$75,000 annually (26 percent per year) over the three-year period.

Figure 32: Fire, Ambulance and Administrative Personnel Costs, FY 2009-2016



Source: Departmental Audited, Adopted, and Proposed Budget Documents

Figure 33: Rockville/Springdale Fire Protection District Expenditure Trend

Expenditures by Category	2009 Actual	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Budget
Personnel Services (total)	189,149	191,911	215,207	245,035	288,060	391,522	459,364	513,258
PS Administrative	50,287	54,673	55,318	61,735	62,422	65,558	103,486	168,765
PS Fire Department	22,130	20,647	21,500	25,361	51,888	147,347	170,943	171,662
PS Ambulance Department	116,732	116,591	138,389	157,939	173,750	178,617	184,935	172,831
Operating Expense	69,281	69,296	92,341	77,135	96,564	104,512	126,468	165,250
Capital Expense	-	37,147	49,129	22,851	213,180	75,202	22,424	22,500
Debt Service	4,584	4,585	-	-	-	26,713	26,713	26,713
TOTAL ALL EXPENSES	263,014	302,939	356,677	345,021	597,804	597,949	634,969	727,721

Source: Rockville/Springdale Fire Protection District Year-End Financial Statements

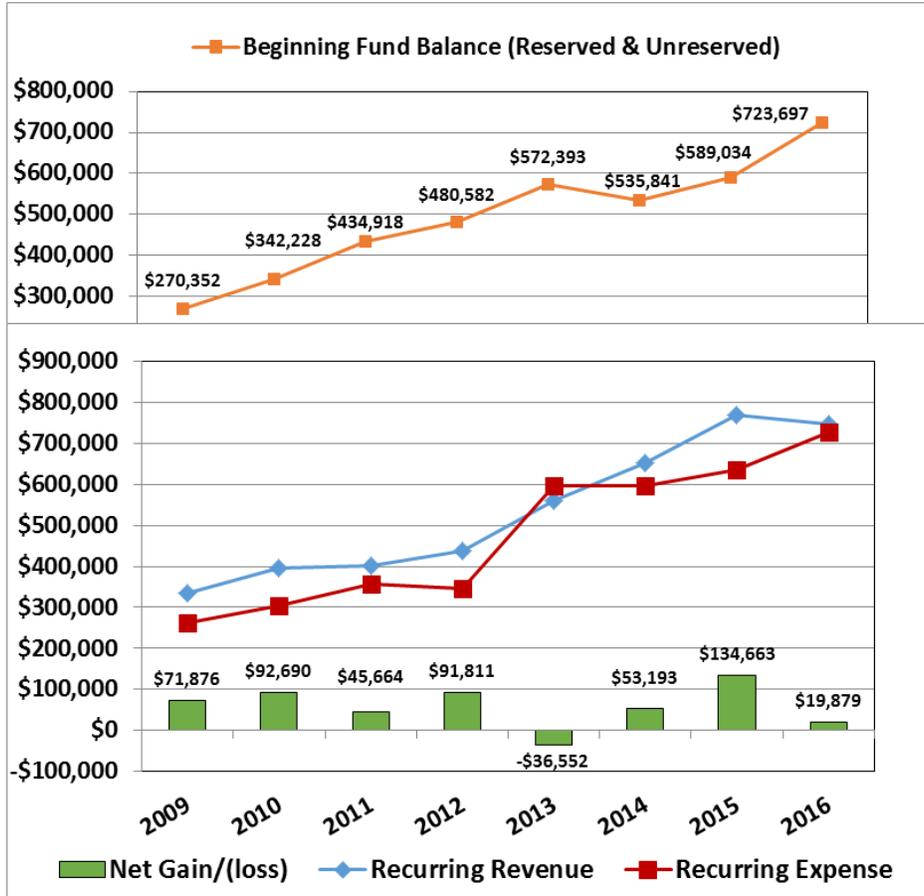
Net Income/Deficit

As shown below in the lower portion of Figure 34, the district has continued to bring in more recurring revenue annually than was expended from FY 2009 through FY 2016 as adopted, with the net effect of increasing ending fund balance at the close of each fiscal year. Although ESCI staff was not able to fully cross-verify district budget documents with independent audit reports, it appears that the district has been developing an increasingly large beginning fund balance (Figure 34, upper portion).

As noted, this cash carried forward currently consists of both reserved (for future major capital expense) and unreserved (available for annual operational expense) cash. District budget documents suggest that the combined reserve for cash carried forward has grown from a beginning fund balance of \$270,352 in FY 2009 to an estimated \$723,697 in FY 2016, an increase of 168 percent over the seven-year period or almost 24 percent per year.

The board is in the process of developing a policy that will comprehensively address the amount and degree to which it should designate a portion of this fund balance carry-forward for various purposes. Specifically, operating reserves to cover recurring expenses each year until the bulk of recurring revenues are received, a portion restricted for future capital expenses and a portion that might be set aside as a contingency reserve for unexpected emergencies. It is prudent to develop such a policy to ensure that recurring revenue at least slightly exceeds recurring expenses each year (green bars in lower portion of Figure 34) so that it does not have to routinely access its reserve funds.

Figure 34: Recurring Revenue vs Expense and Impact on Beginning Fund Balance



Source: Departmental Audited, Adopted, and Proposed Budget Documents

Revenue and Expenditure Forecast

ESCI developed a forecast of revenues and expenditures through FY 2022 to assess the near term financial sustainability of current operations if the district takes no action to increase various recurring revenue sources. The forecast is based upon historical actual revenue and expenditure performance and informed assumptions about how those revenues and expenditures will change in the future. The key assumptions used in the forecast are presented below, followed by the forecast results and selected metrics.

Forecast Assumptions

Revenue Forecast Assumptions

- **Property Taxes**
 - District taxable value is projected to increase approximately 8.5 percent per year based on historical trends from the recession low point. Some concerns have been raised by individual board members about increasing this revenue source.
 - Fees in lieu, delinquent taxes, and other taxes are expected to remain steady at approximately \$6,000 per year.
 - For purposes of examining the impact on future fund balance, the total property tax revenue stream is modeled to increase with inflation only which is expected to average approximately 2 percent per year over the next five years (\$51,000 base plus inflation).

Key Recommendation:

- It is recommended that the district board consider maintaining the current millage rate over the forecast period and allow tax revenue to increase at the same rate as property values, or 8.5 percent annually.

- **Standby Fee**
 - Between FY 2009 and FY 2013, prior to the large increases over the last two-year period, the fee had been increasing steadily at a rate of 17 percent per year.
 - Several board members indicated that a gradual increase to support operations might be preferable to an abrupt increase if any increases were warranted to support operational needs.
 - In order to assess the impact on future fund balance, the standby fee was modeled in the projection to remain at its current amount of \$450,000. However, the board may want to contemplate a base fee of \$450,000 in the current year increasing in the future at an average 15 percent per year (which could be done in several increments rather than 15 percent each year) to help offset the probable future loss of TRT (Transient Room Tax) shared revenues and support staffing needs.

Key Recommendation:

- It is recommended that the district board consider a strategy to increase the standby fee, either in smaller annual increments or scheduled, larger increments to offset probable loss of Transient Room Tax revenue and prevent drawdown of reserve funds to offset recurring expenses.

- **Shared Revenue (Transient Room Tax or TRT)**
 - The current TRT sharing agreement with the town of Springdale expires in June 2019.
 - The forecast increases the TRT by 2 percent annually from the base year in FY 2016 to account for expected annual inflation.

- Due to the expiration of the agreement in June 2019 (the end of Springdale's FY 18/19 fiscal year), the shared revenue for FY 2019 is modeled at half the prior year's rate plus inflation.
- This forecast also assumes that the revenue-sharing portion only of the 2009 Ambulance Services Agreement will not be extended beyond June 30, 2019.
- Ambulance Billing
 - Rates are set by the State of Utah and call volume is not increasing significantly.
 - Historical revenue growth from FY 2009 to FY 2015 averaged 22 percent annually.
 - Many factors affect actual revenue received from ambulance billing and revenue does not necessarily directly correlate with patient transport volume.
 - The mix of payor type and various rules pertaining to Medicare/Medicaid reimbursement will have an impact on revenue recovery as will factors such as the Affordable Care Act.
 - It is recommended that the board perform a detailed study of patient transports, billing and recovery by payor mix and account aging over the last six years to obtain a better perspective on future revenue from this source.
 - Base revenue of \$100,000 is an approximate average of the last three years actual and budgeted revenue and is conservatively forecast to increase 5 percent per year. This increase is low with respect to historical increases and is based upon input from district board members.

Key Recommendation:

- It is recommended that the district board conduct a detailed ambulance billing study that considers patients transported, call type, destination facility, charges and revenues by payor mix and account aging among other aspects.

- Other Revenue (Grants/Interest/Miscellaneous)
 - Between FY 2009 and FY 2016, this category of revenue returned an average of \$27,000 per year and is forecast to increase at the rate of inflation (2 percent) using \$27,000 as a base.
 - Input from district board members suggests that this base is high due to large one-time donations from the Town of Springdale. Therefore, a base amount of \$15,000 is used and is projected to increase with the rate of inflation.

Expense Forecast Assumptions

- Salaries/Wages/Benefits
 - No change in paid-on-call or volunteer staffing levels.
 - Historical personnel services increases from FY 2009 through FY 2013 averaged 13 percent annually driven by ambulance staffing cost increases.
 - Administrative, fire, and EMS personnel services costs for FY 2016 are assumed as the base case with FICA, Medicare/Medicaid, Unemployment, and workers' compensation costs included in the administrative line item.

- District staff discussed the difficulty in attracting and retaining qualified paid-on-call staff and felt an increase in hourly stipend would be required.
- Forecast assumes an annual increase in administrative personnel costs of 5 percent.
- Forecast assumes an annual increase in ambulance and fire personnel costs of 3 percent per year. This does not address the issue of wage parity for recruitment and retention of qualified staff.

Key Recommendation:

- It is recommended that the district seek suitable legal counsel (labor experience) to a conduct wage and hour audit and provide recommendations for structure of pay versus staffing practices.
 - It is recommended that the district conduct a salary survey of neighboring departments in order to determine if a wage increase may be necessary to recruit and retain qualified staff.
-
- Operating Supplies and Operating Equipment
 - Historically, operating expenses increased 10 percent annually in a relatively uniform manner from FY 2009 through FY 2014 prior to significant increases over the last two years.
 - The district FY 2016 operating amount is used as the base amount for the forecast period and is increased by 10 percent per year.
 - Capital Expenses
 - Historical capital expenditures excluding the major capital apparatus purchase in FY 2013, which relied heavily on loan proceeds and debt service payments, averaged \$33,000 annually from FY 2009.
 - The forecast uses \$33,000 as a base inflated at a rate of 5 percent annually based upon emergency services capital equipment inflationary trends.
 - After the last debt service payment in FY 2019, the annual debt service amount of \$26,712 is added to direct capital expense in FY 2020 through FY 2022.
 - Debt Service
 - Annual debt service payments (principal and interest) for the FY 2013 equipment purchase will continue at \$26,712 into the forecast period, with the final payment due in FY 2019.
 - No debt is contemplated beyond FY 2019 but a like amount is added to the capital expense budget in FY 2020 through FY 2022. Conversely, this amount could be added to restricted cash carried forward for future purchases.

Financial Forecast Results

Applying the revenue forecast assumptions identified above results in the revenue forecast presented in Figure 35. The total of all funding sources, including both restricted and unrestricted cash carried forward, decrease from approximately \$1.47 million in FY 2016 to \$369,184 by FY 2022. Recurring revenues remain relatively flat through FY 2018 increasing from \$747,600 in FY 2016 as adopted to only \$751,684 in FY

2018, after which they decrease annually to an estimated \$658,336 by FY 2022. The large drop in available financial resources is due primarily to the reduction in beginning cash balance each year. Total reserves for cash carried forward decline from \$723,697 in FY 2016 to only \$77,223 (including reserved and unreserved cash balance) by FY 2021 indicating that the district is not financially viable without additional recurring revenue and/or a reduction in recurring expense (which equates to a service level decline) well before then.

Figure 35: Revenue Forecast by Revenue Type

Revenues by Category	Forecast Period						
	2016 Budget	2017 Forecast	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Property Taxes	53,050	52,020	53,060	54,122	55,204	56,308	57,434
Standby Fee	450,000	450,000	450,000	450,000	450,000	450,000	450,000
Intergovernmental Transfer (TRT)	118,000	120,360	122,767	62,611			
Ambulance Billing	85,000	105,000	110,250	115,763	121,551	127,628	134,010
Grants/Interest/Misc	41,550	15,300	15,606	15,918	16,236	16,561	16,892
Loan Proceeds							
Recurring Revenues	747,600	742,680	751,684	698,414	642,991	650,497	658,336
Beginning Fund Balance (Reserved & Unreserved)	723,697	716,863	654,990	561,499	371,244	77,223	(289,152)
TOTAL ALL FUNDING SOURCES	\$ 1,471,297	\$ 1,459,543	\$ 1,406,673	\$ 1,259,912	\$ 1,014,236	\$ 727,721	\$ 369,184

Source: Rockville/Springdale Fire Protection District Year-End Financial Statements

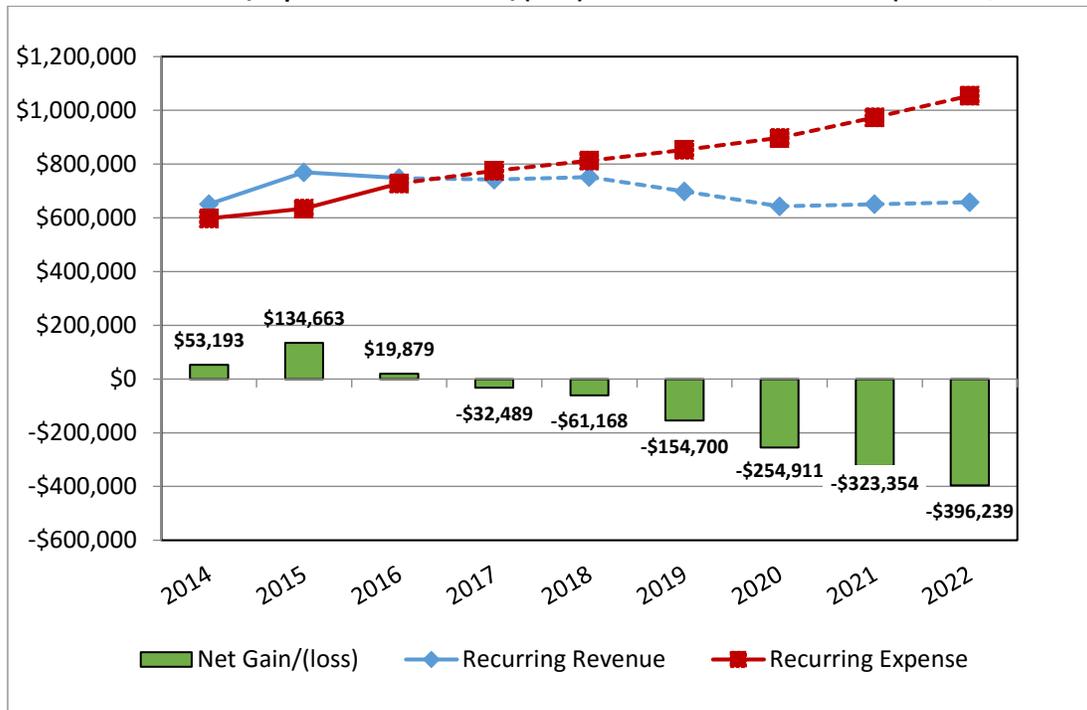
Applying the expense forecast assumptions identified above results in the expense forecast presented in the following figure. Personnel expenses represent roughly 60 percent of total forecasted annual recurring expenses by FY 2022 and grow by 4 percent per year, from \$513,258 in FY 2016 to \$637,504 in FY 2022. Operating expenses grow from approximately \$165,250 in 2016 to \$292,750 in FY 2022. Overall, operating expenses are forecast to increase by approximately 12.9 percent per year. Although capital expense shows a significant jump in FY 2020 and FY 2021, the increase is due to the addition of funding applied in prior years to debt service which could be applied to restricted reserve for cash carried forward if the district so chooses since the loan will be repaid as of FY 2019.

Figure 36: Expenditure Forecast by Expenditure Type

Expenditures by Category	2016 Budget	2017 Forecast	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Personnel Services (total)	513,258	532,031	551,536	571,803	592,865	614,753	637,504
PS Administrative	168,765	177,203	186,063	195,367	205,135	215,392	226,161
PS Fire Department	171,662	176,812	182,116	187,580	193,207	199,003	204,973
PS Ambulance Department	172,831	178,016	183,356	188,857	194,523	200,358	206,369
Operating Expense	165,250	181,775	199,953	219,948	241,943	266,137	292,750
Capital Expense	22,500	34,650	34,650	34,650	63,095	92,961	124,321
Debt Service	26,713	26,713	26,713	26,712	-	-	-
TOTAL ALL EXPENSES	727,721	775,169	812,852	853,113	897,902	973,851	1,054,576

Source: Rockville/Springdale Fire Protection District Year-End Financial Statements

Figure 37: District Revenues/Expenses and Net Gain/(Loss) in Fund Balance – Forecast (Status Quo-Paid on Call)



The preceding and following figures illustrate the relationship between forecast recurring expenditures and revenues versus net gain or loss to the fund balance (Figure 37) through time. Figure 38 balances total recurring expenses against recurring revenue sources and illustrates how the district’s beginning fund balance reacts to the net gain (or loss) in fund balance at the end of each fiscal year over the forecast period. In the current fiscal year, recurring revenue is slightly more than recurring expenses by almost \$20,000 and thus the beginning fund balance going into the forecast period grows by that amount.

With recurring expenses beginning to exceed recurring revenues to a greater extent each year of the forecast period, the annual operating losses shown as green bars in Figure 37 increase. The net effect of this annual operating loss on beginning fund balance is shown in Figure 38 below, where the balance drops at an increasing rate from a high of \$743,576 in FY 2017 to \$240,309 by FY 2021. These annual operating losses will increase because the rate of rise in recurring expenses exceeds the rate of rise in recurring revenues.

While it may appear, at first glance, that the District still has a healthy reserve of cash carried forward, this is not really the case as illustrated below in Figure 38. As discussed in an earlier section, the district board is working on a comprehensive policy for setting aside and using reserve funds. Figure 39 carries forward into the forecast period a sample reserve policy as shown earlier to illustrate how the current financial trajectory is untenable.

Figure 38: District Revenues, Expenditures and Cash Carried Forward – Forecast (Status Quo-Paid on Call)

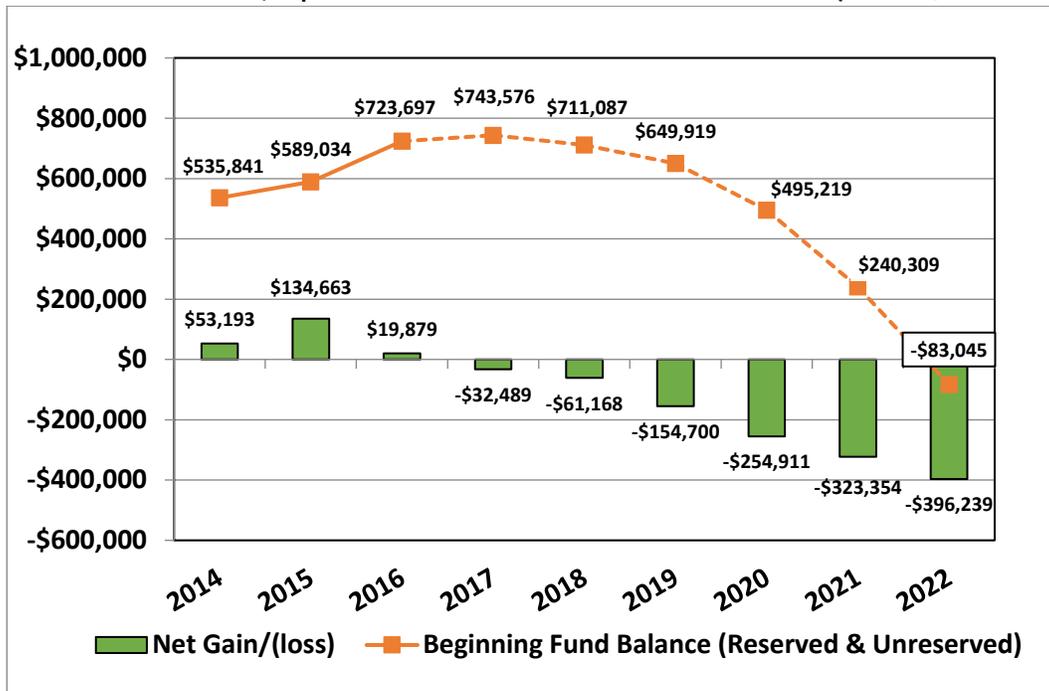
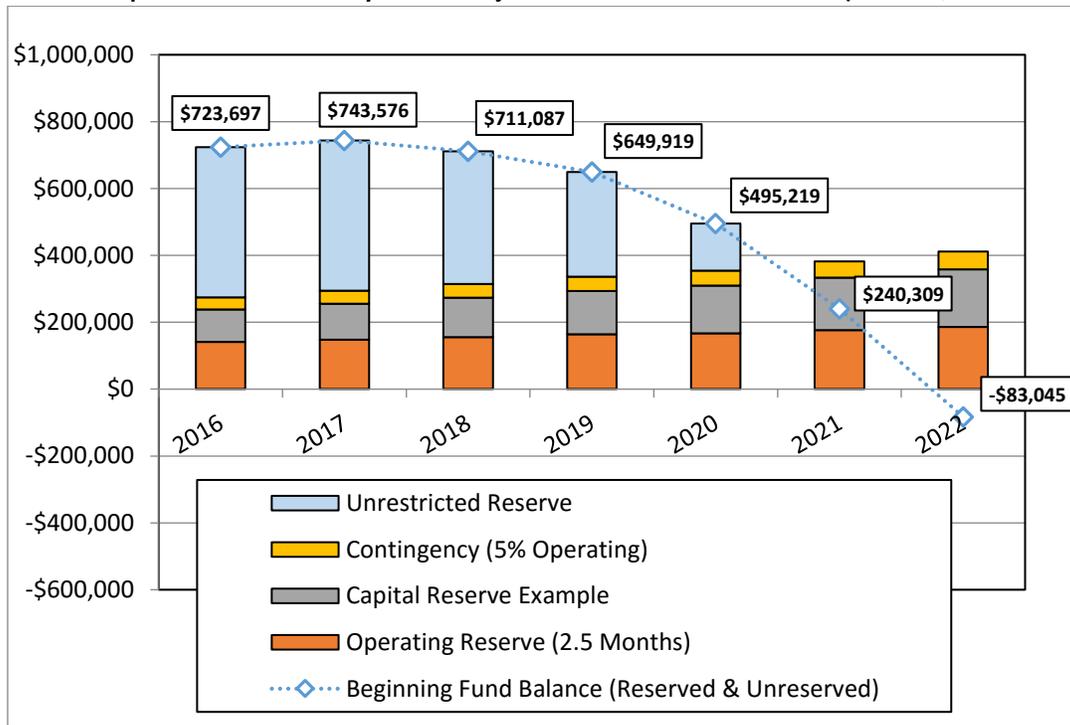


Figure 39 shows four hypothetical components of the annual fund balance. These components might include a 2.5 month operating reserve covering recurring expenses like salaries and utilities (brown bars); a restricted capital reserve fund (gray bars) for future replacement and major repair of rolling stock and fixed facilities; a 5 percent contingency (yellow bars) for unknown emergency expenses, such as wildfires and other disasters; and an unrestricted reserve (light blue bars).

The declining annual beginning fund balance is shown as a blue dashed line in Figure 39. The beginning fund balance is clearly declining each year for the reasons discussed previously. The district is still solvent though through FY 2020, after which there are no longer any unrestricted reserve funds. By FY 2021, the district has no contingency and is well into its restricted reserve for future capital. In order to operate at all in FY 2022, the district will have to borrow money just to cover its recurring operating expenses until such time as the bulk of its recurring revenue comes in since it will have exhausted all of its reserves.

Figure 39: Sample Reserve Use Policy versus Projected Fund Balance – Forecast (Status Quo-Paid on Call)



MANAGEMENT COMPONENTS

As a service provider to a slowly growing community with a tremendously large seasonal tourist population, RSFPD faces challenges to organizational growth and management. Although community growth and tourism slowed in recent years, it can be expected to accelerate in the future with the greatest impact on service level being demand created by an increased transient population. The organization must assure that it is adequately prepared in terms of the fundamental components of its management configuration to keep pace with future needs.

In addition to the operational challenges of emergency response, the management of the business of a fire department always presents unique issues involving the administration of financial resources, the setting of goals and objectives, internal and external communications, information management, and security. This section of the report examines the district’s efforts in this area and preparation for the future health of the organization.

Mission, Vision, Strategic Planning, Goals, and Objectives

The process of strategic planning involves clarifying an organization’s mission, articulating its vision for the future, and specifying the values within which it will conduct itself.

Figure 40: Survey Table – Mission, Vision, Strategic Planning, Goals, and Objectives

Survey Components	RSFPD Observations	Comments and Recommendations
Mission, Vision, Strategic Planning, Goals, and Objectives		
A. Mission statement adopted	Mission is stated in district bylaws as "function" and is "To effectively promote fire safety, minimize loss of life and property from fires occurring in the district, and to provide emergency medical services to minimize loss of life and bodily injury."	As part of a strategic planning process, the district will adopt a mission statement
i) Displayed	Not displayed	
ii) Periodic review	N/A	
B. Vision established and communicated	None	As part of a strategic planning process, the district will adopt a vision statement
C. Values of staff established	N/A	As part of the strategic planning process, the district will adopt a set of values
D. Strategic or master plan	None	The district and chief, jointly with the community, should undergo a strategic planning process along with a master plan to guide it through a minimum of the next five years
i) Adopted by elected officials	N/A	
ii) Published and available	N/A	

Survey Components	RSFPD Observations	Comments and Recommendations
iii) Periodic review	N/A	
E. Agency goals and objectives established	Not defined. Board provides chief with guidance as needed.	Strategic plan will help to better guide district
i) Date developed	N/A	
ii) Periodic review	N/A	
iii) Tied to division/personnel performance statements/plans	N/A	
iv) Objectives linked to programs	N/A	
v) Performance objectives established	N/A	Individual personnel performance goals/objectives will be established aligned with district goals/objectives
F. Code of ethics established	Adopted 2005 – revision Conflict of interest policy is in place but misdated	

Key Recommendations:

- Develop and adopt a strategic plan within the next six months.
- Adopt the district master plan aligned with strategic plan.
- Revise code of ethics and align with strategic plan.

Discussion

The RSFPD has not yet conducted a strategic planning process and is currently undergoing a master planning process. The district does not have a mission and companion vision statement laying out what the district is, what it does, and where it is going. A statement of organizational values has not been articulated in writing, and ESCI recommends that such a statement be developed in conjunction with a strategic planning process clearly delineating its mission and laying out a sustainable vision.

In the strategic planning process, the district will identify specific goals and objectives whereby it intends to meet its vision. These goals and objectives will provide guidance in decision-making and focus the agency's efforts on the most critical issues that will impact its success in the future. In addition, the plan will provide the members with direction on the future and how they each fit in.

The RSFPD is to be acknowledged for its proactive efforts in undertaking the current district evaluation and master planning process. However, the process is incomplete and ESCI strongly recommends that upon completion of this master plan the recommendations herein be processed for implementation in the form of a strong, community-supported strategic plan.

Management Documents and Processes

Similarly, an organization should establish appropriate documentation, policies, procedures, and identification of internal and external issues that affect the agency. Processes must also be established to address the flow of information and communication within the fire district as well as with its constituents.

Figure 41: Survey Table – Foundational Documents and Processes

Survey Components	RSFPD Observations	Comments and Recommendations
Availability of SOPs, Rules and Regulations, Policies		
A. Copies of rules provided	6-page SOP for EMS – none for fire Only personnel policy and procedure – no written SOGs for fire	Comprehensive SOP/SOG manual (rules/regulations) should be developed, adopted, and placed on district server for review by all personnel
i) last date reviewed	2013 – EMS dated	Conduct scheduled review and updating of rules and regulations and annual review
B. Copies of SOGs or guidelines available	Posted, copies to new personnel as a part of application process, sign off required	SOG/SOPs should also be available electronically to employees
i) regular update	No – as needed	Schedule periodic review of Standard Operating Guidelines; recommend annual review
ii) process for development of new SOGs	N/A	Identify written process for development and adoption of new SOGs; recommend establishment of a committee for review and recommendation of new/updated SOGs as needed
iii) SOGs used in training evolutions	N/A	Regularly incorporate SOGs into training evolutions and scenarios.
C. Policy manual available	Personnel Policy Manual	Recommend external legal/HR review and update of entire personnel policy manual
i) reviewed for consistency	Amended 5/2015 – current	Establish a practice of regular update of rules and regulations.
ii) reviewed for legal mandates	Yes	Any foundational documents should be subjected to legal review.
iii) training on policies provided	Yes, provided upon hire with sign off required	Provide training on rules and regulations content.
Critical Issues		
A. Critical issues are identified	Informal annual discussion at the end of the season. Also incorporated in annual budget development process	Formalize through annual strategic planning workshop with board
i) First critical issue	Personnel retention	
ii) Second critical issue	Management of growth – significant increase in tourism	National Park Promotions increasing visitor influx
iii) Third critical issue	Aging apparatus fleet	
iv) Internal evaluation of critical issues	Ongoing and informal	
Challenges of the Future		
A. Challenges are identified		

Survey Components	RSFPD Observations	Comments and Recommendations
i) First challenge	Funding and pay for part-time personnel	Work with municipalities to develop long-term recurring revenue source in line with adopted master plan
ii) Second challenge	Funding for apparatus and equipment replacement	Develop long-term apparatus replacement plan (in master plan)
iii) Third challenge	Facility needs	Develop five-year CIP as part of master plan
Internal and External Communications		
A. Internal communications		
i) Regularly scheduled staff meetings	Weekly meeting with captains	
ii) Written staff meeting minutes	No	Record and post minutes of staff meetings
iii) Memos	Memos, email, text	
iv) Member newsletter	None	
v) Member forums	Informally only and monthly training meetings	
vi) Open door policy	Chief has an open door policy	
vii) Bulletin board	Yes	
viii) Vertical communication path clearly identified	Identified via organization chart.	Formalize the definition of the organization's communications path in the rules and regulations.
ix) E-mail	Yes	
B. External communications		
i) Community newsletter	None, active participation in town meetings	
ii) Website	Well-designed website, but with limited information about the district, what they do and do not do	Upgrade district website with information about services, who we are, services we offer, etc.
iii) Advisory committee(s)	None	
iv) Complaint process	Directed to the chief	
v) social media (Facebook/twitter)	Facebook page is in place	Establish clear rules for the use of social networking.
vi) Community survey	None	Consider periodic written survey and/or focus group meetings
vii) Local community planning organizations	None	

Discussion

Policies and Procedures

Limited RSFPD policies and procedures exist covering various facets of district operations; however, there is no comprehensive and up-to-date set of Standard Operating Guidelines (SOGs), Standard Operating Procedures (SOPs), and Rules and Regulations.

A review of the rules, procedures, and guidelines reveals that some are well developed (EMS SOGs for example) but overall are not comprehensive. Periodic review is critical and ESCI underscores the

importance of establishing a regular schedule for future review of all foundational documents, which should be completed at least every three years. Outside legal and HR assistance is recommended for critical personnel policies; one good source for standardized policies is the state association of special districts, of which the district is a member.

SOGs and SOPs are available in several separate documents or formats depending upon district function. They differ in their applicability and appear to have been segregated intentionally. EMS SOGs are fairly well developed for the organization based upon state regulation of ambulance service, but fire SOGs appear to be more verbal in nature than provided in written form. This lack of a comprehensive, all-encompassing set of SOGs makes it confusing for an employee to know where to go to find guidance. ESCI recommends the development of a single comprehensive document.

Critical Issues/Challenges

The process of taking time periodically to list the issues that are facing an organization can be invaluable as a checkpoint for the agency as it moves forward. Doing so on a periodic basis is recommended. In the course of ESCI's fieldwork, the fire chief was asked to identify critical issues and challenges that face the organization.

The critical issues identified are noted in the preceding figure. A primary concern is that of retention of current employees and attracting volunteers. Specifically, the ability to fund and pay part-time employees emerged as key to staffing the district given the difficulty in attracting and retaining volunteers who often do not live within the district. Coupled with the issue is community concern over rising costs and the need to develop a stable recurring funding source. In conjunction with a strategic planning effort, the district needs to use this master plan as a tool to determine the level of service it wishes to provide and which the community will support.

Also identified was the need for a sustainable funding source to provide for apparatus and equipment replacement. Additionally identified was the need for facility repair and renovation. This master plan will assist the district with the development of a long-term apparatus replacement program and a financial model that will show the district how much it needs to fund each year for equipment and facility needs. ESCI underscores the critical importance of appropriate and full comprehensive capital asset replacement planning, given that fire stations and fire apparatus represent a substantial expense and have readily predictable life expectancies and replacement costs. The matter is discussed further in the Capital Assets and Capital Improvement Planning section that follows. However, the challenge is that once the recurring funding needs are identified, the district will need to ensure that an adequate recurring funding source is available that will be supported by the community. A recurring theme during on-site interviews was the large increases in the stand-by fee over the last several years, which have led to a credibility issue with some segments of the public.

ESCI recommends a public strategic planning process within the next six months that involves all sectors of the community. This master plan can be used as a basis to illustrate what the district needs to address the current and future service demands and what it will cost to provide a certain level of service over the next five years.

Key Recommendations:

- Develop comprehensive rules/regulations manual, SOPs or SOGs for all aspects of district.
- Conduct scheduled review and updating of rules and regulations.
- Obtain outside legal and HR assistance to review and update personnel policies.
- Formalize process for periodic review and update of district SOGs/SOPs.
- Work with Springdale to develop sustainable, recurring revenue source to replace TRT.
- Develop apparatus/facility capital replacement/improvement plan as part of master plan.
- Formalize the definition of the organization’s communications path in the rules and regulations.

