West Pierce Fire & Rescue

Standard of Cover

2025

COMMUNITY OVERVIEW

West Pierce Fire & Rescue (WPFR), located in Pierce County, Washington, serves the communities of Lakewood, University Place and the Town of Steilacoom, along with a small unincorporated area. It is located approximately 40 miles south of Seattle and 25 miles north of the state capital, Olympia. The western border is the Puget Sound and Interstate 5 runs through the fire district.

WPFR currently employs approximately 233 people who provide basic and advanced life support, wildfire and structural fire suppression, hazardous materials mitigation, special operations, technical rescue, marine rescue along with fire prevention, fire and life safety education, and a host of other services.

According to the Washington State Office of Financial Management, as of April 2025 the following populations were reported for each of the three municipalities served:

- Lakewood - 64,670
- University Place - 36,140
- Steilacoom - 6,860
- TOTAL - 107,670

Combined, these communities would be the equivalent of the tenth largest city in the state.

The WPFR community has a wide range of occupancies, which include commercial, institutional, manufacturing, warehouse, as well as single and multifamily residential. In 2025, the assessed value of the fire district was approximately $19.48 billion.

Each of the cities served has its own unique history.

Lakewood History

Lakewood was originally called the Prairie which was 20 square miles of land dotted with small lakes. Prior to the settlers arriving, the land was used by both the Steilacoom and Nisqually Tribes as a gathering spot and a ready source of food. In 1833, the abundant Prairie was chosen by the British as the site of Fort Nisqually. Settlers began to set up farms on the Prairie and one such farm, located at the present site of Western State Hospital, was leased by the U.S. Army in 1849 to serve as a military post following a Native American attack on Fort Nisqually. The new post, named Fort Steilacoom, was used to quell the uprisings. The uprisings continued as the Native Americans fought for land. The Nisqually Tribe's Chief Leschi became a tragic martyr when he was falsely accused of murder as a result of one of the uprisings. He was hanged on February 18, 1858 in a grove of oak trees near where the Oakbrook Shopping Center now stands.

The decade of the 1850s saw more settlements as the first grist mill (1850), saw mill (1852), and flour mill (1855) were set up by Andrew Byrd at the north end of Lake Steilacoom. Immigrants began arriving in covered wagons in 1853 after Washington became a territory.

During the late 1800s, the Prairie began its transformation as homes and roads were built. The Native Americans and settlers were learning to live together, even holding joint celebrations in the summertime.

The Tacoma Country and Golf Club was established in 1894 to attract the rich and famous. It was the first golf club west of the Mississippi and featured trolley transportation from Tacoma to this playground on the Prairie.

In the early 1900s, many stately homes were built along the shorelines of the area lakes. Thornewood Castle was built on American Lake between 1909 and 1911 and at the time, was considered one of the most beautiful estates in the nation, attracting many illustrious people. Today, Thornewood Castle has been renovated into a spectacular bed and breakfast venue.

The Tacoma Speedway was built in the early 1900s and included a grandstand built along Steilacoom Boulevard, where Clover Park Technical College stands today. Airplanes found the inner grasslands of the racetrack made for a fine landing field just after World War I. Eventually, the airstrip was improved and hangars were built as part of the Mueller-Harkins Airport. National air shows were held at the site until World War II.

In 1904, a military presence returned when

maneuvers began on the Prairie. It was determined to be an excellent site that met all the requirements of a new post. In 1917, Camp Lewis was built on land donated by Pierce County citizens. McChord Field was developed from the old County Air Field in 1938. These facilities combined to create Joint Base Lewis-McChord, one of largest military bases on the west coast.

Present day Lakewood was previously known as the Lakes District, which swelled in population from 3,000 to 17,000 between 1939 and 1949. Lakewood Fire District 2 was formed in 1940, followed by Lakewood Water District in 1943.

A decade later, shopping centers were built. The Villa Plaza Shopping Center was built in 1958. It was later renovated into the Lakewood Mall and has now been further upgraded to the current Lakewood Towne Center. In 1960 the Thunderbird Center, which is now the Oakbrook Shopping Center, was built.

As the area grew, several amenities were added. In 1961, Lakewood General Hospital was built, which has since been demolished and replaced with St. Clare Hospital. In 1967, Clover Park Technical College joined the community college system. Fort Steilacoom Community College was also established in 1967. It occupied a grocery storefront off Bridgeport Way until it moved to its current Farwest Drive location in 1970. The name changed to Pierce College in 1986 and still exists today.

In March of 1995, the Lakewood residents voted to incorporate. Lakewood officially became a city on February 28, 1996 and is now the second largest city in Pierce County.

University Place History

In the early 1800s, Pierce County was home to the Nisqually, Steilacoom, Squaxin, Puyallup and Muckleshoot Tribes. By the mid-1800s, the area of modern-day University Place was beginning to be used for industry. The land where Chambers Bay Golf Course currently sits was first used by the lumber industry, then as a railroad center, and finally as a gravel mine before being reinvented as the world class golf course it is today.

In the early 1890s, the area that is now University Place was chosen as the location for the University of Puget Sound, at the time named Puget Sound University. The school purchased 420 acres for the campus, but financial troubles in 1893 forced them to forfeit the land prior to establishing a campus and the university never made the move to the site. The area retained the name University Place although the university was later built in Tacoma's north end.

Even though the university ended up being located elsewhere, education remained an important part of the community. The University Place School District started in 1894 when the first "school" for seven students operated in a rented, two-room house on the southwest corner of 27th Street and Crystal Springs Road. In 1896, the Lemon's Beach School was built, a one-room wood frame structure that served as the center of the community until 1916. That same year, the University Place School was built at 27th Street and Grandview Drive where the University Place Primary School's playground sits today.

The University Place Fire Department originally began as a volunteer department in 1941. Three years later in August 1944, the Pierce County Fire Protection District 3 was officially formed.

Through the mid-1900s, University Place became home to thousands of couples looking for the ideal place to raise their families. One of those couples was Charles and Mary Curran, who developed the Curran Apple Orchard. The

orchard became a University Place landmark and today, the seven-acre orchard is a City-owned park and the Curran home has been retained as a historical building.

In the early 1990s, community members began discussing incorporation. A movement began pushing for local government and local control. In November of 1994, proponents succeeded in passing a ballot measure which established almost eight square miles of unincorporated Pierce County into the City of University Place,

making it the fifth largest city in Pierce County. Today, University Place is a great place to live, work, and play.

Steilacoom History

Settlers began arriving in Steilacoom in the early 1800s. Prior to their arrival, this area had long been the home of the Steilacoom Tribe, which consisted of roughly 600 people. In the early 1800s, English businessmen opened their trading post, known as Fort Nisqually, which was in the Steilacoom Tribe's territory. Fort Nisqually was in what is now the City of Lakewood. The Town of Steilacoom grew slowly about six miles away.

In 1851, there were two separate Steilacooms chartered: Port Steilacoom and Steilacoom City. In 1854, the two communities merged into one town, which is the reason some streets do not meet at right angles, as their competing founders saw things in different directions. Steilacoom became the first incorporated town in the Washington Territory in 1854. In the 1850s, Steilacoom was one of the few waterfront settlements along the Puget Sound. Steilacoom became a bustling community in the early 1850s before the cities of Tacoma and Seattle even existed.

Steilacoom is a town of many firsts:

- The first brick building north of the Columbia River (which was also the first jail in Pierce County)
- The first school in Pierce County
- The first public lending library in Washington Territory

There were high hopes that Steilacoom would grow into a community like San Francisco when gold was discovered along the Fraser River in British Columbia, but in the end there were better ways of getting to the Fraser. Steilacoom also hoped to be selected as the site for the terminus of the Northern Pacific Railway, but in 1873, Tacoma was chosen. In 1880, the Pierce County seat was transferred from Steilacoom to Tacoma. Business in Steilacoom stalled, so the town gradually evolved into a beach resort and then to its present state as a residential community with historic charm in all corners. The Steilacoom Historic District is on the National Register of Historic Places. *(Reference: Steilacoom official website article by Walter Neary)*

POPULATION

The communities comprising WPFR contain an area of just over 31 square miles. According to the Washington State Office of Financial Management, WPFR serves 107,670 people. The population density is just over 3,000 people per square mile, which according to the Center for Public Safety Excellence, classifies WPFR as a metropolitan department.

The populations of Lakewood, University Place and Steilacoom all rose slightly as evidenced by the 2010 Census and 2020 Census estimates. Steilacoom had the highest increase from 5,985 in the 2010 Census to 6,727 in 2020 which is a 12.4% increase. University Place followed with a 12.0% increase from 31,144 in 2010 and 34,866 in 2020.

While the largest of the three cities, the City

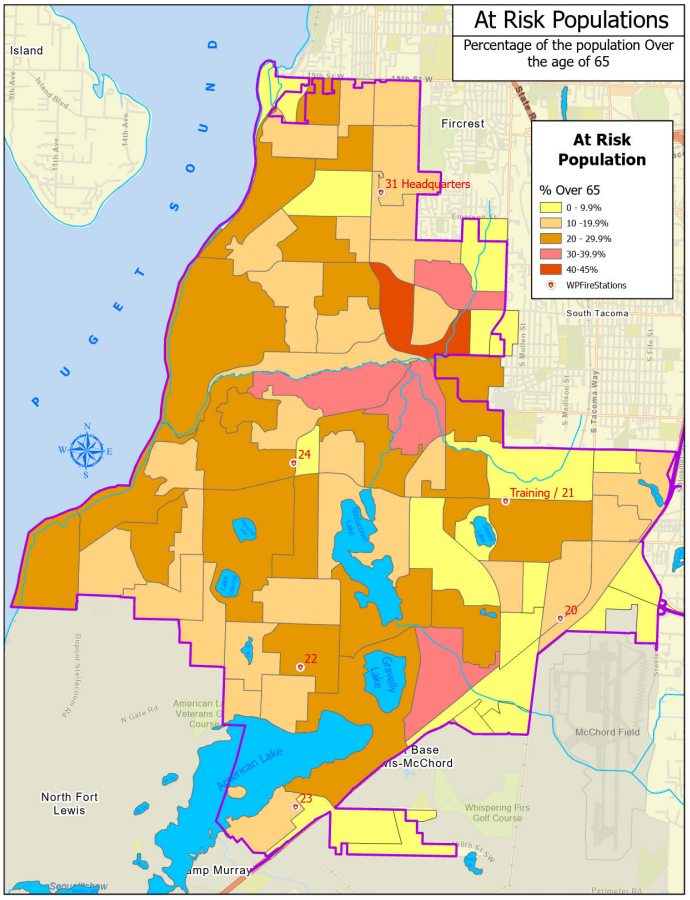
of Lakewood's population rose only 9.4% from 58,163 in 2010 to 63,612 in 2020s Census.

Population density in WPFR is a compilation of the three cities together. The density in University Place is the highest at 4,180 people per square mile, Lakewood is 3,728 and Steilacoom is 3,345, according to the 2020 Census. This classifies the area served by WPFR as a mostly metropolitan community.

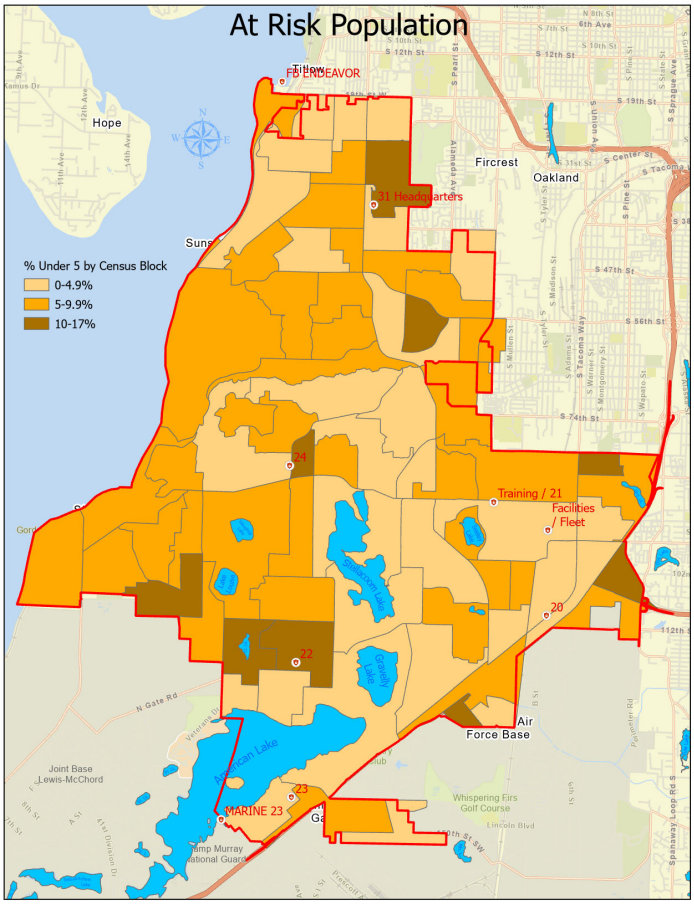
Demographic Features

Age distribution

While the overall size of the population has grown modestly from 2010 to 2020, the makeup of the population has changed significantly. The age distribution of the population is one category where notable change has taken place. In 2010, the population of persons under the age of 18 living in the fire district was 22.9% and in 2020 it was just 21.8%, showing there was little change in the number of children and teens living in the fire district. In contrast, the population of people over the age of 65 has increased. In 2010, 14% of the population in the fire district was over age 65 and in 2020, it was 17% which is a 3% increase in this population.



According to the Lakewood Comprehensive Plan, "Beyond the Boomer" phenomena, Lakewood has a slightly higher elderly population since it is a highly desirable retirement community for military retirees. In Lakewood, 16% of all households consisted of single people aged 65 and over. The increase in the senior population coupled with the fact so many of these seniors live alone is a likely cause for the increase in the number of patient assist calls.



At Risk Populations

There are two segments of the population who are considered "at risk;" those under the age of five and those over the age of 65. According to the 2021 estimates provided by the U.S. Census, 6% of the WPFR population is under the age of five and 16.7% of the population is over the age of 65. These populations place a higher demand on services than the general population due to common incidents associated with their ages.

The distribution of the population are illustrated in the maps for populations including those

under five and over 65 years old.

Race
The race demographics in our community have also changed. In 2010, 64.3% of the population was white, while in 2020, that number decreased to 54.6%. Some other notable changes were to the categories of "two or more races" and "some other race", all of which increased between 30% and 45% from 2010 to 2020. These statistics show our community is becoming more diverse each year. Lakewood has a much higher level of diversity than University Place or Steilacoom.

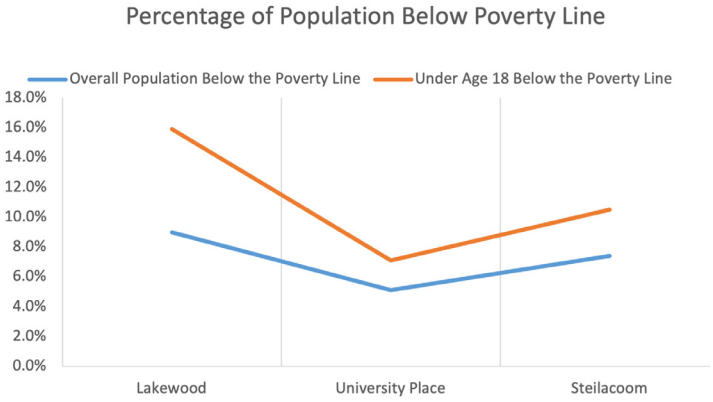
Foreign Born
As of 2021, an estimated 13.5% of the WPFR population was foreign born. In Lakewood, 73.3% of the population spoke English only, while in University Place it was 85% and Steilacoom it was over 93%. In Lakewood, the most prevalent non-English language spoken was Spanish, while in University Place and Steilacoom it was the Asian and Pacific Island languages. This is an important concern as a language barrier can sometimes delay effective communications when calling 9-1-1.

Hispanic or Latino
One of the most significant changes from the 2010 U.S. Census to the 2020 U.S. Census is the percentage of people who are Hispanic or Latino. In 2010, 11.9% of the WPFR population was Hispanic compared to 14.7% in 2020 and the 2021 estimates show this population at 15.4%. This population has risen nearly 30% from 2010 to 2021.

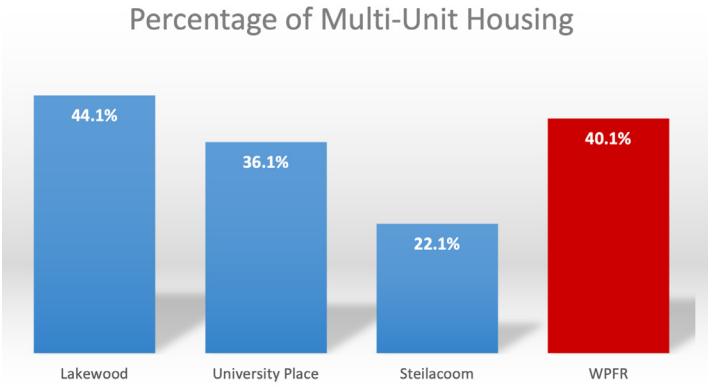
Income
The income levels vary significantly between the three cities. In Lakewood, the median household income is $60,534, while in University Place it is $84,673 and Steilacoom is $95,316.

The percentage of the overall population below the poverty line in Lakewood is 9%, University Place is 5.1%, and Steilacoom is 7.4%. These percentages change for those who are under the age of 18. In Lakewood, 15.9% of those under 18 fall below the poverty line, while in University Place it is 7.1%, and Steilacoom is 4.3%. *(U.S. Census, 2021 American Community Survey 5-Year Estimates)*

The percentage of children on the Free and Reduced Lunch Program is another indicator of income levels. As of October 2022, in Lakewood, 69% of children utilize this program. University Place is nearly half that at 36.3% and Steilacoom is at 25.9%. *(Reference: WA OSPI Child Nutrition Program Report)*

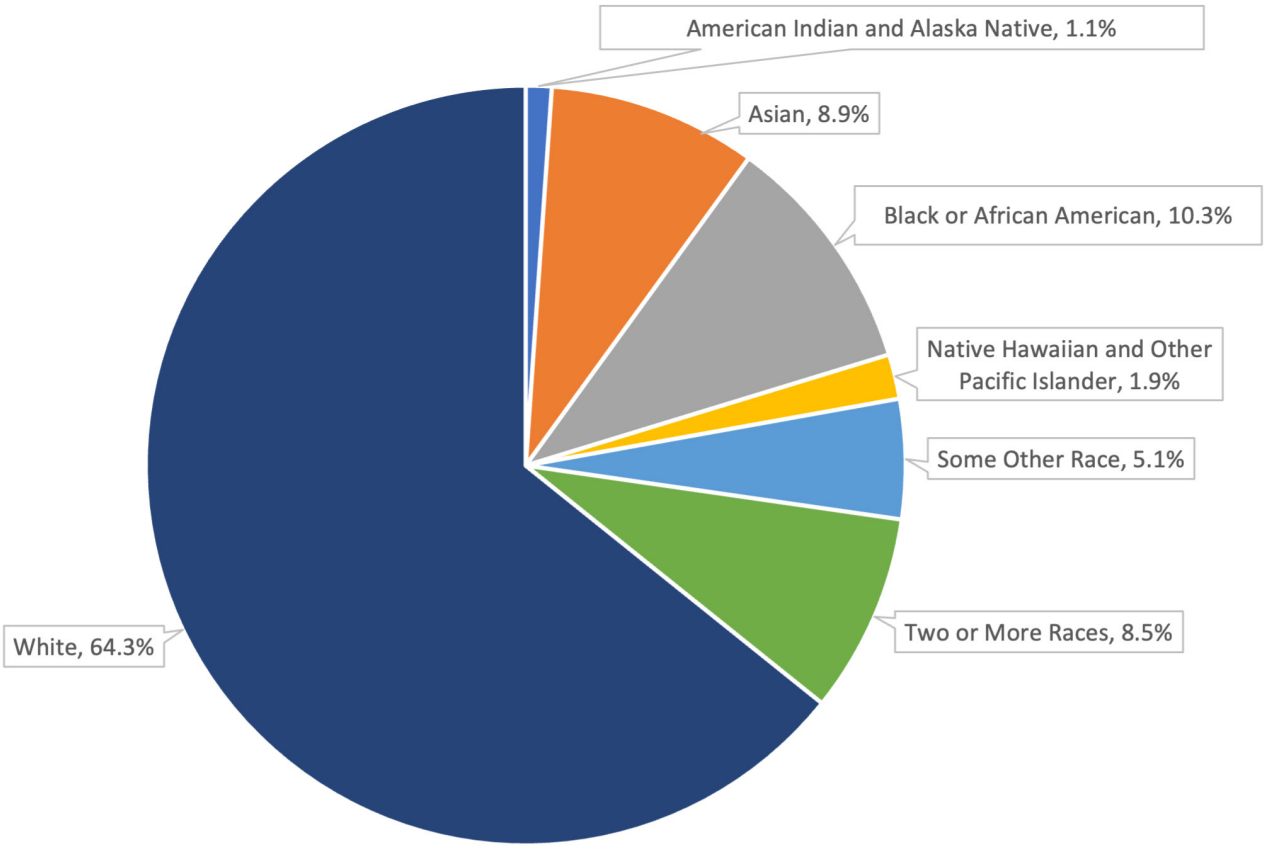


Housing Characteristics
There are a total of 44,468 housing units throughout WPFR and 41,591 are occupied. Of those, 56.5% are single family homes, 40.1% of them have two or more units and 3.3% are mobile homes, boats, RVs, vans, etc. Lakewood has the highest percentage of multi-family units in Pierce County at over 44%, University Place is at 36% and Steilacoom with 22%. Approximately 44% of the housing units in WPFR are renter-occupied. The housing stock in the District is considered aging as over 60% of the housing was built prior to 1980. Lakewood has a higher percentage of

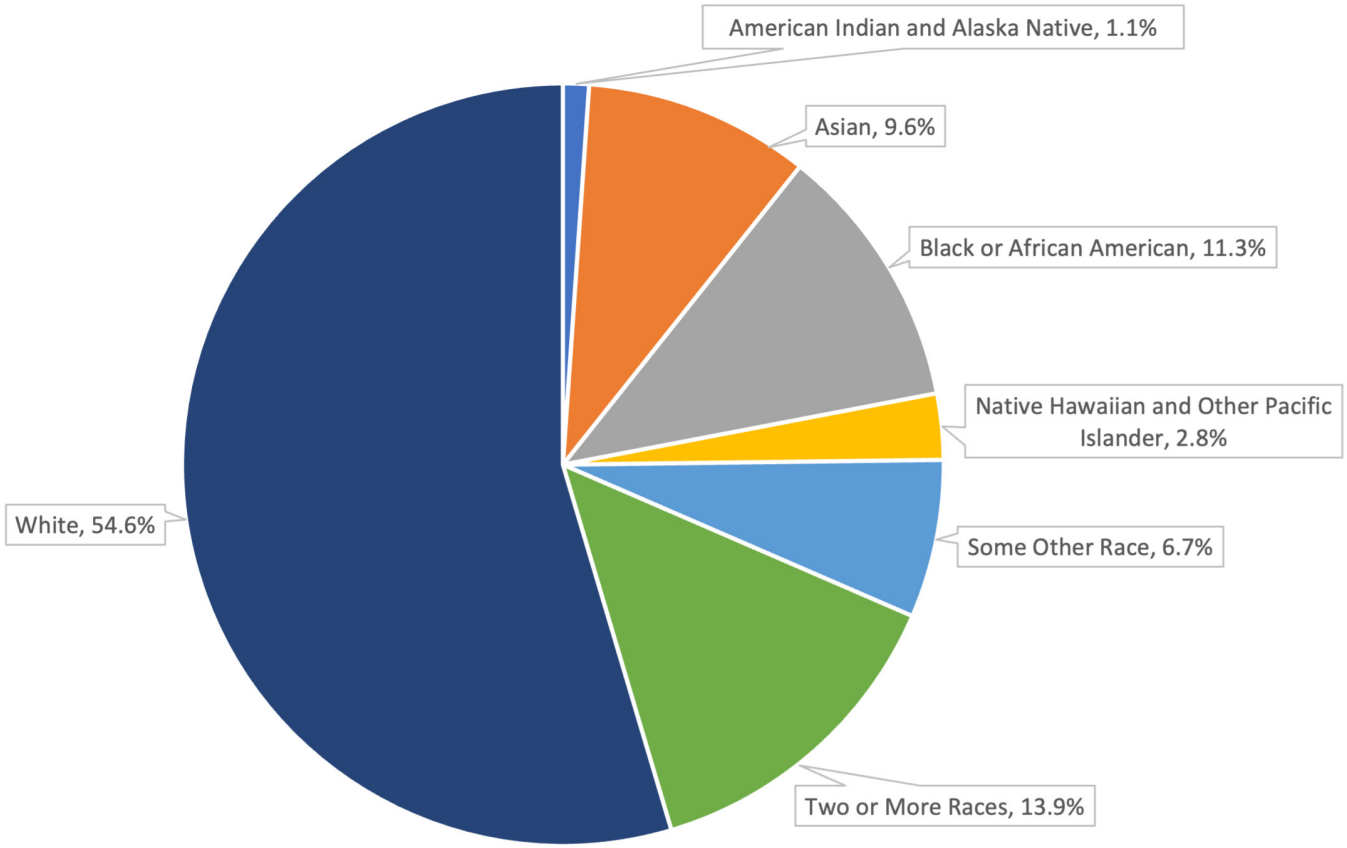


housing in the low income and extremely low-income classifications than other cities in Pierce County. In fact, 64% of Lakewood's housing stock is either in the low or extremely low-income category. The City of Lakewood's goal in its Comprehensive Plan is to provide more middle- and upper-income housing.

2010 RACE DEMOGRAPHICS



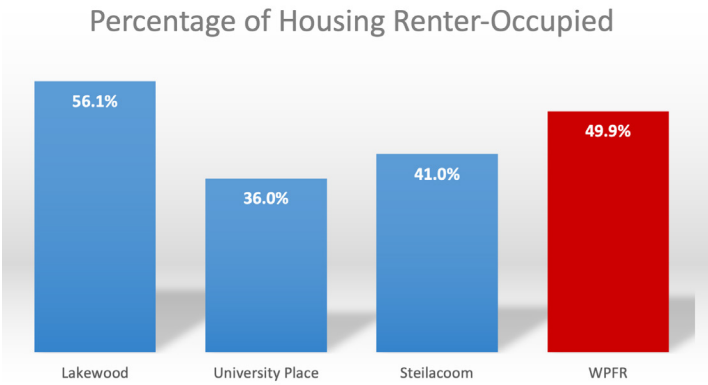
2020 RACE DEMOGRAPHICS



University Place is just the opposite, as there are few homes affordable for low and moderate-income families. *(Source: Census 2021: ACS 5-Year Estimates Comparison Profiles)*

Education

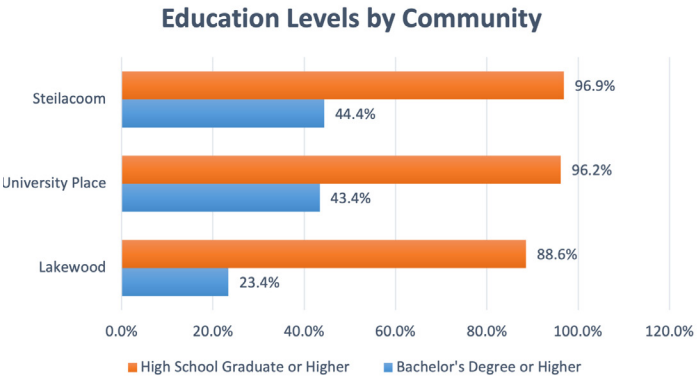
Education levels vary amongst the three communities. In Lakewood, 88.6% of the population has a high school diploma or higher and 23.4% has a bachelor's degree or higher. In University Place, those numbers are 96.2%



and 43.4% respectively. In Steilacoom, 96.7% are high school graduates or higher and 44.4% have a bachelor's degree or higher.

Schools

There are three school districts serving the children within the boundaries of West Pierce Fire & Rescue. Clover Park School District is the 27th largest public school district in



Washington State and the fourth largest of the 15 in Pierce County. It encompasses 68 square miles in the western end of the county, serving the Lakewood and JBLM communities.

The Clover Park School District enrolls over 12,000 students of very diverse backgrounds. Just over 28% of the students are white, 35.6% are Hispanic or Latino, nearly 13% are African American, nearly 13% are two or more races, 5.7% are Asian American, 4% are Pacific Islander, and less than 1% are Native American. 69% of the students are approved for free or reduced lunches and the graduation rate is nearly 87%. *(Reference: Clover Park School District At a Glance)*

The University Place School District encompasses approximately 10 square miles and serves all of University Place and a small portion of Tacoma. The University Place School District enrolls just over 5,600 students. The student population consists of 45% white students, over 16% are Hispanic or Latino, almost 10% are Asian, over 10% are African American, 16% are two or more races, 1.5% Pacific Islander and 1.5% Native American. 36% of the students qualify for the free and reduced lunch program and the graduation rate is nearly 94%. *(Reference: OSPI Washington State Student Report Card)*

The Steilacoom Historical School District is the oldest school district in Pierce County and serves the communities of Steilacoom, DuPont, Anderson Island and portions of Lakewood and unincorporated Pierce County. The Steilacoom Historical School District enrolls just over 3,000 students. Nearly 46% of the students are white, more than 20% are Hispanic or Latino, over 7% are Asian, over 7% are African American, nearly 2% are Pacific Islander, 1.5% are Native American and 16% are two or more races. Only 25% of the children qualify for the free and reduced lunch program and the graduation rate is nearly 94%. *(Reference: OPSI Washington State Student Report Card)*

In comparison to the entire State of Washington, each school district served by WPFR is more diverse. The statewide statics show 49.2% of the children are white, 25.6% are Hispanic or Latino 7% are Asian, over 4% are African American, over 1% are Pacific Islander, nearly 2% are Native American and over 9% are two or more races. The statewide graduation rate is over 82% which means all three WPFR school districts are above the statewide graduation rate.

There are also three large private schools in the Fire District; Charles Wright Academy is a pre-Kindergarten through 12th grade school


Schools Located in West Pierce Fire & Rescue
PUGET SOUND
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CITY OF TACOMA
31 Headquarters
Sunset Christian Preschool
Montessori In Motion
University Place Primary School
Curtis JR High
Curtis High School
Evergreen Primary School
Narrows View Intermediate School
Drum Intermediate School
Chambers Primary School
Heritage Christian School
Charles Wright Academy
Hudtloff Middle School
Dower Elementary School
Firwood Secondary School
24
Steilacoom High School
Oak Grove Elementary School
Custer Elementary School
Lochburn Middle School
Clover Park Technical College
Training / 21
Harrison Preparatory School
Four Heroes Elementary School
Pierce College - Steilacoom
Waughop Lake
Cherrydale Primary School
Saltars Point Elementary School
Steilacoom Lake
Park Lodge Elementary School
Clover Park Learning School
Lakes High School
Lake Louise
Idlewild Elementary School
St Frances Cabrini Catholic School
Lakeview Hope Academy
Clover Park High School
20
Lakewood Lutheran School
Lake Louise Elementary School
Mann Middle School
22
I5
Tyee Park Elementary School
Gravelly Lake
American Lake
JBLM
Tillicum Elementary School
23

enrolling about 650 students. St. Frances Cabrini enrolls nearly 225 students and Heritage Christian enrolls just under 200 students. Both serve children from pre-Kindergarten through 8th grade. *(Reference: Charles Wright Academy website)*

Colleges
Pierce College Ft. Steilacoom Campus enrolls over 8,000 students each year and has 876 employees. There are 26 Associate Degree programs, 52 professional certifications offered and six applied bachelor's degree programs. The Pierce College campus is approximately 140 acres located at 9401 Farwest Drive in Lakewood.

Clover Park Technical College offers 42 programs in aerospace, advanced manufacturing, health sciences, human services, business, hospitality, science, technology, engineering, transportation and trades. This campus offers 120 degree or certificate options in a variety of career fields.

The Lakewood campus enrolls approximately 5,800 students. This campus is located at 4500 Steilacoom Boulevard SW and runs from Lakeview Avenue SW to Lakewood Drive SW.

GOVERNANCE

West Pierce Fire & Rescue was formed in 2011 through a merger of Pierce County Fire District 2 (Lakewood Fire Department), formed in 1940 and Pierce County Fire District 3 (University Place Fire Department), formed in 1944.

The District provides service to the cities of Lakewood and University Place. The District continues to operate as Pierce County Fire District 3 under the name of West Pierce Fire & Rescue (WPFR). In late 2012, WPFR contracted with the Town of Steilacoom to provide the town's fire protection and emergency medical services. The District operates under the Revised Code of Washington (RCW) Title 52 and is a municipal corporation as defined by law in the State of Washington pursuant to RCW 41.24.010, operating as a junior taxing district. This means the District operates separately from the cities of Lakewood and University Place. When both cities were formed, measures were placed on the ballot to annex into the existing fire districts instead of each city creating their own fire department.

There are currently five residents from the District elected to the Board of Fire Commissioners, who serve six-year terms. This Board has fiscal responsibility of the District and establishes rules and policies governing all aspects of the department as determined by RCW 52.14. This Board of Fire Commissioners appoints a Fire Chief to oversee day-to-day operations.

FUNDING

The Fire District is funded utilizing the following sources:

Tax Assessments
In 2024, the voters approved moving away from its long standing method of supplemental funding via a voter approved Maintenance & Operations Levy to that of a Fire Benefit Charge (FBC). Voters authorized a 6-year FBC (2025-2030). Both the Regular & EMS levies are based on a property's assessed value (AV). The FBC is based on building size and fire risk factors. The Pierce County Assessor-Treasurer's Office determines the AV of properties annually using current market value trends. All property is physically inspected at least once every six years.

- ***Regular Levy –*** statutory limit of $1.00 per $1,000 of AV (with implementation of the FBC, was reduced from $1.50 per $1,000)

- ***Emergency Medical Services (EMS) Levy –*** statutory limit of $0.50 per $1,000 of AV (voters in West Pierce approved a permanent EMS levy)

The AV is used to calculate the taxes to be paid by a property owner. Taxes are calculated by multiplying the local tax rate by each $1,000 of assessed value. For WPFR:

- The Regular Levy is $1.00 maximum per $1,000; the 2025 rate is $1.00

- The EMS Levy is $.50 per $1,000; the 2025 rate is $0.4447

- In 2025, for a home valued at $500,000 the calculation would be: ($500,000/$1,000) X $1.4447 = $722.35

annually

The FBC is based on square footage and fire risk and utilizes the following formula to determine FBC:

- *Square root of total square footage X 18 X Category Factor X Response Factor X Hazard Factor X Fire Flow Factor X Applicable Discount = FBC*

In 2025, the owner of a 2,000 sq ft home would pay the Fire District $547.51 annually.

- The Regular Levy = $500.00
- The EMS Levy = $222.35
- Total Annual Taxes = $722.35
- FBC = $547.51
- Total paid to the District = 1,269.86

Additional Revenue Sources
The District has additional sources of revenue including the following:

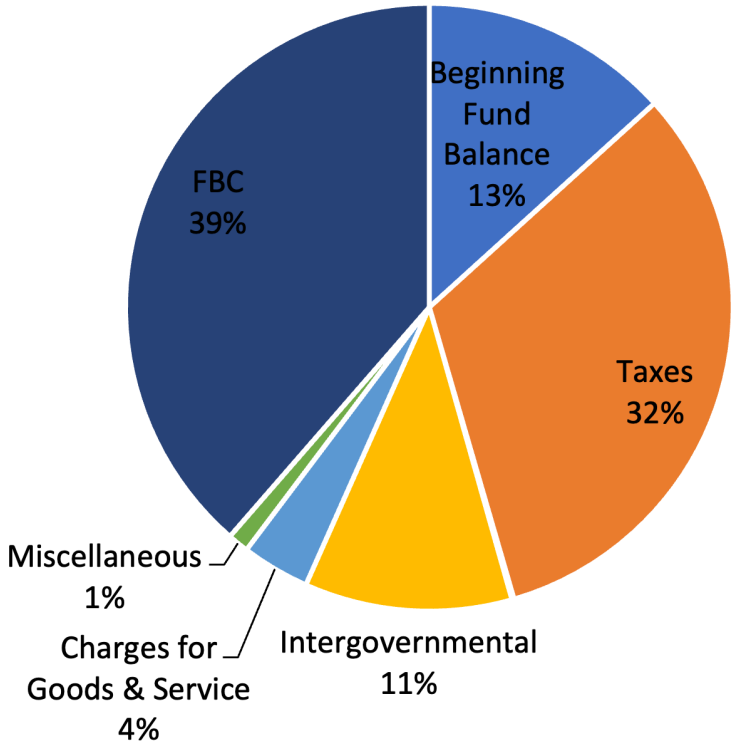
- ***EMS Transport Fees –*** Transport fees are the charges associated with emergency medical responses when the District treats and provides hospital transportation for the patient. WPFR is often asked why transports are billed when an EMS Levy is in place. While it's true residents pay up to $0.50 per $1,000 of AV for an EMS Levy; this tax revenue does not fully fund the District's EMS program. EMS transport fees assist in mitigating the costs not covered by the EMS levy. The District does utilize an EMS membership program for District residents, which allows for their EMS Levy dollars to pay for any outstanding balance not paid by their medical insurance provider.
- ***Fire Protection Contracts –*** State agencies are exempt from property tax. Per RCW 52.30.020, these agencies shall contract with the Fire District for fire protection services. The District's fire protection contracts include: Department of Social and Health Services (Western State Hospital), Special Commitment Center and Department of Children, Youth & Families, Pierce County, Pierce College, Pierce Transit, Clover Park School District, Clover Park Technical College, Washington State Department of Transportation, Department of Fish and Wildlife, and the University Place School District.
- ***Other Contracts –*** The District maintains a contract for fire protection with the Veteran's Administration (VA) for the American Lake VA Campus, which is located outside of the Fire District boundary. There are also contracts in place with the Lakewood Water District and Tacoma Public Utilities for fire protection. The City of Lakewood contracts with WPFR for Fire Marshal services. Pierce County Fire District 13 (Brown's Point) contracts with the District to maintain their fleet of vehicles and the District is also party to an agreement with the cities of Lakewood and University Place, as well as the Town of Steilacoom, which established the West Pierce Emergency Management Coalition (WPEMC).

The District is in a long-term agreement with the Town of Steilacoom to provide emergency response services. The contract was implemented in 2012 and was renewed in 2022 for an additional 10-years with automatic renewals every 5-years after the initial term.

The following chart depicts the percentage of revenue for each category. Property taxes, which include the Regular Levy & EMS Levy which, along with the FBC, make up the majority of revenue for the Fire District. The intergovernmental category includes fire protection contracts such as the school district, colleges and Western State Hospital along with grants and GEMT funding. Additionally, the WPEMC and Steilacoom & VA contracts are housed here. Charges for goods and services include transport fees, classes, and fleet maintenance agreements. The beginning fund balance is the amount of money carried over from the prior year. These monies are budgeted for and are necessary to sustain operations until the tax revenues arrive in May.

GROWTH, REDEVELOPMENT AND LAND USE

All three communities served by WPFR are



extensively developed, mature communities. Most future growth will occur as the result of urban infill and redevelopment of existing properties. Current commercial development patterns are largely representative of typical suburban sprawl, with little in the way of a recognizable downtown core to tempt the community to get out of the car, stroll and linger. Both Lakewood and University Place have plans in place to control this sprawl and develop a thriving downtown area. *(Reference: Lakewood and University Place Comprehensive Plans)*

Land Use
Lakewood, University Place and Steilacoom all have different types of land use designations. The following include the types of land use in each city.

Lakewood

Air Corridor 1 and 2 - The Air Corridor areas are affected by JBLM-McChord Field aircraft operations. The potential risk to life and property from hazards associated with military aircraft operations within the Air Corridor necessitate control of the intensity, type and design of land uses within the designation, with uses tailored to limit the number of persons placed at risk.

Arterial Corridor - Provides an environment for an essentially residential neighborhood while permitting the development of low-intensity, non-nuisance business uses.

Central Business District - The primary retail, office, social, urban residential, and government center of Lakewood. The Central Business District (CBD) is intended to attract significant numbers of additional office and retail jobs as well as new high-density housing. The plan anticipates the properties within the CBD will be developed into 75% commercial and 25% residential uses.

Corridor Commercial - The commercial corridors along I-5, South Tacoma Way, Pacific Highway, and Union Avenue are examples of Lakewood's dominant pattern of strip commercial development.

High Density Multi-Family - This designation combines urban design elements to enhance the living environment through integration into central or neighborhood business districts. Urban design elements stress pedestrian orientation and connections, security, transportation and integration of housing.

Industrial - Provides for regional research, manufacturing, warehousing, concentrated business/employment parks, and other major

regional employment uses.

Lakewood Station District - This is the multi-modal commuter hub of Lakewood and the southern terminus of Sound Transit's commuter rail service. This District will accommodate a dense mix of office, retail, and high-density residential uses supported by direct regional transportation access.

Military Lands - The portions of the federal and state military installations within the city.

Mixed Residential - This designation provides for a moderate increase in density using a variety of urban housing types and designs including small-lot single-family homes, townhouses, duplexes and small apartment buildings.

