City of Olympia Fire Department
Community Risk Assessment/Standards of Cover (CRA/SOC) DRAFT July 15, 2025

Our Vision A Vibrant, Healthy, Beautiful Capital City

Documentation of Area Characteristics

Introduction

This report reflects the Community Risk Assessment and Standards of Cover (CRA/SOC) for the Olympia Fire Department (OFD). The information and data collected for this document represents the identified risks to the community of Olympia, Washington, as well as resources and level of coverage available from OFD along with surrounding agencies to help prevent, mitigate, respond, and recover from emergency events within the community.

The Commission on Fire Accreditation International (CFAI) establishes the need to conduct a risk assessment to identify vulnerabilities to life and property. As risks to the community are identified, the ability to respond to them will be assessed to verify the department's level of service in meeting its citizens' fire protection and emergency medical service needs. To successfully complete such a task, conducting significant research and thorough analytical evaluation of these findings is necessary. These findings will not be limited to the department and its practices but will include other aspects of the community.

The following report contains an overview of the City and Fire Department services; an all-hazards risk assessment for the community; current deployment and performance data; critical tasking for effective response force determinations; and a plan for maintaining and improving response. This CRA/SOC is meant to serve as a living document for the citizens of the City of Olympia and the members of the Olympia Fire Department. Statistics will be updated annually.

Community Governance

Olympia's governance shifted from a commission form of government to a City Council/City Manager form of government on November 18, 1982. Olympia's City Council members are part-time city employees. They devote, on average, 15-25 hours per week to council business. Some council members have full-time careers in addition to their duties on the city council.

The seven Olympia City Council members are elected to four-year terms. Council member positions are nonpartisan and represent the whole community. The council position terms are staggered, with positions ending for three members at one time and four members the next. Olympia City Council elections are part of the Thurston County general election held in odd-numbered years.

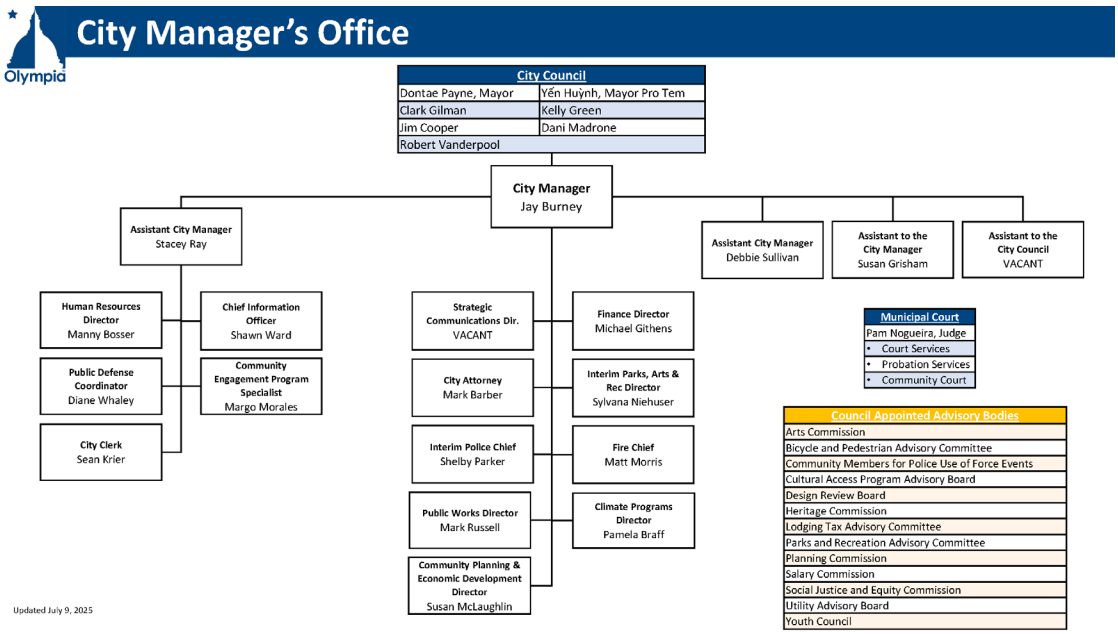


Figure 1: City of Olympia Organizational Chart

History of the Community

Platted in 1850, Olympia was named after the nearby Olympic Mountains. In 1851, Olympia became the port of entry for Puget Sound and the Thurston County seat within the Oregon Territory. In 1852, Washington became a recognized territory separate from Oregon. In 1859, Olympia was designated the Territorial Capitol and incorporated. In 1889, it officially became the Washington State Capitol.

In Olympia's early days, the economy was based on agriculture extraction, such as logging and oystering. The discovery of coal in the county also boosted the economy, and coal was mined sporadically into the 20th century. In the late 19th century, other industries began to grow, including sawmilling, fruit canning, and the Olympia Brewery in Tumwater. The sandstone quarries near Tenino also significantly impacted the local economy, with craftsmen coming from all over the world to get Tenino Sandstone. Olympia also served as a shipping port for materials produced in the surrounding countryside, including sandstone, coal, and agricultural products. In the mid-1850s, Olympia developed around the waterfront and became a hub of maritime commerce (Wilma, 2003).

Financial Basis

Olympia's early development focused primarily on its port and lumber-based industries and, later, oyster and dairy farming. During the mid-twentieth century, the timber industry's decline resulted in the loss of many of the local mills and associated operations. During the 1970s, Olympia expanded as a center of state government offices, employees, military personnel, and their families.

In the late 1960s and early 1970s, the State Legislature approved and funded the construction of The Evergreen State College, which opened its doors in 1971 as a four-year public institution. Since then, Evergreen College has become an essential economic and cultural presence in Thurston County. The contributions of its faculty, staff, and students have significantly impacted the local housing, service, and retail industries. On a smaller scale, South Puget Sound Community College and Saint Martin's University in nearby Lacey also drove the housing demand. In the late 1980s, Olympia's waterfront and downtown were revitalized, and an effort began to draw new businesses to the area.

Today, Olympia is the employment epicenter of Thurston County. Most current census data indicate approximately 149,000 jobs in Thurston County. The economy in Olympia today is predominantly driven by three industries: public administration, healthcare, and retail trade. Public administration accounts for 25 percent of all jobs in Olympia, with healthcare at 11 percent and retail trade at 10 percent. Over 84 percent of the primary jobs in Olympia are held by people who do not live in the city but rather commute in for employment. In Olympia, the median household income, 2018-2022, is $73,851 (2024 ESRI Estimated Household Income in Geographic Station Response Areas).

Basis of Accounting—The *Olympia's Annual Comprehensive Financial Report* (CAFR) presents the financial position and results of operations for the Olympia's various funds and component units. It is prepared using Generally Accepted Accounting Principles (GAAP). Under GAAP, the modified accrual basis of accounting is used for governmental funds. This includes general funds, general fund sub-funds, special revenue funds, and capital project funds. Under the modified accrual basis of accounting, revenues are recognized and recorded when they are measured and available.

Basis of Budgeting – Similar to the basis of accounting, the Olympia budgets use the modified accrual basis for governmental funding types. Internal service and enterprise fund budgets are prepared using a full accrual basis.

Olympia's budget preparation conforms with GAAP by using a modified accrual basis for preparing the operating budgets for the governmental funds and a full accrual basis for the proprietary funds. Fiduciary funds are not budgeted. The basis of budget, however, differs from the basis of accounting. Olympia's CAFR includes the Olympia Transportation Improvement District and the Olympia Metropolitan Park District as blended component entities. The Operating and Capital Improvements Project ordinance does not include estimated revenues and appropriations for the operation of these two authorities.

History of the Agency

The Olympia Fire Department was granted legal authority to exist and deliver service on March 25, 1882. Since then, Olympia's population has grown from 4,700 people to over 56,709. Additionally, the city has increased its size through annexations. In 2015, Olympia completed the annexation of several small unincorporated "islands" of land surrounded by the city.

Columbia Engine Company No. 1 (Circa 1870)

Major Historical Milestones of the Department

Olympia's first firefighting unit, Barnes' Hook and Ladder Brigade was organized in the early 1850s. 'Columbia Number 1', the first fire engine company to be established in Washington Territory, was formed in Olympia in 1865, and Olympia's first salaried fireman was hired in November 1883. By 1930, OFD employed nine firefighters and an electrician (Olympia Historical Society and Bigelow Museum (n.d.).