Record Keeping and Documentation

In any organization, documentation of activities is of paramount concern. The following table reviews the practices that are in place in the district.

Figure 42: Survey Table – Record Keeping and Documentation

Survey Components	RSFPD Observations	Comments and Recommendations
Document Control		
A. Process for public access established	Processed by district clerk	
B. Hard copy files protected	Yes	
C. Computer files backed up	Password protected	
Security		
A. Building security	Secured when unoccupied	
B. Office security	Offices locked when unoccupied	
C. Computer security	Password protected	
D. Capital inventory maintained	Yes	
i) Asset security system used	Yes	
ii) Inventory interval	Annually updated	
E. Monetary controls used		
i) Cash access controls	No cash on hand	
ii) Credit card controls	Chief and clerk have cards, properly reconciled	
iii) Purchasing controls	Board permission for non-budgeted items. Monthly financial summary provided the board.	
Reporting and Records		
A. Records kept by computer	Yes	
i) Type of platform	PC Based	
ii) Operating system	Windows	
B. Periodic report to elected officials		
i) Financial report	Included in monthly clerk’s report to the board	Recommend using state or other appropriate chart of accounts and monthly budget monitoring on a cash basis.

Survey Components	RSFPD Observations	Comments and Recommendations
ii) Management report	Included in monthly chief's report	
iii) Operational report	Included in monthly chief's report	
iv) Distributed to others	To board only	
C. Annual report produced	No	Recommend electronic annual report be provided and placed on district website
i) Distributed to others	N/A	
ii) Analysis of data provided	N/A	
D. Required records maintained		
i) Incident reports	Yes	
ii) Patient care reports	Yes	
iii) Exposure records	No – some reporting for EMS exposures	Recommend accurate records be kept of all exposures
iv) SCBA testing	Annually tested	
v) Hose	Annually	
vi) Ladder	None	Conduct annual testing of ladders
vii) Pump	Annually by third party contractor	
viii) Breathing air	Tested annually	Complete testing of breathing air consistent with OSHA requirements

Discussion

RSFPD's reports and records practices are generally appropriate, with a few recommendations noted above. The importance of effective record keeping cannot be overstated and it was apparent from the data provided to ESCI in the course of this project that the agency generally has effective records management practices in place.

The district currently uses QuickBooks® for its budgeting process and relies upon the external accountant's annual audit report to manage district finances. It is recommended that the district utilize the Utah standardized or other appropriate chart of accounts for all revenue and expenditure objects. Further, the annual audit examines the district's financial health using an accrual rather than a cash basis, accounting for depreciation and accounts receivable for ambulance revenue among other items. Write-offs of uncollectable billing may occur in subsequent years. Revenue actually follows months after bills are sent and may or may not be received in the fiscal year the bill is sent. In order to more properly manage the district and understand actual recurring expenses, annual cash forward, and need for recurring revenue, it is recommended that the district utilize a cash basis for normal annual budgeting and monthly monitoring. It is critical for the board and staff to understand how much cash is received each fiscal year, how much is spent, and how much is carried forward.

Key Recommendations:

- Utilize Utah state or other appropriate chart of accounts for revenue and expenditure line items when preparing and monitoring budget.
- Utilize cash basis for budget management and monthly reporting.
- Prepare electronic version of annual report that can be placed on district website.
- Ensure accurate reporting and recordkeeping of all exposures.

PLANNING FOR FIRE AND EMS SERVICES

Emergency services exist in a rapidly changing environment. Along with improvements in tools and methods used to provide service comes increased regulation of activities, new risks to protect, and other challenges that can quickly catch the unwary off guard. Only through continuous internal and external environmental awareness and periodic course corrections can an organization stay on the leading edge.

In order to do a better job with available resources, the organization must focus on improving services while identifying programs or activities that may no longer serve its changing needs. Through planning, a fire district is able to establish a vision for the future, create a framework within which decisions are made, and chart its course to the future. The quality and accuracy of the planning function determines the success of the organization.

To be truly effective, an emergency services agency must consider planning on five distinct levels:

1. Tactical planning
2. Operational planning
3. Master planning
4. Strategic planning
5. Emergency management planning

Tactical planning is the development of strategies for potential emergency incidents. Operational planning is the organization of day-to-day activities (as primarily outlined by a district’s standard operating guidelines and procedures) and the integration of the agency into other local, regional, or national response networks. Master planning is preparation for the long-term effectiveness of the agency as the operating environment changes over time. Finally, strategic planning is a process of identifying an organization’s mission, vision, and values and identifying and prioritizing goals and objectives for things that need to be accomplished in the near future.

RSFPD performs some fundamental, short-term planning in the form of the annual budget development process, which is used to define the activities and priorities identified for the upcoming year. However, establishing a long-term planning perspective for the fire district is important as well. Without a plan, it is impossible for an organization to know when it is reaching milestones or providing exceptional services to its constituency. The following survey table details the current planning efforts in place in the district.

Figure 43: Planning for Fire and Emergency Medical Services

Survey Components	RSFPD Observations	Comments and Recommendations
Organizing for the Planning Process		
A. Adopted planning process	No formal process	Establish a structured, ongoing, planning process
B. Long-range planning		
i) master planning	Currently being completed	
ii) strategic planning	Not completed	Upon completion of the master plan, undertake a strategic planning process to prioritize and implement the master plan findings

Survey Components	RSFPD Observations	Comments and Recommendations
iii) capital improvement planning	Reserve fund in place but limited. No funded capital replacement fund or plan	Develop a funded capital replacement plan
iv) financial planning	Annual budget process only	
C. Operational planning		
i) response planning	Only via mutual aid, which is on request.	Establish Automatic Aid practices for structure fire response, at a minimum
ii) regional incident command	Same system used countywide	
iii) mutual aid planning	Countywide plan as well as agreement with Zion National Park	
iv) disaster planning	Town of Springdale has an EOP, currently being reviewed by police and fire chief. Primarily at the county level	
D. Tactical planning		
i) pre-fire planning	Conducted on most commercial occupancies during annual inspections	
ii) specific hazard plans	Only pre-fire planning	
iii) hazardous materials planning	No	
Current Planning Process		
A. Planning group established	None. Police and fire chiefs currently reviewing Springdale EOP.	
B. Mission statement developed	No	
C. Current and future environmental analysis	No	
D. Strategies formulated (goals)	No	
E. Benchmarks (performance objectives)	No	
Emergency Preparedness Planning		
A. Preparedness and response (EOP ³ , EAP ⁴ , RMP ⁵ , radiological preparedness)	Town of Springdale has an EOP, currently being reviewed by police and fire chief. Primarily at the county level.	
i) plans/documents	Town of Springdale has an EOP – no others	
ii) date developed	Date not listed (not found on the website)	
iii) adopted by elected officials	In Springdale	
iv) published and available	Available on website	

Tactical Planning

It is critically important that firefighters and command staff have comprehensive, accurate information readily at hand to identify hazards, direct tactical operations, use built-in fire suppression systems, and fire resistive features. This is accomplished by building familiarization tours, developing pre-incident plans,

³ Emergency Operations Plan.

⁴ Emergency Action Plan.

⁵ Risk Management Plan.

and conducting tactical exercises via on-site or tabletop simulation. Pre-incident plans are easy to use, quick reference tools for company officers and command staff.

RSFPD currently completes pre-incident plans on all occupancies as a part of its annual fire inspection process. It is commendable that the plans are completed and that they are incorporated into the district's ongoing training activities.

Operational Planning

Operational planning includes the establishment of minimum staffing policies, standardized response plans or protocols, regional incident command planning, mutual aid and automatic aid planning (locally and regionally), resource identification and planning, and disaster planning.

Maintaining a comprehensive and current emergency plan and resource list is the best opportunity for the district to ensure adequate resources are readily available to control major events. Resource lists should be available to incident commanders and general staff in the field and in an emergency operations center.

RSFPD has entered into a mutual aid agreement with the other area agencies, one of which responds only by request, and Zion National Park, which responds under an automatic aid arrangement.

Master Planning

RSFPD has wisely recognized the need for a stronger planning effort by undertaking this master planning process. This plan gives the district a clear idea of where it is today, where it will be in the future and what it will need to do to get there. The master plan is designed to provide a view of the organization in a 15-year timeframe.

Strategic Planning

The district has not completed a strategic plan in the past. The strategic plan involves a three to five-year planning window and establishes prioritized goals and objectives for the organization. The planning approach is particularly important when a master plan has been completed; the master plan identifies multiple recommendations and future strategies, which are then evaluated and prioritized via the strategic plan. Completion of a strategic plan within six months of the master plan is highly recommended.

Emergency Management Planning

Emergency management, once a low priority in the mind of the public, has risen to the conscious level of everyday life. Nonexistent before 2001, the DHS (Department of Homeland Security), terrorist threat warnings, the Transportation Safety Administration (TSA) screenings on public transportation, and security checks at sporting events and concerts are now common place.

Well-prepared community governments prepare themselves, other institutions, businesses, and the public to survive disaster by mitigating hazards to eliminate or reduce risk. By developing and maintaining emergency action plans and by exercising and updating the plans regularly, municipal governments help limit (or manage) the consequences of a disaster. The common term for governmental disaster preparedness is emergency management.

The district has not developed plans for responding to disasters and has chosen to rely on the countywide emergency management functions of the Washington County Emergency Services Office. The district has had some input to these plans, and exercises have been infrequent. It is paramount that RSFPD staff are well informed of their content and the district's role in their execution. ESCI recommends that the district take an active role in the development of emergency management planning with the county.

The town of Springdale has developed an Emergency Operations Plan for its community and it is reportedly under review by the police and fire chiefs. Springdale is the only community in the district that has a plan in place.

Key Recommendations:

- Establish an automatic aid agreement with area fire departments.
- Complete a strategic plan to implement the findings and recommendations of the master plan.
- Actively engage in emergency planning efforts with the county.

STAFFING

Although management and organization of an emergency services agency is important, the personnel that deliver those services are the backbone of the system. Without proper administrative and support personnel to handle supervision, command and control, operational personnel may not be able to perform satisfactorily.

Administrative and Support Staffing

One of the primary responsibilities of a fire organization’s administration and support staff is to ensure that the operational entities of the organization have the ability and means to accomplish their responsibilities on an emergency incident. Efficient and effective administration and support are critical to the success of a fire agency.

Like any other part of a fire district, administration and support require appropriate resources to function properly. Analyzing the administrative and support positions of a fire district facilitates an understanding of the relative number of resources committed to this important function. The appropriate balance of the administration and support components between the operational components is critical to the success of the district’s mission and responsibilities.

This section reviews the staffing within RSFPD and provides evaluation of the historical staffing performance.

Figure 44: Survey Table – Administrative and Support Staffing

Survey Components	RSFPD Observations	Comments and Recommendations
Administration and Other Support Staff		
A. Fire chief	1- Full-time employee (exempt)	Fire chief shares emergency manager function with Springdale police chief; fire chief should take on more responsibility for managing/tracking budget
B. Fire Marshal	1 – Part time employee	
C. EMS Captain	1 - Part-time employee (exempt)	Fills in shifts on ambulance
D. Fire Captain	2 - Part-time employees (exempt)	Fills in shifts on engine
E. District Clerk	1 – Part-time employee (non-exempt)	Board chair performing many of district clerk functions; consider full-time clerk
F. Total administrative & support staff	1 full-time, 5 part-time	
G. Percent administrative & support to total	5 percent	

Discussion

ESCI notes that the current level of administrative and support staffing represents 5 percent of RSFPD total membership. It is our experience that effective administrative staffing totals typically range from 12 percent to 15 percent of agency totals. After reviewing the functions and responsibilities assigned to the work group, ESCI concludes that the number of FTEs assigned is below what is needed to appropriately

accomplish the responsibilities of this division.⁶ However, by shifting some responsibilities as discussed below, most functions could be accomplished, but the board may consider increasing the clerk position to full-time or contracting for administrative support.

A key component of the above conclusion relates to the fire chief's position. The fire chief is tasked with multiple responsibilities, including emergency management, training oversight, support, and logistic tasks. For a district of the size and workload of RSFPD, this is not inappropriate given that the fire chief position is now full-time. It is appropriate for the fire chief play a key role in budget preparation and day-to-day administration and monitoring of the district's revenue and expenses. The district board chair was performing day-to-day managerial activities, which took away from the policy role more appropriate to this position. However, the district has made great strides towards rectifying this.

Fire Prevention

The fire prevention functions of the RSFPD are handled on a part-time basis by a part-time employee (fire marshal) assisted by two firefighters, which seems to be sufficient to match the inspection and enforcement workload. ESCI recommends peer and spot checks of contract plan review functions to ensure local standards and contract elements are met. The fire captain positions can assume some of this role given the appropriate training and certification. This would also be in line with their exempt status.

Education of the public regarding relevant risks – including fire, disaster, and emergency medical – and appropriate mitigation strategies is an essential component of a fire department's mission. RSFPD has a public education strategy that is discussed in greater detail later in this report.

Training

RSFPD assigns a part-time captain to the function of fire training and another to EMS training. This places the functions of program needs assessment, design, coordination, and evaluation with the same single respective personnel resource that is also responsible for program delivery as well as shift operational and personnel responsibilities. This results in a significant workload, at least in the case of the EMS function. As critical as continuing education and training are, ESCI encourages RSFPD to evaluate the resources available against its training needs and consider spreading aspects of these programs among more individuals within the organization.

We also note that this is another function that should be considered for an enhanced and formalized regional cooperative training strategy with regional partners. All fire departments, nationally as well as within the region, share essentially the same needs with regard to training personnel. Further, the regional agencies respond to emergencies together via mutual aid procedures and, in the interest of safety of firefighters and effectiveness of response, should be trained to common standards and practices. A regionalized, collaborative approach to training delivery, in addition to the benefits noted, can substantially reduce costs and increase efficiency of educational efforts by leveraging available resources.

⁶ ESCI recognizes organizational goals, regulatory environment, and workload are the actual drivers that determine the number of administrative personnel required to deliver support services. The 12 to 15 percent ratio is the range ESCI typically sees in fire service organizations and is noted for comparison purposes.

Emergency Management

Currently, the municipalities of Rockville and Springdale along with RSFPD are committed to the development of appropriate strategies to deliver emergency management functions and services to the community. Within RSFPD, the fire chief manages this function as part of “other duties” and shares this responsibility with the Springdale police chief. RSFPD and Springdale officials acknowledge this issue and appear ready and willing to consider potential methodologies to best serve their constituency. We note this is a very appropriate function wherein RSFPD, Springdale, and Rockville should consider a regional, cooperative approach to meeting emergency management needs.

Administrative Support

At the time of ESCI’s initial evaluation, RSFPD employed 1.5 FTEs in administrative and support roles; given the scope and depth of workload, this appears to be low. ESCI recommended the RSFPD consider adding a full-time clerk position to assist with financial oversight, data collection and analysis, public outreach, and project management. However, the district has since hired a contract bookkeeper and the fire chief has assumed a more hands-on role in financial oversight and budget administration. We see this as a critical function in order for RSFPD to strengthen its decisions and policy development through data-driven information, and the district has taken positive steps to improve in this area.

Key Recommendations:

- Fire chief should increase role in day-to-day monitoring of expenses/revenues currently performed by district chair. (Already accomplished.)
- Consider full-time clerk position to assist with budget, public outreach/communication, data collection/analysis. (Now outsourced.)

Emergency Response Staffing

It takes an adequate and properly trained staff of emergency responders to put the appropriate emergency apparatus and equipment to its best use in mitigating incidents. Insufficient staffing at an operational scene decreases the effectiveness of the response and increases the risk of injury to all individuals involved.

Tasks that must be performed at a fire can be broken down into two key components – life safety and fire flow. Life safety tasks are based on the number of building occupants, their location, status, and ability to take self-preservation action. Life safety related tasks involve search, rescue, and evacuation of victims. The fire flow component involves delivering sufficient water to extinguish the fire and create an environment within the building that allows entry by firefighters.

The number and types of tasks needing simultaneous action will dictate the minimum number of firefighters required to combat different types of fires. In the absence of adequate personnel to perform concurrent action, the command officer must prioritize the tasks and complete some in chronological order rather than concurrently. These tasks include:

- | | |
|---|---|
| <ul style="list-style-type: none"> • Command • Scene safety • Search and rescue • Fire attack | <ul style="list-style-type: none"> • Water supply • Pump operation • Ventilation • Back-up/rapid intervention |
|---|---|

The first 15 minutes is the most crucial period in the suppression of a fire. How effectively and efficiently firefighters perform during this period has a significant impact on the overall outcome of the event. This general concept is applicable to fire, rescue, and medical situations alike. Critical tasks must be conducted in a timely manner in order to control a fire or to treat a patient. RSFPD is responsible for assuring that responding companies are capable of performing all of the described tasks in a prompt, efficient, and safe manner. The following table lists RSFPD’s emergency response staffing configuration.

Figure 45: Survey Table – Emergency Response Staffing

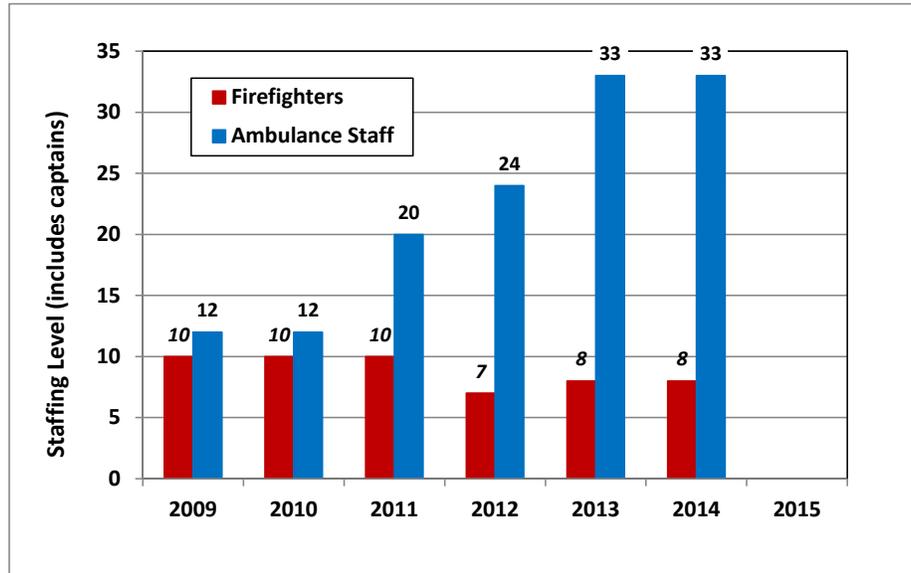
Survey Components	RSFPD Observations	Comments and Recommendations
Operations personnel – Part-time		
A. Captain – Fire	2 (included as administrative and support, above)	
B. Captain – EMS	1 (included as administrative and support, above)	
C. EMS Responder	20	
D. Fire Responder	12	
E. Total operational staff	35 part-time	
F. Fire district total (Administrative, Support and Operational)	36	
G. Percent of operational officers to firefighters	11 percent	
H. Operational career services	Part-time only	
i) Fire suppression	Yes	
ii) EMS/rescue, first response	Yes	
iii) EMS, advanced life support	At Intermediate-Advanced level at least	
iv) Specialized rescue	High angle, confined space, currently undergoing certification	
v) Fire prevention inspections	Yes	
vi) Emergency management	Yes	
vii) Public education	Yes	
viii) Hazardous materials response (level)	Yes (operations)	
I. Non-combat volunteer services		
i) Chaplain	None	
ii) Civilian administrative volunteer	None	

Discussion

RSFPD annual audits from FY 2009 to FY 2014 list total responders available in EMS and fire suppression categories, which are identified in the following figure. Total fire suppression personnel have generally averaged 8-10 through FY 2014 and, as shown in the preceding table have increased slightly to 12 (15

including fire captains and fire chief) as of FY 2015 EMS responders increased significantly from 12 in 2009 to 33 by FY 2013. According to latest figures, EMS responder count (including EMS captain) has decreased to 21. With the exception of two cross-trained responders (identified as “Dual #1” and “Dual #2” in Figure 48), EMS and fire responders are only single-certified; that is they are only capable and trained to respond to emergency medical or fire calls for service, not both. (Data for 2015 was not available.)

Figure 46: EMS and Fire Staffing Levels from Annual Audits



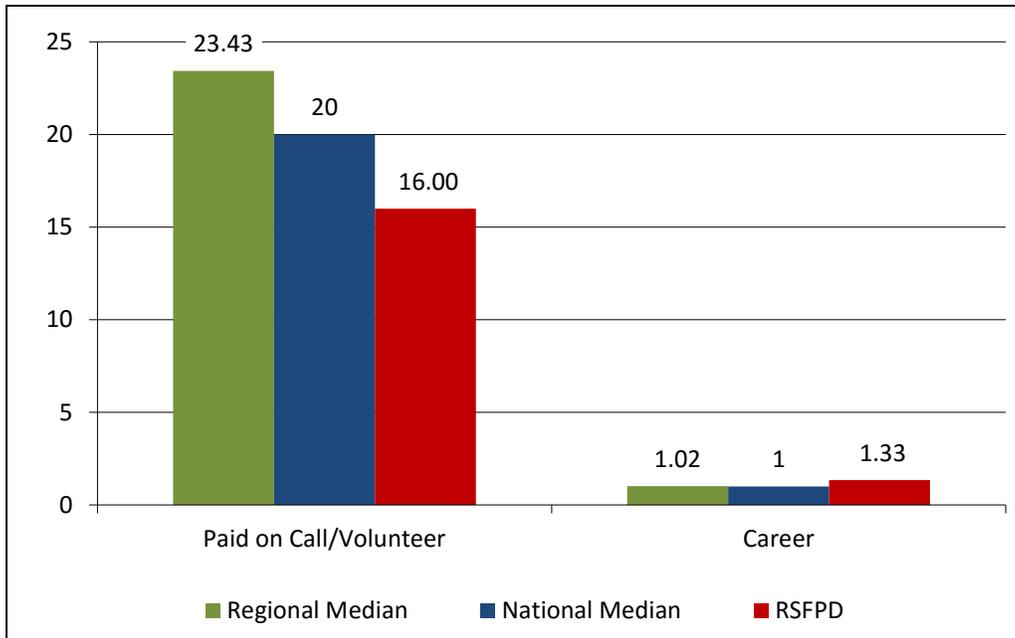
Considerable ongoing local, regional, and national discussion and debate draws a strong focus and attention to the matter of firefighter staffing. Frequently this discussion is set in the context of firefighter safety. While there are published national standards regarding firefighter staffing, they generally speak in terms of the number of firefighters assigned to a particular response apparatus, often characterized as a “minimum of four personnel per engine company.” ESCI notes that the more critical issue is the number of firefighters that are assembled at the scene of an incident in conjunction with the scope and magnitude of the job tasks expected of them, regardless of the type or number of vehicles upon which they arrive.

It is important to understand that the assembly of firefighters on an incident, also called an “Effective Firefighting Force” or “Effective Response Force,” is a determination made at the community level based on risk, capability, and citizen expectations. There is no mandated requirement, though there are standards that are discussed in detail in this report. For purposes of obtaining a Property Protection Class (PPC) rating from the Insurance Services Office (ISO), a fire department must demonstrate that adequate resources (personnel and apparatus) are available to initiate an initial attack at the scene of a structure fire. Specifically, according to the ISO PPC rating scale and in order to receive at least a rating of 10, the department must be able to demonstrate that, “...at least 4 firefighters respond on the initial alarm to all reported structure fires. One of the 4 may be the chief officer.” Further, ISO does not give full credit for a single volunteer firefighter that must respond from home and is not in the station normally when the alarm comes in. Ratings are on a scale of 1 to 10, with 1 being the highest achievable and 10 being the lowest.

RSFPD has an ISO rating of 3, which is very good given the resources it has. Ratings of 5 or better have significant individual impact on commercial business fire premiums. The district board should bear this in mind when contemplating the level of staffing and the impact staffing has on service level versus willingness to fund it. In the Service Delivery section, resource concentration is evaluated in detail, finding that RSFPD responded to approximately 60 percent of fire incidents with four or more personnel; this response meets the minimum number of personnel required for an interior fire attack, according to federal safety regulations (OSHA “2 in 2 out” policy). In FY 2014-2015, RSFPD responded to nine incidents categorized as an actual fire. No structure fires were recorded in the FY 2014-2015 incident data.

Another means of comparison, also used on a national basis, is that of measuring the number of firefighters on staff per 1,000 population of the service area. The following figure illustrates the current comparison of RSFPD staffing with both national and regional norms.⁷

Figure 47: Firefighters per 1,000 Population



Minimum daily staffing levels of two paid-on-call firefighters, supplemented by response from the fire chief, two part-time captains, and volunteer firefighters (if available) provide total district suppression response capability augmented by mutual aid from neighboring departments, including non-dedicated park service staff from Zion National Park. RSFPD additionally has two EMS responders, one EMT and one Paramedic, assigned to staff the ambulance on a 24/7 basis and an EMS captain.

RSFPD has four emergency personnel available to respond to all emergencies. However, some EMS personnel are not certified as firefighters. RSFPD has the capability to respond to one house fire at a time but the likelihood of simultaneous structures fires is low. As will be seen later in this report, a majority of the district’s workload is medical in nature. The ambulance is staffed daily with two paid-on-call EMS

⁷ Data drawn from NFPA reports *U.S. Fire Department Profile- 2011* and *U.S. Fire Loss- 2011* (most recent available).

responders who are typically not cross-trained as firefighters. RSFPD should consider requiring all paid personnel meet the minimum requirements for a firefighter in order increase the number of personnel readily available to handle any type of emergency response.

As stated in the RSFPD guidelines, the district maintains 24-hour per day, seven-day per week coverage for both fire suppression and ambulance response using part-time, paid-on-call personnel and volunteers. The district assigns two personnel licensed by the state district of health to the medic unit pursuant to the state EMS license, and two fire personnel are assigned to staff the engine for a total of four personnel per shift. Shift schedules for both units are two, 12-hour shifts--0600-1800 hours and 1800-0600 hours daily. District personnel are considered paid-on-call, non-exempt employees and are required to be within five minutes of the station during their respective shifts.

During staff interviews, it was noted that personnel sometimes work back-to-back shifts. In order to provide the district with a sense of how individual employee work schedules function realistically, a cursory review of time records was conducted. Figure 48 provides hours worked per employee in each of the pay periods for the final three months of FY 2015. Only those paid-on-call employees (including district clerk) were shown in the figure and employees were identified by job classification. The civilian position is a non-emergency worker, fire positions are only capable of providing fire suppression services, EMS positions are only certified and capable of providing EMS services, and dual positions are individuals who can provide both services.

According to the district personnel handbook, Section X-Employment Classification/Compensation, item 2.B. a part-time employees (all of those paid-on-call personnel and the civilian in Figure 48) are defined as those employees, "...hired for an indefinite period in a position for which the normal work schedule is less than forty (40) hours per week". Further, item 5 states that for, "...employees not engaged in 'public safety' activities; overtime pay would apply for over forty (40) hours worked in a work week..."

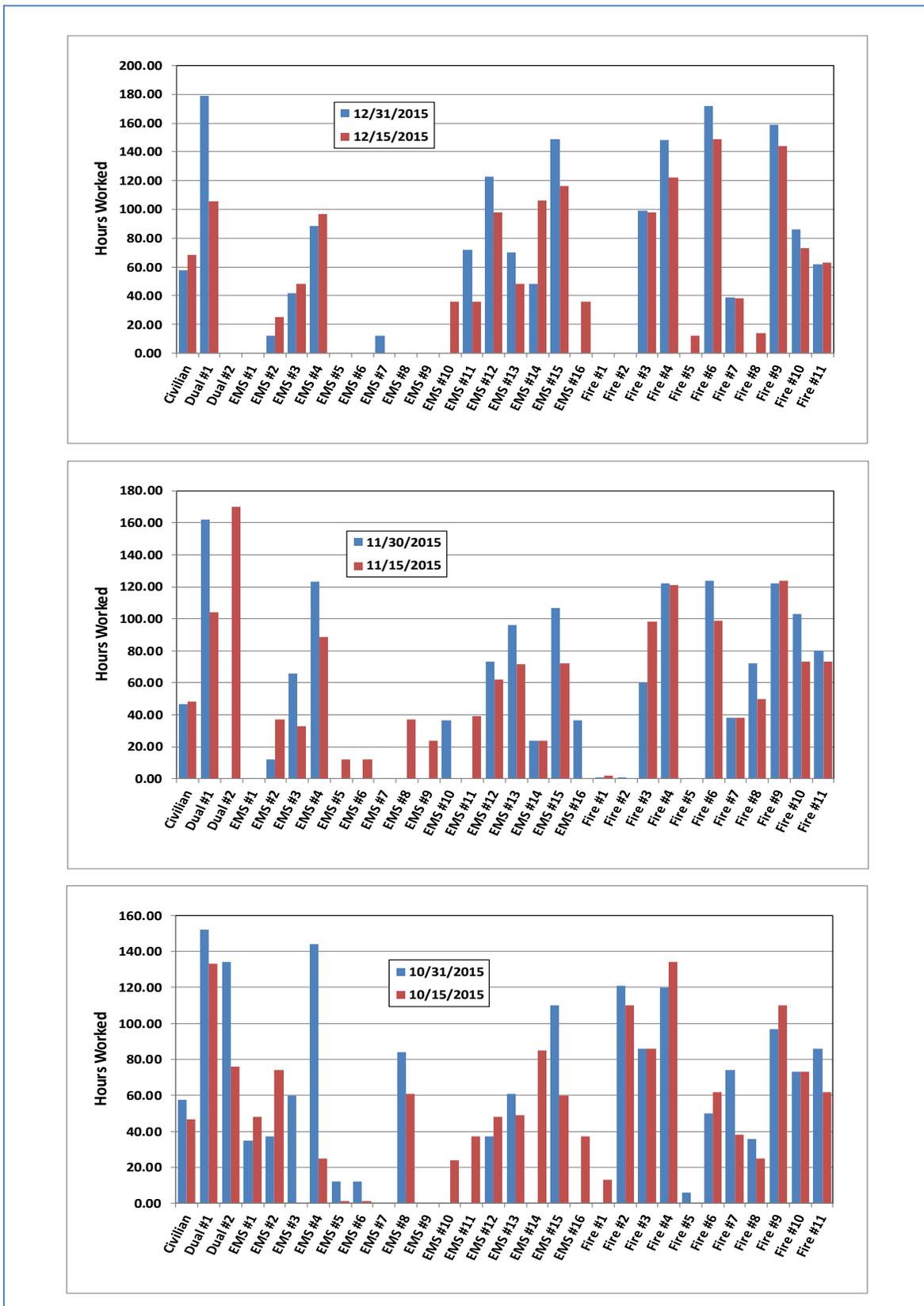
Section XII-Payroll Administration, item 1 states that the, "...Fair Labor Standards Act requires that wages be calculated on a periodic basis consisting of twenty eight (28) days for employees working in "public safety" activities, such Ambulance Service and Firefighters..." Further, the personnel handbook states in item 1.A. that for, "Employees/volunteers engaged in "public safety" activities, such as Ambulance Service and Firefighters, pay periods extend from the first (1st) of each month to the fifteenth (15th) and the sixteenth (16th) to the last day of the month." In actuality, the FLSA states that public safety employee wages for eligible employees can be calculated on a 7, 14, 21, or 28-day cycle. Additionally, overtime must be paid after 53 hours in a seven-day cycle or 106 hours in a 14-day cycle and so on. ESCI recommends that the district consider moving to a 14-day pay cycle with 26 pay periods per year to better monitor pay practices and ensure compliance with FLSA requirements.

Key Recommendations:

- Consider requiring that all paid personnel meet the minimum requirements for a firefighter in order increase the number of personnel readily available to handle any type of emergency response.
- Implement a 14-day pay cycle with 26 pay periods per year to better monitor pay practices and ensure compliance with FLSA requirements.

In the following figure, ESCI calculates actual hours worked by each responder in three sample pay periods.

Figure 48: Employee Hours Worked Per Pay Cycle, October-December 2015



The state of Utah does not currently require firefighters, whether volunteer, part-time, or career, to become certified. This decision is left up to the local jurisdiction. However, the Utah Valley University's Utah Fire and Rescue Academy (UFRA) developed the Utah Fire Service Certification System (UFSCS) in the early 1980's. The system has various certification levels based upon job performance standards found within the National Fire Protection Association (NFPA) and National Wildfire Coordinating Group (NWCG) programs. Firefighters can receive training in a number of venues including UFRA, other agencies, and training within their own departments. Certification testing is provided by UFRA and the standards are the same for volunteer or paid personnel.

EMS providers are required to obtain certification under Utah Statute 26-8a-302. The statute states that initial and ongoing certification and training requirements for various categories of providers will be established by rule. The categories specifically include paramedics and other types of emergency medical personnel. Rule R426-5-300(1) specifically states that the, "...Department [of Health] may certify an EMR, EMT, EMT-IA, AEMT, Paramedic, or EMD for a four-year period." Among other state requirements to become certified in any of the above categories, R426-5-300(4) states that, "...the applicant shall successfully complete the Department [of Health] written and practical EMR, EMT, AEMT, EMT-IA, Paramedic, or EMD examinations, or reexaminations, if necessary."

The RSFPD currently pays its firefighters an on-call rate of \$7.50 per hour, EMTs, \$8.50 per hour, and AEMTs and Paramedics, \$9.00 per hour for the shift hours that they are on call. Overtime is not paid, and there is no separate accounting of on-call hours versus hours spent on actual response. ESCI recommends that RSFPD seek outside guidance from a qualified labor attorney relative to personnel scheduling and pay practices.

The Department of Labor provides very specific guidance for firefighters and EMS personnel employed by public agencies. 29 USC 207(k) of the Fair Labor Standards Act (FLSA), better known as section 7(k) or the "7k exemption" provides a partial overtime pay exemption for employees employed by a public agency such as a county, municipality or special district in fire protection activities. Under the provision, a public agency employer may establish a work period of seven to 28 consecutive days for the purpose of determining overtime compensation owed to individuals employed in fire protection. The maximum hour standard for fire protection personnel according to 29 CFR 553.230(c) ranges from 53 hours worked in a seven-day period to 212 hours worked in a 28-day period. While firefighters clearly fall under this exemption and can work more than 40 hours in a seven-day period before overtime is required there has been some concern about single-certified EMS personnel working for fire departments.

