

VALLEY REGIONAL FIRE AUTHORITY 2021-2027 CAPITAL FACILITIES PLAN



VRFA HEADQUARTERS STATION #31
1101 D STREET NE AUBURN, WA 98002



PROUDLY SERVING THE COMMUNITIES OF
ALGONA, AUBURN, AND PACIFIC



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Acknowledgments

Valley Regional Fire Authority Capital Facilities 2021-2027 Plan

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Valley Regional Fire Authority
1101 D ST NE, Auburn WA 98002

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Executive Summary

This Capital Facilities Plan for the Valley Regional Fire Authority is an analysis of the current conditions of the fire services in Algona, Auburn, and Pacific and to predict future needs to maintain service in developing areas.

The plan then explains the necessity of fire facilities in proximity to anticipated calls for service. These predictions are based on published master development plans from regional planning documents, the master plans from each of the cities in the service area, and current developments in each of these areas.

The plan also gives an overview of current facilities, including the suitability both in size and condition of built infrastructure and location of buildings.

Finally, the plan gives recommendations for adding and improving facilities to meet the needs of the VRFA for the mid-term time period.

Given the current and anticipated situation of the response area, the VRFA recommends that a new single-engine station be added in the northern quarter of Auburn to serve northern-most areas currently at the far reaches of Station 31's area. This station will also cover the current and anticipated heavy development in this area and a portion of the West Hill area that is currently contracted to South King Fire and Rescue. The second priority is replacing station 38 in Pacific. A replacement station would be moved northward to better cover the entire area currently served by station 38 and better position it to respond to proposed development along the West Valley Road Corridor. The third priority is the replacement/rebuilding of station 31 in its current location. Another lower priority is to obtain more predictable quarters for the support services division.

The plan then explores funding options for building these facilities.

This Capital Facilities Plan is meant as an overview of current and anticipated needs. It takes a phased approach to improvements and is not intended as a detailed building program, which will be developed based on direction from the Board of Governance.

Introduction

The delivery of fire services rests on three legs: well trained personnel, appropriate apparatus and equipment, and capital infrastructure, which includes buildings, communications systems, water systems, and road networks. Facilities, specifically fire stations, are neighborhood resources that should provide a welcoming approach to citizens wishing to interact with the fire department, and a comfortable place for firefighters to work, train, and rest between calls.

Rapid and reliable fire services operate out of fire stations that are sited and staffed based on proximity to population centers and known fire hazards. Fire insurance rates for both residential and commercial structures are based in large part on their proximity to a staffed fire station. The VRFA has an adopted



travel time standard of five minutes for the arrival of a first-due company. At an average speed of 20 miles per hour, which is typical for urban areas, this equates to a first-due area with a 1.66-mile radius.

Another factor to consider when placing fire stations is the call volume in the first-due area. Population size is the largest driver of calls for service. When simultaneous calls for service occur in the same fire district, resources are brought in from the nearest adjacent district. This both slows the initial response and decreases service availability in the neighboring district. When simultaneous calls become too frequent, response times across the system may increase. Therefore, stations placed in densely populated areas should be sized to allow for multiple resources to respond out of that station.

This Capital Facilities Plan (CFP) is a planning document that details the current operating picture of the Valley Regional Fire Authority (VRFA), predicts the mid-range future service demands, and anticipates the consequent capital facility needs over the six-year period from 2021 to 2027. This document takes a conservative approach to the planning process and does not anticipate any radical changes in service delivery methods or services offered during the planning period. It does, however, anticipate increased demand for service based on historical patterns and planned urban development. This plan meets the Washington State Growth Management Act Capital Facilities requirements, as identified in the Revised Code of Washington 36.70A.070.

The goal of the CFP is to identify issues limiting VRFA effectiveness within our response area, identify opportunities for improvement that require capital expenditures, and make recommendations for change. These recommendations consider community growth, development, anticipated call volume, types of calls, and other factors affecting the VRFA service delivery as it relates to capital infrastructure.

This plan fulfills initiative number two of the 2020-2025 VRFA Strategic Plan which identified the need to develop a Capital Facilities Plan. In further support of the VRFA strategic plan, this CFP supports the VRFA's Community Risk Assessment and Standards of Cover (CRA-SOC) document.

This Capital Facilities Plan is divided into three sections. The first section is a problem statement that evaluates the VRFA's current operations, facilities, and equipment to establish a baseline operating picture. The second section is background information that uses foundational documents such as the CRA-SOC, local government planning documents, data projections, and industry predictions to identify probable future growth and improvement areas. This second section demonstrates how capital facility additions and improvements have not kept pace with growth and development. The third section presents an evaluation report with recommendations for future capital facility priorities and funding options.

The CFP proposes that our communities will continue to grow as developers continue to build commercial and residential properties at a rapid rate in currently underdeveloped areas as well as more intensively redevelop available infill spaces. We continue to provide service from aging and sub-optimally placed infrastructure. Capital expenditure decisions cannot be made based on an assumption of stasis and must take into account many competing factors. An achievable plan is necessary for future effectiveness.



Section 1 Background

1.1 Capital Facility Plan Requirements

This VRFA Capital Facility Plan (CFP) is a planning document focusing on the six -year period from 2021 – 2027. The purpose of the plan is to anticipate future infrastructure needs. The next step is to identify potential funding sources to acquire or build the planned facilities. This plan meets the Washington State Growth Management Act (GMA) Capital Facilities requirements as identified in Revised Code of Washington (RCW) 36.070A.070, which defines a capital facility plan as:

- a) An inventory of existing capital facilities owned by public entities, showing the locations and capacities of the capital facilities;
- b) A forecast of the future needs for such capital facilities;
- c) The proposed locations and capacities of expanded or new capital facilities;
- d) At least a six-year plan that will finance such capital facilities within project funding capacities that identifies sources of public money for such purposes; and
- e) A requirement to reassess the land use element if probable funding falls short of meeting existing needs and ensuring that the land use element, capital facilities plan element, and financing plan with the capital facilities plan element is coordinated and consistent.

This CFP identifies the capital resources that the Valley Regional Fire Authority has and those needed to continue to provide the level of protection that stakeholders identified as essential in our foundational documents which including our Standard of Coverage and Strategic Plan. This CFP focuses solely on built infrastructure.

As communities grow and age, fire service demands increase. Resources—adequate in number and strategically placed—are required to maintain acceptable levels of service. Statistical data from past years show a direct correlation between population, economic and technical development, and demands for services (fig. 1). Increased service demands can be met by relocating existing resources closer to the areas where the service is demanded, increasing the number of resources in current facilities, or a combination of the two.

To determine the most probable future needs, this document looks at existing planning documents that include the 20-year growth predictions from the Puget Sound Regional Council (PSRC) Vision 2040/2050, The City of Algona Comprehensive Plan, The City of Auburn Comprehensive Plan, and The City of Pacific Comprehensive Plan.

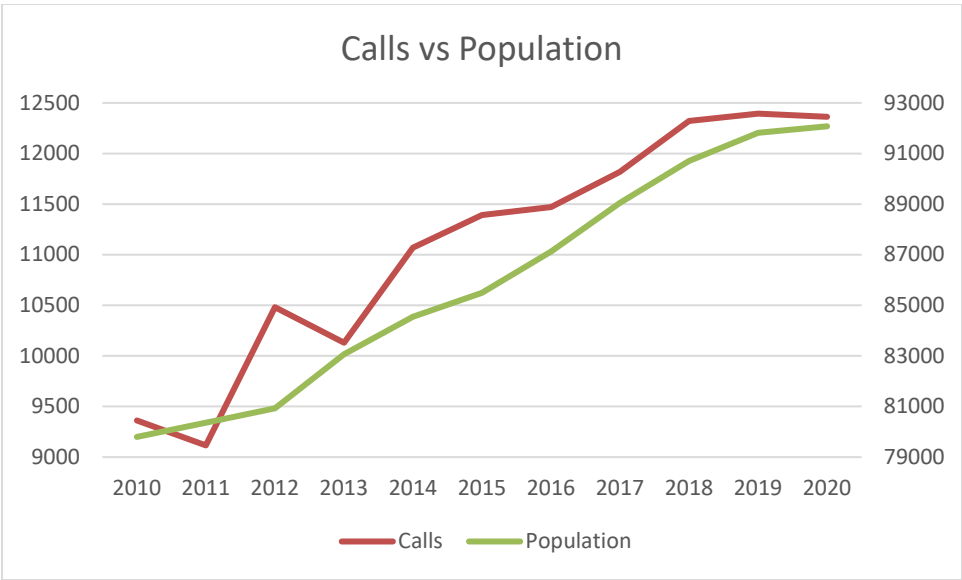


Figure 1 – Calls vs Population

1.2 Capital Facility Plan Need and Issues

The VRFA must maintain and enhance its firefighting capabilities even as the incidence of fires diminishes as a percentage of all calls. In 2019, the United States Fire Administration (N.A., 2019) published the results of a ten-year study that showed cumulative change in fire occurrence throughout the United States. The study revealed increasing deaths per million population and increasing dollar loss due to hostile fires. Both residential and non-residential structure fires continue to be leading categories for fire loss, accounting for the largest percentage of fire deaths and overall dollar loss, outpacing other fire type categories, with the new exception of wildland fires, by a ratio of three-to-one. The subgroup of multi-family / multi-unit buildings has continued an upward trend in both fire occurrence and dollar loss over the study’s period. This statistic takes on added significance as more of these buildings are added to the region. The annual losses from other natural disasters combined are a fraction of the US fire related losses of \$14.7 billion¹.

The VRFA’s response area is diverse, with a mix of residential, rural, commercial, and industrial uses. Capital facility planning takes into consideration the long-term goals, constraints, and visions of our partner cities. Our largest city is not officially a Vision Zero city, but does follow many its guidelines and is aggressively implementing modern traffic safety standards.

Auburn is expected to have a population of 100,000 residents within the next 10-15 years in addition to over 32,000 daily transient workers. King County’s Buildable Lands Analysis shows that Auburn has

¹ Fire in the United States 2008-2017 20th Edition.



approximately 2,150.5 adjusted net acres of vacant and redevelopment-appropriate residentially zoned land available. Approximately 880 acres are available for commercial development.²

Auburn has 30 designated planning areas adhering to Vision 2050's growth plan. Of these, there are seven economic development areas where the city plans and expects significant future population and employment growth. The areas include the A St SE corridor, AWS corridor, Awn corridor, M St SE (AWN to AWS), SE 312th and 124th, NW manufacturing village, and 15th St SW and West Valley North.³ There are also a number of specially designated areas such as the Adventist Academy area, Muckleshoot Indian Tribe (MIT) properties, and General Services Administration (GSA) complex. The tribe has planned for an International Building Code (IBC)-recognized high-rise hotel structure and the Adventist Academy is looking to build a phased community concept - including low-rise multifamily buildings, related commercial and assembly structures, and senior care residences. Significant growth is planned for the Lea Hill area and continued commercial and residential build-out of the Lakeland Hills South area is being realized. Pacific and Algona are experiencing interest in their land with significant additions of large warehouse complexes and plans by developers for a larger, high-capacity transfer station off of West Valley Highway and a combination residential complex up the hillside from where the former Royal Bear Tavern / Jack's BBQ operates.

Although there is no certainty which developments will be fully realized, broad patterns can be discerned from current development, permit requests, and city plans. What is certain is that the three cities of Algona, Auburn, and Pacific have growth and development as policy goals. The VRFA is seeing higher vertical residential densities, particularly in the downtown center of Auburn and other planned developments like Copper Gate, Lea Hill, and the Adventist Academy.⁴ Development, infill, and redevelopment of land is financially incentivized to build at high densities with many mixed-use buildings characterized by residential units over street level parking and commercial space. These mixed-use structures add to the complexity of fire operations and can slow EMS responses due to access issues.