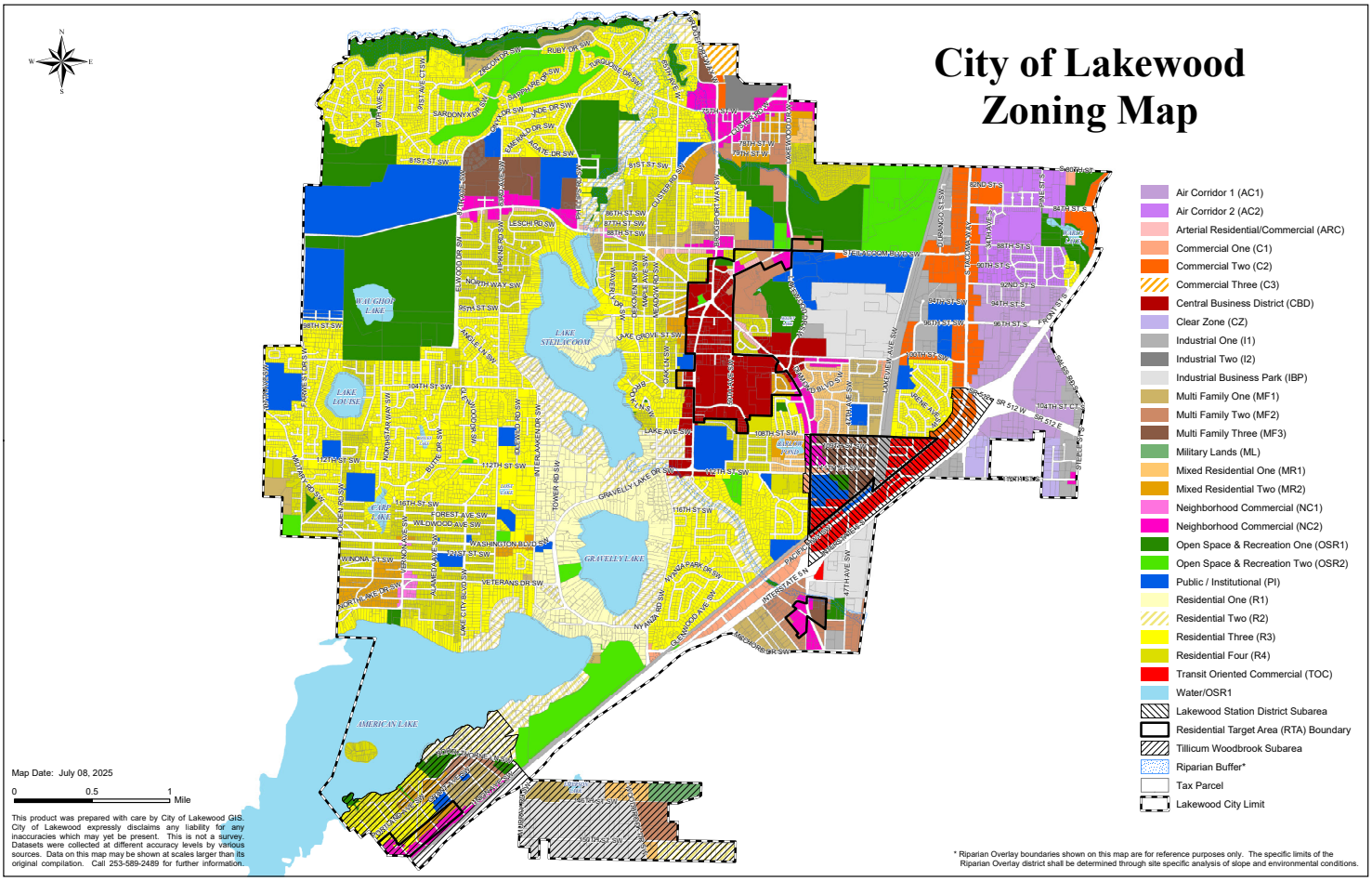
Multi-Family - Incorporates a combination of urban design elements to enhance the living environment while integrating the housing into a neighborhood or neighborhood business district.

Neighborhood Business District - A concentrated mix of activities, including retail and other local services, residential and some office use. These districts are expected to provide commercial services, as well as residential units in the upper floors of some buildings.

Open Space and Recreation - Provides public open spaces and recreational uses such as state and municipal parks, preserves, and trails as well as privately owned facilities such as golf courses, Lakewold Gardens and cemeteries. The cities of Lakewood and University Place are working together to develop the Chambers Creek Canyon for limited, passive recreational uses.

Public and Semi-Public Institutional - Large and moderate scale governmental uses, special districts, and semi-institutional uses that allows for the specialized needs of providing public services to all areas of Lakewood.

Residential Estate - This designation provides for large, single-family lots in specific areas



where a historic pattern of large residential lots and extensive tree coverage exists. This designation preserves the historic identity these "residential estates" contribute to the community, along with protecting the environment along the lakes and creeks.

Single-Family - This designation provides for single-family homes in support of established residential neighborhoods. This is the most common designation within the City of Lakewood.

University Place

Community Commercial - These areas include general retail, restaurants, personal services, professional offices, and multi-family dwellings.

Light Industrial - Business Park - This designation includes light and clean industries, storage and warehousing, automotive repair, contractor yards, limited retail, restaurants, offices and entertainment uses, public and private parks, community and cultural services, administrative government and safety services, and public transportation services.

Low Density Residential - Single-family residential neighborhoods comprise a significant percentage of the City of University Place's land area. Uses in these areas are restricted to single family homes, duplexes, accessory dwelling units, adult family homes, schools, home-based day care, assisted living and nursing homes, religious assembly, public parks, community and cultural services, home occupations and minor utility distribution facilities.

Mixed Use - Developments include mixed-use with a focus on residential upper floors and the ground floors providing retail, restaurant, offices and other active uses.

Mixed Use Maritime - This designation supports the operation of marinas, yacht clubs with boat moorage and related facilities and activities. The designation accommodates mixed use development that may include a variety of water-oriented commercial, transportation and light industrial uses, and moderate density residential uses. Additional purposes provide public access to the shoreline and recreational uses oriented toward the waterfront. There is an emphasis to protect and restore existing ecological functions.

Mixed Office Use - This designation serves as a transition zone providing separation between more intense commercial activities and residential areas. Uses allowed include redevelopment of multi-family housing, single-family housing, nursing homes and assisted living facilities, day care, religious assembly, professional offices, limited retail uses, public parks, community and cultural services, and administrative government services.

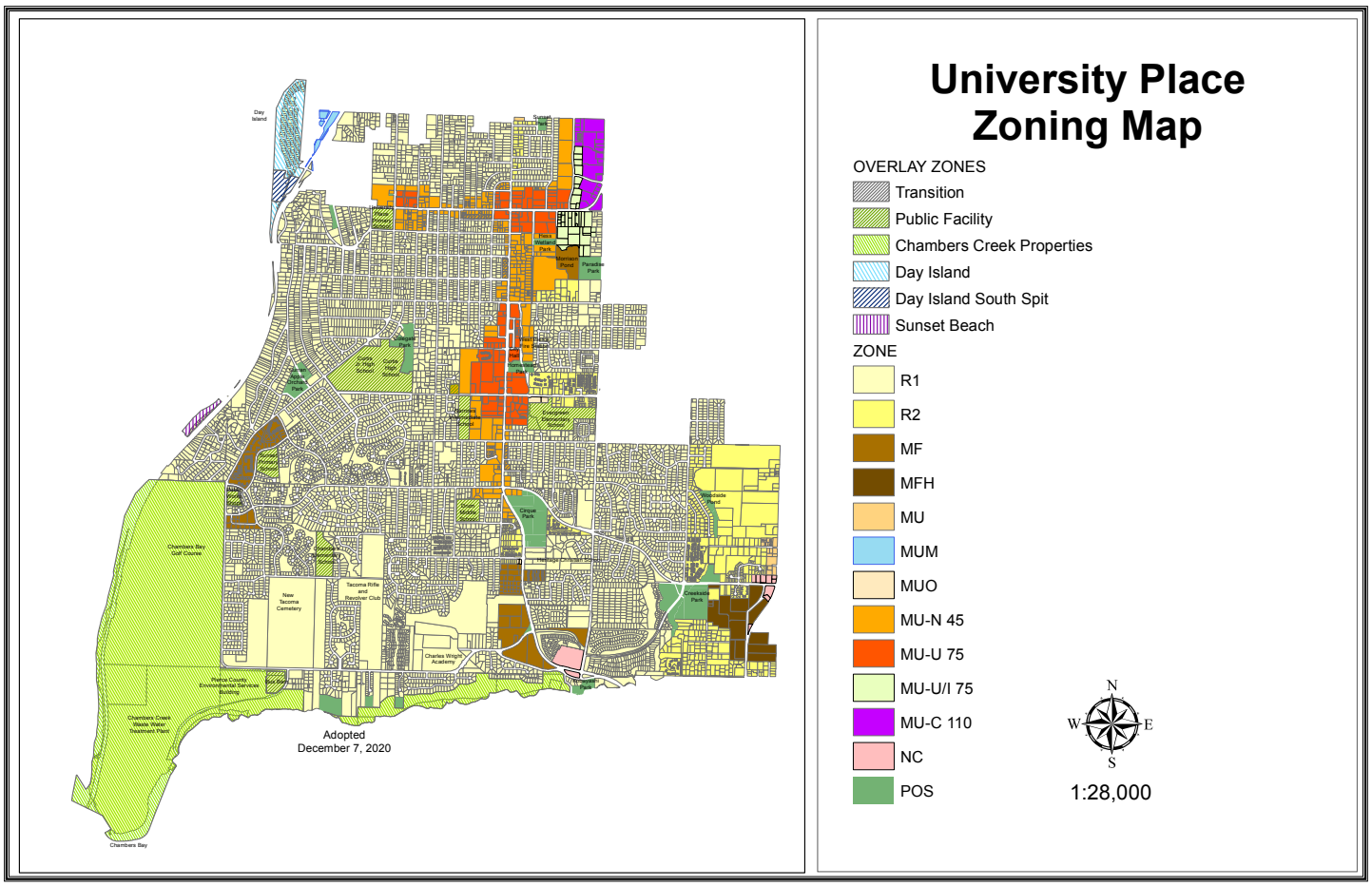
Moderate Density Residential - Higher density residential is located along major arterials and transit routes, close to shopping, public facilities and services. Uses allowed in these areas include multi-family housing, single-family housing, adult family homes, nursing homes and assisted living facilities, schools, public and private parks, community and cultural services, home-based day care, home occupations, minor utility district facilities and religious assemblies.

Neighborhood Commercial - Compact centers that provide a mix of retail shopping, personal services, banks, professional offices, public parks and service stations that serve the daily need of the portion of the city where they are located. This zone ensures that landscaping, sidewalks and public open spaces encourage a pedestrian-friendly atmosphere.

Town Center - This serves as a focal point for the City and provides a sense of community and civic pride. This center includes the Civic Building, City Hall, West Pierce Fire & Rescue headquarters station and Homestead Park. Public facilities and services, retail stores, personal services, professional offices, restaurants and some entertainment uses are encouraged. This area also includes high density housing with a minimum density of 20 dwelling units per acre with no maximum density.

Steilacoom

Commercial and Housing - These areas are characterized by a mix of commercial and



residential uses.

Commercial and Recreation - There are three areas along the shoreline designation for mixed commercial and recreational use. Commercial enterprises in these areas should be compatible with waterfront activities.

Housing and Open Space - Much of this land is in large parcels that may be subdivided in the future.

Industrial - The future of this area has been the subject of much discussion. No definite plans for the site have been proposed, but future use may include non-industrial uses.

Industrial and Open Space - A small area near Chambers Creek is currently zoned for industry and is surrounded by open space. The open space provides a natural buffer between the industrial use and surrounding residences.

Open Space Areas - Open space areas include mature or dense native vegetation and shoreline or wetland features. Open space areas often provide functions such as wildlife habitat, drainage or stormwater retentions and natural areas that provide a visual break from surrounding urban development.

Open Space and Recreation - Most of these areas are owned by the Town or the Steilacoom Historical School District.

Public Facilities – These include facilities such as schools, libraries, and Town–owned buildings.

TOPOGRAPHY

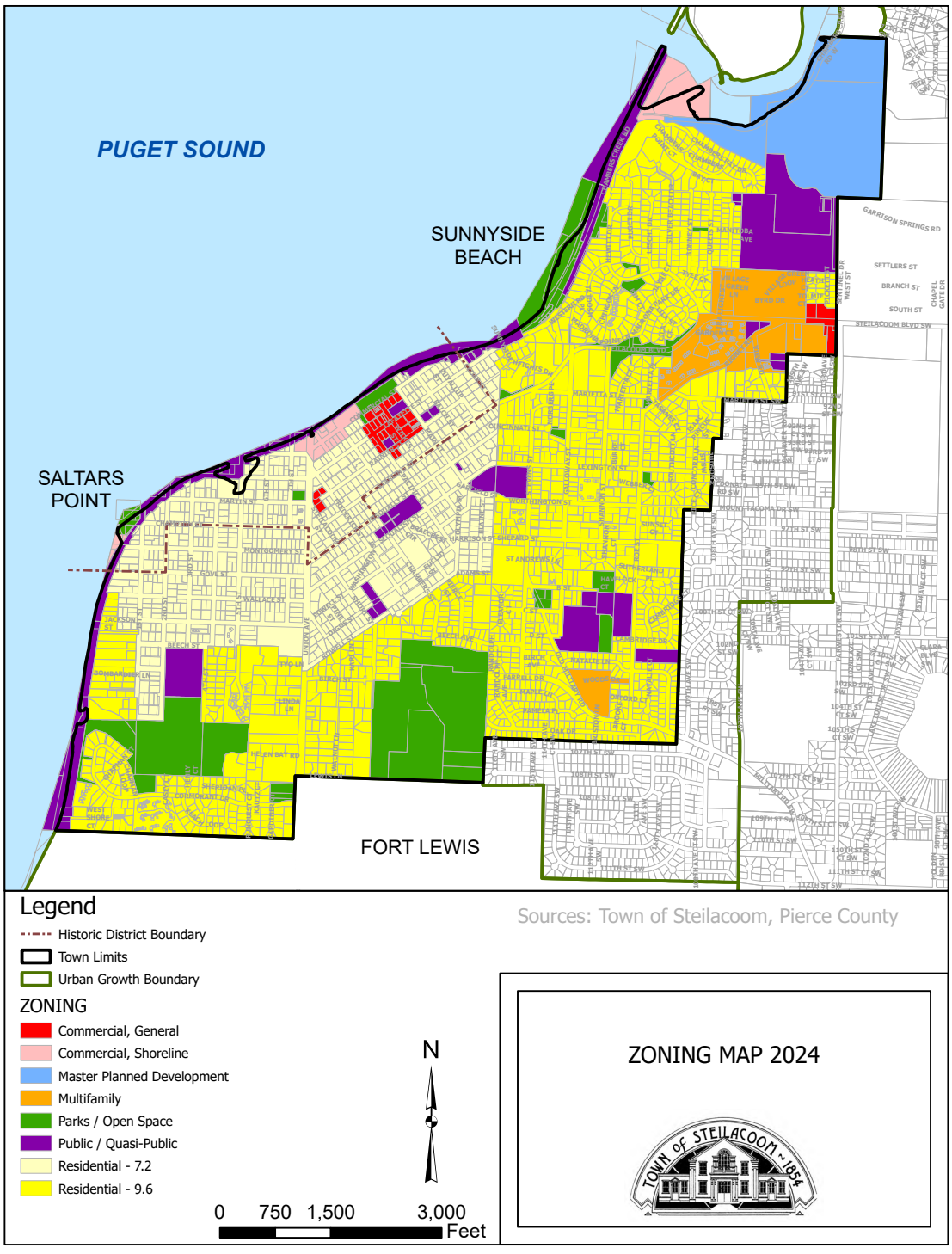
WPFR is located on the Puget Sound about 40 miles south of Seattle and 25 miles north of Olympia. I-5 runs through the District and JBLM makes up most of the eastern border. The response area covers nearly 31 square miles. Lakewood is just over 20 square miles, University Place is roughly 8.5 and Steilacoom is just over two.

Lakes and Other Bodies of Water - There are several lakes in the jurisdiction, which cover 9.3% of the District in water, not including the Puget Sound or streams. The District contains nearly 70 miles of shoreline: eight miles of

Puget Sound shoreline and over 61 miles of freshwater shoreline which includes all of the lakes and both sides of any creeks or streams.

Several creeks and streams in the area create a seasonal flood risk within the community. Approximately 4% of the area in the District is at risk of a flood and most of these areas are near these creeks, which can experience fluctuating water levels.

Elevation - The District ranges in elevation from sea level to a high point of 480 feet above sea level near the Park Royal/Westcliffe neighborhoods in University Place. Steep slopes descend on the west along the Puget Sound and on the south along Chambers Creek Canyon. These steep graded areas are



susceptible to slope failure and an increased risk of damage during an earthquake. Steilacoom neighborhoods are found on 5-15% slopes, though severe slopes (up to 70%) are found in the Madrona Park and Chambers Creek areas.

Access - Some areas in the District may be difficult to access in a major disaster due to the fact there is only one point of ingress and egress. Day Island and Sunset Beach are examples in University Place, while the Tillicum, Woodbrook and Springbrook neighborhoods are examples in Lakewood.

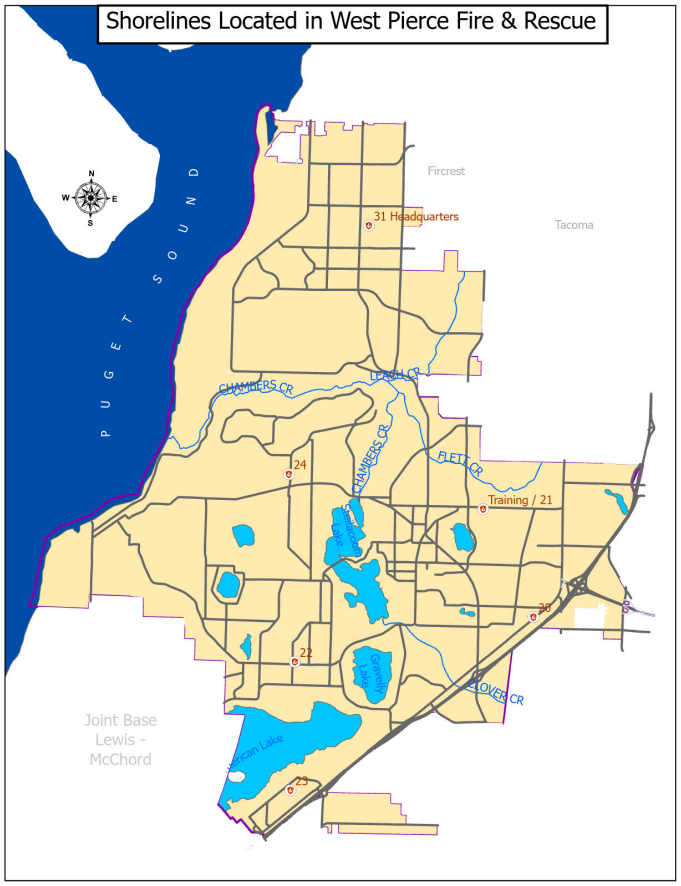
Undeveloped Lands - A mere 6% of the land in WPFR is undeveloped. Development significantly increases the risk of fires and medical calls. *(Reference: City of Lakewood Comprehensive Plan, City of University Place Comprehensive Plan, City of Steilacoom Comprehensive Plan)*

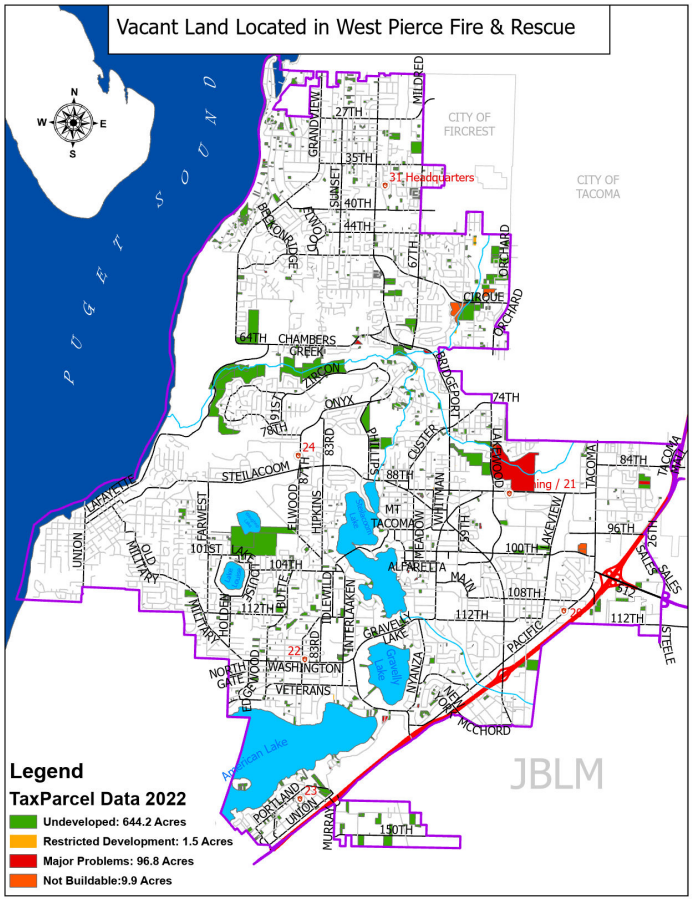
Although the land in the District is mostly developed, there are still many wooded areas. In fact, 7% of the land is vacant and wooded while another 20% is wooded residential. Vacant land is not the same as undeveloped land. Vacant land includes area parks, which are also considered developed. Many of the trees are very tall and can have a significant impact during major weather events such as windstorms because they may fall, creating damage to homes, cars, power lines, roads, etc.

CLIMATE

The weather conditions in Lakewood, University Place and Steilacoom are very temperate. The weather is mild with summertime temperatures in the 70s and winter averages in the 40s. Rainfall for the area is approximately 47 inches per year with approximately two-thirds of the rain falling between November and March. Measurable precipitation occurs an average of 99 days per year. It rarely gets cold enough to snow, with an average of just two days per year with an inch or more of snow.

The average wind speed is nearly 10mph for the entire year. April is the windiest month with average wind speeds over 30mph. WPFR is vulnerable to severe storms (wind/snow/ice), which occur mostly in the winter months.





(Reference: USA.com)

Parks

Parks are an important part of a vibrant and healthy community. They contribute to the vitality of the community, encourage economic development, create a neighborhood identity and improve the quality of life for the residents. In WPFR, there are a total of 38 parks in use and several lots slated to be parks in the future. Lakewood has a total of 14 parks, while University Place and Steilacoom each have 12. The largest park in the district, at 930 acres, is Chambers Creek Regional Park in University Place, which includes Chambers Bay Golf Course, home of the 2015 U.S. Open. Fort Steilacoom Park in Lakewood is the second largest park at 340 acres. *(Reference: City of Lakewood website and Chambers Bay website)*

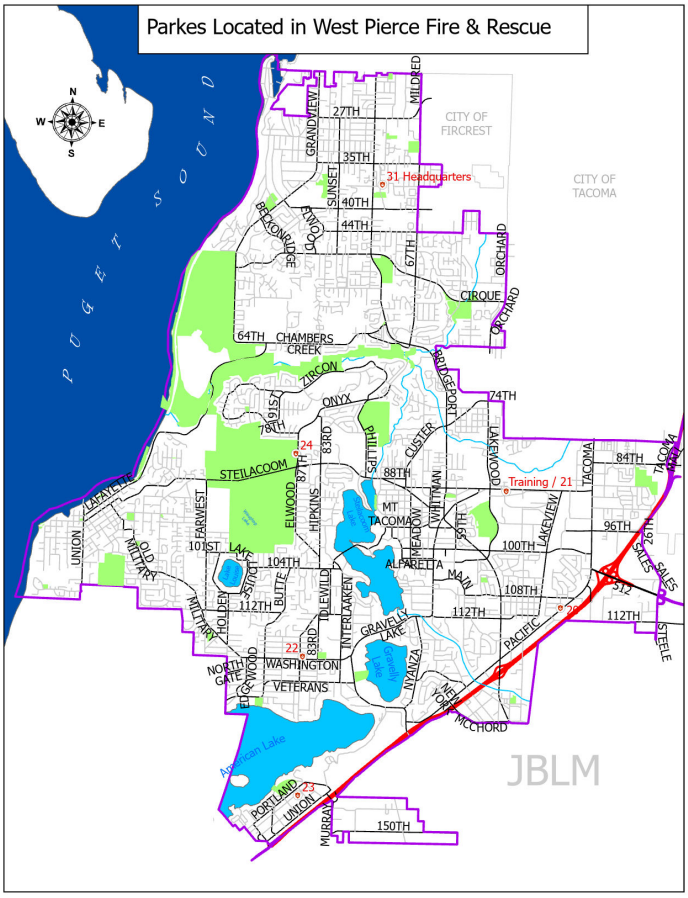
Water Supply and Distribution

WPFR has five water systems. Lakewood is served primarily by the Lakewood Water District. However, east of I-5, Parkland Light and Water provides water south of SR512, and the City of Tacoma provides water north of SR512. Western State Hospital is a private source system for the WSH campus. The Town of Steilacoom is the provider of water for the Town. Tacoma Water provides water for the City of University Place.

- *Lakewood Water District* – Established in 1943 by a vote of the taxpayers. They serve a population of 115,000. It currently has 17,716 water connections, 275 miles of water main, 13 water tanks and 33 wells.

- *Tacoma Water* – Established in 1893 by a vote of the taxpayers, it provides water service to approximately 101,197 residential customers, 6,945 commercial and industrial customers and an estimated population of over 300,000. Their distribution system encompasses an area of approximately 119 square miles and contains nearly 1,428 miles of water main. The City of University Place is just one portion of their service area.

The City Municipal Codes of Lakewood and University Place require there be no more than 700 feet between fire hydrants. Additionally,



no point of a building should exceed a 500 foot hose lay, which is why many large commercial structures have additional hydrants located throughout the site. Unfortunately, there are several buildings throughout the jurisdiction built prior to these requirements and in those instances, there may not be enough hydrants or fire flow to adequately protect the property. *(Source: Lakewood Water District , Tacoma Public Utilities and Town of Steilacoom websites)*

Economy

It is important to think of the fire service in terms of what is saved in the community and the economic impact of those efforts. According to WPFR's call data, about 5% of incidents are fires. Even though this seems like a small amount it equates to more than two fires each day. Just one destructive fire can have a negative impact on the economy. Providing sufficient resources to a fire in a timely manner may make a significant difference in minimizing the economic losses.

Lakewood and University Place are the third and fifth largest cities in Pierce County

respectively. The largest industries in the community are healthcare, retail, education and transportation and accommodation/food services according to the 2021 City of Lakewood Economic Overview. *(Source: http://www.chmuraecon.com/jobseq)*

Largest Employers
The 10 largest employers by city include the following as noted by the Tacoma/Pierce County Economic Development Board:

Lakewood
- Joint Base Lewis-McChord
- Clover Park School District
- Western State Hospital
- Camp Murray
- Pierce College
- Virginia Mason Franciscan Health
- Pierce Transit
- McLane Northwest
- Aacres WA, LLC
- Clover Park Technical College

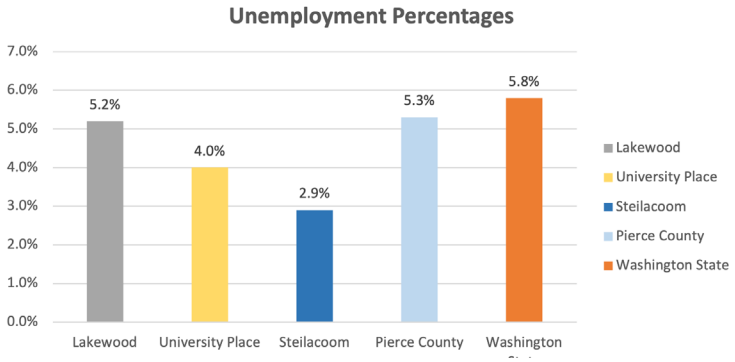
University Place
- University Place School District
- Virginia Mason Franciscan Health
- Fred Meyer Stores
- West Pierce Fire & Rescue
- Soundcare, Inc.
- Whole Foods
- Pierce County Government
- Charles Wright Academy
- Kemper Sports
- Safeway Stores

Steilacoom is a much smaller residential community and therefore does not have many employers. The Steilacoom Historical School District is the largest employer in the community. Some other employers include restaurants, gas station/convenience stores, professional offices and several small shops. *(Reference: Steilacoom Comprehensive Plan and the Pierce County Major Employers List 2020 Annual Report)*

Unemployment Rates
According to the 2021 Census ACS 5-Year Estimates, Lakewood's unemployment rate was 5.2%, on par with Pierce County (5.3%) and Washington State (5.8%) and the U.S. (6.3%) In contrast, the City of University Place had an unemployment rate of 4.0% and the Town of Steilacoom was 2.9%.

TRANSPORTATION

There are several modes of transportation within WPFR, which include Interstate 5, roadways, bus service, rail lines, waterways, trails, and bicycle lanes. In Lakewood, nearly



87% of the population works outside their place of residence. In University Place that number is over 84% and in Steilacoom it is almost 82%. With so many residents traveling out of the area to work and over 83% of those utilizing their personal vehicles for travel, the highways and roadways are very important in the communities. *(Reference: US Census 2021 ACS 5 Year Estimates)*

Highways – Two major highways, Interstate 5, and State Route 512 run through WPFR. Interstate 5 runs from the Mexican Border to the Canadian Border, passing through Lakewood. State Route 512 runs east to west starting in Puyallup and terminating in Lakewood. A significant number of vehicles travel these highways each day. Weather conditions play a major factor in the ability of traffic to flow safely through the District, as does the time of the day and week.

According to Washington State's Department of Transportation, in 2022, the average daily vehicle count on Interstate 5 at milepost 119, located near the Steilacoom/DuPont Road, just south of the District, was 127,000 with approximately 12% (15,325) of those vehicles being large trucks. The peak truck volumes near this exit were from 9 a.m. to 1 p.m.

At Milepost 131, just north of the Fire District at 56th Street, the average daily vehicle count was over 193,000 with almost 11% (20,709) being large trucks. The peak truck volumes near this

exit were from 8 a.m. to 11 a.m.

Of the large trucks on Interstate 5, approximately 3% are transporting a hazardous material and an additional 3% are transporting "super heavy" loads. A recent review of the "heavy truck" collision data for Pierce County indicated 11% of the collisions occurred in Lakewood which amounted to an average of 45 "heavy truck" crashes per year. This means WPFR responds to nearly one collision involving a "heavy truck" on Interstate 5 each week. Since 2019, the average number of collisions WPFR responded to on the highways, including both Interstate 5 and State Route 512, is 224 per year, or more than four collisions per week. *(Source: WSDOT Historical AADT and Truck percentage dataset)*

Roadways – This includes all of the surface streets within the District including major arterials, secondary arterials, collectors and neighborhood streets. Thousands of trips per day are made on the major arterials through the District. WPFR data shows overall, the number of collisions responded to on these roadways have decreased by 25% between 2019 and 2022. (*Reference WPFR CAD Report of MVAs on Highway ESZs)*

The City of Lakewood has many natural obstacles, such as, American Lake, Gravelly Lake, and Lake Steilacoom, which constrict the flow of traffic between the east and west halves of the city to a few arterial connections. Road improvements have not kept pace with increasing traffic volumes, nor are there many realistic alternatives to driving, since the bicycle and pedestrian networks do not provide safe links throughout the community. The City of Lakewood's Comprehensive Plan discusses the planned improvements to the road network, including more bike and pedestrian networks and easier access to public transportation. Hopefully these improvements will result in decreased traffic incidents.

In Steilacoom, the data shows that traffic has been stable on three of the four roadways over the past six years, with the volume of traffic increasing on Old Military Road. The heaviest traffic occurs during commuting hours in the morning and evening, with the peak hours on most roads around 4:00 PM.

Soon after incorporation, the City of University Place began making improvements to the roadways, such as installing medians, roundabouts, curbs, gutters, sidewalks and bike lanes. These changes have not only improved the multi-modal function and aesthetics of the street, but have also lowered accident rates in areas where the improvements were made. *(Reference: City of University Place Comprehensive Plan)*

Rail – Burlington Northern Sante Fe (BNSF) is the major commercial railroad in the country. There are two sets of track running through the District; one travels along the Puget Sound on the western border, the other travels through Lakewood along Interstate 5 until it gets to the Lakeview neighborhood, where the track turns and runs along the west side of South Tacoma Way.

While providing a regional benefit, the presence of a railroad does have negative impacts on the community. Many homes are immediately adjacent to the Burlington-Northern railroad and experience noise and vibration impacts. There is also a risk of a train derailment. Since 2010, there have been three separate significant derailments that have generated significant fire department and community responses.

Railroads are classified as "Common Carriers" in the United States. This means BNSF is required by Federal Law to transport any legal

commodity, including any hazardous materials in accordance with DOT regulations. BNSF transports consumer commodities, grain and agricultural commodities, low-sulfur coal, and industrial goods such as petroleum, chemicals, housing materials, food and beverages. Trains vary in size from a merchandise train, which is about 20 cars or more to a unit train of grain that could be 125 cars or more.

Passenger and commuter trains also travel through the District, using the same tracks as the commercial trains. According to the latest posted schedule, Amtrak runs 10 trains through the area each day; equally split between northbound and southbound.

The Sounder commuter train has its southernmost station in Lakewood. There are eight trains going northbound to Seattle each day and 13 trains going southbound to Lakewood. Average daily weekday ridership on these trains is just over 300 passengers.

Bus – Bus service throughout the District is provided by Pierce Transit. There are seven fixed routes that travel through Lakewood, University Place and Steilacoom. Monday through Friday, a total of 158 buses travel through the community starting at 5:30 a.m. until approximately 9:30 p.m. On Saturday, there are 110 buses, starting at 6:15 a.m. until approximately 8:30 p.m. Sundays have the least amount of bus traffic with 67 buses. *(Reference: www.piercetransit.org)*

Sound Transit provides regional bus service for commuters traveling from Pierce to King County. There are 47 of these buses stopping in Lakewood every weekday and 34 on weekends.

Waterways – WPFR has several waterways to protect. There are approximately eight miles of Puget Sound shoreline and nearly 62 miles of freshwater shoreline, which includes all ten lakes and both sides of any creeks or streams. The lakes are used for recreation including boating, fishing, swimming, etc. In 2012, WPFR received a grant to purchase the Endeavor Fire Boat, which is moored at Narrows Marina on the Puget Sound. Endeavor is a regional asset, so not only does it provide protection to the WPFR shoreline, but also to the entire South Puget Sound region.

The Puget Sound is utilized, not only for recreation, but also delivers prosperity to the region through the Port of Olympia and the Port of Tacoma. Adequate protection of this waterway is important not only for WPFR, but the region as a whole. In 2015, the Port of Tacoma joined the Port of Seattle to create the marine cargo operating partnership known as the Northwest Seaport Alliance. Together, they are the fourth largest container gateway in the US.

According to the 2020 NWSA Annual Cargo Report, over 172,000 automobile units were shipped and over 23 million metric tons of cargo. The partnership drives over 12.4 billion in economic activity in the state. The Port of Olympia exports logs to Japan and imports fracking sand from China. If there are any interruptions at either of these ports, the impact to the local and national economy is significant. *(Reference: Port of Olympia via phone call, Port of Tacoma and NWSA website)*

HISTORY OF WEST PIERCE FIRE & RESCUE

The history of WPFR cannot be told without first telling the histories of Lakewood Fire District 2 and the University Place Fire Department. The histories show two separate departments sharing a common border, operating similarly and duplicating many services. From 1990-2010, several Pierce County fire departments were consolidating to improve efficiencies and find economies of scale. In 2009, the University Place and Lakewood chiefs began discussing the benefits of merging the departments. Following a vote of Lakewood Fire District 2 voters, the merger became official on March 1, 2011.

Lakewood Fire District 2

Lakewood Fire District 2 was formed in 1940, by a vote of the taxpayers. The original Fire Chief was Luke J. Caraway, followed by Chester Wallace. Bruce White, the third Fire Chief in Lakewood, was appointed on November 1, 1944 and remained for nearly 30 years until 1972. In 1944, there were only two salaried employees and all others were volunteers. Chief White placed a high level of importance on public relations and customer service, knowing public support and the involvement of the community was crucial to any new fire department.

The 1950s were a period of growth and annexation for Lakewood Fire District 2. Surrounding communities would send a letter to the Board of Fire Commissioners asking to be included in the District, meaning these areas would have fire protection. The requests would be considered carefully before allowing any annexation. Due to the growth caused by annexation, along with an increase in population, it was necessary to build four new fire stations. In 1954, voters approved a $200,000 bond to build four fire stations and purchase three new fire engines. Currently, only one of these stations remains in the same location; Station 23 at 14505 Grant Avenue in the Tillicum neighborhood. In 1959, the District had 50 personnel; 35 volunteers and 15 salaried.

The 1960s were an era of increased fire prevention efforts in Lakewood. A home inspection program was created in the late 1950s and by the early 60s there was a goal to inspect 1,500 homes per year. These home inspections were geared toward educating residents about life safety hazards and not to place blame or issue citations. In addition to these home visits, several articles were written in the local papers about fire safety and a film was produced at Clover Park Vocational School about the dangers of fire and how they can be prevented.

The 1970s were a time of arson fires, change and growth. Several large scale arson fires took place and many were the result of competing criminal elements. The perpetrators were caught and served many years in prison for their crimes. Not all of the fires in this era were the result of the criminal conspiracy, as some were accidental. During this incredibly busy time the District found it necessary to increase its staffing and improve the fleet of fire apparatus. Unfortunately, the fire department budget was in crisis. As a solution, then Fire Chief Chet Rolly, along with the Board of Fire Commissioners, put the first maintenance and operations levy on the ballot. On November 5, 1974, the Lakewood residents passed the first Maintenance and Operations Levy by a margin of more than 70%.

The fire service began to change in the 70s as firefighters started to provide emergency medical and rescue services, in addition to traditional firefighting. Many of the firefighters starting taking first responder courses; some

became Emergency Medical Technicians (EMT's) and some became Paramedics. The Hurst tool or "Jaws of Life" was purchased for Lakewood Fire District 2 by the Rotary Club of Lakewood in 1978. This hydraulic rescue tool greatly assisted firefighters with the extrication of entrapped motor vehicle crash victims. This innovative tool enhanced access to rapid, lifesaving care and transportation to area hospitals.

Fire Chief Tom Kanno led the District from 1981-1989. This decade was one of growth and continued change for the fire service. The increased services provided were a direct result of the community's continued support of the Maintenance and Operations Levies. In February 1981, every firefighter working for Lakewood Fire District 2 completed an 81-hour basic EMT course. This certification greatly improved the level of medical care firefighters could bring to the residents. In 1983, the Rotary Club of Lakewood donated the first transport-capable medic unit to the District. The paramedic program started in 1984 when the District hired its first class of firefighter/paramedics to staff this unit. This was the first time the District was able to provide advanced life support care for its residents.

The 1980s brought about a change in the make-up of the workforce at Lakewood Fire District 2. As the fire service changed, volunteers were phased out and more full-time paid firefighters were hired. The paid staff could be ready to serve at a moment's notice, which reduced response times to emergencies. In 1984, the volunteer program transitioned into a support group which lasted until 1992, when the final member left.

In 1982, steps toward a consolidated dispatch agency began. This meant Lakewood Fire District's dispatch center, known as Fire Comm, would begin dispatching for the University Place and Fircrest Fire Departments as well. This model of centralized dispatch was so successful that today, the foundation has been built for South Sound 911 which has become a premier police and fire dispatch center in Pierce County.

The 1990s was the decade of customer service, water rescue and technical rescue. Chief Steve Marstrom was the Fire Chief from 1990-1999. The District had been providing many different services to the community for years, but this was when the fire service began to realize just how important customer service was.

Fire Chief Paul Webb who succeeded Chief Marstrom, used to say, "We may provide all sorts of special services to the community, but they pay for it through taxes. It is the same as any other service business like a plumber or carpenter. We will be sensitive to their needs and provide them the best service we can." Because this customer service philosophy was so important at Lakewood Fire District 2, the following motto was adopted, ***"Respond Efficiently • Execute Flawlessly • BE NICE!"***

The District's first fire boat was purchased in 1991. Outfitted with medical and water rescue equipment, this boat provided firefighters a means to respond to emergencies on the various lakes and Silcox Island on American Lake. In 1999, a larger boat was purchased which provided the additional capability of being able to fight fires on Silcox Island. Just days after this boat was placed in service, there was a significant house fire on the island and firefighters thankfully had the capability to extinguish it and protect the house next door.

This was also the decade where the fire service was increasingly called to a wide variety of emergencies, not simply fires and medical calls. The District was called when people needed to be rescued from water towers or bridges, had

fallen off a cliff, or even fallen in a sewer, drain or hopper. These types of calls require specialized training to minimize the risks and hazards to victims and firefighters. A technical rescue team was developed and firefighters assigned to the team were provided with the necessary skills and training to perform these types of high risk/low frequency incidents.

In the mid-1990s both departments combined administrative services. However, after a few years the agencies could not agree on the path forward and the functions were separated and returned to their respective agencies.
The 2000s were the decade of training and expansion. Due to aging fire stations and apparatus, coupled with the fact there was an area of the District with significantly longer response times, Lakewood Fire District 2 placed a $14 million bond on the September 18, 2001 ballot to build one new fire station, remodel three existing stations, rebuild one existing station and purchase new apparatus. This bond allowed the District to provide both men's and women's facilities, as the fire service was hiring more women during this decade. The bond also allowed the District to provide separate sleeping quarters in every station, replacing the old bunk room concept.

This decade also saw an increase in hazardous materials incidents. In the late 1990s and early 2000s, the neighboring McChord Fire Department, a U.S. Air Force department, was relied upon to respond to hazardous materials calls in Pierce County, but with the events of September 11th, their focus shifted and they could no longer provide this service to fire districts off the base. As the frequency of Hazardous Materials incidents increased, a greater focus was placed on these high-risk incidents.

Technological advances were implemented during this era as well. Computers were placed on each piece of apparatus, providing information such as mapping, dispatch details, pre-fire plans, hydrant locations and more at the firefighter's fingertips. Another technological advancement was the use of thermal imaging cameras. This technology afforded firefighters the ability to see hidden sources of heat in smoky fire conditions, effecting a more rapid and thorough

extinguishment. In some cases, trapped fire victims could be identified, providing the opportunity for a quicker rescue and a better chance for survival.

In April 2007, Ken Sharp took over as Fire Chief and he immediately set out to explore regional collaborative opportunities. One of these opportunities was once again starting discussions with the University Place Fire Department. South Sound 911, the consolidated police and fire dispatch center, was another collaborative opportunity in Pierce County which began during Chief Ken Sharp's tenure.

University Place Fire Department
The University Place Volunteer Company was formed on January 15, 1941. The community force operated out of a tomato shed in the area of 2500 Grandview Drive. Just a few short years later, Pierce County Fire District 3, or the University Place Fire Department, was officially formed by a vote of the people on August 26, 1944. The first Fire Chief was Leslie B. McGaw who served from 1941 - 1965.