In 1959, OFD initiated a three-platoon system, a work schedule where staffing is divided into three groups or platoons, each platoon working a 24-hour shift followed by two days off. OFD moved to a three-platoon to align with Fair Labor Standards Act (FSLA) provisions. This change in staffing required hiring seven additional firefighters, increasing staffing to 27. In 1968, 12 more firefighters were hired to staff the eastside and westside substations, which opened due to population growth and annexations (Olympia Historical Society and Bigelow Museum (n.d.).

In 1975, the Westside Station was closed to reassign personnel to the newly created fire prevention bureau. This fulfilled the legal obligations under the *Uniform Fire Code* as part of the Washington State Building Code and Standards Act. In addition, staffing was increased at the Eastside Station, and a full-time fire mechanic position was created. In 1978, the Westside Station was re-opened with existing personnel. In 1987, six firefighters were hired to staff an aid unit at the Westside Station, which brought the department's total staffing to 46. One year later, three additional firefighters were hired to reduce the workweek to 53 hours to comply with the new FLSA standards (Olympia Historical Society and Bigelow Museum (n.d.).

Emergency Medical Services

The Thurston County Medic One (TCMO) System was initiated through an intergovernmental agreement, and in 1974, OFD hired six newly trained paramedic firefighters. In 1976, an additional paramedic was hired to support and supervise the paramedics. In 1988, an eighth paramedic was hired to comply with the reduction

in work hours. In 1993, a ninth paramedic was hired to balance the three shifts and eliminate the need for paramedics to float between shift assignments (Olympia Historical Society and Bigelow Museum (n.d.). Station 2's Single Paramedic Non-Transport (SPRINT) medic unit (consisting of one paramedic and an EMT; complete medic units have two paramedics) was opened in 2000, and four paramedics were hired to address the lengthening response times in the northwest portion of Thurston County. Following the 6.8 Nisqually earthquake on February 28, 2001, the SPRINT unit was temporarily converted to a fully staffed medic unit due to the damage and closure of the 4th Avenue Bridge. In January 2002, Medic 10 was officially upgraded to permanent status, and three additional paramedics were hired (Olympia Historical Society and Bigelow Museum (n.d.). This increase in staff brought OFD to 17 paramedics/firefighters and one medical services officer (MSO). The current paramedic staffing is 19 paramedics/firefighters and one paramedic MSO supporting the program.

Fire Prevention

In 1975, OFD created the Fire Prevention Bureau to fulfill the legal obligations under the adopted *Uniform Fire Code*. The Fire Prevention Bureau was initially staffed with an assistant chief, fire marshal; lieutenant, plans examiner; and two fire inspectors. This staffing model continued until 1996, when the lieutenant plans examiner was reclassified to captain, assistant fire marshal. In 2003, a third fire inspector was added to gain the capacity to absorb company-level inspections from operations and complete them within fire prevention. fire prevention also increased training and certification to meet the *National Fire Protection Association (NFPA) 1030 Standards for Professional Qualifications for Fire Prevention Programs*. In 2024, the fire marshal's office was reorganized and placed under the deputy chief of community risk reduction. This reorganization resulted in one less fire inspector.

Emergency Management

Olympia began providing recognized emergency management services in 1980, and this function was placed under the fire chief's responsibility. In 1982, an emergency management plan was developed with the City of Tumwater. In 1995, the collaboration with the City of Tumwater ended when an additional assistant chief position was created within OFD. One of the assistant chief's responsibilities was managing the city's emergency management program. In 2000, our first *Comprehensive Emergency Management Plan* (CEMP) was completed and maintained until 2014. In May 2016, a civilian emergency manager coordinator was hired to support this work. In 2022, the emergency management coordinator completed much of the 2022 CEMP update. That same year, the civilian emergency management coordinator left the position. The position has not been filled since 2022, and these duties have been returned to the deputy chief. In 2024, the department's leadership was reorganized, and the deputy chief of Community Risk Reduction (CRR) position was established. At the time of this report, the emergency management remained with the deputy chief CRR. The emergency management coordinator position was eliminated due to 2025 budget reductions.

The CEMP has been used consistently, in part and in whole, for incidents like the Y2K bug in December 1999/ January 2000; the Nisqually Earthquake in February 2001; major flooding in December 2007 and 2008; numerous winter storms; and most recently, the COVID-19 pandemic.

Training Division

As the community and organization grow and develop, the training and professional standards must meet the needs of the community and industry best practices. Often, near misses serve as lessons and influence positive change. In 1981, a fire occurred in the Silver Spur Restaurant at 124 4th Ave East. During the incident, one of the firefighters ran out of air and went unconscious while in the smoke-filled building. The member was located and removed from the building to fresh air to recover fully. OFD recognized the need to improve safety and training.

In 1985, OFD created the position of battalion chief of training. Before this position existed, all training was learned "on the job". In 1987, OFD completed our first recruit school, and this practice of in-house recruit schools continued through 1996. The battalion chief of training position was later reclassified to operations chief. In 1995, OFD created a new captain, fire training officer position. In 1999, entry-level firefighters received their initial training by attending regional fire recruit academies.

With the construction of the Mark Noble Regional Fire Training Center (MNRFTC) in 2012, OFD made a big step to improve training. Training improvements include a learning management system; adopting the International Fire Services Accreditation Congress (IFSAC)/Pro Board certification; Blue Card Incident Command; and Fire Ground Survival to meet NFPA 1001 and 1021 standards. In 2017, the captain, fire training officer was reclassified to a battalion chief and in 2018, further supported by a fire lieutenant, fire training officer. In 2024, the battalion chief was again reclassified to an assistant chief and further supported by a captain, fire training officer and a fire lieutenant.

Hazardous Materials

During the late 1980s through the 1990s, OFD had a technician-level hazardous materials (hazmat) team. The hazmat team was initially intended to be regional, but as support from neighboring departments waned, the program was only supported by OFD. The expected transportation and fixed facility hazmat occurrences have not materialized in the community, and the technician-level hazmat team spent most of their time working unreimbursed drug lab support for the Washington State Patrol. The hazmat team was subsequently closed, and OFD reduced its hazardous materials response to the operations level. OFD continues to meet its obligations under RCW 70.136.

Threat of Terrorism

As the threat of terrorism and weapons of mass destruction (WMD) became a national concern in 2001, the department received additional training and equipment. Homeland Security Region 3 funded a regional command unit and a regional mass decontamination unit. The regional command unit is still in service today,

but the regional decontamination unit was decommissioned in 2017 due to its aging condition and changes in mass decontamination operational procedures.

Technical Rescue

In 1993, OFD initiated steps to establish a high-angle rope rescue program. The purpose of the program was to provide technician-level rope rescue capabilities. The program was fully functional in 1995. In 1997, the program was canceled. In the meantime, Olympia's public works established its own confined space and trench rescue to comply with state law requirements. Maintaining confined space and trench capabilities proved to be challenging for public works. Public works asked OFD to provide this service.

OFD recognized that providing technical rescue services would be best approached by partnering with our neighboring fire departments. In 2007, Olympia Fire, Tumwater Fire, Lacey Fire Dist. 3, McLane Fire, Blake Lake Fire, East Olympia Fire, and West Thurston Regional Fire Authority joined together to form the Thurston County Special Operations Rescue Team (SORT). SORT maintains five rescue disciplines: rope rescue, confined, trench, and structural collapse. Since the team's formation, SORT has grown to include additional fire departments from Thurston and Grays Harbor counties.

Fire Fleet Services

Reliable, safe, and effective emergency response apparatus are critical to OFD's mission. Since 1975, OFD has employed a fire mechanic to service our fire apparatus. 2008 Thurston County Medic One (TCMO) contracted with OFD to provide maintenance and repair services for the system's medic units. This additional work resulted in hiring a second full-time mechanic. In 2009, Tumwater contracted with OFD for mechanic services. In 2011, Lacey Fire Dist. 3 (LFD3) contracted for fleet services. To accommodate this work, OFD leased LFD3's mechanic shop. The facility was named the Vehicle Repair Facility (VRF). In the subsequent years, the following agencies rely on the OFD mechanics to perform this vital work: TCMO, LFD3, Tumwater, South Bay, McLane/Black Lake, Griffin, West Thurston Fire Authority, and Mason Fire Districts 4 and 11. At the time of this report, the VRF is led by a chief fire mechanic, six Emergency Vehicle Technicians (EVT), and one parts inventory specialist.