Operationally the VRFA anticipates more traffic calming devices in lieu of controlled intersections, more "right in, right out" access designs for new properties, on street parking with larger corner intersections for pedestrians and ADA requirements. These "bulb" style corners have larger turn radii to slow traffic and also play a limiting factor in being able to turn into a travel lane without significant overrun into adjacent lanes by large vehicles. Auburn categorizes its streets. Each category has prescribed lane widths and no changes are expected in these design standards. For example, local residential streets do and will have lanes 10' wide, this width will not change with future development. We can expect is more "road furniture", or traffic calming devices to be installed in existing and new construction. This is seen in even smaller access roads to developments that demand fire services. Copper Gate is an excellent example.

² City of Auburn Comprehensive Plan, Core Comprehensive plan PDF.

³ City of Auburn Comp Plan, Economic development PDF

⁴ City of Auburn Comp Plan, Land Use element PDF.



These traffic calming devices have the effect of slowing emergency vehicle traffic in at least two ways. Larger apparatus are forced to slow even more than typical passenger vehicles, because of vehicle weights and potential damage to apparatus and injury to crew members. Secondly, due to the narrower street widths and shorter lines-of-sight, vehicles cannot see approaching emergency vehicles until they are much closer. Civilian vehicles then have less room to move out of the way of approaching or overtaking emergency apparatus. Longer travel times makes the dispersed placement of facilities all the more critical to maintaining acceptable emergency response times.

1.3 Current Facility Status Overview

VRFA capital facilities were last improved between 2007, when the VRFA was formed, and 2011. During this period, Stations 33 and 34 were added, and Station 32 was remodeled. The warehouse facility at the GSA complex was also acquired under a month-to-month lease agreement. The built infrastructure of the VRFA has been unchanged since 2011. The improvements made in the period from 2007 to 2011 were necessitated as a result of the formation of the VRFA and growth of the service area through both annexation and development.

While the VRFA is currently able to meet performance criteria set by its current standard of cover document, some fire companies, specifically those at Stations 31 and 32 are coming under increased operational pressure. Opportunities for improving current performance while preparing for future growth can be realized with new infrastructure and staffing enhancements.

Some facilities, such as Station 31, are properly located, but are reaching the spatial and temporal limits of their usefulness. In the case of Station 38, the Station needs major repairs and remodeling to bring it into compliance with modern industry standards and federal regulations such as the Americans with Disabilities Act (ADA). An alternate solution in the case of Station 38 is a relocation to a larger site that allows for better coverage of its entire first-in district.

Station 35 is a converted federal warehouse and repair facility that hosts multiple critical frontline and support. The fact that the VRFA does not own the building and access easements are uncertain, makes doing any more than superficial improvements on the property unwise.

The VRFA is able to provide reliable service and meet critical service benchmarks today; however, preparation must be made now, given the lag times involved in bringing new facilities on line, to address future needs. New developments, increased population and traffic, increased call types and volume, and other issues related to public safety and health will decrease the VRFA's reliability and response capabilities. It is the responsibility of the VRFA to identify and procure necessary resources well before they are needed to maintain service levels.



Section 2 Current Conditions

2.1 Fire Stations and Resources

The VRFA operates as a single battalion with five response zones, each supported by a fire station. Emergency response, fire marshal services, and support functions are provided from six facilities: Stations 31, 32, 33, 34, 35, and 38. The VRFA also has a costly Interlocal Cooperation Agreement for fire and emergency medical response with South King Fire and Rescue to provide response coverage for the City of Auburn "West Hill Annexation Area." Station 35 is strictly a technical and support services station that houses the Fire Marshal's Office, Planning and Logistics, Public Information and Education, CARES, and other support service offices.

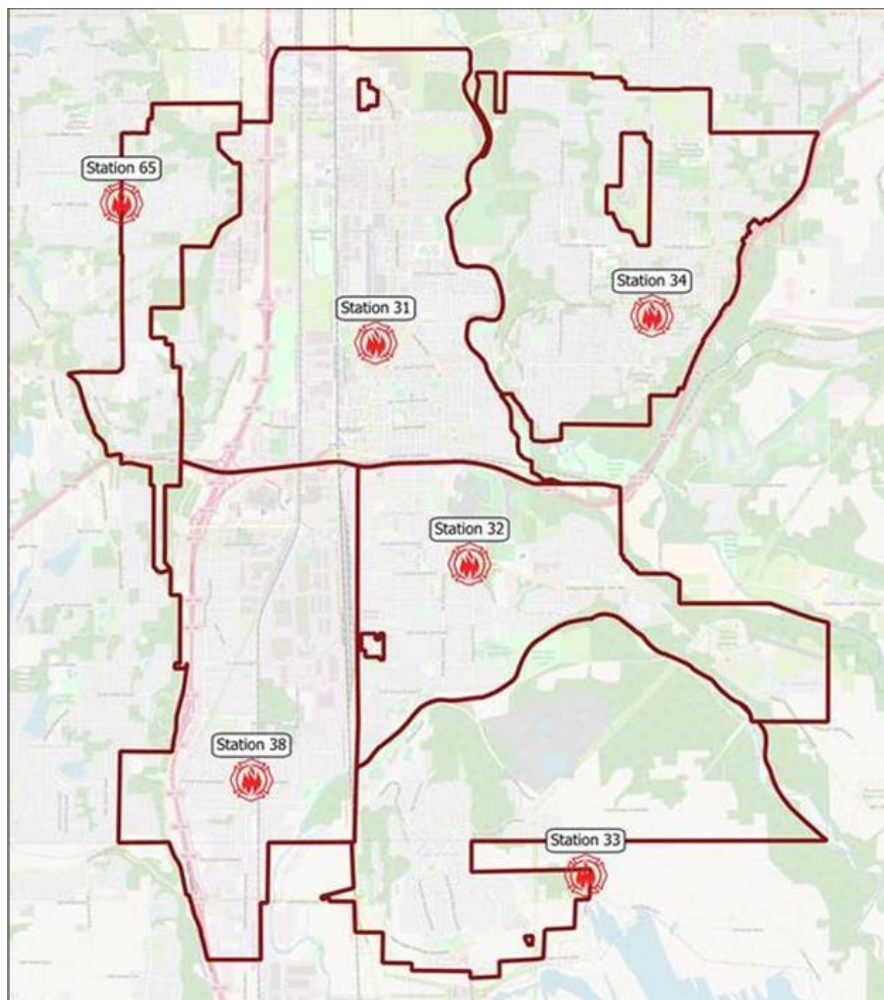


Figure 2 - VRFA Response Zones



2.1.1 Fire Station 31 – VRFA Headquarters

1101 D ST NE, Auburn WA 98002



VRFA Station 31 is a 12,000 square-foot facility built in 1985 that serves as headquarters. It sits on approximately 2.5 acres, and includes a fire apparatus maintenance facility and separate quarters for a King County Medic One paramedic response unit (Medic 6). The administrative offices support the Fire Chief, Deputy Chief of Operations, Chief Financial Officer, Human Resources Manager, Information Services Manager, Fiscal Coordinator, Executive Assistant, Accounting Specialist, two (2) Systems Analysts, and two (2) Administrative Assistants. Emergency response units out of Station 31 include one crossed-staffed ladder/engine company, one aid car, and a command unit. An additional aid car and command unit are stored in reserve status. Sleeping quarters can accommodate ten (10) personnel on a 24-hour basis. Regular operations staffing includes one (1) battalion chief, one (1) captain, and four (4) firefighters.

This station is rapidly approaching the end of its service life. Maintenance and repairs are increasing annually. This facility was constructed in 1985 as the headquarters for a two-station department. The size, complexity, and demographic makeup (limited facilities for women) of the department has rendered the design obsolete. Additionally, the headquarters function has outgrown the available office space as staff have been added to serve the increased number of fire personnel and required services.



VRFA Total Call Comparison - 2019				
Station	Total Incidents	Percent of Total	Total Responses	Percent of Total
Station 31	4917	39.35%	6695	44.04%
Station 32	3412	27.31%	4275	28.12%
Station 38	1681	13.45%	1698	11.17%
Station 34	1438	11.51%	1514	9.96%
Station 33	747	5.98%	1019	6.70%
Station 65	299	2.39%		
Grand Total	12494	100.00%	15201	100.00%

Figure 3 - Station 31 Total Call Comparison

Station 31 Calls by Type - 2019		
Incident Type	Total Incidents	Percent of Total
Aviation Rescue	1	0.01%
EMS -BLS	4231	33.89%
EMS - ALS	36	0.29%
Fire - Low	568	4.55%
Fire - Moderate	14	0.01%
Fire - High	19	0.15%
HazMat - Low	34	0.27%
HazMat - Moderate	7	0.06%
Technical Rescue	4	0.03%
	4914	39.26%

Figure 4 - Station 31 Calls by Call Type



2.1.2 Fire Station 32 – South Auburn

1951 R Street SE, Auburn WA 98002



VRFA Station 32 is a 9,000 square foot facility. Initially built in 1985, Station 32 received a complete renovation/remodel in 2010. Sleeping accommodations are designed to house seven personnel on a 24-hour basis. Responding from Station 32 is a fire engine, and an aid car. Additionally, there is a fire engine, and one aid car stored in reserve status. Total daily operational staffing is five (5) personal, comprised of one Captain and four firefighters. The condition and location of this station is good.

VRFA Total Call Comparison - 2019				
Station	Total Incidents	Percent of Total	Total Responses	Percent of Total
Station 32	3412	27.31%	4275	28.12%
Station 31	4917	39.35%	6695	44.04%
Station 38	1681	13.45%	1698	11.17%
Station 34	1438	11.51%	1514	9.96%
Station 33	747	5.98%	1019	6.70%
Station 65	299	2.39%		
Grand Total	12494	100.00%	15201	100.00%

Figure 5 - Station 32 Total Call Comparison



2.1.3 Fire Station 33 – Lakeland Hills / Lake Tapps

500 182nd Avenue SE, Auburn WA 98092



Built in 2009, Station 33 provides a total of 12,000 square feet. Sleeping accommodations are designed for up to eight (8) personnel on a 24-hour basis. One fire engine, one squad unit, one rescue boat, and one technical rescue unit operate out of Station 33. One quint aerial, one aid car, and mobile air compressor are stored in reserve status. Minimum operations staffing is three personnel: one Captain and two firefighters. This station is in excellent condition. Its large apparatus bay is used for public events such as Scout Night, Firefighter Pancake Breakfast, and VRFA recruit candidate orientation. This station is located in the Pierce County portion of Auburn. On site improvements were made during construction that will accommodate a municipal-type building on the portion of the lot to the immediate south. This station was sited with the assumption that a larger annexation of the Lake Tapps area was imminent. The fact that this annexation did not happen and is not anticipated means that this station is sub optimally located at the far edge of its response district. It is reasonable to expect this location to be reevaluated in the next CFP.

VRFA Total Call Comparison - 2019				
Station	Total Incidents	Percent of Total	Total Responses	Percent of Total
Station 33	747	5.98%	1019	6.70%
Station 31	4917	39.35%	6695	44.04%
Station 32	3412	27.31%	4275	28.12%
Station 38	1681	13.45%	1698	11.17%
Station 34	1438	11.51%	1514	9.96%
Station 65	299	2.39%		
Grand Total	12494	100.00%	15201	100.00%

Figure 6 - Station 33 Total Call Comparison



2.1.4 Fire Station 34 – Lea Hill

31290 124th AVE SE, Auburn WA 98092



Station 34 was built in 2011 and is a total of 10,000 square feet. Sleeping accommodations are for up to eight personnel on a 24-hour basis. One fire engine, one brush truck, one tender, and one utility truck/ATV operate out of Station 34. Minimum operations staffing is three personnel: one Captain and two firefighters. This station is in excellent condition, is well positioned near Green River College, and has quick access to SR 18.