In the 1950s, University Place was protected by volunteer firefighters who staffed the trucks and answered fire calls. At the time of need, volunteers were alerted by the fire station's roof-top siren. They attended weekly drills and furnished a "sleeper man", seven nights a week, to sleep at the fire station and answer emergency calls. The University Place population in 1950 was approximately 3,500 people.

By 1960, University Place had a force of 30 volunteers, including one woman, and three full-time employees. A vote of the people provided University Place with the funds to purchase a new fire engine in 1961. In 1965, Wayne Gotchy took over as Fire Chief. During his term as Chief, a great deal of effort was placed on fire prevention. Firefighters conducted home fire prevention inspections, provided safety displays at public events and displayed advertisements in local stores. In 1968, these fire prevention efforts paid off as it was the first year fires began to decrease in University Place.

The 1970s were a decade of population growth and an increased importance of Emergency Medical Services (EMS). By 1977, the population in University Place was approximately 25,000 and the fire department was struggling to keep up with the rising call volume. The cause of the rising call volume was twofold; the population was increasing and calls for EMS were becoming more common.

By the mid-1970s the Tacoma Fire Department added Advanced Life Support (ALS) Paramedics to their responses. The intensive instruction program was being offered at Tacoma Community College. A volunteer firefighter with University Place Fire Department had completed the training and was working part-time with a local ambulance company. Another full-time firefighter was attending classes and the department hired a firefighter with Paramedic credentials in February 1976. Eventually, the University Place Fire Department became the first Fire District in Pierce County to provide ALS Paramedic service.

In 1974, firefighters volunteered their time to build a fire boat, which was needed to fight fires at the Day Island Marina and help distressed boaters on Puget Sound. The department bought a fiberglass hull, which was considered a reject, only because the paint was discolored. The 21-foot shell was then fitted with an overhauled 17-year-old automobile engine. The marine hardware came from an old wood boat. When the project was completed, the department had invested $6,000 into a boat that should have cost $14,000.

A tax structure set up for rural communities did not provide adequate funding to communities like University Place, which was now a suburb with higher call volumes. To keep up with these challenges and the rising costs associated with expanded Emergency Medical Services, the first EMS Levy was passed in University Place in 1979. University Place Fire Department was led by Chief Ray VanValkenburg from 1977 to 1993, which was another period of growth. The population was increasing at a rapid rate, as well as the call volume. This brought about the need for more firefighters. The growing workforce required the department to place a bond issue on the ballot on September 16, 1980 to remodel and expand the existing station. The original fire station on Grandview Drive was donated to the UP Boosters Club in exchange for their parcel adjacent to the 40th Street fire station. The extra land afforded the existing station footprint to be significantly enlarged. The remodeled station was dedicated to the community in 1981.

1985 brought a $60,000 medical aid vehicle to the fleet, which was donated by community groups such as the University Place Kiwanis, Tacoma Narrows Rotary, and R.E. Nau/ University Insurance Brokers, Inc. This new medical aid vehicle allowed patient care to be conducted inside the unit and provided the capability to transport patients to the hospital. The 1990s was a decade of mergers and consolidations. Merger talks between the University Place and Fircrest Fire Departments began in 1992, but never came to fruition.

In the mid-1990s, the University Place and Lakewood Fire Commissioners agreed upon an Administrative consolidation. However, after a few years the goal of a merger was not reached and the consolidation ended.

The 2000s were a decade of expansion for the University Place Fire Department. The population growth started to slow, but call volume continued to rise. The number of volunteer firefighters began to decline during this decade and an all career force was established in 2008, when the last volunteer was hired full-time by the department.

In 2001, a new Public Safety Building was constructed to house both the University Place Police and Fire Departments. The new station was larger and could accommodate more firefighters. Owned by the fire department, the City of University Place leased space in the facility for police personnel. With completion of the new Public Safety Building, the Board of Fire Commissioners listed nearby Station 32 for sale. The sale was not successful and the department retained it for a future sale or re-purpose. In 2008, a Federal Staffing for Adequate Fire & Emergency Response (SAFER) Grant was received which provided funding to hire 12 firefighters. With the increased personnel, Station 32 located on 40th Street, was remodeled and reopened to house a staffed engine company and medic unit.

West Pierce Fire & Rescue

Looking at the histories of the two organizations, it is clear they mirror each other. They were created just one year apart. In every decade, the organizations were conducting similar programs. They became so similar, Chief Ken Sharp from Lakewood and Chief Mitch Sagers from University Place decided it was time to talk about a merger again in late 2008. It had been over a decade since the initial consolidation failed, but Chief Sharp felt these districts were so similar in operation that their current demographics lent themselves to a merger more than ever.

The chiefs then took the concept back to their Boards. In January of 2009, both Boards agreed to form a Regionalization Committee to explore the possibility. On January 25, 2010, Lakewood's Board of Fire Commissioners unanimously adopted a petition for merger, requesting to merge Lakewood Fire District 2 into the University Place Fire Department. A month later on February 27th, University Place's Board unanimously voted to accept the petition for merger.

On February 8, 2011, a measure was placed on the ballot, asking Lakewood voters, "Shall Pierce County Fire Protection District 2 (Lakewood) be merged with Pierce County Fire Protection District 3 (University Place)?" With an 82% yes vote, the organizations officially merged on March 1, 2011. With the merger official, Station 31 was chosen for the WPFR headquarters location. In 2012, the University Place Police Department moved out of Station 31 into their new facility on Market Street. This provided the necessary office space to house the larger WPFR administrative staff.

In March 2013, Jim Sharp was appointed the second Fire Chief of WPFR.

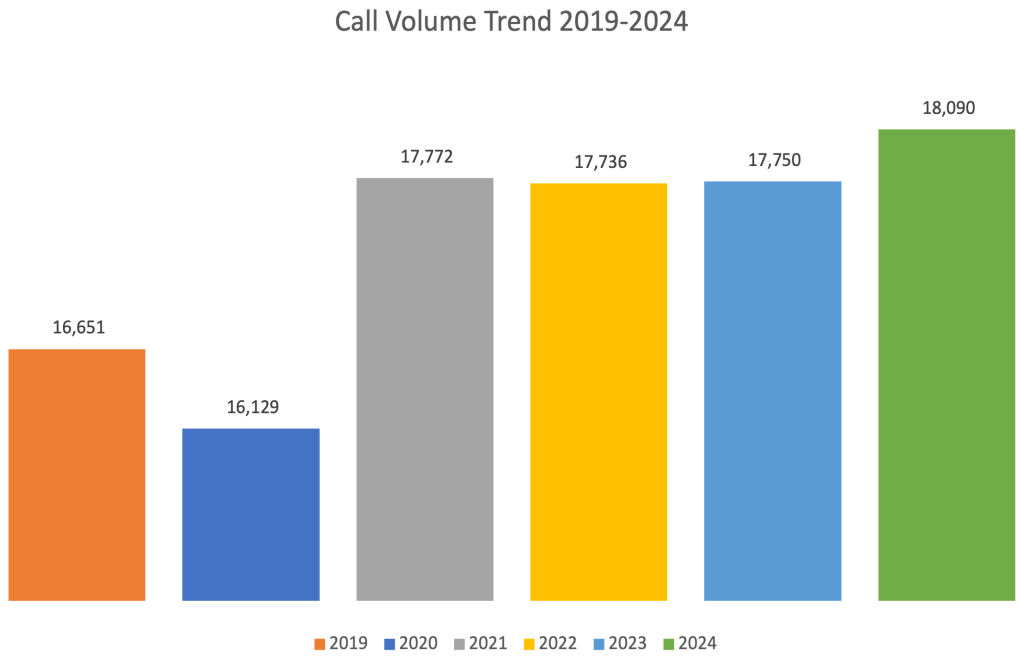
On May 1, 2013, the first West Pierce Fire & Rescue fire apparatus, fire boat "Endeavor" was placed into service. Acquired through a regional Port Security Grant, the boat could protect the District's waterways and be utilized as a regional response vehicle covering the South Puget Sound area. Prior to the merger, University Place had a boat, but due to a lack of funding and the age of the vessel, the service had to be discontinued. The grant paid for the boat and all necessary Marine Pilot training.

As a result of the merger, many resources were reallocated to more efficiently and effectively protect the district. This reallocation of resources allowed West Pierce Fire & Rescue to close Station 32, located on 40th Street, and consolidate the personnel and response apparatus to Station 31 on Drexler Drive. In 2014, Station 32 was sold to Sunset Bible Church.

Today WPFR is a premier, professional, all-hazards fire department. The values of public relations and customer service that began in the early years of both Lakewood and University Place, still hold true in WPFR today. Our motto is:

"Respond Efficiently • Execute Flawlessly • BE NICE!"

This motto defines the culture of WPFR. In fact, any employee of the District asked about this motto would be able to recite it. The exemplary services WPFR strives to provide every day would not be possible without the enduring support received from its residents.



SERVICES PROVIDED

West Pierce Fire & Rescue (WPFR) is an all-hazards response agency. In 2024, there were 18,090 total calls for service. The type of incidents include fires, emergency medical services, hazardous materials releases, marine/water rescues, technical/confined space rescues, motor vehicle crashes and various other emergencies.

The call volume is slowly regaining its growth pattern following the COVID-19 pandemic, which resulted in a significant drop in calls. The Call Volume Trend chart shows a significant decrease in call volume, which can be attributed to the COVID-19 pandemic. In 2021, it begins to increase, but we still have not seen a steady climb in call volume that the historical trends produce.

The District encompasses the cities of Lakewood and University Place, as well as a small unincorporated area in Pierce County. The District also contracts to provide emergency services to the Town of Steilacoom, as well as the Veteran's Administration American Lake Campus.

In addition to providing emergency response within the fire district, West Pierce Fire & Rescue also responds to other parts of Pierce County through requests for mutual aid through Pierce County mutual aid agreements.

Organizational Structure

The District operates under Revised Code of Washington (RCW) Title 52 and is a municipal corporation as defined by law in the State of Washington pursuant to RCW 41.24.010, operating as a junior taxing district. The District is governed by a Board of Fire Commissioners consisting of five members elected by the public to represent them. The Board meets once a month to conduct the business of the fire district. They are responsible for setting budgets, establishing public policy and providing administrative oversight to the Fire Chief. The Board meeting schedule, minutes, and agendas can be found on the WPFR website, www.westpierce.org.

The Fire Chief leads the day-to-day operations of the District and has the overall responsibility for operation of the fire department in accordance with the goals and directives provided to him by the Board of Fire Commissioners. The Fire Chief is assisted by an executive staff consisting of two Deputy Chiefs, four Assistant Chiefs, one Director of Administrative Services and Finance, one Executive Assistant and one Human Resource Manager.

Divisions

The District is divided into multiple divisions: Operations/Training, Health & Wellness, Emergency Medical Services, Information Technology, Administration and Finance,

Logistics, Communications and Planning, Community Risk Reduction and Emergency Management.

Operations and Training
Operations is under the direction of an Assistant Chief. The primary function of this division is to respond to emergency events with the goal of preventing the loss of life, reducing injuries and minimizing property loss through fire suppression activities and emergency medical care.

The Training Division ensures that all fire department personnel remain well-prepared and knowledgeable in the latest firefighting techniques and safety protocols. In addition to ongoing training for current crews, the division is responsible for running the Red Knights Recruit Academy, shaping the next generation of firefighters.

The Assistant Chief of Operations and Training is directly responsible for, and provides oversight to the approximately 171 employees divided among three operational shifts:

7 Battalion Chiefs
29 Captains
40 Firefighter/Paramedics
27 Engineers
65 Firefighters

Training
1 Battalion Chief
2 Captains

Special Operations, such as hazardous materials, technical rescue, and marine operations are the responsibility of the Operations and Training Division. Those assigned to these tasks are Operations personnel who are cross-trained in one or more of these specialized disciplines.

Health/Wellness and Emergency Medical Services
The Emergency Medical Services (EMS) Division operates under the direction of an Assistant Chief. The primary function of this division is to coordinate training and provide support for maintenance of all of the certifications required by the organization, county and state. The division provides classes internally and coordinates outside training opportunities. Health & Wellness focuses on improving overall holistic health by providing education, care, and training to support crews before, during, and after an event."

The Assistant Chief of Health & Wellness and EMS is the designated Safety Officer, and provides oversight to the following employees:

1 Battalion Chief
2 Captains
1 Coordinated CARE Manager
1 Crisis Intervention Manager
2 Crisis Intervention Specialists

Logistics
The Logistics Division operates under the direction of an Assistant Chief. The primary functions of this division include purchasing, facilities maintenance and fleet maintenance. The Assistant Chief of Logistics is directly responsible for and provides oversight to the following employees:

Facilities Maintenance
1 Facilities Manager
3 Facilities Maintenance Technicians

Fleet Maintenance
1 Fleet Manager
4 Mechanics

Community Risk Reduction
The Community Risk Reduction Division

operates under the direction of an Assistant Chief. The primary functions of this division include: Prevention, Education, and Code Enforcement. The Assistant Chief of Prevention is directly responsible for and provides oversight to the following employees:

2 Battalion Chiefs
6 Captains
1 Smoke Alarm Coordinator
1 Community Outreach Coordinator

Communications and Planning

Communications and Planning operates under the direction of the Assistant Chief of Prevention. The division is responsible for internal, external and emergency communications along with planning and data analysis. There are three employees who each perform a distinct function:

1 Communications Coordinator
1 Data Analyst
1 GIS Analyst

Emergency Management

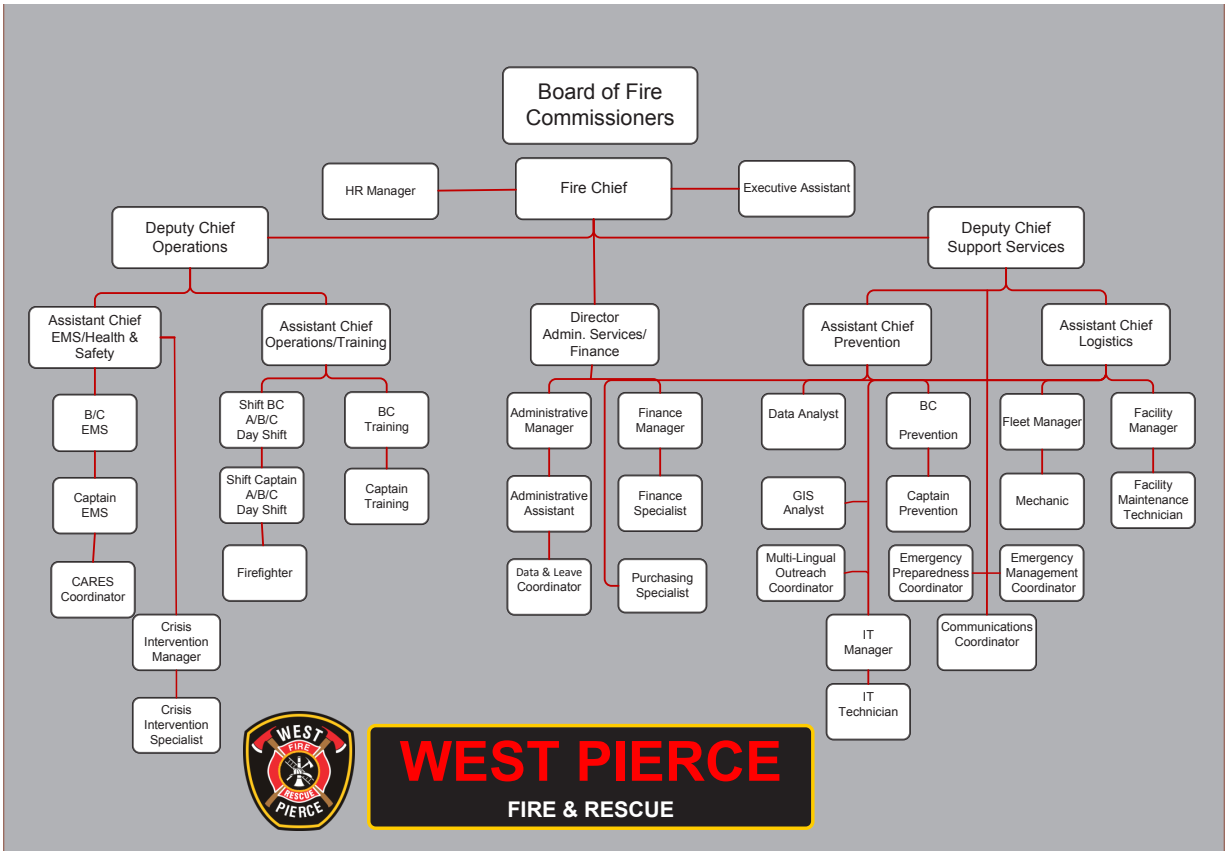
The Emergency Management (EM) Division operates under the direction of a Deputy Chief. The EM division is responsible for preparing plans and conducting training and exercises for the cities of Lakewood and University Place, the Town of Steilacoom and WPFR. The Deputy Chief is directly responsible for and provides oversight to the following employees:

2 Emergency Management Coordinators
1 Emergency Preparedness Coordinator

Administration and Finance

The Administration and Finance Division operates under the Director of Administrative Services and Finance. The primary function of this division is to provide fiscal oversight for all aspects of District finances including managing the department budget, payroll, contracts management, accounts payable and accounts receivable. They are also responsible for human services, risk management and employee benefits. In addition, this group provides administrative support for all divisions. The Director of Administrative Services and Finance is responsible for and provides oversight to the following employees:

1 Administrative Manager
1 Finance Manager
3 Finance Specialists
6 Administrative Assistants
1 Data & Leave Coordinator
1 Purchasing Specialist



STATION LOCATIONS AND RESOURCE DEPLOYMENT

Information Technology
The Information Technology (IT) Division operates under the direction of an Assistant Chief. The IT division is responsible for all of the District's technology assets and services including servers, computers, tablets, internal phone systems (VOIP) and cellular services. The IT division is also responsible for all software programs and cloud based services the district utilizes. The Assistant Chief is directly responsible for and provides oversight to the following employees:

1 Information Technology Manager
3 Information Technology Technicians

Companies
WPFR currently operates with a daily minimum staffing of 33 personnel, including two Battalion Chiefs, one ladder company, six engine companies, and five medic units. Additionally, two squad units are staffed during peak hours. In 2026, there will be two ladder companies. Apparatus are spread amongst six separate stations based on the risks and historical response load in the area. WPFR has defined the types of apparatus as follows:

Air and Light Truck: Specialized apparatus designed with a refilling station for empty firefighter air bottles. It also has a generator with portable lighting and can be attached to a grant-funded portable breathing air compressor for refilling in the event of a malfunction of its primary filling system.

Battalion: Vehicle designed to deliver a Battalion Chief and resources necessary to manage emergency scenes.

Dive Unit: A specialized apparatus designed to carry all the necessary materials, such as scuba air tanks, wet suits, warm clothing, ropes, computers and navigation equipment to conduct a dive rescue operation.

Engine: Primary response apparatus assigned to handle most types of incidents. Each engine has a minimum 1,500 gallons per minute (gpm) pump, hose, and water tank with a 500 gallon capacity.

Fire Boat/Marine: Watercraft ranging in size from 16 feet to 37 feet, utilized for water-related incidents such as fires or marine/dive rescues.

HazMat: A specialized response trailer designed to carry personnel and equipment necessary for the containment and control of hazardous materials releases.

Ladder: Specialized primary response unit with a complement of ladders, an aerial ladder 109 feet in length, a 1,500 gpm pump, a 300 gallon water tank and salvage and overhaul

equipment.

Medic: A response unit equipped to handle medical and traumatic emergencies. This vehicle is also used to transport patients to area hospitals.

Rescue: A specialized response apparatus designed to carry technical rescue personnel and equipment to the scene of an emergency involving unique entrapment/collapse type situation.

Brush Truck/Squad: A smaller response vehicle with enough equipment to triage and mitigate calls for service that are of an urgent nature, as opposed to emergent. Squads utilize a small sized mobile pumper designed for brush and grass fires which can be difficult to access. This vehicle is capable of "pump-and-roll," which is a feature unique to brush trucks.

The Resource Deployment by Station chart displays the resources assigned to each station, along with the number of personnel on each unit. There are some response units cross-staffed by personnel with specialized training which are assigned to other front-line apparatus. All units are able to respond 24 hours a day, seven days a week unless otherwise noted. Cross-staffed apparatus are designated with an asterisk.

RESOURCE DEPLOYMENT BY STATION

STATION	UNIT TYPE	PERSONNEL
Station 31	Battalion 31 Engine 31 Engine 32 Medic 31 Squad 31 (Peak unit) Fireboat Endeavor (moored at Narrow's Marina)	1 3 3 2 2 *
Station 20	Battalion 20 Engine 20 Medic 20 Squad 20 (Peak unit) Rescue 20	1 3 2 2 *
Station 21	Ladder 21 Medic 21 HazMat21	3 2 *
Station 22	Engine 22 Medic 22 Dive 22 Marine 22	3 2 * *
Station 23	Engine 23 Marine 23 (moored on American Lake)	3 *
Station 24	Engine 24 Medic 24	3 2

FIRE STATION AND STAFFING LEVELS

Station 20 - 10928 Pacific Highway SW, Lakewood

Station 20 opened in 2004 and houses the offices of the Community Risk Reduction, EMS, Emergency Management and IT Divisions, along with suppression personnel. The facility includes a conference room, training room, tool room, exercise room, history room, kitchen, day room, etc.

The lot size is 60,939 square feet and the building is 28,692 square feet with 6,000 being the apparatus bay. The station is split based on function. The south side of the building is dedicated to office space, a conference room and a training room. The apparatus bay is in the center of the building, including 3.5 bays, housing five response vehicles including; Engine 20, Medic 20, Battalion 20, Squad 20 and Rescue 20. The north side is dedicated to the living quarters for suppression personnel.

Staffing at Station 20 includes:

- 1 Battalion Chief and associated command vehicle
- 1 engine company (1 Captain, 1 Engineer and 1 Firefighter/EMT)
- 1 medic unit (1 Firefighter/Paramedic and 1 Firefighter/EMT)
- 1 squad (1 Captain, 1 Firefighter/EMT)
- 1 technical rescue unit (cross-staffed)

Station 21 - 5000 Steilacoom Boulevard SW, Lakewood

Station 21 originally opened in 1969 and was remodeled in 2003. This facility houses suppression personnel, the offices of Day Shift Operations and the Training Division and is the main training facility in the District.

The lot size is 145,926 square feet and the building is 19,589 square feet with approximately 5,000 being the apparatus bay.

There is a large training room at this station, along with office space. There is a kitchen and day room, along with 10 dorm rooms. The station houses six pieces of apparatus: Ladder 21, Medic 21, HazMat 21, and Air and Light Truck.

Station 21 also has a drill ground which includes a training tower, state of the art confined space and trench rescue props, an area to practice heavy lifting technical rescue skills, commercial and residential roof props, auto extrication area, various hazardous materials props, and forcible entry door props.

Staffing at Station 21 includes:

- 1 ladder company (1 Captain, 1 Engineer and 1 Firefighter/EMT)
- 1 medic unit (1 Firefighter/Paramedic and 1 Firefighter/EMT)
- 1 hazardous materials trailer (cross-staffed)

Station 22 - 8517 Washington Boulevard SW, Lakewood

This station, located in the Lake City neighborhood, originally opened in 1994 and was remodeled in 2003. When this station opened, it included what was at the time, the District's largest training room, but this location was quickly outgrown and now serves as a backup training room.

The lot size is 47,716 square feet and the building is 7,600 square feet, with 3,200 being the apparatus bay. There is a kitchen and day room, along with six separate dorm rooms. The station houses four pieces of apparatus; Engine 22, Medic 22, Marine 22 and a reserve medic unit.

Staffing at Station 22 includes:

- 1 engine company (1 Captain, 1 Engineer and 1 Firefighter/EMT)
- 1 medic unit (1 Firefighter/Paramedic and 1 Firefighter/EMT)
- 1 trailered rescue boat (cross-staffed)

Station 23 - 14505 Grant Avenue SW, Lakewood

This station, located in the Tillicum Neighborhood, originally opened in 1955, but was demolished and completely rebuilt in 2003.

The lot size is 46,172 square feet and the building is 5,987 square feet, with 2,300 being the apparatus bay. There is a kitchen and day room along with six dorm rooms. This station is home to Engine 23.

Staffing at Station 23 includes:

- 1 engine company (1 Captain, 1 Engineer and 1 Firefighter Paramedic)
- 1 fire and rescue boat (moored on American Lake (cross-staffed))

Station 24 - 8310 87th Avenue SW, Lakewood

This station, located in the Oakbrook neighborhood, was originally opened in 1981, and was remodeled in 2003. It is located on approximately 5 acres of land leased from the Department of Social and Health Services (DSHS).

Construction began in summer 2025 to renovate the station and update it to current codes, including a sprinkler system, energy efficient windows and HVAC systems, decontamination room and updated kitchen, fitness and office areas.

The new fenced area of property will be around 105,000 square feet. There will be an updated kitchen and day room along with eight dorm rooms. The station houses Engine 24 and Medic 24.

Staffing at Station 24 includes:

- 1 engine company (1 Captain, 1 Engineer and 1 Firefighter/EMT)
- 1 medic unit (1 Firefighter/EMT and 1 Firefighter/EMT)

Station 31 - 3631 Drexler Drive W, University Place

This station is located in University Place and is the headquarters for the District. In 2001, the station was built in partnership with the City of University Place as a combined police/fire station. In 2011, the police moved into the new Civic Building on Market Street and WPFR took over the entire building.

The lot size is 145,926 square feet and the building is 24,210 square feet with 8,100 being the apparatus bay and supply storage. There is a kitchen and day room along with 10 dorm rooms.

The station houses Engine 31, Engine 32, Squad 31, Medic 31, and Battalion 31. The 9/11 Reflection Park is located at this station and includes a piece of steel from the World Trade Center. Also housed in this station are administrative offices and training/meeting rooms, where the Board of Fire Commissioners meetings are held.

Staffing at Station 31 includes:

- 1 Battalion Chief and associated command vehicle
- 2 engine companies (1 Captain, 1 Engineer, and 1 Firefighter/EMT)
- 1 medic unit (1 Firefighter/Paramedic and 1 Firefighter/EMT)
- 1 fire boat moored on Puget Sound (cross-staffed)
- 1 Squad (1 Captain, 1 Engineer)

SERVICES PROVIDED

West Pierce Fire & Rescue is an all-hazards response organization. The district has identified multiple risks and developed a response strategy accordingly. The emergency services provided to mitigate these risks include, but are not limited to the following: emergency medical services, fire suppression, rescue response for vehicle crashes, surface water rescue, dive rescue, confined space rescue, technical rescue and hazardous materials incidents.

There are instances when multiple incidents occur simultaneously or a significant event occurs taxing our local resources. When these types of incidents occur, the organization has established mutual aid agreements with surrounding agencies. These agreements allow WPFR to receive assistance from neighboring jurisdictions when all companies are assigned on other calls. The agreements also allow WPFR to provide the same assistance in return.

Fire Services
Fire suppression services provided by the District include the following types of fires:

Structure fires
- Single-family dwellings
- Multi-family dwellings
- Commercial and residential multi-story
- Commercial and industrial buildings

Mobile property fires
- Vehicles
- Trains
- Watercraft
- Recreation vehicles
- Heavy equipment

Other fires
- Natural vegetation
- Landfill
- Dumpster

For all moderate structure fires a minimum of 20 personnel are deployed on the initial dispatch. Resources include two Battalion Chiefs, three engine companies, one ladder company, two medic units, one Duty Chief and one Safety Officer. Minimum staffing levels require three personnel on engine and ladder

companies and two personnel on medic units.

All fire apparatus are equipped to meet the needs of the typical fire suppression activities encountered. The type and amount of equipment carried on apparatus is based on factors such as the National Fire Protection Association (NFPA) standards relating to apparatus and equipment, as well as past experience. The equipment on each fire engine in the District is standardized. The ladder company carries additional specialized equipment that is not on the engine company. In order to provide a high level of service to the community, which is both efficient and effective, all firefighters meet the same basic level of training which includes at a minimum International Fire Services Accreditation Congress Firefighter Level II and EMT.

Emergency Medical Services
When the Lakewood and University Place Fire Departments originated in the early 1940s, stations were located so crews could quickly arrive at burning structures. It soon became apparent the firefighters' ability to arrive at a scene quickly could be beneficial for other types of emergencies as well, including medical emergencies.

Today, the highest percentage of calls WPFR firefighters respond to are for Emergency Medical Services (EMS) which include heart attacks, strokes, vehicle collisions, falls, water

rescue, etc. This category makes up roughly 80% of call volume.

Currently, all uniformed personnel are trained to the minimum level of EMT. There are 49 captains and firefighters who are certified as Paramedics. All front line apparatus are equipped with the equipment and supplies necessary to provide medical aid to a patient until a medic unit or private ambulance arrives to transport them to an area hospital.

Vehicle Extrication

Vehicle collisions involving entrapment are often complex and require more than a single engine company response. These incidents require specialized equipment such as the "Jaws of Life" to remove portions of the vehicle such as windows, doors and roof that are trapping the patient. After the "Jaws of Life" are utilized, firefighters can safely remove the patient from the vehicle and transport them to the hospital. There are often fluid spills associated with these collisions, which must be contained and controlled, as well as mitigating any potential ignition sources. Collisions such as these usually have multiple patients. There is at least one medic unit on the initial dispatch to treat the patient(s) and transport them to an area hospital, but this number can be increased based on the number of reported patients.

Special Rescue Types

As previously stated, WPFR is an all-hazards agency, and responds to incidents involving hazardous materials releases, marine incidents (rescue, recovery and fire), as well as technical rescue emergencies such as trench collapse, high angle rescue, confined space incidents and structural collapse situations.

These types of operations require the rescuers to employ specialized knowledge, skills, tools and techniques. WPFR has multiple special operations programs that include technical rescue, hazardous materials and water rescue responses.

Technical Rescue

WPFR responds to a variety of unique emergencies requiring specialized technical rescue operations. Some examples of this type of incident include; tower rescues, building collapses, and entrapment in a confined space or collapsed trench. All firefighters are trained to be aware of the inherent risks involved with a structural collapse, confined space rescue, trench rescue, high or low angle rescues and entrapment situations. All firefighting personnel are trained to the Operations Level for Technical Rescue, as defined by the National Fire Protection Agency (NFPA) 1670.

At the operations level, they are familiar with ropes, knots, mechanical advantage and safety operations involving these types of events. WPFR has 30 firefighters trained to the Technician level, an advanced level of training above the Operations level. There are a minimum of two Rescue Technicians on duty each day. The Technical Rescue program encompasses high/low angle rope rescue, structural collapse, confined space rescue, heavy vehicle and machinery extrication and trench rescue.

Local Response

The initial response to a technical rescue incident typically involves the first due engine company, based on the location of the incident. Depending on the complexity of the incident, this engine company may handle the incident themselves at the operations level or they may request mutual aid support.

Technical rescue incidents do not happen often, but when they do they can be very high risk to firefighters and victims. These types of incidents may need additional Rescue Technicians and/or resources. During

such incidents, mutual aid responses may be requested. Crews then work together to come up with a comprehensive, safety oriented Incident Action Plan to mitigate the emergency.

Hazardous Materials
WPFR responds to and mitigates the release or potential release of hazardous materials. Some examples of this type of incident include fuel leaks, carbon monoxide issues, unknown substances, threats and confirmed releases of toxic industrial chemicals. All firefighting personnel are trained to the Operations level as defined by NFPA 470. At the Operations level, they are familiar with issues such as carbon monoxide alarms and fuel leaks.

Hazardous materials response includes technician and operations level firefighters. WPFR trains with neighboring jurisdictions for technician level hazardous materials responses that may occur throughout each district.

The initial response to a hazardous materials incident usually involves the first due engine company, based on the location of the incident. Depending on the severity of the incident, this engine company may handle the incident themselves at the operations level, or they may call in one of the Hazardous Materials Technicians who is on-duty that day. The Technician, along with the on-duty Battalion Chief, will make a decision if the incident can be handled with the personnel on scene or if additional resources are needed through mutual aid.

Marine Rescue
The western border of WPFR includes eight miles of shoreline on the southern end of Puget Sound. South Puget Sound is home to various wildlife, is utilized for recreation and is also home to two major ports; Port of Tacoma and Port of Olympia. The economic vitality of our region is tied to these ports, which is one reason WPFR was awarded a grant to purchase a fire boat in 2011. Fireboat Endeavor is stationed at the Narrows Marina located at the end of 19th Street, on the northwest border of the district.

Fireboat Endeavor is a 37-foot fire and rescue boat capable of flowing over 2,000 gallons of water per minute. The boat typically responds

to water-based incidents for fire suppression or rescue emergencies, but has also been utilized to put out fires near the shoreline or to assist with rescues in areas land access is difficult.

The Fireboat Endeavor is cross-staffed with 20 firefighters who have completed an 80-hour Marine Pilot Training Course which provides a basic foundation of capabilities and skills including; basic crew member seamanship, small vessel operations, marine electronics and communications, basic navigation and marine safety. Additionally, we have a number of our Marine Pilots who went above this level of training and received their Merchant Mariner Credentials through the US Coast Guard. Engine 31 and Engine 32 each maintain a daily minimum of one Marine Pilot. Twenty-four hours a day, seven days a week, the boat is ready and able to respond.

As a federally funded vessel, Fireboat Endeavor is a regional asset. Not only does it respond to the portions of the Puget Sound along the WPFR borders, it responds throughout the region as needed. Gig Harbor Fire & Medic One has significant marine risk and has entered into an agreement with WPFR which helps offset some operational costs. This vessel has responded as far south as Olympia and as far north as Federal Way.

Regional Response
There are some situations where WPFR may not have all the resources needed to safely mitigate an incident occurring on the water.

The Region 5 Water Resource Response Plan was established for these types of incidents. The plan provides a mechanism for agencies to respond to water-related incidents on Puget Sound. Participating agencies include, WPFR, Anderson Island Fire & Rescue, Browns Point/ Dash Point Fire Department, U.S. Coast Guard, Gig Harbor Fire & Medic One, Gig Harbor Police Department, Key Peninsula Fire Department, Pierce County Sheriff's Department, Tacoma Fire Department and the Tacoma Police Department.

Water Rescue
In addition to the Puget Sound, WPFR has several lakes within its borders and has two additional boats able to respond to incidents on the lakes. Marine 23 is moored in Tillicum on American Lake, which is the largest lake in the District. It is a 21-foot fire/rescue boat capable of flowing 500 gallons of water per minute. It strictly responds to incidents on American Lake and Silcox Island, which is located in the middle of the lake.

Marine 22 is a 16-foot, hard-bottom inflatable boat used for water rescue and recovery. It remains on a trailer at all times, so it can be mobilized to any location as needed. Marine 22 is housed at Station 22, located on Washington Boulevard in the Lake City area of Lakewood. WPFR has a Dive Team along with a Rescue Swimmer program. There are 8 firefighters trained as rapid entry rescue divers and 38 as rescue swimmers. At least three personnel from the District's water rescue program are on duty each day, located throughout the district.

Training
The WPFR Training Division is responsible for scheduling, tracking and coordinating training for all employees. The goal is to provide knowledge, skills and abilities needed to perform all required duties. These duties include but are not limited to; firefighting fundamentals, safety, emergency vehicle operations, fire officer and command functions, specialized rescue operations, hazardous materials responses, dive and marine operations, customer service and leadership development.

The Training Division develops many of these classes and conducts or coordinates regional

training with many other fire agencies as well. The training provided is a combination of hands-on, computer-based and classroom instruction.

Fire Prevention and Public Education
WPFR also provides services to help prevent incidents from occurring. WPFR provides fire inspections and code enforcement services to the City of Lakewood and the Town of Steilacoom. The City of University Place conducts their own fire inspections and code enforcement services. Fire and life safety education is also provided to residents of the fire district. These tasks are necessary in order to identify and reduce potential risks within the community and to promote a safer place for our residents to live and work.

The Prevention Division of WPFR is responsible for fire and life safety education, fire inspections, code enforcement, plan review and fire investigations. All Prevention personnel are certified as Inspector I and/or II by the International Code Council.

Inspections are conducted to ensure the safety of occupancies by eliminating any fire or life safety hazards present in the building. If a hazard exists, they are corrected in a timely manner. The time frame in which items must be corrected varies due to the severity of the violation. Inspections are conducted each year by a certified fire inspector for Assembly, Educational, Hazardous Materials and Institutional occupancies. The occupancy types

of Business, Mercantile, Storage and Multi-Family Residential are inspected every three years.

Construction plan reviews are completed for any new commercial or multi-family development. Plans for commercial renovations, sprinkler systems, fire alarms and suppression systems are also reviewed by the division. During this process, the fire code official is focused on making the building safer for emergency responders and the public. After the plans are approved, work on the project may begin.

Fire investigations are performed by certified investigators within the Prevention Division. Fire investigations are conducted within the City of Lakewood and the Town of Steilacoom. Investigators are responsible for determining the cause and origin of a fire. If a fire has a possibility of being intentionally set, WPFR works closely with Lakewood and Steilacoom Police to complete the investigation. The City of University Place contracts with the Pierce County Fire Marshal's Office for all fire investigation services. Beginning on Jan. 1, 2026, WPFR will also conduct investigations in University Place.

Fire and life safety education is also conducted by the Prevention Division. The division develops, manages and conducts district-wide risk reduction strategies. The division offers various age-appropriate school programs as follows:

- Preschool – Fire safety
- Kindergarten – Fire safety
- 1st Grade – Child passenger safety
- 2nd Grade – Fire safety
- 3rd Grade – Disaster preparedness / water safety
- 4th Grade – Wheeled sports safety
- 5th Grade – First aid
- High School – CPR and distracted driving

The division prides itself on coordinating the District's Smoke Alarm Program. WPFR has been the recipient of several grants to provide free smoke alarms to the residents of the community. The program requires the District to not only provide the alarms, but install them as well. The installation gives WPFR the opportunity to provide vital safety information to residents where a fire is most likely to happen; in the home.

Fire and life safety education programs are not only provided for children in our community, but for adults as well. For example, WPFR delivers education programs targeted to adult learners on topics such as fire safety, fall prevention, and first aid and CPR.

While the Prevention Division is responsible for coordinating these programs, it is the responsibility of all employees to provide fire and life safety education to the community.

Emergency Management

When disaster strikes, it is essential for the whole community to be prepared, including residents, businesses, government agencies, hospitals, schools, and colleges. All of these community groups must collaborate to build an effective and efficient community response, which leads to resilience and the ability to recover from a catastrophic event.

The West Pierce Emergency Management Coalition (WPEMC), comprised of personnel from West Pierce Fire & Rescue, the cities of Lakewood and University Place, and the Town of Steilacoom, is a partnership to create cohesive, comprehensive emergency management plans so when a disaster strikes,

all of WPFR's response areas are operating under the same guidelines. The WPEMC meets regularly to coordinate emergency response plans and collaborate on training and exercises.

In addition, WPFR provides Community Emergency Response Team (CERT) training to our residents. This training aims to teach residents how to prepare for, respond to, and recover from disasters. In classes, participants gain hands-on skills such as how to put out small fires, render emergency first aid, and perform light search and rescue. Once residents complete the basic CERT training, they are linked into the emergency management system to aid when a disaster strikes.

WPFR coordinates the Regional Emergency Management Stakeholder group, which includes representatives from St. Clare Hospital, Western State Hospital, Clover Park Technical College, Pierce College, local utility companies, transit agencies, public health and area school districts.

The group focuses on emergency response plan coordination, collaborative training and exercises. Early collaboration will help our community to be more prepared, should disaster strike.

Fleet Maintenance

The Fleet Maintenance Division is responsible for providing routine and emergency maintenance for the entire fleet of 111 units, including vehicles, apparatus, marine vessels, trailers, SCBA air compressors, and a variety of other equipment. All WPFR vehicles undergo a 75-point annual safety inspection. In addition, routine maintenance checks are performed either quarterly or semi-annually based upon the individual equipment's use. Emission and pump tests are conducted annually for all appropriate vehicles.

Facilities Maintenance

The Facilities Maintenance Division is responsible for installation and repair of all appliances and amenities at all six fire stations, one maintenance facility, and two boathouses. They are also tasked with general repair and maintenance of all District facilities themselves, including flooring, roofing, painting, plumbing, wiring and asphalt. They coordinate repairs, inspections and maintenance with several contracted companies including HVAC, fire sprinklers, elevators, alarm systems and grounds maintenance. The four members of this division are tasked with maintaining a total of 101,675 square feet of facilities and 8.75 acres of grounds. The workload is broad and varied and is critical to support the mission of the District.

Legislative

West Pierce Fire & Rescue is governed by a Board of Fire Commissioners which consists of five members. The Board meets once a month to conduct the business of the fire district. They are responsible for setting budgets, establishing policy, and providing administrative oversight to the Fire Chief. Members of the Board are elected by a vote of the residents and serve six-year terms. The Board meeting schedule, minutes, and agendas can be found on the WPFR website, www.westpierce.org.

Community Baselines

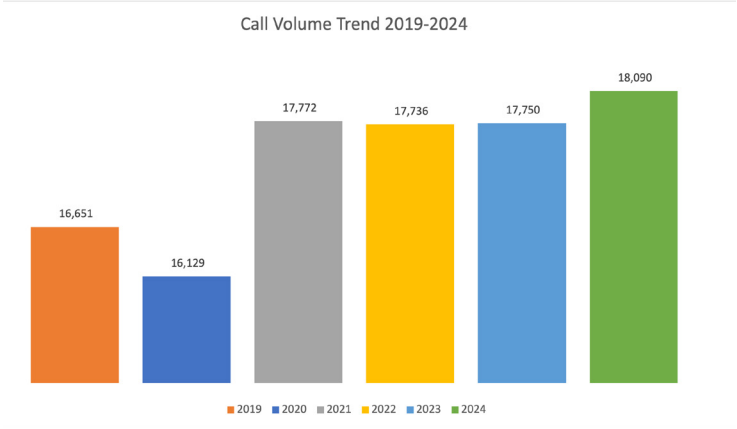
The current performance of WPFR is an essential part of the Standard of Cover process. Establishing community baselines is essential when attempting to understand how well the services provided are being delivered. WPFR then compares performance to baselines to determine if operational changes are necessary.