The Department of Labor Wage and Hour Division (WHD) issued a letter of clarification on September 9, 2005, addressing this issue substantively. In December 1999, the FLSA was amended to add Section 3(y) clarifying the definition of fire protection activities for the purposes of interpreting and clarifying employees considered eligible for the partial overtime exemption under the provisions of Section 7(k). The added language states that an employee engaged in fire protection activities means,

...an employee, including a firefighter, paramedic, emergency medical technician, rescue worker, ambulance personnel, or hazardous materials worker, who...is trained in fire suppression, has the legal authority and responsibility to engage in fire suppression, and is employed by a fire

department of a municipality, county, fire district or State; and...is engaged in the prevention, control, and extinguishment of fires or response to emergency situations where life, property, or the environment is at risk.”

Specifically, the job descriptions for EMT and paramedic positions employed by the fire district would need to include responsibility for fire suppression in addition to responsibility for providing emergency medical services at fire, accident, or disaster scenes and they would need to be trained as firefighters in accordance with State law and local ordinance. If these criteria are met, the EMTs and paramedics would meet the criteria for being employed in fire protection activities under Section 3(y). They are cross-trained as firefighters in accordance with the regulations which would give them the legal authority to engage in fire suppression, their job description would include the responsibility of fire suppression as employees of a district fire department, and they would respond to all emergency calls (fire and medical) to provide emergency medical services. Therefore, the EMTs and paramedics would also be eligible for the Section 7(k) partial overtime exemption.

The preceding discussion is offered in order to provide some context for future decisions relative to staffing for ambulance and fire rescue services. It is neither the intent nor is it within the scope of ESCI engagement to offer legal advice. Following observations of current practices and in light of the above discussion, ESCI recommends that the district seek the services of a qualified labor attorney to review current and potential scheduling and pay practices.

Key Recommendations:

- Consider cross-training and state dual-certification for all emergency response staff.
- Obtain outside assistance to review scheduling/pay practices (labor attorney and HR specialist).

FIRE AND EMS TRAINING DELIVERY

Providing safe and effective fire and emergency services requires a well-trained workforce. Training and education of personnel are critical functions. Without quality, comprehensive training programs, emergency outcomes are compromised and emergency personnel are at risk. One of the most important jobs in any fire department is the thorough training of responders. The personnel have the right to demand good training and the agency has the obligation to provide it.

Initial training of newly hired firefighters is essential, requiring a structured recruit training and testing process. Beyond introductory training, personnel need to be actively engaged on a regular basis and tested regularly to ensure skills and knowledge are maintained at a level commensurate with job duties. To accomplish this task, a fire department must either have a sufficient number of instructors within its own organization or work with their regional partners to provide those resources. The training program should be based on a structured annual plan and educational sessions should be formal and follow prescribed lesson plans that meet specific objectives.

In the following pages, ESCI reviews RSFPD training practices, compares them to national standards and best practices, and recommends modifications where appropriate.

General Training Competencies

For training to be fully effective, it should be based on established standards. There are a variety of sources for training standards. RSFPD uses the NFPA, the International Fire Service Training Association (IFSTA), the National Wildfire Coordinating Group (NWCG) and the Utah Fire Service Certification System (UFSCS) as the basis for its fire suppression training practices. The Utah Department of Health/RSFPD Medical Director standards are used as the baseline for medical training coursework.

As stated previously, Utah does not currently require firefighters to become certified; this decision is left to the local jurisdiction. RSFPD members have received training and been certified through to various levels through curricula discussed above.

EMS providers are required to obtain certification under Utah Statute 26-8a-302 and are also required to obtain continuing education training. The statute states that initial and ongoing certification and training requirements for various categories of providers are established by rule. The categories specifically include paramedics and other types of emergency medical personnel.

The district holds weekly fire training sessions on Tuesday evenings with a minimum class length of two to four hours. Members are required to attend 30 training sessions per year. EMS personnel are required to meet annual state-mandated continuing education (CE) requirements in a variety of competencies identified in state curricula. RSFPD holds twice-monthly EMS training sessions independent of fire training sessions.

Figure 49: Survey Table – General Training Competencies

Survey Components	RSFPD Observations	Comments and Recommendations
General Training Competency		
A. Incident command system	NIMS based system used.	
B. Accountability procedures	Passport systems used.	
C. Policy and procedures	Upon hire and as needed.	Develop and train on comprehensive SOG/SOP manual for all operations.
D. Safety procedures	Yes.	Ensure safety policy addresses LCES ⁸ components. Implement a close call reporting and training system.
E. Recruit training	Dependent on existing level of training. Six-month probationary period during which recruit completes a check list.	
F. Special rescue (high angle, confined space, etc.)	High angle and confined space.	
G. Hazardous materials	Awareness level is minimum. Several at Operations level. Some working on Technician.	
H. Wildland firefighting	Most personnel are red carded.	
I. Vehicle extrication	Yes.	
J. Defensive driving	EVOG course.	
K. EMS skills and protocol	Completed based on state mandated continuing education requirements.	

Discussion

New Personnel Training

Proper training of emergency services personnel starts prior to being hired or joining an agency. Specific knowledge and skills must be obtained to achieve a basic understanding of the roles and responsibilities of an emergency responder. RSFPD has established a six-month probationary period during which new members must complete certain basic training and have a task book signed indicating that these skills have been completed satisfactorily. Further, the staff and board have worked hard to ensure that all firefighters have completed Firefighter (FF) I and II certification level training provided by instructors from the Utah Fire and Rescue Academy outreach program. RSFPD should ensure that it incorporates this program into its new fire training period.

Although subsequent to their initial hire and probationary training schedule, all current fire personnel became FFI and FFII certified through an extensive program last year. This program involved firefighters taking three classes per week for several months at no cost to the district other than books, testing, etc. New members should be placed with a field training officer at least eight weeks with established benchmarks and task book training requirements prior to being sent through FFI and FFII. The additional training should be completed prior to the end of the six-month probationary period to ensure that the

⁸ LCES - Lookouts, Communications, Escape Routes & Safety Zones.

new hire is adequately familiarized with equipment and practices specific to the RSFPD and can complete all tasks required of a firefighter safely and in a timely manner.

Firefighter Accountability System Training

Firefighter accountability is a safety-critical consideration designed to track where personnel are during an ongoing fire event. Systems vary in configuration but are based on similar fundamental elements. The key to assuring safety of fire personnel is providing adequate training on a system that is consistent with best practices. RSFPD has adopted and periodically trains on a personnel accountability system (the passport system), which is a widely accepted standard. Accountability practices as found in *NFPA 1500* are the best suited as an industry standard⁹ and should be incorporated into a written standard operating guideline.

Wildland Firefighting Training

The RSFPD response area is subject to wildland-based fires, which sometimes present a risk of exposure to structures within the service area, referred to as “wildland-urban interface” areas. To address the need, brush fire vehicles are maintained and district personnel are equipped to combat wildland fires and protect exposed structures.

Fighting wildland fires is highly dangerous, requiring specialized skills and knowledge and a large coordinated regional and statewide response. Given Rockville/Springdale’s significant wildland and urban interface risk and possibility of significant wildfire event, it is imperative that all district personnel have a strong working knowledge of wildland practices and are well practiced working with state and federal wildland response partners.

Because any RSFPD firefighter is likely to be called upon to fight this type of fire, baseline wildland training is necessary. Although most firefighters are red-carded (National Wildfire Coordinating Group (NWCG) certification in wildland firefighting) at the basic firefighter level, ESCI recommends that the district adopt a minimum training requirement for all personnel at the S-130/S-190 level as defined by the NWCG, a nationally accepted standard. To ensure safe and reliable decision-making and leadership during these highly dynamic and dangerous events, all company officers should receive additional training to the NWCG “engine boss” training level.

Firefighter Safety Training

Firefighter safety is generally incorporated into routine training activities addressed in the course of regular training but is not separated specifically as dedicated safety training. Safety education could be more effectively delivered by incorporating the national “Fire Safety Initiatives” and the “Firefighter Close Call” reporting system. A close call reporting and review system should be in place to ensure release of initial observation and recommendations relating to any significant safety or close call incident within 72 hours of occurrence. A program such as the California Department of Forestry and Fire Protection (Cal

⁹ *NFPA 1500: Standard on Fire Department Occupational Safety and Health Program.*

Fire) “green sheet” near miss reporting system is a good model to review and replicate. This should be incorporated into a comprehensive set of Standard Operating Procedures/Guidelines manual.

Pre-Incident Planning

A pre-incident (or pre-fire) plan is a simple document developed for commercial occupancies and target hazard buildings to provide firefighters with information about a building should a fire occur there. Information is typically gathered regarding a building’s configuration, exiting, protection systems, and hazards that may present themselves to a firefighter in the event of an incident. Pre-incident plans help to make firefighting more effective and to provide for increased firefighter safety. ESCI recommends the district document its pre-incident planning program to reflect that it is fully integrated into its training program and emergency response procedures.

Minimum Training Requirements

RSFPD firefighters have generally been trained to the Firefighter I and II level as defined by NFPA and Utah Fire and Rescue Academy standards. The district has not, however, established well-defined minimum training level requirements and associated task books for personnel or standards that are required at various levels of rank. ESCI recommends establishing rank-based training requirements including fire and EMS operational and scene management competencies.

Key Recommendations:

- Ensure all personnel have ICS training commensurate with their position and NIMS requirements. Document and maintain ICS training records.
- Establish a company officer training and development program.
- Ensure that the district safety policy that addresses LCES components. Implement a close call reporting and training system.
- Develop a pre-incident planning program that is fully integrated into its training program.

Training Program Administration and Management

To function effectively, a training program needs to be managed. Administrative program support is important, though often weakly addressed. An additional element of effective administration is the development of program guidance in the form of training planning, goals, and defined objectives.

Figure 50: Survey Table – Training Program Administration and Management

Survey Components	RSFPD Observations	Comments and Recommendations
Training Administration		
A. Director of training program	Fire chief for fire, EMS Captain for EMS	
B. Education or background	22 years of experience with RSFPD. Instructor training through National Parks Service.	
C. Program Goals and objectives identified	Not formally	Develop an annual training plan and accompanying goals and objectives
D. Governing body support of the training program	Very supportive	
E. Personnel knowledge and understanding of the importance of training	Personnel are very understanding and supportive	
Recordkeeping		
A. Individual training files maintained	Yes	Consider use of on-line training such as Target Solutions for appropriate topics and training requirements.
B. Records and files computerized	Emergency Reporting System (ERS) software	
C. Daily training records	Weekly drill record maintained	
D. Company training records	N/A	
E. Lesson plans used	On some classes	Ensure lesson plans are in place and in electronic format for all training sessions.
F. Pre-fire planning included in training	Included in ongoing training activities.	
Administrative Priority		
A. Budget allocated to training	Limited budget. Separate fire and EMS training budgets.	RSFPD should ensure that current funding is adequate to provide meaningful training in both fire and EMS areas to all staff.
B. Using certified instructors	For EMS, some outside certified instructors used.	
C. Annual training report produced	No	Establish a Training Advisory Committee (TAC) that produces an annual training plan and binder.
D. Adequate training space/facilities and equipment	No classroom in the fire station, use area public meeting spaced. Drills conducted on area streets and buildings only.	Improved training facilities needed; consider joint training facilities with partner agencies, specifically Hurricane Valley.
E. Maintenance of training facilities	N/A	

Survey Components	RSFPD Observations	Comments and Recommendations
Training Program Clerical Support		
A. Administrative secretary support	None.	
B. Records computerized software used	Emergency Reporting System software.	

Discussion

The RSFPD training program operates under the oversight of the fire chief. The position is a not dedicated to training and must perform the administration and coordination of training in addition to his other duties. The fire chief is well qualified with more than 20 years of experience and appropriate credentials for training program management. He works with no administrative support or other assistance with coursework delivery.

The district does assign a part-time captain to the function of fire training and another to EMS training. This places the functions of program needs assessment, design, coordination, and evaluation with the same single respective personnel resource responsible for program delivery as well as shift operational and personnel responsibilities. This results in a significant workload, at least in the case of the EMS function. As critical as continuing education and training are, ESCI encourages RSFPD to closely evaluate the resources available against its training needs and possibly spread aspects of these programs among more individuals within the organization.

As noted earlier, this is a very appropriate function that should be considered for an enhanced and formalized regional cooperative training strategy with regional partners.

Training Program Planning

While the training program operates effectively overall, it does so in the absence of a structured program planning process with input and contributions from members of the organization. To be fully effective, training delivery should be based on:

- Periodic training needs assessments
- Defined annual program goals based on the needs assessment
- Specific delivery objectives addressing program goals
- A process of performance measuring and monitoring
- Periodic re-evaluation and modification

ESCI recommends a “Training Advisory Committee” be utilized to develop the annual training plan based on the above criteria including clearly defined program goals and objectives.

Key Recommendations:

- Develop an annual training plan with a structured monthly/quarterly schedule with specific subject outlines based upon industry standards (IFSTA, etc.).
- Establish a Training Advisory Committee (TAC) that produces an annual training plan and binder.

Training Resources and Methodology

To be able to deliver effective training to fire and EMS personnel, some resources are necessary to arm the trainer with the tools needed to provide adequate educational content. In addition to tools, effective methodologies must be employed for delivery to be sufficient to meet needs.

Figure 51: Survey Table – Training Resources, Scheduling and Methodology

Survey Components	RSFPD Observations	Comments and Recommendations
Training Facilities and Resources		
A. Training facilities (tower, props, pits)	Area buildings and streets only.	Pursue a regional training facility with Hurricane Valley and Zion National Park
i) live fire prop	None.	Submit regional AFG ¹⁰ grant.
ii) fire and driving grounds	Public streets.	
B. Classroom facilities	None, use area meeting rooms and Canyon Community Center.	Pursue agreement with school board for use of classroom space.
C. VCR, projectors, computer simulations	N/A	
D. Books, magazines, instructional materials	Adequate library of materials are in the chief's office.	
Training Procedures Manual		
A. Manual developed and used	None.	Establish local training manuals and task books by position.
B. IFSTA manuals used	Yes.	
Training Scheduling		
A. Training schedule	Weekly on Tuesday evenings 2-4 hours per session; EMS twice monthly and separate.	Establish formal schedule with specific topics
B. Minimum training hours, competencies	Attendance at 30 training sessions required annually and enforced.	Validate and implement regional fire training competency standards for high risk/low frequency operations, e.g. vertical ventilation standard.
Methodology Used for Training		
A. Manipulative	Yes.	
B. Task performances	No.	
C. Annual training hours	Attendance to 30 training sessions required annually and enforced.	
D. Use of lesson plans	Yes.	
E. Night drills	Yes.	
F. Multi-agency drills	At least monthly with Zion Park and Hurricane Valley.	
G. Inter-station drills	N/A	
H. Physical standards or requirements	Pack test completed on red card personnel. No other physical standards are in place.	Establish minimum physical standards

¹⁰ AFG – Assistance to Firefighters Grant program

Survey Components	RSFPD Observations	Comments and Recommendations
I. Annual performance evaluation conducted	None.	Conduct annual skills testing.
J. Employee Development program	None.	Establish career development committee and career path policy for all positions within the RSFPD.
Operations and Performance		
A. Disaster drills conducted	Participate in annual county disaster drill. HazMat drills with regional team annually.	Recommend continue hosting annual disaster drill in Springdale based upon tourist season incident with heavy traffic volume.
B. Attention to safety	High.	Reinforce a culture of safety with programs such as “Just Culture,” “Everyone Goes Home,” or “Crew Resource Management CRM.”
C. Post incident critique (After Action Review)	Completed on all incidents.	Document AAR process with a consistent method of review and lessons learned. Utilize TAC Committee to assist with development.
D. Priority by management toward training	High.	

Discussion

RSFPD has made a recent focused commitment to training. Specifically, the fire chief has taken a leadership role in clearly defining the desire and commitment for a strong and relevant training program.

Training Manual

A training manual is the foundation upon which the delivery of educational content is based. In the absence of this kind of document, personnel will tend to train in “the way we do it here,” rather than in a manner that is consistent with the district’s established operational practices and standards.

Some components of a training manual are in place. However, none are fully complete and all are stand-alone documents. The development of a single, comprehensive, training manual will prove to be invaluable in meeting growing training demands. ESCI recommends that RSFPD identify high-risk, low-frequency elements and develop subsequent training components for inclusion in the training manual. It is further recommended that the training manual be developed in coordination with the previously recommended training advisory committee and regional response partner participation.

Professional Development

Beyond the regular training offered to general membership, certain individuals should be offered specific officer development training in order to prepare them for more responsibility as they progress through the agency’s command structure. Placing individuals in positions of authority without first giving them the tools to succeed often ends in failure and discouragement by both the officer and their subordinates. ESCI

recommends that the RSFPD work with its regional partners to establish standardized professional development programs and conduct them on a regional basis.

Training Delivery Methodology – Competency-Based Training

The amount of training delivered to RSFPD personnel is currently based on contact hours obtained through 30 required training sessions for firefighters. The fundamental objective is to deliver 60-120 hours of training annually, a measure used by the Insurance Services Office (ISO) for purposes of fire department ratings. Other minimums are in place including those related to state EMS certification maintenance.

An hours-based approach is appropriate and generally effective. However, the shortcoming of this methodology is that sometimes training will be delivered simply to meet minimum hour requirements when, in fact, the individuals receiving the training are already fully versed in the subject matter. Time in this instance would be better spent by 1) subjecting the students to a skills performance demonstration and 2) once competency in the skill area is demonstrated, use the remaining time to address new skills or subject areas.

Under a competency-based system, an evaluation of skills performance is conducted at scheduled intervals to determine if the person being evaluated can perform the tasks in accordance with pre-determined standards. Those skills that are performed well require no additional training. Those skills not performed well are practiced until the standard is met. This approach maximizes the time used for effective training. Further, it ensures that members are performing at an established level. Specialty skills can be evaluated in the same manner with further training provided as needed. Ideally, the competency-based training approach is used on an ongoing basis. For example, each quarter different skills are evaluated on an individual basis.

To institute a competency-based approach to training, all of the needed skills must be documented to describe the standard of performance expected. This would include all skills such as hose handling, apparatus operation, EMS procedures and protocols, use of equipment and tools, forcible entry, ventilation, tactics and strategy, and others.

As discussed above, RSFPD's training program is generally designed around training content that is identified as necessary to meet ISO criteria while also making use of the FFI and FFII standards and EMS continuing education requirements. Implementation of a competency-based approach to identifying training needs, using Job Performance Requirement (JPR) guidelines as a foundation, offers a more effective and efficient method of training program management, which will also address ISO standards and EMS continuing education needs.

Physical Standards and Periodic Skills Evaluation

It is important that a fire department adopt appropriate standards that set minimum physical capability levels and that demonstration of skills competence is required periodically. As noted earlier in the Personnel Management section, RSFPD does not use a well-designed and vetted physical standards screening process. When screening is performed, an internal validation process should be used which is fully consistent with best practices. Adoption of a nationally recognized standard, such as the firefighter

Candidate Physical Agility Test (CPAT) program available through the National Testing Network, is recommended.¹¹

Regular testing of hands-on skills competency is essential to assure that personnel are receiving adequate training, and they are able to put their knowledge and skills into practice. A program of periodic skills testing will not only enable the district to verify personnel possess the necessary capabilities, but it also provides a valuable tool for assessing the effectiveness and subsequent training calendar needs of the organization's training program.

The district does not routinely undertake a skills testing process. Doing so can be accomplished by completing an annual evaluation process. Alternatively, skills assessment can be incorporated into the ongoing training plan on a weekly or monthly basis. ESCI recommends a system of annual individual skills proficiency testing.

Training Facilities and Resources

ESCI learned that hands-on training facilities are limited in the area. As a result, most training has to be completed using available buildings and parking lots. ESCI has included a recommendation for the long-term development of a training site when funding and space becomes available.

Classroom instruction is an essential component of preparing emergency responders with knowledge and skills. A training facility or drill ground is a second indispensable element. Training facilities provide a controlled and safe environment to simulate emergencies, developing and testing the skills of emergency workers. Although able to use the Canyon Community Center, it is recommended that the RSFPD work with its regional partners to establish a location and design for a suitable training facility to meet the current and future needs of the region. Additionally, RSFPD should explore the potential use of school classroom space.

In conclusion, ESCI finds that the RSFPD training program lacks many of the foundational structural elements typically found in a fully effective program in an organization the size of the RSFPD. This is not to say that personnel are not capable and appropriately educated, but that a need exists for improved structure, management, and establishment of clear standards and requirements. The district is encouraged to assign a high level of priority to training program improvements.

Key Recommendations:

- Pursue a regional training facility. Pursue federal grant funding.
- Validate and implement regional fire training competency standards for high risk/low frequency operations, e.g. vertical ventilation standard.
- Reinforce a culture of safety with programs such as "Just Culture," "Everyone Goes Home," or "Crew Resource Management CRM."

¹¹ http://www.iaff.org/hs/CPAT/cpat_index.html.

FIRE PREVENTION AND PUBLIC EDUCATION PROGRAMS

An aggressive risk management program, through active fire and life safety services, is a fire department’s best opportunity to minimize the losses and human trauma associated with fires and other community risks.

The National Fire Protection Association recommends a multifaceted, coordinated risk reduction process at the community level to address local risks. This requires engaging all segments of the community, identifying the highest priority risks, and then developing and implementing strategies designed to mitigate the risks.¹²

A fire department needs to review and understand the importance of fire prevention and public education, appreciating their role in the planning process of a community with diversified zoning including residential, commercial, and industrial properties.

The fundamental components of an effective fire prevention program are listed in the following table, accompanied by the elements needed to address each component.

Figure 52: Fire Prevention Program Components

Fire Prevention Program Components	Elements Needed to Address Program Components
Fire Code Enforcement	Proposed construction and plans review New construction inspections Existing structure/occupancy inspections Internal protection systems design review Storage and handling of hazardous materials
Public Fire and Life Safety Education	Public education Specialized education Juvenile fire setter intervention Prevention information dissemination
Fire Cause Investigation	Fire cause and origin determination Fire death investigation Arson investigation and prosecution

Commendably, RSFPD has undertaken fire prevention and public education efforts that exceed what is often found in similar sized organizations. Those efforts are detailed in the following discussion.

Fire and Life Safety Code Enforcement

The most effective way to combat fires is to prevent them. A strong fire prevention program, based on locally identified risk and relevant codes and ordinances, reduces loss of property, life, and the personal and community-wide disruption that accompanies a catastrophic fire.

¹² Kirtley, Edward, *Fire Protection Handbook*, 20th Edition, 2008, NFPA, Quincy, MA.

Figure 53: Survey Table - Fire Prevention Code Enforcement

Survey Components	RSFPD Observations	Comments and Recommendations
Code Enforcement		
A. Fire codes adopted	Yes	
i) Code used – year/version	2012 <i>International Fire Code</i> (IFC)	
B. Local codes or ordinances adopted, amendments	Adopted as is with an ordinance in Rockville relating to water supply and access matters	
C. Sprinkler ordinance in place	Residential sprinkler requirements included in Rockville water supply ordinance	

Discussion

The district has adopted the 2012 edition of the *International Fire Code*. The code is supplemented in Rockville with an additional requirement for an alternative water supply and residential fire sprinklers in areas that have limited water supply/hydrant availability and access challenges. The ordinance is appropriate because the district does not have a water tanker with which to transport water to a fire scene. A similar requirement is not in place in Springdale because the majority of the buildable properties in the town have fire hydrants available.

Fire code enforcement and administration in RSFPD is the overall responsibility of the fire chief and the work is largely completed by a fire marshal who is a part time employee.

The adopted code is the most current available and appropriate. The district’s application of the code is commendable, and RSFPD will want to continue to work with the towns and the county to ensure consistent adoption and application of the code with amendments that are standardized as appropriate.

New Construction Plan Review and Inspection

An essential component of a fire prevention program is new construction plan reviews. When a new building is proposed within the fire district’s jurisdiction, the RSFPD has the responsibility to protect the structure for the life of the building. The agency has a fundamental interest and duty to ensure all buildings within its jurisdiction are properly constructed.

Figure 54: Survey Table – New Construction Code Enforcement

Survey Components	RSFPD Observations	Comments and Recommendations
New Construction Inspections and Involvement		
A. Consulted in proposed new construction	Processed by part time fire marshal	
B. Perform fire and life safety plan review	Completed by fire marshal	
C. Sign-off on new construction	Sign off required by fire marshal or designee for issuance of a building permit	
D. Charges for inspections or reviews	Fees charged based on an established schedule	

Discussion

Commendably, RSFPD’s new construction code enforcement activities consist of regular review of submitted commercial and residential plans. The fire marshal is provided the plans for review and completes a fire and life safety plan review process. Importantly, the fire marshal’s signature is required for issuance of the building permit.

Once a building permit is issued, it is also essential that steps be taken to assure that the structure is assembled in compliance with the permit and code requirement. Often this step is overlooked, but in RSFPD the fire marshal completes a variety of inspections that are related to the new construction permitting process. Again, the district’s efforts are well developed.

Existing Occupancy Inspection Program

Existing property inspections, to find and eliminate potential life hazards, are an essential part of the overall fire protection system. These efforts are most effective when completed by individuals having the proper combination of training and experience and when completed with appropriate frequency.

Figure 55: Survey Table - Existing Occupancy Inspection Program

Survey Components	RSFPD Observations	Comments and Recommendations
General Inspection Program		
A. Perform existing occupancy inspections	Annual inspections are performed on all commercial occupancies, required for renewal of business license.	
B. Special risk inspections	Completed as needed by district staff.	
C. Storage tank inspections	Completed by State Fire Marshal.	
D. Key-box entry program in place	Knox Box requirements are in place.	
E. Hydrant flow records maintained	Maintained by the towns.	
F. Self-inspection program in place	None.	
G. Frequency of inspections	Annual for all commercial occupancies.	
H. Citation process in place and formally documented/adopted	Able to red tag business via police department. Voluntary compliance is usually obtained.	
i) Court-cited to	Springdale municipal court.	
I. Inspections computerized	Not currently. In hard copy only.	Record fire inspection findings and tracking electronically for improved access.
J. Community feedback system in place	No.	
K. Number of personnel devoted to program	One part time fire marshal and two firefighters as an additionally assigned duty.	
L. Fees for specialty inspections	No.	

Discussion

The district’s fire marshal inspects all existing commercial businesses annually. Further, for a business license to be renewed each year, a fire prevention inspection is required. Each year, approximately 105 inspections are completed in businesses in Springdale and approximately five in Rockville. The fire chief also completes courtesy inspections on request and presents fire safety information to HOAs and community groups regarding defensible space, etc.

In house personnel also assist with inspections to some extent. They are not certified but are trained and additional training regarding the completion of inspections is planned. Once training is completed, ESCI recommends that personnel that will be conducting inspections be certified.

Fire inspection record keeping is maintained manually in hard copy. The reporting software that the district currently uses has the capability of also recording fire inspections. Doing so expedites the process of tracking inspections and assuring timely follow up. ESCI recommends inspections be documented electronically.

Key Recommendations:

- Certify all personnel that will be conducting fire inspections.
- Record and track fire inspections electronically.

Fire and Life Safety Public Education Program

Providing fire and life safety education to the public to minimize the number of emergencies while training the community to take appropriate actions when an emergency occurs is essential to a fire and life safety program. Fire and life safety education provides the best chance for minimizing the effects of fire, injury, and illness to the community. Public education outreach efforts in RSFPD is addressed in the following table.

Figure 56: Survey Table - Fire Safety and Public Education

Survey Components	RSFPD Observations	Comments and Recommendations
Fire Safety and Public Education		
A. Public education/information officer in place	Fire Chief additionally assigned duty.	Consider a “non-combat” volunteer to assist with public education.
B. Feedback instrument used	No.	Periodically survey the effectiveness of public education efforts.
C. Public education in the following areas:		
i) calling 9-1-1	Yes.	
ii) EDITH (exit drills in the home)	Yes.	
iii) smoke alarm program	Batteries distributed during school presentations.	
iv) fire safety (heating equipment, chimney, electrical equipment, kitchen/cooking, etc.)	Yes.	

Survey Components	RSFPD Observations	Comments and Recommendations
v) injury prevention (falls, burns/scalding, bike helmets, drowning, etc.)	No.	
vi) Fire extinguisher use	Yes.	
vii) Fire brigade training	N/A	
viii) elderly care and safety	N/A	
ix) curriculum used in schools	NFPA provided materials.	
x) baby-sitting classes offered	No.	
xi) CPR courses, blood pressure checks offered	On occasion.	
D. Publications available to public	Yes.	
E. Bilingual information available	N/A	
F. Annual report distributed to community	No.	
G. Juvenile fire setter program offered	No.	
H. Wildland interface education	Included in outreach to HOA and community groups.	

Discussion

Public education and outreach is appropriately prioritized in the organization; however, staffing limitations compromise the level of attention that can be paid to the program. Despite limited dedicated public outreach staffing, the majority of fundamental community outreach elements are being addressed.

Public education and outreach is the responsibility of the fire chief as an additionally assigned duty. ESCI recommends that the district consider establishing a volunteer community outreach coordinator who can work with the fire chief to ensure the necessary program elements are implemented and maintained.

District personnel visit the Springdale Elementary School semi-annually, providing information to the students and staff about fire safety. In addition, the district is invited to make presentations to HOAs, local government entities, and citizen groups. Often the focus is on wildland urban interface issues, including defensible space, fire resistant landscaping, building construction, and numerous aspects of fire safety. The fire chief also works actively with community members in an effort to reduce hazard fuels and conducts prescribed burns where deemed appropriate.

Key Recommendation:

- Consider addition of a community volunteer to support public fire education efforts.

Fire Cause and Origin Investigation

Accurately determining the cause of a fire is an essential element of a fire prevention program. When fires are set intentionally, identification and/or prosecution of the responsible offender is critical in preventing additional fires and potential loss of life. Further, if the cause of fires is accidental, it is also of great importance because of knowing and understanding how accidental fires start is the most effective way to identify appropriate fire prevention and public education measures to prevent a reoccurrence.

The results of fire investigations, if used accordingly, identify public education focus areas, the need for code modifications, and adjustment of fire deployment and training. Definition and mitigation of a community’s fire problem can be achieved via an effective fire cause and determination program.

Figure 57: Survey Table - Fire Investigation

Survey Components	RSFPD Observations	Comments and Recommendations
Fire Investigation		
A. Fire origin and cause determination	Fire Chief investigates initially. If needed, consults fire marshal or State Fire Marshal in Hurricane.	
B. Arson investigation and prosecution	Processed via Springdale Police Department.	
i) arson investigation training provided	Fire marshal and State Fire Marshal.	
C. Person responsible for investigations	Fire chief.	
D. Local FIT membership (fire investigation team)	None. State Fire Marshal only.	
E. Process for handling juvenile suspects	Processed via Springdale Police and Juvenile court.	
F. Liaison with law enforcement	Fire chief or designee.	
G. Scene control practices in place	Yes.	
H. Photographer available	No.	
I. Adequate and appropriate equipment issued/supplied	State Fire Marshal.	
J. Evidence collection process in place	State Fire Marshal and Springdale Police Department.	
K. Reports and records of all incidents made	Completed in reporting software.	
L. File, record, and evidence security	Password protected.	
Pre Incident Planning		
A. Pre-plans completed	Yes.	
B. Frequency of review	Reviewed during annual inspection.	
C. Accessibility of plans	On chief’s iPad and some in books in apparatus.	
Statistical Collection and Analysis		
A. Records kept by computer	Yes.	
i) type of operating platform	PC-based system.	
ii) software used	Emergency Reporting System (ERS).	
B. Information collected in the following areas:		
i) fire incidents	Yes.	
ii) time of day and day of week	Yes.	
iii) method of alarm (how received)	Yes.	
iv) dispatch times	Yes.	
v) response times	Yes.	

Survey Components	RSFPD Observations	Comments and Recommendations
C. Information analyzed & used for planning	Occasionally.	
D. Reports made & distributed	Incident report exported to state reporting system.	
E. FTEs used in data collection & analysis	None.	

Discussion

Fire cause and origin determination in RSFPD starts with the fire chief when on the scene of a fire. If the chief or on-scene personnel view the fire as questionable or are unsure about the fire’s cause, they will request assistance from the district’s contract fire marshal or the state fire marshal deputy from Hurricane Valley to conduct the cause and origin investigation. Suspected arson cases are referred to local law enforcement for processing and criminal charges.

The fire marshal and/or fire chief handles data entry and processing of fire response and investigation data. Reports are entered into the district’s Emergency Reporting System software suite.

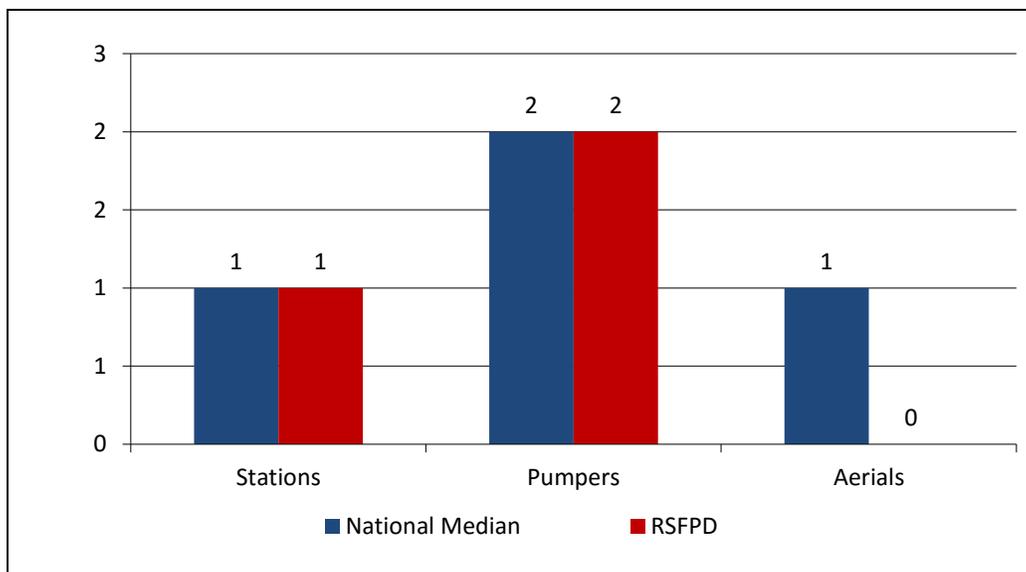
CAPITAL ASSETS AND ASSESSMENT OF CURRENT INFRASTRUCTURE

Regardless of an emergency service agency's financing, if appropriate capital equipment is not available for the use by responders, it is impossible for a fire department to deliver services effectively. Two primary capital assets that are essential to the provision of emergency response are facilities and apparatus (response vehicles).