VRFA Total Call Comparison - 2019				
Station	Total Incidents	Percent of Total	Total Responses	Percent of Total
Station 34	1438	11.51%	1514	9.96%
Station 31	4917	39.35%	6695	44.04%
Station 32	3412	27.31%	4275	28.12%
Station 38	1681	13.45%	1698	11.17%
Station 33	747	5.98%	1019	6.70%
Station 65	299	2.39%		
Grand Total	12494	100.00%	15201	100.00%

Figure 7 - Station 34 Total Call Comparison



2.1.1.5 Fire Station 35 – Support Services / Fire Marshal's Office

2905 C Street SW, Auburn WA 98002



VRFA Station 35 covers a total of 20,000 square feet. Station 35 houses the Fire Marshal's Office, Support Services, Public Information, and Emergency Management divisions. Station 35 also includes a large warehouse. The warehouse has high-rack storage for fire department and emergency management supplies, equipment, and consumables. The offices provide space for the Deputy Chief of Technical Services, Battalion Chief of Support Services, Planning Captain, Logistics Captain, EMS Captain, CARES team, Fire Marshal, two Assistant Fire Marshals, four Deputy Fire Marshals, a Data Analyst, a Bureau of Alcohol, Tobacco and Firearms (ATF) investigator, and two Public Information/Education specialists. Station 35 operates on regular business hours. This station also provides support for adjacent drill ground activities such as automobile extrication, driver pump training, and vertical ventilation training.

Built in 1944 as a maintenance and storage facility, the building has been partially converted to offices. The building is ideal as a warehouse facility, but is at its practical capacity for office space. Unlike other VRFA-occupied facilities, Station 35 is utilized on a month-to-month lease with restrictive covenants. This prohibits the VRFA from making substantial improvements to the building or the surrounding drill grounds, thus limiting the functional capacity of the facility.



2.1.6 Fire Station 38 – Pacific

133 3rd Avenue SE, Pacific WA 98047



Station 38 was built in 1979 and provides a total of 5,000 square feet. It is located within a Public Safety building and is shared with the Pacific Police Department. Sleeping accommodations can accommodate four personnel on a 24-hour basis. One fire engine operates out of Station 38 and one fire engine is stored in reserve status. Minimum operations staffing is one Captain and two firefighters. Built in 1979 as a combination public safety facility for police and volunteer firefighters, this building is experiencing structural degradation and is not compliant with many current facility requirements. These include increased living space, Americans with Disabilities (ADA) upgrades, and locker and privacy upgrades for female firefighters.

Siting is suboptimal for the fire department portion of the structure for response into all portions of Pacific, Algona, and South Auburn. This facility sits on a one-half acre lot that is shared by the Pacific Police Department. This leaves little to no room for on-site drills, employee parking, and no spaces for on-site customer parking.



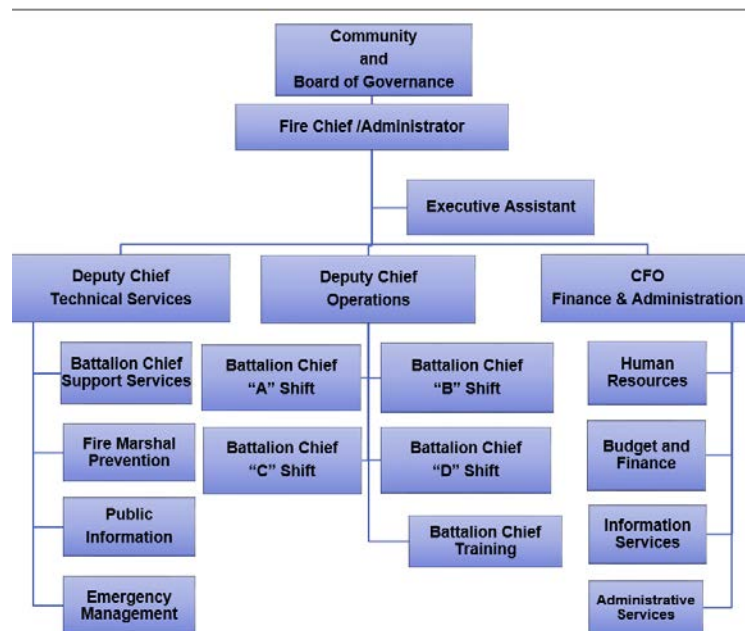
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Station 33	747	5.98%	1019	6.70%
Station 65	299	2.39%		
Grand Total	12494	100.00%	15201	100.00%

Figure 8 - Station 38 Total Call Comparison

2.1.7 Howard Road Support Facility

The Howard Road Support Facility shares the site with Station 32. It covers 3000 square feet and serves as a support facility for record retention, training, and miscellaneous storage. Most recently, in 2020, it was used to house a temporary response crew designated to respond to COVID-19 calls. This allowed crewmembers assigned to the COVID response unit to remain isolated from other crews to minimize the risk of cross-contamination. This facility is adequate for its current uses.

2.2 VRFA History and Current Operations



In 2004, the Washington State Legislature passed legislation allowing fire districts, municipalities, and tribal nations to join together for the provision of fire and emergency services. These new organizations are known as Regional Fire Authorities (RFA). An RFA is a municipal corporation that is not bound by strict guidelines limiting which entities can join together. The formation of an RFA requires a public vote of the affected citizens with supermajority (60% +1) needed to pass. In November of 2006, voters of Algona, Auburn, and Pacific approved Proposition #1, and the Valley Regional



Fire Authority (VRFA) was officially established on January 1, 2007. The VRFA thus became the first Regional Fire Authority in the State of Washington.

At the time of the formation of the VRFA in 2007, the City of Pacific Fire Department and the City of Auburn Fire Department functionally consolidated. Career firefighters now responded from 3 fully staffed fire stations strategically located throughout the newly-formed service area. In 2008, a section of the Lea Hill Area, which had formally been served by King County Fire District #44 (KCFD #44), was annexed by the City of Auburn. As a result of the annexation, the VRFA added an existing fire station from KCFD #44 and absorbed 10 employees.

In 2009, to serve the rapidly developing Lakeland Hills area and in anticipation of further annexations in the Lake Tapps area, the VRFA opened the new Station 33. This brought the number of stations up to the current five. Staffing and apparatus for this station were relocated from the GSA facility (Station 35) on C Street in Auburn. The GSA facility was then converted over to warehouse and office space, and today houses the VRFA fire prevention bureau and the technical services/logistics division.

2.3 VRFA Mission, Governance, and Description

VRFA Mission Statement

We serve the whole community. The VRFA saves lives and protects property through reliable emergency services, preparedness and prevention.

Our Vision

Creating the safest community to live, work and visit.

Our Guiding Values

Selfless. Service. Integrity. Grit.

The VRFA provides fire suppression, emergency medical response and transport, technical rescue, and hazardous materials response to the approximately 92,000 citizens living in the 37 square miles of Algonia, Auburn, Pacific, and a small portion of unincorporated King County known as Fire District 31. The VRFA also provides non-emergency safety services including mobile integrated healthcare (MIH), public information, education, arson investigation, and fire specific building inspection services.

A nine-person governing board comprised of the mayors from the three member cities and two council members from each municipality oversee administrative functions of the VRFA. The Board of Governance (BOG) appoints the VRFA Fire Chief to guide the organization under the applicable legal requirements and restrictions. Funding for the VRFA comes through dedicated property taxes, a fire service benefit charge, fees for service, and other revenue sources.



The VRFA service area is located in western Washington State and is approximately 20 miles south of Seattle in urban/suburban King County. The VRFA lies within King County's Zone Three (fig. 9), one of three emergency coordinating zones established by King County. King County Zone Three collectively services 16 cities and a population of over 750,000 residents. All public fire agencies within Zone Three operate under mutual and automatic aid agreements. These agreements ensure that the closest available unit to a call will be dispatched. These agreements also provide joint support for increased depth of resources and specialized services that would not be economically efficient for each department to provide separately.

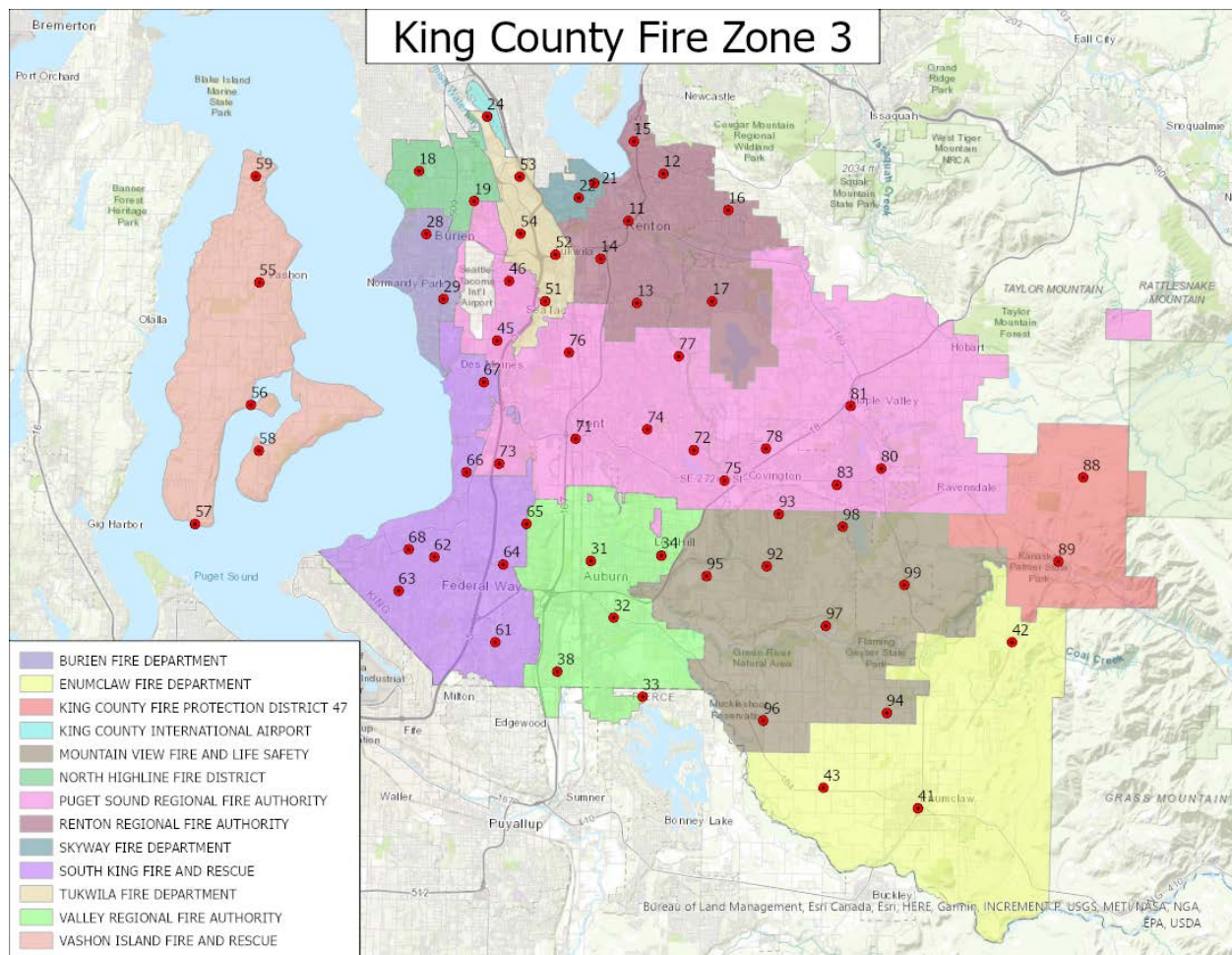


Figure 9 - Map of Zone Three Fire Stations

The VRFA also supports regional emergency services by contributing assets to strike team/task force requests throughout the region. Jurisdictions may need additional assistance because of significant emergency events, such as those involving hazardous materials, technical rescue, mass casualty, wildland-urban interface, natural disasters, or terrorist acts. The King County Fire Resource Plan, the Washington State All-Hazards Mobilization Plan, and other inter-local agreements are used to determine how these resources are used.