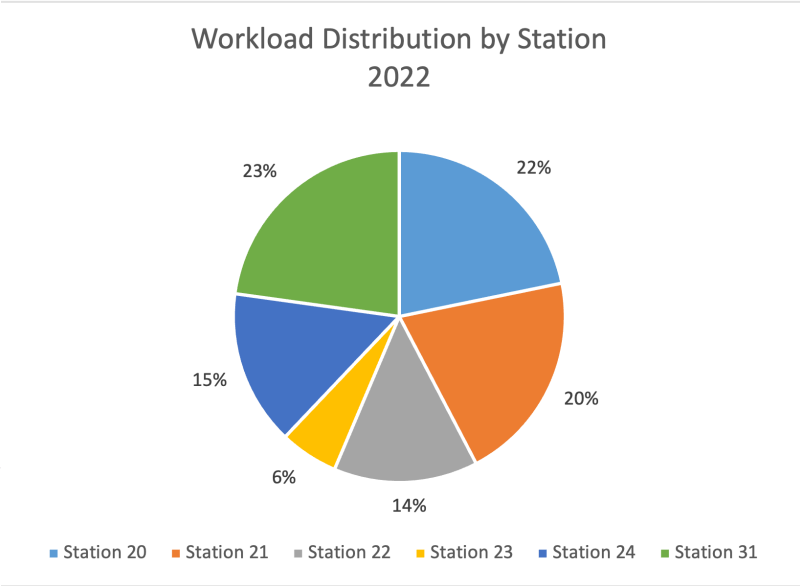
The District is responsible for deciding the location of resources and personnel. WPFR must be sure the number and types of resources deployed match the needs of the community. This section is a description of how the current resources are deployed in the community.

In establishing the community baselines, the decision was made to analyze data from the last four to five years. The data was collected using the district's record management system as well as Computer Aided Dispatch (CAD) data. The analysis covers January 2019 through December 2022. Due to the different systems being utilized for data collection and the various filtering methods, there are some variances in the data between the Standard of Cover document and the Annual Report. There are also slight variances in the data within this document because two separate data sources were used to complete this report. The analysis looked at the data, first by the entire jurisdiction, then by station areas.
The Call Volume Trend chart shows a significant decrease in call volume in 2020, which can be attributed to the COVID pandemic. In 2021, it begins to increase, but has now leveled off.

The "Workload Distribution by Station" chart illustrates the workload for each of the six station response areas. The differences in service demand are caused by factors such as the area covered by each station, population density, socioeconomic factors, concentrations of specific risk groups and the age of buildings.

Each station area has unique characteristics that help explain call distribution. Characteristics include: percentage of the District's population, square miles served, the number of road miles and the number of housing units in each response area. The following descriptions provide some characteristics for each station area.





Station 20 has a relatively small geographic response area of 3.1 square miles and 52.3 road miles. It accounts for 13.8% of the District's population and has 11,303 residential housing units. Even though this area is small, this station responded to 22% of the District's calls in 2022. The area contains the Interstate 5 corridor. There is a significant amount of low-income families as defined by the US Census, along with a large amount of high density housing. The engine company at this station responds to more calls than any other company in the District, accounting for over 13% of the call volume in 2022.

Station 21 has a moderate sized response area of 5 square miles and 65 road miles. It accounts for 14.2% of the District's population and has 6,959 residential housing units. This station accounted for 20% of the District's call volume in 2022. The risks in this area are great, as it has a significant amount of low-income housing and encompasses the commercial core of the District.

Station 22 encompasses 6.9 square miles and 81 road miles. It accounts for 17.3% of the District's population and has 8,110 residential housing units. This station accounted for 14% of the District's call volume in 2022. This geographic area includes a portion of the Town of Steilacoom.

Station 23 has the smallest geographic area of just 1.8 square miles and 18.1 road miles. It accounts for just 5% of the population and has 2,438 residential housing units. It is an isolated portion of the District and the only way to access it is via Interstate 5. Despite the small geographic area, Station 23 accounted for almost six percent of the District's call volume in 2022.

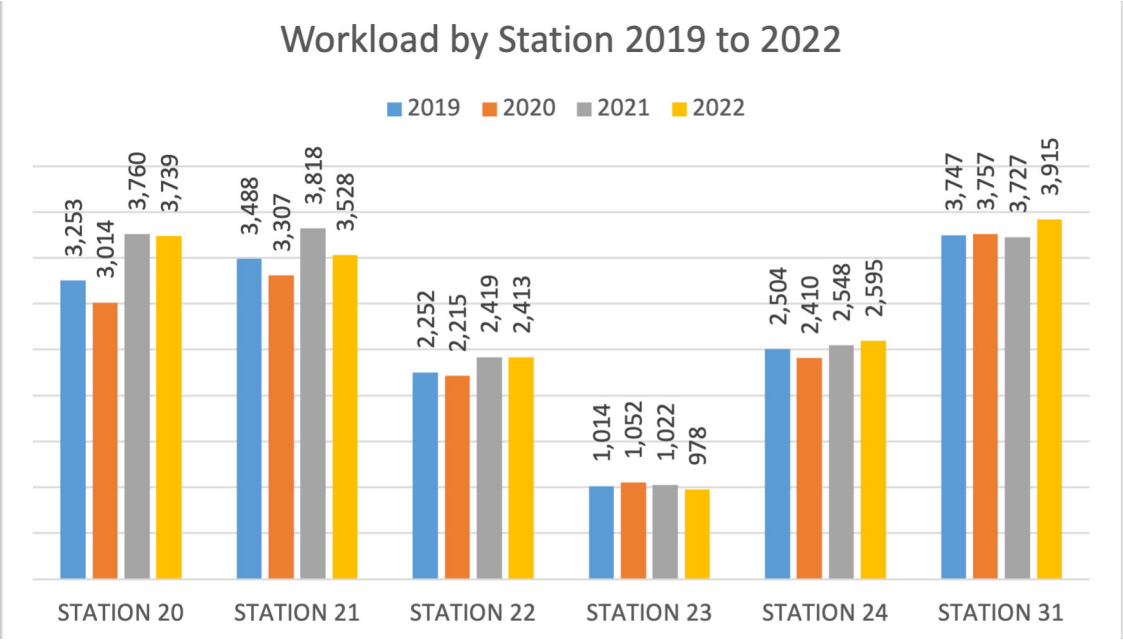
Station 24 has a geographic area of 5.6 square miles and 70.7 road miles. It accounts for 16.1% of the population and has 7,234 housing units. Station 24's response area accounts for 15.1% of the District's calls in 2022. This area is mostly single family residential, but includes Western State Hospital, several adult family homes and multi-family housing units. This response area also includes a portion of the Town of Steilacoom.

Station 31 has the largest geographic area and covers the entire City of University Place. It covers the largest geographic response area at 8.8 square miles and 119.5 road miles. It accounts for 33.6% of the population and has 15,730 residential housing units. In 2022, this station responded to 23% of the calls in the District. There used to be two stations covering this area, but the close proximity of Station 32 to Station 31 led WPFR to sell station 32 in 2014 and move those crews to Station 31. There are two engine companies assigned to this station, as well as a medic and a squad unit.

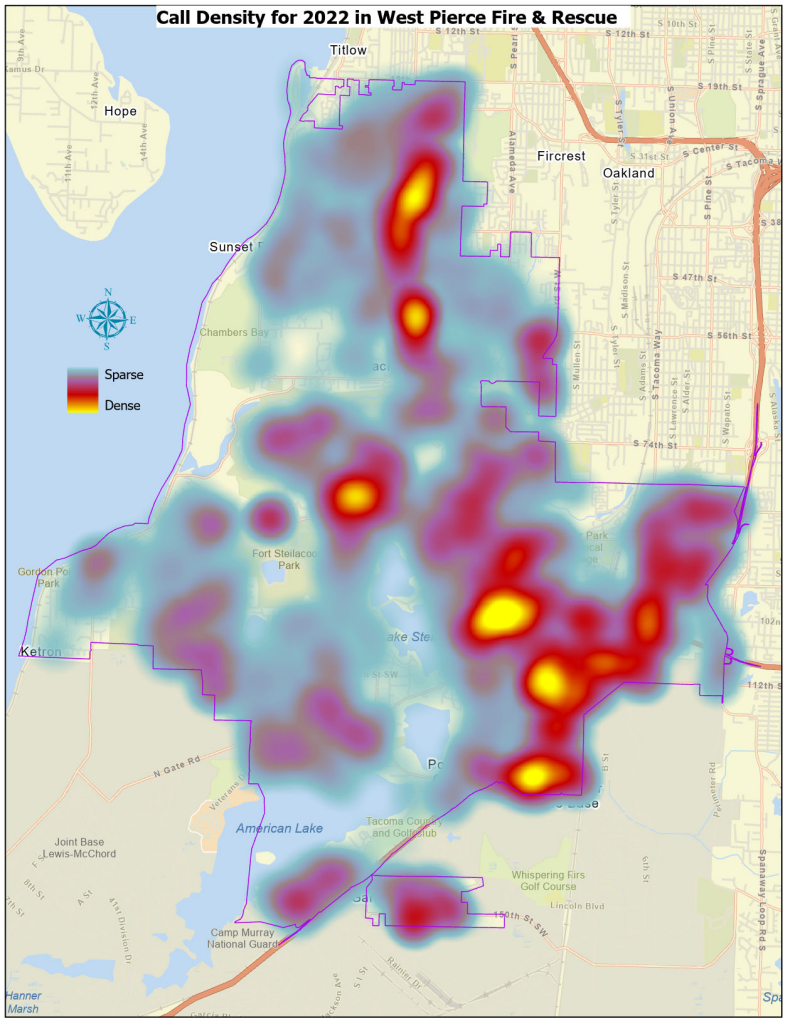
STATION STATISTICS 2022

STATION	PERCENT OF WPFR POPULATION	SQUARE MILES	ROAD MILES	RESIDENTIAL UNITS	COMMERCIAL UNITS	CALL VOLUME
20	13.8%	3.1	52.3	11,303	510	3,739
21	14.2%	5.0	65.0	6,959	494	3,528
22	17.3%	6.9	81.0	8,110	78	2,413
23	5.0%	1.8	18.1	2,438	75	978
24	16.1%	5.6	70.7	7,234	130	2,595
31	33.6%	8.8	119.5	15,731	339	3,915

The “Workload by Station” graph compares call volume for each year by station. The graph shows the percentage of call volume by station has not changed significantly in any given year. Call volume at all stations is rising, but Station 20 and Station 31 have seen the most significant increase over the last four years.



Geographic Information Systems (GIS) were used to map incidents and show where they were concentrated. The “Call Density for 2022” map shows the incident density for all calls in 2022, which further illustrates the distribution and concentration of calls for service. Distribution refers to the way in which the calls are spread throughout the district and concentration refers to the relative density of calls, as indicated by the areas in red on the map.



Response Performance

The key areas analyzed for response performance were call processing time, turnout time, travel time, total response time, effective response force travel time, and effective response force total response time. The times shown in the "Overall Jurisdiction" table is the baseline performance at the 90th percentile which means that 90% of the calls are responded to at times at or below this level. There are two "Unit Response Time" tables, one showing the average times and one showing baseline performance at the 90th percentile.

There is a big jump in the 90th percentile call processing times in 2022 compared to years prior. The call processing time is out of WPFR control, since it reflects the time when a call is created to when it is dispatched.

OVERALL JURISDICTION - 90TH PERCENTILE PERFORMANCE TIMES			
Performance Category	**2020**	**2021**	**2022**
Call Processing Time	02:24	02:42	04:09
Turnout Time (first arriving)	02:25	02:27	02:26
Travel Time (first arriving)	09:22	09:19	09:28
Total Response Time (first arriving)	12:48	12:54	14:15
Effective Response Force Response Time	24:20	23:54	28:56

UNIT RESPONSE TIME PERFORMANCE AVERAGE									
Unit	**Turnout Time**			**Travel Time**			**Total Response Time**		
	2020	2021	2022	2020	2021	2022	2020	2021	2022
E20	1:38	1:37	1:33	5:32	5:34	5:30	8:46	8:59	9:53
L21	1:38	1:45	1:41	5:32	5:25	5:43	8:35	8:46	9:55
E22	1:26	1:27	1:23	6:29	6:32	6:47	9:25	9:45	10:45
E23	1:22	1:29	1:29	6:26	6:21	6:10	9:27	10:00	10:31
E24	1:23	1:28	1:24	5:45	5:30	5:49	8:37	8:43	9:59
E31	1:31	1:29	1:34	5:38	5:43	5:43	8:40	8:58	9:59
E32	1:29	1:33	1:34	6:36	6:38	6:38	9:34	9:42	10:48
M20	1:26	1:30	1:29	5:10	4:58	4:48	8:21	8:24	8:49
M21	1:27	1:42	1:08	5:10	5:11	5:21	8:08	8:22	9:22
M22	1:22	1:24	1:21	5:57	5:43	6:09	9:05	9:19	10:06
M24	N/A	1:25	1:21	N/A	5:44	5:34	N/A	8:55	9:22
M31	1:31	1:38	1:35	5:30	5:20	5:28	8:34	8:35	9:42

Community Expectations

West Pierce Fire & Rescue conducted a resident survey for the purpose of seeking input from various stakeholder groups. The survey was conducted to determine what the customers expected in terms of emergency response and other programs. This survey presented information on what the residents value in their fire department, but also showed some areas where community education on what services can realistically be provided would be helpful.

A survey was collected in 2022-2023 to help determine customer expectations allowing WPFR to analyze the root causes of different expectations, if any, by customer group and potentially design services that meet those expectations.

The survey was developed using Survey Monkey. The survey consisted of ten questions. Six of those questions were check the box type of questions and four were open ended questions. It was advertised via social media, the WPFR website and hand delivery methods. A total of 147 responses were received from various community members. The following charts and tables show the answers provided by the community.

Q1 Please select from this list, the customer group(s) that best represents you. Check all that apply.

Answered: 146 Skipped: 1

ANSWER CHOICES	RESPONSES	
Work in Lakewood, University Place or Steilacoom	18.49%	27
Local Government in Lakewood, University Place or Steilacoom	2.74%	4
Business Owner in Lakewood, University Place or Steilacoom	6.16%	9
Living in Lakewood, University Place or Steilacoom	93.15%	136
Total Respondents: 146		

Q2 If you live within the West Pierce response area please select the neighborhood that best describes where you live.

Answered: 137 Skipped: 10

ANSWER CHOICES	RESPONSES	
University Place, North of 40th St W	5.11%	7
University Place, South of 40th St W	13.14%	18
Lakewood (Oakbrook)	16.79%	23
Lakewood (Lake City)	11.68%	16
Lakewood (Tillicum)	0.73%	1
Lakewood (City Center)	8.03%	11
Lakewood (Oakwood)	1.46%	2
Lakewood (Springbrook)	2.92%	4
Lakewood (Southgate)	1.46%	2
Lakewood (Lake Louise)	6.57%	9
Arrowhead	2.19%	3
Steilacoom	27.01%	37
N/A	2.92%	4
TOTAL		137

#	OTHER (PLEASE SPECIFY)
1	Lakewood Dower
2	We live on Lake Steilacoom near Oakbrook.
3	Near Steilacoom Blvd and Bridgeport Way
4	Lakewood (Steilacoom Blvd & Phillips Road)_
5	Lakewood - Nyanza
6	Bridgeport north of Steilacoom Blvd
7	Lakewood - Racquet Club Estates
8	Lakewood (North) Candlewyck Glen
9	Lakewood ft Steilacoom park
10	Lake Steilacoom area
11	Lakewood on Interlaaken - fire station is just around the corner
12	East of South Tacoma Way

Q3 How long do you expect it to take fire department personnel to arrive at the scene of your emergency from the time you called?

Answered: 146 Skipped: 1

ANSWER CHOICES	RESPONSES	
0:00 to 4 minutes	28.77%	42
4:01 to 6 minutes	38.36%	56
6:01 to 8 minutes	18.49%	27
8:01 to 10 minutes	10.27%	15
over 10 minutes	4.11%	6
TOTAL		146

Q4 Have you ever received emergency services from West Pierce Fire & Rescue?

Answered: 147 Skipped: 0

ANSWER CHOICES	RESPONSES	
Yes	48.30%	71
No	51.70%	76
TOTAL		147

Q6 From the following list of services West Pierce Fire & Rescue provides, please rate their level of importance to you.

Answered: 147 Skipped: 0

	HIGH	MEDIUM	LOW	DIDN'T KNOW SERVICE EXISTED	TOTAL
Responding to Emergency Medical Calls	96.60% 142	2.72% 4	0.00% 0	0.68% 1	147
Extinguishing Structure Fires	94.56% 139	2.72% 4	1.36% 2	1.36% 2	147
Responding to Hazardous Materials Spills	58.90% 86	30.82% 45	7.53% 11	2.74% 4	146
Responding to Special Rescue Calls	64.14% 93	26.90% 39	3.45% 5	5.52% 8	145
Responding to Marine Incidents/Water Rescue	61.81% 89	25.69% 37	9.72% 14	2.78% 4	144
Providing Fire Inspections of Buildings	27.08% 39	51.39% 74	16.67% 24	4.86% 7	144
Providing Fire and Life Safety Education for Schools and Civic Groups	28.47% 41	53.47% 77	13.89% 20	4.17% 6	144
Car Seat Installation Program	20.83% 30	35.42% 51	33.33% 48	10.42% 15	144
National/Regional Disaster Response	53.19% 75	34.75% 49	9.22% 13	2.84% 4	141
Connecting the homeless community with appropriate resources	20.69% 30	36.55% 53	23.45% 34	19.31% 28	145
Connecting 911 callers who don't have a medical emergency with an appropriate social services resource	31.25% 45	33.33% 48	25.69% 37	9.72% 14	144
Providing Community Emergency Response Team (CERT) Training	33.57% 48	37.06% 53	20.28% 29	9.09% 13	143

Q7 Are there any services or programs West Pierce Fire & Rescue is not providing that you would like to see?

Answered: 37 Skipped: 110

#	RESPONSES
1	More outreach materials in various languages.
2	N/a
3	No
4	No
5	No
6	No
7	No
8	None I can think of.
9	Helping change dangerous roads/ intersections. The amount of calls that WPFR (and LPD) have had to respond to at Custer & John Dower is tragic. I'm surprised no one has died yet! In addition, coming from a 35 mph street (50 all to often) turning onto residential John Dower, people maintain that crazy speed where children and the elderly are. I'm not sure if WPFR could help with this and other crazy intersections throughout the area.... working together with traffic department to lower injuries occurring? Not sure....
10	Wildfire risk assessment and creating defensible space..
11	No
12	no
13	Partner with the Red Cross to install smoke alarms…conduct a battle of the badges blood drive with the Red Cross
14	Additional water safety education and drowning prevention efforts. Especially with the number of lakes/pools in our area.
15	Not that I can think of.
16	Respond when receive report when our neighbors are burning trash & smoke covers the neighborhood & prevents us from opening our windows. When we report to the Non-Emergency number No one responds or makes any contact with them to stop burning.
17	N/A
18	None I am aware of
19	No
20	Cat in Tree Competition Team - surely there's an event.
21	No.
22	I would love it if you could send a brochure on Outdoor Fires to everyone in Lake City. Emphasize smoked out neighbors and extinguishing fire rather than letting it smolder all night.
23	Take those in need of medical aid to the hospital they request so they're not changing medical groups.
24	No
25	More public educational help. 2 man Medical response vehicles.
26	No, I have yet to need any of your services.
27	No
28	The ability to use the "community room" or other space space as a cooling center during excessive heat days
29	Free cpr and first aid classes

30	Using fire hose during HEAT WAVES to make giant sprinklers, water down rooftops, apartment parking lots to cool down melting tarmacs and help keep children hydrated and have fun, if for only 5 minutes.
31	No
32	No
33	No
34	Installation of smoke; carbon alarms.
35	Resume fire station visits for small groups of children (scouts, etc)
36	No
37	No

Q8 Does West Pierce Fire & Rescue offer any services you would like to see discontinued?

Answered: 36 Skipped: 111

#	RESPONSES
1	n/a
2	I would expect the car seat issues to be handled by the Health Dept. Hopefully there's no duplication of any services.
3	No
4	No
5	You spend too much money on your newsletter. There is no reason it is on slick stock in full color.
6	No
7	Keep them all
8	No
9	No
10	Not off the top of my head...
11	No
12	n/a
13	Not that I'm aware
14	No.
15	No
16	No
17	N/A
18	Absolutely not!
19	No
20	Donation Money collection drives at busy intersections.
21	No.
22	Review automatically dispatching a fire engine with a ambulance call.
23	No
24	I dont see the reason a fire truck needs to respond to medical calls.

25	CERT. Too much fire staff time involved in this training for too little long term involvement by participants.
26	If you are no longer seeing use in a specific area, you should make the call on how to retire it.
27	No
28	No
29	See above
30	I think recycling is a good thing, but sometimes we have items that are too large to transport, like furniture, and cannot dispose of them because they are too heavy and too large for our vehicles.
31	Services like car seat installation and working with homeless people should be handled by social service organizations.
32	No
33	No
34	No
35	No
36	No

Q9 Do you have any areas of concern regarding West Pierce Fire & Rescue's delivery of services?

Answered: 39 Skipped: 108

#	RESPONSES
1	I live in the Lake City neighborhood. Several months ago at St John Bosco Church, someone painted nazi symbols, racial slurs, and bad words on the church property and streets. A couple days later, your fire department was responding to a call at an apartment complex by the church with a Blue Lives Matter flag, which some white supremacist use. I don't think that flying that flag was appropriate, especially since there was just racial slurs painted in the neighborhood. As a person of color, it made me feel unsafe and unwelcomed in my own neighborhood. Please evaluate your policy on when and where this flag can be used and its impact on community relationship building and trust. Not all people of color will feel safe being approached by a firefighter that displays this flag. My opinion is that it shouldn't be on the fire trucks.
2	N/a
3	I'm concerned that the Fire Dept is not planning to address their future needs without asking for more taxes.
4	How do the round-a-bouts in Lakewood impact your response time. Especially the ones being installed on WA Blvd.?
5	So glad to see more women being hired. Please recruit brown and black people too.
6	No
7	No
8	None at this time
9	No
10	Additional medical staff to administer racemic epinephrine if medic truck isn't available.
11	Better cover of response area between Lakewood and U.P.
12	We need more help. They are spread thin. Fingers crossed that the PCFR in general gets all the help and resources they need in order to function at maximum capacity.
13	Yes, the lack of women and minorities on the emergency response teams.

14	No
15	no
16	No
17	No.
18	See #7
19	N/A
20	All dealings with you have been outstanding
21	No
22	No
23	Bike helmet safety?
24	No.
25	During Covid, West Pierce would only take residents to the closest hospital. That was very difficult because then you might be out of your medical system.
26	No
27	Need OUTSIDE evaluation of services for an objective future needs. I noted that that decision are made in past more than future needs. Protecting their own interests rather than communities needs.
28	Ketron Island
29	The world keeps changing, I would hope your leaders are keeping their plans open for new methods, procedures, tools, and techniques.
30	No
31	No
32	We always need more paramedics
33	I just hope that in the event that a resident is having a critical medical emergency, the available units are NOT DELAYED because they are assisting a non-injury traffic incident instead. I believe the latest road improvements are NOT IMPROVEMENTS, forcing all traffic to funnel back into ONE LANE. I THINK THAT WILL ULTIMATELY CAUSE MAJOR PROBLEMS (ESPECIALLY WITH SCHOOL BUSSES)to EMERGENCY RESPONSE TIMES. CONGESTION WILL BE A MAJOR PROBLEM, AND DRIVERS DO NOT HEED THE SIRENS BUT NOW THERE ARE NO ALTERNATE ROUTES FOR ACCESS.
34	No.
35	No
36	I believe that adult family homes take up far to many resources and that they should have to either pay more for emergency support/services or have their own dispatch service.
37	No
38	No
39	No

Q10 Is there any other input you would like to give West Pierce Fire & Rescue?

Answered: 64 Skipped: 83

#	RESPONSES
1	Language access is very important as we have a rich immigrant community. Consider having more materials/updates/events in various languages. Thank you for all that you do! My family and I really appreciate you all.
2	What a great job WPFR has been doing for our community. We're looking forward to our continuing support for their work.
3	Thanks for being there for me so many times
4	I've seen a new tax in 2020, 2021, and 2022. I expect the Fire Dept will ask for a new tax in 2023. Is it too much to expect a local government entity to address future needs in their budget planning? (Not just FD, but PD & UP govt.)
5	Thank you for all that you do!!!
6	Received medical emergency response service several times. All areas rate a 10 out of 10
7	How diverse are you? The population in Lakewood is not as white as your pics are. Do you engage with the people in lakewood who could use the resourses you offer? Lakewood fire and rescue did an excellent job when my elderly father fell and my mother couldn't pick him up. Do you treat everyone as well as you treated my white elderly father? Just asking. I know it can be scary but it's the guys like the Pelosi attacker that scare me
8	No
9	Think West Pierce Fire & Rescue is doing excellent work. I support when I vote.
10	Yes Keep up the great work you are doing.
11	We love all of the community service you provide to our community.
12	New to town but impressed by your station and seems like a quick response!
13	I have not personally used their services but observed their lightning fast response and exceptional service provided to neighbors. Great bunch.
14	My husband and I would like to thank the four firemen/EMT for quickly responding to my husband's 911 call about one and half months ago when he fell off his electric bike in the fish hatchery off Phillips road. The firemen gave my husband excellent care and made him comfortable as they placed him in the ambulance. Some of the firemen then assisted me by placing hubby's 50lb or so bike in my car and also place bike in my garage. I really needed their help. My 78 year old husband broke his hip and femur which required total hip replacement but he is doing fine now. Thank you Fire Dept. for helping us and even going beyond the call of duty. God bless….
15	The trouble shooting of smoke detectors is pretty valuable program that the fire department runs out of the county. Not as well known as it could be. Plus good responsive support by Mr Mos.
16	Just a big Thank You!
17	In the last 2 years I had contact with WPFR EMS. One was an ALS response and transport for myself and 2 BLS ladder truck responses for my elderly Mother. One of those responses was the night she died. It is hard to express my gratitude to the paramedics and EMTS of those responses; skilled,, compassionate and respectful, truly exemplary professionals. I am proud and grateful to live in your district.
18	Thank you for your help.
19	Thank you for your service. You are all just wonderful.
20	Thank you for all you do!!
21	Thank you!
22	No.

23	I live across the street from the houses threatened by the recent brush fire in Southgate & just want to thank you guys for getting it under control so quickly
24	Add a station in south UP. Also consider consolidation with Central Pierce.
25	Yes. I am floored at the quick response times for help! I often think they won't arrive for about 10 minutes but several times they are there within 5! I have had to use them for my disabled father, disabled mother, car accidents right outside my front door, and many other reasons. I am always so impressed with their friendliness, professionalism and knowledge. I absolutely TRUST our PCFR and WP is one of the finest in the state in my opinion. Thank you for all you do-- day in--day out. You are SO appreciated!
26	In the 12 years we've lived here we've had multiple Fire/EMS visits. The first responders provided outstanding service to my family.
27	I appreciate their professionalism and patience at my place of employment. I believe we work well as a team to care for our community
28	They have been awesome in their responses, not only to my medical emergencies, but to my neighbors as well. I am most grateful to them.
29	Keep up the great work you do. We are so fortunate to have such a well trained and competent team.
30	Thank you for providing excellent services to the community!
31	Continue your great work!
32	No. Thank you all for the times you quickly came to my residence when I was stung by yellowjackets and had what might have been life-ending reactions.
33	The Fire department should encourage University Place Council to Ban fireworks. Doing so would show your concern for safety. The Council are not listening to citizens.
34	Keep up the great work!
35	Thank you, thank you! You have been stretched thin the last few years yet continue to give excellent service. It will get better. Don't throw in the towel
36	I think they do a great job.
37	My husband and I are CERTified (35). We have the greatest respect for WPFR. Keep up the great work!
38	Please go back to an all volunteer program
39	"Good" rating, years back: Got handed to Pay Med w/o consultation. Hopefully, conscious patient will be able to choose Uber if that will suffice. Thanks for survey. bw
40	I'm happy I have very little personal history with WPF & R, but the time I needed them, they were there in minutes and were amazing, considerate, professional and showed concern.
41	Thanks for your service!!
42	They are wonderful.
43	I have the utmost respect for our West Pierce Firefighters!
44	Stop driving the firetruck to Safeway. Wastes gas. Have groceries delivered
45	Not today,.thank you for asking!
46	Prevention of illegal or unsafe bonfires through education, monitoring and informing citizens on how to report them.
47	Stop aligning your dept with political candidates. My tax dollars should not pay for your political favorites. (Referencing your depts. signage on candidate signs).
48	I appreciate that there is a firehouse located directly across from my large apartment complex
49	Just a thank you for your services
50	You are great!
51	Great People is the key to their sucess
52	I THINK THEY HAVE A VERY IMPORTANT JOB AND ARE A GREAT NECESSITY TO THE COMMUNITY. THEY PROVIDE EXCELLENT SERVICE AND MEAN THE DIFFERENCE BETWEEN LIFE AND DEATH IN MANY WAYS.

53	We have used these services recently for medical emergencies and found them to be outstanding. Everyone who was involved was wonderful and provided the best of care and comfort in a very difficult situation.
54	My contact with West Pierce Fire & Rescue has always been highly skilled & professional, informative & reassuring. They are worth the taxes that I pay to provide their services to me and my community.
55	We are blessed with outstanding fire and rescue services! Thank you to them!!!
56	The fire and emergency personnel are very respectful when they come to medical emergencies.
57	When a building inspection report is generated and responded to by the building owner, an acknowledgment should be sent to the owner or person responding. From past experience, there's no acknowledgement from WPFR.
58	The Number 1 priority is emergency response to fire and medical emergencies. Nothing else should compromise this. We really appreciate the service of our men and women who serve in WPF&R. Every time we see an emergency response, we pray that they Be Safe, Be Good, and Go With God. Thank you for your service!
59	I don't think you should endorse political candidates at all. You provide a public service. Keep politics out of it.
60	The city needs to do something about vehicles that are parking in the street on Ruby Dr in Oakbrook. The Oakbrook country club condos have parking, have guest spots not utilized and cars parked along that stretch impede emergency services by making the street impassible for two vehicles and blocking fire hydrants. Also dangerous for school busses and walkers
61	Thank you for being there for us.
62	No
63	I want to be fire fighter
64	Diversity reflecting the community. Also, thank you for all that you do!

RISK ASSESSMENT

The intent of this section is to provide an understanding of the processes utilized in describing the community's risks, as well as the scope, complexity, and evaluation methodology used to measure the risks. This analysis includes not only the physical aspect of risk, but also the economic, sociologic, and demographic aspects of risk.

WPFR looked at the structural fire problem in addition to non-structural and non-fire related risks which include emergency medical, marine, technical rescue, and hazardous materials, along with major disasters, such as inclement weather events, earthquakes, etc. These risks include fixed facility events, as well as transportation risks such as marine vessels, rail carriers, cargo trucks, aircraft and pipelines.

Some factors affecting these risks are street connectivity, traffic volumes, structure size, commercial processes, weather issues, and special events that draw large crowds into the District. Building and population densities were evaluated to determine the need for adjusting response plans according to anticipated exposures and life safety risks.

PHYSICAL RISK FACTORS

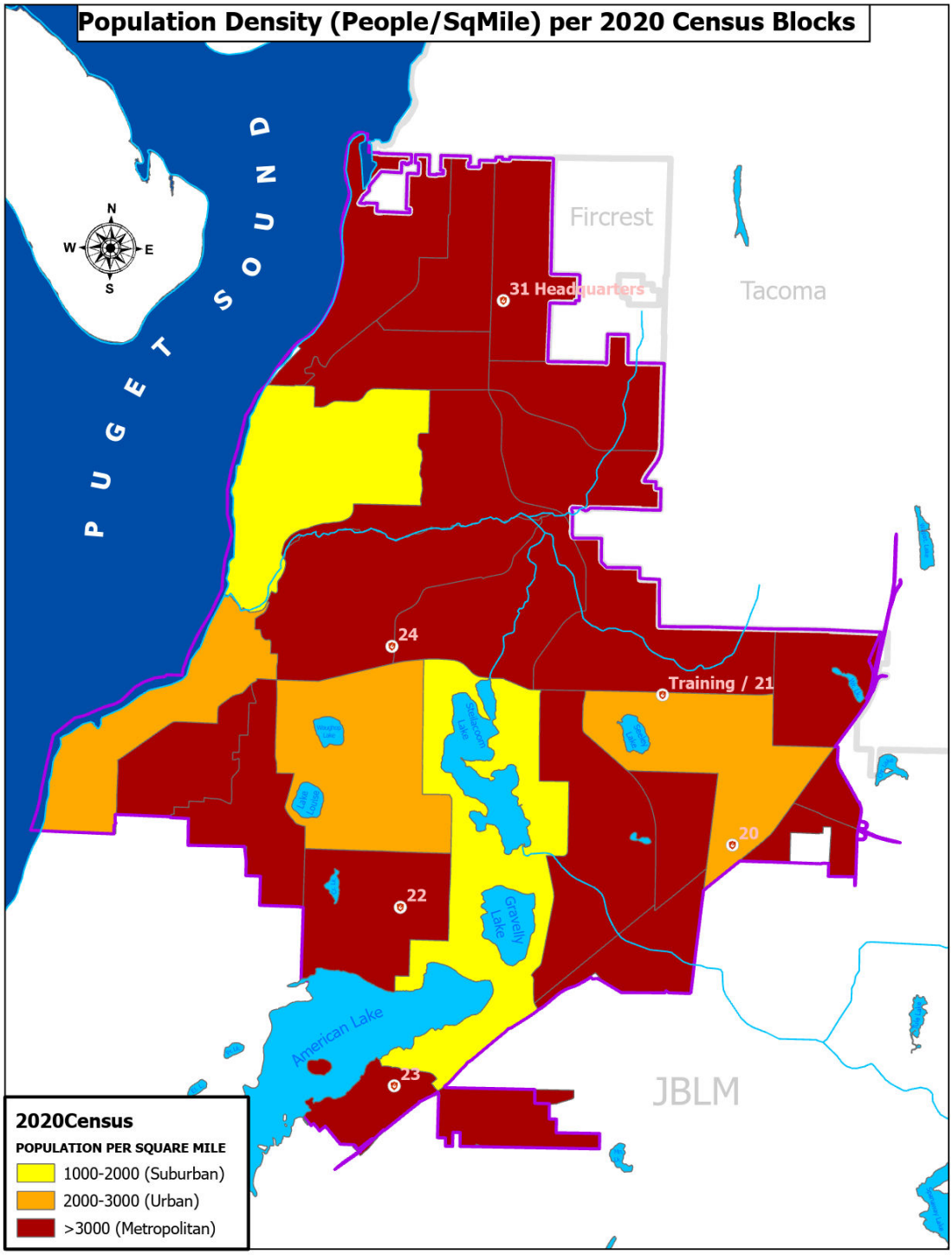
Population Risks

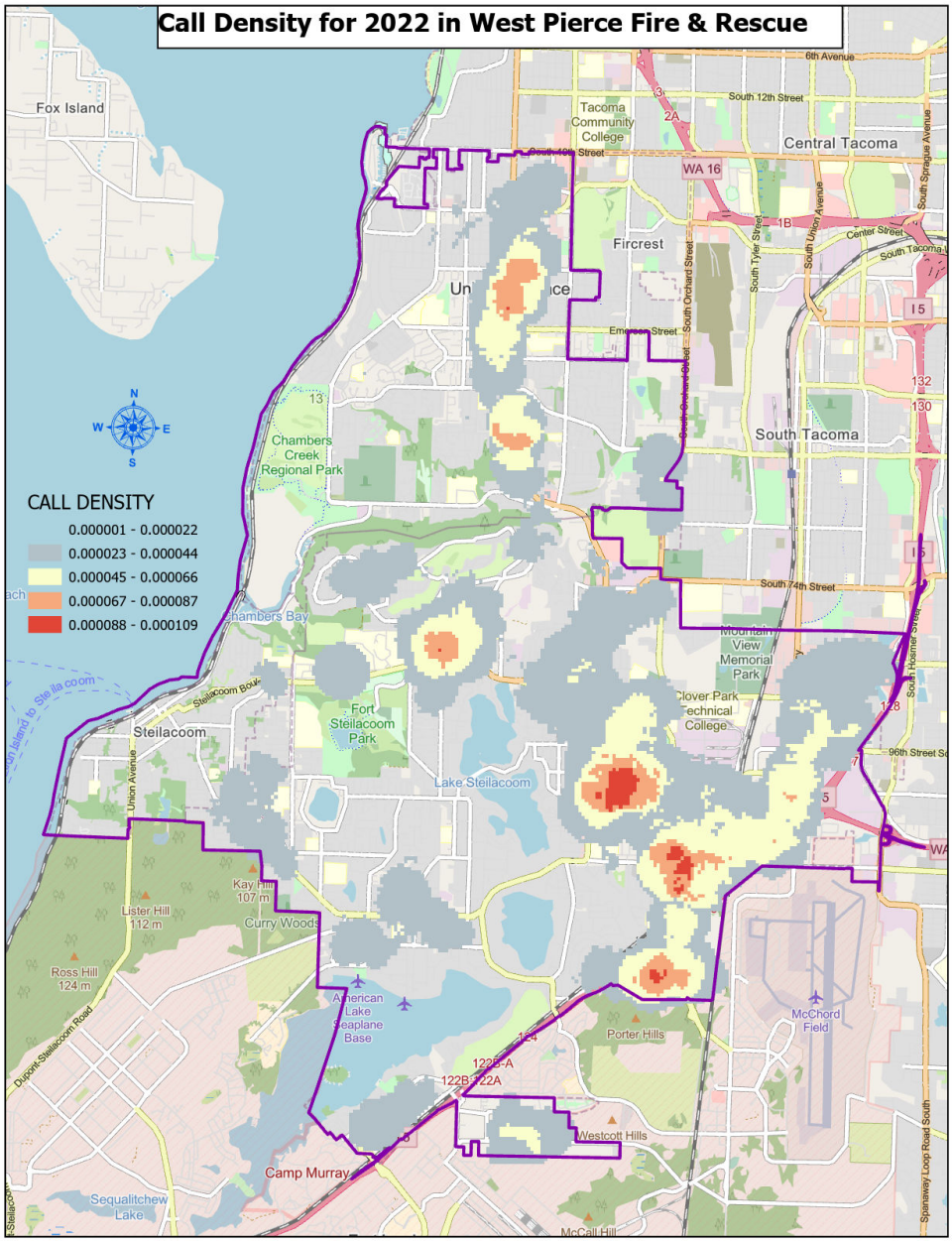
Population density is important when determining risk. Densely populated areas tend to have more calls for service as well as increased life safety risks. The WPFR "Population Density Map" shows the population densities throughout the District.

The Center For Public Safety Excellence classifies population densities using the following definitions: metropolitan areas have a population density of over 3,000 people per square mile, urban areas have between 2,000 and 3,000 people per square mile, suburban

areas have between 1,000 to 2,000 people per square mile, rural areas have less than 1,000 people per square mile, and wilderness or undeveloped areas are not readily accessible by a publicly or privately maintained road. Most of WPFR is classified as metropolitan, but there are urban, suburban and rural areas as well, throughout the community.

When evaluating the risk potential it was necessary to also look at the trends and patterns regarding where incidents occur. The high demand for service areas have not changed significantly from year to year, so WPFR can expect higher call volumes in these areas in the future. The maps validate the positioning of resources based on demand and concentrations of events. Anticipated population growth and redevelopment will require WPFR to continue to evaluate resource deployment. In WPFR, the areas with a higher population density also have a higher call volume. This can be noted by comparing the map titled "Call Densities for 2022 in WPFR" to the "Population Density Map."





Political Boundaries

WPFR encompasses the Cities of Lakewood and University Place. There is one small pocket of unincorporated Pierce County, which is the Arrowhead community. The Town of Steilacoom contracts for service with WPFR, but is not included within the legal boundaries of the District. It is unlikely the District will increase its boundaries unless there is a merger with a neighboring jurisdiction or if one of the cities should annex additional land into their borders.

Growth

According to the Comprehensive Plans of the City of Lakewood and the City of University Place, there are no current intentions to annex any additional land outside the existing borders. Both cities are considered extensively developed, mature communities. Most future growth will occur as a result of urban infill and redevelopment of existing properties. In 2023, state legislators passed House Bill 1110, which requires cities to zone for "middle housing." Middle housing types allowed under HB 1110 include duplexes, even sixplexes.

Both cities have current commercial development patterns largely representative of typical urban sprawl, with little in the way of a recognizable downtown core. Both cities are working to change this; Lakewood with the Towne Center, and University Place with The Village at Chambers Bay.

The City of Lakewood has defined several steps to control urban sprawl in their Comprehensive Plan. The first was the creation of new land use designations which restricts new commercial development to specialized nodes and corridors, as opposed to the random distribution that has occurred up to this point.

Many neighborhoods within Lakewood are slated for redevelopment which will likely have an impact on call volume and type of incidents. The Springbrook neighborhood, with its close proximity to Joint Base Lewis McChord, the Custer neighborhood in north central Lakewood, the northern portion of Tillicum, and the area around the Lakewood commuter rail station are all designated for higher density housing development. The Woodbrook area is transitioning to industrial development, altering its former, mostly residential, land use. The Air Corridor which consists of the land just north of the JBLM runway is slated for a conversion from the existing higher density housing, including mobile home parks and apartments, to lower density land uses such as warehouses, storage, and open space.

The City of University Place also addresses growth in their Comprehensive Plan. University Place intends to direct a large share of its forecasted population growth to its Regional Growth Centers; which includes; The Village at Chambers Bay, 27th Street Businesses, Northeast Mixed Use Districts and other areas already designated and zoned for multifamily housing and mixed use development. The Regional Growth Centers are envisioned as higher density focal points within the community; attracting people and businesses to an excellent multi modal transportation system with diverse economic opportunities, a variety of well-designed places to live; with a close proximity to shopping, recreation, and other amenities. Redevelopment is also likely at Chambers Creek Properties where there have been proposals for private sector development, possibly a hotel, restaurant, and conference facilities.

University Place is also planning to provide light manufacturing, industrial, and business park land uses, specifically in the northeast area of the city, which has convenient access to major transportation corridors.