The district maintains a balance of three basic resources that are needed to carry out its 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 are, the district will fail to execute its mission if it lacks sufficient fire apparatus distributed in an efficient manner.

The district maintains one fire station and thousands of dollars' worth of capital assets. These assets are necessary to provide service and must be maintained and replaced as needed. A comparison of major capital assets, including fire engines, aerial ladder trucks and fire stations is provided in the following figure.

Figure 58: Capital Assets per 1,000 Population



Relative to national comparators, RSFPD has a similar number of pumpers and fire stations, relative to similar sized organizations, based purely on resident population on population.

Apparatus Replacement Planning

Fire apparatus are typically unique pieces of equipment, often very customized to operate efficiently in a narrowly defined mission. A pumper may be designed such that the compartments fit specific equipment and tools, with virtually every space on the truck designated in advance for functionality. This same vehicle, with its specialized design, cannot be expected to function in a completely different capacity, such as a hazardous materials unit or a rescue squad. For this reason, fire apparatus is very expensive and offers

little flexibility in use and reassignment. As a result, communities across the country have sought to achieve the longest life span possible for these vehicles.

Unfortunately, no mechanical piece of equipment can be expected to last forever. As a vehicle ages, repairs tend to become more frequent, parts more difficult to obtain, and downtime for repair increases. Given the emergency mission that is so critical to the community, this factor of downtime is one of the most frequently identified reasons for apparatus replacement.

Because of the large expense of fire apparatus, most communities find the need to plan ahead for the cost of replacement. To properly do so, agencies often turn to the long-accepted practice of establishing a life cycle for the apparatus that results in a replacement date being anticipated well in advance. Forward thinking organizations then set aside incremental funds during the life of the vehicle so replacement dollars are ready when needed.

RSFPD does not maintain a formal schedule that places all apparatus on any specified replacement cycle from date of primary service. ESCI recommends that the district make an effort to develop a vehicle replacement schedule, including a funding strategy that will fully meet future needs.

Facilities

Appropriately designed and maintained facilities are critical to a fire department’s ability to provide services in a timely manner and with appropriate deployment of assets. ESCI observed and reviewed the fire station operated by RSFPD. The findings are summarized in the following figure and any observed areas of concern are identified

Figure 59: RSFPD Station 1



The RSFPD fire station consists of two double-depth drive through apparatus bays. Apparatus at this station include two structural fire engines, three brush engines (one used as a “squad”), and a transport ambulance.

The station was constructed in 1993. Four sleeping areas are available. Two offices are present. One office is utilized by the fire chief, and the other office is utilized as a reception area and work area for on-duty personnel.

1. Structure	
A. Construction type	Conventional construction with wood siding and a composition roof.
B. Date Built	1993
C. Seismic protection/energy audits	None
D. Auxiliary power	Propane generator with automatic start is in place.
E. Condition	Good to Fair – there are some maintenance issues.

F. Special considerations (American with Disabilities Act of 1990 (ADA), mixed gender appropriate, storage, etc.)	Storage is currently at capacity. Six apparatus are parked in four apparatus bays. Clearances around apparatus may not meet current life-safety code. Station is not fully ADA compliant. Sleeping areas and restrooms are mixed gender appropriate.
2. Square Footage	Approximately 4,500 square feet
3. Facilities Available	
A. Exercise/workout	
B. Kitchen/dormitory	The kitchen is small but adequate for current staffing. A small dayroom/living area is present. Separate sleeping areas with limited personal storage area.
C. Lockers/showers	Two individual bathrooms with showers are available.
D. Training/meetings	Dayroom/living area doubles as training room.
E. Washer/dryer	Commercial washer installed for decontamination of PPE.
4. Protection Systems	
A. Sprinkler system	None
B. Smoke detection	Residential smoke detectors in place.
C. Security	Exterior doors are secured with keypad locks.
D. Apparatus exhaust system	None

Discussion

The RSFPD station is generally in good to fair condition overall. However, the building is showing signs of aging. Maintenance issues and a lack of room for expansion were identified as concerns during ESCI's site visit in January 2016. The facility is at capacity for storage space for apparatus, equipment, and working space. The district is encouraged to look toward future station expansion to identify options that will meet the future needs of RSFPD.

Apparatus

RSFPD maintains a fleet of seven response vehicles that are in varying conditions but overall well maintained. The condition of the fleet was found to be fair to excellent generally, with the exception of a rescue vehicle that was in the process of being replaced.

Figure 60: RSFPD Apparatus Inventory

Apparatus Designation	Type	Year	Make/Model	Condition	Seating Capacity	Pump Capacity (GPM)	Tank Capacity (GAL)
Engine 91	1	1991	GMC/Becker	Fair	3	750	1000
Engine 92	1	1993	Freightliner	Fair	3	1500	900
Squad 91	6	2001	Ford/BME	Excellent	3	150	300
Brush 91	6	2008	Ford/Custom	Good	5	100	250
Brush 92	4	1997	Ford	Fair	3	90	500
Medic 91	Ambulance	2013	Chevrolet	Excellent	3	N/A	N/A
Rescue 91 (Out of Service)	Rescue		Chevrolet	Poor	5	N/A	N/A

Discussion

The district's vehicles range in age from three to 25 years, with an average of 15.5 years, overall (excluding the out of service rescue vehicle). The in-service units are serviceable; however, some are approaching their acceptable service lives.

It is noted that, subsequent to ESCI's initial field visit, the rescue vehicle listed above was removed from service. The previous fire chief's command vehicle replaced the rescue unit and a new vehicle was in the process of being purchased for the fire chief to drive.

ESCI recommends that the district establish and fund an apparatus replacement schedule. Additional detail will be provided later in this report.

Key Recommendation:

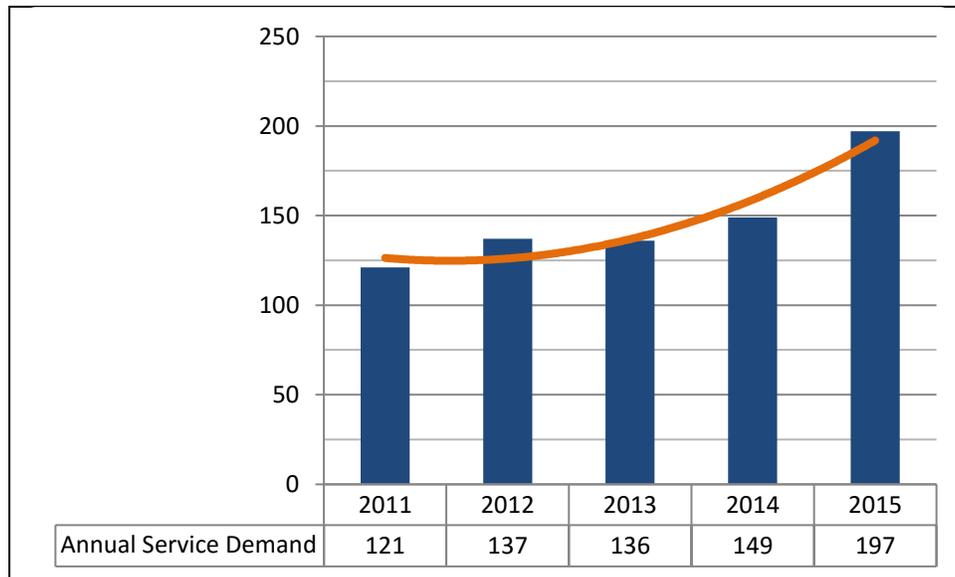
- Develop and fund a capital replacement plan.

Service Delivery and Performance

Service Demand

In the demand analysis, ESCI reviews current and historical service demand by type and temporal variation in the RSFPD service area. Geographic information system (GIS) software is used to provide a geographic display of demand within the study area. The following figure displays historical service demand for the last five calendar years.

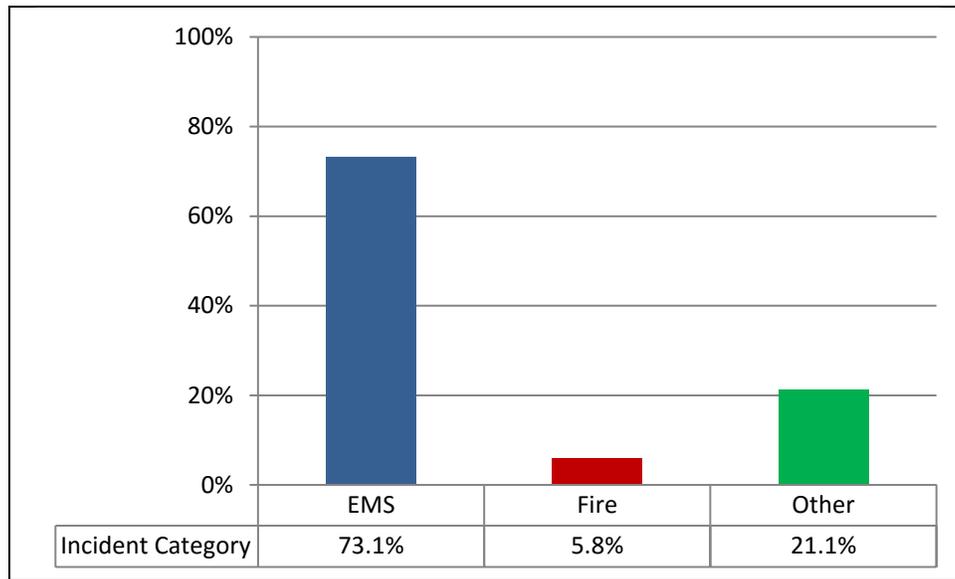
Figure 61: RSFPD Historical Service Demand, 2011-2015



RSFPD service demand hovered between approximately 121 incidents and 150 incidents from 2011 through 2014. Service demand spiked to 197 incidents in 2015. This represents a nearly 63 percent increase in calls for service over 2011.

Using National Fire Incident Reporting System (NFIRS) incident type codes, ESCI categorizes incidents as *Fires* (structures, vehicle, brush, any 100 series NFIRS code), *EMS* (all calls for medical service, including MVAs and rescues, any 300 series NFIRS code), and *Other* (false alarms, hazmat incidents, service calls, all other NFIRS codes). The following figure displays the nature of service demand within the RSFPD study area for 2014 through 2015, summarized as *Fire*, *EMS*, or *Other* incident categories.

Figure 62: RSFPD Service Demand by Incident Category, 2014-2015

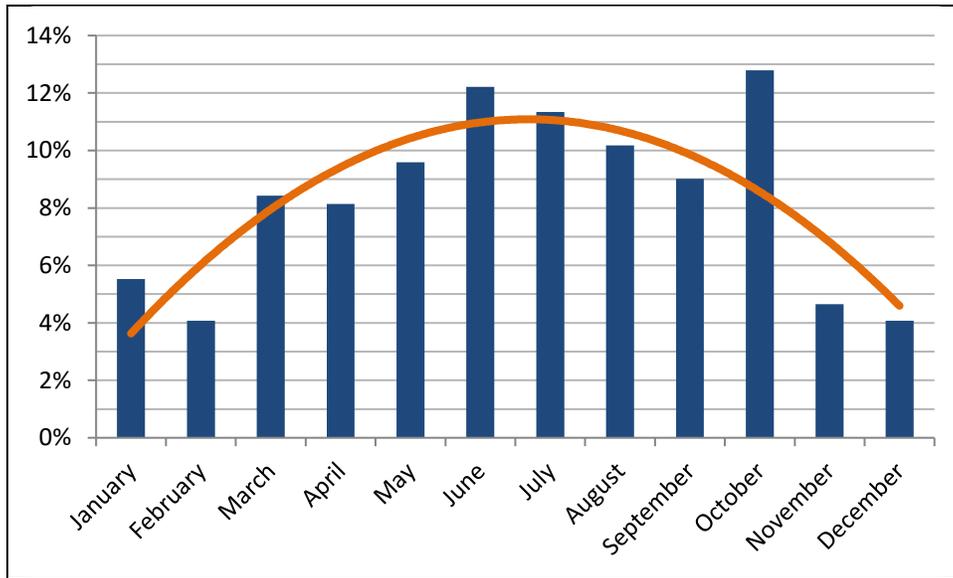


Overall, EMS incidents represent approximately 73 percent of service demand. Incidents classified as “Other” represent over 21 percent of 2014-2015 service demand. Fire incidents represent nearly 6 percent of historical service demand. ESCI notes that RSFPD did not experience any Fire incidents categorized as a structure fire in the 2014-2015 incident data. The percentages displayed above are comparable to that of similar fire jurisdictions in the region and nationally. Especially jurisdictions such as RSFPD that provide EMS transport services.

Temporal Variation

Service demand is not static, and workload varies by temporal variation. The following figures illustrate how service demand varied by month, day of week, and hour of day during 2014 through 2015 in order to identify any periods of time that pose significantly different risks and hazards. This analysis begins by evaluating service demand by month.

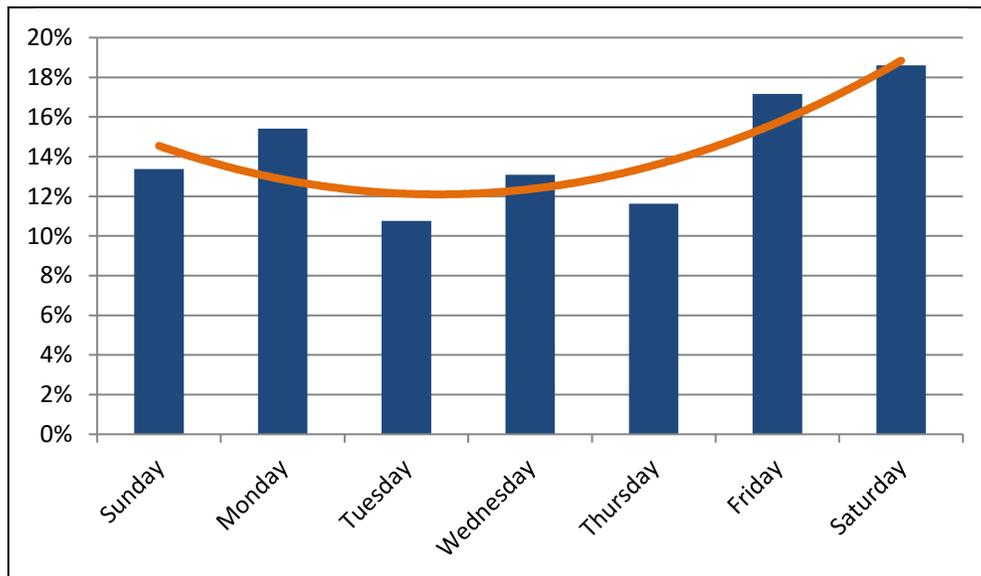
Figure 63: RSFPD Service Demand by Month of the Year, 2014-2015



In general, the highest service demand in the study area occurs during the summer tourism season. Over 65 percent of the service demand displayed above occurred between the beginning of May through October. Examination of Zion National Park (ZNP) annual visitor data reveals that the park experiences the highest number of visitors from April through October.

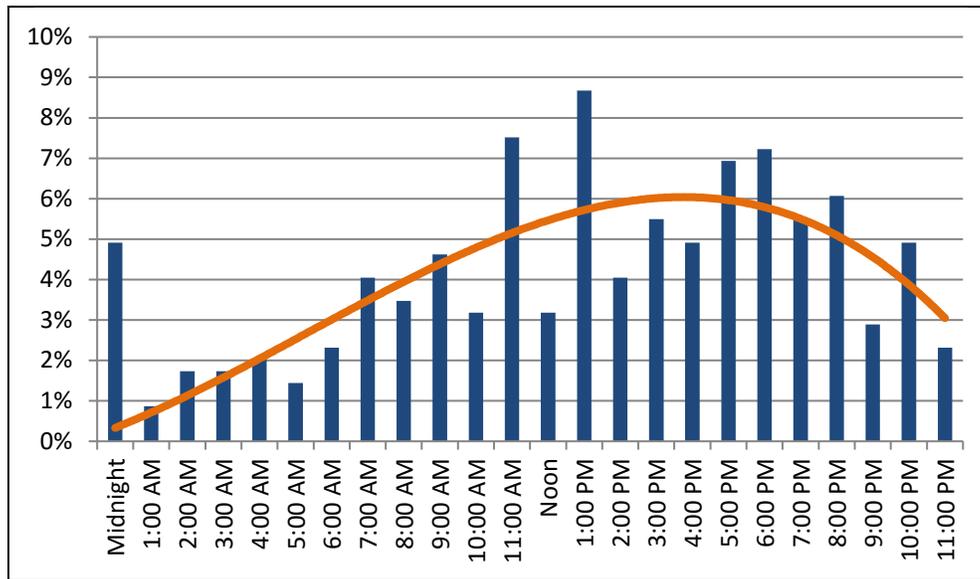
The following figure examines service demand by day of the week in the RSFPD service area.

Figure 64: RSFPD Service Demand by Day of the Week, 2014-2015



RSFPD service demand fluctuates throughout the week. The trend-line in the figure above shows that weekends experience the highest demand, while the lowest demand occurs in the middle of the week (Tuesday through Thursday). The last analysis of temporal variation displays workload by hour of the day.

Figure 65: RSFPD Service Demand by Hour of the Day, 2014-2015

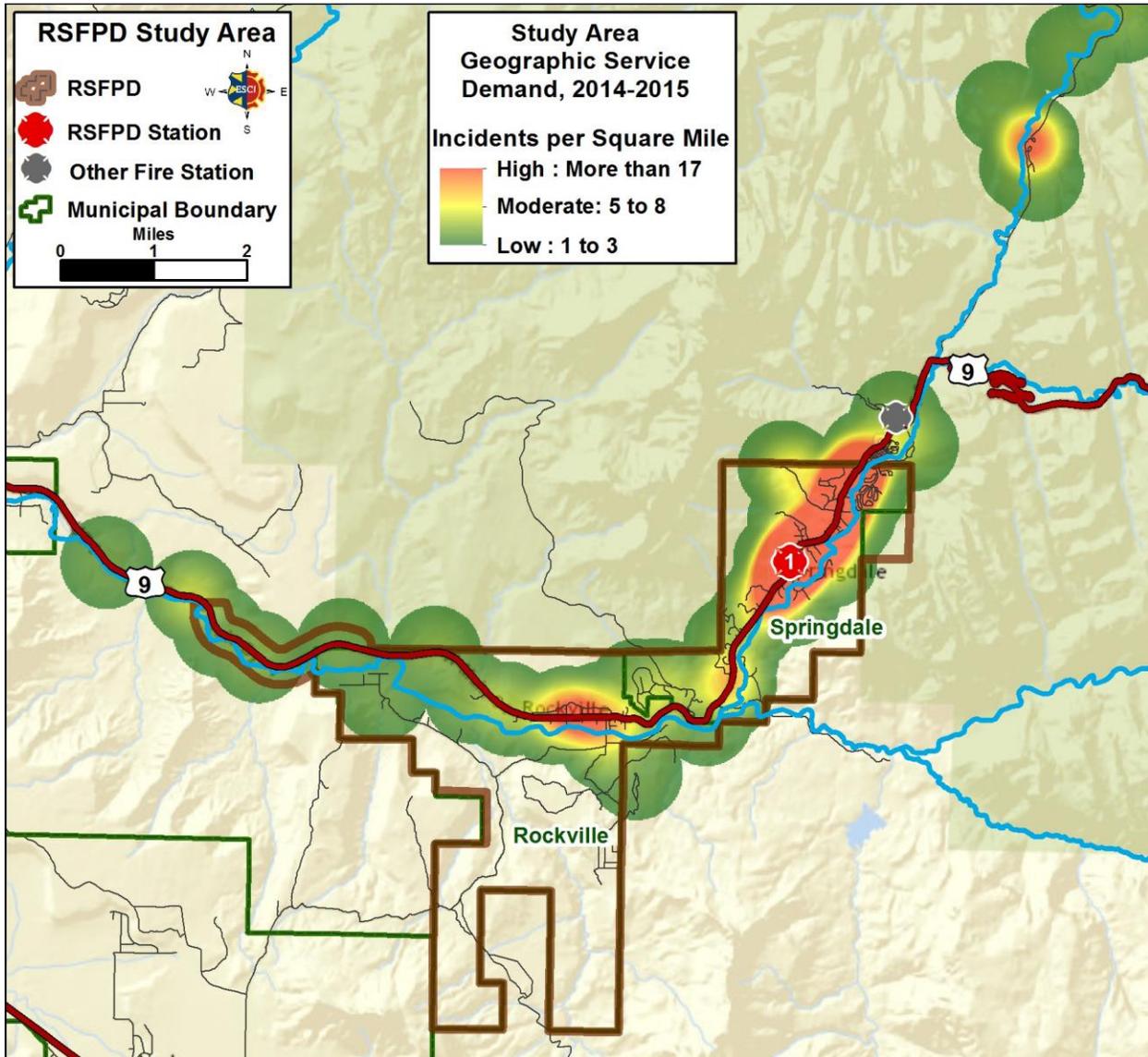


Service demand directly correlates with the activity of people, with workload increasing during daytime hours and decreasing during nighttime hours as shown in this figure. Nearly 65 percent of service demand displayed above occurred between the hours of 8 AM and 8 PM during 2014 and 2015.

Geographic Service Demand

In addition to the temporal analysis of workload, it is useful to examine the geographic distribution of service demand. ESCI uses geographic information systems software (GIS) to plot the location of incidents within the RSFPD study area during 2014 and 2015 and calculates the mathematical density of incidents in the study area.

Figure 66: RSFPD Geographic Service Demand, 2014-2015

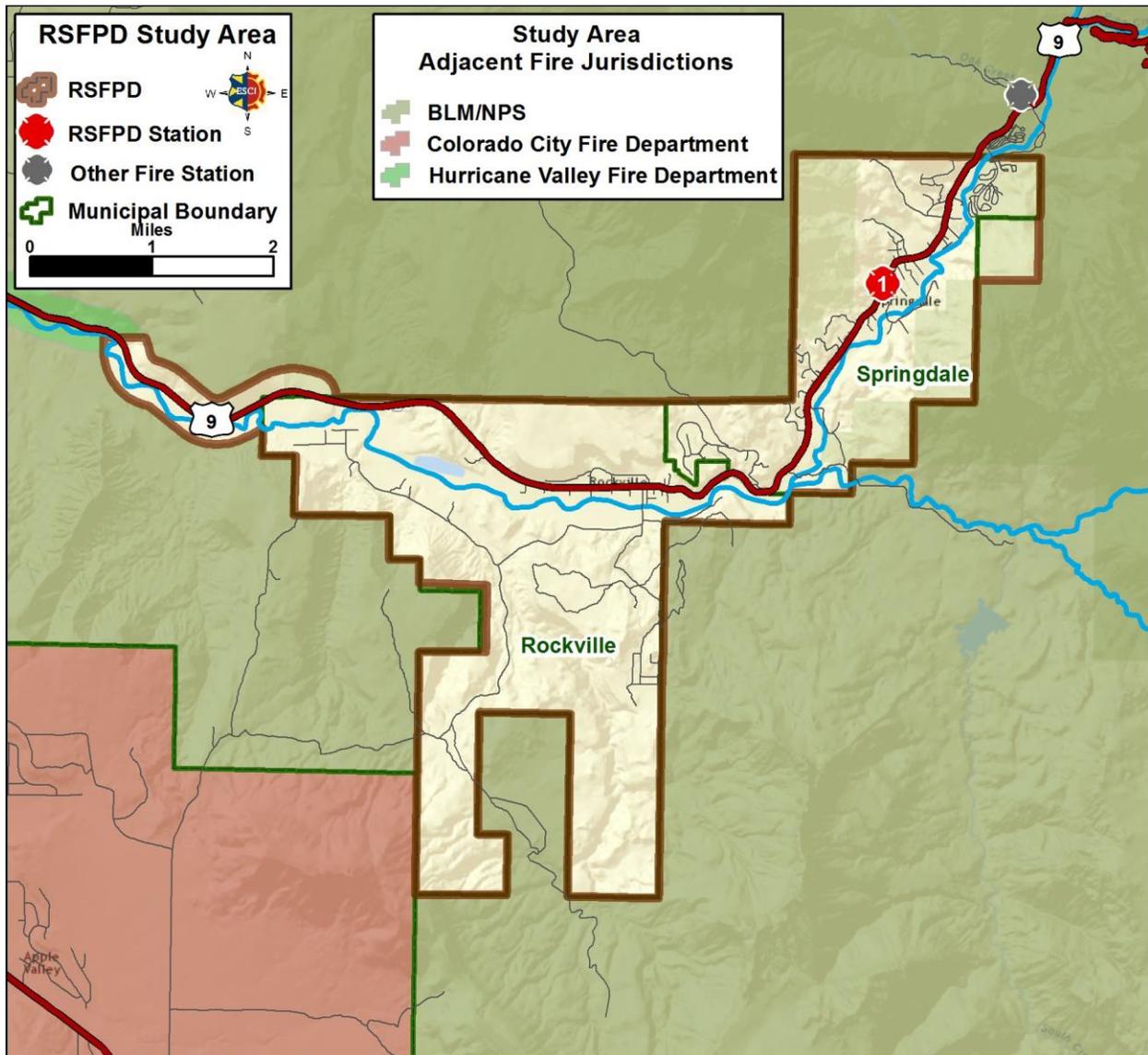


Not surprisingly, RSFPD service demand is concentrated along Highway 9, the main transportation route through the area. In Springdale, the highest concentration of incidents occurs in the commercial, retail, and hotel/motel residential properties, which experience the greatest amount of tourism-related activity. The area of high-density service demand in Rockville consists of primarily residential properties. RSFPD also experiences higher service demand inside Zion National Park in the area of Zion Lodge.

Resource Distribution

The distribution analysis presents an overview of the current distribution of fire district resources within the RSFPD service area.

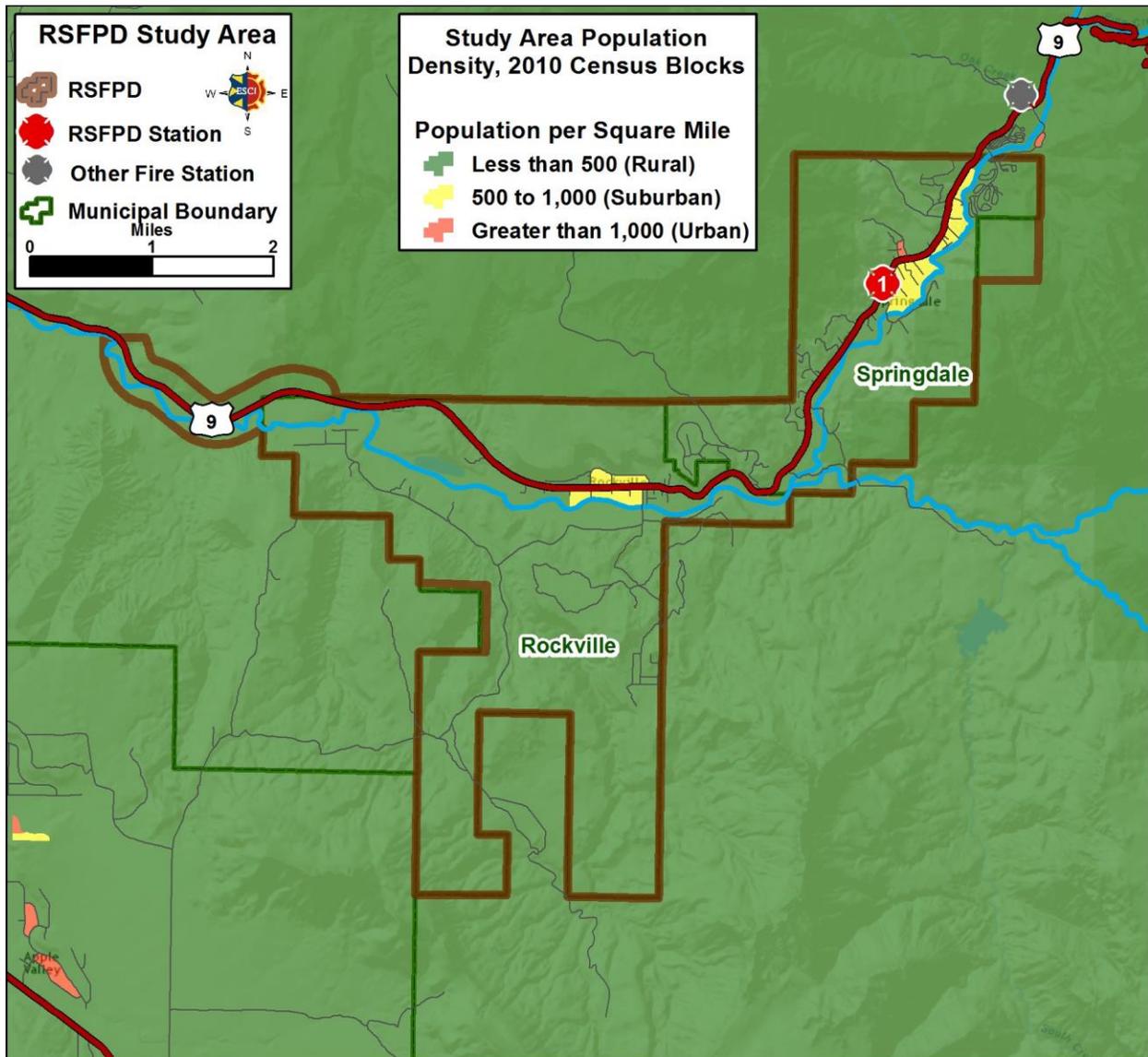
Figure 67: RSFPD Study Area



The study area encompasses approximately 14 square miles. This includes approximately 13 square miles in the incorporated towns of Rockville and Springdale and an area on either side of Highway 9 west of Rockville. Neighboring fire jurisdictions include Bureau of Land Management/National Park Service, Hurricane Valley Fire Department, and the Colorado City Fire Department. State Highway 9 is the major transportation route through the study area. Springdale is located just southwest of the entrance to southern entrance to Zion National Park (ZNP). Springdale contains retail/commercial properties (mostly tourism focused), transient residential (hotels/motels, bed and breakfast, campgrounds), and residential properties. Rockville, to the west of Springdale, is primarily comprised of residential properties. RSFPD provides fire protection and emergency medical service from a single station located in Springdale.

The following figure uses U.S. Census Data to display full-time residential population density in the RSFPD study area.

Figure 68: RSFPD Study Area Population Density, 2010 Census Blocks

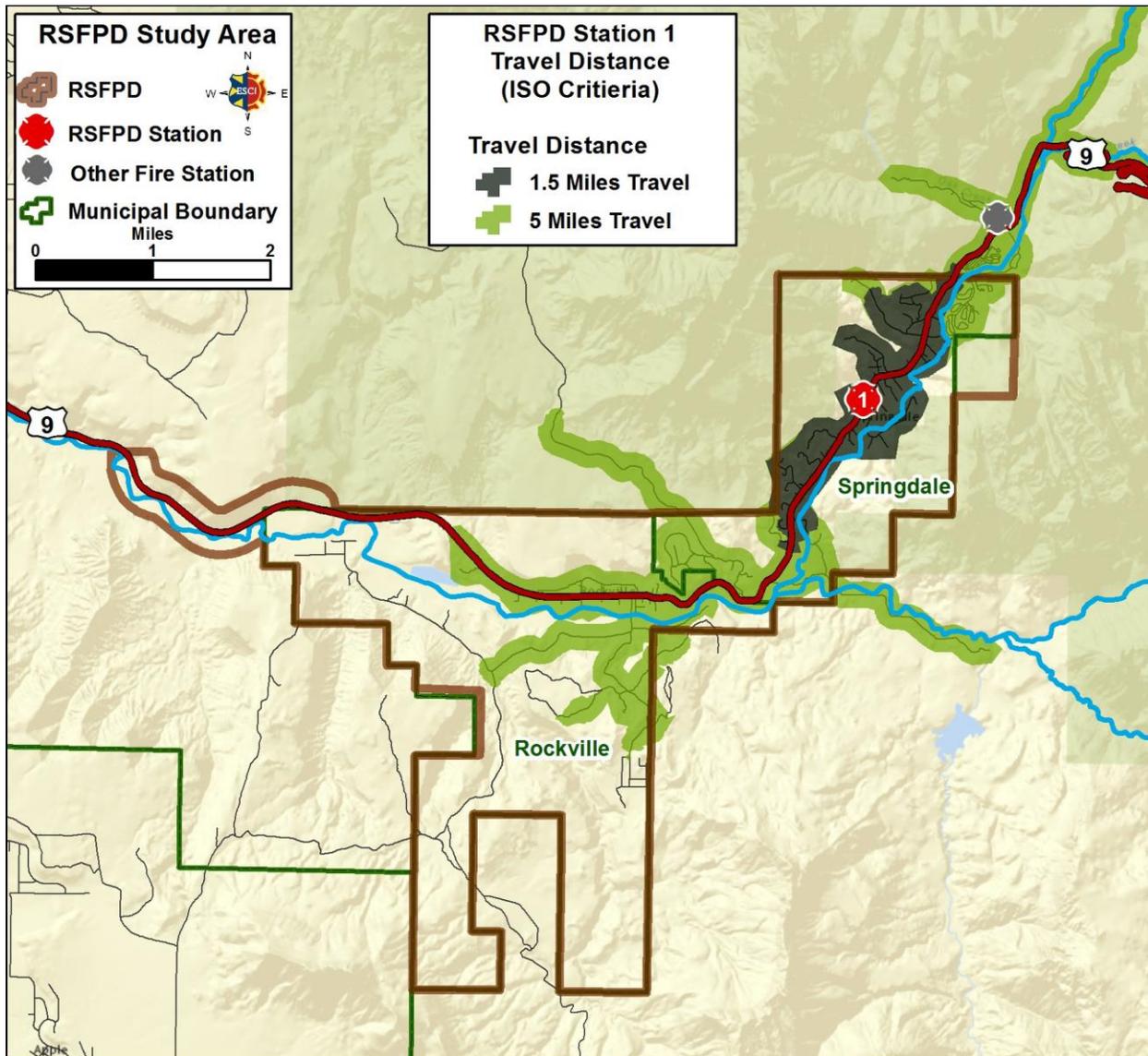


As noted earlier, the full time residential population of the study area is approximately 803. The study area demonstrates a rural population density, with small areas of higher population density in Rockville and Springdale. However, the transient population traveling through the study area may exceed a daily average of approximately 10,000. The highest daily activity generally occurs during the tourist season, from April through October. Further discussion of the study area population and demographics occurs later in this report.