2.4 Accreditation

Department accreditation is an evaluation process of a fire department's operations assessed by standardized criteria and judged by an impartial, credentialed third party. The VRFA is using the Center for Public Safety Excellence's (CPSE) accreditation process. This evaluation measures the organization's performance against an industry consensus standard of excellence. The process includes an integral continuous-improvement component that is necessary to follow in order to maintain accreditation once achieved. Less than five percent of all career fire agencies in the United States are accredited.

The accreditation process consists of the following broad steps:

- Develop a Standard of Cover (SOC) document
- Develop a strategic planning document
- Undergo a fire and emergency services self-assessment
- Apply for candidate status
- Facilitate on-site inspections by peer assessors from CPSE

The first three objectives, begun in late 2017, have been met and we are awaiting feedback from our CPSE-assigned mentor to proceed with the application process.

The SOC's purpose is to identify and assess local needs regarding community risk and response capabilities, allowing the VRFA to make strategic decisions based on measureable facts. The SOC used evidence-based research to identify and evaluate the current performance level (baseline) and determine the VRFA's target performance level (benchmark). A continual improvement plan is then developed to meet or exceed the benchmark performance. This capital facilities plan is a part of that improvement path.

2.5 Strategic Planning

As an initial step in the accreditation process, in September of 2019 the Valley Regional Fire Authority (VRFA) contracted services with the Center for Public Safety Excellence (CPSE) to help develop a five-year strategic plan based on community priorities. Built on input from a committee of civic leaders, business owners, local government leaders, private citizens and representatives from VRFA labor and administration, the current strategic plan was developed.

This comprehensive process identified five major strategic initiatives as key improvement areas:

- Initiative #1 – Accreditation
- Initiative #2 – Capital Facilities Plan
- Initiative #3 – Staffing
- Initiative #4 – Mentorship
- Initiative #5 – Communication

The VRFA's strategic plan guides the department in identifying future needs to meet the community's expectations for fire department-based services and serves as a road map for meeting those expectations.



Section 3 Current Operational Performance

3.1 Existing Response Assessment

Washington State Law in Chapter 53.33 RCW requires career fire departments to adopt a level of service standard and report standards-based performance on a regular basis. In 2018 the VRFA published its Standards of Cover document. The purpose of this document is to identify and assess the local needs regarding community risk and response capabilities. This report allows the VRFA to make strategic decisions based on factual information and serves as a foundational document for the Strategic Plan document and the Capital Facilities Plan.

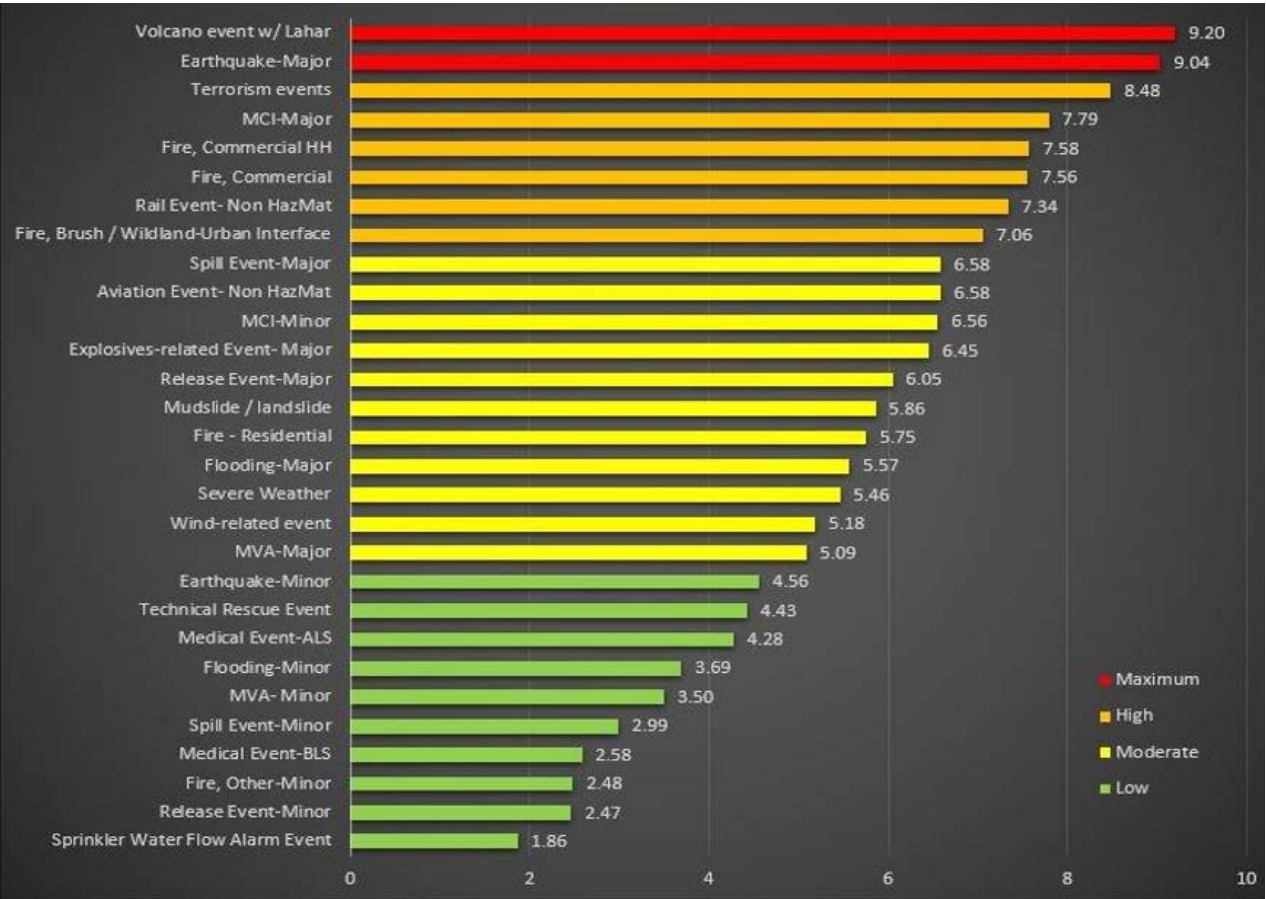


Figure 10 - Hazard Risk Scores by Severity Index

Successful emergency operations require an **effective response force (ERF)** that is adequately prepared, equipped, and trained to mitigate the emergency it has responded to. Determining the ERF involves conducting the community risk assessment, considering service impacts, and then through a process known as critical tasking, determine required staffing levels, resource types, number of resources, and the required capabilities of the response force for the various risk categories. These analyses are the basis for the staffing recommendations found in this document. In all cases, the closest unit that is available and appropriate to the call is dispatched.



Per the risk classification/assessment process identified in the VRFA Standard of Cover document, the VRFA has broken down each of the hazard events into one of four risk level classifications based on the risk score: low, moderate, high, and maximum. For purposes of this analysis, a “hazard” is defined as a substance or situation that has the potential to cause harm. “Risk” is the potential of that harm actually being realized.

Due to the wide variety of conditions for each emergency event, it becomes a challenge to define standard response measures for achieving desired outcomes (life safety, fire suppression, etc.). With the variables of staffing requirements, equipment/resource needs, and call type remaining relatively constant—the remaining variable is time. Often, time is the most significant factor when determining success or failure in emergencies. As many emergencies worsen over time, early intervention can limit both the damage from the emergency and the amount of resources needed to mediate it.

The following sections provide information on critical staffing and tasking for each of the major disciplines at all risk classifications that we use to identify the VRFA performance standard:

3.1.1 Emergency Medical Services (EMS) Response

EMS calls are dispatched based on a tiered response system. The response level is based on predesignated response plans and call information collected through the 911 call receiver. Most of VRFA's EMS calls are Basic Life Support (BLS) medical calls. Calls are classified as BLS if they are considered non-life threatening – calls such as ground-level falls or general illness. BLS calls generally require a single unit staffed with two (2) or three (3) firefighter / EMT's.

The more critical potentially life threatening EMS calls are considered Advance Life Support (ALS) calls. ALS calls require support from a BLS unit and they also require paramedic care from a King County Medic One unit. A Medic One crew is dispatched from quarters that share the property at VRFA Station 31.

Many EMS calls are time-critical and labor-intensive. For example, a patient with chest pain symptoms can quickly turn into a cardiac arrest call. This results in a much more complicated treatment plan that requires a higher level of care and is more staffing intensive. Scientific evidence has proven these calls to be time-critical. The faster that responders can intervene, the better chance of limiting or avoiding damage, injury, or death.

This same time criticality applies to trauma victims. With the victim of severe trauma where blood loss is significant, timely intervention is often what prevents irreparable damage or death.

For the sake of identifying critical response data, this plan provides **effective response force (ERF)** data for only time-critical ALS EMS calls such as cardio-pulmonary resuscitation (CPR) incidents and major trauma events.

Basic Life Support EMS Call – These are generally a lower acuity dispatch type and thus not as time-critical. BLS be used for general medical, minor injury, and necessary non-invasive aid calls. A single resource unit is dispatched to handle these calls.



ERF (minimum) – 2 personnel

Advanced Life Support EMS Call – These are high acuity EMS calls where time and invasive patient care are of the utmost priority. Many of these incidents see a rapid decline in patient survival rates without prompt intervention. Long-term survival and first responders' ability to be successful with life-saving measures is time-critical, and the difference in seconds without care can result in irreparable damage or death. Generally dispatched on these calls will be one Engine, one Aid Unit, and one Battalion Chief. Using a CPR call as an example, King County Patient Care Guidelines identify roles as command, chest compressions, defibrillation management, airway management, and documentation.

ERF (minimum) – 6 personnel*

**Note: King County Paramedics are dispatched to provide ALS interventions, while personnel listed will deliver BLS care and assistance.*

3.1.2 Fire Suppression

Fire responses have a number of variables based on the potential size and hazards of the emergency. Fire growth rates, fire dynamics, building type, location of the fire, potential loss of life and property determine the fire ground tasking for suppression and life safety. The VRFA is a 100% National Incident Management System (NIMS)-compliant agency that follows the rest of Zone 3 departments' best practices in managing incidents. For critical tasking purposes, the VRFA Standard of Coverage (SOC) document breaks fire suppression into three risk categories, each with a defined ERF.

Low-Risk Fire Event – These are generally small fires or responses that can be handled by a single suppression company. The crew extinguishes, checks for extension of the fire, investigates, and documents all aspects of the fire event. Examples would be trash fires or car fires with limited building exposure.

EFR (minimum) – 3 personnel

Moderate Risk Fire Event – Due to compartmentation (separated rooms), less fire load, and lower burn times, a single alarm response generally handles these events. An example of one of these events would be a residential structure fire. Currently, fire departments in Zone 3 send four Engines, one Ladder, and one Battalion Chief to these responses. This response group provides the following NFPA-recommended simultaneous activities: incident command, fire attack, pump operator, water supply, rapid intervention crew (2 out), search and rescue, ventilation, forcible entry, and fire attack back-up.