The Town of Steilacoom does not predict much growth within its boundaries according to their Comprehensive Plan. The growth they are expecting is predominantly residential.

Construction Limitations

There are construction regulations within WPFR which can be found in the Municipal Codes of the Cities of Lakewood and University Place and the Town of Steilacoom. These sections cover such topics as water/sewer, storm water, set-back and buffer requirements, building height, development density, land uses, etc. These regulations are often based on the land use zoning such as residential, central business, office, institution, etc. along with special use permits and exceptions.

Response Barriers

West Pierce Fire & Rescue is a community with many natural barriers to response. The many lakes and streams in the community are one example. These bodies of water make it impossible to build new routes from one side of Lakewood to the other. The only routes available to get from the east side to the west are; Steilacoom Boulevard, Interlaaken Drive, and through the Lake City neighborhood. The limited routes can sometimes lead to longer response times if a road is heavily congested, closed, or under construction.

In addition to these natural barriers, the railroad crossings in the District can also impede response when the trains are passing through. Sometimes WPFR response units are required to wait for a train to pass while responding to an incident.

There are several neighborhoods isolated from the rest of the community in WPFR. The Tillicum and Woodbrook neighborhoods can only be accessed via Interstate 5, which is frequently blocked due to heavy traffic, impacting response times. The Springbrook neighborhood is another example, as the only way in and out is via a bridge over Interstate 5 on Bridgeport Way SW.

Silcox Island is located in the middle of American Lake. The only transportation to and from the island is via private boat. Marine 23, moored on American Lake in Tillicum, responds to emergencies on the island.

Day Island in University Place has only one point of ingress and egress, which is the Day Island Bridge. If this bridge is obstructed for some reason, the area is isolated from the rest of the community. Day Island also has limited boat access due to tidal changes. This area has very narrow roads and homes are located close together. It is a beach community also subject to flooding during high tides.

Sunset Beach in University Place has significant obstacles to response. Fire department access is limited due to steep and narrow roads and railroad tracks. The railroad traffic would need to be shut down in the event of a fire and spotters would be necessary to ensure no trains came down the tracks, damaging hose lines or injuring firefighters. If a fire occurs in this neighborhood, it will take a significant amount of work on the part of firefighters to establish a water supply. The road ends at the tracks, and access to homes on Sunset Beach is limited to walking and hand-carrying equipment. This is also a difficult area to access for EMS calls, especially if a patient needs to be transported.

Elevation Changes
The elevation throughout WPFR ranges from sea level to a high of 480 feet. There are some areas where the elevation changes quickly, specifically along the Puget Sound shoreline and Chambers Creek. These areas can pose increased risks for responding units and may require skills such as high angle rescue to mitigate an incident. There are properties along the shoreline with the potential for significant changes in the water levels as a result of the tides, specifically Day Island and Sunset Beach. These tidal changes, whether a very high or very low tide, can impact service.

Open Space/Interface
A mere 6% of the land in WPFR is undeveloped, an additional 7% of land is vacant, including area parks. There are limited interface areas between developed and undeveloped land. Over the years, the risk of wildfires has increased due to the dryer weather conditions. There have been large fires over the years at Ft. Steilacoom Park, which has a significant amount of surface level natural vegetation.

TRANSPORTATION RISK FACTORS

Traffic and Roadways
The streets in WPFR form a network much like that of the human body's vascular system, composed of arteries, veins, and capillaries, that work together to supply oxygen to the rest of the body. Similarly, the street network must function together to provide mobility to the entire region. Roads have a hierarchy of functional classifications, which range from major routes designed to move large numbers of vehicles quickly throughout the region (principal arterials) to streets intended to provide a greater balance between mobility and access to residential, commercial, and industrial areas (minor arterials and collector arterials) and to those used primarily for access to homes (local access road). The functional classification system acknowledges that individual streets do not act independently of each other, but form a network of streets that work together to serve travel needs on a local, city-wide, and regional level.

The street system is one of the most important factors affecting WPFR's ability to deliver the necessary resources to the scene of an emergency. Traffic flow patterns, numbers of vehicles, connectivity, traffic calming devices, and the ability of drivers to yield to emergency vehicles all affect service delivery. Traffic congestion is predicted to increase as the population increases, which will likely cause WPFR to see more traffic related incidents and could increase response times. The following pages describe in more detail the transportation network within WPFR.

Traffic congestion on freeways and arterial roadways within the region is projected to be far more extensive in the future, resulting in longer travel delays. This has a direct impact on Lakewood, University Place, and Steilacoom as they are all part of the regional transportation system and are integrally connected to systems of adjacent jurisdictions. WPFR currently experiences traffic congestion around the freeway interchanges and some principal arterial streets.

According to the Lakewood Comprehensive plan there are many causes of increased traffic congestion in WPFR including:

- Annual vehicle miles traveled are growing at a faster rate than the population or employment.
- An increase in the number of two-wage-earner households.
- A historical decline in transit use as a percentage of overall trips.
- Road improvements have not kept pace with traffic volume for environmental, financial, and community character reasons.

To correct some of the problems contributing to these conditions, all three communities are working to develop and maintain a balanced multi-modal transportation system integrating the local transportation network with the regional transportation system.

Lakewood
There are several challenges to improving the transportation system in Lakewood. First, there are natural obstacles such as, American Lake, Gravelly Lake and Lake Steilacoom, which constrict traffic flow between the east and west halves of the city to a few arterial connections. Secondly, the existing traffic patterns evolved in a pattern typical of urban sprawl, a few principal roadways connect a network composed of otherwise unconnected cul-de-sacs.

Because of the city's geographic location, natural features, and military installations; Interstate 5 and State Route 512 form the primary connections with the rest of the region. Finally, there are limited alternative modes of transportation. The City's incomplete bicycle and pedestrian network does not provide safe links between most commercial areas, schools, community facilities, and residential neighborhoods.

To help alleviate these transportation issues, Lakewood has several goals and policies listed in their comprehensive plan. Due to the City's close proximity to JBLM and Camp Murray, other agencies are involved in improving the transportation network. One goal is to work with these agencies to maintain consistency with state, regional and local plans and transportation projects. The City is establishing freight routes to reduce the impact of freight vehicles on the residential streets and other sensitive lands. They also want to reduce the predominance of single occupant vehicles as a primary means of transportation, by increasing the use of public transportation, biking and walking, which will involve improving the linkages from one neighborhood to the next.

University Place
The City of University Place also has several goals related to their road network and transportation system. The first goal is to create a transportation network including vehicle, pedestrian, bicycle and transit components located throughout the City and connecting to adjacent communities. Secondly, they plan to establish assigned truck routes to the City's delivery destinations along major arterials to avoid impacts on the secondary arterials, collectors and neighborhood streets. They also plan to add roundabouts, traffic circles, landscaped medians, pedestrian bump-outs, and other traffic calming measures to reduce speeds and increase safety. These traffic calming devices may have an impact on response, as they also slow emergency vehicles. Improvements are planned to major arterials, secondary arterials and collector arterials in hopes of maintaining a consistent level of service on the arterial system that mitigates the impacts of new growth.

Steilacoom
Steilacoom has recently reconstructed the Town's major streets, which means their transportation projects will concentrate on non-motorized improvements such as sidewalks and bike lanes. There are plans to implement traffic calming strategies such as traffic circles, speed bumps, raised crosswalks, etc., which may impact emergency response.

Roadway Performance
Roadway performance is measured using the National Research Council Highway Capacity Manual's standardized Level of Service (LOS) Scale of A-F. LOS "A" represents the least amount of congestion, while the letter "F" represents the highest level of congestion. Lakewood has several roads rated at Levels "E" and "F," which need improvements.

Level “E” is defined as representing operating conditions at or near the capacity of the roadway. Low speeds (approaching 50% of normal) and average intersection delays of 40 to 60 seconds per vehicle are common. Freedom to maneuver within the traffic stream is extremely difficult. Any incident can be expected to produce a breakdown in traffic flow with extensive queuing. Level “E” rated roadways in the District include:

- South Tacoma Way between 84th Street S and Steilacoom Boulevard SW
- 108th Street SW between Pacific Highway SW and Bridgeport Way SW
- Bridgeport Way SW between Pacific Highway SW and 108th Street SW

Level “F” is defined as forced flow operation at very low speeds. Operations are characterized by stop-and-go traffic. Vehicles may progress at reasonable speeds for several hundred feet or more, then be required to stop in a cyclical fashion. Long typical delays of over 60 seconds per vehicle occur at signalized intersections. Level “F” rated roadways include:

- Steilacoom Boulevard corridor between 88th Street SW and 83rd Avenue SW
- Gravelly Lake Drive between I-5 and Washington Boulevard SW
- Washington Boulevard SW, west of Gravelly Lake Drive SW
- Ardmore Drive SW between Steilacoom Boulevard SW and Whitman Avenue SW
- Murray Road SW north of 146th Street SW

South Tacoma Way, Bridgeport Way, Steilacoom Boulevard, Gravelly Lake Drive and Washington Boulevard are principal arterials with over 15,000 vehicles traveling per day. Murray Road and 108th Street are minor arterials with between 5,000 and 20,000 vehicles per day. The peak times for congestion on these roadways are early in the morning between 6:00 and 8:00 am and in the afternoon between 4:00 and 6:00 pm.

Improving these roadways in Lakewood is beyond the funding capacity of the current capital facilities plan, so it is unlikely improvements will be made in the near future and may even get worse with anticipated population growth. Neither the City of University Place, nor the Town of Steilacoom currently have any roadways with “E” or “F” ratings, but University Place is anticipating several intersections to receive those ratings in the near future as a result of population growth.

In 2022, the average daily vehicle count on Interstate 5 at milepost 119 located near the Steilacoom/DuPont Road, just south of the fire district, was 127,000 with approximately 12% (15,325) of those vehicles being trucks. At Milepost 131, just north of the fire District at 56th Street, the average daily vehicle count was over 193,000 with approximately 11% (20,709) being trucks.

Since 2019, the average number of collisions WPFR responded to on the highways, including both Interstate 5 and Highway 512 is 224 per year or more than four collisions per week.

Bridges

There are several communities in Lakewood accessed by private bridges. A voluntary certification program was put in place where owners of the bridges were to obtain an inspection and weight-rating by a licensed structural engineer every two years. There are two bridges that have not undergone the inspection, posing an unacceptable risk to WPFR personnel and apparatus to cross. These neighborhoods will require WPFR to deploy personnel and hand-carried equipment across the bridge to provide emergency services, creating delays in response. The two neighborhoods impacted are:

- Valley Creek with two bridges at the end of Phillips Road
- Greystone, 11210 Gravelly Lake Drive

Rail

There are two sets of railroad tracks running through the District; one travels along Puget Sound on the western border of the District through Steilacoom and University Place,

the other travels through Lakewood along Interstate 5 until it arrives at the Lakeview neighborhood, where the track turns and runs along the west side of South Tacoma Way. The railroad tracks along the shoreline were first built by Northern Pacific Railway in 1912. Now owned by the Burlington Northern and Santa Fe Railway Company (BNSF), the double track serves as many as 60 trains per day, including both freight and passenger traffic. Neither passenger nor freight trains make scheduled stops in the District.

As many as 35 commercial trains containing a variety of materials travel through the District each day. BNSF is required by Federal Law to transport any legal commodity, including any hazardous materials in accordance with DOT regulations. BNSF transports consumer commodities, grain and agricultural commodities, low-sulfur coal, and industrial goods such as petroleum, chemicals, housing materials, food and beverages. Hazardous materials account for approximately 5% of this rail traffic. Trains vary in size from a merchandise train, containing about 20 cars or more to a unit train with 125 cars or more.

Passenger and commuter trains also travel through the District, using the same tracks as the commercial trains. According to the latest posted schedule, Amtrak runs 6 trains through the area each day; equally split between northbound and southbound. In 2022, there were 66,689 total passengers getting on or off the train in Tacoma which is the nearest station to WPFR. This comes to an average of 183 Amtrak passengers getting on and off the train each day, a significant decrease over the past 10 years. There are many additional passengers who travel through the area and do not get off at stops near the District.

The Sounder commuter train has its southernmost station in Lakewood. Daily there are between eight and 13 trains traveling between Seattle and Lakewood. Average daily weekday ridership on these trains is just under 400 passengers, but this number is increasing at a rapid rate as service expands.

The Amtrak Cascades Plan for Washington State rerouted passenger trains from Tacoma through Lakewood to avoid the curves and single-track tunnels at Point Defiance, thus bypassing Steilacoom. The new route began in 2017. The first train to embark on this route derailed onto Interstate 5 killing three passengers and injuring many more. Several changes were made to the safety of this route in the following years and the route was resumed in November of 2021. Freight service will continue along the shoreline for the foreseeable future.

The City of Lakewood conducted a hazard analysis which identified some risks associated with the trains coming through the City. Some of the hazard descriptions identified were as follows:

- Collision between train and pedestrians
- Collision between train and fixed structures
- Collision between train and foreign objects
- Collision between train and grade crossing user(s)
- Derailment
- Explosion
- Fire or smoke under bridge structure
- Flood on alignment

- Foreign object on alignment

The City of Lakewood continues to mitigate as many of these risks as possible through education, engineering and maintenance. Education includes public safety messages around rail safety and providing appropriate signage. Engineering includes additional fencing, installation of warning devices, ensuring safe right-of-way and roadway design, installing pedestrian gates in areas where people often walk, and coordinate traffic control device upgrades and design intersection interface with adjacent intersection traffic signals. Maintenance includes frequently removing debris from tracks and clearing vegetation or removing objects to allow for adequate sight distance. (Reference: Point Defiance Bypass Preliminary Hazard Analysis)

Waterways
WPFR is bordered on the west by roughly eight miles of Puget Sound waterfront. This waterway is utilized for recreation and trade. There are two ports in close proximity to WPFR. To the south is the Port of Olympia, which mostly exports logs to Japan and imports fracking sand from China. To the north, is the Port of Tacoma. They import and/or export items

such as automobiles, grain, logs, and much more. This port is an economic driver for Pierce County and the rest of the region. If there are any interruptions at either of these ports the impact to the local and national economy are significant.

Airport
There is no airport located within WPFR, but a runway operated by the Department of Defense at JBLM is on the eastern border. Although this airport is not located in the District, WPFR would likely respond through mutual aid agreements to significant incidents at this location. Also, the flight path for this airport sends aircraft directly over the District on take-offs and landings, increasing the risk for an aircraft incident to occur within the District since most aircraft incidents occur during take-off or landing.

There are two asphalt runways at the airport. One is 6,121 feet long by 147 feet wide and the other is 10,108 feet long by 150 feet wide. Multiple flights take off and land each day. Aircraft from JBLM are tasked with supporting worldwide combat and humanitarian airlift contingencies. There are several different types of aircraft that utilize JBLM from large C-17s to Apache and Chinook Helicopters. The C-17s fly out of McChord Field, while the helicopters fly out of Grey Field on the Ft. Lewis side of the base. The C-17 crew consists of a pilot, co-pilot and loadmaster. The maximum load is 170,000 pounds and can fit two large buses, three helicopters, and one of the Army's newest tanks or other oversized cargo. In addition, it has airdrop capabilities for cargo and up to 102 paratroopers.

The City of Lakewood rezoned the entire flight path area and has changed development from the current high-density housing to a more industrial use based on the risks to the community.

Utilities
A utility emergency may involve one or more of the following; natural gas, heating oil, gasoline, coal, electricity, or water. These types of emergencies can create a great risk to firefighters. They must mitigate the hazards so neither they, nor the public are injured.

No matter what type of utility is involved, when a lack of resources disrupts business and the day-to-day lives of residents, it can become an emergency. This is especially true during periods of inclement weather or other types of disasters. WPFR residents receive service from several different utility providers.

Lakewood Service Providers
Pierce County Public Works provides sewer service to the majority of Lakewood. There are a few pockets where no sewer service is available limiting development. Those areas are: 1) north of Pierce College and north of 101st St SW 2) along Clover Creek near Cochise Lane. The installation of sewer trunk lines in Tillicum and Woodbrook has increased development in these areas. Water service for Lakewood is primarily provided by Lakewood Water. East of I-5, Parkland Light and Water provides water south of SR-512, and the City of Tacoma provides water north of SR-512. Gas and power are provided by one of the following entities in Lakewood; Lakeview Light and Power, Tacoma Power, and Puget Sound Energy. Storm water management is provided by the Surface Water Management Division of the Public Works Department for the City of Lakewood.

University Place Service Providers
Pierce County Public Works provides sewer services in University Place and Tacoma Public Utilities provides the power, gas and water service to most residences although there are other smaller companies who provide service as well. There are several telecommunications providers. The City plans to work with these agencies to be sure necessary maintenance and upgrades are completed to ensure the needs of the community are met. Storm water management is provided by the City of University Place.

Steilacoom Service Providers
The Town of Steilacoom operates much of its own utility infrastructure; including electric distribution, storm water conveyance, sanitary sewer, and water systems. Many of the existing facilities are aging and in need of renovation to meet modern service standards and the demand created by future growth. There are plans to replace older, water pipes throughout town in the coming years. There are also plans to replace old pipes in the sewer system.

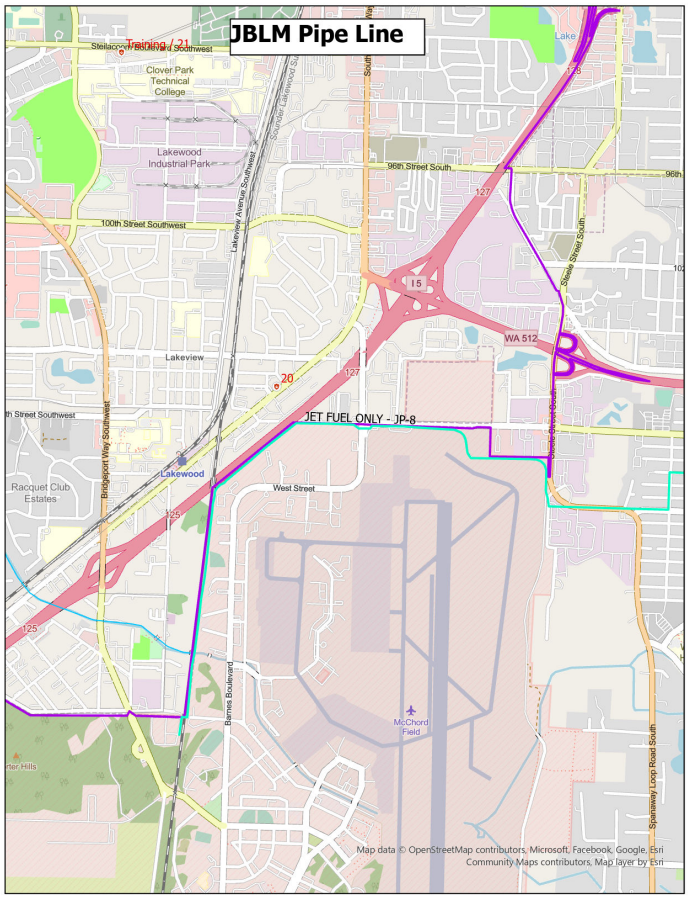
Utility emergencies can have a significant effect on the community, including but not limited to: impact on public safety and emergency response by causing fires, explosions, flooding, etc.; Inconvenience to residents; reduced heating and lighting capabilities; reduced production across the economy; potential failures of transportation, water supply, wastewater treatment system, breakdown of communication, information, and banking systems.

Even short-term utility impacts can affect some people. Senior residents and the disabled may be unable to leave their homes, they may not have an alternate method of heating their home, and/or they may be unable to operate medical equipment necessary for survival.

Pipelines
The McChord Pipeline Co. is the primary supplier of jet fuel to Joint Base Lewis McChord (JBLM). According to their website, the pipeline is a single 6-inch diameter, 14.25-mile long pipeline originating at the U.S. Oil & Refining Co., located in the Tacoma Tideflats, and terminates at storage tanks located at JBLM. The pipeline transports JP-8, a kerosene-based jet fuel, as its sole product. Jet fuel is a petroleum distillate and a combustible liquid. Jet fuel's physical properties are similar to that of kerosene.

WPFR is responsible for planning, coordinating and conducting emergency preparedness and response activities regarding the pipeline, because it carries hazardous materials that can pose serious risks to people and the environment. Pipelines are one of the safest and most economical means of transporting hazardous materials, but occasionally incidents do occur. The primary causes of pipeline incidents include corrosion; incorrect operation; material, weld or equipment failure; natural force damage like earthquakes and floods; excavation damage; and other outside force damage like vehicle collisions. Although pipeline incidents are relatively rare, considering the total mileage of pipelines and the volume of products transported, pipeline incidents can have catastrophic consequences.

The most important aspects of pipeline emergency preparedness and response are communication and cooperation between pipeline operators and emergency responders prior to an incident occurring.



HUMAN RISKS

Civil Disturbances

Civil disturbances are the result of groups or individuals feeling their needs or rights are being infringed upon, either by society at large, a segment thereof, or the current overriding political system. When this results in community disruption of a nature where intervention is required to maintain public safety it has become a civil disturbance.

Civil disturbance spans a wide variety of actions and includes, but is not limited to; labor unrest, strikes, civil disobedience, demonstrations, riots, or rebellion. Triggers could include: racial tension, religious conflict, unemployment, a decrease in normally accepted goods or services such as water, food or gas shortages, or unpopular political actions.

Labor disturbances will tend to occur at individual companies or organizations or during marches in support of workers. Confrontations can also happen at either of the colleges in the District, especially during periods of protest against governmental policy, college policy or during and after sporting events.

Civil disturbances can affect the region's economic vitality should businesses be forced to close or highways and other infrastructure severely impacted. There has never been an issue with civil disturbances within WPFR's borders, but they can happen anywhere.

NATURAL HAZARDS

Climatic Impact

WPFR enjoys a very mild climate. July is on average the warmest month. The average yearly rainfall is 47 inches and the average snowfall is less than four inches. The number of days with measurable precipitation on average each year is 99, with the remaining days varying from sunny, to partly cloudy, to overcast.

Severe weather is a risk to the community. Windstorms, hail, snow, and ice storms, have all impacted WPFR in the past. While tornadoes have not occurred within the District, they have taken place recently in areas nearby. The most recent federal disaster declaration in Pierce County was in January 2022 for flooding and mudslides

Land Erosion Risks

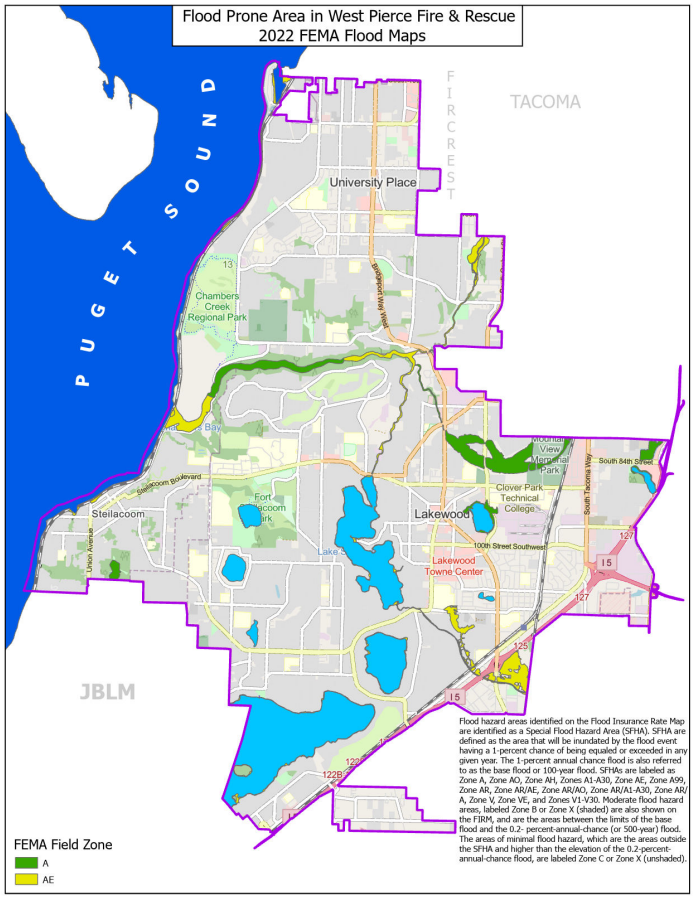
There are many areas throughout WPFR where slopes exceed 15% and glacial till is overlain by well-drained soils. When these hillsides become wet, it is possible for the slope to fail. These areas are also at an increased risk of damage resulting from an earthquake or slope settlement. The largest steep slope hazard area lies along Chambers Creek affecting both Lakewood and University Place.

Flooding

There are very few areas identified in the District as being at risk for floods. The areas at risk do not flood often, but during periods of heavy rain, it is possible. The areas identified are shown on the following map. Notice most of them are located near creeks and streams. Urban flooding would be the most likely type of flood to occur within the District, as drains get clogged during times of heavy rains.

Earthquake

There are three distinct earthquake threats in our region. Deep earthquakes, like the 2001



Nisqually Earthquake, which was a magnitude 6.8; earthquakes on the Seattle or Tacoma Faults that could have a magnitude up to 8.0; and subduction earthquakes located off the Washington Coast that could have a magnitude as high as 9.0. Any of these types of earthquakes could cause millions, if not billions of dollars in damage within the region. (Region 5 Hazard Mitigation Plan 2020-2025)

Tsunami or Seiche

Tsunami is a Japanese word meaning large harbor wave. Pierce County has been impacted by three tsunamis generated in the Puget Sound in the past 120 years. The largest of these, the 1894 tsunami, originated in Commencement Bay and destroyed 300 feet of dock and sent a ten foot wave into Old Town Tacoma. With eight miles of Puget Sound waterfront acting as the western border of the District, there is a risk of either a tsunami or a seiche. A seiche is a standing wave in an enclosed or partially enclosed body of water. This phenomenon has been observed on lakes, reservoirs, swimming pools, and bays.

Volcanic Eruption

While WPFR will not likely be directly impacted by a volcanic event, it will likely be an area of refuge for residents throughout Pierce County whose homes would be affected if Mount Rainier erupted. Another risk is that of isolation. Many of the roads utilized for commerce and travel to work may be impacted in the event of a volcanic eruption.

EPIDEMICS/PANDEMICS

The Pierce County Health Department informs local healthcare providers, including the EMS Division of WPFR, when there are communicable health risks in the region. Risks come from both animal epidemics and human epidemics. Human epidemics could include Measles, Hepatitis B, Tuberculosis, the standard flu, E-coli, Lyme Disease, etc.

An example of animal epidemics is the “Bird Flu” which originated in birds and spread to humans. Rabies is also an example of an animal disease that can easily spread to humans. A pandemic outbreak occurs when a new variant of a disease becomes an epidemic and then spreads globally. Because most or all people do not have immunity to the new virus, large portions of people in the impacted communities become infected.

Many diseases Americans have not worried about for years, if not decades, still exist in parts of the world that are not well controlled with strong immunization programs. The main health risk in Pierce County in 2016 was influenza, but diseases spread from other countries were considered to have the greatest risk for future epidemics. In 2016, there were health advisories for the Zika Virus and the Middle East Respiratory Syndrome Coronavirus.

In 2020, the concerns over a potential epidemic materialized with the emergence of the coronavirus disease (COVID-19) which spread rapidly around the world and quickly reached the pandemic level. In 2023, COVID-19 reached the endemic stage, meaning that major outbreaks occur less frequently, but the disease will remain as a regularly occurring health risk within the community. With community immunization programs against COVID-19 and naturally acquired immunity, future outbreaks

should not reach the epidemic levels seen early in the pandemic when the general population had no immunity.

It is important for WPFR to continue to heed these community health advisories to protect first responders and the community alike. The impacts of future epidemics could include loss of life or short or long-term debilitation for the victims as well as widespread economic impacts. As was seen with the COVID-19 pandemic, a future serious epidemic or pandemic would likely cause a significant strain on the current public health and medical resources. WPFR supports the local health community in preventing an epidemic by continuing to offer immunizations to employees and their families.

WPFR Response to the COVID-19 Outbreak

In late January 2020, the CDC confirmed the first U.S. COVID-19 patient in Everett, WA. By early March, dozens of cases had been confirmed across the US and by March 11, the World Health Organization declared COVID-19 a global pandemic. By the end of 2020, there were 262,516 reported cases of COVID-19 in Washington State alone, resulting in 15,667 hospitalizations and 4,461 deaths.

While responses to 9-1-1 emergencies continued uninterrupted, the COVID-19 pandemic did have a significant impact on operations at WPFR. Responding to fire & medical emergencies during the pandemic required extensive changes in policies for personal protective equipment (PPE) and medical care to limit the COVID-19 exposure risk to WPFR personnel, while ensuring that firefighters could continue providing high quality patient care. PPE such as N95 masks, HEPA filters, gloves and eye protection were in very short supply during the early months of the pandemic, due to the worldwide need.

By addressing these shortages early and working with the Pierce County Department of Emergency Management and the Washington State Department of Health, WPFR was able to secure reusable protective equipment for personnel, such as air purifying respirators and patient care gowns. In coordination with the County and State Departments of Health, contact tracing was put in place to identify exposure of employees to COVID-19 patients during emergency responses as well as exposure to infected co-workers. This helped prevent emergency crews from unknowingly spreading the disease to uninfected patients. The virus also created significant staffing shortages, as employees were placed in quarantine after contracting COVID-19 or having a significant exposure to the virus on emergency responses and through community exposure.

Vaccinations for COVID-19 started to become available in late December 2020. Initially, vaccines were extremely limited with priority given to high-risk populations and essential personnel, including healthcare professionals. As vaccinations became available community-wide through 2021 and 2022 and people developed immunity from exposure to the disease, the impact of COVID-19 lessened. New variants have continued to appear causing spikes in the number of cases, but overall, the disease has reached the endemic stage where the majority of the population has had COVID-19 and case numbers are relatively low. Ongoing vaccination programs continue to lessen the impact of the disease and operations at WPFR have largely returned to normal.

COVID-19 still represents a community health risk. In 2023, unvaccinated individuals were between two and four and a half times more likely to be hospitalized with COVID-19 than those who received at least one booster.

There is also a higher risk of severe illness with COVID-19 than with other diseases, such as influenza. In December 2023, influenza accounted for 43% of ER visits compared to 8% for COVID-19 however, COVID-19 patients occupy twice as many intensive care hospital beds as influenza patients.

Commercial Property Risks

WPFR undertook a significant challenge in conducting risk assessments on every commercial and multi-family residential structure in the District. Firefighters and prevention personnel visited every commercial structure to obtain current and relevant data.

An Occupancy Vulnerability Assessment Profile (OVAP) risk assessment was conducted for each structure and once completed, structures were given a risk score. Items included in the score were exposure separation, type of construction, number of stories, access, square footage, occupant load, occupant mobility, warning alarm present, exiting systems, water demand, property value, regulatory oversight, human activity, ability to control fire, hazard type and fire load. Based on these scores, buildings were placed in one of the following risk categories: special, high, moderate, or low. A full description of the items evaluated and the scoring system is available in the appendices located at the end of the document.

This process occurred over an eight-month period and in the end, over 1,800 structures and 3,500 businesses were assessed, representing all of the commercial properties in the District. This information allowed WPFR to look at the overall fire and emergency risks in the community and determine the deployment needed to accomplish the critical tasking necessary to extinguish a fire or respond to a major incident anywhere in the District.

WPFR was able to identify vacant and demolished structures, along with risks to firefighters. The identified risks to firefighters will be placed into the Computer Aided Dispatch (CAD) to inform crews prior to their arrival on the scene of an emergency.

Upon completion of the process, the OVAP scores were reviewed by the Suppression Battalion Chiefs and the final scores were discussed. If certain structures were deemed to be in an incorrect category based on their knowledge of the area, the occupancy, or historical incidents, the scores were adjusted. The final scores are critical to determining resource deployment to a structure fire or other emergency at any one of the buildings.

Probability and Consequence

In addition to the OVAP scoring, occupancies were assessed for probability and consequence. Probability is the predictability of an event occurring based on historical data and provides a method for predicting the frequency of future events. Consequence refers to the impact of a particular emergency incident on the community. For example, a nursing home fire may be an infrequent event, but it carries an extremely high consequence to life and property. The categories utilized and examples of each are as follows:

Special Risk Facilities

When considering probability and consequence of an event occurring, there are unique situations which are inherent to “Special Risk.” These unique situations cause extreme conditions or have disastrous potential. These types of events occur so rarely and have such high consequences that most departments will only have a few members with any experience to mitigate these incidents. Although the department trains for these occurrences, the training is often theoretical and always simulated. These training exercises include, but

are not limited to, hazardous materials releases, mass casualty incidents, water emergencies, and technical rescue.

WPFR assessed large facilities, occupancies where a high-risk population is housed, and facilities where the types and volumes of products or the kind of business conducted require a unique response based on critical tasking and resources needed to accomplish necessary tasks. The following facilities and sites in WPFR were identified as Special Risks due to their size, complexity, processes, high life risks, or extreme or unique hazards.

Special Risk – Low Probability/High Consequence

- Government or infrastructure risks
- Hospitals
- Nursing homes
- Abandoned structures
- Industrial complexes with fire flows of more than 3,500 gpm

Moderate Risk – High Probability/Low Consequence

- Detached, single-family dwellings
- Railroad facilities
- Mobile homes
- Industrial or commercial occupancies under 10,000 square feet without high fire load.

High Risk Facilities

High Risk Facilities are those that have both a high probability of an incident occurring and a high consequence such as loss of life or a significant impact on the economy. Included in the high-risk facilities are multi-family properties, adult family homes, facilities with hazardous materials, schools, and various other businesses.

High Risk – High Probability/High Consequence

- Concentrations of older multi-family dwellings
- Multi-family dwellings more than two stories tall
- Buildings with high concentrations of fuel load or hazardous materials
- Large mercantile facilities
- Built up areas with high concentration of property with substantial risk of life loss, severe financial impact upon the community or the potential for unusual damage to property or the environment.

Low Risk – Low Probability/Low Consequence

- Storage sheds
- Outbuildings
- Detached garages

SPECIAL RISK FACILITIES

Facility	Address	Station Response Area
Lakewood Meadows	5228-5230 112th Street SW, Lakewood	20
St. Clare Hospital	11315 Bridgeport Way SW, Lakewood	20
Maple Creek Retirement Center	10420 Gravelly Lake Dr SW, Lakewood	21
Pierce Transit	3701 96th St SW, Lakewood	21
B&I	8012 South Tacoma Way, Lakewood	21
Lakewood Industrial Park	Between 95th and 100th St SW and Lakewood Drive SW and Lakeview Ave SW, Lakewood	21
Western State Hospital	9601 Steilacoom Blvd SW, Lakewood	24
Bridgeport Place Senior Living Facility	5250 Bridgeport Way W, University Place	31
University Place Care Center	5520 Bridgeport Way W, University Place	31
Chambers Creek Wastewater	10311 Chambers Creek Rd W	31

By utilizing these methodologies, risks were identified in each service area based on past incident data (probability) and whether the potential loss severity (consequence) of life and/or property during future events could significantly impact the community.

Multi-Family Risk Assessment
Within the borders of WPFR there are 512 structures classified as multi-family dwellings. In 2022, WPFR responded to 1,604 calls to these structures. Of these, 58 were fire responses and 1,546 were EMS calls or other types of emergencies.

The life risk factor in these dwellings is significant based on the number of occupants. These structures are often wood frame and many use lightweight truss construction. In addition, some of these dwellings are three or more stories in height, which creates unique challenges for both rescue and ventilation efforts.

Multi-family structures are classified as follows:

High Risk: Multi-family structures with any of the following characteristics:
- more than three stories
- over 20,000 square feet
- built prior to 1980

Moderate Risk: Multi-family structures with any of the following characteristics
- less than three stories
- under 20,000 square feet

There are numerous aging multi-family dwellings and some of them are located in higher risk areas. These dwellings are located throughout the district in all response areas, but some areas have more than others. The following chart shows the distribution of multi-family units and the number of calls in each of them.

Adult Family Homes and Assisted Living Facilities
According to the State of Washington, an adult family home (AFH) is licensed to provide housing and care services for up to six adults in a regular house located in a residential neighborhood or up to eight in a home with residential fire sprinklers. The AFH may be run by a family, single person, or business partners. The AFH may also hire other employees. In some homes, multiple languages are spoken.

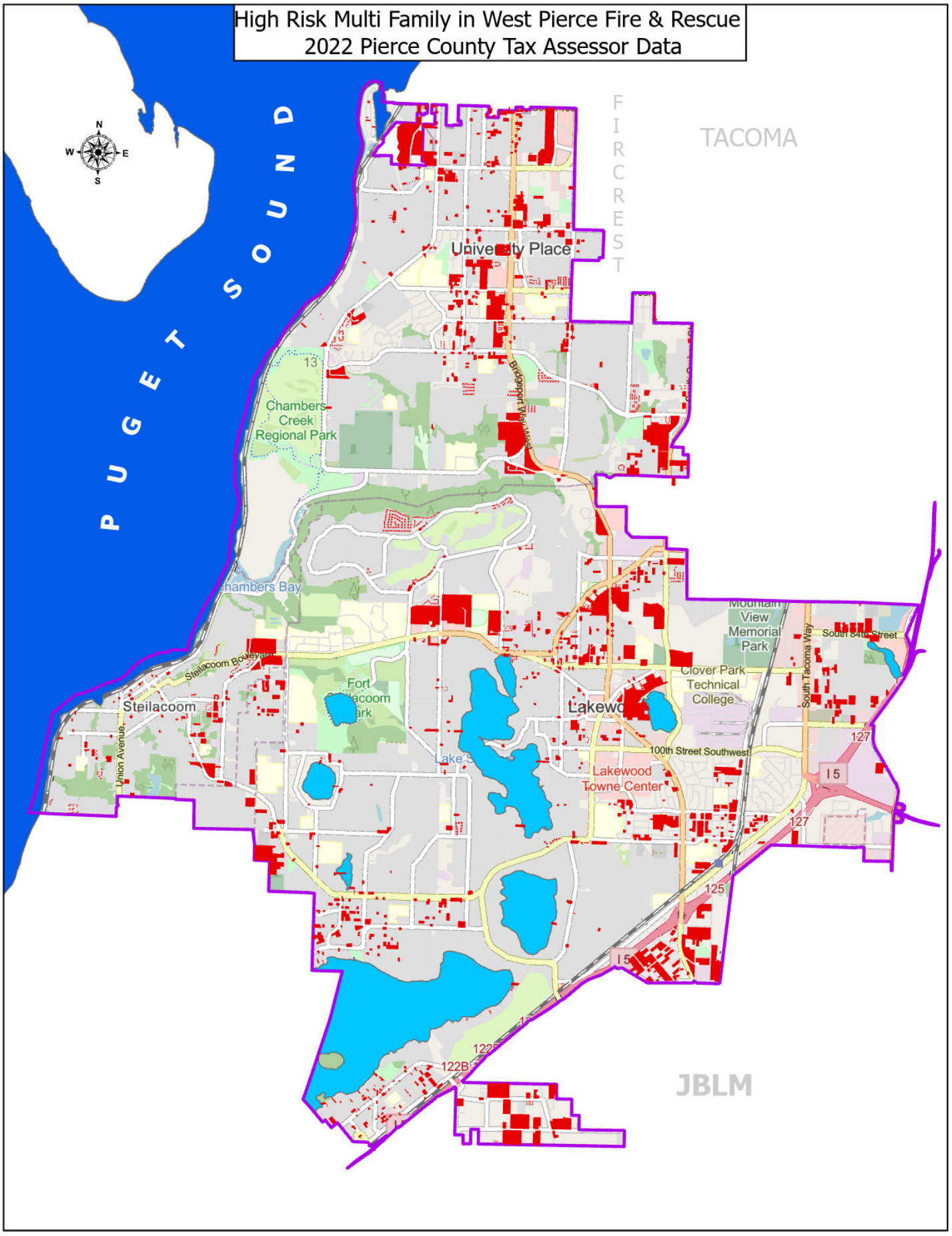
An assisted living facility (ALF) is licensed to provide housing and care services to seven or more people in a home or facility located in a residential neighborhood.

All AFHs and ALFs provide housing and meals (room and board) and assume general responsibility for the safety and care of the resident. Additional services offered may be:

- Varying levels of assistance with personal care
- Intermittent nursing care (a nurse available on a part-time basis)
- Assistance with or administering medications

Some AFHs and ALFs also provide specialized

Response Area	High Risk Complexes	Moderate Risk Complexes	Total Complexes	Fire Calls	EMS/Other Calls	Total Calls Multi-Family Units
20	49	70	119	23	642	665
21	20	28	48	6	257	263
22	7	14	21	3	145	148
23	5	33	38	12	117	129
24	18	16	34	7	245	252
31	21	29	50	6	93	99
32	12	15	27	1	47	48
TOTAL	**132**	**205**	**336**	**58**	**1,546**	**1,604**


High Risk Multi Family in West Pierce Fire & Rescue
2022 Pierce County Tax Assessor Data
PUGET SOUND
N
W
E
S
TACOMA
FIRCREST
University Place
Chambers Creek Regional Park
Bridgeport Way West
Chambers Bay
Steilacoom Boulevard
Steilacoom
Union Avenue
Fort Steilacoom Park
Lakewood
Mountain View Memorial Park
South 84th Street
Clover Park Technical College
South Tacoma Way
100th Street Southwest
Lakewood Towne Center
127
I 5
125
JBLM

care to people living with developmental disabilities, dementia, or mental illness. WPFR has seen a drastic rise in these types of facilities located throughout the jurisdiction. In 2022, there were 196 such facilities in the District. From 2019-2022, there were 2,302 calls for service at these facilities and 1,068 of them resulted in transports to area hospitals. The following chart shows the breakdown by year.