Line-of-Duty Death

Firefighter Noble, pictured above, serving as the engineer of Engine O2

OFD suffered its first and only line-of-duty death on January 15, 2005. Mark H. Noble died in 2005 from brain cancer, presumably caused by his occupational exposure as a firefighter. Noble was diagnosed before the passage of presumptive workplace cancer legislation. During the 2002 Legislative Session, presumptive cancer legislation was the Washington State Council of Firefighters (WSCFF) top priority. WSCFF is an affiliate of the labor organization International Association of Firefighters (IAFF). Noble was too sick to testify, but his story resonated with political decision-makers. In 2002, Gary Locke signed House Bill 2663, approving Noble's claim for an occupational cancer injury, the first workers' compensation cancer claim. Noble is remembered as a fighter and mentor whose story helped the fire service pass presumptive cancer legislation and protect current and future firefighters. We share his story here to honor and remember Mark H. Noble (Washington State Council of Firefighters (n.d.).

Station 4

In 2004, OFD completed a strategic plan. This planning helped identify the need to address the increasing call volumes and improve response times in the northeast portion of Olympia. In 2008, a $16.5 million bond was overwhelmingly passed with a 69.5% favorable vote to build the fourth fire station and a regional training center. Construction was underway within a year, and in June of 2011, OFD opened its fourth fire station. In March of that year, 13 new firefighters were hired to provide staffing for the new station.

Decade of 2010

In the decade of 2010, the community and fire department experienced the plight and impacts of an increased homeless population, the opioid addiction epidemic, and the need to prepare for the potential of mass

violence incidents. 2015, the department added ballistic vests to the firefighters' protective gear. In October 2015, the Washington Survey and Rating Bureau (WSRB) evaluated Olympia's Protection Classification. This evaluation resulted in the City of Olympia improving from a Protection Class 3 to a Protection Class 2. OFD maintains a Class 2 rating; WSRB conducted the last assessment in September 2024. In July 2017, A new downtown aid unit was staffed five days a week, 12 hours a day, with six Firefighters, funded by a Federal Assistance to Firefighters Grant (AFG). This unit responded to calls generated in Station 1, relieving the city's two busiest fire stations. The Federal grant completed its term in April 2019. Once federal funding ended, the aid unit was closed. The next generation of AFG required increased matching funds from the city. As a result, the city decided not to pursue the AFG in the next period.

Decade of 2020

The decade of 2020 brought additional challenges to OFD, specifically the COVID-19 pandemic and the increased wildland-urban interface fire responses. In January 2020, the first confirmed COVID-19 transmissions began to impact our region, creating unprecedented challenges for our members providing emergency medical services. The effects of climate change were realized in the form of increased frequency and consequences of wildfires within our county. In response to this emerging threat, OFD trained our operations members to Wildland Firefighter 2 and purchased a Type 5 brush truck and the necessary protective equipment to respond to this hazard.

COVID-19 dramatically impacted the healthcare system, resulting in staffing challenges. As a result, the availability of private ambulance services decreased. A lack of private ambulance services and increased call volume affected OFD's ability to provide timely ambulance transports to local emergency rooms. In 2022, OFD proposed to the city council to start a city-operated Basic Life Support (BLS) ambulance transport service and expand our Citizen Assistance and Referral Education Services (CARES) program.

In 2023, the city approved the funds for OFD to set up a fee-based BLS ambulance transport program and expand our CARES program. In 2024, OFD hired 18 new firefighters to staff two BLS transport units and added a CARES manager position and two CARES specialist positions. In 2024, operations moved from a three-platoon to a four-platoon system. A four-platoon system is a work schedule where staffing is divided into four groups or platoons, each platoon working a 24-hour shift followed by four days off one rotation and a 24-hour shift followed by two days off. This change resulted in a reduction in average hours worked per week from 49.8 to 46.69.

At the time of this document, OFD operates four fire stations with 105 uniformed firefighter positions and 18 civilian support staff positions. Additionally, we operate the vehicle repair facility and the Mark Noble Regional Fire Training Center.

Current Organization, Divisions, Programs, and Services

In 2024, the department was reorganized to accommodate the addition of the 4th platoon schedule and to align OFD to meet the community's needs. The operations chief was elevated from assistant chief to deputy chief, and the former deputy chief was assigned to oversee the CRR programs. The operations chief oversees the deployment of 911 response units, fire and medical training, and safety and health programs. The deputy chief of CRR oversees the fire marshal's office, CARES, and emergency management programs. Finance/administration and fleet programs report to the Fire Chief.

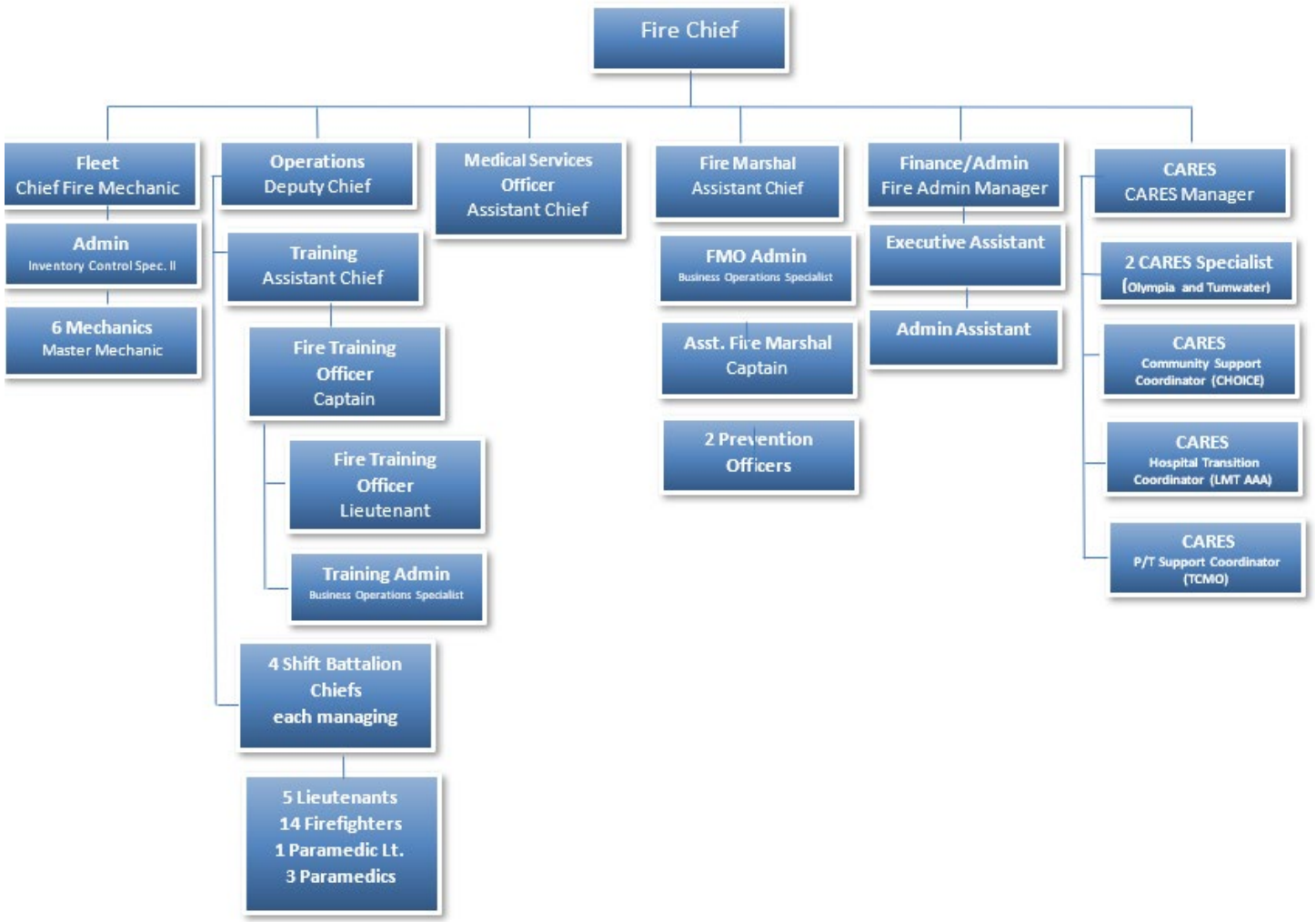


Figure 2: OFD Organization Chart

Fire Department Mission, Vision, and Values

In 2024, OFD completed a strategic planning process that set the course for the following three to five years. Below are our updated and reaffirmed mission, vision, values, and motto.

1. **Mission**- The mission of the Olympia Fire Department is to respond rapidly with highly trained professionals to mitigate emergencies for our community. We are dedicated to reducing risk through prevention, fire and medical education, and disaster preparedness.

2. **Vision**- A trusted leader of a safe and thriving Capitol City.