ERF (minimum) – 17 personnel

High-Risk Fire Event – Larger structures with increased fire load or complicating factors, such as non-ambulatory residents, increases the hazard level a high-risk event. These fires are often categorized as commercial fires. These may be fires in commercial buildings or fires in apartments and multi-family structures. Because of the size and complexity of these events, the ERF is increased. High-risk fire events



are more complicated than moderate-risk because of potential fire growth, risk of additional civilians, the fire load, and the structure's size. The fire response for these incidents is four engines, two ladders, and two battalion chiefs. This response group provides the following NFPA-recommended simultaneous activities: incident command, multiple fire attack lines, pump operator, water supply, rapid intervention crew (2 out), search and rescue, ventilation, forcible entry, fire attack back-up, and safety officer.

ERF (minimum) – 20 personnel

3.1.3 Hazardous Materials (HazMat) Response

The King County Model Procedures Guide provides response guidelines for HazMat incidents. The King County Fire Chiefs and the VRFA have adopted these guidelines as a template for planning, training, and responding to HazMat incidents. Again, ERF standards have been developed based on low and moderate risk incidents and published guidelines.

Low-Risk Spill or Release Event – These events are considered low risk based on dispatch information. Generally, these calls are more investigatory in nature. Either the product is not deemed hazardous, there is no actual release or spill of the product, or the reporting party suspects that there could have been a release. Low-risk events are generally dispatched as a single company dispatch with the possibility of being upgraded once more information may be established. The run card for a low-risk HazMat would be one (1) engine. An example would be an unknown odor in the area call, or small fuel spills.

ERF (minimum) – 3 personnel

Moderate Risk Release, Spill, or Explosive-related HazMat Event – These events are generally dispatched based on a known release or spill of a hazardous substance. These responses are dispatched, much like fire responses with pre-set alarm levels based on information collected through a reporting party or from the crews on-scene. The run card for moderate HazMat incidents is three Engines, two HazMat Units, a Paramedic Unit, and one Battalion Chief to these responses. This response group provides the following NFPA 472 recommended activities: incident command, safety team, entry team, standby team, research team, decontamination, HazMat group supervisor, evacuate hot zone, deny entry, medical, and rehab responders.

ERF (minimum) – 20 personnel

3.1.4 Technical Rescue Response

The VRFA operates within King County Fire Zone 3 regional response model for technical response. Technical rescuers respond to swift water, dive, rope, confined space, and trench rescue incidents. Resources have been predesignated and assigned by individual departments into preloaded FRL's to be dispatched. The VRFA provides rope, swift water, and dive-trained technicians to the cadre or responders for technical rescue dispatcher. The ERF changes depending on the tasking and staffing needs particular to the call type.



Low-Risk Technical Rescue Event – These calls are generally investigatory in nature, and the reporting party has passed on information that the situation is low risk. Low-risk events are usually dispatched as a single company dispatch with the possibility of being upgraded once better information is established. The run card for a low-risk technical rescue event would be one engine.

ERF (minimum) – 3 personnel

*Moderate Risk Technical Rescue Event (Swift Water)** – These events are generally dispatched to a known rescue of a person in the water or information collected by a bystander or other unit on-scene. Information gathered through a reporting party or crews on-scene dictate the level of response with pre-set alarm levels. The run card for moderate risk swift water incidents is one Engine, two squads, an aid unit, and one Battalion Chief to these responses. This response group provides the following recommended activities: incident command, witness interview, rescue group supervisor, shore rescuer, boat rescuer, technical safety, patient evaluation, and treatment.

ERF (minimum) – 12 personnel

**Swift water is used as a stand-in for all types of technical rescue calls as it is the most common and resource-intensive of all the technical rescue call types.*

3.2 Current Deployment and Performance Indicators

The 2018 VRFA CRA-SOC document identifies response time measurements that reflect current unit deployment and performance goals. Valley Communications Center (ValleyCom) is the Regional 9-1-1 Center that provides emergency communications services to South King County communities. Valley Com is the designated Public-Safety Answering Point (PSAP). Emergency response time measurements are broken down into the following categories: dispatch, turnout time, travel time, and response time. Dispatch times are not considered in this plan as they are outside the control of the VRFA.

3.2.1 Turnout Time

Turnout Time – The time from the unit notification (“page”) to the apparatus going in motion toward the incident's location. Once dispatch sends information of an emergency to the appropriate VRFA units, personnel will proceed immediately to their assigned apparatus, don the necessary protective equipment, and begin to drive to the call. An MDC or voice prompt will be utilized to notify Valley Com that the unit is responding to the incident.

3.2.2 Travel Time

Travel time – The elapsed time from the unit going in motion to arriving at the proper incident location. Once the VRFA unit arrives at the location or is "in the area," the MDC or radio will be utilized to relay the unit has arrived.



Effective Response Force (ERF) Travel Time – ERF travel time is the time between en-route to on-scene for the minimum number of firefighters. For example, a low-risk aid call would specify that two personnel come on-scene in a predetermined amount of time; whereas, a moderate-risk fire call would require 16 personnel to arrive in a prescribed amount of time.

ERF Total Response Time – ERF total response time is the period of time from the alarm's receipt to arrival on scene for the minimum number of firefighters needed to meet the ERF requirements

3.2.3 Total Response Time

The total response time (TRT) is the entire period of time from the alarm receipt at PSAP to the unit(s) arriving on-scene.

3.2.4 System Reliability

System reliability is defined as the system's ability to perform and maintain its functions within prescribed tolerances in both routine circumstances and high demand or unexpected circumstances. Resilient systems survive unforeseen events because they are robust and redundant. In emergency services, determining reliability requires looking at historical incident data to measure performance in both typical and extreme conditions.

Stress testing of the system is also performed using mock scenarios and sophisticated software to predict failure points in the system under different strains. Tracking and forecasting system reliability is critical for predicting shortcomings in the service delivery system and allows management to have infrastructure in place when it is required, rather than needing to play catch-up when conditions change.

The VRFA defines system reliability as the ability to deliver services within baseline performance expectations consistently. Specifically, if the VRFA's target benchmark performance remains consistent from year to year, the system is reliable. If the target benchmark performance improves the system becomes more reliable. If performance declines, the system becomes less reliable. The VRFA uses many policies, procedures, and agreements to ensure that the system consistently achieves reliability

3.3 Performance Data

To establish performance data, the VRFA measured all aspects of time performance, including – alarm handling, turnout, and travel time for all responses. These components are what make up the Total Response Time (TRT). A target was established to establish response performance benchmarks below the current baseline performance. The response performance benchmark was set at one standard deviation below the 90th percentile baseline performance, rounded to the nearest 15 seconds, for turnout time, travel time, and TRT. Because the VRFA cannot control dispatch performance, the alarm handling benchmark was set to the NFPA 1221 standard of 64 seconds for 90% of emergency calls. The following tables show performance data, for the VRFA, for 2019 by risk classification. The VRFA has established "target benchmarks" as a way of comparing year to year system performance.



2019	Benchmark Target	90th Percentile Baseline	Benchmark Performance
EMS			
Alarm Handling	1:04	2:28	42.96%
1st Unit Turnout	1:30	1:53	68.59%
1st Unit Travel	5:00	7:33	65.96%
1st Unit Total Response	7:34	10:51	62.18%
1st Unit N Value		9,950	
ERF Travel	5:30	8:57	63.98%
ERF TRT	8:04	11:57	60.87%
ERF N Value		8,785	
Fire			
Alarm Handling	1:04	2:28	51.39%
1st Unit Turnout	1:45	2:10	67.15%
1st Unit Travel	5:00	8:27	54.73%
1st Unit Total Response	7:49	11:56	52.37%
1st Unit N Value		1,436	
ERF Travel	5:45	8:48	63.60%
ERF TRT	8:34	12:07	62.32%
ERF N Value		1,397	
HazMat			
Alarm Handling	1:04	3:22	37.76%
1st Unit Turnout	1:45	2:06	71.43%
1st Unit Travel	5:00	9:06	53.92%
1st Unit Total Response	7:49	14:45	44.55%
1st Unit N Value		101	
ERF Travel	6:45	10:21	66.67%
ERF TRT	9:34	15:42	55.17%
ERF N Value		60	

Figure 11 - VRFA Adopted Response Goals



Section 4 Demands for Service Growth Forecast

4.1 VRFA-Protected Critical Infrastructure

The VRFA service area is located in a predominately urban area within south King County and runs parallel to Interstate 5, which is the western United States' primary north-south freeway. Washington State Highway 167 transects the VRFA's response area. This freeway is a significant commuter thoroughfare that runs north and south from Tacoma to Renton carrying over 100,000 people daily as well as large quantities of cargo and hazardous materials. Washington State Route 164 connects the City of Auburn to the City of Enumclaw in the farthest southeast portion of King County. According to the Washington State Department of Transportation's (WSDOT) measure of average daily traffic, over 35,000 vehicles a day use this route to travel through the VRFA response area. Washington State Route 18 travels on a northeasterly axis primarily from I-5 in Federal Way through the VRFA response area and connects with Interstate 90 in the Snoqualmie / North Bend area. WSDOT estimates that this highway's busiest portion is in the Auburn area, with over 100,000 vehicles trips a day.

Two major rail freight carriers, Burlington Northern Santa Fe (BNSF) and Union Pacific (UP) have lines through the VRFA response zone, including a very large rail yard located just south of the downtown Auburn area. Along with the freight rail traffic, the tracks running through the VRFA response area also carry commercial rail traffic from Amtrak and commuter passenger rail traffic from Sound Transit. In 2001, a new commuter rail and bus station opened in the downtown core of the City of Auburn, which operates over a dozen round trip runs carrying hundreds of commuters from Auburn to Seattle (northbound) and from Auburn to Tacoma (southbound) each day. An adjacent six-story commuter station parking garage regularly houses nearly 550 vehicles.

In addition to vehicle and rail transportation, the City of Auburn Municipal Airport is one of Washington State's busiest. Auburn Municipal Airport is classified as a public-use, general aviation regional-reliever airport within the National Plan of Integrated Airport Systems (NIPAS). This 110-acre facility, which is eight (8) miles from Seattle-Tacoma International Airport, permanently houses more than 320 aircraft with more development under discussion. Between flight school instruction and private aviation, takeoffs and landings average 450 a day.

In addition to transportation, there are significant manufacturing and distribution facilities within the VRFA's service area. Boeing Cooperation operates a large manufacturing facility in southwest Auburn. This 100-plus-acre plant operates 24 hours a day and employs nearly 4,500 people. Adjacent to Boeing to the east is the federal government's General Service Administration's Northwest/Artic Regional Headquarters, a 134-acre complex of buildings that is being decommissioned and slated for sale early in 2021.

The Outlet Collection Mall, Green River College, the Auburn Performing Arts Center, the White River Valley Museum, Auburn Golf Course, Emerald Downs Race Track, and the Muckleshoot Casino all are contained within the VRFA's service area and provide tremendous economic benefit to the entire community.



Figure 12 - Jurisdictional Boundaries and Major Arterial Roadways of VRFA



4.2 Area Growth Forecast

In 2005, The Puget Sound Regional Council (PSRC) began a new long-term regional planning process that resulted in a plan known as VISION 2040. This document was updated in March of 2019 (VISION 2050) to realign the planning process with the actual growth patterns in the affected area.