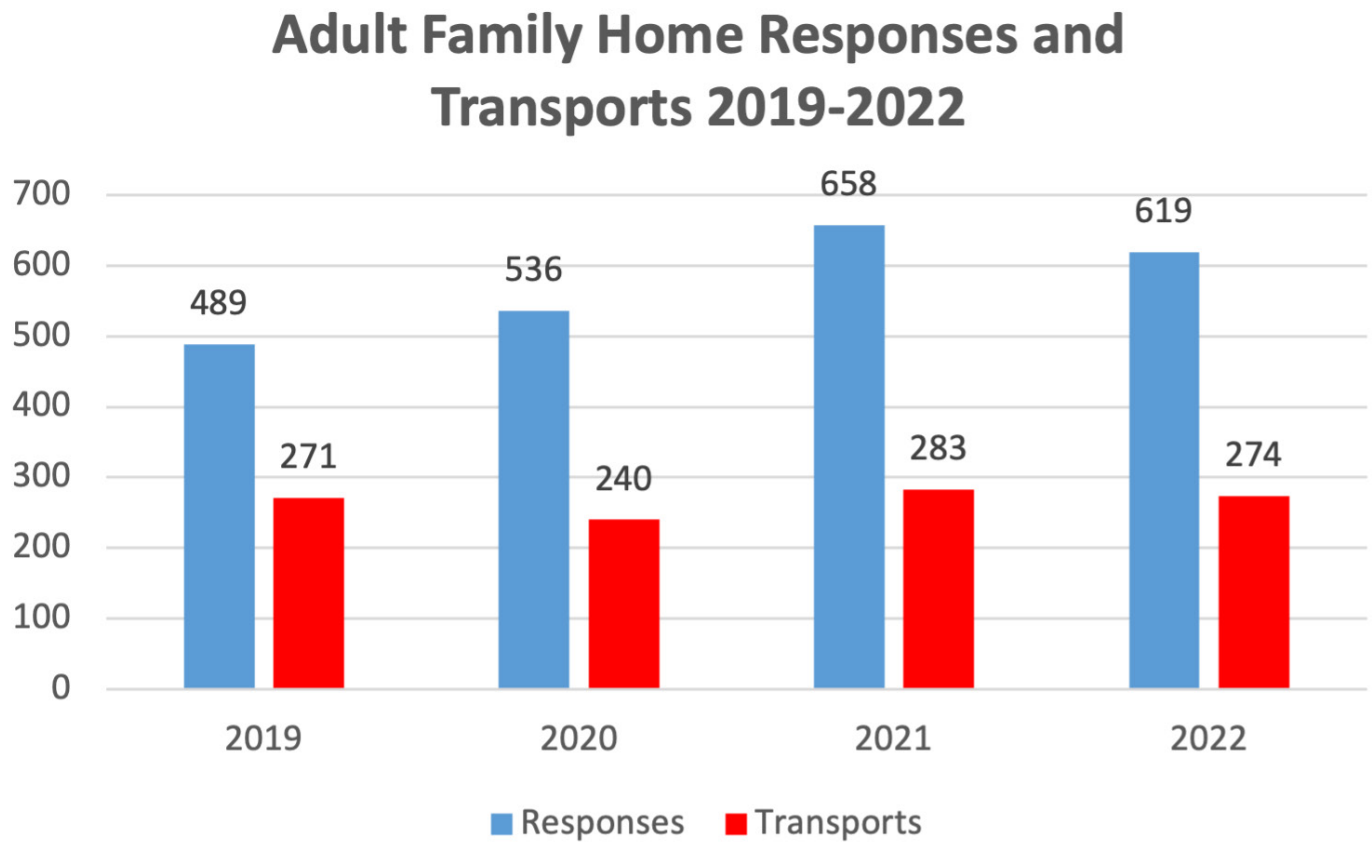
Our Connected Care Coordinator works with adult family homes in the community to ensure the staff at these facilities are given information on available medical resources that are alternatives to 9-1-1 activation. These interactions reduce our responses to and medical transports from adult family homes.

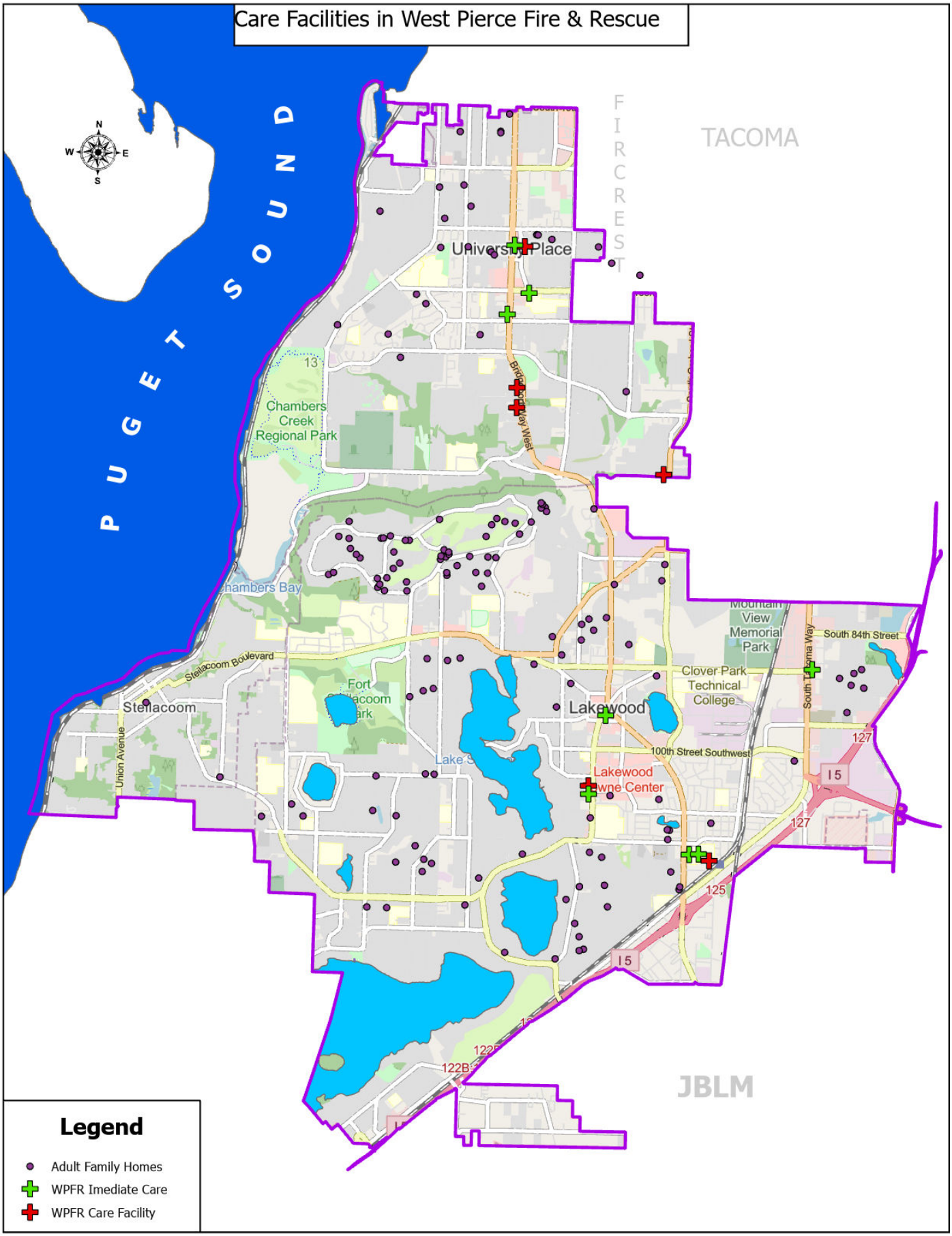
Hazardous Materials

While it is impossible to identify every potential hazardous materials risk in the community, there are certain facilities that would pose the highest risk should protection systems fail. There are several businesses in the District who are required to complete Tier II reporting. Tier II reports are the paperwork organizations and businesses throughout the United States with hazardous chemicals above certain quantities, are required to fill out by the EPA. Known officially as Emergency and Hazardous Chemical Inventory Forms, Tier II Reports are submitted annually to local fire departments along with other agencies, so plans can be established for response to chemical emergencies.

While some businesses fail to report, WPFR used the lists provided to us by the State of Washington to identify those facilities reporting. The facilities were mapped in order to provide a geographic reference in relation to department resources and other occupancies, such as schools, assemblies, and medical treatment facilities.

Assessing the known locations of hazardous materials or routes of hazardous materials transport allows for pre-planning and provides an overview of the level of risk from a hazardous material event. Station response areas were




Care Facilities in West Pierce Fire & Rescue
PUGET SOUND
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TACOMA
FIRCREST
University Place
Chambers Creek Regional Park
Chambers Bay
Steilacoom Boulevard
Steilacoom
Union Avenue
Fort Steilacoom Park
Lake Steilacoom
Lakewood
Clover Park Technical College
Mountain View Memorial Park
South 84th Street
South Tacoma Way
100th Street Southwest
Lakewood Towne Center
I 5
127
125
122B
JBLM
Legend
Adult Family Homes
WPFR Imediate Care
WPFR Care Facility

evaluated for the risk of hazardous materials incidents, some first due areas have a higher risk potential due to the types of facilities or the presence of transportation corridors (i.e. major arterials and railway) while others only have a slight possibility for an event.

Schools

The risk assessment for schools was based on the student population, facility size, number of stories, built in protection systems, and exposures. Response history was also examined to determine the likelihood of an incident occurring in the future. The criteria utilized to assign the risk category is as follows:

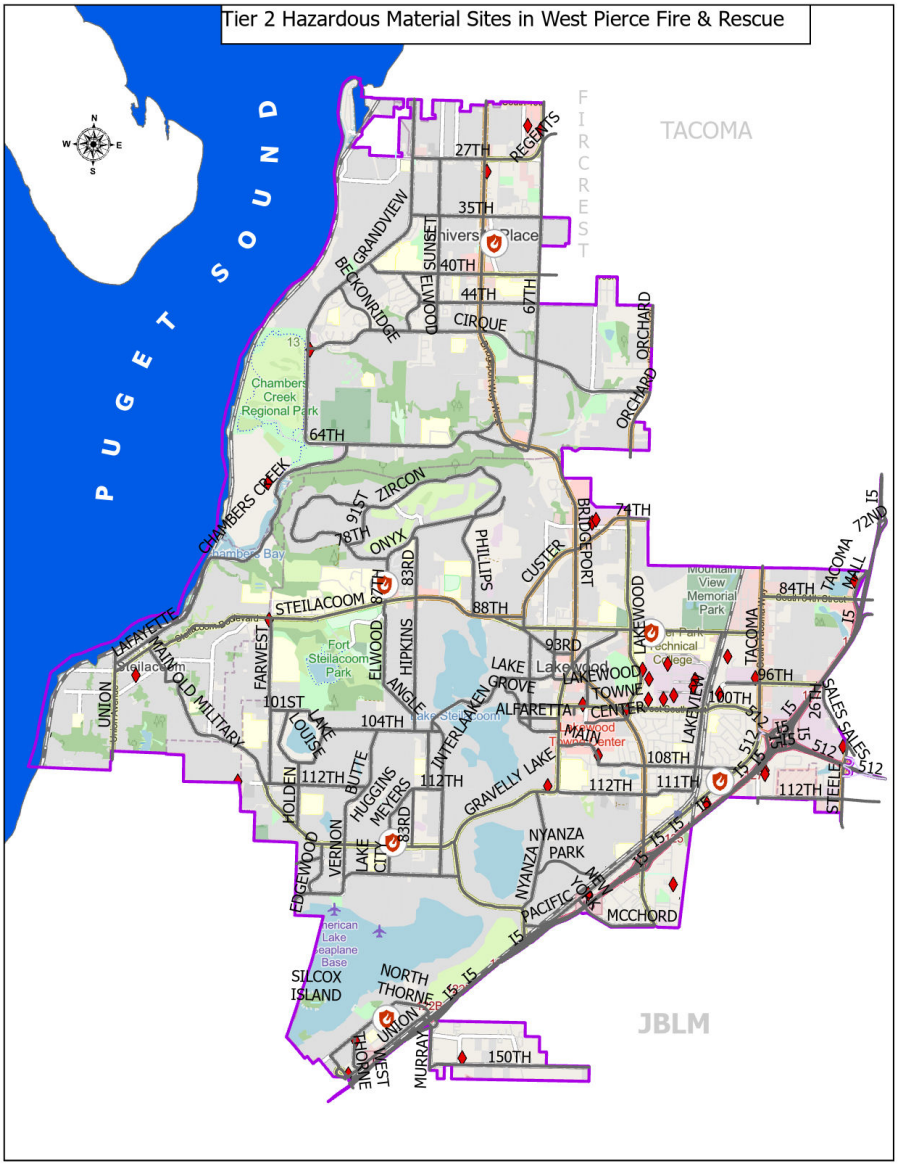
- High Risk: Any school consisting of two or more stories or more than 400 students
- Moderate Risk: Any school less than 400 students and one story in height
- No schools were rated as low risk.

Based on this criteria, 24 schools were deemed to be High Risk and the other 8 were Moderate Risk. A breakdown of the schools by station area is located in the chart on the next page.

From 2019-2022, there were a total of 318 incidents at schools within the District. Of the total number of incidents, there were 222 EMS or service calls, 76 commercial fire alarm responses, 5 hazard material or rescue calls and 15 fires.

Other High Risk Occupancies

These occupancies are classified as high risk due to one or more of the following factors: use of the facility, size and age of the building, occupant load, economic impact, call volume, etc.



Differential Response

The risk analysis was intended to be comprehensive and analytical. The result of the process was the ability to quantify risks to allow for prevention, mitigation, and response. For a response, the allocated resources must match the level of risk present and ensure the most effective assignment on the scene is provided. The output of the risk analysis process allowed WPFR to place occupancies into categories. Based on the category, differential response models are applied.

Differential response means offering the correct amount and types of resources to provide for firefighter safety and system efficiency and effectiveness. It is important to know, the term resources encompasses not merely staff, but also appropriate apparatus, water and/or foam delivery capabilities, technical response equipment, and knowledge, etc. Differential response is not new to WPFR, however, now that this analysis is complete, WPFR can better observe the outcomes and identify any inefficiencies that exist.

Responses are not “one size fits all.” Responses are therefore matched to the risk level of the event. For example, a fire in an outbuilding is indeed a structure fire, but it presents a far different risk scenario than a fire in a large commercial structure.

SCHOOL RISK ASSESSMENT						
Station	**School**	**Type**	**Sprinkler**	**Stories**	**Population**	**Risk**
20	Gravelly Lake Academy	K-12	Yes	1	216	Moderate
	Lakeview Hope Academy	Elementary	Yes	2	532	High
	Tyee Park	Elementary	No	1	373	High
21	Dower	Elementary	No	1	287	Moderate
	Four Heroes	Elementary	Yes	2	532	High
	Harrison Preparatory	6-12	Yes	2	719	High
	Lochburn	Middle	Partial	1	505	High
	Park Lodge	Elementary	Yes	2	355	High
	St. Frances Cabrini	PreK-8	No	1	236	High
22	Cherrydale	Elementary	Yes	1	369	Moderate
	Clover Park	High	Yes	2	1,305	High
	Idlewild	Elementary	No	1	419	High
	Lake Louise	Elementary	No	1	468	Moderate
	Lakes	High	Yes	2	1,276	High
	Salters Point	Elementary	Yes	1	486	High
	St. Mary's Christian	Elementary	Yes	1	49	Moderate
	Thomas	Middle	Yes	2	970	High
23	Tillicum	Elementary	No	1	249	Moderate
24	Custer	Elementary	No	1	285	Moderate
	Hudtloff	Middle	Yes	2	626	High
	Oakbrook	Elementary	No	1	280	Moderate
	Steilacoom	High	Yes	2	962	High
31	Chambers	Elementary	Yes	1	473	High
	Charles Wright Academy	PreK-12	Partial	2	578	High
	Curtis	Junior High	Yes	2	911	High
	Curtis	High	Yes	2	1,368	High
	Drum	Intermediate	Yes	2	590	High
	Evergreen	Primary	Yes	1	531	High
	Heritage Christian	PreK-8	No	2	205	High
	Narrows View	Intermediate	Yes	2	713	High
	Sunset	Primary	Yes	1	543	High
	University Place	Primary	Yes	2	504	High

Critical Tasking

With every type of emergency event there are certain tasks to be accomplished in order to mitigate the incident. These tasks must be accomplished in a prompt, efficient, and safe manner. WPFR has the responsibility of ensuring an adequate amount of resources are deployed in order to carry out the described tasks.

STATION 20 HIGH RISK OCCUPANCIES	
Business Name	**Address**
Agape Fellowship Ministries	4814 108th Street SW
Aquarium Paradise	11724 Pacific Hwy SW
Bridgeport Villa Plaza	10604 - 10650 Bridgeport Way SW
Commercial Drivers Services/Statewide Life Truck	11000 34th Avenue S
Great American Casino	10115 South Tacoma Way
Greer Industrial Park	11302 Steele Street S
Greer Steel	3117 107th Street S
Greer Steel Paint & Blasting Building	10609 32nd Avenue S
Jenco Industrial Park	2311 - 2710 104th St Ct S
Lakewood Auto Body/Ponders Grocery	12116 - 12122 Pacific Highway SW
Lakewood Business Park	10025 - 10107 S Tacoma Way
Lakewood Corporate Center	10803 - 11101 South Tacoma Way
Metro Warehouses Plaza	3305 108th Street S
Pick-n-Pull	2416 112th Street S
Sound Transit Center	11424 Pacific Hwy SW
St. Clare Specialty Center	11307 Bridgeport Way SW
Tucci & Sons	11005 26th Avenue S
Vacant	11014 Pacific Highway SW

STATION 21 HIGH RISK OCCUPANCIES	
Business Name	**Address**
AMC Loews Theater	5721 Main Street SW
Beauty Outlet/Vacant	8024 South Tacoma Way
Boo Han Plaza	9122 S Tacoma Way
Bowlero Lanes	3852 Steilacoom Boulevard SW
Bridgeport Professional Building	7424 Bridgeport Way W
Car Hop	8021 South Tacoma Way
Chips Smoke & Grocery/Sign Shop	8203 - 8205 South Tacoma Way
Clover Park Technical College	4500 Steilacoom Blvd SW

Business Name	Address
Discount Tire Company	2214 84th Street S
DSHS/Work Source/ESD	5712 Main Street SW
Extra Space Storage	2602 80th Street S
Golden Plaza	8302 South Tacoma Way
JR Furniture	2402 84th Street S
Lakewood Colonial Center East	9521 Gravelly Lake Drive SW
Lakewood Colonial Center West	6122 Motor Avenue SW
Lakewood Playhouse	5729 Lakewood Towne Center Boulevard SW
Lakewood Towne Center - Bright Now Dental, Payless Shoes, Alaska USA Credit Union, etc.	10321 Gravelly Lake Drive SW
Lakewood Towne Center - Burlington Coat Factory, Office Depot, etc.	10210 - 10420 59th Avenue SW
Lakewood Towne Center - Dollar Tree, Marshalls, Michaels, Old Navy, etc.	5720 - 5830 Lakewood Towne Center Boulevard SW
Lakewood Towne Center - Firestone	6120 Main Street SW
Lakewood Towne Center - WA Department of Health, Habitat for Humanity Store, etc.	6010 - 6030 Main Street SW
Lakewood Towne Center Theaters	5731 Main Street SW
Lakewood YMCA	9715 Lakewood Drive SW
Lowe's	5115 100th Street SW
Macau Casino	9811 S Tacoma Way
Multiple Businesses	2510 84th Street S
New Jerusalem Child Care	6145 Steilacoom Boulevard SW
Olympic Moving & Storage	8500 Durango Street SW
Paldo World Building	9601 S Tacoma Way
PC Computers/Vacant	8204 South Tacoma Way
S&B Furniture	8220 - 8222 South Tacoma Way
South Tacoma Antique Mall	8219 South Tacoma Way
Target	5618 Lakewood Towne Center Boulevard SW
Transmission Sales & Service	8009 South Tacoma Way
Vacant	8104 South Tacoma Way
Wal-Mart Lakewood	7001 Brideport Way W
Y&Y Thift Shop	8202 South Tacoma Way

STATION 22 HIGH RISK OCCUPANCIES	
Business Name	**Address**
Community Healthcare	6315 Wildaire Road SW
First Korean United Methodist	11116 Military Road SW
Lakewood Water District	11900 Gravelly Lake Drive SW
Multiple Businesses	11004 - 11120 Gravelly Lake Drive SW
Vince's Auto & Marine Repair	9007 Veterans Drive SW

STATION 23 HIGH RISK OCCUPANCIES	
Business Name	**Address**
Pho Lewis / Vacant / Sheas Fades	14902 Union Avenue SW
Thrornewood Castle Bed & Breakfast	8601 N Thorne Lane SW
Tillicum Baptist Church	8415 Maple Street SW
Vacant	14401 Woodbrook Drive SW

STATION 24 HIGH RISK OCCUPANCIES	
Business Name	**Address**
Ferry Office	56 Union Avenue
Lakewood Baptist Church	8521 Steilacoom Boulevard SW
Lakewood Baptist Temple	10710 Old Military Road SW
Lakewood Presbyterian	8601 104th Street SW
Oak Terrace Apartments	42 Thunderbird Parkway SW
Oakbrook Condominiums	7425 Ruby Drive SW
Oberlin Congregational	9401 Farwest Drive SW
Pierce College	9401 Farwest Drive SW
Steilacoom Orr House Museum	1811 Rainier Street
Steilacoom School District Office	511 Chambers Street
Steilacoom Town Hall	1715 Lafayette Street
The Bluffs Condominiums	8581 - 8643 Zircon Drive SW
Topside Bar and Grill	215 Wilkes Street
Vacant/Life Center/Hot Teriyaki/Mis Tres Amigos/Tax Services	8013 - 8101 Steilacoom Boulevard SW

STATION 31 HIGH RISK OCCUPANCIES	
Business Name	**Address**
Boat Moorage / Storage	9425 19th St W
Chambers Bay Marina	2651 Chambers Creek Rd
College Center	6704 - 6830 Mildred St W
Day Island Yacht Club	2120 91st Ave W
Fairlady Motors	2809 Rochester St W
Franciscan Hospice House	2901 Bridgeport Way W
Green Firs Shopping Center - Safeway, Rite Aid	3840 Bridgeport Way W
Haps Auto Wrecking & Retail Shops	6802 27th St W
Multiple Businesses	2001 - 2033 70th Ave W
Regency Park Condos	4601 Grandview Drive W
SEB Building Retail/Apartments	3555 Market Place W
Storage Units / Spare Space	2912 69th Ave W
The Church on the Hill	5000 67th Ave W
The Place at Bridgeport	3318 Bridgeport Way W
University Place Civic Building	3609 Market Place W
UP School District Transportation & Food Services	9311 Chambers Creek Rd W
Vacant	8311 - 8315 27th St W
Weathervane Square	7025 27th St W
Whole Foods	3515 Bridgeport Way W

WPFR relied on historical events and practices to determine what the critical tasking should be for the various types of operations. WPFR also relied on studies and standards developed by agencies such as the National Fire Protection Association, International Association of Fire Chiefs, International Association of Firefighters, and the National Institute of Safety and Health in determining the amount and type of resources to be deployed as part of the Effective Response Force (ERF).

Fire Ground Operations
Critical tasking for fire ground operations is the number of personnel needed to safely perform the required tasks in order to effectively control a fire in the defined risk category.

Major incidents may require additional resources which are called after the situation has been assessed. This table addresses the levels of response for the various levels of fire risk.

FIRE RESPONSES	
TASK	**PERSONNEL**
LOW RISK FIRES car, dumpster or grass fire, electrical line problem, smoke alarm sounding	
1 Engine Company	
Command/Safety	1
Attack Line	1
Pump Operator	1
Total	**3**
MODERATE RISK FIRES residential structure fire	
2 Battalion Chiefs, 3 Engine Companies, 1 Ladder Company, 2 Medic Units, 1 Duty Chief, 1 Safety Officer	
Command/Accountability	2
Duty Chief	1
Safety Officer	1
Pump Operator	1
Attack Line	2
Backup Line	2
Search and Rescue	3
Ventilation/Ladders	3
Rapid Intervention Team / On Deck	3
Medic / Rehab	2
Total	**20**
HIGH RISK FIRES commercial structure fire	
2 Battalion Chiefs, 4 Engine Companies, 1 Ladder Company, 2 Medic Units, 1 Duty Chief, 1 Safety Officer	
Command / Accountability	2
Duty Chief	1
Safety Officer	1
Pump Operator	1
Attack Line	2
Backup Line	2
Second Attack Line	2
Aerial Operations	1
Ventilation/Ladders/Exposure Protection	2
Rapid Intervention Team/On Deck	3
Medic/Rehab	2
Total	**23**

Emergency Medical Services
Critical tasking for emergency medical incidents is the number of personnel required to safely perform the tasks necessary to meet the current Pierce County EMS Patient Care Protocols. This table addresses the level of response necessary for the various levels of EMS risk.

EMS RESPONSES	
TASK	**PERSONNEL**
LOW RISK EMS Basic Life Support (BLS)	
1 Engine Company or Squad	
Command/Safety	1
Patient Care	2
Total	**3**
MODERATE RISK EMS Advanced Life Support (ALS)	
1 Engine Company, 1 Medic Unit	
Command/Accountability	1
Basic Medical Care	1
Transport to the Hospital	1
Advanced Medical Care	2
Total	**5**
HIGH RISK EMS CPR in progress	
2 Engine Companies, 1 Medic Unit	
Command / Accountability	1
Basic Medical Care	2
Transport to the Hospital	1
Advanced Medical Care/Transport	2
Rescue Activities	2
Total	**8**
HIGH RISK/MASS CASUALTY EMS	
1 Battalion Chief, 2 Engine Companies, 3 Medic Units, 1 Ladder Company	
Command/Accountability/Size Up	2
Safety Officer	1
Triage	1
Medical Officer	2
Rescue Activities	3
Basic Medical Care	3
Advanced Medical Care/Transport	4
Total	**16**

Hazardous Materials
Critical tasking for hazardous materials incidents is the number of personnel required to safely perform the tasks necessary to mitigate the hazard whether it be due to a transportation incident, industrial or manufacturing incident or terrorist activity. This table addresses the level of response necessary for the various levels of hazardous materials incidents.

HAZARDOUS MATERIALS RESPONSES	
TASK	**PERSONNEL**
LOW RISK HAZARDOUS MATERIALS carbon monoxide alarm, fuel spill, natural gas odor	
1 Engine Company	
Command/Safety	1
Mitigation	2
Total	**3**
HIGH RISK HAZARDOUS MATERIALS transportation, manufacturing or unidentified chemical incidents	
1 Battalion Chief, 2 Engine Companies, 2 Medic Units, 1 Ladder Company, 1 Duty Chief, 1 Safety Officer	
Command / Accountability / Size Up	1
Duty Chief	1
Safety Officer	1
Entry Team	2
Pump Operator	1
Protection Attack Line	2
Hazard Mitigation	2
Back-up Mitigation	2
Technical Research	1
Decontamination	2
Total	**15**

Technical Rescue
Critical Tasking for technical rescue is the number of personnel required to safely and effectively assist patients in high-risk situations that occur infrequently such as trench collapse, high angle rescues, confined space entrapments, and structural collapse. This table addresses the level of response necessary for the various types of technical rescue situations.

TECHNICAL RESCUE RESPONSES	
TASK	**PERSONNEL**
LOW RISK TECHNICAL RESCUE	
1 Engine Company	
Command/Safety	1
Mitigation	2
Total	**3**
HIGH RISK TECHNICAL RESCUE	
1 Battalion Chief, 2 Engine Companies, 1 Medic Unit, 1 Ladder Company, all on-duty Rescue Technicians	
Command / Accountability / Size Up	1
Duty Chief	1
Safety Officer	1
Rescue Tasks	3
Patient Care	3
Mitigation	3
Technical Research	1
Rescue Technicians	2
Decontamination	2
Total	**17**

Marine/Water Rescue
Critical Tasking for marine/water rescue is the number of personnel required to safely and successfully mitigate water-based incidents. These tasks include both water and land-based resources. Water incidents are always of high risk to firefighters and therefore require specially trained personnel and specialty resources. This table addresses the level of response necessary for various levels of water-based response situations.

Regional Marine Rescue Response – Due to the numerous waterways in Pierce County, there is a high vulnerability to water-related incidents requiring a coordinated response. Emergency response agencies work collaboratively to improve responder safety during all-hazards water-based incidents. The agencies involved in the Region 5 Water Response Plan are West Pierce Fire & Rescue, Browns Point/Dash Point Fire Department, Gig Harbor Fire & Medic One, Gig Harbor Police, Pierce County Sheriff's Department, Puyallup Tribal Police, South King Fire & Rescue, Tacoma Fire Department, and Tacoma Police Department.

MARINE/WATER RESPONSES	
TASK	**PERSONNEL**
LOW RISK MARINE/WATER RESPONSE	
1 Engine Company	
Command/Safety	1
Mitigation	2
Total	**3**
MODERATE RISK MARINE/WATER RESPONSE	
1 Battalion Chief, 1 Engine Company, 1 Medic Unit	
Command / Accountability / Size Up	1
Fire Boat Pilot	1
Fire Boat Crew	2
Support	2
Total	**6**
HIGH RISK MARINE/WATER RESPONSE	
1 Battalion Chief, 1 Safety Officer, 1 Boat, 3 Engine Companies, 2 Medic Units	
Command / Accountability / Size Up	1
Safety Officer	1
Fire Boat Pilot	1
Fire Boat Crew	2
Second Fire Boat w/ pilot and crew	3
Support	6
Divers	3
Total	**17**
DIVE RESCUE INCIDENT	
1 Battalion Chief, 1 Safety Officer, 1 Engine Company, 1 Medic Unit	
Command / Accountability / Size Up	1
Safety Officer	1
Diver	1
Safety Diver	1
Line Tenders	1
Accountability	1
Rescue Swimmers	2
Total	**8**

Service Level Objectives
Following risk identification, it is important to set specific service level objectives. The process of determining these objectives is part art, part science, and part politics. It is an art because now that an evaluation and categorization of the risks is complete, WPFR must review emergency outcomes which occur in any given risk category and determine how to best respond. It is a science because WPFR personnel have an understanding of historical events, can analyze past outcomes, and will plan for the future based on historical incidents. The political aspect asks the question, "Were the historical outcomes acceptable to the department, elected officials, and the community?"

While WPFR has been praised for its performance by the community, WPFR realizes as we look at the information in this Standard of Cover document, there are improvements that can be made.

To identify and correct any deficiencies, WPFR has established the following community wide service delivery objectives as a part of this risk analysis.

Fire
Objective: For all fire incidents, WPFR shall arrive in a timely manner with sufficient resources to stop the escalation of the fire and keep the fire confined to the area of involvement upon arrival. Initial response resources shall be capable of containing the fire, rescuing at-risk victims, and performing salvage operations, while providing for the safety of the responders and general public.

Distribution Performance Measure for All Fires:
The first due engine (or ladder truck with pumping capabilities) staffed with a minimum of three personnel shall arrive within nine minutes and twenty seconds total response time, for 90% of all calls for emergency service. This is a total of the following objectives: 90 second call processing, 110 second turnout time, and a 6 minute travel time.

Concentration Performance Measure for a Moderate Risk Fire:
The effective response force for moderate risk fire events shall be comprised of a minimum of two Battalion Chiefs, three Engine Companies, one Ladder Company, and two Medic Units for a combined effective response force of 18 personnel. The effective response force shall arrive within 12 minutes total response time for 90% of all requests for emergency service.

Concentration Performance Measure for a High Risk Fire:
The effective response force for high-risk fire events shall be comprised of a minimum of two Battalion Chiefs, four Engine Companies, one Ladder Company, and two Medic Units for a combined effective response force of 21 personnel. The effective response force shall arrive within 12 minutes total response time for 90% of all requests for emergency service.

Emergency Medical Services
Objective: For all emergency medical incidents requiring a first responder, WPFR shall arrive in a timely manner with sufficiently trained and equipped personnel to provide medical services that will stabilize the situation, provide for care and support to the victim and reduce, reverse, or eliminate the conditions that have caused the emergency while providing for the safety of the responders. All front line fire and rescue units are capable of providing basic life support for EMS events. All uniformed fire department personnel are trained to a minimum of EMT-B.

Distribution Performance Measure for All EMS:
The first due unit staffed with a minimum of two personnel shall arrive within nine minutes

and 20 seconds total response time, for 90% of calls for emergency medical service.

Concentration Performance Measure for Low Risk EMS:
WPFR shall respond with an apparatus staffed with personnel to all low risk emergency medical calls. The first arriving apparatus shall arrive within a total response time of nine minutes and 20 seconds for 90% of all calls for emergency medical service.

Concentration Performance Measure for Moderate EMS:
For all moderate risk events, WPFR shall deploy an effective response force consisting of an engine staffed with three personnel and a medic unit staffed with two personnel, one being a paramedic, for a combined staffing of five personnel. The ERF shall arrive within nine minutes and 20 seconds for 90% of the calls for emergency medical service.

Concentration Performance Measure for Moderate EMS (Contract areas outside the District):
For all moderate risk events, WPFR shall deploy an effective response force consisting of an engine staffed with three personnel and a medic unit staffed with two personnel, one being a paramedic, for a combined staffing of five personnel. The ERF shall arrive within 11 minutes and 20 seconds for 90% of the calls for emergency medical service.

Concentration Performance for EMS High Risk CPR in Progress:
For all high-risk events where CPR is in progress, WPFR shall deploy an effective response force consisting of two engines, each staffed with three personnel and a medic unit staffed with two personnel, one being a paramedic, for a combined staffing of eight personnel. The ERF shall arrive within nine minutes and 20 seconds for 90% of the calls for emergency medical service.

Concentration Performance for EMS High Risk CPR in Progress (Contract areas outside the District):
For all high-risk events where CPR is in progress, WPFR shall deploy an effective response force consisting of two engines, each staffed with three personnel and a medic unit staffed with two personnel, one being a paramedic, for a combined staffing of eight personnel. The ERF shall arrive within 11 minutes and 20 seconds for 90% of the calls for service.

Concentration Performance for EMS High Risk Mass Casualty Incident:
For all high-risk EMS events with multiple patients, WPFR shall deploy an effective response force consisting of two Battalion Chiefs, two engine companies, three medic units, and one ladder company, for a combined staffing of 16 personnel. The ERF shall arrive within 12 minutes total response time for 90% of the calls for service.

Other:
All other types of incidents and resource deployment are addressed in the Performance Objectives and Measures section of this document.

HISTORICAL PERSPECTIVE AND PERFORMANCE

Introduction
Every emergency begins with an event. It may be a vehicle collision, a medical emergency, fire, etc. The first reaction triggering the response is discovery of the event. Then someone has to call 9-1-1 to initiate a response.

This 9-1-1 call sets into motion the call processing. The caller is asked a series of questions such as location, if there are injuries, if flames or smoke are visible, etc. The answers to these questions determines the correct number and type of resources to be deployed to the situation. Once the resources have been determined, the dispatcher will send the emergency notification to the agency via radio or computer.

WPFR evaluated data for the calendar year 2022 to determine current performance baselines. Historical performance data was analyzed for a four year period from January 1, 2019 to December 31, 2022. When analyzing response data, WPFR captures three elements of time. The times are used to assess current performance and set goals for future improvement.

The first consideration is the amount of time it takes for the dispatch center to receive and process a call in order to determine what resources are needed, from which agency, to the point of actually dispatching these resources. This is referred to as **Call Processing Time.**

The following factors affect call processing times: the level of excitement of the caller, the caller's familiarity with the location of the emergency, the type of call, the level of detail needed to accurately process the call, the adequacy of information provided by the caller, etc.

The next element of time is measured from the time the dispatcher begins notifying crews of an event until the apparatus is en route to the incident. This time period is referred to as **Turnout Time**. There are several things affecting turnout time such as, time of day, the location of the firefighters in the station, disengagement from tasks in progress, gathering critical response information, putting on gear, mounting the response vehicle, securing seatbelts, starting the vehicle, opening bay doors, etc.

The final piece of the time equation is measured from the en route time until the resource actually stops at the location of the incident. This is referred to as **Travel Time**. The sum of these three segments of time is considered to be the **Total Response Time** for an emergency event.

The National Fire Protection Association (NFPA) sets a goal for the maximum time to receive, process, and dispatch emergency calls at 60 seconds for 90% of the events. The Center for Public Safety Excellence (CPSE) has set an acceptable baseline at 90 seconds for 90% of the calls for service. WPFR has set its baseline at 90 seconds for 90% of the calls for service.

Once Call Processing is complete and WPFR receives the alert, personnel start disengaging from their tasks, move towards their apparatus, and start towards the scene of the emergency. This process is known as the Turnout Time. The NFPA standard for turnout is 60 seconds for EMS calls and 90 seconds for fire calls, 90% of the time. WPFR has set its standard at 110 seconds for all incidents, 90% of the time.

The NFPA in partnership with The Fire Protection Research Foundation conducted a study in 2010 titled "Quantitative Evaluation of Fire and EMS Mobilization Times." The study looked at Turnout Times for several fire departments and the results brought into question some of the current benchmarks set by NFPA.

The researchers are not convinced of the realistic achievability, or safety of the current objectives. The study recorded the Turnout Time for 90% of the calls was 123 seconds or less for fire (slightly over one and one-third times the standard) and 109 seconds or less for EMS (slightly more than one and two-thirds times the standard). Furthermore, the study addressed station size when studying Turnout Time and found that every 50 feet traveled required 10 seconds of travel and stairs more

than doubled that rate, so the larger a station, the higher the Turnout Times. This is the reason WPFR made the decision to set a more realistic standard for Turnout Time.

There are several standards that can be utilized for Travel Time. The first is NFPA, which states a Travel Time of four minutes should be the goal 90% of the time for arrival of the first unit. The Washington State Survey and Rating Bureau (WSRB) has held that instead of time, distance should be measured. Per WSRB, the maximum distance from the nearest fire station should not exceed 1.5 miles. CPSE has set the benchmark for Travel Time of the first due unit to be based upon both population and/or density. WPFR's population density is considered a combination of metropolitan and urban areas. The baseline Travel Time set by CPSE would be five minutes and 12 seconds for the first due unit. Based on station locations and traffic patterns, WPFR has set a Travel Time goal of 6 minutes for the first arriving unit for all incidents, 90% of the time. For fires, WPFR has established that an Effective Response Force (ERF) will consist of 3 engines, 1 ladder, 2 medic units, and two Battalion Chiefs. Further, all apparatus in the ERF should arrive within 12 minutes, 90% of the time.

PERFORMANCE OBJECTIVES				
Call Type	**Call Processing**	**Turnout**	**Travel (first due)**	**Total Response (ERF)**
All	90 seconds	110 seconds	6 minutes	N/A
Fires	90 seconds	110 seconds	6 minutes	17 minutes, 20 seconds
EMS	90 seconds	110 seconds	6 minutes	N/A
Special Operations	90 seconds	110 seconds	6 minutes	N/A
Marine Rescue	90 seconds	110 seconds	6 minutes	N/A

The following table reflects the call processing times, turnout times, first due travel times, and the ERF travel times. The ERF times are for structure fires only. The tables also reflect the 90th percentiles for 2019, 2020, 2021 and 2022 combined for a historical snapshot, followed by a table showing only 2022 which indicate WPFR's current performance levels.

COLLECTIVE PERFORMANCE DATA 2019-2022				
Call Type	**Call Processing**	**Turnout**	**Travel (first due)**	**Total Response (ERF)**
All	03:07	02:21	07:53	*
Fires	03:08	02:33	06:16	26:54
EMS	03:07	02:20	07:55	*
Special Operations	07:33	02:14	07:20	*
Marine Rescue	08:20	02:05	08:01	*

This is the 90th Percentile data compiled for all three years. Only priority calls were considered.
**ERF is calculated for structure fires only. **Fireboat Endeavor and special operations calls can be regional in nature. These programs sometimes occur outside the District making travel times longer.*

PERFORMANCE DATA 2022				
Call Type	**Call Processing**	**Turnout**	**Travel (first due)**	**Total Response (ERF)**
All	03:51	02:18	07:58	*
Fires	04:02	02:34	06:20	28:56
EMS	03:51	02:18	08:01	*
Special Operations	07:16	02:04	06:11	*
Marine Rescue	08:14	02:05	06:16	*

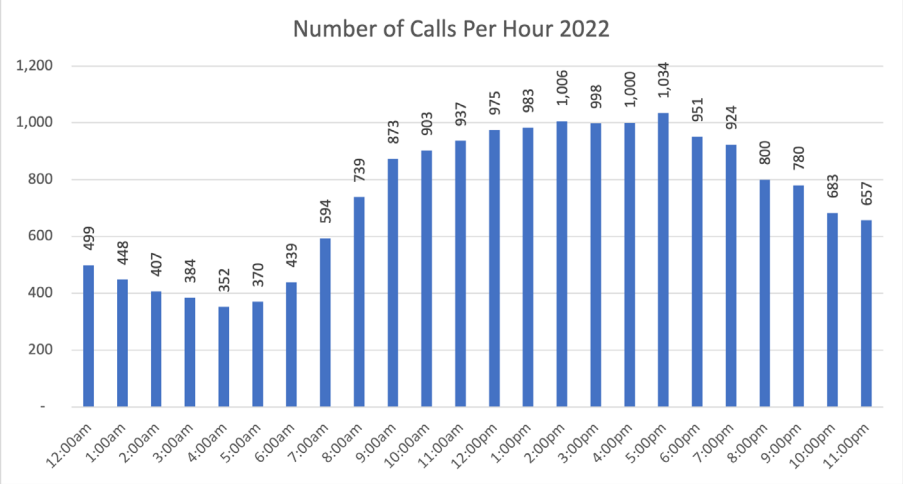
This is the 90th Percentile data for priority calls only. Only priority calls were considered.
**ERF is calculated for structure fires only. **Fireboat Endeavor and special operations calls can be regional in nature. These programs sometimes occur outside the District making travel times longer.*

The assessment of call processing revealed the 90th percentile times are higher than desired based on the NFPA 1221 Standard. The assessment of turnout and travel times also revealed the 90th percentile times are higher than desired based on the 52.33 Standards set by the Board of Fire Commissioners. It is interesting to note that while the individual call processing, turnout and travel time components are not meeting the established goals, the total response time of the effective response force for commercial and residential fires combined is significantly less than the established goal of 17 minutes and 20 seconds for commercial fires.

WPFR personnel work 24-hour shifts, therefore, calls are often received during sleep hours, mealtimes and physical training hours. WPFR looked at the data to determine if these types of activities impacted performance; in order to do so, performance was analyzed by hour of the day. Five separate charts were compiled to examine how the time of day impacts call volumes and additional performance measures such as call processing, turnout times and travel times.