3. **Values**

    - Professionalism – A commitment to excellence.
    - Integrity – Accountable to the community and each other.
    - Stewardship – Protecting the public's trust and resources.
    - Compassion – Serving our community with respect, empathy, and kindness.

4. **Motto**- Taking care of people, always!

Station and Facility Locations

The Olympia Fire Department includes four fire stations, one regional training center, and a vehicle repair facility. The fire stations are strategically placed in four response areas within the city.

Station O1 Headquarters (Downtown) – 100 Eastside Street NE

Built in 1992, Station 1 Headquarters is located on the border of the downtown response area. This station serves to house the senior command, fire marshal's office, CARES, and administrative staff as well as the operations personnel. The station also serves as the City of Olympia's Emergency Operations Center (EOC) during times of disaster or major emergency. The EOC utilizes the south wing of the administration offices on the station's lower level. In addition, this station has work, living, and sleeping areas and is equipped with six bays housing Battalion O1, Engine O1, and Truck O1. In addition, it houses Rescue 01, Rescue Boat O1, and the Regional Incident Command Van.

The minimum staffing at Station 1 consists of seven personnel: a battalion chief, two lieutenants assigned to the engine and truck, respectively, and four firefighters. One command unit, engine, and truck company are staffed out of this station.

Station O2 (Westside) – 330 Kenyon Street NW

Fire Station 2 was built in 1991 and is located on the City of Olympia's West Side across the Fourth Avenue Bridge. It is equipped with two bays and houses Engine O2, Aid O2, and Medic 10. This response area also has a level three trauma hospital, numerous medical facilities, and multiple geriatric facilities.

The minimum staffing for Station 2 is seven personnel: one lieutenant assigned to the engine, two firefighters to the engine, two firefighters to the aid unit, and two paramedic firefighters to the medic unit. One engine, aid van, and medic unit are staffed out of this station.

Station O3 (Eastside) – 2522 22nd Avenue SE

Station 3, built in 1992, is in the City of Olympia's southeast residential area. It has two bays and houses Engine O3.

The minimum staffing for station 3 is three personnel, one lieutenant, and two firefighters staffing a single engine out of this station.

Station O4 (Northeast) – 3525 Stoll Road SE

Station 4, located in the northeast portion of the city, was built in 2011 and is Olympia's newest station. It has received multiple design awards, including the LEED Gold certification. This response area also has a level three trauma hospital, numerous medical facilities, and more than a dozen geriatric facilities.

Station 4 has three oversized bays and houses: Engine O4, Brush O4, Aid O4, and Medic 4.

The minimum staffing for station 4 is seven personnel: one lieutenant assigned to the engine, two firefighters to the engine, two firefighters to the aid unit, and two paramedic firefighters to the medic unit. Brush O4 is cross staffed by the engine crew. One engine, aid unit, and medic unit are staffed out of this station.

Mark Noble Regional Fire Training Center (MNRFTC) – 1305 Fones Road SE

The Mark Noble Regional Fire Training Center (MNRFTC) is built upon an eight-acre complex and was completed in 2012. It features multiple training venues, including a six-story, live fire training commercial tower and regional command training center. This facility allows crews to receive the required training in Olympia rather than traveling outside Thurston County.

The commercial tower has 8,500 square feet of training space spanning six floors, including multiple entry points; complex room search areas; and a live fire training prop. Training options include live fire training; ventilation; hose deployment; search and rescue; ground ladder training; aerial positioning; and rope rescue.

The live fire training prop burns propane to create flames and theatrical smoke to provide firefighters with a live fire training environment. In an emergency, powerful fans can exhaust the heat and smoke immediately, providing a level of training and safety unparalleled in any other live fire scenario. A significant advantage of the clean-burning prop is that it does not produce airborne pollutants.

MNRFTC Command Training Center (CTC)

Command training is a critical component of fire officer development. This facility greatly enhances the realism and quality of emergency scene management training. Computer projection models provide visual clues generated through special effects, graphics, and animation software. These are controlled through a computer server by menu-driven software. The simulation training aims to provide fire officers and firefighters with various visual and auditory cues that will enhance the decision-making process in practical situations.

MNRFTC Two-Story Residential Tower

The front of this 1,500 sq ft building replicates a single-family residence layout with a garage, living room, family room, and kitchen. An interior stairway accesses bedrooms on the second floor. The back of the structure replicates a garden-style apartment or hotel layout with an exterior stairway, walkway, and external access points to individual units.

MNRFTC Apparatus Garage

The apparatus and storage garage, owned by LFD3, was built in 2015. This building houses a self-contained breathing apparatus compressor station which is also owned by LFD3. The compressor refills the air bottles

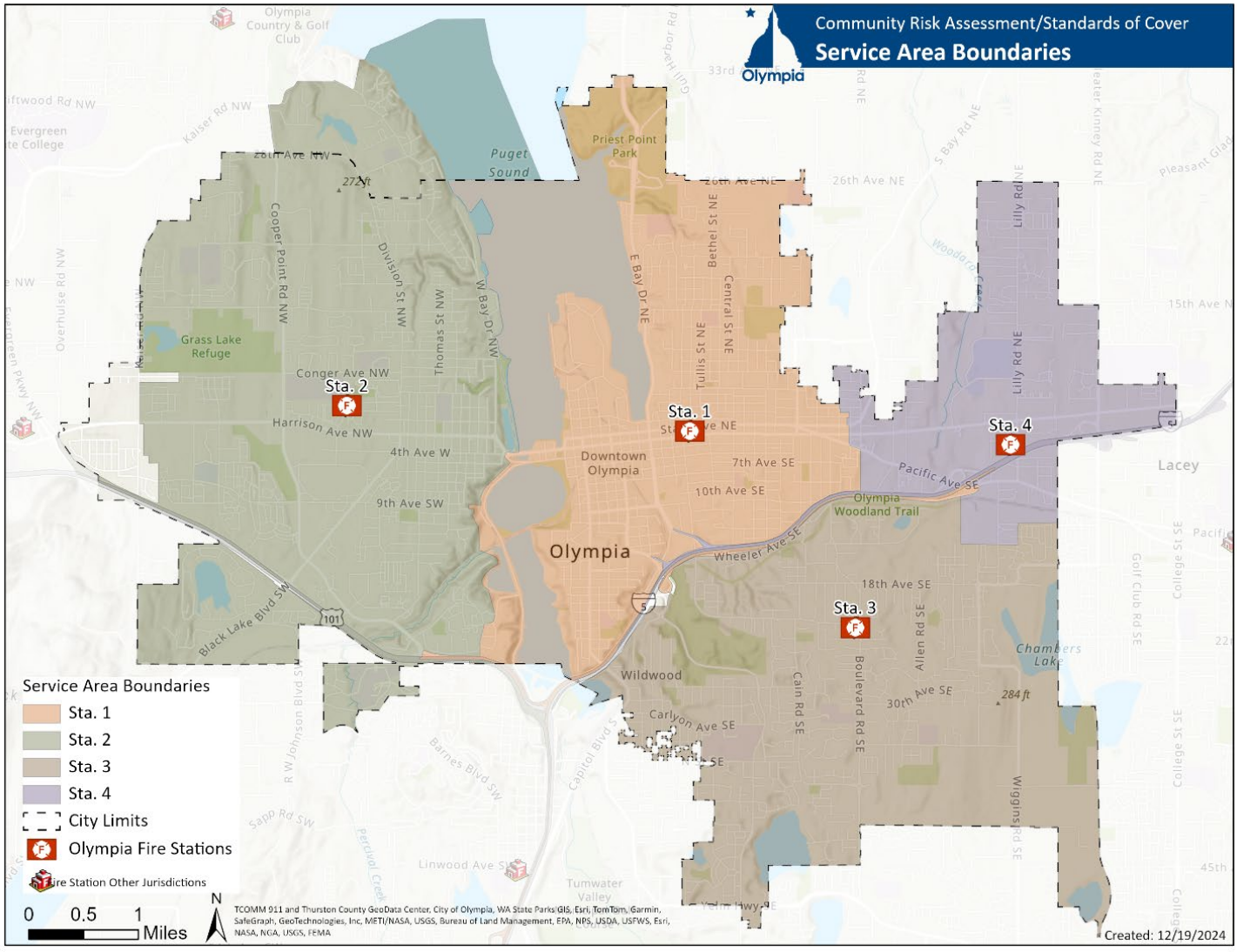
from which firefighters receive their fresh air. The garage also houses a reserve engine that can be utilized for training purposes. Having a reserve engine on site is critical when conducting recruit academy training.