In developing the Regional Growth Strategy, policy makers articulates a more specific strategy where:

- Growth is focused within a designated Urban Growth Area (UGA)
- Within the UGA, growth is concentrated in cities containing regional growth centers
- Rural and natural resource lands are protected
- The environmental impacts of growth are minimized, and
- Existing infrastructure and new investments are used efficiently

The Regional Growth Strategy was designed to provide clear guidance to direct growth to UGAs and achieve a more self-contained jobs and housing balance.

The central Puget Sound region, and more specifically the VRFA's response area, has seen a surge of development and growth in recent years. The trends show an increase in population and employment in urban areas, cities, and centers, and declining rates of growth within rural and resource lands.

To support this growth, the VRFA service area has seen dramatic growth in all three cities in residential and commercial development. Much of the recent development has been in multi-unit residential, assisted living, senior housing, mental health facilities and other high-density, high value construction.

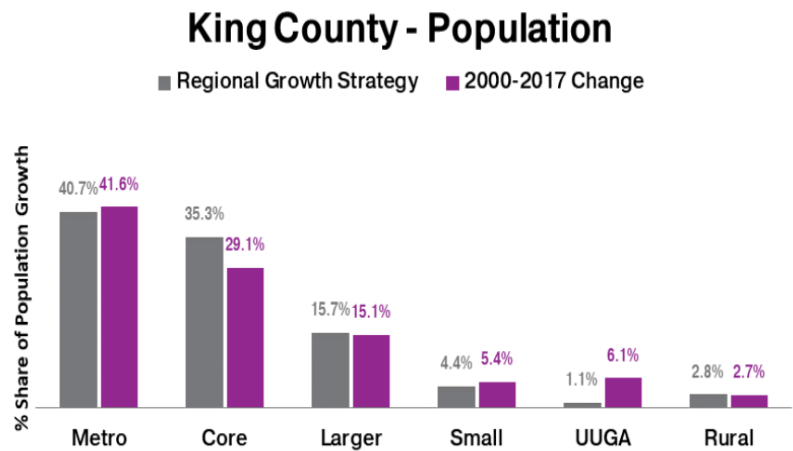


Figure 13 - King County Population Growth Trends by Regional Geography VISION 2050

King County has captured a larger share of population growth than the Regional Growth Strategy identified. It also leads the region in job growth since the economic downturn of 2008.



4.2.1 Development in Algona

The City of Algona is geographically located 28 miles south of Seattle and is one of three member cities of the VRFA. The suburbs of Auburn surround it to the north and east, Pacific to the south, and unincorporated King County to the west. The City was officially incorporated in 1955 and has a total area of 1.29 square miles. As of the 2010 census, the population was 3,014, which is estimated to have increased to 3,208 in 2019.

Companies such as the Tharco Manufacturing Plant, which develops packaging products for shipping and displays; Dyna Craft, a manufacturer of medium and heavy-duty trucks; AccuDuct, who manufactures duct systems and sheet metal components; and Tim's Cascade Style Potato Chips, who produces snacks and chips; find Algona home.

Algona also is home to a five-acre King County Solid Waste Transfer Station. This station has over 140,000 customer visits annually, constituting 18 percent of the total tonnage collected in all 10 King County Transfer Stations. A modern facility expected to open in late 2023 will replace this 53-year-old facility.



In 2020, the City of Algona received a development plan for a large seven-acre, five-building apartment/hotel complex called Algona Village. The development also includes a parking garage and retail businesses.. This development is currently in the application process, and plans to break ground upon city approval. As designed, there will be 508 apartment units, 100 hotel units, over 30,000 square feet of retail and office space, and 630 parking stalls on site.



4.2.2 Development in Auburn

In the Regional Growth Strategy, identified in the Growth Management Plan Board (GMPB) Vision 2050 document, the City of Auburn is one of 16 identified Core Cities. These cities contain vital hubs for the region's long-range multimodal transportation system and are major civic, cultural, and employment centers within King County. As such, it is mandated to develop transportation and high density housing.

Algona and Pacific are designated as “small cities” and expect to provide development at a smaller, but still substantial, scale⁵.



The Regional Growth Strategy calls for the Core Cities to accommodate 28% of the region's population growth and 35% of its employment growth by the year 2050. Within Core Cities, jurisdictions encourage development near high-capacity transit stations and regional growth centers to achieve local growth goals. The City of Auburn has a checkered land use/development pattern.

The Auburn area is divided into eight distinct districts, each with its own unique character and identity.

The annexation of Lakeland Hills established a planned use community with infrastructure and moderate-to-high density residences. The West Hill and Lea Hill annexations brought relatively undeveloped lands with a mix of residential and rural densities. These residents feel a stronger attachment to the commercial centers located outside of Auburn. Southeast Auburn transitions into a community with a unique character as it moves from the City of Auburn and abuts the Muckleshoot Tribal areas. Southwest Auburn is generally light industrial and commercial with some smaller communities of older homes.

Historic Downtown Auburn is having a surge of development. The City of Auburn has invested heavily in infrastructure by adding improvements that will encourage the development of new businesses, commuter rail access, shopping, dining opportunities, and support for varied housing options in the downtown core. Since 2010, The City of Auburn has invested over \$10 million in state and federal funds into the South Division Promenade Project and other downtown projects to make private investment more attractive. This strategy is paying off, as vertical growth in the core area proliferates. Newly constructed buildings are typically four and five-story mixed-use and multi-family structures.

One area of particular note when discussing development trends in Auburn is the North end of town. This area is quickly becoming one of the most changed regions in the VRFA response area. Developers are taking a predominately commercial lightly developed area and transforming it into residential and high-

⁵ [Puget Sound Regional Council Vision 2050 plan](#)



density housing and retail mix. Based on historical trends, it is expected that as this area becomes more densely populated with both homes and commercial enterprises, calls for service will greatly increase. An example of this mix is the Copper Gate development. This development transformed a former drive-in movie theater into a 500-room apartment complex. People living in this 15-building complex will require responses and add to the VRFA call volume, while simultaneously pulling the busiest units in the VRFA further from their traditional first-in area. Phase 2 of the north end development will add additional mixed-use housing and commercial business along the South 277th Street corridor, adding to the response pressures on existing resources

4.2.3 Development in Pacific



The City of Pacific experiences minimal growth pressure within its boundaries but has been long affected by growth from other increasingly urbanized areas in the Puget Sound metropolitan region. This has led Pacific to develop a comprehensive plan and begin adopting local regulations that allow the City to manage growth.

Currently the City of Pacific is preparing for an extended period of increased residential, commercial, and industrial

growth. Part of this residential development shift has occurred due to a change in the lot size requirements and thus population density. Residential lots have reduced in size from ½ acre (22,000 square foot) to 6,000 square foot lots. This higher density development has the dual effect of increasing calls for service as population increases and simultaneously changes the fire spread profile of the area. Closer packed houses require more resources in the case of a structure fire to prevent the spread of the fire to adjacent buildings.

The City of Pacific has shown dramatic commercial and industrial growth in the southern region. Improvements to the road infrastructure surrounding the Stewart Road and Valentine Ave SE area have enticed businesses like Freightliner Northwest and JB Hunt Transport Services to move operations into Pacific.

Increased population and densities along with enhanced economic opportunities are expected to be drivers of service demand for fire/EMS services.

4.2.4 Other Development

The Muckleshoot Indian Tribe (MIT) has begun aggressive development on their lands. Construction has been approved for an 18-story resort hotel adjacent to the existing casino. Along with this expansion,



there are plans for a six-story parking garage. A convention center expansion was recently completed. This development is expected to dramatically increase the call volume in this area. While the MIT has been very good about reimbursing the VRFA for calls for service at the casino property, additional calls put strain on other parts of the system to cover calls that may occur simultaneously in the MIT’s first due area. Along with an increase in the number of calls dispatched, it will also negatively impact response and in-service times because of the increased congestion on the surface streets in the south end of Auburn.

The federal government will be selling off the GSA facility, a 130+ -acre development in Southwest Auburn. While the ultimate use of this property is unknown, close attention will be paid to potential service needs and the isolating effect of the railroad tracks separating the property from nearby fire resources.

4.3 Demands for Service

Demand for service continues to rise in lockstep with the rise in population and development. As the charts below show, overall call volume tracks almost exactly with increases in population. Call volume was down slightly in 2020 due to the COVID-19 pandemic. Early on in the pandemic, calls of all types were down across the country, as people were afraid to use medical services for fear of cross-contamination. Call volumes stayed depressed due to the slow flu season and schools and businesses being closed. This not only kept the general population healthier, but kept them off the roadways as well.

It is reasonable to expect call volume to continue its historic rise or even briefly spike as COVID-19 restrictions ease and people return to their usual routines (fig. 14).

The same number of resources are handling today’s call volumes as were handling those in 2011. While this shows a desirable level of efficiency, more frequent simultaneous calls (fig. 15) and longer response times are early signs resources are getting stretched too thin.

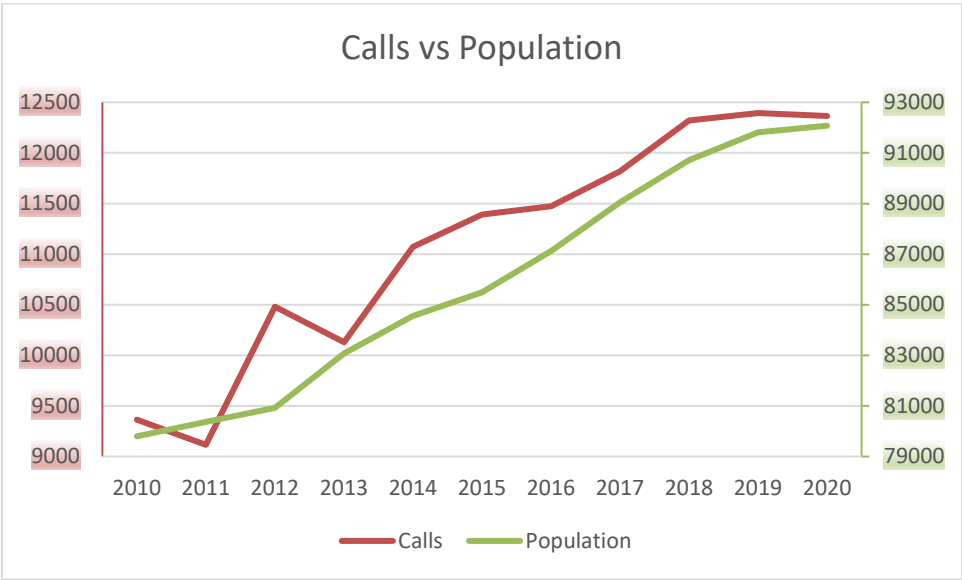


Figure 14 - Calls for Service and Population Trends

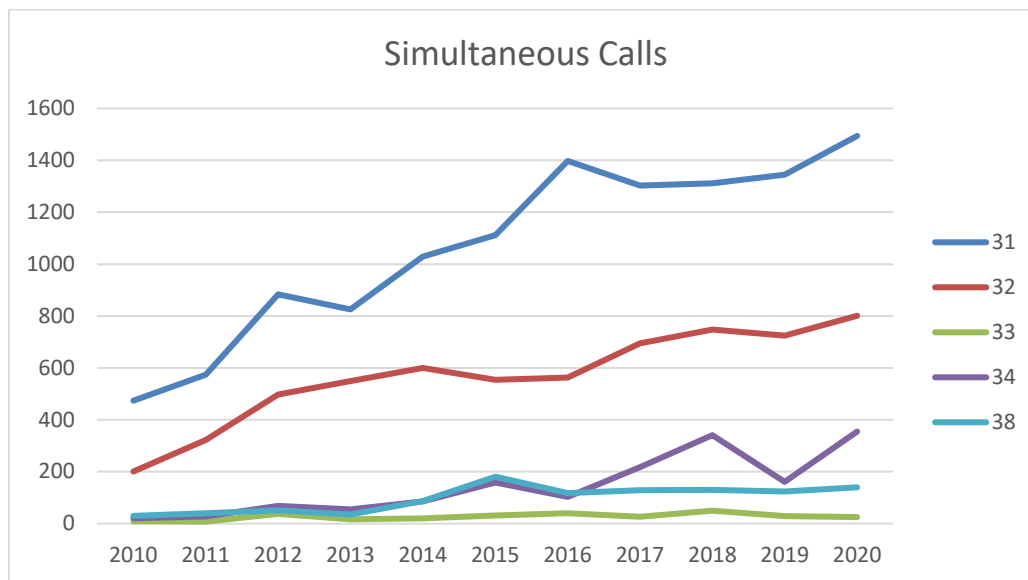


Figure 15 - Simultaneous Calls for Service Are Increasing

Section 5 Financial Resources

5.1 Financial Options

This CFP does not include costing of proposals. Thus, the goal of this section is to address, in a general manner, various financing alternatives that could be utilized to execute the plan. The following options have been considered:

- Existing financial reserves;
- Alternate revenue streams;
- Impact fees;
- General obligation debt; and
- Voter-approved general obligation debt.