Number of Calls Per Hour 2022

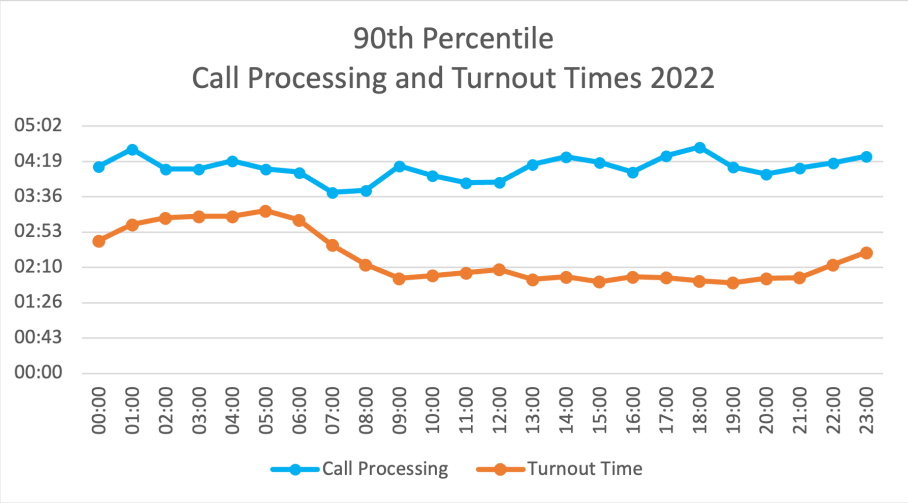
The axis on the left shows the number of calls for service and the axis on the bottom shows the hour of the day. This chart indicates the peak hours of service are from 8am to 9pm, with call volume significantly lower in the late evening and early morning hours.



90th Percentile Call Processing and Turnout Times 2022

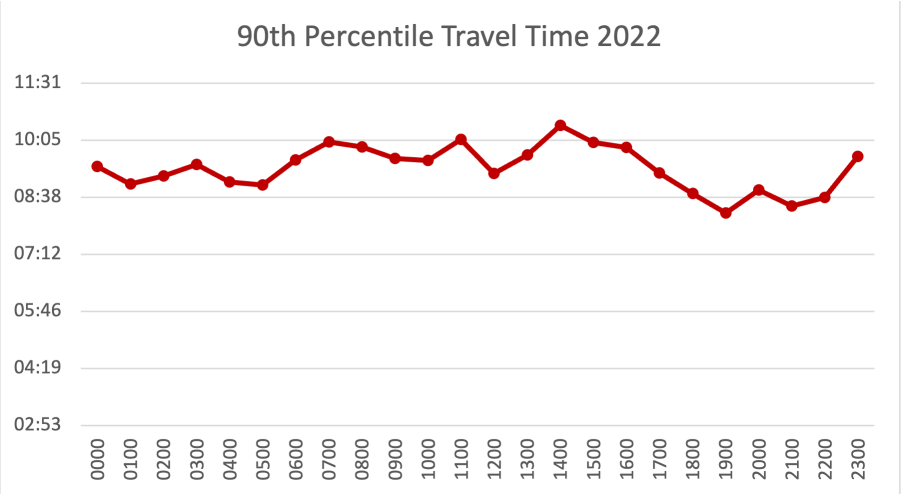
The left hand axis shows the unit of time it takes to process a call and turnout from the station. The bottom axis shows the hour of the day.

The 90th percentile means that 90% of the time call processing times and turnout times were less than the numbers indicated on the chart. Turnout times are slightly longer during the evening hours which was expected, as firefighters are awoken from sleep. Call processing times held relatively steady and the hour of day did not make a difference.



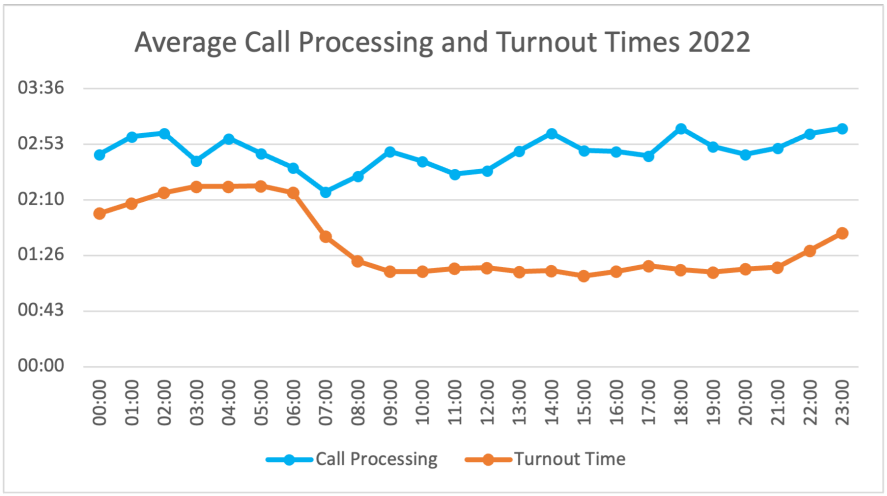
90th Percentile Travel Times 2022

This chart shows travel times are fairly consistent but peak at the end of normal work day hours, and are less in the late evening and early morning hours.



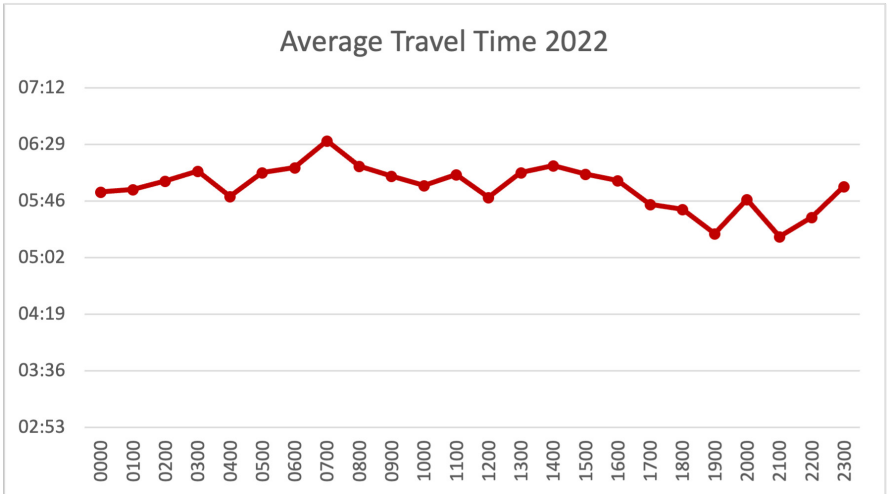
Average Call Processing and Turnout Times 2022

Similar to the 90th Percentile chart on the previous page, processing times are mostly unaffected by time of day and turnout times are longer during the hours that firefighters are sleeping at night.



Average Travel Time 2022

Much like the 90th percentile for Travel Time, there is not significant differences in Travel Time based on hour of day when looking at averages.



DISTRIBUTION AND DEMAND FOR SERVICE

Distribution

The Commission on Fire Accreditation International (CFAI) has defined distribution as the geographic location of first due resources for all initial intervention responses. Station location affects the rapid deployment of resources. Most communities are faced with the issue of providing the same quality and level of service to all parts of the fire district. Most communities provide services and resources spread throughout the community rather than one central location. Distributing stations throughout the community will ensure rapid deployment in order to minimize and mitigate emergencies.

West Pierce Fire & Rescue strives to provide equitable levels of service to all of its stakeholders. The socio-economically disadvantaged areas of the community should have the same level of protection as the more affluent areas. In many instances, the demand for service is higher in the poorer and distressed areas of the community. Station and resource locations were historically driven by compliance with the Washington Survey and Rating Bureau which suggests that all occupancies should be within one and a half miles of a fire station. This travel distance measured at an average speed of 35 miles per hour meant the first due fire engine would normally have an average travel time of 3.2 minutes.

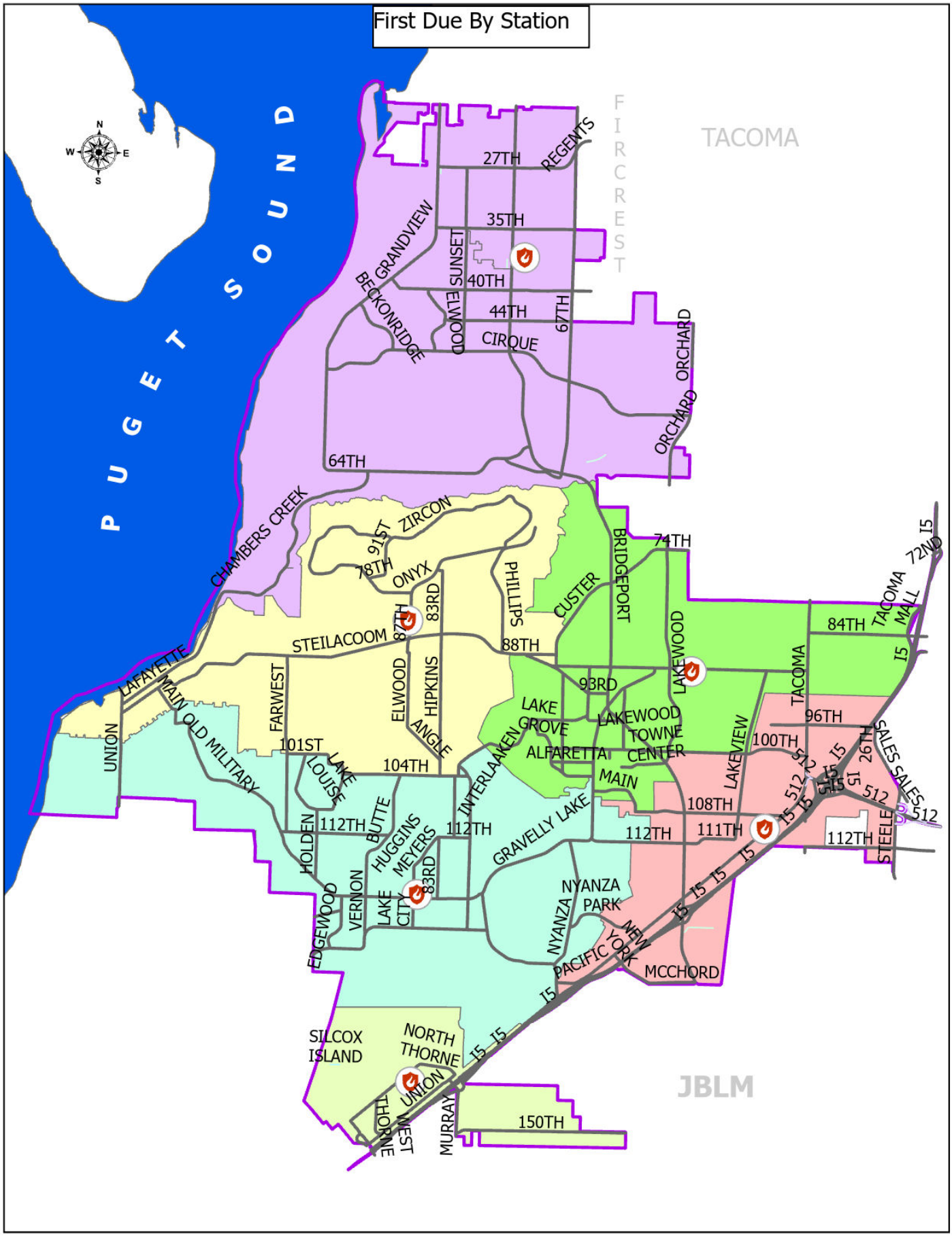
Not all stations are located within this desired one and a half miles due to land availability, political ramifications, and costs, but the attempt to meet this standard has resulted in a reasonable station distribution throughout the District.

There is one area at the border of Lakewood and University Place where a service gap exists. The distance between Station 31 located in University Place and all other stations is the greatest. The area to the south of University Place has longer response times than other areas of the district. The “Current Facilities and Deployment” map shows the facility locations and size of the first due response areas in comparison to other stations.

Distribution can be evaluated by the percentage of the jurisdiction covered by the first-due units within the adopted public policy service level objectives. The demand for service has a direct impact on the distribution of resources.

Where there is a high volume of demand or increased risk, additional resources may need to be allocated in order to achieve the objective of having a first due arrival within the established time frame. This is directly connected to the agency’s concentration needs. Concentration is the arrangement of multiple resource spacing so that the Effective Response Force (ERF) can be assembled at the scene within the time frames adopted by WPFR.

The established travel time goal for the first due unit on scene of an emergency event is six minutes for Zone 1 which is Lakewood and University Place. Zone 2 is the Town of Steilacoom where the established travel time goal for the first due on scene is six minutes for most incidents, but eight minutes for advanced life support needed at an emergency medical incident.


First Due By Station
PUGET SOUND
N
W
E
S
TACOMA
FIRCREST
JBLM
27TH
REGENTS
35TH
GRANDVIEW
BECKONRIDGE
SUNSET
ELWOOD
40TH
44TH
67TH
CIRQUE
ORCHARD
64TH
CHAMBERS CREEK
91ST
ZIRCON
78TH
ONYX
83RD
87TH
PHILLIPS
CUSTER
BRIDGEPORT
74TH
72ND
I5
TACOMA MALL
84TH
STEILACOOM
88TH
LAFAYETTE
MAIN
OLD MILITARY
FARWEST
ELWOOD
HIPKINS
ANGLE
93RD
LAKEWOOD
TACOMA
96TH
LAKE GROVE
LAKEWOOD TOWNE CENTER
ALFARETTA
100TH
LAKEVIEW
26TH
SALES
UNION
101ST
LAKE LOUISE
104TH
INTERLAKEN
MAIN
108TH
512
112TH
BUTTE
HUGGINS
MEYERS
GRAVELLY LAKE
111TH
STEELE
HOLDEN
VERNON
LAKE CITY
NYANZA
PARK
NEW YORK
PACIFIC
MCCHORD
EDGEWOOD
SILCOX ISLAND
NORTH THORNE
UNION
THORNE WEST
MURRAY
150TH

Service Area

When WPFR was formed in 2011, measured and defined service areas were established. These areas were established based on call volumes and the area served with the goal of the first due unit, usually an engine company, being dispatched and arriving within the set time frame to initially contain or stabilize an event, or provide medical treatment when necessary. In service areas where a larger workload or geographic area exist, multiple resources may be assigned to the same station.

During the development of the Standard of Cover, each service area was analyzed to review the workload and reliability of the units to provide the services needed. Such issues as the amount of time the first due unit was unavailable to respond were reviewed. The unavailability of units may be due to a number of reasons including simultaneous events, training, apparatus service, prior assignment, administrative work, or other issues that arise.

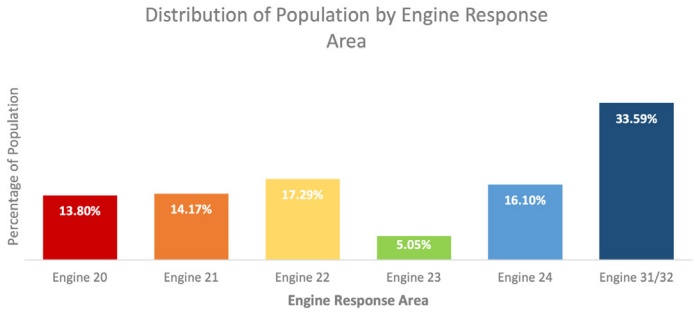
Included in this section are maps and charts that demonstrate the distribution of WPFR's resources and travel time coverage. The section on reliability indicates workloads and simultaneous event history for each service area in the District.

The population distribution among the first due station response areas is representative of the residential, commercial, and industrial properties located within the District. Although most of the population data is obtained from the US Census, it is important to consider how the populations in the different station areas may change throughout the day, with people relocating to work, shop or travel to school.

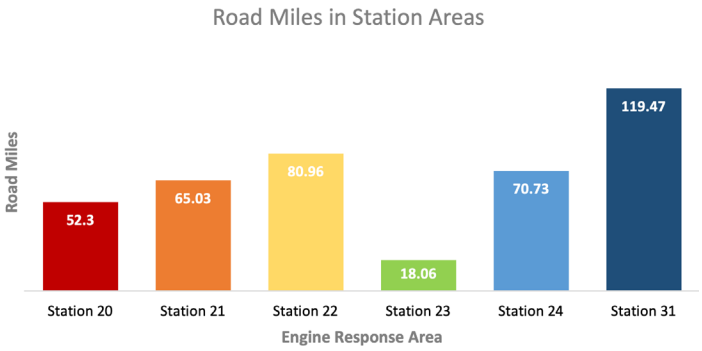
The "Demand for Service" table compares the call volume in 2019, 2020, 2021 and 2022.

DEMAND FOR SERVICE				
Incident Type	**2019**	**2020**	**2021**	**2022**
Fire	750	762	949	1,036
EMS	13,514	12,771	14,185	14,163
Other	2,387	2,596	2,638	2,537
Total	16,651	16,129	17,772	17,736
% Change	-	-3.2%	9.2%	-0.2%

Population breakdown by station first due areas is depicted in the "Distribution of Population by Engine Response Area" Chart.



The "Road Miles in First Due Areas" chart displays road miles for each station's first due area. Engines 31 and 32 have the most miles to cover, while Engine 23 has the least. Engine 23 covers the Tillicum area which is isolated from the rest of the District.



Understanding the relationship between area covered, road miles, and population is an important part of the analysis for distribution as well as determining performance. The table below describes these variables. Housing units in this chart include apartment units, single family and duplexes.

Station Response Area	Square Miles	Road Miles	Population	Housing Units	Population Density	Population Percentage
Station 20	3.1	52.3	15,581	11,303	4,962	13.8%
Station 21	5.0	65.03	15,990	6,959	3,224	14.2%
Station 22	6.9	80.96	19,516	8,110	2,832	17.3%
Station 23	1.8	18.06	5,700	2,438	3,202	5.0%
Station 24	5.6	70.73	18,174	7,234	3,251	16.1%
Station 31	8.8	119.47	37,911	15,731	4,308	33.6%
Total	**31.2**	**406.6**	**112,872**	**51,775**	-	-

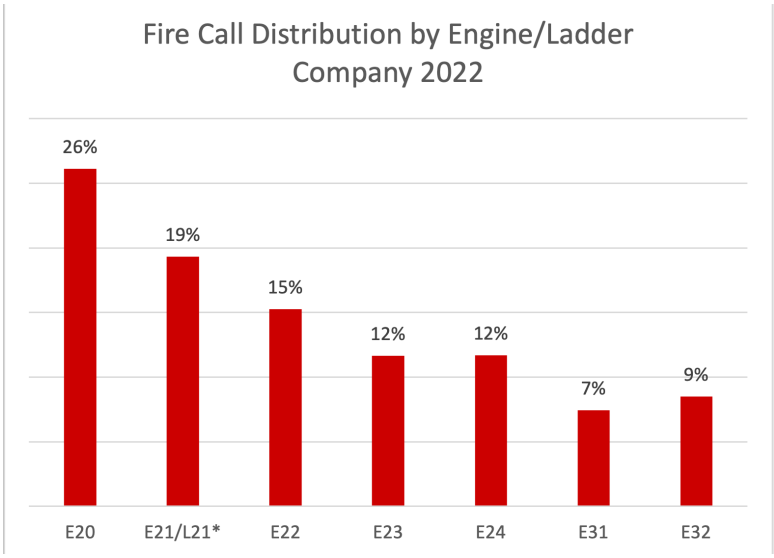
Another relationship to be evaluated is the one between station area, building inventory, and responses. The buildings listed are for commercial/business and residential housing units. For the following chart, apartment complexes are considered commercial properties.

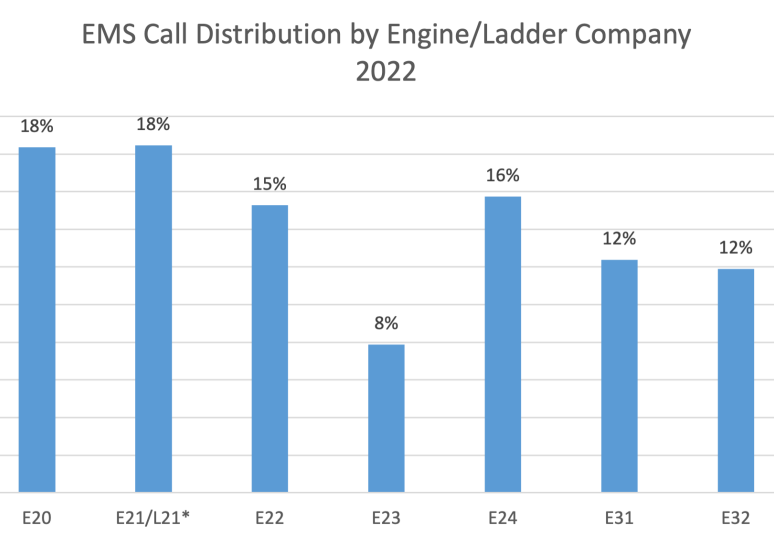
Station Response Area	Commercial Properties	Percent of District's Commercial Buildings	Residential Properties	Percent of District's Residential Buildings	Percent of Station Area are Commercial Buildings	Percent of Station Area are Residential Buildings
Station 20	915	13.0%	1,490	6.4%	38.0%	62.0%
Station 21	1,221	17.4%	2,523	10.8%	32.6%	67.4%
Station 22	750	10.7%	5,761	24.7%	11.5%	88.5%
Station 23	259	3.7%	540	2.3%	32.4%	67.6%
Station 24	1,493	21.3%	4,824	20.7%	23.6%	76.4%

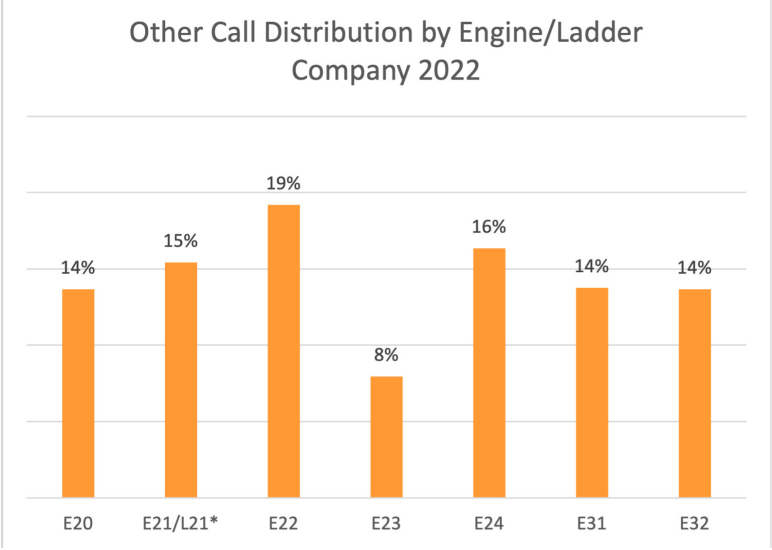
The following chart compares the percentages of workload, road miles and total area. These comparisons show that some of the smallest response areas have the highest distribution of calls.

Station Response Area	Number of Calls in Response Area	Percent Workload	Road Miles	Percent Road Miles	Station Area / Square Miles	Percentage of Station Area
Station 20	3,739	21.78%	52.3	12.86%	3.14	10.07%
Station 21	3,528	20.55%	65.03	16.00%	4.96	15.91%
Station 22	2,413	14.06%	80.96	19.91%	6.89	22.10%
Station 23	978	5.70%	18.06	4.44%	1.78	5.71%
Station 24	2,595	15.12%	70.73	17.40%	5.59	17.93%
Station 31	3,915	22.80%	119.47	29.39%	8.81	28.26%
Total	**17,168**	**100%**	**406.55**	**100%**	**31.17**	**100%**

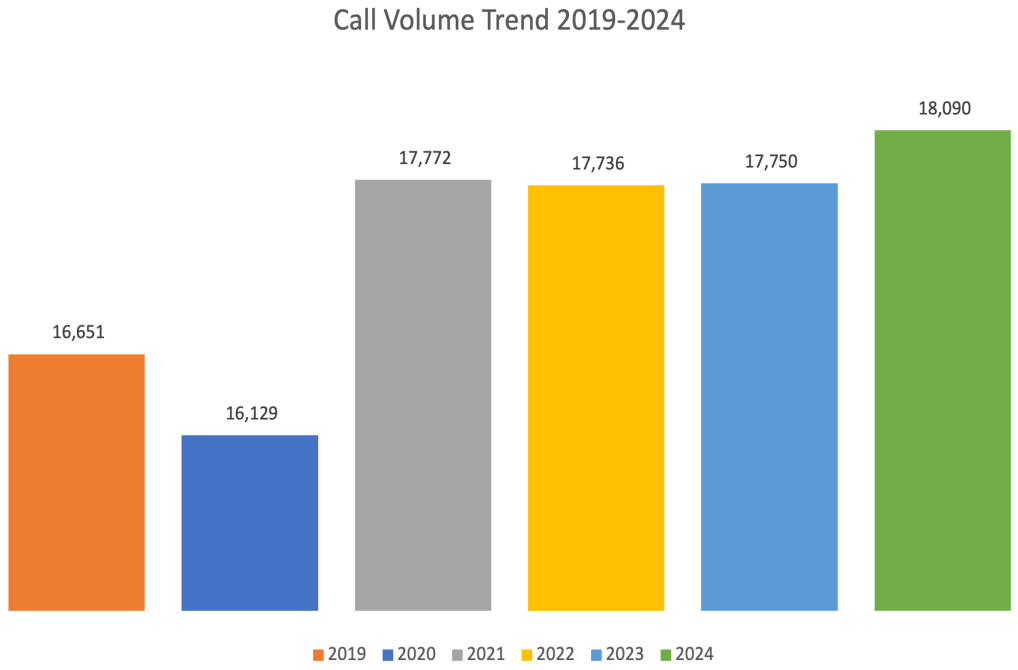
The percentages of Fire, EMS and other calls by Engine Company are depicted in three separate charts. It is evident that Engine 20 responds to the highest percentage of Fire calls. Engine 23 responds to the lowest percentage of EMS and Other calls, but a relatively high percentage of fires when considering the small geographic area served. The percentage of fires are lowest for Engines 31 and 32. (Station 21 did not staff an engine in 2022.)







The “Call Volume Trend” graph reflects the response workload for the years 2019-2024.



The decrease in call volume in 2020 is likely attributed to the COVID-19 pandemic. While there was a subtle increase in 2021, call volume has not increased at the same pace it had prior to 2020.

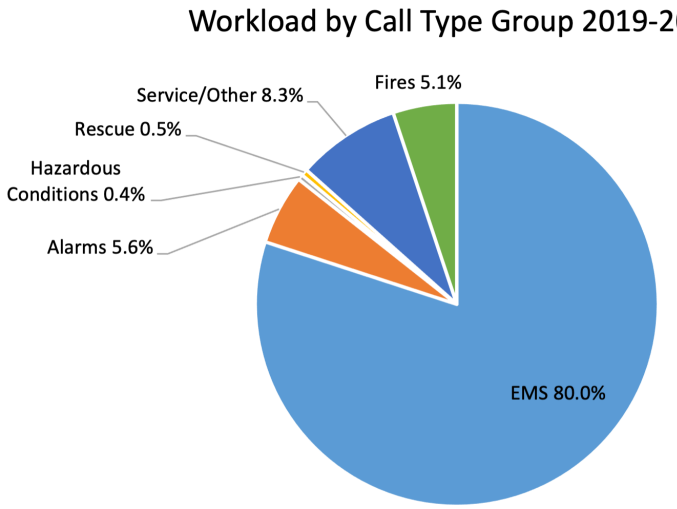
Travel Time and Distribution

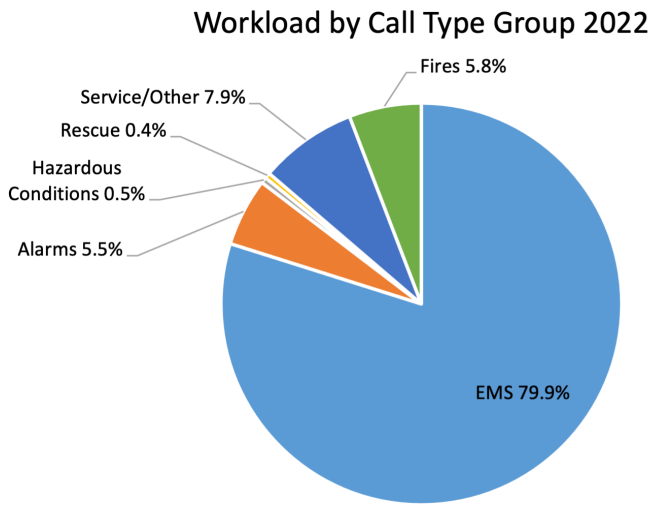
The distribution study included a geographic analysis of first due resources. Distribution is based on the notion that all areas experience equal service demands.

Not all areas experience equal service demands. For example, an area with low risks could have travel times that are greater than those of the high-risk, high-consequence area, but this begs the question of whether or not the community members in the lower risk areas will accept a different level of service?

Additionally, the need for low EMS response times, based on successful intervention in cardiac arrest cases, drive distribution to be the same throughout the community. WPFR strives to have every home and business in the community located within a distance where the set response time goals can be achieved.

The “Workload by Call Type Group 2019-2022” and the “Workload by Call Type Group 2022” pie charts show responses by incident type for different periods of time. By far, the largest demand for service is EMS. Fires continue to account for under six % of incidents, but when they do occur, the resources required to mitigate the incident are significant.

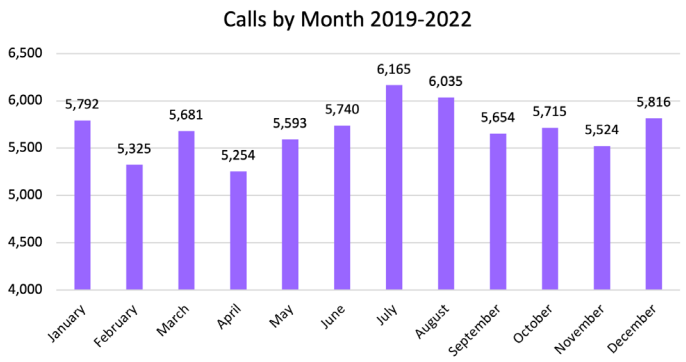


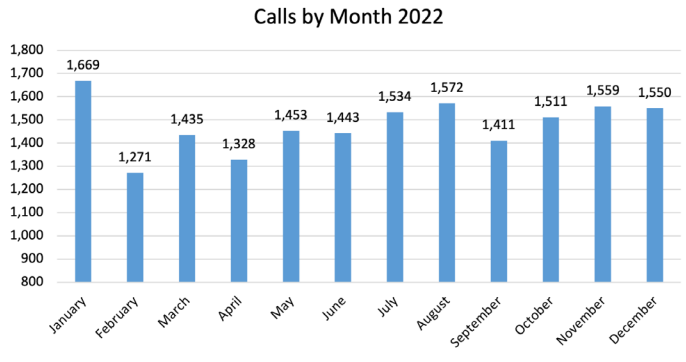


Temporal Activity

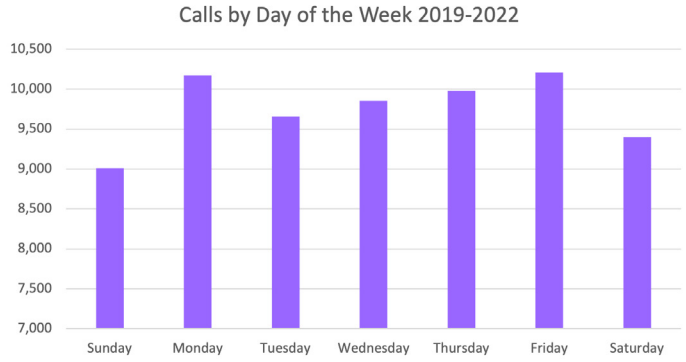
In order to determine when the greatest demand for service occurs, it is necessary to look at the call volume in each month, by the day of the week and also time of day. This allows the department to establish peak work periods that could have an impact on concentrations and deployment resources.

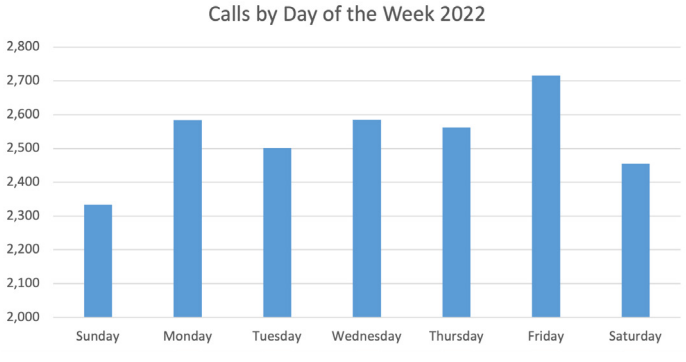
The "Calls by Month 2022" depicts the call volume in each month for 2022. The "Calls by Month 2019-2022" depicts the call volume trend by month for a four-year period. Both graphs indicate the summer months of July and August, as well as the winter months of December and January to have the highest call volume.





The "Calls by Day of the Week 2022" chart illustrates calls by the day of the week for 2022. The "Calls by Day of the Week 2019-2022" chart illustrates the trend for a four-year period. Both graphs show Fridays to be the peak day for call volume, although Mondays are also a peak day according to the historical four-year chart.





Reliability

The "Engine Company and Medic Unit Reliability for First Due Area 2022" table displays the availability of each unit in their assigned station. It provides data about how often each unit is the first on scene for incidents in their area. Units cover for each other frequently when they are on calls or at training.

It is worth noting that Engine 31 and 32 are housed at the same station and cover for each other frequently, so the reliability for those two companies is actually over 90% as shown in the "Engine Company Response Area percentages 2022" table.

ENGINE COMPANY RELIABILITY FIRST DUE AREA 2022

Unit	First Due Calls	First Due Responses	Reliability
E20	3,739	2,329	62.3%
E21/L21/L219	3,528	1,927	54.6%
E22	2,413	1,849	76.6%
E23	978	812	83.0%
E24	2,595	2,005	77.3%
E31	2,071	1,527	73.7%
E32	1,844	1,395	75.7%

Engine 23 is the most reliable at 83%. This is not surprising due to the fact the area is so small and isolated. Engines 22, 23, 24, 31 and 32 all have similar reliability percentages.

Engine 20 and 21, and Ladder 21/219 are the least reliable which is attributed to the fact that these areas have the most calls and are more likely to be on another call when the alarm sounds.

MEDIC UNIT RELIABILITY FIRST DUE AREA 2022

Unit	First Due Calls	First Due Responses	Reliability
M20	1,547	1,114	72.0%
M21	1,358	919	67.7%
M22	1,004	731	72.8%
M24	1,123	852	75.9%
M31	1,571	1,176	74.9%

Medic 24 is the most reliable of all the units.

The next charts are the "Engine Company and Medic Unit Response Area percentages for 2022." These charts provide data on the percentage of the time another unit, other than first due unit(s), responded into the area.

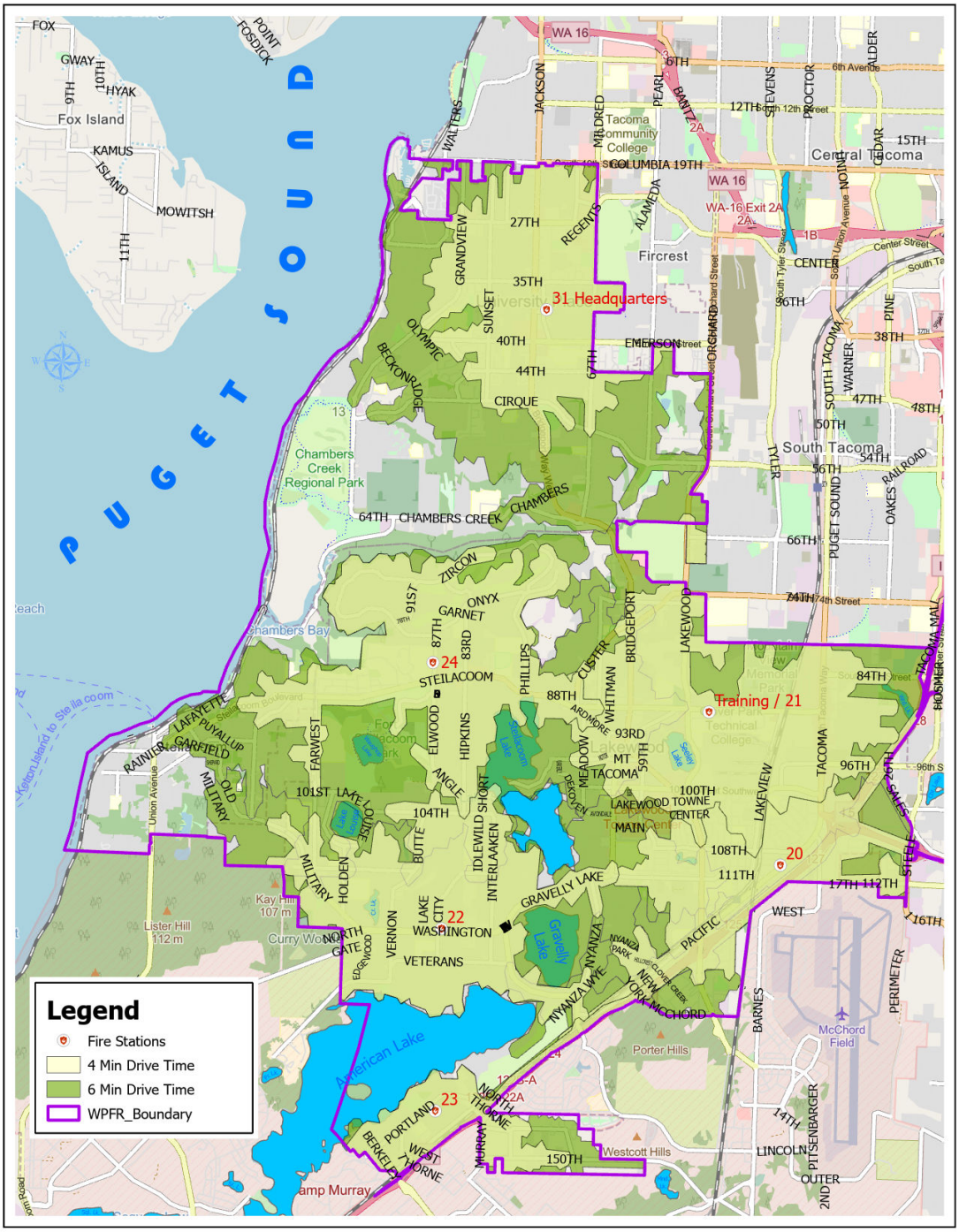
ENGINE COMPANY RESPONSE AREA PERCENTAGES 2022							
Unit	**E20**	**L21/L219**	**E22**	**E23**	**E24**	**E31**	**E32**
E20	62.3%	9.5%	3.9%	5.3%	0.6%	0.2%	0.2%
E21/L21/L219	8.2%	54.6%	1.8%	0.7%	6.4%	1.1%	1.5%
E22	3.6%	0.9%	76.6%	4.6%	7.7%	0.1%	0.2%
E23	4.2%	1.8%	9.8%	83.0%	0.5%	0.3%	0.0%
E24	1.2%	6.1%	8.9%	0.2%	77.3%	0.7%	0.8%
E31	0.4%	1.6%	0.0%	0.1%	0.9%	73.7%	14.9%
E32	0.4%	1.1%	0.1%	0.2%	0.8%	14.8%	75.7%

This chart shows the least reliable unit is Medic 21. The main reason for this is that it runs the most calls.

MEDIC UNIT RESPONSE AREA PERCENTAGES 2022					
Unit	**M20**	**M21**	**M22**	**M24**	**M31**
M20	72.0%	10.1%	7.6%	1.2%	0.5%
M21	9.6%	67.7%	2.3%	8.5%	2.9%
M22	7.7%	1.9%	72.8%	9.3%	0.4%
M24	1.2%	8.3%	9.4%	75.9%	0.5%
M31	1.3%	8.9%	1.0%	6.4%	74.9%

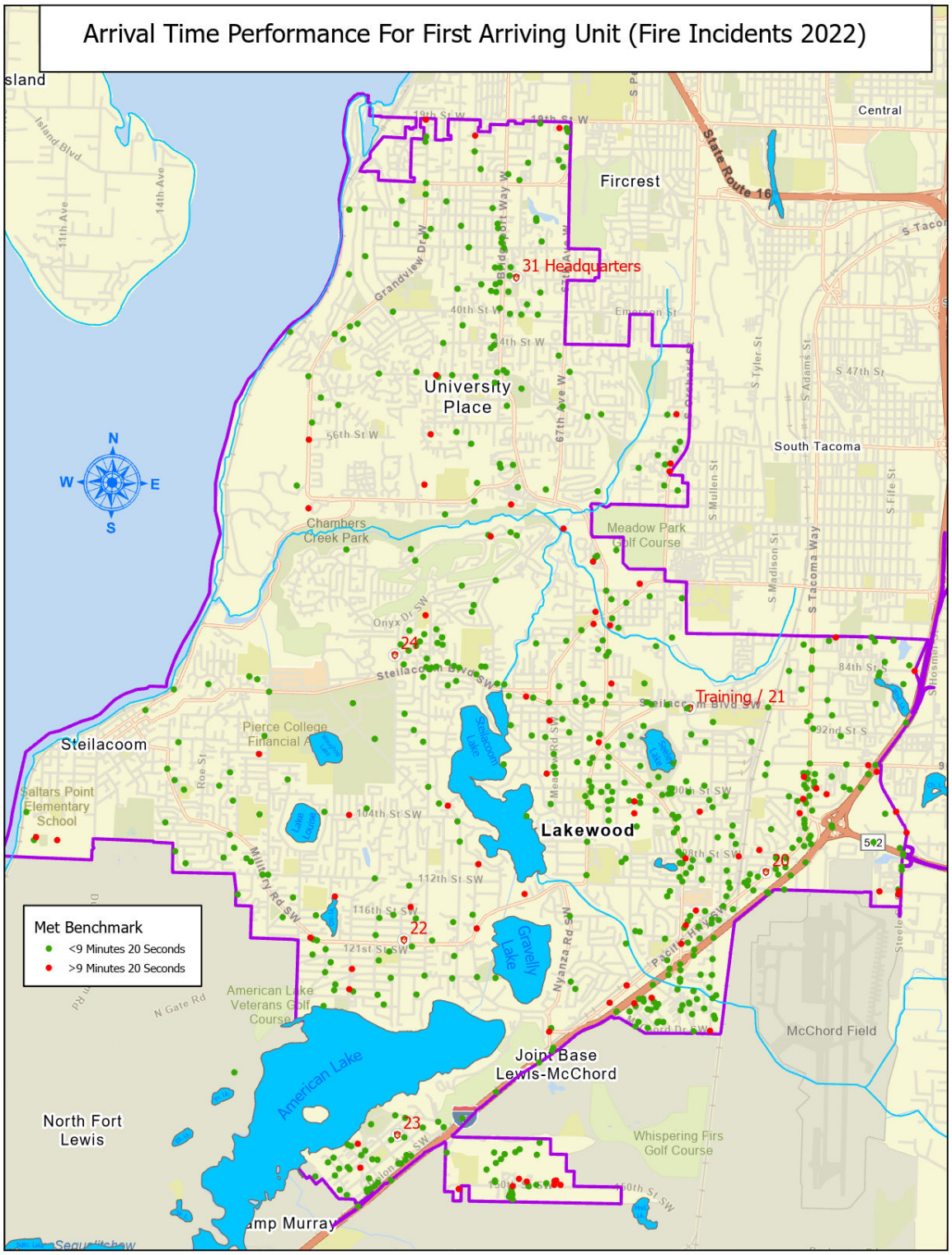
In order to evaluate reliability, it was necessary to determine what our response goals were and if we were meeting them. The ability of the units assigned to a station as “first due units” to respond to an incident within the station’s assigned area and within the adopted time frame.