Vehicle Repair Facility (VRF) – 407 Steilacoom Road SE

The Olympia Fire Department's fleet program comprises one fire fleet supervisor, six fire mechanics, and one inventory control specialist. The Vehicle Repair Facility (VRF) includes two buildings leased from LFD3.

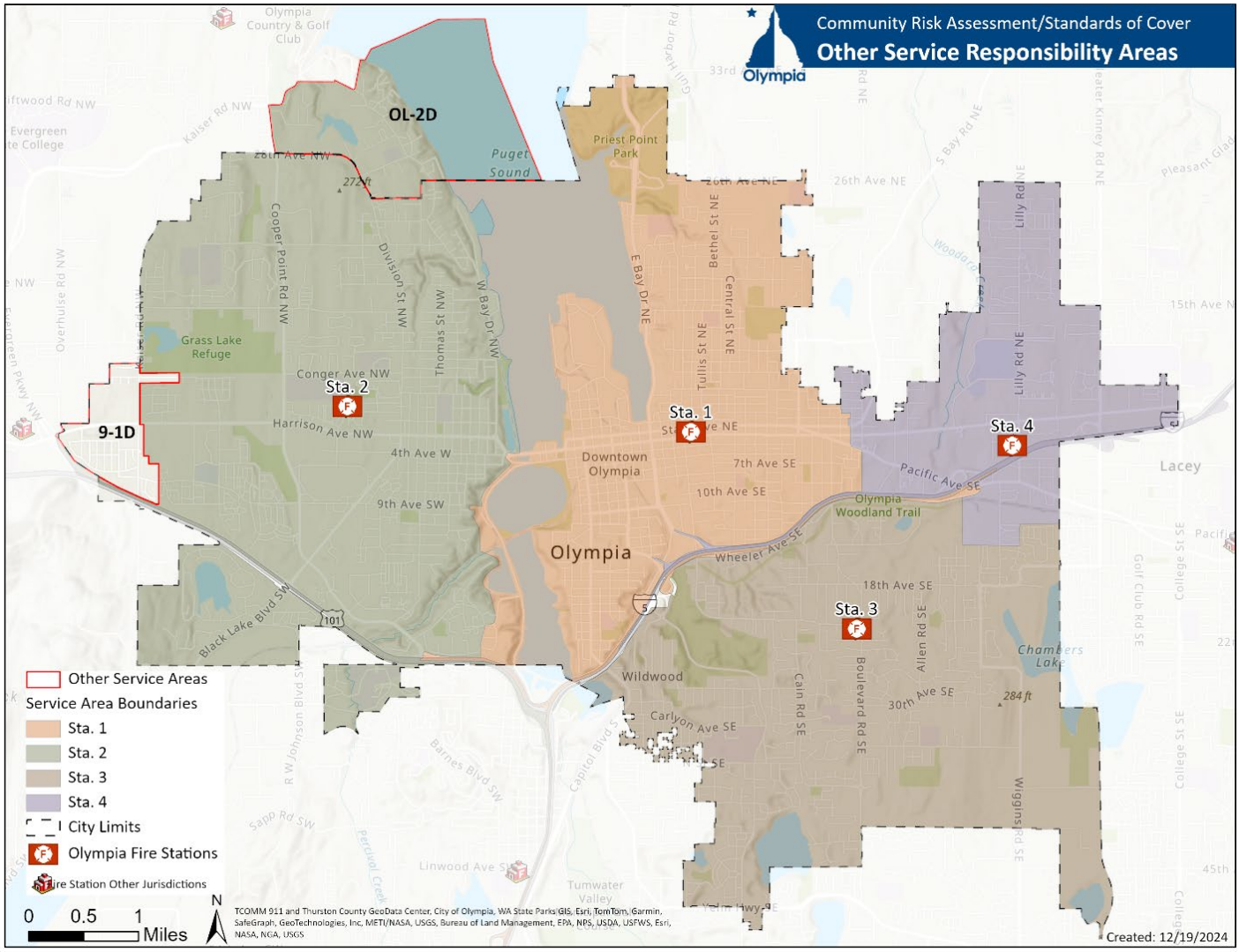
Service Area Boundaries

Olympia is bordered north and west by the unincorporated Thurston County and east and south by the cities of Lacey and Tumwater. The city is considering annexing the southeast portion of its Urban Growth Area around Yelm Highway.



Map 1: Service Area Boundaries

Other Service Responsibility Areas



Map 2: Other Service Responsibility Areas

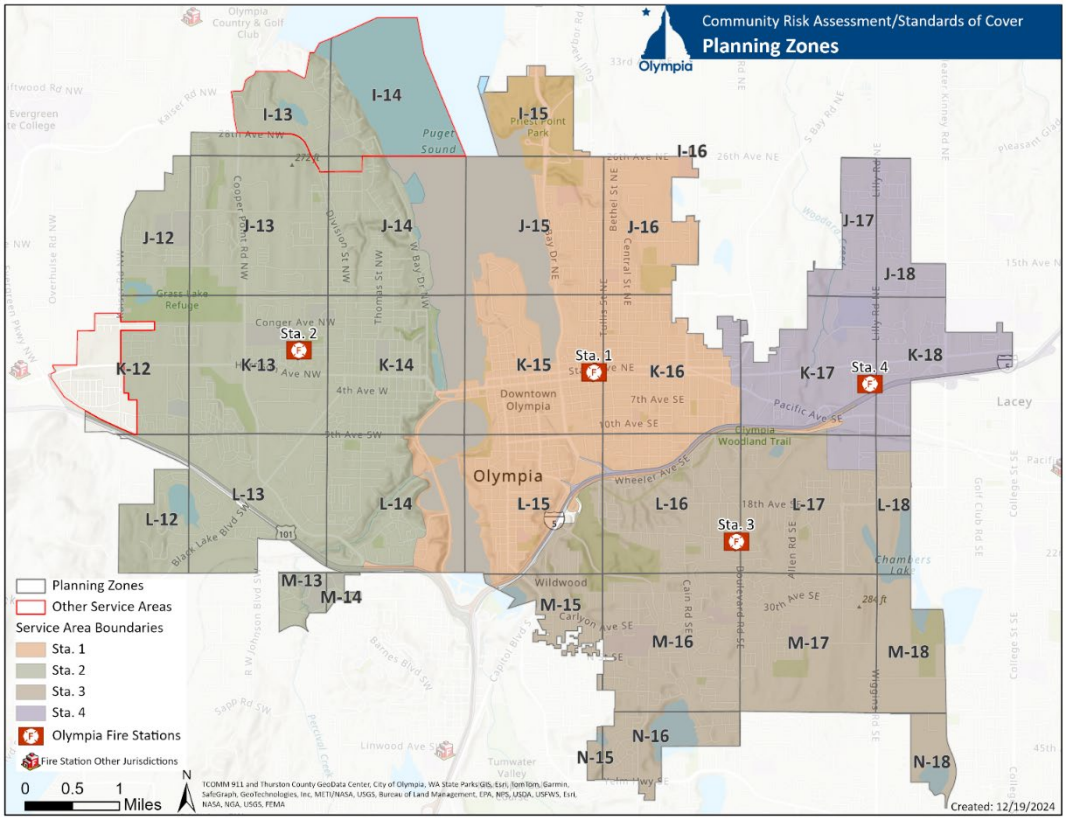
Response zone OL2-D is outside the city limits but is a primary station 2's response area. Response zone 9-1D is inside the city limits of Olympia, but Thurston County Fire District 9 (McLane Black Lake Fire Department) is responsible for the primary response. In the event of a larger incident, National Incident Management System (NIMS) protocols will be followed, and transfer of command will be made to the first arriving Olympia Fire Department officer in response zone 9-1D, and transfer of command will be made to the first arriving Thurston County District 9 officer in zone OL-2D. This arrangement was established in 2013 and modified in 2021 with an Emergency Services Operating Agreement between the City of Olympia and Thurston County Fire Protection District Number 9. This service arrangement is outlined in the mutual aid agreement.