5.1.1 Existing Financial Reserves

Through policy adopted by the Governance Board, VRFA maintains general fund reserves sufficient to minimize the impact of the semi-annual timing of regular property tax and fire benefit charge (FBC) receipts. This has allowed VRFA to remain operationally liquid without having to utilize short-term debt (e.g. tax anticipation notes) to fund operations during certain periods of each year.

Reserves have not accumulated to a level considered excessive. Thus, it is unlikely that a material amount of funding would be available from this source. If excess funds became available, they most certainly could be deployed as needed on a case-by-case basis.



5.1.2 Alternative Revenue Streams

Over the past eighteen months, VRFA has been in receipt of funds from the Federal Ground Emergency Medical Transport (GEMT) program. While significant revenue has recently been received, this included retroactive funding back to 2017, which is when the program began. Looking forward, it is expected that this revenue stream may continue in some fashion, but should not be relied on for long-term funding.

While this source may provide some additional funding, the greatest challenge we face is its unpredictability. Because of its newness, and the fact that this program is a result of a policy as opposed to a law, management is not able to project revenue availability nor revenue continuity. In summary, while this option may provide limited funding, similar to reserves, it should only be deployed on an 'as available' basis.

5.1.3 Impact Fees

Currently, the City of Auburn collects fire impact fees on behalf of VRFA. The Cities of Algona and Pacific have not adopted similar measures. The current stream of revenue received from these fees, while material, is not sufficient to provide reliable and stable funding that could significantly offset the need for other funding sources to execute this plan.

Fire impact fees were last set by the City of Auburn in 2006, at a rate of \$290.13 per dwelling unit, \$306.47 per multi-unit dwelling unit, and varying per square foot amounts for differing types of commercial properties. A comparison to other jurisdictions suggests that these rates are comparatively low. As such, there may be an opportunity to increase funding from this stream.

Any new impact fees would first have to be adopted by each of our participating cities. Assuming this is practical, impact fees warrant further consideration.

5.1.4 General Obligation Debt

VRFA's Board of Governance could choose to issue limited tax general obligation debt (i.e. councilmanic bonds) with debt service paid out of our regular revenue streams. This method of borrowing does not require voter approval and sufficient borrowing capacity exists in order to proceed.

The main challenge with this source is that limited ongoing funding streams exist that could service any debt obligations created. Thus, while revenue may be sufficient for debt service at the time of issue, it is certainly not guaranteed to continue in a predictable manner (e.g. GEMT). If any revenue stream was devoted to debt service and subsequently became insufficient, other funding sources would have to be used. This could potentially divert funds currently allocated for operational purposes, which in turn could significantly increase the risk of service reduction – an obviously undesirable consequence.



5.1.5 Voter Approved General Obligation Debt

Unlimited tax general obligation debt is the traditional method of financing capital improvements, and was successfully used by VRFA in 2008 to construct stations 33 and 34, and renovate station 32. Using voter-approved debt, VRFA would have a guaranteed funding stream for debt service, which is clearly desirable and would pose the least amount of risk of possible service reduction.

A significant caveat with this form of funding is that it requires supermajority voter approval. While we have been successful with such action in the past, there is no guarantee this will continue in the future.

5.2 Financial Recommendations

In consideration of the potential timing for execution of the CFP, it is recommended that:

1. A concerted effort be made to deploy revenue that is not currently required for operations, and direct that such funds be used for the acquisition of land as outlined in this plan.
2. Implement impact fees to provide additional funds that would be earmarked for station construction.

As we approach the construction portion of the plan, the Board of Governance in conjunction with management would then review the benefits and costs of councilmanic versus voter-approved debt, along with current and projected revenue streams, to determine the most appropriate financing method to complete execution of the CFP.

Section 6 Recommendations

In developing the recommendations identified in this CFP, the VRFA have taken into consideration many factors such as industry standards, response performance benchmarks, issues that have been created by the current response and station factors, development of partnering cities, needs of varying stakeholders, and other contributing factors. Not all of these recommendations can be achieved within the timeline (2021-2027) of this document. Therefore, the following recommendations have been prioritized in order to best meet the current and midterm needs of the citizens served by the VRFA.

6.1 Priority One – Additional North End Station

Adding a station to the north end of Auburn, north of 30th Street NE, will ameliorate multiple issues in the VRFA response areas. An additional engine placed in this area will be able to pick up nearly half of the current station 31's calls as well as much of the contract area now being covered by SKFR's station 65. This in turn will add capacity and second-in reliability to all other apparatus in the VRFA. The north end of Auburn is experiencing rapid growth with new single- and multi-family homes, along with commercial and light retail development.



Due to extended travel distances and unfavorable topography, the VRFA currently contracts with South King Fire and Rescue for service in the northwest corner (West Hill area) of the VRFA response zone. A favorably placed engine company in the northwest quadrant of Auburn could allow for reducing or eliminating these contractual and monetary obligations.

Currently, SKFR responds to an emergency call in the West Hill annexation area from Fire Station 65. In 2019 there were 362 calls for service in the VRFA response portion of the West Hill that were handled by SKFR under contract.

Figure 16 shows a first unit travel time representation based off of data collected in 2019 of the current response area with the current inter-local agreement in place, then data without the inter-local agreement and current station placement, and then with the addition of a new north end station (Station 36) placed near 37th Street NE and Auburn Way North:

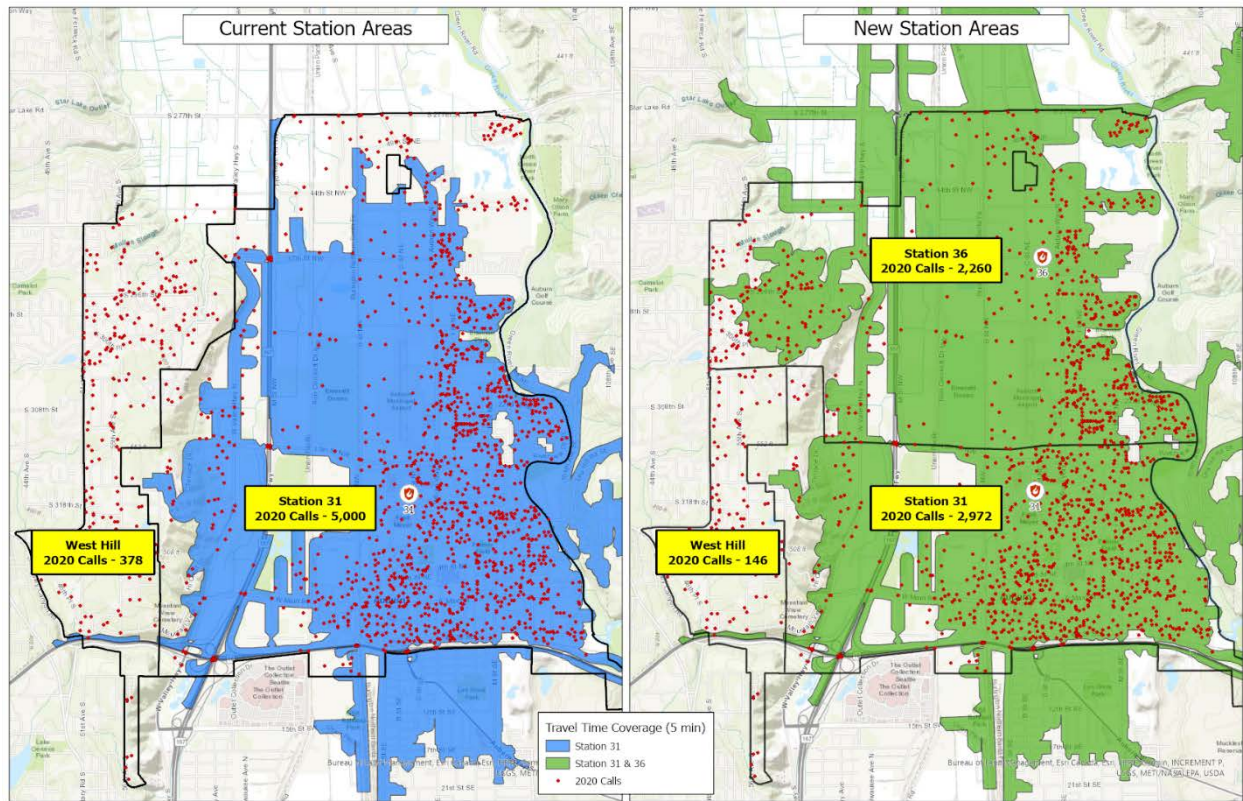


Figure 16 - Coverage Improvement of Adding Proposed Station 36

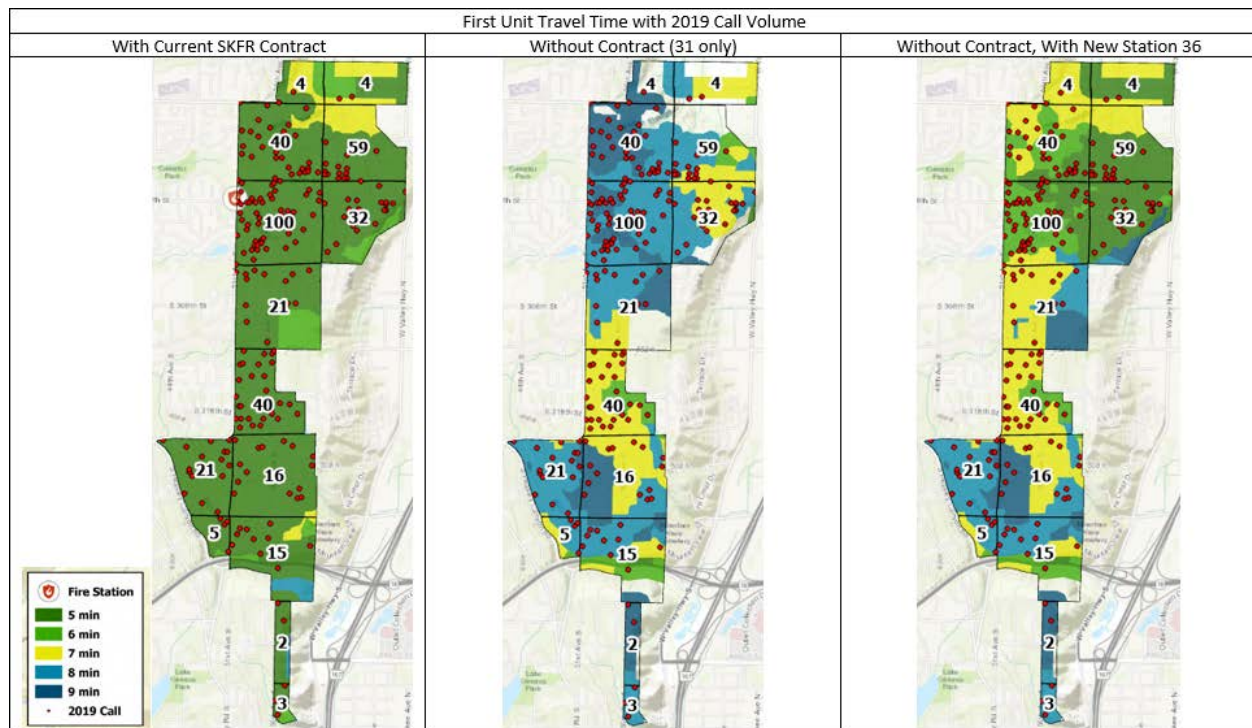


Figure 17 - Detail of West Hill Area - Potential Station 36 Response Times into West Hill Contract Area

Further examination shows that if a station was located in the vicinity of 37th and Auburn Way North, it would meet performance standards in 260 of the 362 emergencies, or 72% of the responses.