The Insurance Services Organization (ISO) is a national insurance industry organization that evaluates fire protection for communities across the country. A jurisdiction's ISO rating is an important factor when considering fire station and apparatus distribution, since it can affect the cost of fire insurance for individuals and businesses. To receive maximum credit for station and apparatus distribution, ISO recommends that in developed areas with fire suppression water supply (fire hydrants), all "built upon"

areas in a community be within 1.5 road miles of an engine company. Additionally, ISO states that a structure must be within five miles of a fire station to receive any fire protection rating for insurance purposes. The next set of figures examines current RSFPD station and apparatus distribution based on credentialing criteria for the Insurance Services Organization (ISO).

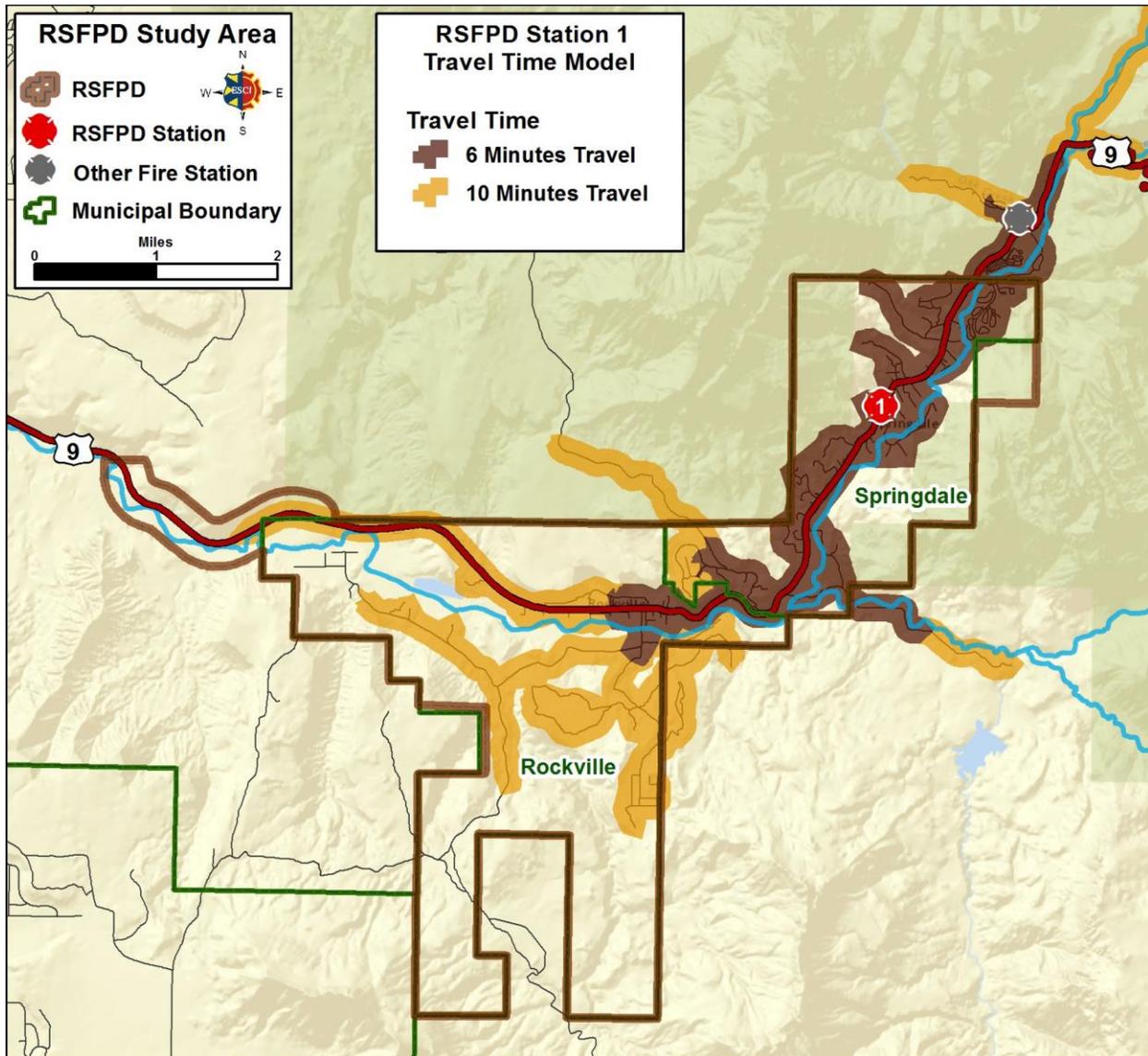
Figure 69: RSFPD Station Distribution, ISO Criteria



Examination of the GIS data reveals that approximately 50 percent of structures within the study area are within 1.5 miles of the RSFPD fire station. Approximately 85 percent of structures are within five miles travel of the fire station. RSFPD was recently re-evaluated by the ISO and received a Public Protection Classification (PPC) of 3. A PPC of 1 represents exemplary fire protection and PPC of 10 represents properties beyond five miles of a fire station with no creditable water supply. The RSFPD PPC of 3 provides the potential for a significant reduction in the cost of fire insurance, especially for commercial properties.

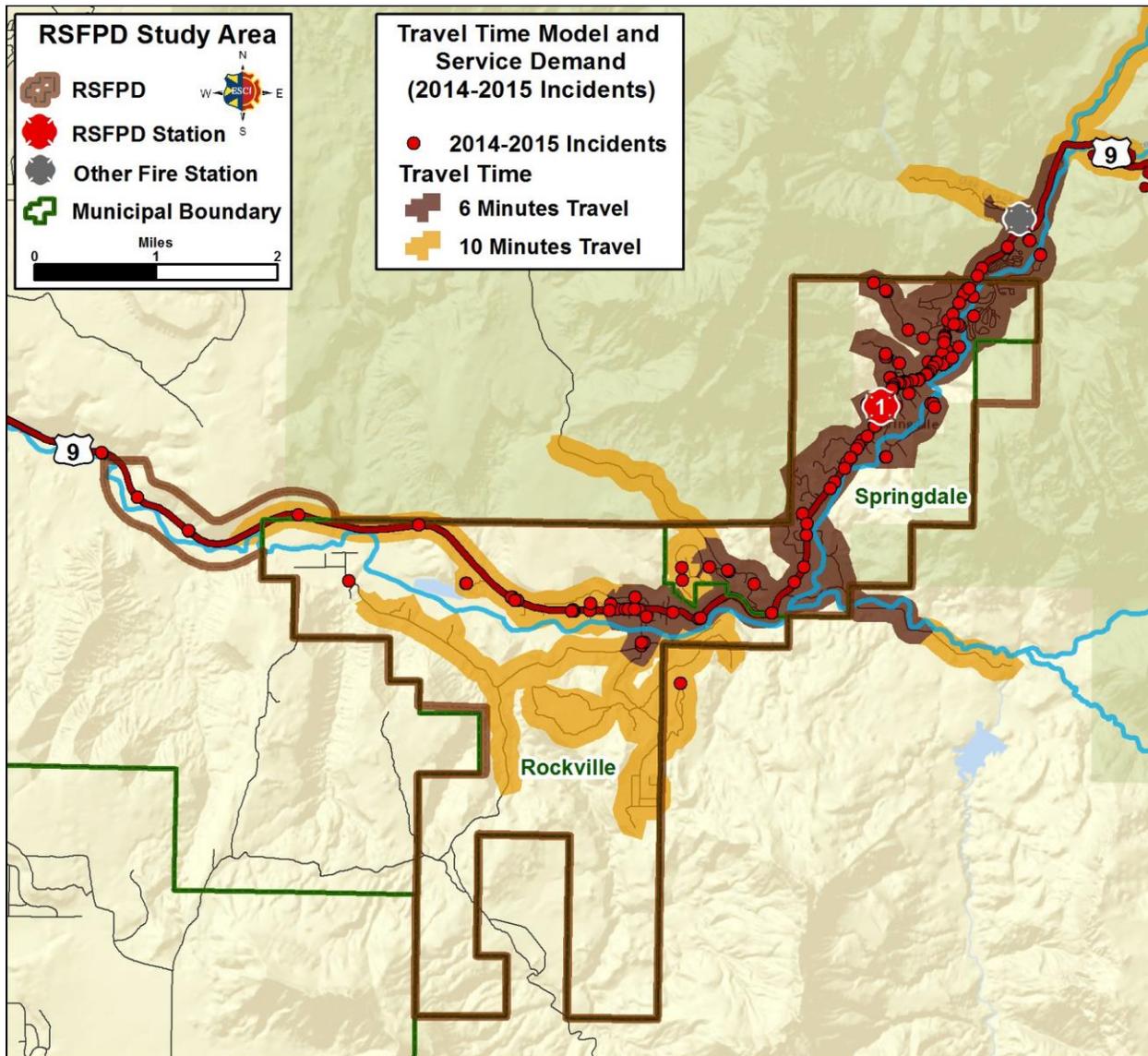
The ISO Public Protection Classification criteria only address fire suppression activities and are primarily concerned with the geographic coverage of property. For fire jurisdictions such as RSFPD that respond to all types of emergencies and provide emergency ambulance transport, the travel time required to respond from a fire station to any emergency call for service is of equal importance. The following figures demonstrate travel time over the existing road network. Travel time is calculated using the posted speed limit and adjusted for negotiating turns and intersections.

Figure 70: RSFPD Travel Time Model



The majority of the road network inside the study area is within ten minutes travel time or less of the single RSFPD fire station. The commercial and retail areas in Springdale are within six minutes travel of the fire station. The following figure displays 2014 and 2015 incident locations over the travel time model.

Figure 71: RSFPD Travel Time Model and Service Demand, 2014-2015



Over 98 percent of the incidents displayed above occurred within ten minutes of the RSFPD fire station. Approximately 90 percent of service demand occurred within six minutes or less of the fire station. Note that this analysis only measures potential travel time, assuming that apparatus are available at the station and do not experience traffic delays; actual RSFPD travel time and response time performance is discussed in the Response Performance Analysis later in this report. In addition, incidents outside of the study area are not included in this analysis.

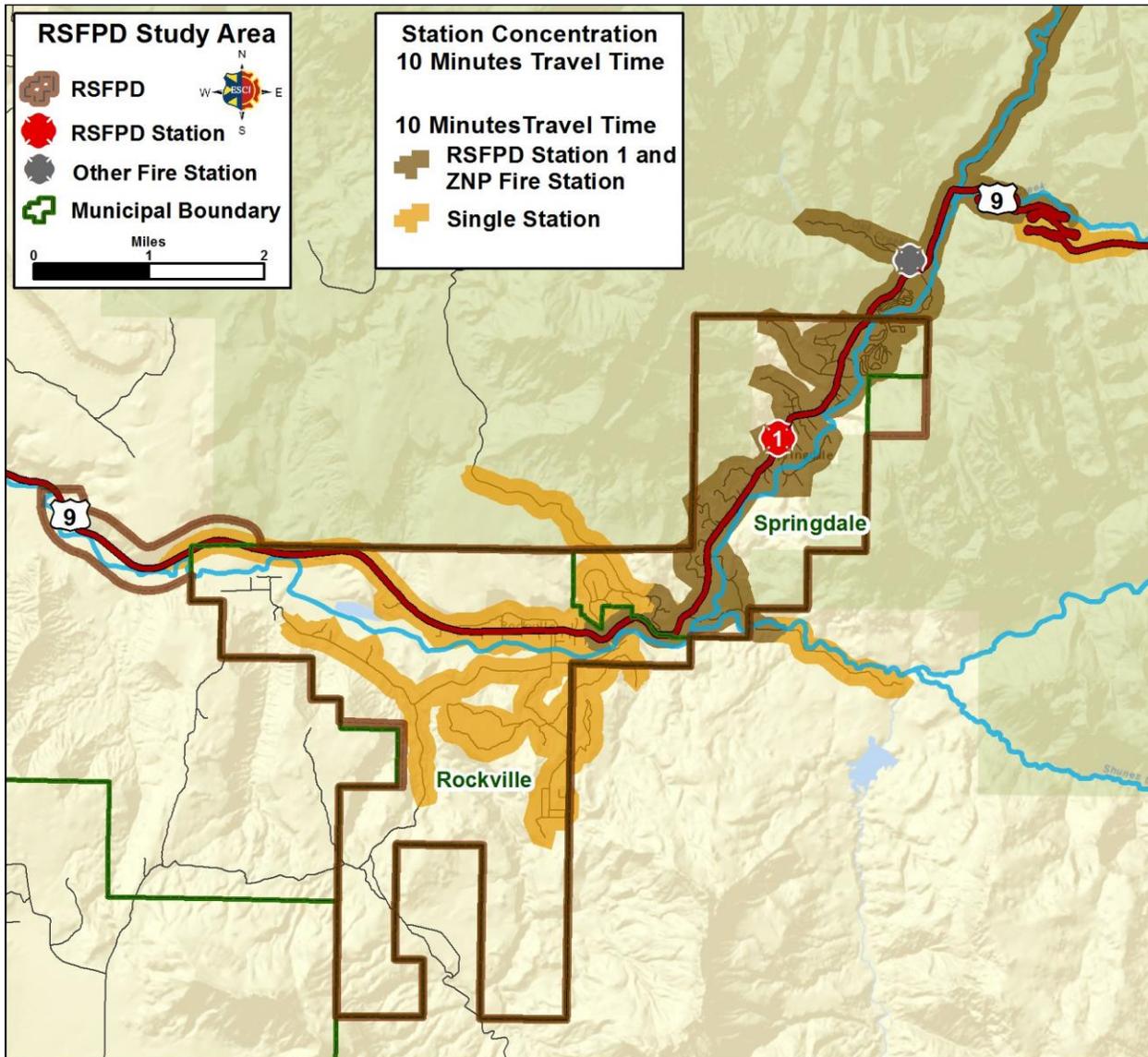
Resource Concentration

Accepted firefighting procedures call for the arrival of the entire initial assignment (sufficient apparatus and personnel to effectively deal with an emergency based on its level of risk) within a reasonable amount of time. This is to ensure that enough people and equipment arrive soon enough to safely control a fire or mitigate any emergency before there is substantial damage or injury. Fire service best practices suggest

that 14 to 16 personnel are needed to mitigate a moderate risk structure fire.¹³ The Occupational Health and Safety Administration (OSHA) “2 In/2 Out” mandate requires that a minimum of four fire personnel be assembled to initiate an interior fire attack.

RSFPD operates from a single station and relies on additional call-back personnel and mutual/automatic aid resources to assemble multiple apparatus at the scene of incidents beyond the capabilities of a single unit. The following figure illustrates the concentration of RSFPD and mutual/automatic aid resources within ten minutes travel or less throughout the RSFPD study area.

Figure 72: RSFPD Station Concentration, 10 Minutes Travel



⁷ Center for Public Safety Excellence/Commission on Fire Accreditation (CPSE/CFAI) *Standards of Cover, 5th Edition*.

The preceding figure demonstrates that the majority of Springdale is within ten minutes travel time or less of both the RSFPD fire station and the resources located at the ZNP Emergency Operations Center. RSFPD and Zion National Park participate in a mutual aid agreement, which enhances the resources (both fire and EMS apparatus and personnel) available to both agencies. Mutual and automatic aid is discussed further in the Mutual and Automatic Aid Analysis.

The following figure uses 2014-2015 incident data to detail the instances of multiple apparatus being committed to a single incident. Incidents are summarized by incident category. Apparatus cancelled prior to arrival and mutual aid apparatus are not included in the analysis.

Figure 73: RSFPD Apparatus Count by Incident Category, 2014-2015

Apparatus per Incident	EMS	Fire	Other	Overall
Single Apparatus	57.7%	35.0%	45.1%	53.8%
2 Apparatus	33.2%	30.0%	33.8%	33.1%
3 Apparatus	6.7%	30.0%	11.3%	9.0%
4 Apparatus	1.6%	0.0%	9.9%	3.2%
5 Apparatus	0.8%	5.0%	0.0%	0.9%

A single apparatus handled nearly 54 percent of the RSFPD service demand displayed in this figure. EMS incidents demonstrate the highest percentage of single apparatus responses (57.7 percent). Fire incidents represent the highest percentage of multiple apparatus responses (65.0 percent). The figure below illustrates the number of personnel available on scene during 2014 and 2015.

Figure 74: RSFPD Personnel per Incident, 2014-2015

Personnel per Incident	EMS	Fire	Other	Overall
1 to 3 Personnel	58.5%	40.0%	47.9%	55.2%
4 to 5 Personnel	35.2%	50.0%	38.0%	36.6%
More than 6 Personnel	6.3%	10.0%	14.1%	8.1%

This figure demonstrates that the two EMS personnel on duty handle the majority of EMS incidents. Fire personnel assist EMS crews when additional personnel are required. As discussed in the Staffing Analysis, approximately 60 percent of fire incidents required four or more personnel to mitigate the incident. Incidents classified as Other (service calls, false alarms, alarm resets, etc.) are routinely handled by the two on duty fire personnel.

Incidents categorized as EMS or Other comprise over 94 percent of the 2014-2015 service demand. It appears that the four RSFPD personnel on duty are capable of handling the majority of incidents in the service area. However, RSFPD is challenged to develop adequate resources to mitigate incidents beyond the capability of a single engine company or EMS company.

Response Reliability

The workload of emergency response units can be a factor in response time performance. Concurrent incidents or the amount of time units are committed to an incident can affect a jurisdiction’s ability to muster sufficient resources to respond to additional emergencies. In the two-year period from 2014 through 2015, there were 24 instances of overlapping incidents in the RSFPD service area. Over 93 percent of RSFPD service demand occurred as a single event. Nearly 7 percent of the time, two or more incidents were in progress in the RSFPD service area. The percentage of concurrent incidents is similar to that of comparable emergency service providers and does not appear to be at a level that would affect response performance.

It is also useful to evaluate how busy an organization is relative to the total amount of available time. This is known as unit hour utilization (UHU). UHU is calculated by measuring the amount of time individual apparatus are committed to an incident and dividing the result by the total number of hours in a year (8,760). The following figure illustrates RSFPD unit hour utilization in 2014 and 2015, expressed as a percentage of total hours in the year. Additionally, the figure displays the average time each apparatus was committed to an incident.

Figure 75: RSFPD Unit Hour Utilization (UHU), 2014 and 2015

Apparatus	2014		2015	
	Average Time Committed	UHU	Average Time Committed	UHU
Brush 91	44:32	0.14%	1:24:12	0.24%
Brush 92	19:39	0.01%	14:22	0.00%
Chief (POV)	53:10	0.19%	1:11:56	0.33%
Engine 91	57:49	0.03%	29:40	0.06%
Engine 92	23:20	0.08%	30:07	0.16%
Medic 91	1:35:27	2.23%	1:28:22	2.74%
Squad 91	46:37	0.37%	55:55	0.85%
All Apparatus	1:09:35	3.15%	1:12:57	4.57%

Combined, RSFPD apparatus were committed to incidents 3.15 percent of the time in 2014 and 4.57 percent of the time in 2015. Not surprisingly, Medic 91 displays the highest UHU in the data above and the longest average time committed per incident.

In ESCI’s experience, district unit hour utilization is not at a level that would negatively affect response performance. Note that this analysis only looks at incident activity and does not measure the amount of time dedicated to training, public education and events, station duties, or additional duties as assigned.

Response Performance

Perhaps the most visible component of an emergency services delivery system is response performance. Policy makers and citizens want to know how quickly they can expect to receive emergency services. In the performance analysis, ESCI examines emergency response performance within the RSFPD service area. The data used for this analysis is 2014 and 2015 emergency responses extracted from the RSFPD

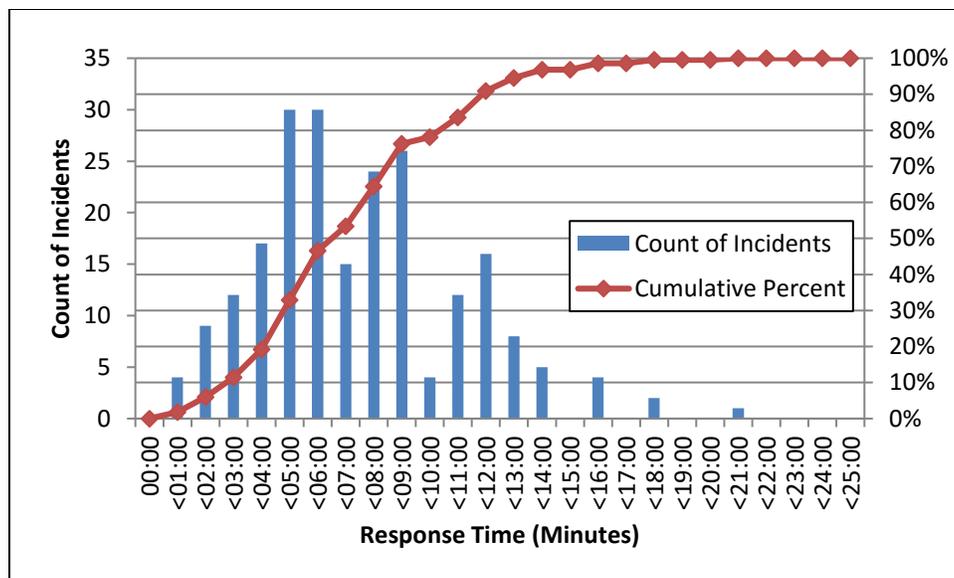
records management software (RMS). Non-emergent incidents, mutual/automatic aid incidents outside the RSFPD service area, incidents cancelled prior to arrival, data outliers, and invalid data points are removed from the data set.

Response time is measured from the time RSFPD units are dispatched to the arrival of the first unit on scene. ESCI generates average and 80th percentile response times for these incidents. The use of percentile calculations for response performance follows industry best practices and is considered a more accurate measure of performance than “average” calculations.

The most important reason for not using the “average” to measure response performance or establish performance goals is that it may not accurately reflect the performance for the entire data set and may be skewed by data outliers. One extremely good or bad value can skew the “average” for the entire data set. Percentile measurements are a better measure of performance since they show that the large majority of the data set has achieved a particular level of performance. For instance, response performance measured at the 80th percentile demonstrates that the first apparatus arrived at 80 percent of incidents in the stated time or less.

For this analysis, ESCI calculates average and 80th percentile response performance for RSFPD emergency responses. The following figure displays the frequency of emergency response times within one-minute increments and the cumulative percentage (percentile measurement) of response times.

Figure 76: RSFPD Emergency Response Time Frequency



The most frequently recorded response time occurs between five and six minutes. The average emergency response time is 7 minutes 4 seconds. The first RSFPD apparatus arrived on the scene of 80 percent of emergent incidents in 10 minutes or less. The response time performance displayed above is comprised of several components:

- Turnout Time – The time interval between when units are notified of the incident and when the apparatus are enroute.

- Travel Time – The amount of time the responding unit actually spends travelling to the incident.
- Total Response Time – Total Response Time is calculated from the time the fire district is dispatched to the arrival of the first apparatus; and equals the combination of “Turnout Time” and “Travel Time.”

Tracking the individual pieces of total response time enables jurisdictions to identify deficiencies and areas for improvement. In addition, knowledge of current performance for the components listed above is an essential element of developing response goals and standards that are relevant and achievable. Fire service best practice documents recommend that fire jurisdictions monitor and report the components of total response time.¹⁴

The following figure displays RSFPD emergency response performance for the various components of total response time listed previously listed.

Figure 77: RSFPD Performance-Components of Response Time, 2014-2015

	Turnout Time	Travel Time	Response Time
Average	02:40	04:06	07:04
80th Percentile	04:01	06:00	10:05

Turnout Time

The first component of the response continuum and the one that is directly affected by fire district personnel is turnout time. Turnout is the time it takes personnel to receive the dispatch information, move to the appropriate apparatus and proceed to the incident. *NFPA 1710* and *NFPA 1720* call for turnout time performance of 60 to 80 seconds, measured at the 90th percentile. It is ESCI’s experience that these turnout time performance goals are difficult to achieve and that turnout time standards of 90 to 120 seconds for staffed fire stations are more reasonable and achievable. This is affirmed in a study¹⁵ published in 2010 by the NFPA.

The data above demonstrates that overall RSFPD turnout time performance averaged 2 minutes 40 seconds. As discussed previously, reporting performance measures using averages does not follow industry best practices; and only shows that approximately 50 percent of incidents met the given value. The figure above illustrates that the first RSFPD apparatus was enroute to an emergency incident within approximately 4 minutes, 80 percent of the time. This does not meet the NFPA standard for staffed stations and exceeds the more liberal performance standard (90 to 120 seconds measured at the 90th percentile) discussed in the previous paragraph. ESCI recommends that RSFPD establish a performance

¹⁴ *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 (2010), NFPA 1720, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments (2014), Center for Public Safety Excellence/Commission on Fire Accreditation (CPSE/CFAI) Standards of Cover, 5th Edition.*

¹⁵ *Quantitative Evaluation of Fire and EMS Mobilization Times*, May 2010, available at www.nfpa.org/foundation.

standard and monitor turnout out time performance. Note that turnout time is an area of total response performance that field personnel have some ability to control given adequate information and training.

Travel Time

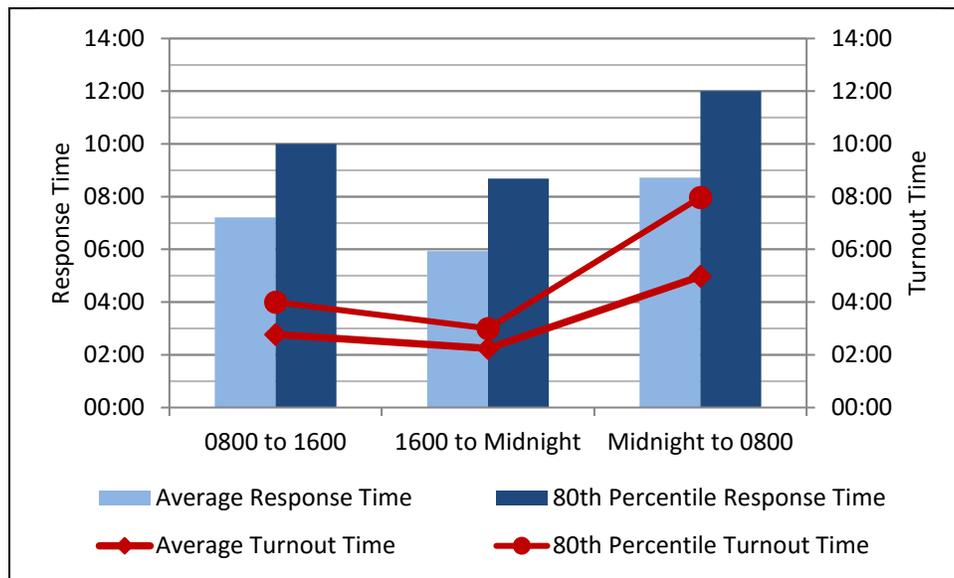
Travel time is potentially the longest component of total response time. The distance between the fire station and the location of the emergency influences total response time the most. This is especially true for a jurisdiction such as RSFPD; that protects a large diverse service area from a single station. Overall, RSFPD travel time performance averaged 4 minutes 6 seconds. Figure 77 demonstrates that the first RSFPD apparatus required 6 minutes or less travel time at the 80th percentile to arrive on the scene of an emergency incident. RSFPD travel time performance compares very favorably to that of similarly configured fire jurisdictions with comparable service areas. RSFPD should develop response performance goals based on travel time and risk factors. Examination of the RSFPD incident data reveals that response zone data points are available in the records management software (RMS). However, data entry appears inconsistent and incomplete. RSFPD should monitor report-writing procedures to insure that incident reporting is complete and consistent.

Total Response Performance

As demonstrated in Figure 77, overall RSFPD emergency response performance averaged 7 minutes 4 seconds. Measured at the 80th percentile, the first apparatus arrived at the scene of an emergency incident in 10 minutes 5 seconds or less.

The following figure demonstrates RSFPD total response time performance during 2014 and 2015, summarized by time of day.

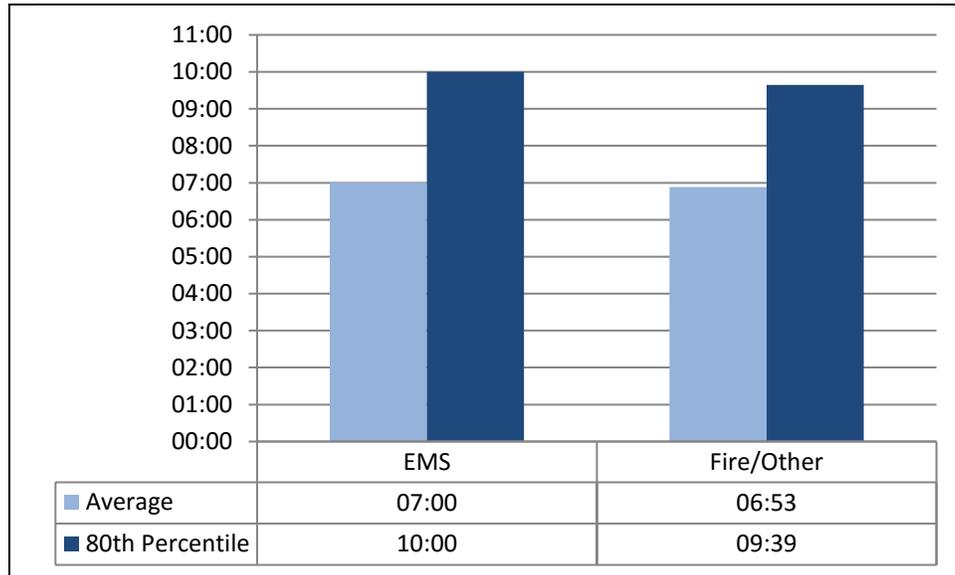
Figure 78: RSFPD Emergency Response Performance by Hour of Day, 2014-2015



Response performance varies throughout the day. Generally, the longest response times occur during the early morning hours between midnight and 0800. This corresponds to when personnel must awaken to staff apparatus. Response time performance improves during the day; and the period from 1600 to

midnight displays the best response performance. ESCI also includes turnout time performance in this figure. Note the correlation between turnout time performance and total response performance for each of the time intervals displayed. The following figure demonstrates RSFPD emergency response time performance during 2014 and 2015, summarized by incident category.

Figure 79: RSFPD Emergency Response Time Performance by Incident Category, 2014-2015



In the preceding figure, EMS refers to all calls for medical service including motor vehicle accidents and rescues. The Fire/Other category includes all incidents coded as a fire (NFIRS Category 1) and all other incident such as hazmat, false alarms, service calls, or weather related incidents. Response performance is relatively consistent between the two RSFPD operational divisions.

Mutual and Automatic Aid Systems

Mutual or automatic aid agreements allow fire jurisdictions to share resources for the mutual benefit of all the parties involved in the agreements. These agreements allow jurisdictions to request the resources of other jurisdictions in order to mitigate an emergency that threatens lives or property. Fire departments typically employ mutual aid on an *as needed* basis where units are called for and specified one by one through the Incident Commander. Automatic aid agreements differ from mutual aid agreements in that under certain mutually agreed upon criteria, resources from the assisting agency are automatically dispatched as part of the initial response.

RSFPD participates in the Washington County EMS Mutual Aid Agreement, and works cooperatively with local, state, and federal emergency services jurisdictions. As discussed in the Concentration Analysis, RSFPD and ZNP have signed a Memo of Understanding addressing mutual and automatic aid between the two agencies. The ZNP resources stationed at the ZNP Emergency Operations Center represent the closest structural firefighting or EMS transport resources to the RSFPD service area. Currently the closest Hurricane Valley Fire District resources are located approximately 30 minutes to the west of RSFPD, in Hurricane or La Verkin. The following figure displays the amount and type of mutual or automatic aid incidents during 2014-2015.

Figure 80: RSFPD Mutual/Automatic Aid Responses, 2014-2015

Aid Type	Count of Incidents
Mutual aid received	10
Automatic aid received	7
Mutual aid given	9
Automatic aid given	6
Other aid given	4

Mutual or automatic aid responses represent approximately 10.4 percent of RSFPD service demand during 2014 and 2015. RSFPD received aid (mutual aid or automatic aid) from another agency 17 times; and gave aid (mutual aid or automatic aid) 19 times to another agency. These responses are split evenly between mutual/automatic aid given and mutual/automatic aid received. Mutual or automatic aid provides a cost effective method to ensure that adequate resources are available to effectively mitigate emergencies.