Geographical Station Response Areas and Planning Zones

Methodology

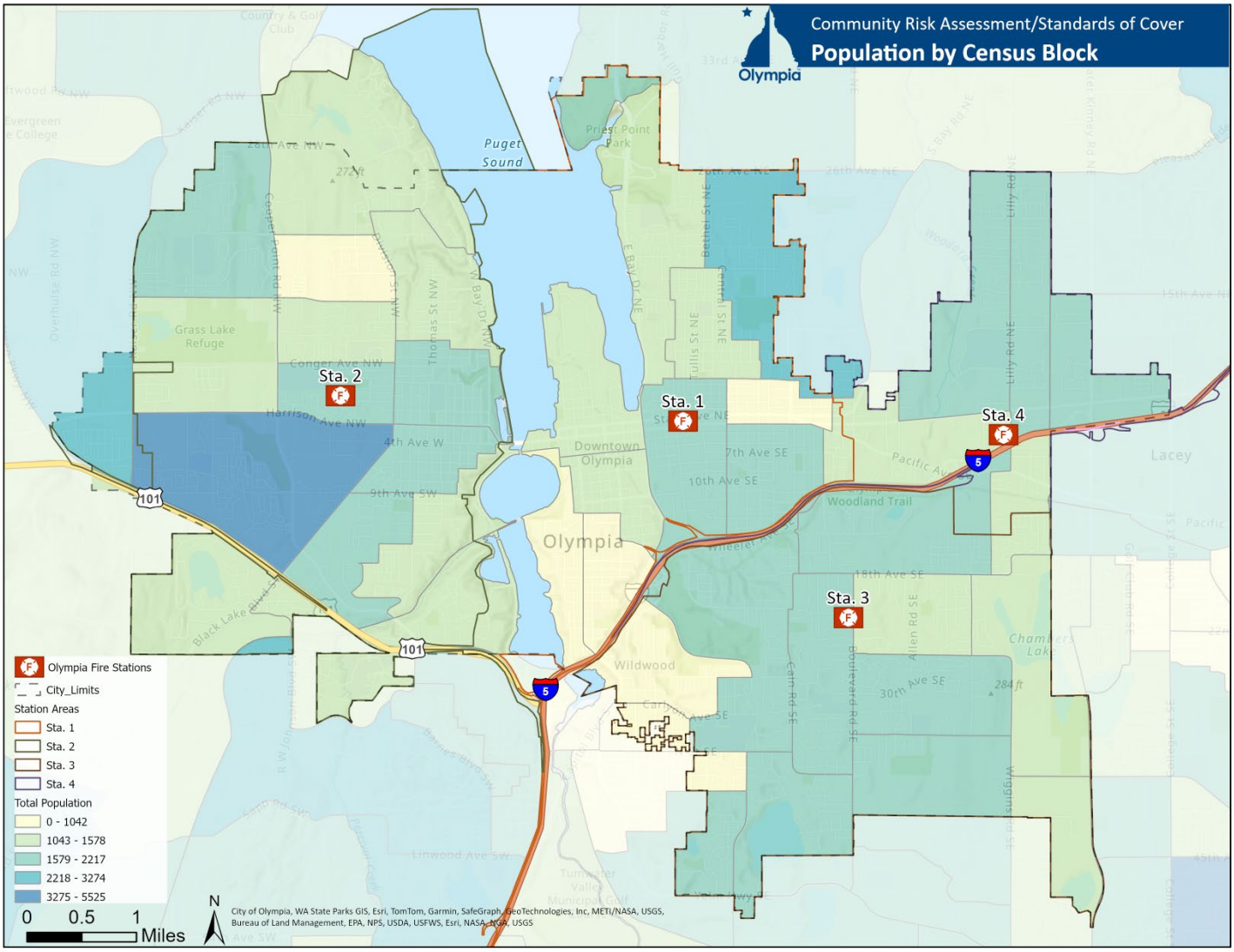
Four fire stations serve Olympia, each covering their respective station response area. The station response area is determined by dispatch zones which indicate the primary responding station. As indicated in the "Other Response Areas" section of this document, the response area for each station is primarily enclosed within the City limits, except for where there are agreements with surrounding departments to facilitate closest unit response.

The geographical station response areas comprise 31 planning grid zones. These planning zones are based on the United States National Grid and segment the city into one-mile zones. The planning zones are limited to the response area boundaries, creating polygons on the response area perimeter. Each planning zone is identified with a letter and number, aligning with the Thurston County Communication 911's (TCOMM) mapping grid. This report will express data by station response area. While we have the capabilities to perform analysis per planning grid, the incident response analysis becomes too diluted at the grid level for statistical significance. For the purposes of this analysis, we are focusing on Station Response area. Improvements to data analysis systems, including NERIS and additional analysis tools as identified in the improvements section of this document, would enable us to perform analysis at the planning grid level.



Map 3: Planning Zones

Population



Map 4: Population by Census Block

When you look at the city population by Census block, it is apparent that the census block in the southwest of Station 2 response area has the highest population. When you refer to the analysis starting on page 127 you will see that the areas of the city where we are having response time challenges, correlate to areas of the city with higher population. This indicates that additional study is needed, and action taken to reverse slower response times to these areas of the city that are predicted to continue to grow in population. Data provided by the Environmental Systems Research Institute (Esri) 2025 and American Community Survey (ACS) 2019-2023 and Esri Data Axle 2025 indicates that Olympia, Washington, has a population of 57,209 residents and a daytime population of 84,390. The city's racial composition is predominantly White at 74.3%, followed by Asian at 6.4%, other race at 3.2%, African American at 3.1%, and individuals identifying as two or more races at 11.2%, with Hispanic or Latino of any race at 8.8%. The median age in Olympia is approximately 40.6 years, with 18.4% of the population under 18 years old, 64.5% between 18-64, and 20.1% aged 65 and over. The city

comprises around 25,608 households, with an average household size of 2.18 individuals. Economically, the median household income is estimated at $80,278 and households below poverty level estimated at 15%. The median home value in Olympia is $559,276. These figures highlight Olympia's diverse and evolving community.

The daytime population in Olympia is higher than its residential population due to the city's role as the capital of Washington State and a regional economic hub. Several key factors contribute to this increase such as the state government presence, employment centers, retail and commercial activity and tourism and events.

Olympia has numerous government offices, including the Washington State Capitol and various state agencies. Thousands of government employees commute daily from surrounding cities and counties to work in the city. This population is concentrated in the Station 1 Response Area.

The city has a strong healthcare, education, retail, and hospitality job market. Large employers, such as Providence St. Peter Hospital, in the Station 4 response area, draw workers from nearby areas.

Olympia is a shopping, dining, and service hub for Thurston County and beyond. Many people travel to the city daily to access businesses, medical services, and entertainment concentrated in the Station 2 response area.

As a cultural and recreational destination, Olympia attracts visitors to our waterfront, parks, museums, and festivals, increasing daytime activity primarily in the Station 1 response area.

These combined factors result in a significantly higher daytime population than the residential count.

*ESRI Estimate of the Total Population in the geographic area. The total population includes those living in households, on active duty in the Armed Forces, and in group quarters such as skilled nursing facilities.

Demographics by Response Area Comparison

Station Response Area	Square Miles	Population	Daytime Population	Median Household Income	Households Below Poverty Level
Station 1	5.6	12,537	34,621	$83,475	13%
Station 2	7.7	22,204	26,297	$73,099	19%
Station 3	5.4	14,203	11,098	$106,995	7%
Station 4	2.2	5,648	11,601	$59,903	23%

Table 1: Demographics by Station Area (ESRI 2020 Census Summary)

Station Response Area	Seniors Percentage of Population	Disability Percentage of Population	% of Housing Vacant	% of Housing Renter Occupied	2024 Crime Index	Diversity Index*
Station 1	20%	12%	7%	52%	258	48
Station 2	11%	13%	4%	54%	159	59
Station 3	29%	10%	2%	28%	67	52
Station 4	23%	18%	10%	58%	210	65

Table 2:Demographics by Station Area Continued (ESRI 2024)

An analysis of station response areas using ESRI 2024 data as reported by the station response area boundaries demonstrate diverse demographic and socioeconomic characteristics. Station 1 covers 5.6 square miles with a population of 12,537 and the highest daytime population of 34,621. It has a median household income of $83,475, with 20% of residents being seniors and 13% of households below poverty level.

Station 2 has the largest area at 7.7 square miles, and the highest population of 22,204 but a lower median household income of $73,099. It has 11% seniors and 19% of households below poverty level.

Station 3, with a population of 14,203 and consisting of 5.4 square miles, has the highest median income at $106,995, a high senior percentage of 29%, but the percentage of households below the poverty level at 7%. It also has the lowest crime index of 67 and the highest owner-occupied housing rate at 70%.

Station 4, the smallest at 2.2 square miles, has the lowest median income of $59,903, the highest disability percentage at 18%, and the highest percentage of households below the poverty level at 23%. Station 4 also has the highest diversity index of 65 and a crime index of 210.