One of the tools utilized in setting goals for travel time modeling through data is presented and then displayed in a GIS format. This map illustrates the distances and coverage that should be provided within the adopted travel time goals. This system utilized projections based on a pre-determined travel speed while taking into consideration turns and connectivity. The “4 & 6 Minute Response” map displays the modeled coverage which the first due units should achieve based on a four minute and a six minute travel time from the first due stations. These times were chosen because 4 minutes is the NFPA standard for travel time and 6 minutes is WPFR’s adopted travel time standard. The areas in white are the gaps for the ability of apparatus to arrive at all destinations within the District within the adopted standards.

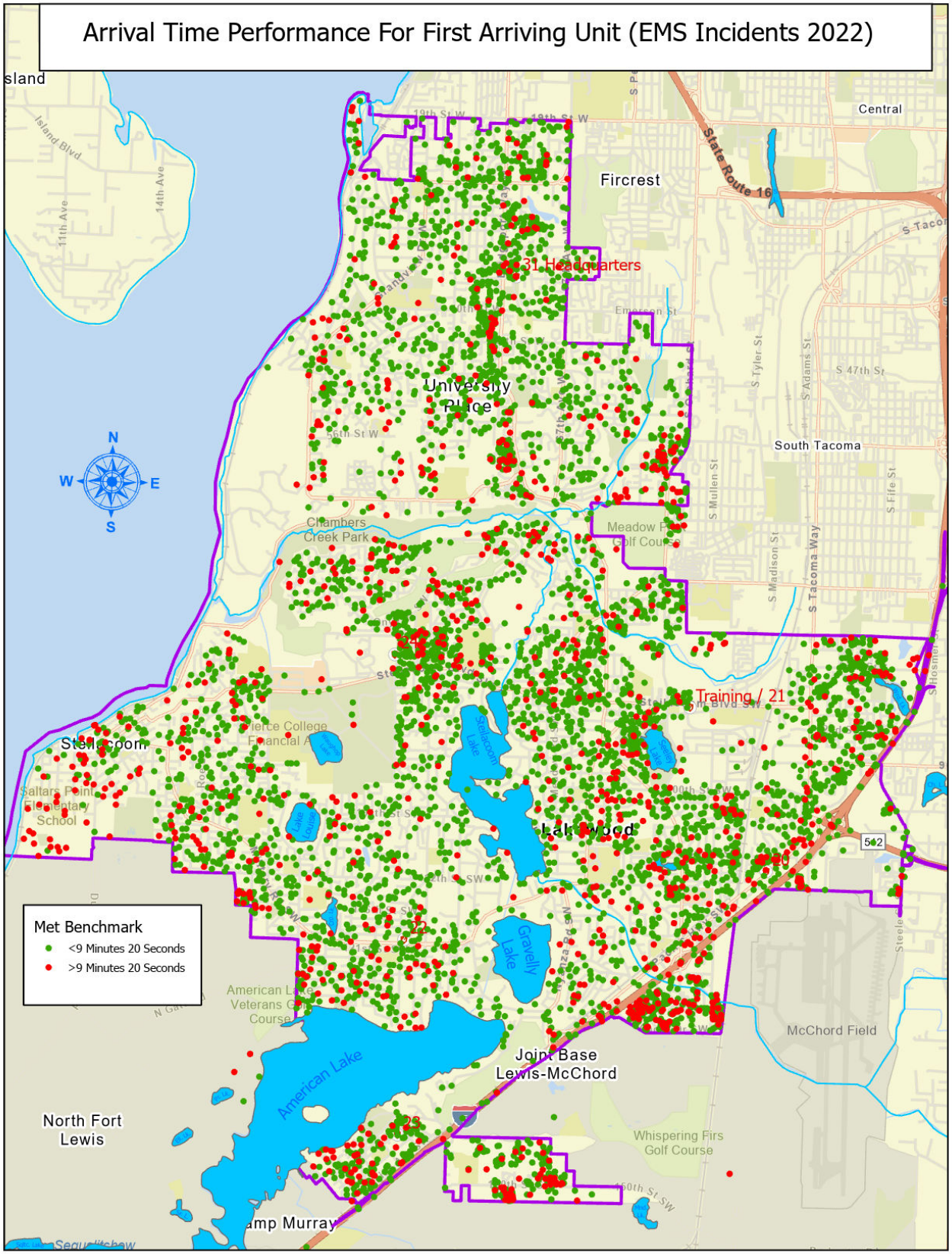


The “Arrival Time Performance for First Arriving Units” maps show where the response time goals were met and where they were not for both fires and EMS incidents. Representing this data in a visual way has helped WPFR to identify areas where response time goals are difficult to meet.

The Town of Steilacoom has a longer travel time standard than the communities within the Fire District due to the location of the nearest station. There are several areas in the District where the time standards are difficult to meet as seen in these maps, such as the Woodbrook and Springbrook neighborhoods bordering Joint Base Lewis McChord, the area are near the intersection of Orchard Street and Cirque Drive W and off of Grandview near the Chambers Bay Golf Course.



There were several difficulties identified that make meeting the response time goals a challenge in certain areas, including street connectivity, high traffic volumes, distance from the station and narrow roads. Additionally, arrival times suffer when units are out of position or on other calls.



CONCENTRATION

A concentration study requires an analysis of the arrangement of multiple resource spacing (close enough together) so that the Effective Response Force (ERF) may be assembled at the scene within the adopted public policy time frames. The Effective Response Force (ERF), resulting from critical task analysis, should be able to stop the escalation or forward progress of the emergency.

West Pierce Fire & Rescue's ERF for response time tracking on moderate risk structure fires is identified as 20 personnel within 15 minutes and 20 seconds. For high risk fires the ERF increases to 22 personnel and the response time increases to 17 minutes and 20 seconds for all personnel to arrive. While distribution considered first unit arrival, concentration is about having enough of the right equipment and staff arriving in a time frame that allows them to be effective while servicing the demand/situation. Distribution is about time and distance while concentration is about calls for service and risk level being protected.

Increased Risk = Increased Concentration

The analysis of concentration begins with a system wide overview of the demand for service by station first due areas. The "Overall Demand for Service 2022" table illustrates the demand for service for each first due engine company for 2022. The "All Incidents 2019-2022" map illustrates the hot spots of activity of a four-year period.

Effective Response Force

WPFR has set as an Effective Response Force (ERF) for a moderate hazard structure fire to be a staff of 20 personnel. In order to achieve the amount of personnel on scene as identified in critical tasking, response plans have been established to allow for a certain amount of units and personnel being deployed on the first alarm assignment as illustrated in the "First Alarm Assignment" table.

OVERALL DEMAND FOR SERVICE 2022

Unit Area	Calls for Service	Percent of Total
E20	3,473	11.0%
L21 / E21	1,669	5.3%
L219	1,732	5.5%
E22	2,960	9.4%
E23	1,550	4.9%
E24	2,890	9.2%
E31	2,264	7.2%
E32	2,211	7.0%
M20	2,388	7.6%
M21	2,328	7.4%
M22	2,032	6.4%
M24	1,916	6.1%
M31	2,110	6.7%
S21	1,727	5.5%
S31*	259	0.8%

**Deployed October 2022*

FIRST ALARM ASSIGNMENT	
Unit Type	**Personnel**
2 Battalion Chiefs	2
3 Engine Companies	9
1 Ladder Company	3
2 Medic Units	4
Duty Chief	1
Safety Officer	1
Total Personnel	**20**

The current locations of fire stations were determined when the communities of Lakewood, University Place and Steilacoom each had their own fire departments according to the risks at the time. Our community has changed significantly since the original station locations were established. If station locations were chosen today, they may have been situated differently.

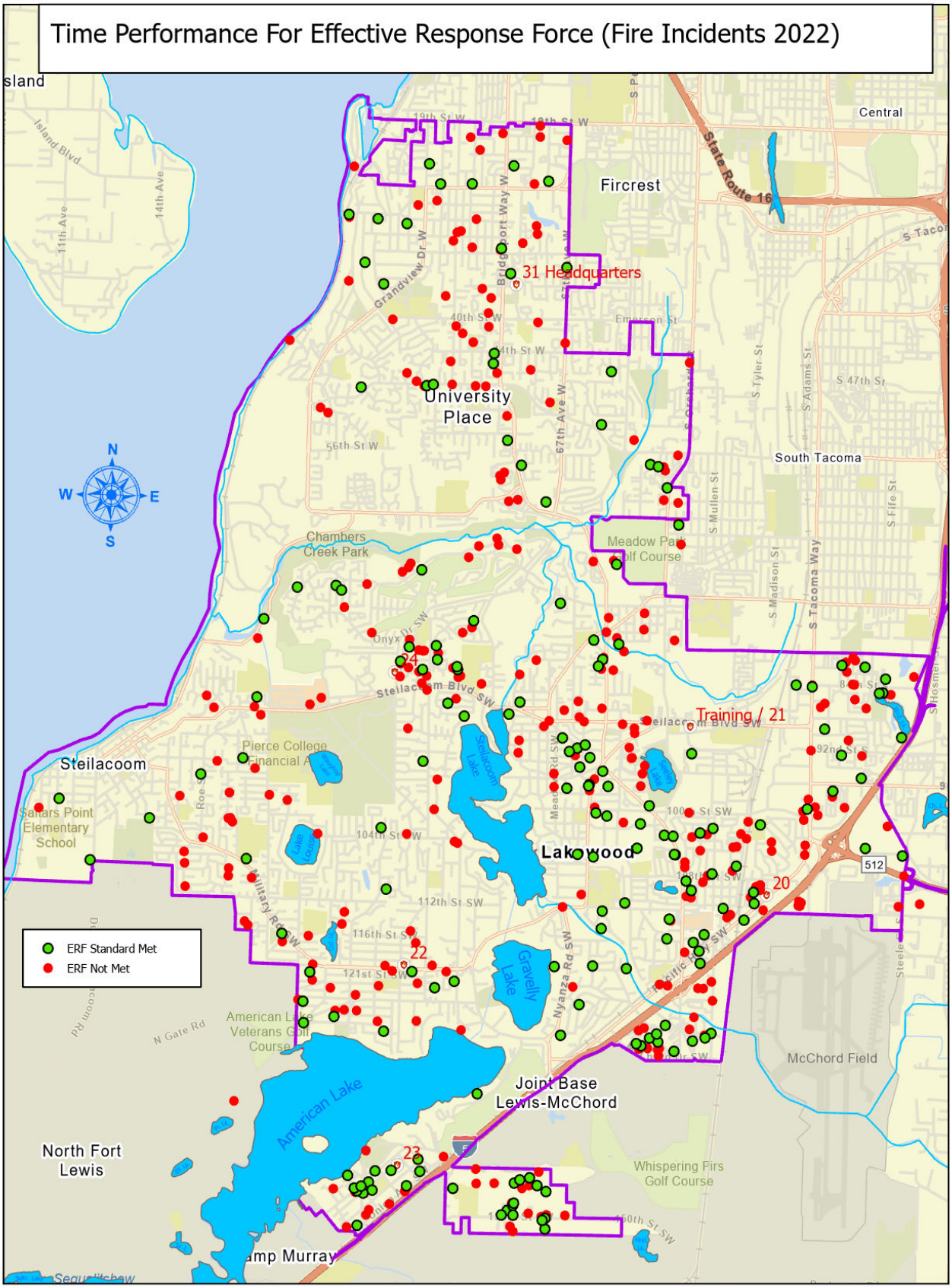
The northern portion of University Place has a gap in the arrival of the entire effective response force. The area of Chambers Bay has no roads, so the effective force response time cannot be measured adequately. Mutual aid agreements currently in place will fill some of the gaps in concentration performance in northern University Place.

Note: The "First Alarm Assignment" table shows 20 people responding, the Duty Chief and Safety Officer have been removed from the travel time tracking because they are often responding from home after hours because they are day staff personnel. The Battalion Chief has also been removed from the travel time requirements because the first company on scene can fulfill this role until the BC arrives.

The following maps indicate actual Effective Response Force Performance. The red dots indicate

fires where the established Effective Response Force times were not met. The green dots represent instances in 2022 where the ERF time goals were met. The map below shows all fire incidents from 2019-2022. The red dots again show the areas where the performance objectives for the effective response force were not met.

West Pierce Fire & Rescue is a multi-risk response organization and has set benchmarks for each



PERFORMANCE OBJECTIVES AND MEASURES

of the risk categories identified during the development of this Standard of Cover. For the performance objectives and performance measures, the department stressed two critical response areas, fire risk and EMS risk.

DYNAMICS OF FIRE IN STRUCTURES

Most fires within buildings develop in a predictable fashion unless influenced by highly flammable material. Researchers have determined that a fire inside of a compartment or structure will progress through a series of predictable stages. These stages have been identified as ignition, growth, flashover, fully developed, and decay phases. Ignition starts the sequence of events. It may take several minutes or even hours from the time of ignition until a flame is visible. Examples of the delayed visible flame would be a smoldering, discarded cigarette or a pan of food left unattended on the stove. This smoldering stage is very dangerous, especially during times when people are sleeping, because large amounts of highly toxic smoke may be generated during this phase.

Once flames do appear, the sequence continues rapidly. This is identified as the growth phase of the fire. Combustible material adjacent to the flame heats and ignites, which in turn, heats and ignites other adjacent materials if sufficient oxygen is present. As the objects burn, heated gases accumulate at the ceiling of the room. Some of the gases are flammable and highly toxic.

The spread of the fire continues quickly from this point. Soon, the flammable gases at the ceiling as well as other combustible material in the room reach ignition temperature. At that point, an event termed “flashover” occurs; the gases and other material ignite, which in turn ignites everything in the room nearly simultaneously. Once flashover occurs, damage caused by the fire is significant and the environment within the room can no longer support human life.

Flashover, which is a transition from the growth phase to the fully developed phase, usually occurs about five to eight minutes from the appearance of the flame in typically furnished and ventilated buildings. During flashover, conditions within the structure change very rapidly as the fire changes from one dominated by the burning materials first ignited to one that involves all of the exposed combustible surfaces inside of the compartment. Since flashover has such a dramatic influence on the outcome of a fire event, the goal of any fire agency is to apply water to a fire before flashover occurs.

The final stage of a fire is the decay phase. This occurs when all of the available fuel is consumed or the oxygen in the environment is removed and the fire goes out.

Although modern codes tend to make fires in newer structures less frequent, today’s energy-efficient construction (designed to hold heat during winter) also tends to confine the heat of a hostile fire. In addition, research has shown that modern furnishings generally burn hotter (due to synthetic composition).

In the 1970s, scientists at the National Institute of Standards and Technology found that after a fire started, building occupants had about 17 minutes to escape before being overcome by heat and smoke. Today, that estimate is as short as three minutes. The necessity of effective early warning, (smoke alarms), early suppression (sprinklers), and firefighters arriving on the scene of a fire in the shortest span of time is more critical now than ever.

Perhaps, as important as preventing flashover is the need to control a fire before it does damage to the structural framing of a building. Materials used to construct buildings today are often less fire resistant than the heavy structural framework of older buildings. Roof trusses and floor joists are commonly made with lighter materials that are more easily weakened by the effects of fire. “Lightweight” roof trusses fail after five to seven minutes of direct flame impingement. Plywood I-beam joists can fail after as little as three minutes of flame contact. This creates a dangerous environment for firefighters.

In addition, the contents of buildings today have a much greater potential for heat production than in the past. The widespread use of plastics in furnishings and other building contents rapidly accelerate fire spread and increase the amount of water needed to effectively control a fire. All of these factors make the need for early application of water essential to a successful fire outcome. A number of events must take place quickly to make it possible to achieve fire suppression prior to flashover.

As is apparent by this description of the sequence of events, application of water in time to prevent flashover is a serious challenge for any fire department. It is critical, though, as studies of historical fire losses can demonstrate.

The National Fire Protection Association found that fires contained to the room of origin had significantly lower rates of death, injury, and property loss.

Time, People, and Tools

In order to achieve an effective outcome for an emergency event, there are three primary components to be addressed including time, people, and tools. The first consideration must be the element of time. The amount of resources will be of little value if they are not delivered to the scene of an emergency in a timely manner. The next element is a sufficient number of properly trained personnel to accomplish the critical tasks. The third element is the right type and amount of tools and equipment to accomplish the mission.

Fire incidents utilize a considerable amount of resources to meet the community expectations for service delivery. In order to meet the primary objective in a fire situation which is the containment, confinement, and extinguishment prior to flashover, sufficient personnel must be delivered to the scene. The application of water in the right place and at the right time is the only practical method for controlling fire spread. This must be accomplished in an orderly manner in conjunction with ventilation, salvage, rescue and other tasks that provide for safety and property conservation. The greater the fire risks, the more resources necessary to meet the objective.

Emergency medical incidents, like fires, demand the correct number and type resources arrive in a timely manner in order to accomplish the desired objectives.

For a cardiac arrest, eight personnel are optimal; two to perform CPR, three to set up and operate advanced medical equipment, one to record the actions taken by emergency care providers, and two to direct patient care. Like fires, greater risks require more resources. Mass casualty events demand more numbers and types of resources whereas the more critical the patients' condition, the more important the element of time becomes. Cardiac/respiratory arrest, serious trauma, shock, or conditions which may lead to cardiac or respiratory failure necessitate a rapid response.

Thus, for an effective emergency response, the true measurement of performance is the time it takes to deliver the necessary amount of trained and equipped personnel to the scene in order to accomplish the stated goals and objectives. A single responder arriving with a radio does not equate to an effective response to an emergency.

Performance Statement and Objectives

The following section describes the

emergency response performance levels that are determined to be both reasonable and achievable by West Pierce Fire & Rescue. Both the desired performance levels and the actual performance levels are described in this section. Every community must decide on the desired level of service it expects from the fire department. Each community has its unique risks. Although communities may be similar to their surrounding communities and other communities across the country, the frequency of events and the impact on the community are often very different; therefore, they must have a response tailored to their specific expectations.

The Board of Fire Commissioners is elected and charged with determining the levels of service, as well as, making resource allocation decisions in regards to funding and revenue streams. As they adopt the budget each year, the Board directs staff regarding where revenues will be spent. This direction directly impacts the level of services that can be delivered to the residents and community.

Overall Performance Goal
West Pierce Fire & Rescue is committed to the prevention and reduction of risks to the residents of the District and visitors to our community. WPFR is an all-risk response agency, meaning that it responds to a multitude of events ranging from small trash and brush type fires to vehicle fires, structure fires, hazardous materials releases and spills, accidents and entrapments, medical emergencies, water rescues, technical rescues, assisting other agencies, and any other type of emergency. The District also provides non-emergency types of service which help to reduce or prevent incidents from occurring. These services include but are not limited to fire and life safety inspections, public education, code enforcement, building plan reviews, child car seat installation, smoke alarm installations, blood pressure checks and fire investigations.

West Pierce Fire & Rescue is committed to providing the level of service the community wants and needs. Performance goals, as well as the industry standards, have been described in this document in order to define benchmarks. The District has evaluated the risks, as well as critical tasks, in order to establish specific performance objectives. Although the District may not currently demonstrate that all of these objectives are being met, our goal is to meet them in the future.

DISTRIBUTION PERFORMANCE MEASURES

Distribution describes WPFR's ability to deliver a first due unit to the scene of an emergency within a described period of time.

Fire Response

Automatic Fire Alarm Response: Single Family or Commercial
An automatic fire alarm response will consist of one fire apparatus staffed with a minimum of three personnel to respond priority unless otherwise notified there is no fire. The first due unit will arrive within nine minutes and 20 seconds 90% of the time. The responding company may respond routine to verify the information for reporting purposes at the officer's discretion. At any time, the company officer or Battalion Chief may change the response as necessary. The first due company will be capable of determining the cause of the alarm activation and judging whether additional resources are needed.

Structure Fire Response: Residential and Commercial
For residential structure fire incidents, the first due fire apparatus staffed with a minimum of

three personnel will arrive within nine minutes and 20 seconds of the initiation of the 9-1-1 call for 90% of the requests for service.

Non-Fire Response

Technical Rescue Response
For all incidents requiring a technical rescue response, WPFR shall respond with a first due apparatus and a minimum staff of three personnel. The first due unit will arrive within nine minutes and 20 seconds from the time the 9-1-1 call was made for 90% of incidents. The first due unit will be capable of securing the scene, starting rescue operations and calling for additional resources if necessary.

HazMat Response
For incidents involving a potential release or spill of hazardous materials, WPFR shall respond with the first due apparatus staffed with three personnel. The first due unit will arrive within nine minutes and 20 seconds from the time the 9-1-1 call was made for 90% of the requests for service. The first due unit shall be capable of securing the scene, starting a HazMat response at the operational level and calling for additional resources if necessary.

Marine/Water Response
For all marine/water rescue incidents WPFR shall respond with a first due apparatus staffed with a minimum of three personnel. The first due unit shall arrive within 18 minutes and 20 seconds from the time the 9-1-1 call was made for 90% of requests for service. The first due unit shall be capable of starting the rescue operation and calling for additional resources if necessary. Considering the unique nature of marine/water incidents, the fact that marine units are staffed with cross-trained personnel and the location of the watercraft, response times are significantly longer than other incidents. If the incident is along the shore or on a dock, additional units are often dispatched to the incident location. As Fireboat Endeavor is a regional asset, it can requested for incidents outside WPFR borders. No performance measure is established for these incidents.

Emergency Medical Service
WPFR responds to a high percentage of EMS incidents classified as immediately life threatening which are dispatched as priority calls. Less emergent calls are dispatched as non-priority.

For the purposes of this SOC, the performance measures are for priority calls. WPFR shall respond with a first due apparatus staffed with a minimum of two personnel. The first due unit shall arrive within nine minutes and 20 seconds from the time the 9-1-1 call is placed for 90% of the requests for service.

CONCENTRATION PERFORMANCE MEASURE

WPFR BENCHMARK TIMES FOR DISTRIBUTION				
Distribution	**Response (First Due)**	**Total Time**	**Percent**	**Personnel (Minimum)**
Fire Alarm Single Family and Commercial	Engine or Ladder	9:20	90%	3
Structure Fire Residential and Commercial	Engine or Ladder	9:20	90%	3
Non-Structure Fire	Engine or Ladder	9:20	90%	3
EMS	Engine, Ladder or Medic Unit	9:20	90%	3
Technical Rescue	Engine or Ladder	9:20	90%	3
HazMat	Engine or Ladder	9:20	90%	3
Water/Marine	Engine or Ladder	18:20	90%	3

FIRE
All 9-1-1 calls for service in WPFR are received and dispatched by South Sound 911 Fire Division (Fire Comm). Priority Dispatch, an All-Hazards criteria-based system is utilized to dispatch calls. Dispatchers gather information regarding the event and classify the call level based on the answers provided by the reporting party. This criteria-based system is based on national standards with further refinement based on state and local protocols. The program is adaptable to meet the needs of the individual locality while respecting national standards that have been applied.

Concentration performance measures are the time standards for the Effective Response Force (ERF) to arrive at the scene of an incident. ERF designation is defined as the minimum number of resources necessary to mitigate the incident. Concentration performance determines if there are enough resources located such that the ERF can arrive within a prescribed time frame. The concentration performance goals are proposed as follows for WPFR:

Fire: Low Risk
For fires in the low-risk category, which include sheds, brush fires, trash containers/dumpsters, vehicles, transformers, downed power lines, or investigation of unknown situations, the District shall respond with an ERF Force consisting of a minimum of three personnel. The ERF shall arrive within a total response time of nine minute and 20 seconds for 90% of the requests for priority service. In 2022, WPFR met this objective 79% of the time.

Fire: Moderate Risk
For fires in the moderate risk category, including single family and duplex type structures, and detached garages, WPFR shall respond with an ERF with a minimum of nineteen personnel and sufficient apparatus with the capacity to deliver 3,000 gpm, initiate search and rescue, establish Rapid Intervention Team (RIT), advance two fire attack lines, begin ventilation, control utilities and provide for accountability, safety and resource management. The ERF shall arrive within 15 minutes and 20 seconds total response time for 90% of the requests for service. In 2022, WPFR met this objective 94% of the time.

Fire: High Risk
For high-risk fires, the District shall respond with an ERF of 22 personnel within 17 minutes and 20 seconds for 90% of the requests for service. The ERF shall have the capability to deliver a minimum of 4,500 gpm, initiate search and rescue, establish RIT, advance two fire attack lines, begin ventilation, control utilities, and provide for accountability, safety, and resource management. High-risk fires shall include commercial structures, hazardous materials storage facilities, government buildings, multi-family units and assembly areas with a capacity greater than 100 occupants. In 2022, WPFR met this objective 85% of the time.

EMERGENCY MEDICAL SERVICES

WPFR provides Emergency Medical Services (EMS) to its residents. EMS is a type of emergency service dedicated to providing out-of-hospital acute medical care, transport to definitive care, and other medical services to patients with illnesses and injuries. The goal of EMS is to provide treatment to those in need of urgent medical care, with the goal of satisfactorily treating the patient at scene or transporting the patient to a nearby hospital.

EMS: Low Risk
For a low-risk EMS incident, WPFR will provide a single unit staffed with a minimum of two personnel with a total response time of nine minutes and 20 seconds for 90% of the calls for service. A low-risk EMS incident would be defined as, but not limited to an illness, minor injury, motor vehicle incident without entrapment, etc. The first due unit shall be capable of starting patient care. In 2022, WPFR met this objective 61% of the time.

EMS: Moderate Risk
For a moderate risk EMS incident WPFR shall respond with an ERF of five personnel within a total response time of nine minutes 20 seconds for 90% of the calls for service. The ERF shall be capable of initiating patient care, securing the scene, and beginning rescue/extrication activities. Moderate risk EMS incidents would include, but is not limited to, motor vehicle incidents with entrapment, multiple patient collisions without major trauma, construction site incidents requiring technical rescue, etc. Typical response to these events would include an engine and a medic unit. In 2022, WPFR met this objective 52% of the time.

EMS: High Risk CPR in Progress
For high-risk EMS incidents with CPR in progress, WPFR shall respond with an ERF of eight personnel within a total response time of 11 minutes and 20 seconds for 90% of the calls for service. The ERF shall be capable of initiating patient care, securing the scene and providing CPR. Responses to CPR in progress calls include two engine companies and one medic unit. In 2022, WPFR met this objective 86% of the time.

EMS: High Risk
For high-risk EMS incidents, WPFR shall respond with an ERF of 16 personnel within a total of 15 minutes and 20 seconds for 90% of the calls for service. These events include but are not limited to rail incidents, aircraft crashes, structure collapses, explosions, and motor vehicle collisions involving mass transit with significant trauma, etc. The ERF shall be capable of initiating rescue, controlling ignition sources, beginning patient care, securing the scene, establishing and functioning as part of the ICS, providing triage, treatment and transport. There were no incidents that met this criteria in 2022.

HAZARDOUS MATERIALS

Hazardous material incidents pose special hazards to responders. WPFR has only two categories for these events, low and high-risk incidents. For high-risk incidents, WPFR responds in a tiered approach. Initially, all on duty West Pierce hazardous materials technicians are called to the scene. If the technicians on scene deem the incident as significant they will call for mutual aid.

Hazardous Materials: Low Risk
For low-risk hazardous material incidents, WPFR shall respond with an ERF of a minimum of three personnel within a total response time of nine minutes and 20 seconds for 90% of the requests for service. The ERF shall be capable of containing or controlling the spill/leak, securing the scene, and providing safety for the responders and public. Low risk events

would include, but not be limited to, auto collisions with fluid spills less than five gallons, residential propane leaks, household chemicals, or unknown odors in a structure. In 2022, WPFR met this objective 80% of the time.

Hazardous Materials: High Risk
For high-risk hazardous materials incidents, WPFR shall respond with an ERF of a minimum of 15 personnel within a total response time of 15 minutes and 20 seconds for 90% of the calls for service. The ERF shall be capable of securing the scene, establishing command, and beginning the process of containment and control of the spill event while protecting the responders as well as the public. In 2022, WPFR had one incident that met the criteria for high risk which met the response objective.

TECHNICAL RESCUE

Technical rescue incidents occur infrequently and require specialized equipment and training. Examples include high angle rescue, trench rescue, confined space rescue, or structural collapse. Much like hazardous materials responses, technical rescue incidents are handled using a tiered system. WPFR sends the first due engine company to confirm the event and secure the scene. Once the event is confirmed all on-duty technical rescue personnel are called to the scene.

Technical Rescue: Low Risk
For low-risk rescue incidents, WPFR shall respond with an ERF consisting of a single engine staffed with a minimum of three firefighters with a total response time of nine minutes and 20 seconds for 90% of the requests for service. The ERF shall be capable of securing the scene, confirming the need for one or more rescue technicians and beginning the rescue process. In 2022, WPFR met this objective 100% of the time.

Technical Rescue: High Risk
For high-risk technical rescue incidents, WPFR shall respond with an ERF consisting of a minimum of 15 personnel within a total response time of 15 minutes and 20 seconds for 90% of the calls for service. The ERF shall be capable of securing the scene, establishing command, providing basic patient care, and

performing the tasks necessary for rescuing the victim. In 2022, there were no incidents that met this description in West Pierce.

MARINE/WATER

Marine incidents vary greatly in geography, scope and complexity. Due to the diversity in the types of water and incidents within WPFR, there are four categories of marine incidents, low risk marine/water incident, moderate risk marine/water incident EMS, moderate risk marine/water incident fire, and a dive rescue incident.

Marine/Water Incident: Low Risk

For low risk marine/water incidents, WPFR shall respond with an ERF of a minimum of three personnel within a total response time of 18 minutes and 20 seconds for 90% of the calls for service. Low risk incidents include items such as a stranded boater, overturned small boat such as a kayak or canoe, or other smaller-scale water related incidents. The ERF shall be capable of evaluating the situation to determine the need for additional resources and either mitigate the incident or begin the necessary actions to prevent the situation from escalating. In 2022, there were eight calls that met this description. Five of the calls were handled by Endeavor who notified dispatch of the event when they got to the scene.

Marine/Water Incident EMS: Moderate Risk

For moderate risk marine/water incidents that are EMS in nature, WPFR shall respond with an ERF consisting of a minimum of a minimum of 17 personnel, some of these personnel are on shore and some are on the boat. The response will be measured using a total time of 18 minutes and 20 seconds for at least five personnel to be on the boat and leaving the dock for 90% of the calls for service. Medical emergencies on the water require more personnel than a land-based EMS incident. Firefighters on the water treat and package the patient and move them to shore where additional personnel receive the patient and transport them to an area hospital. If there are multiple patients, this type of incident would be upgraded to a regional marine response. There were no incidents that fit this description in 2022.

Marine/Water Incident Fire: Moderate Risk

For moderate risk fires occurring on the water or near the shoreline, WPFR shall respond with an ERF consisting of a minimum of six personnel with a total response time of 18 minutes and 20 seconds for 90% of the calls for service. The ERF shall be capable of evaluating the incident to determine the need for additional resources and either extinguish the fire or upgrade to a regional response. In 2022, there were no incidents that met this criteria.

Dive Rescue Incident

For dive rescue incidents, WPFR shall respond with an ERF consisting of a minimum of eight personnel with a total response time of 18 minutes and 20 seconds for 90% of the calls for service. Dive rescue calls assume there is a victim in the water in need of rescue. The ERF shall be capable of entering the water and finding the patient. The Battalion Chief will assess the scene and determine if more resources are necessary. In 2022, there were no dive rescue incidents.

PERFORMANCE OBJECTIVES					
Distribution	**Risk Level**	**Minimum Required**	**Personnel**	**Time Frame**	**Percentage**
All Risks	All	1 Engine or Ladder	3	9 minutes, 20 seconds	90th
Concentration	**Risk Level**	**Minimum Required**	**Personnel**	**Time Frame**	**Percentage**
Fire					
	High	2 Battalion Chiefs, 4 Engines, 1 Ladder, 4 Medic Units, 1 Duty Chief, 1 Safety Officer	23	17 minutes, 20 seconds	90th
	Moderate	2 Battalion Chiefs, 3 Engines, 1 Ladder, 2 Medic Units, 1 Duty Chief, 1 Safety Officer	20	15 minutes, 20 seconds	90th
	Low	1 Engine or Ladder	3	9 minutes, 20 seconds	90th
EMS					
	High	2 Battalion Chiefs, 2 Engines, 3 Medic Units, 1 Ladder	16	15 minutes, 20 seconds	90th
	High/CPR in Progress	2 Engines, 1 Medic Unit	8	11 minutes, 20 seconds	90th
	Moderate	1 Engine, 1 Medic Unit	5	9 minutes, 20 seconds	90th
	Low	1 Engine, 1 Medic Unit	2 - if Medic 3 - if Engine	9 minutes, 20 seconds	90th
Technical Rescue					
	High	1 Battalion Chief, 2 Engines, 1 Medic Unit, 1 Ladder, all on-duty Rescue Technicians	15	15 minutes, 20 seconds	90th
	Low	1 Engine	3	9 minutes, 20 seconds	90th
HazMat					
	High	1 Battalion Chief, 2 Engines, 2 Medic Units, 1 Ladder, 1 Duty Chief, 1 Safety Officer	15	15 minutes, 20 seconds	90th
	Low	1 Engine	3	9 minutes, 20 seconds	90th
Marine/Water					
	High EMS	1 Battalion Chief, 1 Safety Officer, 1 Boat, 3 Engines and 2 Medic Units	17	18 minutes, 20 seconds	90th
	High Fire	1 Battalion Chief, 1 Engine, 1 Medic Unit	6	18 minutes, 20 seconds	90th
	Dive Rescue	1 Battalion Chief, 1 Safety Officer, 1 Engine and 1 Medic Unit	8	18 minutes, 20 seconds	90th
	Low	1 Engine	3	9 minutes, 20 seconds	90th

COMPLIANCE METHODOLOGY

This component of the Standard of Cover (SOC) process is Compliance Methodology, which WPFR will utilize to determine how often the District is meeting the standards established on a continual basis. WPFR will review the services provided and the level at which these services can be delivered. WPFR will then develop a plan to implement any necessary changes to provide for a more efficient and effective service delivery to meet the expectations of the community along with the objectives set by WPFR.

Data collection and analysis is critical to the compliance evaluation process. WPFR is committed to continuously improving records management and performance analysis in order to ensure the expectations of the community and the organization continue to be met. WPFR has shown its dedication to data collection and analysis by implementing a Planning Division which is now responsible for these tasks.

Compliance Model
WPFR intends to use the compliance model developed and published in the CFAI Standard of Cover 5th Edition as a guide. The model is as follows:

1. Establish/Review Performance
2. Evaluate Performance
3. Develop Compliance Strategies
4. Communicate Expectations to Organization
5. Validate Compliance
6. Make Adjustments and Repeat

Phase 1: Establish/Review Performance Measures
WPFR will conduct a complete review of the performance measures and compliance to this SOC on a five-year reoccurring schedule. The analysis is risk-based and will evaluate the following:

- Services provided are identified
- Levels of service are defined
- Levels of risk are categorized
- Performance objectives and measures developed
- Distribution performance measures adopted
- Concentration performance measures adopted

Phase 2: Evaluate Performance
Performance measures are applied to actual services provided at various levels:

- System level
- Regional level
- First due level
- Unit level
- Effective Response Force level

Phase 3: Develop Compliance Strategies
Upon completion of the evaluation, determine issues and solutions.

- If there are areas where WPFR is not meeting its response goals, what can be done to close the gaps?
- Are there resources that can/should be reallocated?
- Are there alternative methods to providing the services?
- What are the budget estimates to close the gaps?
- Is WPFR maximizing existing resources?

Phase 4: Communicate Expectations to the Organization
Communication is vital both internally and externally regarding the organization's expectations.

- Explain the method of compliance measurement to personnel who are expected to perform the services.
- Provide mechanisms for feedback.
- Define consequences for noncompliance.
- Training may be necessary if changes to policies, guidelines or procedures are implemented.
- Provide training for all affected personnel
- Empower personnel within the organization to identify the need to modify business processes, systems and infrastructure as necessary to comply with the new methods.

Phase 5: Validate Compliance
Develop and deploy verification tools and/or techniques that can be used by the organization on an ongoing basis to verify compliance requirements. These may include:

- Quarterly evaluation

- Performance by unit
- Overall performance
- Review of performance
- Yearly evaluation
- Performance by unit
- Performance by first-due
- Overall performance
- Review of performance by executive leadership

Phase 6: Make Adjustments and Repeat Process

Review changes to ensure service levels have been maintained or improved. Develop and implement a review program to ensure ongoing compliance.

- Annual Review and Evaluation
- Performance by unit, first due unit, and overall performance
- Compliance to time objectives established in SOC
- Look for trends
- Adjustment of service level as necessary
- Five-year review of Service Level Objectives
- Overall review of performance and process
- Adoption of performance measures by the Board of Fire Commissioners
- Establish a process to manage future changes within WPFR

COMPLIANCE METHODOLOGY

The Standard of Cover development process involved an in-depth evaluation of the department's entire community along with its operations. The analysis was broken down into the following sections: community overview, services provided, community expectations, risk assessment, historical perspective and performance, performance objectives, and measures and compliance methodology.

Community Overview
This section included a brief history of each city and town served by WPFR and a history of WPFR itself. It analyzed the population of the community including age distribution, race, ethnicity, income, housing, education, and unemployment. It discussed WPFR's governance and funding mechanisms along with each community's plans for growth, redevelopment and land use. The topography and climate were discussed along with the location of parks, water supplies and the largest employers. The area transportation system was also analyzed to include, streets, waterways, rail and air traffic.

Serviced Provided
This section included the organizational chart along with a description of each division within WPFR. It also showed station locations, the apparatus available, minimum staffing and the deployment strategies for all these resources. Also included in this section are the different services provided by WPFR such as fire and EMS response, water rescue, public education, fire prevention, etc.

Community Expectations
A community survey was conducted to determine what types of services the community found to be important. The survey determined what neighborhoods respondents lived in, asked if they had received any of our services and if they had, how well they thought we were doing. The survey yielded mostly positive results about the services currently provided. One item that was identified in the survey is that community members would like to see faster response times, but this is difficult to do without additional resources.

Risk Assessment
A thorough analysis was completed on the risks faced within the response area for WPFR. This included physical risk factors such as population, community, response barriers, elevation changes, open space, transportation, utilities, and pipelines. Human risks, natural hazards and property risks were also included.

Historical Perspective and Performance
Resource distribution and demand for service were analyzed in this section. It looked at where resources are located and the characteristics of the response areas. This section also looked at the historic workload of the system including the number of incidents, travel times, type of incidents, calls by month, day of the week, hour of the day, etc. Reliability of units was also considered in this section. In other words, how often WPFR units are unavailable to attend incidents in their response area. The final topic in this section was the concentration of units which means how WPFR's resources are placed so a full complement of resources can arrive at a scene within the established response time goals.

Performance Objectives and Measures
An explanation of fire dynamics was included in this section. It also included what percentage of the time did WPFR meet its performance goals for each type of risk including fires, emergency medical services, technical rescue, water rescue, and hazardous materials response.

Compliance Methodology
It will be important to continuously evaluate WPFR's performance. This section discussed what will be evaluated and how often.

RECOMMENDATIONS:
The following are some of the findings observed during the development of the SOC:

- Obtaining the data for this document is a challenging process. It was initially difficult to get the information needed to conduct this project because there was not a means in place to extrapolate the data that had been collected. This improved throughout the development of this document, but it continues to be a work in progress.

- The data being entered into the system for incident reporting can be improved to access more detailed information.

- WPFR does not always meet industry standards for call processing, turnout or travel times and these areas need improvement. Further studies would be necessary to determine why the standards are not being met and if there are things within the system that can be improved.

- Resource availability and reliability have improved over the years since this document was originally created.

- Some units have response issues involving turnout time performance. Further analysis would be needed to determine if there is an issue with station design, location, or inadequate performance by some personnel.

- WPFR needs to continue to improve the records management system to include hardware, software and data input.

- Continue to use the data presented in this document to make informed decisions for the organization and the public.

- Continue to use the technology implemented for fire and life safety inspections to create a better database to be utilized in emergent and non-emergent situations.

- Although call processing is a function of South Sound 911, there needs to be an ongoing process of monitoring performance. There is a noticeable change in all processing times between 2021 and 2022. We should reach out to South Sound 911 for answers.

- Risk analysis should be an ongoing process so if service delivery changes are necessary they can be made using accurate information.

- Evaluate responses that do not meet the adopted standards and determine where the problem originates from. Issues such as traffic patterns, time of day, station location, call volume, staffing, training and other potential causes for poor performance should be evaluated.

- The data in this document should be utilized when analyzing changes to response models.

- The information in this document should be considered while creating the WPFR Strategic Plan.

- Re-evaluate RCW 52:33 standards as necessary to balance the daily challenges WPFR faces when responding to incidents and the community's expectations.