Future System Demand Projections

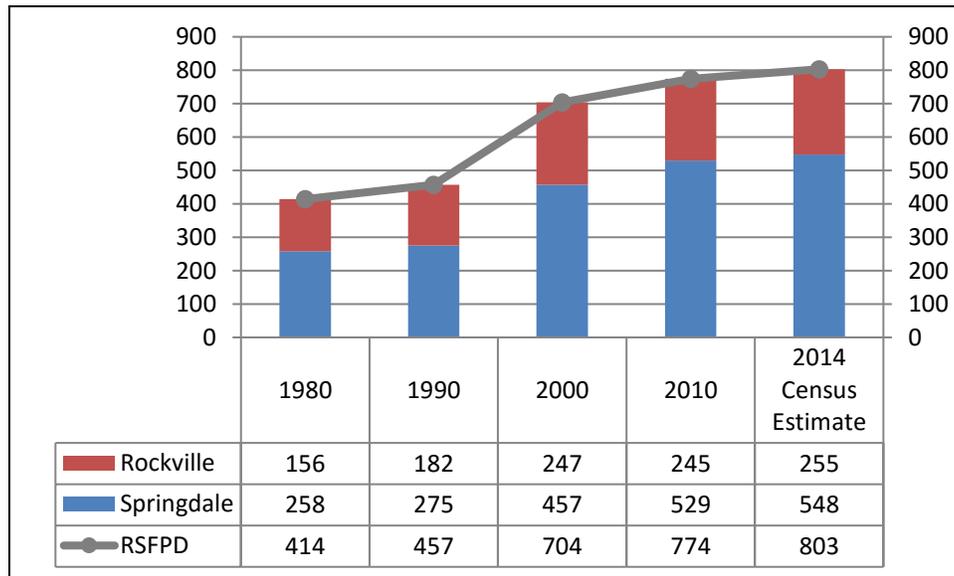
Future service demand is largely dependent on changes over time to population, economics, and local conditions. Data from the U.S. Census Data, State of Utah economic data, local planning documents for the towns of Rockville and Springdale, and information gathered from interviews in January 2016 are utilized in this section of the report.

The RSFPD service area is primarily comprised of the towns of Rockville and Springdale. The estimated full-time population is approximately 803. The service area contains a relatively low number of permanent residents and a high number of commercial/retail properties and day visitors during the tourism season.

Population History

The following figure demonstrates historical population change in Rockville and Springdale from 1980 to 2014.

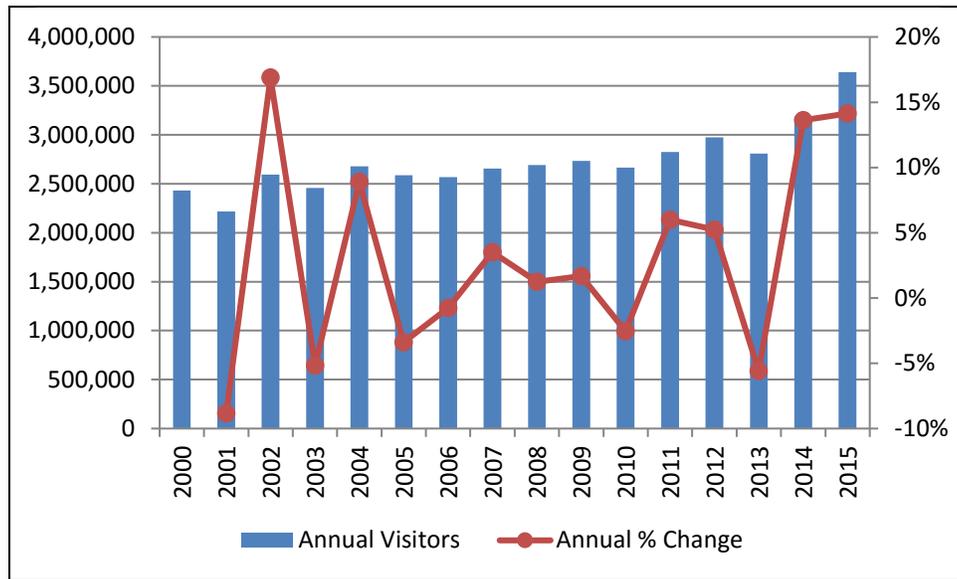
Figure 81: Historical Population Growth, 1980-2014 (U.S. Census Bureau)



Rockville and Springdale experienced positive population growth during the time period displayed in this figure. Overall, the study area nearly doubled in population (93.9 percent) during the 34 years displayed. This represents an average annual growth rate of approximately 2.8 percent. Currently, approximately 68 percent of the RSFPD population resides in Springdale, the remaining 32 percent of permanent residents live in Rockville.

As discussed, tourist activity into and out of Zion National Park (ZNP) increases demand for RSFPD services. The following figure uses ZNP annual visitor data to display annual tourism activity from 2000 through 2015.

Figure 82: ZNP Annual Activity, 2000-2015

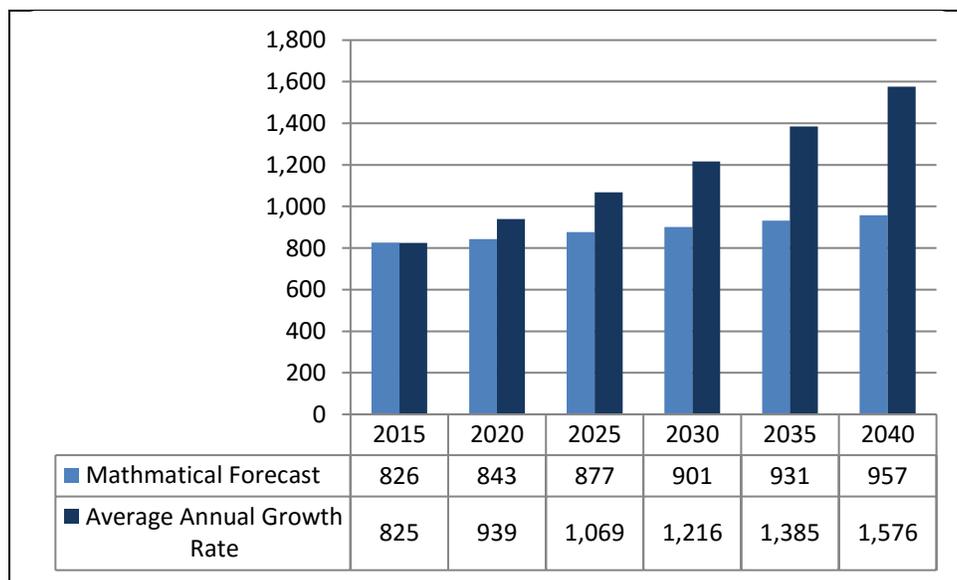


Activity within ZNP varies from year to year; however, the general trend is an increase in the number of park visitors over the last 15 years. Overall, activity has increased by an average of approximately 3 percent during the 15 years displayed. Note that visitor numbers increased by approximately 14 percent in both 2014 and 2015. Examination of the data reveals that on average nearly 10,000 visitors are present in the ZNP area each day.

Population Growth Projections

Utilizing census data and anecdotal information gathered from various documents, ESCI provides two possible scenarios for future population growth in the following figure.

Figure 83: RSFPD Population Projections, 2015-2040

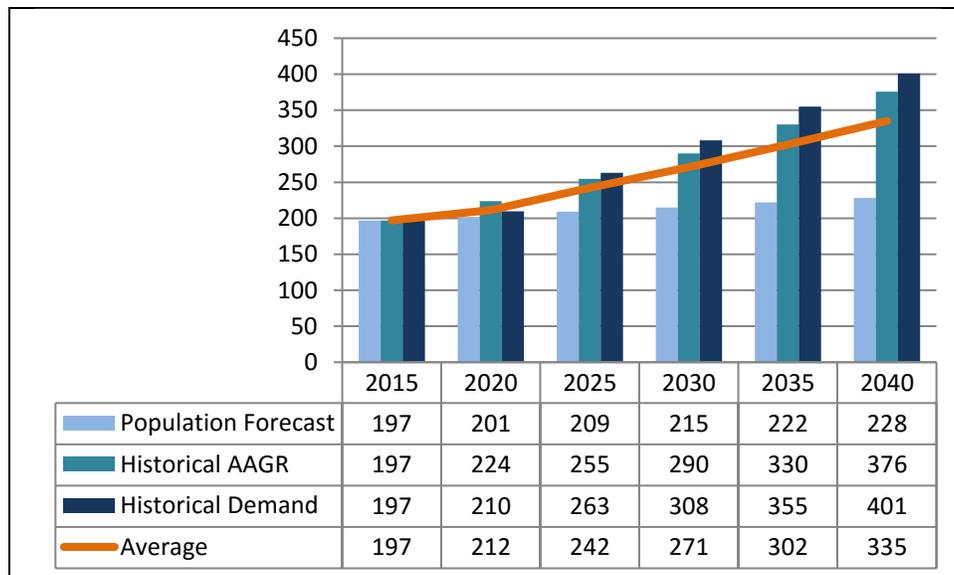


ESCI used two different methods to forecast future population growth in the RSFPD service area. The first method uses a mathematical forecast model based on official Census Bureau population estimates for Rockville and Springdale, from 2000 through 2014. This model demonstrates the population of the study area increasing to approximately 957 by 2040. The second projection uses the historical average annual growth rate (AAGR) of 2.8 percent (1980-2014) to generate a population of 1,576 in 2040. The Rockville and Springdale planning documents reveal that Springdale is likely to experience the greatest population growth within the RSFPD study area.

Service Demand Projections

In evaluating the deployment of facilities, resources, and staffing, it is imperative to consider potential changes, such as population growth or economic growth; that can directly affect emergency workload. Changes in service demand may require changes and adjustments in the deployment of staffing and capital assets in order to maintain acceptable levels of performance. The following figure displays three projections of possible service demand. Two projections based on the population projections previously discussed and an additional projection based on historical service demand from 2000 through 2015.

Figure 84: RSFPD Service Demand Projections, 2015-2040

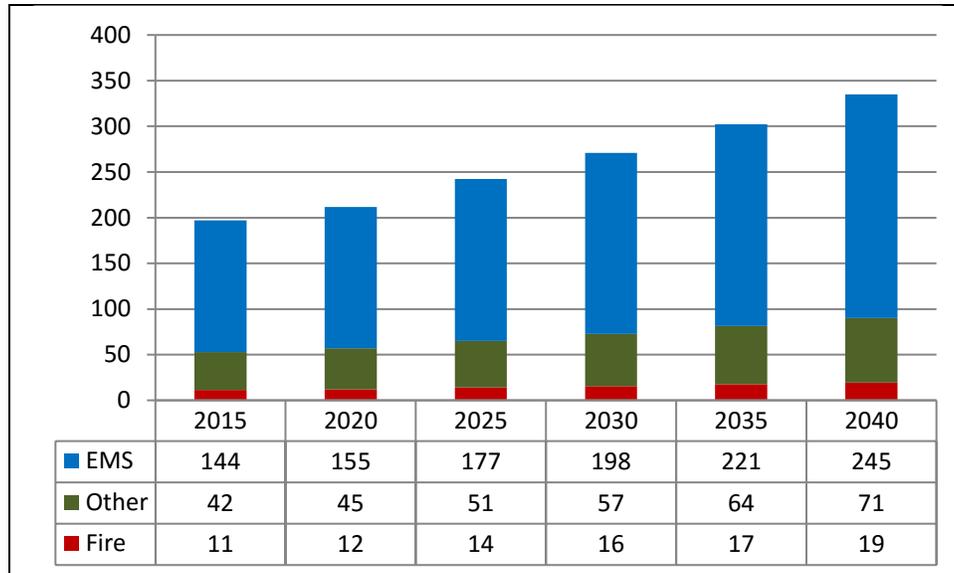


For the purposes of this analysis, ESCI uses the two population projections displayed in Figure 83 and applies a per capita incident rate derived from current service demand. As previously discussed, call volume in the RSFPD service area exceeds what would be expected based solely on the permanent resident population of the service area. In addition to the population-based projections, ESCI uses 2000 through 2015 service demand and a mathematical forecast model to project future service demand through 2040.

The figure above demonstrates service demand increasing over the next 25 years. The mathematical population forecast model demonstrates the least increase (15.7 percent). The projection based on historical service demand projects service demand doubling (103.6 percent) to over 400 incidents by 2040.

The following figure uses the average of the three projections to illustrate future service demand categorized by incident category.

Figure 85: RSFPD Future Service Demand by Incident Category, 2015-2040



Note that this figure displays the same incident categories discussed in the Service Demand Analysis. Fires (includes all types of fires) demonstrate the lowest rate of increase. This reflects a national trend and can be attributed to improvements in building codes and fire prevention over the last several decades. As the primary EMS transport agency for the study area, RSFPD can expect EMS incidents to continue to be the predominant factor affecting future service demand in the service area.

There is no doubt that RSFPD service demand will fluctuate over the next 25 years. ESCI regards the future service demand projections presented as base line values. Service demand in the future may well exceed the projections at some point during over the next 25 years. Planning should begin now to maintain the resources necessary to meet the current and future demand for RSFPD services.

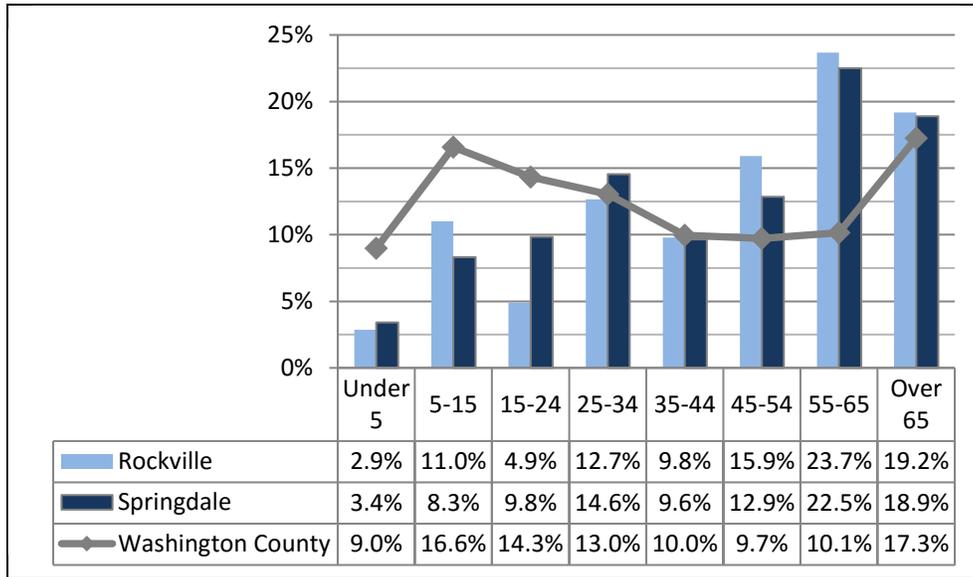
Community Risk Analysis

Community risk is typically assessed based on a number of factors; the demographics of the population served, current and future local land use, and the geography and natural risks present within the service area. These factors affect the number and type of resources (both personnel and apparatus) necessary to mitigate an emergency.

Demographic Risk

The demographics of the service area population can affect the amount of service demand and the nature of risk within a community. The following figure displays the population by age group within the RSFPD service area.

Figure 86: RSFPD Population by Age Group, 2014 Census Data



Examination of the U.S. Census Bureau data reveals that the median age in the study area is approximately 52 in Rockville and 48 in Springdale. This is much older than the median age of Washington County, which is approximately 33, or the median for the State of Utah of approximately 30. Studies have shown that fire districts such as RSFPD that provide EMS transport service experience higher service demand from older population groups. Nearly 20 percent of the population in Rockville and Springdale is over 65 years of age. Note that over 20 percent of the population in both communities is in the 55 to 65 age group; this will likely create an increase in EMS service demand in coming years. The following figure examines various components of housing within the RSFPD service area.

Figure 87: RSFPD Housing Demographics, 2014 Census Data

	Housing Demographics		
	Rockville	Springdale	Washington County
Occupied	73.9%	79.0%	80.1%
Vacant	26.1%	21.0%	19.9%
Owner Occupied	84.6%	57.7%	69.1%
Renter Occupied	15.4%	42.3%	30.9%
Seasonal Use	19.9%	16.2%	12.5%
Median Home Price (Occupied)	\$426,000	\$488,500	\$209,500

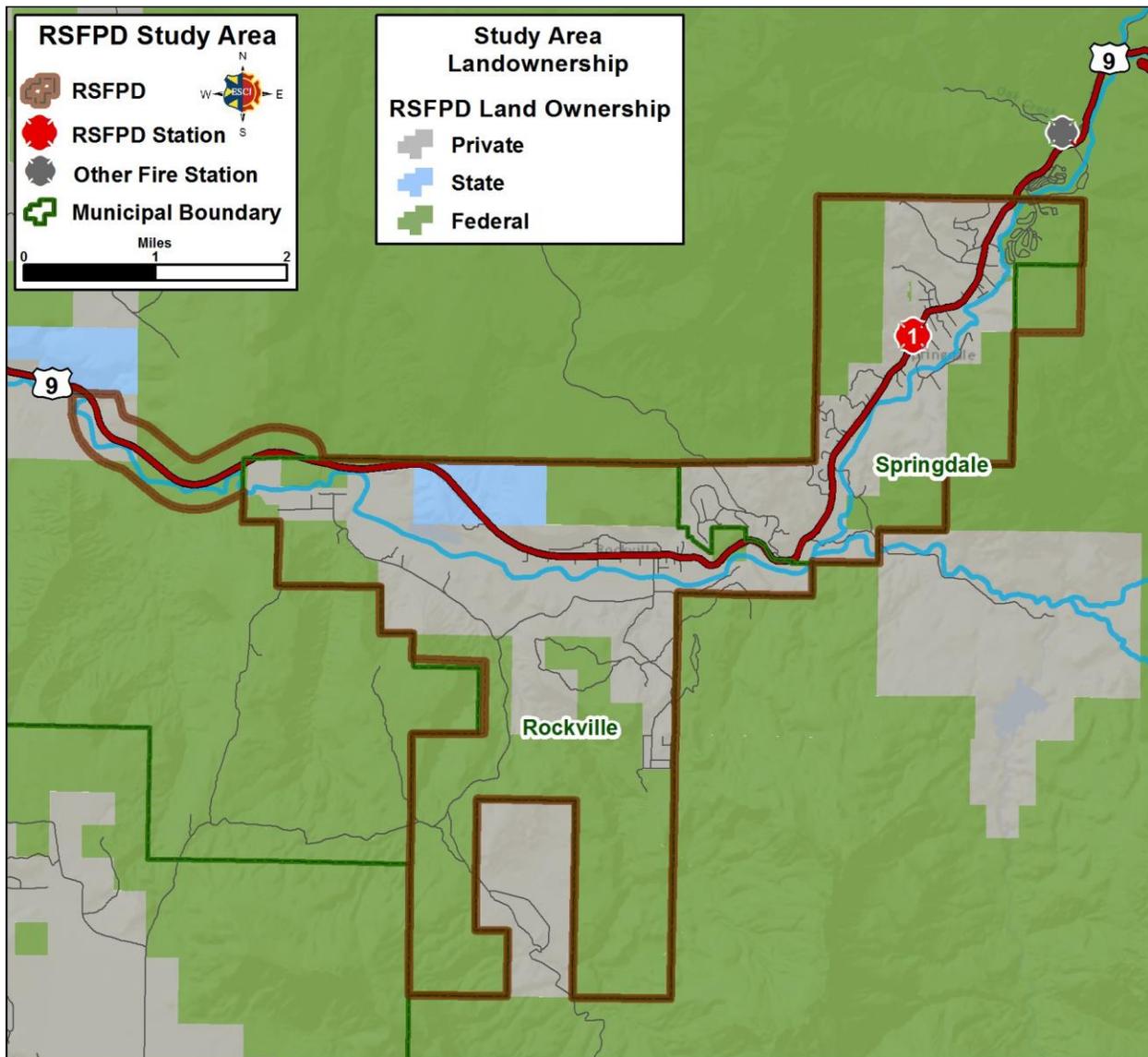
The percentage of occupied housing units to vacant properties is similar in both Rockville and Springdale; both communities demonstrate a slightly lower occupancy rate than Washington County. The percentage of owner occupied homes is significantly higher in Rockville compared to Springdale. Compared to Rockville or Washington County, Springdale demonstrates a high percentage of renter occupied housing units.

The median home price in the study area is over double that of Washington County or the state of Utah (\$212,000). The high cost of housing in the study area highlights the need for adequate fire protection to reduce potential fire loss. However, high housing cost tends to discourage younger, full-time residents (potential volunteers) from moving into the area. Springdale has identified increased affordable housing as a goal in the Springdale General Plan.

Land Use Risk

The following figure displays current land ownership in and around the RSFPD study area.

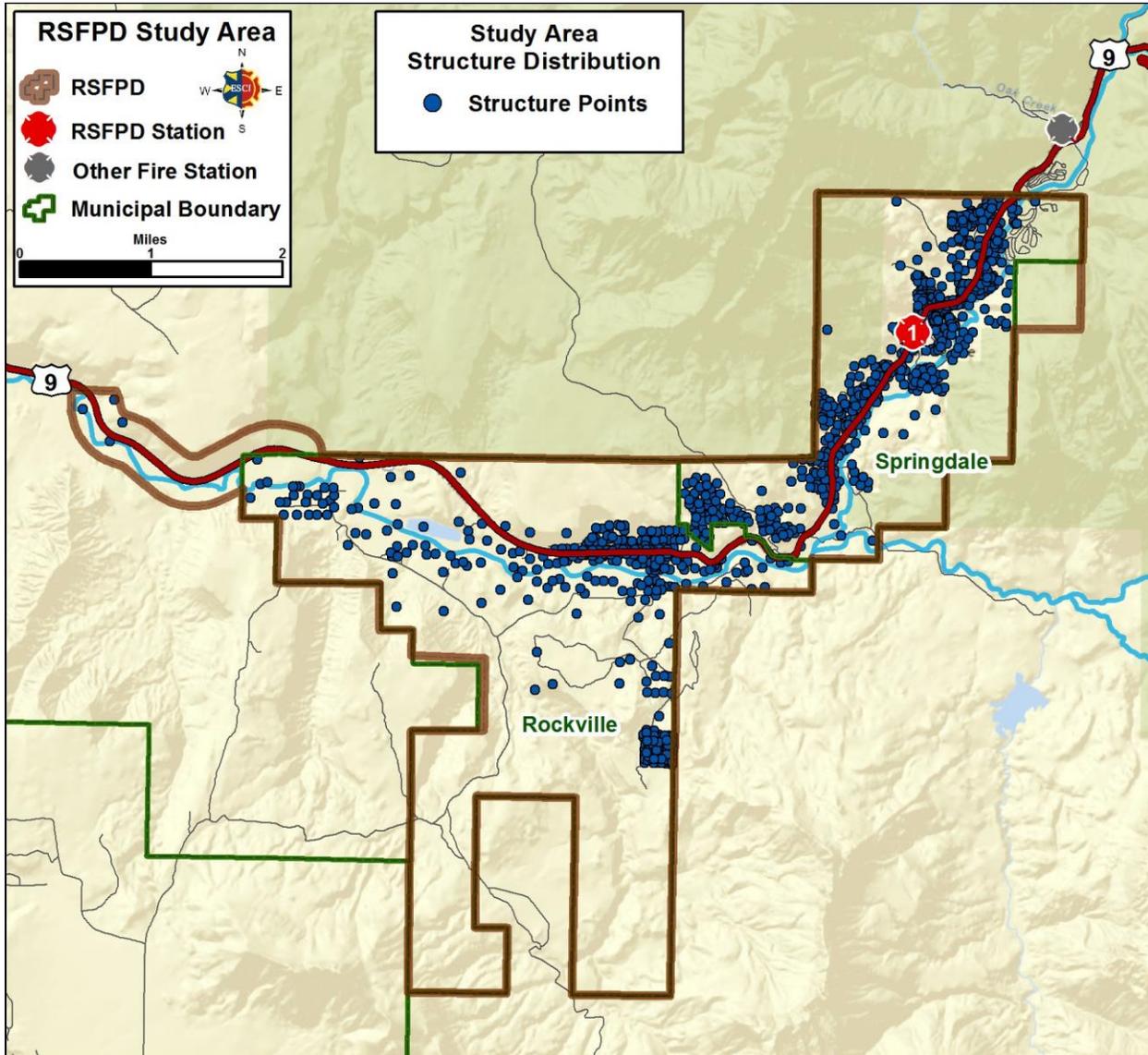
Figure 88: RSFPD Land Ownership



The study area encompasses approximately 14 square miles. However, private land is concentrated along either side of the Virgin River valley floor and along Highway 9. Examination of the GIS data reveals that approximately 6.5 square miles of the study area is private property. Federal agencies (NPS and BLM)

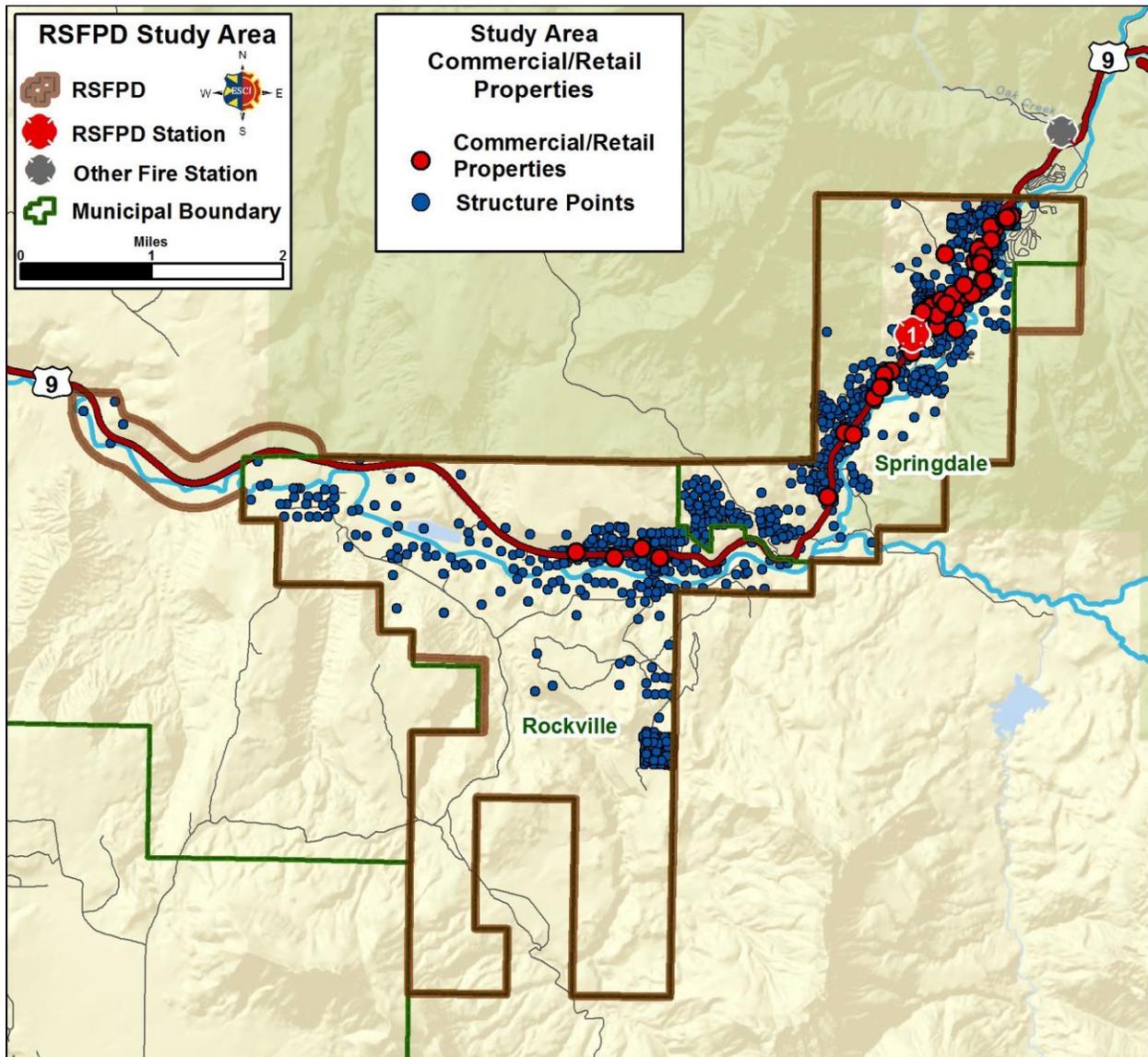
primarily administer the remainder of the study area. This federal land limits the portions of the study area that are available for development. The next figure uses GIS data from Washington County to examine the distribution of structures (address points) within the study area.

Figure 89: RSFPD Structure Distribution



Structures are clustered along Highway 9. The greatest density occurs in the commercial and residential properties within Springdale. Structures in Rockville, which is zoned exclusively for residential development, are distributed more sparsely throughout Rockville. In most fire jurisdictions, the analysis of census data and population density provides agencies with a method to predict service demand and risk based on human activity. As discussed in the Service Delivery Analysis, the population of study area is primarily rural and human activity that generates service demand tends to correlate to activity in commercial or retail properties. In the following figure, ESCI illustrates the location of commercial/retail properties within the RSFPD study area.

Figure 90: RSFPD Commercial/Retail Properties



Comparing this figure to the Geographic Service Demand map in the Service Delivery analysis reveals that there is a correlation between the location of commercial/retail properties (and the associated human activity) and service demand within the study area. Note that the four commercial properties located along Highway 9 in Rockville are bed and breakfast establishments, allowed as a case-by-case conditional use permit in the Rockville General Plan. The following figure uses National Fire Incident Reporting System (NFIRS) property use categories to illustrate the nature of business property use.

Figure 91: RSFPD Business Property Use by NFIRS Category

NFIRS Property Use Category	Percent of Businesses
1-Assembly	24.7%
3-Healthcare	1.1%
4-Residential	30.1%
5-Mercantile/Business	41.9%
7-Manufacturing	1.1%
9-Outside/Special Property	1.1%

In the RSFPD data, businesses categorized as “Assembly” are comprised of restaurants, bars, and other eating-places. “Residential” businesses are hotels/motels and boarding/rooming houses including bed and breakfast establishments. Businesses such as grocery stores, gas stations, banks, specialty/gift shops, or any other retail business make up the “Mercantile/Business” category. These three categories make up nearly 97 percent of the commercial/retail development in the RSFPD data. In the next figure, ESCI uses 2014-2015 RSFPD incident data to examine the types of property use that generate service demand in the study area.

Figure 92: RSFPD Service Demand and Property Use, 2014-2015

Property Use	Percent of Incidents
Outside Property	7.4%
Streets/Highway	10.7%
1 or 2 Family Dwelling (Private Residence)	17.6%
Hotels/Motels/B&B	31.8%
Restaurant, Other Commercial/Retail	32.4%

The majority of RSFPD 2014-2015 service demand occurred at commercial properties, which predominantly serve the tourist population vacationing in or around Zion National Park and the RSFPD service area. Approximately 18 percent of service demand was a call for service at a one or two-family private dwelling. It is ESCI’s experience that incidents at private residences usually represent the most common property use, especially in rural areas. However, in the RSFPD service area, responses to commercial properties such as hotels/motels and restaurants represent over 64 percent of service demand. The number of visitors and businesses that serve those visitors increases service demand and the level of risk present in the RSFPD service area.

Geographic and Natural Risk Factors

The geography of a fire district’s service area affects the nature of risk and the district’s ability to respond to that risk. The majority of service demand and structural risk occurs along Highway 9 in the Virgin River valley. Highway 9 is the only major transportation route through the district. Increased traffic during the tourist season and a lack of secondary routes through the area can affect response time performance. Additionally, since Highway 9 is the only transportation route into or out of the area, a significant event such as a wildfire, flooding, landslide, or even a motor vehicle accident could severely affect the fire district’s ability to bring additional emergency resources to the area.

The risk of wildland fire and flooding are the two primary natural risk factors present in the study area. The topography of the service area increases the likelihood and intensity of these types of events in the area. Springdale is identified by the Utah Department of Natural Resources as a community at risk of fire in the wildland urban interface (WUI). RSFPD works cooperatively with state and federal wildland fire agencies during initial attack operations. ESCI encourages RSFPD to work pro-actively with both Springdale and Rockville to promote wildland fire prevention and education. Note that in many cases state or federal grant funds are available to assist with wildfire risk mitigation.

The Virgin River running through the RSFPD service area experiences seasonal and weather-related (thunderstorms) flooding. Like wildfire, serious flooding represents a natural risk factor that can rapidly overwhelm the local resources available in the district. The risk from flooding is addressed in the Washington County Emergency Management Plan. RSFPD should work cooperatively with the towns of Rockville and Springdale and Washington County to ensure that plans are in place to mitigate flood events in the RSFPD service.

Summary

The purpose of the community risk assessment presented above is to provide an overview of the nature of community risk in the RSFPD service area. ESCI recommends that RSFPD develop a Community Risk Assessment Plan that includes the following components:

- Identification of risks
- Categorization of risks (Low, Moderate, High)
- Development of strategies and tactics to mitigate risks
- Determination of the appropriate level of fire district resources (apparatus and personnel)
- Monitoring, evaluation, and modification of the Community Risk Plan

Future Delivery System Strategies

Although the foregoing sections of this report focused primarily on the conditions that currently exist within the Rockville/Springdale Fire Protection District, the intent of this study is to combine that evaluation with a look into the future and provide policy makers with information necessary to carry the system forward over the next 5 to 10 years. This portion of the report provides comments and recommendations related to the deployment of facilities, apparatus, and personnel with a focus on future service delivery and an improvement in overall efficiency within the system.

DEVELOPMENT OF RESPONSE STANDARDS AND TARGETS

In order to determine future service delivery models for the study area, it is first necessary to establish response standards and targets that will be used to establish an appropriate deployment of physical resources. Although there are nationally published standards for the deployment of stations and apparatus, often these standards are simply too restrictive for many organizations. In this report section, ESCI will provide an overview of the published standards and then work to establish an appropriate set of response standards and targets for the study area that deliver an expected level of service within the fiscal constraints of the region.

Developing response standards is important. If an organization does not know what it is trying to achieve in terms for response performance, it is not going to be able to make good decision about resource deployment, and specifically, staffing strategies. The purpose of developing these targets is to 1. Quantify what is determined by the agency to be an acceptable response time standard, 2. To make staffing and deployment decisions in an effort to reach the target, and to enable the agency to begin to measure its performance, compare it to the adopted standard, and make adjustments as needed.

NFPA 1710 recommends that career fire departments adopt response performance objectives that deliver an equal level of service across the entirety of the response area irrespective of population density, geography, or response area size. For an area the size of the study region, it is improbable that a single response performance objective can be accomplished. The standard recommends the following for career fire departments:

- Call Processing 0:60 at the 90th Percentile
- Turnout 0:60 at the 90th Percentile¹⁶
- Total Response 5:00 at the 90th Percentile¹⁷

For volunteer and combination fire departments *NFPA 1720* provides a separate set of response performance objectives based on various levels of population density. *NFPA 1720* does not provide for a turnout time performance objective since many personnel may be responding from home, work, or elsewhere throughout the community.