*Esri 2024 estimated Diversity Index in the geographic area. Esri's Diversity Indes summarizes racial and ethnic diversity, indicating the likelihood that two individuals, chosen randomly from the same location, belong to the same race or ethnic group. The index ranges from 0 (no diversity) to 100 (highest diversity). An area's Diversity index increases when the population includes more race/ethnic groups.

*ESRI Estimate of the Total Population in the geographic area. The total population includes those living in households, on active duty in the Armed Forces, and in group quarters such as skilled nursing facilities.

*The Total Crime Index assesses the relative risk of seven major crime types. It is modeled using the FBI Uniform Crime Report data and demographic data from the Census and AGS.

Station 1 Response Area Population Profile

The 2020 Census data includes information on population and housing as well as detailed data on age, sex, race, Hispanic origin, provided by U.S. Census (2000, 2010, 2020) 2025 Esri. Also represented are demographic, social, economic, and housing data collected by the U.S. Census Bureau through the American Community Survey (ACS) and visualized using Environmental Systems Research Institute (Esri) infographics.

Figure 3:Infographic 2020 Census Summary (Esri) for Station 1 Response Area

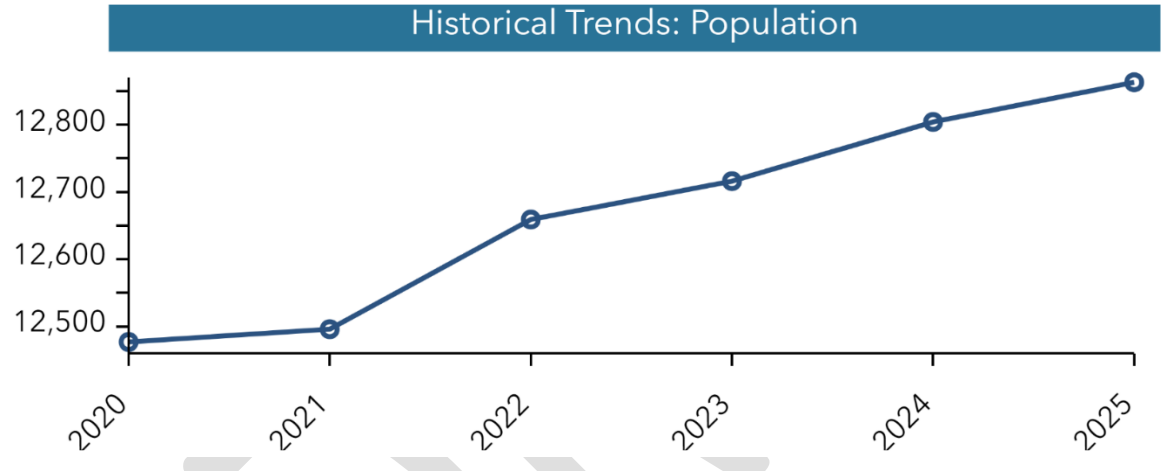


Figure 4:Infographic Population Trends (Esri) for Station 1 Response Area

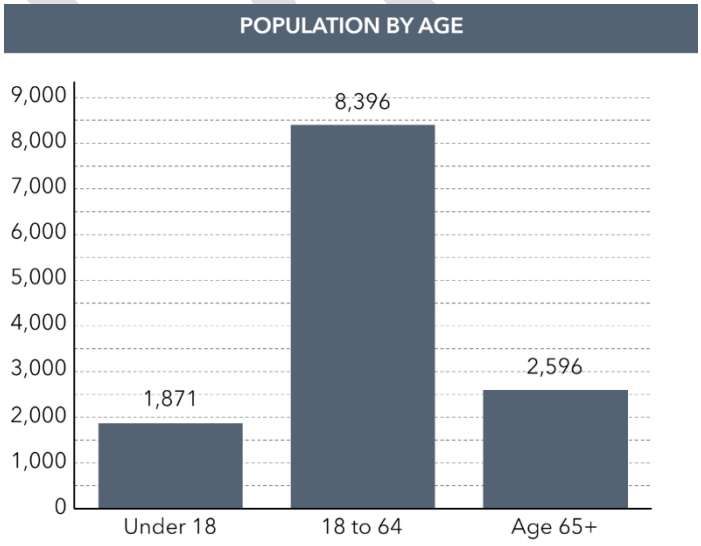
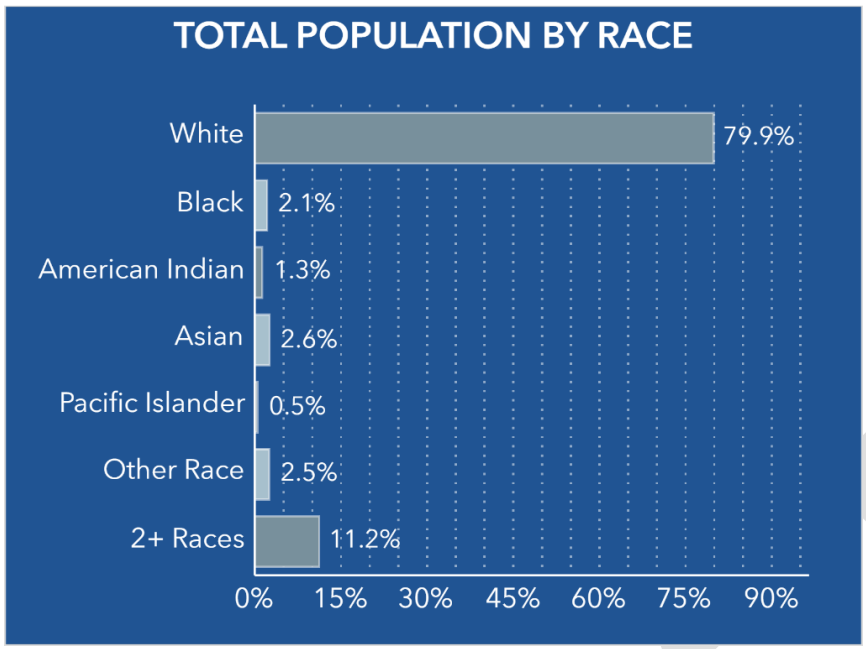
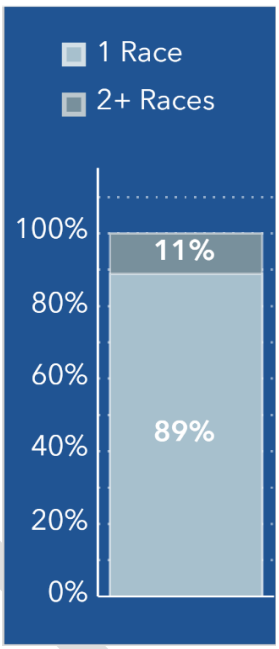


Figure 5: Infographic At Risk Population, Age (Esri) Station 1 Response Area





HISPANIC POPULATION BY AGE AND RACE	Less Than 18 Years	18 Years and Older	Total
Total	286	748	1,034
1 Race	159	446	605
White	88	242	330
Black	5	15	21
American Indian/Alaska Native	9	29	38
Asian	3	0	3
Pacific Islander	0	0	0
Some Other Race	54	160	214

Figure 6: Infographic 2020 Census Summary, Age and Race (Esri) Station 1 Response Area