Because VRFA Station 31 is the primary station servicing the most densely developed areas of the VRFA, including the city core, it is busiest station in the VRFA. In addition to its first-in response workload, Station 31 crews are also second or third resources on the majority of fires outside its first-due area. Adding a company will allow units housed at 31 to be available in a centrally located place, increase the unit reliability, and enhance the effective response force to all greater alarms. The ladder company at Station 31 is a specialty piece of equipment with unique capabilities. Increasing the reliability of this apparatus is a goal of this CFP.

A north station will also facilitate the ability to replace or rebuild Station 31 if that station needs to be browned out or curtailed during construction.

The placement of a new station in the northwest portion of Auburn will have several salutary effects. A new station in this location will fill the largest coverage gap in the VRFA. This fast-growing area can be expected to place more service pressure on station 31, which is already the busiest station in the VRFA. It is anticipated that this station will be handling an average of over six calls a day when opened. Nearly all of these calls would have been handled by station 31 or on a mutual aid basis.

This station will also be well placed to take over primary responsibility for the lower portion of the West Hill Area, which is now contracted to South King Fire and Rescue. Eliminating the need to contract for this



service will allow for partial payment of the ongoing operating costs of this station, while providing enhanced coverage for VRFA residents.

This station will also decrease the response times necessary to assemble an effective response force in the valley, where most of the fires occur. This allows for faster fire attack while keeping more outlying stations in their home areas.

6.2 Priority Two - Relocate / Rebuild Pacific Station 38

VRFA Station 38 is in City of Pacific Public Safety building which includes the Pacific Police Department offices. When this two-story facility was originally designed, it was not planned to handle a 24/7/365 fire company that handles over 1700 emergency calls annually. A few contributing factors support the need to move the station to a better location and change the design.

The conditions that Station 38 was built to accommodate in 1979 were vastly different than those faced by the VRFA today.

The relocation of Station 38 will address several suboptimal conditions for both residents of district 38 (which includes citizens of all three cities) and the crews that staff the station. Moving the station closer to the major thoroughfare network in the Algona-Pacific area allows better coverage throughout the area as well as improving response times to other districts. A newly designed fire station or public safety station allows the VRFA to create a facility that will support community and crew needs as well as quicker responses to more calls.

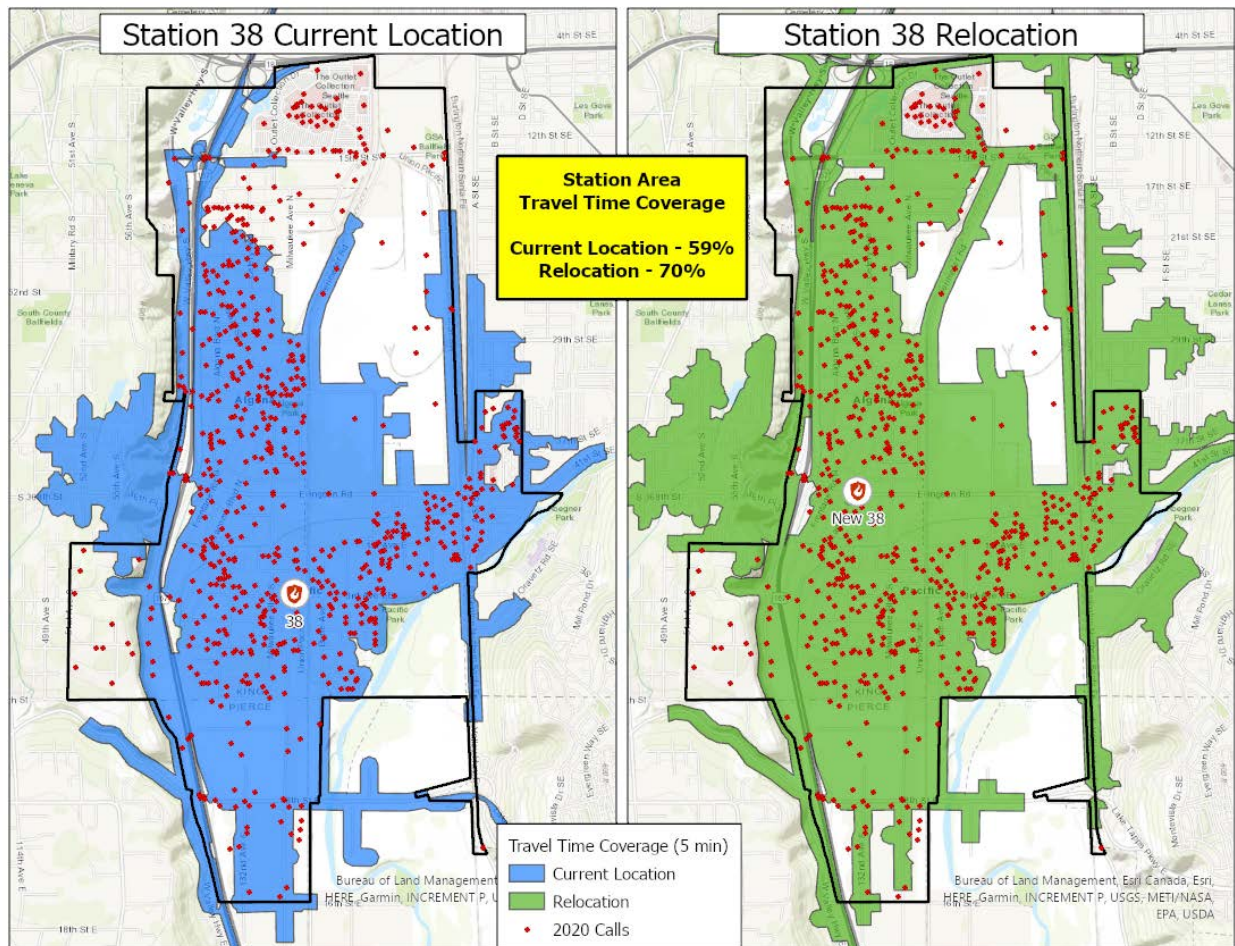


Figure 18 - Relocating Station 38 Improves Coverage

Some considerations to take when looking at the redesign and relocation of Station 38: The City of Pacific Comprehensive plan identifies the need to improve its police facilities. If there is a possibility for a public safety partnership to be formed, consideration could be given for a potential joint public safety building to house police and fire as it is currently. Another benefit of a relocated fire station or public safety building is that it would better allow for community needs. The current building is on a very tight lot, and there is no room for on-site customer parking or room for crews to drill.

If the station cannot be relocated, it needs significant remodeling and updating, which may end up being more costly than new construction, especially considering the need to move current operations into temporary quarters while the building is rehabilitated.

6.3 Priority Three - Remodel / Replace Station 31

VRFA Station 31 was built in 1985. This was, and remains, the headquarters station for both the legacy Auburn fire department and the VRFA. When it was built, the Auburn Fire Department had two stations and a comparably smaller administrative staff, not least because many support functions such as human



relations and finance were performed by the City of Auburn. Due to the formation of the VRFA and subsequent annexations, the size of the department serviced has nearly trebled, as have the number of functions provided by administration. Administrative positions have been added to respond to the needs of both the line and staff personnel with no corresponding expansion of office space. Additionally, workforce diversity, expanded workloads, and new legislative and safety requirements have rendered this facility inadequate to the demands placed on it. Station 31 also is the main public-facing facility of the VRFA. Its reception area and training / public access room are inadequate to the requirements of the public.

Purchasing the station 31 property is currently being negotiated. This will expedite the upgrading of facilities, since a property purchase and offsite improvements and zoning considerations are already finished.

Station 31's location is in the middle of their response zone, and has rapid access to thoroughfares and main surface streets that allow for the rapid support of neighboring response districts. Enough room is contained on the site to build a new response station and continue to house administrative offices and even potentially expand into an additional space for fire prevention and other technical service division offices. Alternatively, consideration should be given for a new multi-story building with levels for operations on one floor and reception and other offices on different levels.

6.4 Priority Four - Permanent Support Service Location

VRFA Station 35 is a converted warehouse that houses the support services division: public information, emergency management, planning and logistics, and the fire marshal's office all provide services from within. In the past, it was an operating response station, but was converted into a support building with the addition of other purpose-built stations. A portion of it is used as high rack storage to house pandemic supplies, surplus equipment, other supplies, and consumables. The rest of the building is divided into offices, work cubicles, and meeting rooms for the other divisions. These offices provide space for the Deputy Chief of Technical Services, Battalion Chief of Support Services, Planning Captain, Logistics Captain, EMS Captain, CARES team, Fire Marshal, two (2) Assistant Fire Marshals, four (4) Deputy Fire Marshals, a Data Analyst, and two Public Information/Education specialists. There is ample drill ground space around the building with a few drill props and areas designated for duty crews to train.

The City of Auburn has a long-term lease agreement with the Government Service Administration (GSA) complex to use the land for public safety needs. However, the GSA complex has been vacated and will be placed for sale. This could complicate the ability to continue to operate out of the current facility. The future status of the lease and sublease agreements are uncertain. Finding a permanent facility or facilities to perform all these necessary functions must be addressed.



Section 7 Conclusion

This Capital Facilities Plan has examined current response metrics for the VRFA and analyzed how emergency responses are affected by the facilities used. Using sophisticated analytical software along with planning documents from the King County and individual city planning departments, this document represents VRFA administration's best estimate of where future calls for service will occur and how to best build facilities to meet the predicted demands.

There is a saying in the fire service that the two hardest things that a fire department does is to open a new fire station and to close an old one. Neighborhood impacts, construction and equipment costs, and the ongoing maintenance and staffing expenses make building or relocating facilities a difficult endeavor, and one that should never be taken without deep analysis. It also takes a deep commitment to fire service excellence on the parts of the community and the department.

The first priority of the VRFA is to provide rapid and effective service to its customers.

A Japanese proverb states that, "The best time to plant a tree is twenty years ago. The second-best time is today."

While the timeline of this plan is the next six years, the effects of implementing the recommendations presented will last well into the second half of the century, however, now is the best time to act on the recommendations to set the VRFA up for this future success. The process of building a fire station is a prolonged one. Suitable sites that may be currently available to build stations will quickly be developed or priced out of reach once development hits full stride.

As our communities grow and demand for public safety services grow with that community, future generations are depending on us to leave a solid foundation that they can then build on. We are obligated to put ourselves in the best position to provide that foundation for when these future calls for assistance come.



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