¹⁶ 1:20 for fire incidents.

¹⁷ 5:20 for fire incidents.

The standard recommends the following for volunteer and combination fire departments:

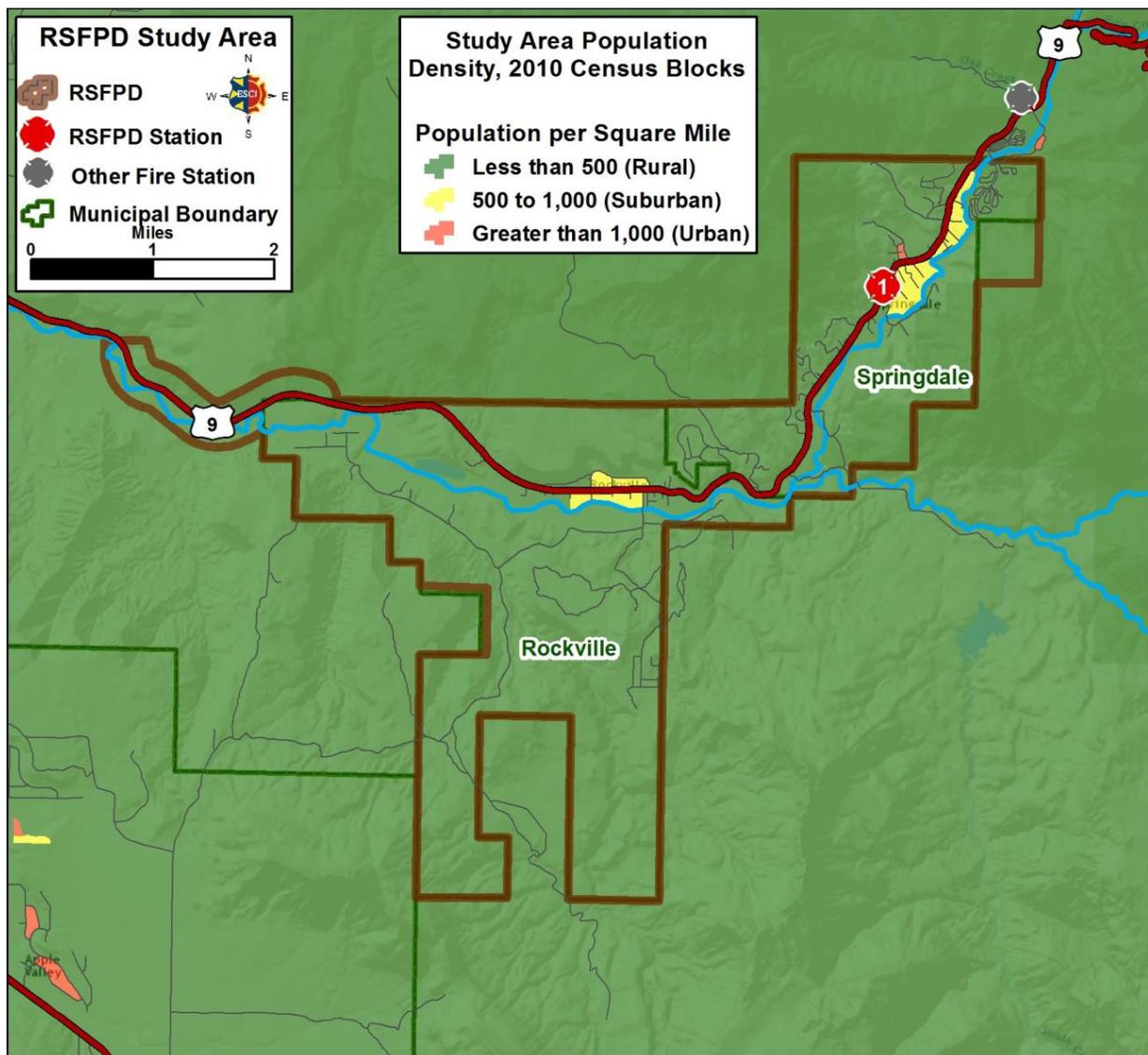
- Call Processing 0:60 at the 90th Percentile
- Turnout None
- Total Response Urban: 9:00 at the 90th Percentile
Suburban: 10:00 at the 80th Percentile
Rural: 14:00 at the 80th Percentile

The standard also defines the various population densities as follows:

- Urban Greater than 1,000 population per square mile
- Suburban 500 to 1,000 population per square mile
- Rural Less than 500 population per square mile

The following figure illustrates how these population densities are distributed throughout the study area.

Figure 93: Population Density



As illustrated in the preceding figure, the vast majority of the district falls in the Rural category (less than 500 per square mile) and the towns of Rockville and Springdale fall in the Suburban category.

Although the aforementioned response performance objectives are detailed within each respective published standard, it should be noted that few if any departments actually meet these objectives with consistency. In ESCI’s 40 years of working with fire departments of various size and deployment modelling, no client department has been able to routinely and fully meet the published standards. In addition, within each standard there is the ability of the Authority Having Jurisdiction (AHJ) to establish response performance objectives based on local expectations and abilities.

The historical response performance for RSFPD was provided previously in this document. Based on this information, and in the absence of response performance objectives that have been established in the district, ESCI recommends that RSFPD continue to attempt to achieve compliance with *NFPA 1720* as its adopted response performance objectives.

Figure 94: Recommended Response Performance Objectives

	Population Density	Performance Objective	Percentile
Urban	>1,000	9:00	90 th
Suburban	500 – 999	10:00	80 th
Rural	<500	14:00	80 th

Simply stated, the objective in the Suburban areas is achieving a response time of no more than ten minutes, 80 percent of the time. In the Rural category, the standard is stated as responding in 14 minutes or less, 80 percent of the time.

The above discussion is offered simply as a starting point from which the district board can begin to determine what an appropriate objective is for the RSFPD. Setting these targets is not dictated by standards or statutory requirement. Instead, they are developed based on multiple local mitigating factors including citizen expectations and desires, capacity of available resources (staffing, vehicles and stations), and district constituents’ ability and willingness to fund.

The short, mid, and long-term strategies identified in the following pages provide information on how services may be provided in the future. ESCI does not tell the district’s leadership what decisions they should make but provides the information with which to make them. Future service delivery decisions should be made based on the established response objectives and in the light of the mitigating factors listed.

SHORT AND MID-TERM STRATEGIES

The previous sections of this report detail a considerable volume of observations and recommendations relating to RSFPD management and operations. The process of understanding, prioritizing and implementing the recommended enhancements can be daunting, simply due to the amount of work that may be involved. To help the organization navigate through the process, the following discussion summarizes and prioritizes the short and mid-term recommendations that ESCI has identified as the most important initially.

The following list summarizes recommendations based on the agency evaluation contained within this report that are achievable in the short or mid-term; typically, within a maximum of three years. These recommendations have been compiled into a prioritized list for easy reference.

- *Priority 1 – Items Involving Immediate Internal Safety Concerns*
- *Priority 2 – Considerations That May Present Legal or Financial Exposure*
- *Priority 3 – Matters That Address a Service Delivery Issue*
- *Priority 4 – Considerations to Enhance the Delivery of a Service*
- *Priority 5 – An Important Thing to Do*

Priority 1 – Items Involving Immediate Internal Safety Concerns

The recommendation deals with an improvement or initiative that solves an issue affecting the safety of firefighters and/or other personnel. These are not matters that simply make it easier to do a particular function but, in fact, change a currently unsafe situation into a safe one.

- ESCI did not identify recommendations that represented an imminent internal safety concern.

Priority 2 – Considerations That May Present Legal or Financial Exposure

The recommendation resolves a situation that is creating or has the potential to create an opportunity for legal action against the entity or its officials. It also may be a situation that could subject the entity to a significant expense.

- Develop a more effective annual budgeting process using the standard Utah governmental chart of accounts or other appropriate charting system for revenue, expense, debt and cash reserve line items.
- Seek assistance from legal counsel concerning the appropriateness of using funds derived from the Standby Fee to fund EMS costs
- Utilize cash basis for monthly reporting and budget management to better track expense and revenue and annual cash balance forward.
- Contract with a labor attorney and/or an HR professional to perform a wage-hour audit and analysis of current scheduling and pay practices.
- Meet with Springdale elected officials to discuss alternative, sustainable funding source for EMS operations after expiration of TRT revenue sharing agreement.
- Change financial auditors every three to five years.
- Ensure accurate reporting and recordkeeping of all exposures.

- Develop and fund a capital replacement plan.
- Utilize cash basis for budget management and monthly reporting.
- Utilize Utah State chart of accounts for revenue and expenditure line items when preparing and monitoring budget.

Priority 3 – Matters That Address a Service Delivery Issue

The recommendation addresses a service delivery situation that, while it does not create an immediate safety risk to personnel or the public, it does affect the district's ability to deliver service in accordance with its standards of performance. For example, adding a response unit to compensate for a growing response workload or delivering training needed to allow personnel to deal effectively with emergency responses already being encountered.

- Strengthen agreements with ZNP and Hurricane Valley FD
- Consider at least maintaining the current millage rate over the forecast period and allow tax revenue to increase at the same rate as property values, or 8.5 percent annually
- Develop and adopt a strategic plan within the next six months.
- Adopt the district master plan, aligned with a strategic plan that implements and prioritizes the master plan recommendations.
- Develop comprehensive rules/regulations manual, SOPs or SOGs for all aspects of district.
- Conduct scheduled review and updating of rules and regulations.
- Obtain outside legal and HR assistance to review and update personnel policies.
- Formalize process for periodic review and update of district SOGs/SOPs.
- Develop apparatus/facility capital replacement/improvement plan as part of the master plan.
- Formalize the definition of the organization's communications path in the rules and regulations.
- Actively engage in emergency management and planning efforts in the county.
- Fire chief should increase role in day-to-day monitoring of expenses/revenues currently performed by district chair. (Completed subsequent to ESCI's field work)
- Consider full-time clerk position to assist with budget, public outreach/communication, data collection/analysis. (Was outsourced subsequent to ESCI's field work)
- Consider implementing a 14-day pay cycle with 26 pay periods per year to better monitor pay practices and ensure compliance with FLSA requirements.
- Consider cross-training and state dual-certification for all emergency response staff.

Priority 4 – Considerations to Enhance the Delivery of Services

Recommendations that improve the delivery of a particular service. For example, relocating a fire station to improve response times to a particular part of town or adding a piece of equipment that will improve the delivery of a service.

- Require that all personnel become trained and equipped to respond to fire suppression incidents.

- Consider training all single-certified firefighters as EMTs.
- Review and update foundational policy and procedural documents.
- Revise the district code of ethics to align with the strategic plan.
- Ensure all personnel have ICS training commensurate with their position and NIMS requirements. Document and maintain ICS training records. Establish a company officer training and development program.
- Adopt a district safety policy that addresses LCES components. Implement a close call reporting and training system.
- Define and document all wild land training levels. All personnel should be trained to awareness level and the NWCG S130/190 level and company officers should be trained to the engine boss level.

Priority 5 – An Important Thing to Do

The recommendation does not fit within any of the above priorities but is important and can enhance the district's effectiveness and efficiency.

- Formal adoption the RSFPD Master Plan by the Board of Directors.
- Prepare electronic version of annual report that can be placed on district's website.
- Explore strengthening mutual aid and developing cooperative service agreements with Hurricane Valley and Zion National Park.
- Develop an annual training plan with a structured monthly/quarterly schedule with specific subject outlines based upon industry standards (IFSTA, etc.).
- Establish a Training Advisory Committee (TAC) that produces an annual training plan and binder.
- Identify options for a regionalized training site. Submit an AFG grant for a regional burn trailer.
- Pursue a regional training facility.
- Validate and implement regional fire training competency standards for high risk/low frequency operations, e.g. vertical ventilation standard.
- Reinforce a culture of safety with programs such as "Just Culture," "Everyone Goes Home," or "Crew Resource Management CRM."
- Certify all personnel that will be conducting fire inspections.
- Record and track fire inspections electronically.
- Consider addition of a community volunteer to support public fire education efforts.

RECOMMENDED LONG-TERM STRATEGIES

The short and mid-term strategies discussed will move the organization forward substantially. A longer-term, high-level consideration of future needs is also important to provide a “big picture” view of how the organization needs to continue with future initiatives. Primarily, long-term strategies are centered around community growth and related workload and how both impact the future deployment of fire stations and personnel.

Apparatus Replacement Planning

Any agency engaged in the delivery of emergency service is reliant on specialized tools that are both dependable and safe. Even highly trained professional firefighters are powerless to protect life and property from fire without a complex set of tools, including a variety of high-value vehicles.

RSFPD maintains a fleet of emergency apparatus including engines, ambulances (Medics), squad, brush, and command vehicles. Each unit has a predictable expected useful service life, determined by the agency as a practical balance of use, maintenance, and replacement versus refurbishment cost. Some fire departments are able to extend service life by moving aging equipment to areas of low service demand. RSFPD vehicles are listed below.

Figure 95: RSFPD Apparatus Inventory

Apparatus Designation	Type	Year	Make/Model	Condition	Seating Capacity	Pump Capacity (GPM)	Tank Capacity (GAL)
Engine 91	1	1991	GMC/Becker	Fair	3	750	1000
Engine 92	1	1993	Freightliner	Fair	3	1500	900
Squad 91	6	2001	Ford/BME	Excellent	3	150	300
Brush 91	6	2008	Ford/Custom	Good	5	100	250
Brush 92	4	1997	Ford	Fair	3	90	500
Medic 91	Ambulance	2013	Chevrolet	Excellent	3	N/A	N/A
Rescue 91 (Out of Service)	Rescue		Chevrolet	Poor	5	N/A	N/A

Discussion

The district does not maintain an apparatus replacement schedule for its emergency fleet. Doing so is viewed as an important undertaking necessary to prepare for future needs and vehicle replacement costs, which are considerable.

ESCI provides a sample replacement schedule for the district’s consideration, based on the service lives shown in the figure below.

Figure 96: Apparatus Replacement Lives

Vehicle Type	Useful Life (Years)
Engine	20
Ambulance	20
Rescue	20
Brush	20
Command	8

Using the vehicle lives from the above figure, ESCI developed a sample replacement schedule as shown in the following figure.

Figure 97: RSFPD Apparatus Replacement Schedule

Vehicle Number	Model Year	Useful Life	Replacement Year	Replacement Cost @ 3% Inflation	Annual Reserve Requirement	Reserve Required@ 12/31/16
Engine 91	1991	15	OVERDUE	\$498,550	NA	\$498,550
Engine 92	1993	15	OVERDUE	\$498,550	N/A	\$498,550
Squad 91	2001	15	OVERDUE	\$218,115	N/A	\$218,115
Brush 91	2008	15	2023	\$218,115	\$14,541	\$116,328
Brush 92	1997	15	OVERDUE	\$218,115	N/A	\$218,115
Medic 91	2013	10	2023	\$208,307	\$20,831	\$62,492
Squad 92	2007	15	2022	\$218,115	\$14,541	\$130,869
Total Requirements				\$2,077,868	\$49,913	\$1,743,020

The figure above shows an annual vehicle replacement liability of \$2,077,868 based on the scheduled replacement cost and the useful life of each vehicle. The remaining useful life of each vehicle is shown in the fourth column of the chart. Were the district to fully fund the replacement schedule, it would have \$1,743,020 currently in reserve and would contribute an additional \$49,913 to a reserve fund annually.

ESCI recognizes that the district will be challenged to accrue the amounts listed above. However, as reflected in the expenditure projections found in, earlier in the report, no debt is expected beyond 2019, and previous year debt amounts are added to the capital expense budget in 2020 and 2021, which will reduce the financial demand to some extent.

It is also acknowledged that future vehicles may be purchased with funding sources other than capital reserves, including grants. The above discussion and table is provided simply as an example and to underscore the importance of planning in advance for future vehicle needs.

Future Apparatus Considerations

As detailed earlier in the report, RSFPD maintains a fleet of seven response vehicles that are in varying conditions but are well maintained. The inventory provided earlier shows that there are two structural firefighting engines, Engine 91 and 92.

The water tank capacities on the two engines are 750 and 1,500 gallons, respectively. While these capacities are generally adequate for response to areas that have fire hydrants for additional water, they

are marginally adequate in areas without hydrants. Since both units are aging and will be considered for replacement in the future, consideration should be given to increasing water carrying capacity.

Two approaches can be used. First, the future purchase of a dedicated water tanker or tender as is the accepted reference in the fire service. The second approach is that of a pumper/tender combination unit. While a tender is less expensive, a combination vehicle offers greater flexibility in use. Consideration of water transporting capacity should be included in future apparatus replacement planning.

Future Staffing Considerations

Perhaps the single most difficult challenge facing the fire district is that of future staffing needs. The RSFPD does not currently have a strategic plan articulating a future vision with goals and objectives designed to attain that vision. However, ESCI staff were able to develop a broad understanding of district board priorities and community willingness to support them. These priorities served as a guide for ESCI staff to develop a number of options that were evaluated using the revenue and expense assumptions and the revenue projections discussed earlier in this report. Additional, less concrete options are offered for board consideration but were not evaluated for financial viability. Each option is provided with a net annual surplus or operating deficit which also equates the additional recurring revenue needed to fund that option each year of the projection.

The following discussion highlights service priorities of the district board as understood by ESCI staff:

1. The community has long provided its own ambulance service, first through the town of Springdale and now through the district as part of RSFPD service delivery. The district desires to continue providing ambulance service through the RSFPD and its own personnel.
2. The district currently enjoys a very good ISO Property Protection Class (PPC) rating of 3 which has a significant and positive effect on reducing annual fire insurance premiums of individually rated commercial properties. This directly impacts the financial bottom line of hotels, motels, bed and breakfast establishments, restaurants, shops, and other businesses that rely on the annual tourist trade. It is beneficial for the district to continue providing fire service through the RSFPD utilizing its own personnel. To receive credit as a fire department, the RSFPD must show that it can put four firefighters on the scene of every emergency call for service.
3. As a corollary to Priority #2 above, the district desires to provide a safe, effective, and timely initial response to fire and EMS emergencies within the district which is achieved by providing a fire station that is staffed adequately on a 24/7 basis to meet industry standards for a first-arriving engine company (four firefighters).
4. The district desires to achieve an Effective Response Fire Force (ERF) or adequate back-up for actual structural fire responses. This component will be provided through strong mutual aid/automatic aid agreements with Zion National Park and Hurricane Valley.

Given the above priorities, ESCI has provided four staffing options for board consideration along with an analysis of how these options impact the financial status of the district. Each of the options offered for discussion involves some variation of paid-on-call and/or career staffing. However, it is important to note that the district has had a strong volunteer program and should make every effort to retain that as an integral part of the district's response program, despite the apparent difficulty in attracting and retaining

volunteers as noted. Following presentation and discussion of the four options, ESCI provides some additional thoughts on volunteer staffing.

Option #1 A/B Status Quo (with and without recruitment/retention pay adjustment) Four (4) Single-Certified Paid-on-Call Staff per 12 Hour Shift

Under Option #1A, the district would continue its current practice of using paid-on-call personnel to staff the ambulance with two single-certified EMS personnel per 12-hour shift and the engine with two single-certified firefighters per 12-hour shift. However, based upon RSFPD input regarding the difficulty with attracting and retaining qualified personnel, Option #1B is provided as an example only (not a specific recommendation) of what a recruitment/retention salary adjustment might look like.

This option includes an increase in current pay rates of 10 percent the first year (FY 2017), 5 percent the following year (FY 2018), and 3 percent per year thereafter. This would raise the current firefighter rate from \$7.50 per hour to \$8.63 per hour over two years, the EMT rate from \$8.50 per hour to \$9.78 per over two years and the paramedic rate from \$9.00 per hour to \$10.35 per hour over the two years.

Option #1A, already discussed in the earlier forecast section, is based upon a projection of current conditions and essentially represents a status quo scenario. The only difference with Option #1B is the addition of a salary adjustment as noted. Option #1B is provided for comparison purposes only so that the district board can see what the recurring revenue need would be for the status quo staffing scenario with and without a recruitment/retention salary adjustment.

The tables below show projected recurring revenue and expenses, annual operating surpluses/deficits and beginning and ending fund balances for these options. Recurring revenue is the sum of the revenue from taxes, the standby fee, intergovernmental transfer (TRT) and other annual revenue sources.

Recurring expenses subtracted from recurring revenues shows the district whether it is operating with a cash deficit or surplus. If the district runs with a deficit, it will use fund balance cash carried forward (reserves) to balance the budget and will reduce the fund balance cash carried forward into the next year. Conversely, if the district operates with a surplus, it will increase its cash reserves moving into the next fiscal year. An operating deficit would indicate that the district would need to increase its recurring revenue by that amount each fiscal year. For example, in Option #1A, the district would need to increase its recurring revenue in FY 2017 by \$32,489 in order not to use reserves. For all practical purposes however, this does not really become a significant issue until at least FY 2019 since the board currently has a large unrestricted fund balance carry forward.

Figure 98: Staffing Option #1A Forecast Revenue, Expense, Annual Operating Surplus/Deficit and Beginning and Ending Fund Balance (Tabular Format)

	2016 Adopted	2017 Forecast	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Recurring Revei	747,600	742,680	751,684	698,414	642,991	650,497	658,336
Recurring Expei	727,721	775,169	812,852	853,113	897,902	973,851	1,054,576
Surplus/Deficit	19,879	-32,489	-61,168	-154,700	-254,911	-323,354	-396,239
BeginningFund	723,697	743,576	711,087	649,919	495,219	240,309	-83,045
Ending Fund Ba	743,576	711,087	649,919	495,219	240,309	-83,045	-479,285

The table illustrates that under the status quo scenario with no increase in hourly rates, recurring revenue is slightly less than recurring expenses in FY 2017 with the gap gradually increasing such that by FY 2018 the board will use approximately \$60,000 of its unreserved cash balance to fund its recurring operating expenses. By FY 2020, the district will need to increase its recurring revenue by \$250,000 or use some combination of increased revenue and unrestricted reserves. Beyond FY 2020, the district will either have to increase recurring revenue or significantly cut services because it may not have sufficient reserve fund balance (beginning fund balance is \$240,309) to cover operating costs until the bulk of its annual revenue comes in (taxes, fees, intergovernmental transfer).

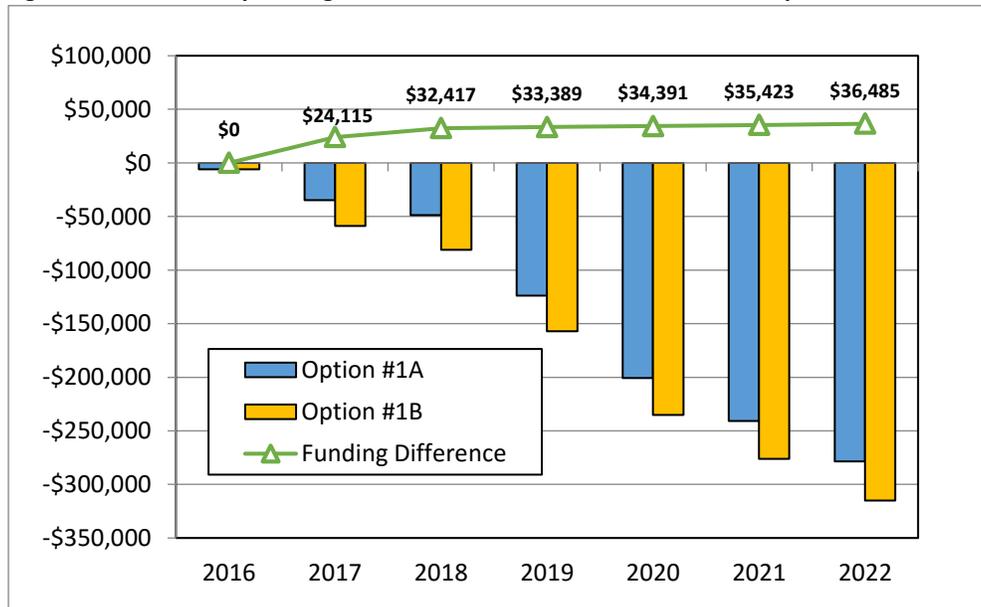
Figure 99: Staffing Option #1B Forecast Revenue, Expense, Annual Operating Surplus/Deficit and Beginning and Ending Fund Balance (Tabular Format)

	2016 Adopted	2017 Forecast	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Recurring Revenue	747,600	742,680	751,684	698,414	642,991	650,497	658,336
Recurring Expense	727,721	827,788	876,623	920,993	970,232	1,051,007	1,136,967
Surplus/Deficit	19,879	-85,108	-124,939	-222,579	-327,241	-400,510	-478,631
Beginning Fund Balance	723,697	743,576	658,468	533,529	310,950	-16,291	-416,801
Ending Fund Balance	743,576	658,468	533,529	310,950	-16,291	-416,801	-895,432

The table above shows Option #1B which provides for some level of a recruitment/retention salary adjustment (10 percent in FY 2017, 5 percent in FY 2018, and 3 percent per year thereafter) with the same staffing scenario as Option #1A. Figure 100 below compares the annual operating deficits for the two options, blue bar for Option #1A and gold bar for Option #1B; respectively. The difference in amount of increased recurring funding needed to implement the two options is shown for each year in green.

Unless otherwise noted, all other options presented below use the salary projections from Option #1A as the base case.

Figure 100: Annual Operating Deficits and Cost Differential Between Options #1A and #1B

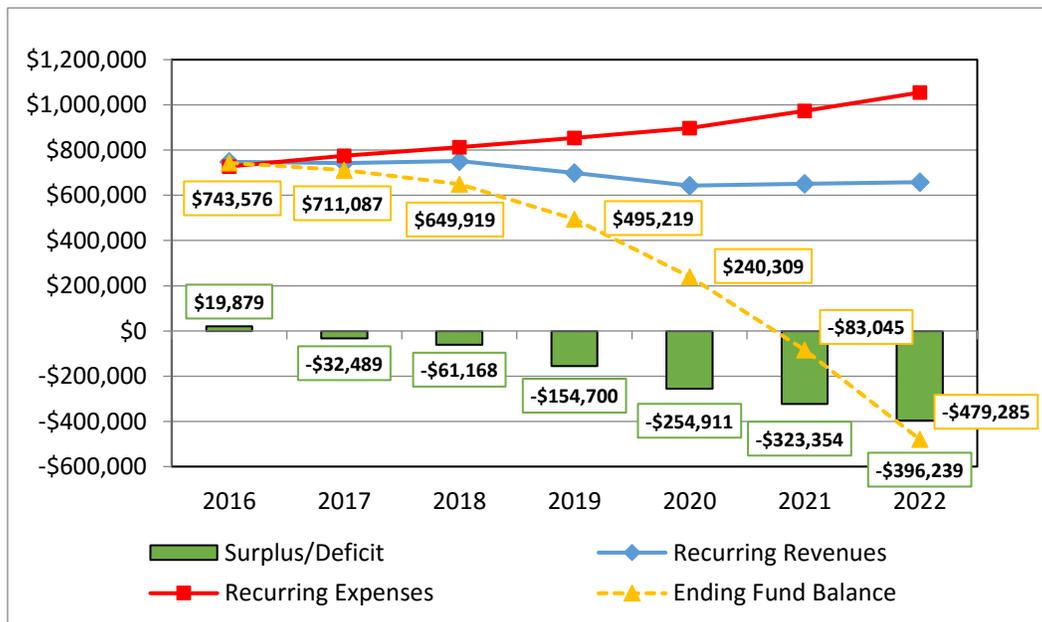


This relationship of recurring revenue to expense, operating surplus or deficit and impact on ending fund balance is shown graphically in the next figure for Option #1A with the green bars representing annual operating surplus or deficit. An operating deficit is the amount that the recurring revenue sources, in total, would have to be increased in order for the district not to use reserves to cover recurring operating costs and, subsequently, reduce its fund balance carried forward.

In Option #1A, the operating deficit increases gradually each year through FY 2018 and the ending fund balance carried forward, shown by the gold dashed line, decreases from \$743,576 in FY 2016 to \$649,919 in FY 2018. After that, the operating deficits increase at a faster rate and the ending fund balance continues to rapidly decline from \$649,919 in FY 2018 to \$240,309 in FY 2020. This shows that the district has no capacity to increase annual operating costs further but does have significant reserve funding to cover annual operating costs and to provide for a capital improvement/replacement program at least through FY 2019. The blue line represents projected recurring revenue and the red line represents projected expenditures given the assumptions discussed earlier in the report.

Other than personnel costs, all other expenditure items remain the same for all of the following options.

Figure 101: Staffing Option #1A Forecast Operating Surplus/Deficit and Ending Fund Balance (Graphic Format)



Option #2 Four (4) Cross-Trained Paid-on-Call Staff per 12-Hour Shift

Under Option #2 the district would continue its current practice of using paid-on-call personnel to staff the ambulance with two personnel per 12-hour shift and the engine with two firefighters per 12-hour shift. The major difference is that under this option all paid-on-call staff would become cross-trained or dual-certified as firefighters at the FFII level and either EMT or paramedic certified as well. It is anticipated that this process would take at least one year; therefore, Option #2 expenses and staffing would remain the same as Option #1 for FY 2017. A 30 percent pay differential based upon increased responsibilities and technical skill level is proposed under this option and would not take effect until FY 2018 when all

training was complete. This option would ensure that there would be four firefighters always on duty and able to respond to fire calls, exclusive of the fire chief and any volunteer personnel.

The major difference between Option #2 and Option #1A is that there will be a cost differential in hourly rate between existing pay and that proposed for Option #2. ESCI has modeled a 30 percent increase in pay rates for existing personnel once they become dual-certified. This may or may not be a valid assumption but is not out of line with what ESCI has observed as cost differentials between single certified firefighters and those with an EMT or paramedic certification in other systems. This would mean that a firefighter currently earning \$7.50 per hour would see a pay increase to \$9.75 per hour and an EMT currently earning \$8.50 an hour would go to \$11.05 per hour. A paramedic currently earning \$9.00 per hour would increase to \$11.70 per hour. Due to the current disparity between EMT and firefighter hourly rates, the board may want to increase firefighters to the \$11.05 level so that all EMT/firefighters were at the same rate. A more extensive salary survey should be completed before implementing this this option.

The table below shows the adopted recurring revenue and expenses with projected annual operating surpluses/deficits for this option. The total recurring revenue is the sum of taxes, the standby fee, intergovernmental transfer (TRT) and other annual revenue sources. Recurring expenses subtracted from recurring revenues shows the district whether it is operating with a cash deficit or surplus. If the district runs with a deficit, it will use fund balance cash carried forward to balance the budget and will reduce the fund balance cash carried forward into the next fiscal year. Conversely, if the district operates with a surplus, it will increase its fund balance moving into the next fiscal year.

Figure 102: Staffing Option #2 Forecast Revenue, Expense, Annual Operating Surplus/Deficit and Beginning and Ending Fund Balance (Tabular Format)

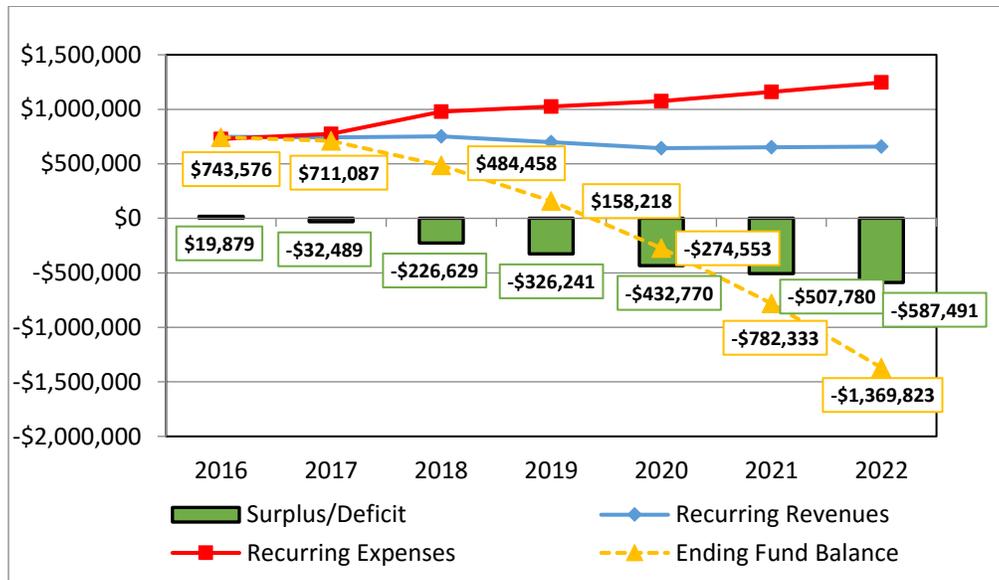
	2016 Adopted	2017 Forecast	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Recurring Revenues	747,600	742,680	751,684	698,414	642,991	650,497	658,336
Recurring Expenses	727,721	775,169	978,312	1,024,654	1,075,761	1,158,278	1,245,827
Surplus/Deficit	19,879	-32,489	-226,629	-326,241	-432,770	-507,780	-587,491
Beginning Fund Balance	723,697	743,576	711,087	484,458	158,218	-274,553	-782,333
Ending Fund Balance	743,576	711,087	484,458	158,218	-274,553	-782,333	-1,369,823

Under the Option #2 scenario, recurring revenue approximates expense through FY 2017 after which recurring expense exceeds recurring revenue rapidly into FY 2018 and then more gradually through FY 2022. This is seen with the annual operating deficits that jump from \$32,489 in FY 2018 to \$226,629 in FY 2018 and then increase annually to \$587,491 by FY 2022. This relationship is shown graphically in the next figure with the green bars representing annual operating surplus or deficit. The ending fund balance available for cash carried forward each year decreases rapidly from \$743,576 in FY 2016 to \$158,218 in FY 2019.

This shows that the district has no capacity to increase annual operating costs and must utilize reserves to cover recurring operating expenses beginning in FY 2017 without an increase in recurring revenue. This option reduces the district's sizeable reserve funding at a rapid rate and by FY 2020, the district will either have to borrow funds to operate, increase its recurring funding stream or reduce service level. The green bars represent the additional revenue necessary to fund this option each year in order for the district to

keep from reducing its fund balance each year to cover operating expenses. As stated above, other than personnel costs, all other expenditure items remain the same for all options.

Figure 103: Staffing Option #2 Forecast Operating Surplus/Deficit and Ending Fund Balance (Graphic Format)



Option #3 Three (3) Cross-Trained Paid-on-Call Staff per 12 Hour Shift

Under Option #3 the district would modify its current practice of using paid-on-call personnel to staff the ambulance with two personnel per 12-hour shift and the engine with two firefighters per 12-hour shift. Under this option, all paid-on-call staff would become cross-trained or dual-certified as firefighters at the FFII level and either EMT or Paramedic certified as well. It is anticipated that this process would take at least one year; therefore, Option #3 expenses and staffing would remain the same as Option #1A for FY 2017. A 30 percent salary increase is added to the base in FY 2018 to account for increased staff responsibility and competency level once the training has been completed as in Option #2 above.

This option would staff the ambulance with two dual-certified personnel per 12-hour shift and the engine with one dual-certified member per 12-hour shift. This option does not ensure that there would be four firefighters always on duty and able to respond to fire calls as under Option #2. Rather, it assumes that other firefighters would respond from home and/or that officers would respond. These extra responders could be paid when they are actually on the calls themselves. The risk is that “off-duty” members do not reside in district and would thus possibly not be available to respond, leaving the district with only three guaranteed responders (one if the ambulance is on a call).

A major difference between Option #3 and Option #1A is that there will be a cost differential in hourly rate between existing pay and that proposed for Option #3. ESCI has modeled a 30 percent increase in pay rates for existing personnel once they become dual-certified. This may or may not be a valid assumption but is not out of line with what ESCI has observed as cost differentials between single certified firefighters and those with an EMT or paramedic certification in other systems.

The table below shows the adopted recurring revenue and expenses with projected annual operating surpluses/deficits for this option and the impact on ending fund balance cash carried forward. The total revenue is the sum of taxes, the standby fee, intergovernmental transfer (TRT) and other recurring revenue sources. Recurring expenses subtracted from recurring revenues shows the district whether it is operating with a cash deficit or surplus. If the district runs with a deficit, it will use existing fund balance to cover recurring operating expenses and will reduce the fund balance cash carried forward into the next year. Conversely, if the district operates with a surplus, it will increase its cash reserves moving into the next fiscal year.

Figure 104: Staffing Option #3 Forecast Revenue, Expense, Annual Operating Surplus/Deficit and Beginning and Ending Fund Balance (Tabular Format)

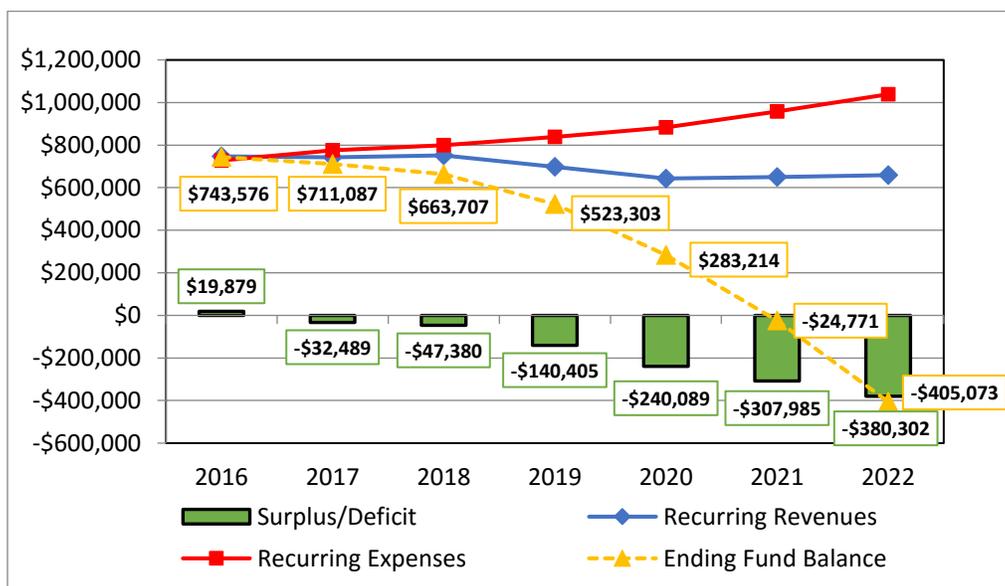
	2016 Adopted	2017 Forecast	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Recurring Revenues	747,600	742,680	751,684	698,414	642,991	650,497	658,336
Recurring Expenses	727,721	775,169	799,063	838,818	883,080	958,483	1,038,638
Surplus/Deficit	19,879	-32,489	-47,380	-140,405	-240,089	-307,985	-380,302
Beginning Fund Balance	723,697	743,576	711,087	663,707	523,303	283,214	-24,771
Ending Fund Balance	743,576	711,087	663,707	523,303	283,214	-24,771	-405,073

The table illustrates that under the Option #3 scenario, recurring expense exceeds recurring revenue by less than \$50,000 for FY 2017 and FY 2018 with the gap rapidly increasing to FY 2020 and then more gradually thereafter. This is seen with the annual operating deficits that range from approximately \$32,000-47,000 in FY 2017 and FY 2018 and increasing from \$140,000 in FY 2019 to \$380,302 in FY 2022.

This relationship is shown graphically in the next figure with the green bars representing annual operating deficits. The annual operating deficit represents the amount of additional recurring revenue needed by the district each year in order to keep from drawing down its fund balance to cover recurring operating expenses.

This shows that the district has no capacity to increase annual operating costs further and will begin to utilize reserves at a significant pace by FY 2019 and throughout the remainder of the forecast period. The district could potentially operate by utilizing its fund balance to cover recurring operating deficits through FY 2020 but would not have sufficient reserves to operate beyond that without increasing recurring revenues or reducing services by cutting recurring expenses. As stated above, other than personnel costs, all other expenditure items remain the same for all options.

Figure 105: Staffing Option #3 Forecast Operating Surplus/Deficit and Ending Fund Balance (Graphic Format)



Option #4 Three (3) Cross-Trained Full-Time Staff per 24 Hour Shift

Under Option #4, the district would depart from its current practice of using paid-on-call personnel to staff the ambulance and engine with two single-certified members per 12-hour shift on a paid-on-call basis. Under this option, the district would hire full-time, dual-certified personnel to staff the ambulance and engine on a 24/7 basis. Paid-on-call personnel would supplement response of the full-time staff.

This option assumes that the district would hire six paramedic/firefighters and three EMT/firefighters. This would allow RSFPD to staff the ambulance with one paramedic/firefighter and one EMT/firefighter per 24-hour shift and the engine with one Paramedic/Firefighter per 24-hour shift, which would give the district two Advanced Life Support (ALS) capable units per shift rather than the one it currently provides. A fourth paid-on-call firefighter could staff the engine for a total of four firefighters each shift which would provide a safe and effective initial response to all calls.

In order to model this option, the forecast ambulance and firefighter staffing expense (paid-on-call) was cut by 50 percent (\$182,736 in FY 2018) for each year of the model beginning in FY 2018. Next, the total cost of the full-time staff was added to the remaining 50 percent for the total annual salary and benefits of this option. ESCI contacted Hurricane Valley and St. George Fire Departments to assess market rates for dual-certified paramedic and EMT/firefighters. Most applicable to the local market were Hurricane Valley Fire Department rates. HVFD PM/FF loaded hourly rates ranged from \$15.71 to \$22.47 per hour while the loaded EMT/FF rate varied from \$14.08 to \$19.41 per hour. ESCI used the HVFD base rate plus 15 percent (\$18.07 per hour for EMT/firefighters and \$16.19 per hour for paramedic/firefighters) as a basis for modeling full-time staff costs. The six PM/FF positions would cost \$334,785 in FY 2017 and escalate at 3 percent annually while the three EMT/FF positions would cost \$300,050 in FY 2017 and also escalate at 3 percent annually. Total full-time staff cost for FY 2017 would be \$634,835. Total personnel services costs would be the \$634,835 plus the 50 percent of the Option #1A personnel services costs for FY 2017 to account for the remaining paid-on-call and administrative staff. However, the model assumes

that the necessary personnel would not be hired and in place until FY 2018; therefore, only Option #1A personnel services costs would be experienced in FY 2017. Full costs for this option would be realized in FY 2018.

This option would staff the ambulance with two dual-certified personnel per 24-hour shift and the engine with one dual-certified member per 24-hour shift and one paid-on-call member (firefighter) per 12-hour shift. This option would ensure that there would be four firefighters always on duty and able to respond to fire calls as under Option #2. Further, this option provides the district with two ALS capable units to respond to the majority of the district’s calls, which are medical in nature.

The table below shows the adopted recurring revenue and expenses with projected annual operating surpluses/deficits for this option and the impact on ending fund balance cash carried forward. The total revenue is the sum of taxes, the standby fee, intergovernmental transfer (TRT) and other recurring revenue sources. Recurring expenses subtracted from recurring revenues shows the district whether it is operating with a cash deficit or surplus. If the district runs with a deficit, it will use existing fund balance to cover recurring operating expenses and will reduce the fund balance cash carried forward into the next year. Conversely, if the district operates with a surplus, it will increase its cash reserves moving into the next fiscal year.

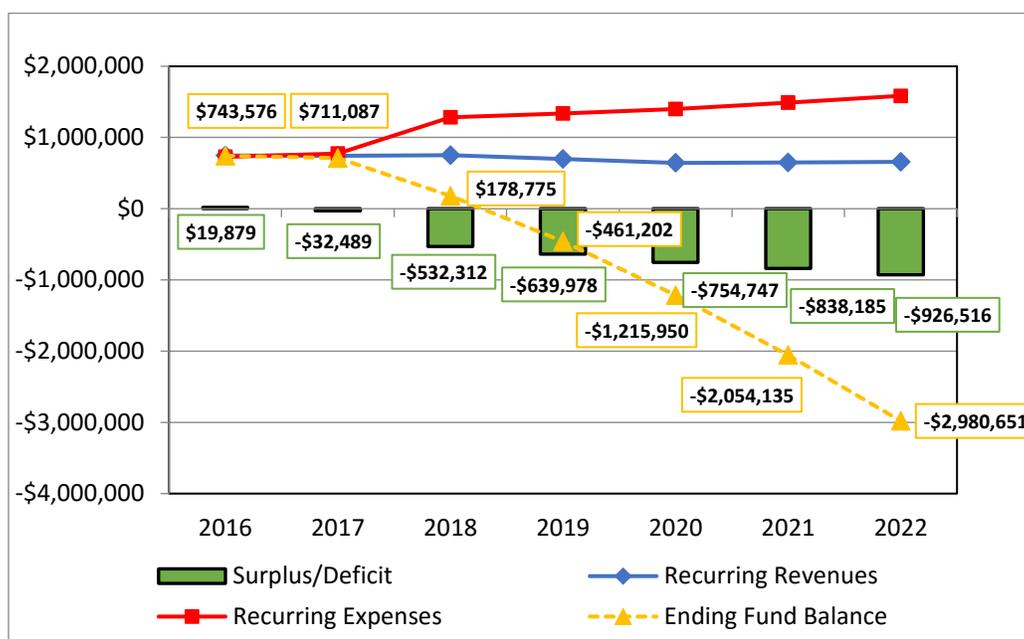
Figure 106: Staffing Option #4 Forecast Revenue, Expense, Annual Operating Surplus/Deficit and Beginning and Ending Fund Balance (Tabular Format)

	2016 Adopted	2017 Forecast	2018 Forecast	2019 Forecast	2020 Forecast	2021 Forecast	2022 Forecast
Recurring Revenues	747,600	742,680	751,684	698,414	642,991	650,497	658,336
Recurring Expenses	727,721	775,169	1,283,995	1,338,391	1,397,738	1,488,683	1,584,852
Surplus/Deficit	19,879	-32,489	-532,312	-639,978	-754,747	-838,185	-926,516
Beginning Fund Balance	723,697	743,576	711,087	178,775	-461,202	-1,215,950	-2,054,135
Ending Fund Balance	743,576	711,087	178,775	-461,202	-1,215,950	-2,054,135	-2,980,651

Under the Option #4 scenario, recurring expense greatly exceeds recurring revenues from FY 2018 with initiation of full-time staffing through FY 2022. This is seen with the annual operating deficits that range from \$532,312 in FY 2018 to \$926,516 by FY 2022. Under this option, the district would see significant annual operating deficits from the outset of employing full-time staff in FY 2018.

This relationship is shown graphically in the next figure with the green bars representing annual operating deficits. In this case, the operating deficit begins at \$532,312 with the hiring of full-time staff in FY 2018 and continues to increase each year to \$926,516 in FY 2022. This annual operating loss requires that the district immediately utilize the bulk of its fund balance cash reserve to meet its recurring operating expenses in FY 2018 after which it needs a major increase in recurring revenue or a significant reduction in expenses resulting in a loss of services. Given the current assumptions with respect to forecast revenue, Option #4 is untenable beyond FY 2018 and does not support a reasonable budget in FY 2019 as there would be insufficient beginning fund balance to cover operating expenses until the bulk of recurring revenues were received. As stated above, other than personnel costs, all other expenditure items remain the same for all options.

Figure 107: Staffing Option #4 Forecast Operating Surplus/Deficit and Ending Fund Balance (Graphic Format)



Other Staffing Considerations

The four staffing options discussed above focus on the use of career and part-time personnel because that is the primary staffing methodology currently in place in the district. The district has adopted its current staffing approach largely because it found that the local population is small and does not consist of a demographic that is prone to producing residents willing and/or able to serve as volunteers. The finding is correct and makes it very challenging to maintain a core of volunteers.

However, along with the career and part-time staffing options detailed in this section, ESCI encourages the district to refrain from discounting other staffing approaches that may be employed, even if only to supplement other staffing methods. A generic discussion of available options follows.

On Duty Part-Time Paid or Volunteer

This approach is one of having scheduled volunteer or part-time paid personnel to fill shifts in the station for a number of hours (i.e. 8, 10, 12 or 24), a method that is currently used at RSFPD, and is often used in areas where there is insufficient funding to provide entirely for full-time employees. These can be volunteers using a stipend to reimburse for fuel, uniform cleaning, etc. If using a stipend, it is recommended that this be with consultation by legal counsel on amounts, as there are taxation and Fair Labor Standards Act rules on what level of working hours and stipend distinguishes volunteers from employees. Using part-time employees, the district might be more likely to find the numbers and quality of personnel needed by paying a part-time wage. There are still savings to this strategy over full-time paid personnel as typically there are fewer benefits provided. The disadvantage is that you will typically be drawing from a pool of young people who are testing to secure permanent employment at another fire department, which limits the length of time they will be available for part-time employment. One could

assume that they would be available for an average of two years. This requires ongoing recruitment and training of new personnel.

Resident Firefighter and Student Intern Approaches

A variety of approaches can be used to take advantage of firefighters that are looking to gain experience, as well as a place to live. One strategy is to offer housing in exchange for working shifts, typically called a resident program. Another is to work with college fire science programs to provide advanced students with training and experience in exchange for housing on a part-time or resident basis.

While this strategy could be highly beneficial to RSFPD, the challenge presented is that adequate residential facilities are not available at the station. Some fire departments will add housing to existing fire stations or install manufactured homes adjacent to existing stations. RSFPD could do the same, but space at the existing station site may be prohibitive.

The approach requires very well structured oversight and clearly defined and enforced rules, along with properly developed training and attendance requirements. It offers a cost effective way to bolster staffing with energetic and qualified responders.

Traditional Volunteer System

Finally, there is the traditional volunteer program using individuals that live in the district who can respond when an incident occurs. RSFPD has used this approach for many years but finds it very difficult to maintain an adequate volunteer cadre, due to the limited numbers of available volunteers from which to create a recruiting pool. ESCI recognizes this problem but encourages the district to continue to seek volunteer responders to the extent possible. It may be possible to make improvements to the current program in order to recruit volunteers. It is recommended that various levels or types of volunteers be employed to fulfill the needs of the district. There should be a differentiation between those trained to fulfill interior structural fire attacks, hazardous materials operations, and other identified high-risk/low-frequency operations and to perform important but less hazardous operations on the fire ground and at calls such as motor vehicle crashes. A group can be those trained to drive and pump apparatus but not do actual firefighting. A group of volunteers who desire to only do medical first responder or EMT functions could accomplish medical responses. The medical volunteers could staff a small pick-up or other vehicle and remain on-call for these responses.

There are tasks within the district that do not demand EMS or firefighting skills or knowledge. For these, administrative volunteers can take on computer and systems maintenance, database management including creating reports for monthly and annual reports, public information and safety education, website design and maintenance, radio maintenance, etc. The approach would provide considerable relief to the management team who can concentrate on providing vision and leadership to the entire organization, operating an effective department.

Future Staffing Discussion Summary

The RSFPD Board has been very diligent in its efforts to chart a future direction for EMS and fire protection services in the district for the residents and visitors to the towns of Rockville and Springdale and the

neighboring Zion National Park. The board understands its policy mandate to establish a level of service that is realistic and desired by the communities it serves, is sustainable, and meets the following objectives.

1. Continue providing EMS services with an ambulance stationed 24/7 in Springdale.
2. Maintain commercial (and residential) benefits of an ISO Property Protection Class (PPC) rating of 3, providing fire service with initial response from a fire station in Springdale that can demonstrate response of at least four firefighters 24/7 to any fire call.
3. Provide a safe, effective, and timely initial response to fire rescue emergencies within the district meeting industry standards for first-arriving engine company.
4. Provide an Effective Fire Force (EFF), also called an Effective Response Force (ERF), or adequate back-up for structural fire responses through strong automatic aid agreements with neighboring departments.

With these objectives in mind, ESCI has offered four options for board consideration, along with financial analysis of each so that the board can develop an effective and realistic future staffing policy. Revenue forecast for each option is identical, using assumptions discussed earlier in the report. It is important for the Board to understand whether each option provides an annual operating surplus or deficit and the impacts on the ending fund balance carried forward into the next fiscal year.

The four options are summarized below, followed by a figure comparing the annual operating surplus/deficit and ending fund balance cash carried forward for each of the options throughout the forecast period. The annual operating deficit can be interpreted as the amount of additional recurring revenue that would be needed each year to fund each of the options while maintaining an adequate annual fund balance. The fund balance would need to cover a portion of recurring operating expense until the bulk of recurring revenue is received, provide a sufficient reserve for capital replacement and provide for a reserve for contingencies.

The four options presented include:

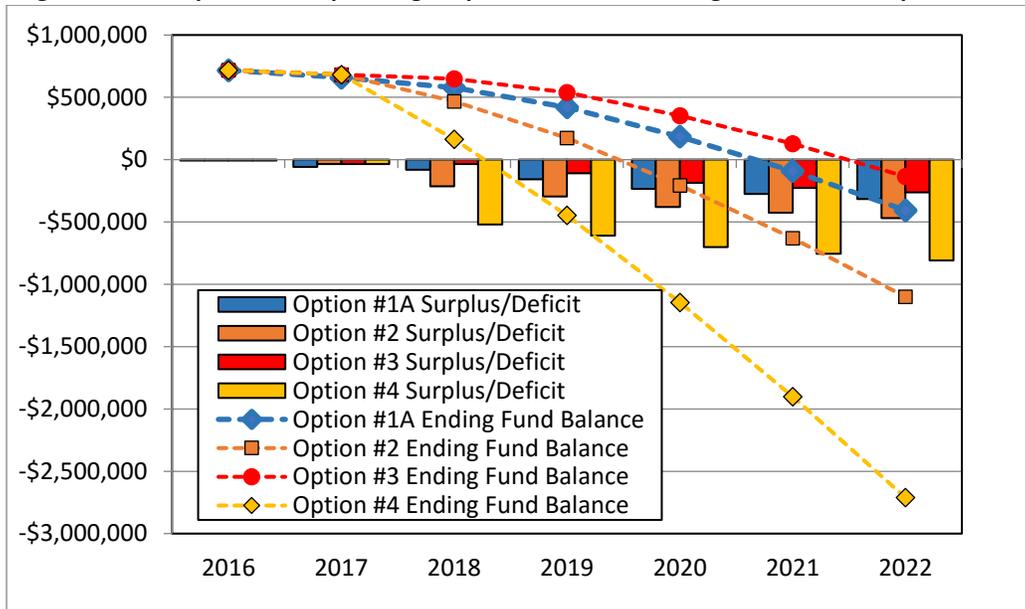
- Option #1A/B – Status quo (without and with recruitment/retention salary adjustments of 10 percent in FY 2017, 5 percent in FY 2018 respectively and 3 percent each year thereafter for the forecast period) staffing the ambulance with two single-certified EMS Paid-on-Call (POC) personnel each 12-hour shift and the engine with two single-certified firefighter POC personnel each 12-hour shift. *Total POC staffing is four per 12-hour shift.*
- Option #2 – Same staffing level using POC personnel as Option #1A (two on ambulance and two on engine each 12-hour shift) except all personnel become dual-certified and receive a 30 percent increase in hourly rate to take effect in FY 2018. *Total POC staffing is four per 12-hour shift.*
- Option #3 – Same as Option #2 using POC personnel except the engine is staffed with one dual-certified staff member each 12-hour shift while the ambulance remains staffed with two dual-certified staff members per 12-hour shift. Members receive 30 percent pay differential upon obtaining dual-certified status. *Total POC staffing is three per 12-hour shift.*
- Option #4 – Full-time dual-certified career staffing with one EMT/firefighter and one paramedic/fighter on the ambulance per 24-hour shift and one paramedic/firefighter on the engine each 24-hour shift along with a POC firefighter on the engine each 12-hour shift. Cost

increase takes effect in FY 2018 when hiring completed. *Total staffing is three full-time members per 24-hour shift along with one POC x 2 12-hour shifts for a total of four members 24x7.*

- The figure below compares the annual operating deficit for each option (solid bars) and shows the net effect on ending fund balance (dashed lines). While all of these options show an annual operating deficit and thus will need to utilize fund balance carried forward to cover recurring operating expenses given the recurring revenue assumptions, several options either are immediately untenable or very close unless a significant increase in recurring revenue is adopted.

Option #4 will need an increase in revenue of \$532,312 in FY 2018 growing to over \$750,000 annually by FY 2020. Option #2, which also provides four cross-trained firefighters per shift but on a paid-per-call basis, will still need a large recurring revenue increase growing from \$226,629 in FY 2018 to \$587,491 annually by FY 2022. While not giving quite the level of service as Option #2, Option #3 does provide three paid-on-call firefighters per shift with two ALS staffed response units. It would still provide ISO credit with demonstrated response by the fire chief or other responders providing the fourth firefighter to all fire alarms. Option #3 is actually the most cost effective solution due to the reduction in overall staff needed. However, Option #3 still requires a significant increase in annual recurring revenue no later than FY 2019.

Figure 108: Comparison of Operating Surplus/Deficit and Ending Fund Balance Options 1A-4



Future Fire Station Considerations

Any long-range master plan would be incomplete if it did not evaluate future facility and personnel deployment needs in regard to fire and EMS response. Projected increases in service demand and anticipated forecast changes in risk and response needs must be considered when looking toward a long-range planning horizon.

As discussed in the Service Delivery section of this report, the existing distribution of RSFPD resources adequately meets service demand needs within the response area. The fire station is well located in terms of covering the travel distances and the majority of existing community risk. Having evaluated the current

siting and future considerations, ESCI draws two conclusions: 1) the existing location of the station will adequately serve the district well into the future, providing acceptable response characteristics; and 2) there is not an anticipated need for an additional station or stations within the planning period being considered.

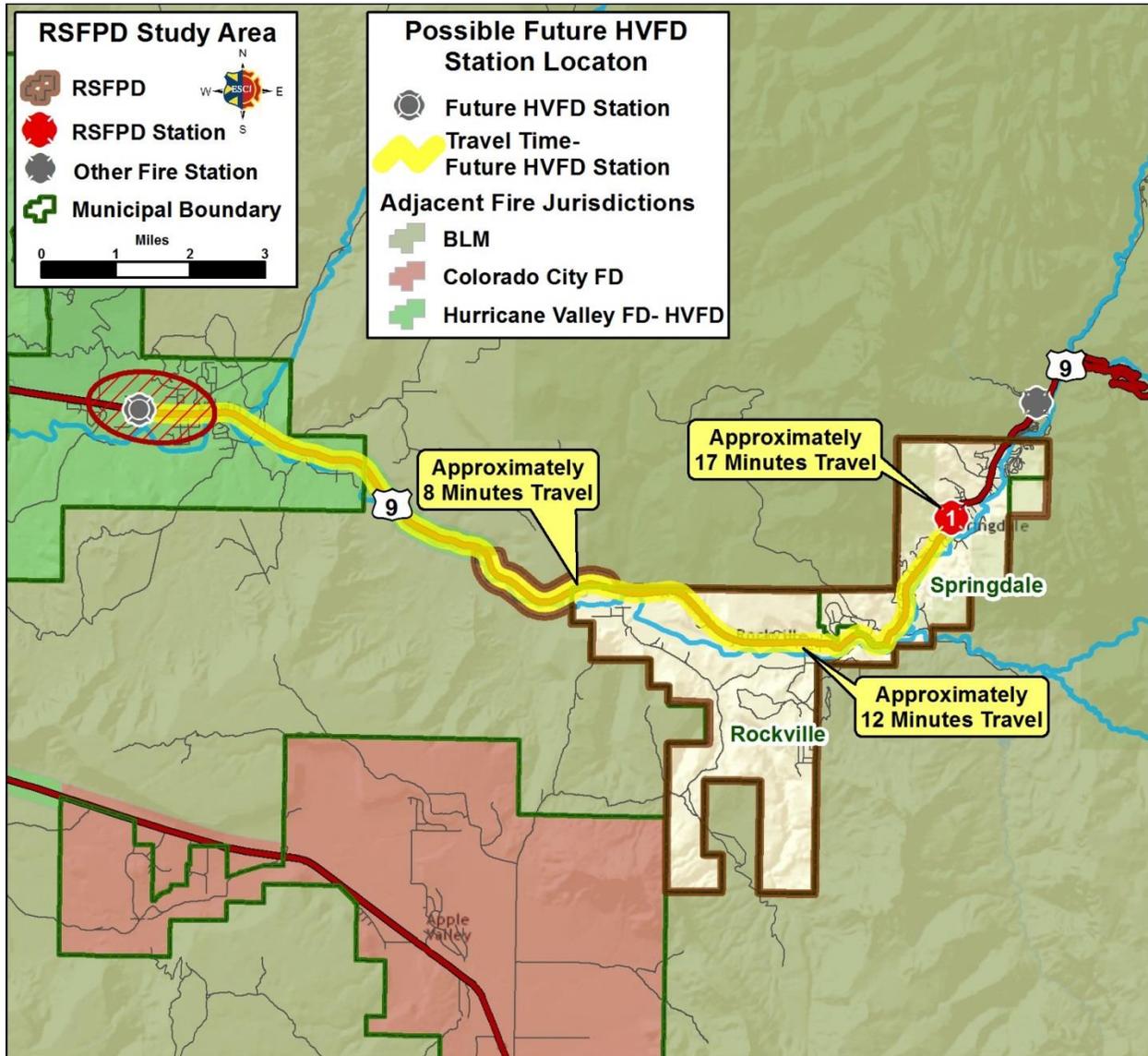
However, ESCI also noted that the existing station presents two challenges to the district: 1) the facility is aging and some maintenance issues will need to be addressed in the future; and 2) the facility is at its maximum capacity for storage space for apparatus, equipment, and working space.

As a long-term consideration, ESCI encourages RSFPD leaders to begin planning to update or replace the current station or possibly relocate it if space for expansion is not available. Consideration should be given to current essential facility standards, ADA and dual gender requirements, and industry safety and best practices standards.

In taking a high-level view of station location consideration in the district, ESCI learned that the Hurricane Valley Fire District (HVFD) has been considering construction of a new station that is close to the RSFPD district boundaries. This station will replace and upgrade the fire station that is currently operated by, the HVFSSD in Virgin. It is unknown when the new station will be constructed, but it is of value to note that future facility in long-range considerations.

Currently, Zion National Park (ZNP) fire and EMS resources are the closest additional resources available to assist RSFPD. The next closest resources come from the Hurricane Valley Fire District, approximately 20 to 30 minutes west of RSFPD. The following figure displays the location of a possible future HVFD station in the La Verkin area that would potentially reduce travel time for additional resources responding into the RSFPD Service Area.

Figure 109: Possible Future Hurricane Valley FD Station Location



ESCI was unable to obtain accurate information concerning the exact location of the possible future HVFD station. The best information available indicates the station will be located somewhere in the red hashed section of Highway 9 displayed in the map above. This is approximately six to eight miles (eight to ten minutes) closer to RSFPD than the current HVFD resources. As displayed in the figure above, resources from the possible future station would be approximately eight minutes' travel of the western boundary of Rockville; and slightly over 17 minutes from the RSFPD station in Springdale.

Construction of a fire station in the area pictured provides an opportunity for increased cooperative efforts between RSFPD and HVFD, especially in the western portions of the RSFPD service area. A mutual/automatic aid agreement for certain mutually agreed upon incident types accommodates the ability for both agencies to increase the level of service to their constituents in a cost effective manner.

However, greater gains may be realized by considering the idea of jointly staffing the new station. Further, depending on the design of the new facility, there may be options provided by the inclusion of residential quarters to house resident firefighters, student interns, or some other form of 24-hour, low cost, staffing that may prove mutually beneficial to both agencies. Exploring options with HVFD is strongly encouraged.

Future Training Site Development

ESCI's earlier evaluation of RSFPD's training resources identified the need for a dedicated training facility. In order to conduct safe, meaningful training, a fire agency should have ready access to dedicated training props, a training structure, and drill yard. Classroom and outdoor instruction is an essential component of preparing emergency responders with knowledge and skills. A training facility or drill ground is an indispensable element. Training facilities provide the controlled and safe environment used to simulate emergencies to develop and test the skill sets of emergency workers. Training involves both individual and group manipulative skills development in the operation of firefighting equipment and fire apparatus.

There are limited options available to the district for training props and drill facilities, with a dependency largely on area buildings and parking lots. Furthermore, land upon which to develop a facility is a precious resource in the area.

NFPA 1402: Guide to Building Fire Service Training Centers, is a standard that addresses the design and construction of facilities for fire training.¹⁸ The document covers the features that should be considered when planning a fire training facility. ESCI finds that absent the availability of suitable training facilities, some fire departments may forego essential training with potentially associated safety degradation.

Proficient emergency responders must have confidence in their own abilities in handling the emergencies they encounter. Best practices suggest that emergency workers have regular access to training grounds for repetitive drills and to develop new skills. Training is identified as a vital part of a fire department's safety and accident prevention program. An effective and continuous training program results in safer, more efficient, and effective emergency operations.

Training props can be "home-made" and many agencies use the talents and skills of their staff to create these props. In addition, training structures can be constructed relatively inexpensively. While training towers can be ornate and costly, a basic structure can be as simple as an open scaffolding structure to simulate multiple stories. Stacked shipping containers welded together can create enclosed training structures to simulate virtually any structure type.

These structures also serve multiple purposes in that law enforcement and emergency management can both use the training facility for their needs. Examples of simple training facilities are included in the following figure.

¹⁸ National Fire Protection Association, *Standard 1402: Guide to Building Fire Service Training Centers*, 2007 Edition.

Figure 110: Sample Training Facilities



Constructing a single training facility to comply with industry standards concerning classroom, practice grounds, training tower, live-fire building, and training props in the long term, although fiscally prudent, can be a high capital investment depending on design and land acquisition. In addition, the ongoing cost of operating and maintaining a training facility further advances the case for joint ownership.

RSFPD has a clear need but will be challenged to finance the full build-out of the training facility on its own. The following alternatives may be available: First, entering into a cooperative partnership with a regional perspective, including not only fire agencies but also law enforcement, emergency management, and other neighboring agencies can be valuable in cost sharing. Secondly, grants and additional private funding can be pursued. The likelihood of success in receiving grants is dramatically increased when an effort is cooperative and inclusive of regional partners.

ESCI recommends initiating long-term planning efforts to secure a training site and facility. ESCI further recommends exploring a joint effort that includes the Zion Park fire services and other regional public safety partners in this process.

Exploration of Regional Cooperation Opportunities

It is broadly recognized that jurisdictional boundaries seldom make efficient and effective service delivery parameters. Citizens often recognize and appreciate regional approaches to service delivery as an all-too-rare example of governmental cooperation and efficiency. RSFPD has demonstrated a regional mind-set in its high level of cooperation with neighboring agencies and broad use of mutual aid practices

There are additional collaborative opportunities available to the district, which may, and should be, considered as future initiatives. A few examples include:

- Jointly staffed fire station(s)
- Joint purchasing agreement between area fire agencies
- Functional consolidation with allied fire agencies in the areas of:
 - Apparatus maintenance facility and mobile repairs in cooperation with neighbors

- Shared training program
- Regional Fire Investigation Team (FIT)
- Special Operations/Technical Rescue services
- Operational consolidation with neighboring agencies which could include:
 - Shared incident command staffing
 - Fully dropped boundary incident response
 - Collaborative station staffing with personnel from differing agencies

As a key provider of fire services in the study area, RSFPD could set the stage for greater levels of cooperation and collaboration between agencies. Often, the effort may lead to some form of more formal and legal integration of two or more area agencies. However, ESCI does not perceive that legal integration through formal merger or consolidation are likely to be beneficial in the RSFPD area.

This report does not constitute a study of the feasibility of formalized or more structured cooperative service delivery opportunities. However, exploration of how the agencies may work more closely together to increase efficiencies, contain costs and achieve long-range future cost avoidance, is highly recommended.

Conclusion

The ESCI project team began collecting information concerning the Rockville/Springdale Fire Protection District in January 2016. The team members recognize this report contains a large amount of information and ESCI would like to thank district board members, staff and members for their tireless efforts in bringing this project to fruition. ESCI would also like to thank the various individuals and external organizations for their input, opinions, and candid conversations throughout this process. It is ESCI's sincere hope the information contained in this report is used to its fullest extent and the emergency services provided to the citizens and visitors of the Rockville/Springdale area and the surrounding area will be improved by its implementation.

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