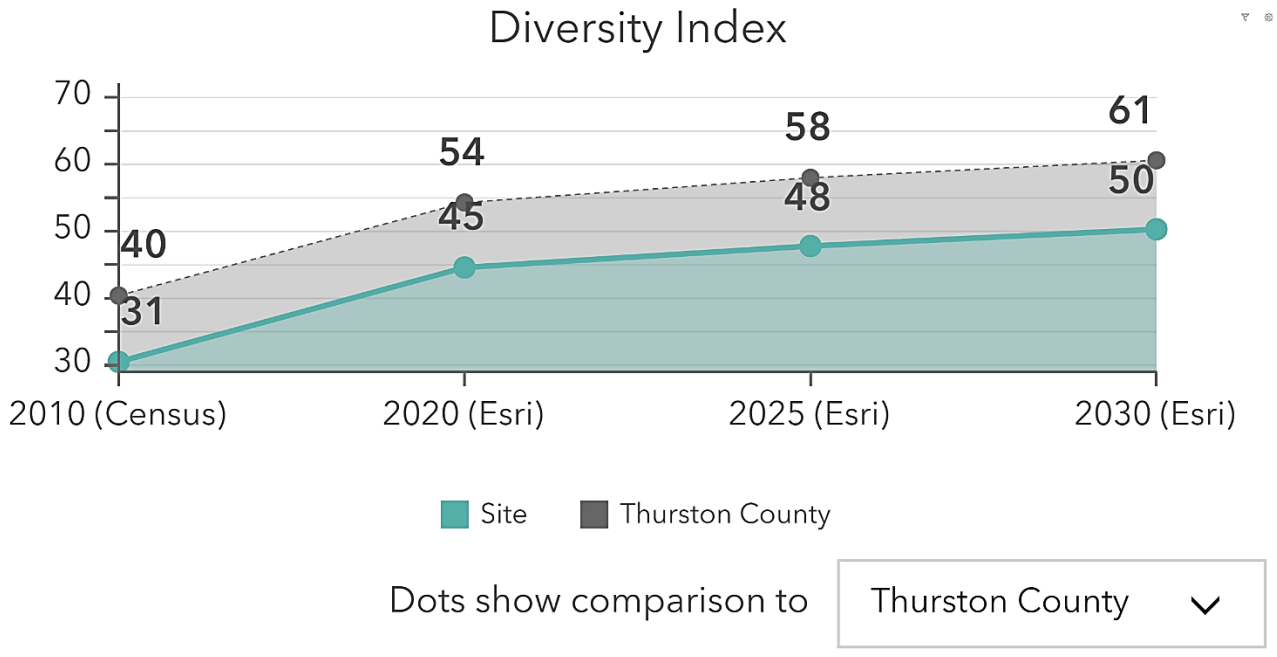


Figure 7: Infographic Community Change Snapshot, Diversity Index (Esri) Station 1 Response Area

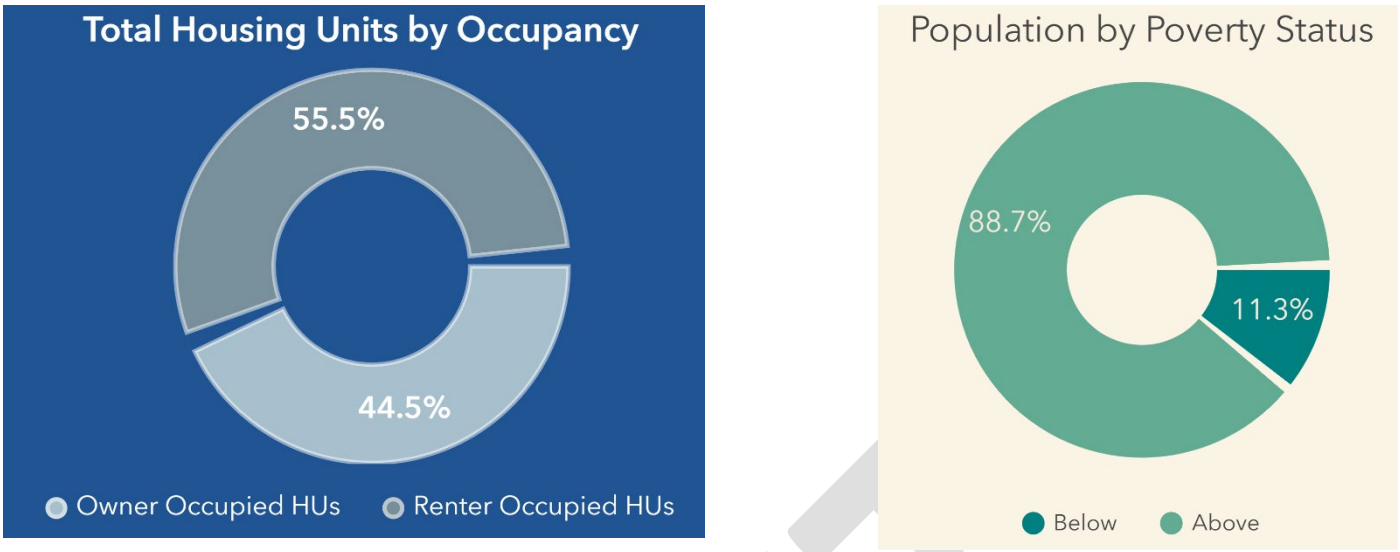


Figure 8: Infographic 2020 Census Summary, Housing (Esri) Station 1 Response Area

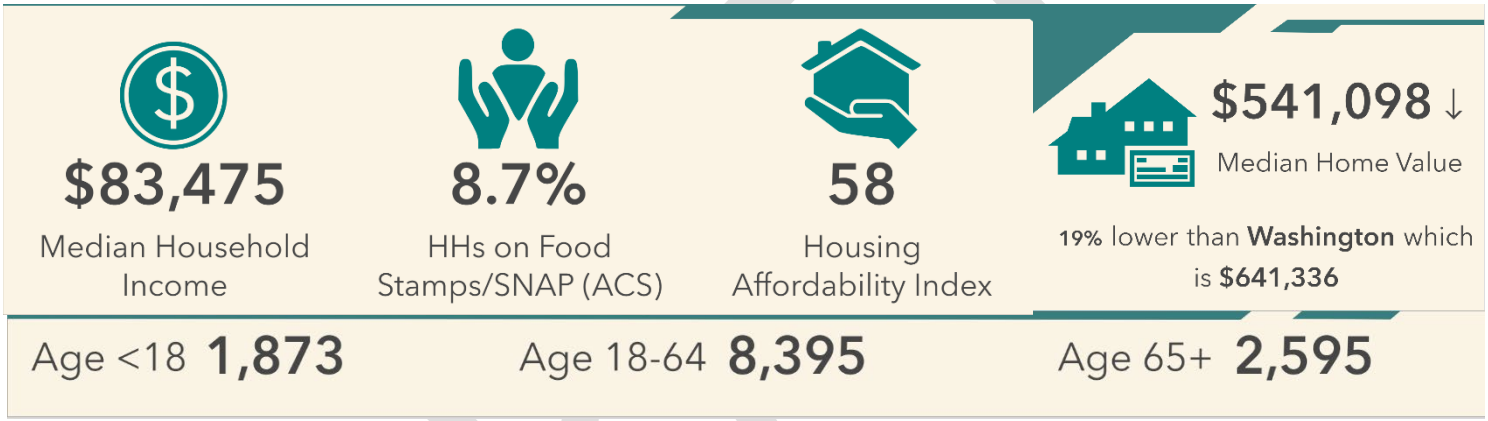


Figure 10: Infographic Childhood and Female Equity (Esri) Station 1 Response Area

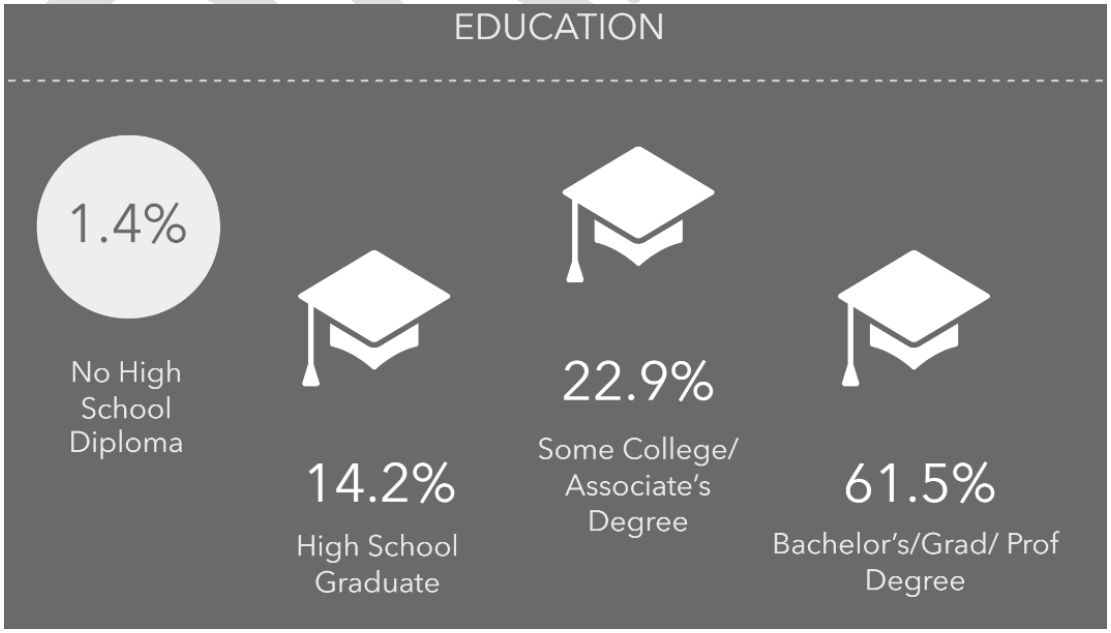
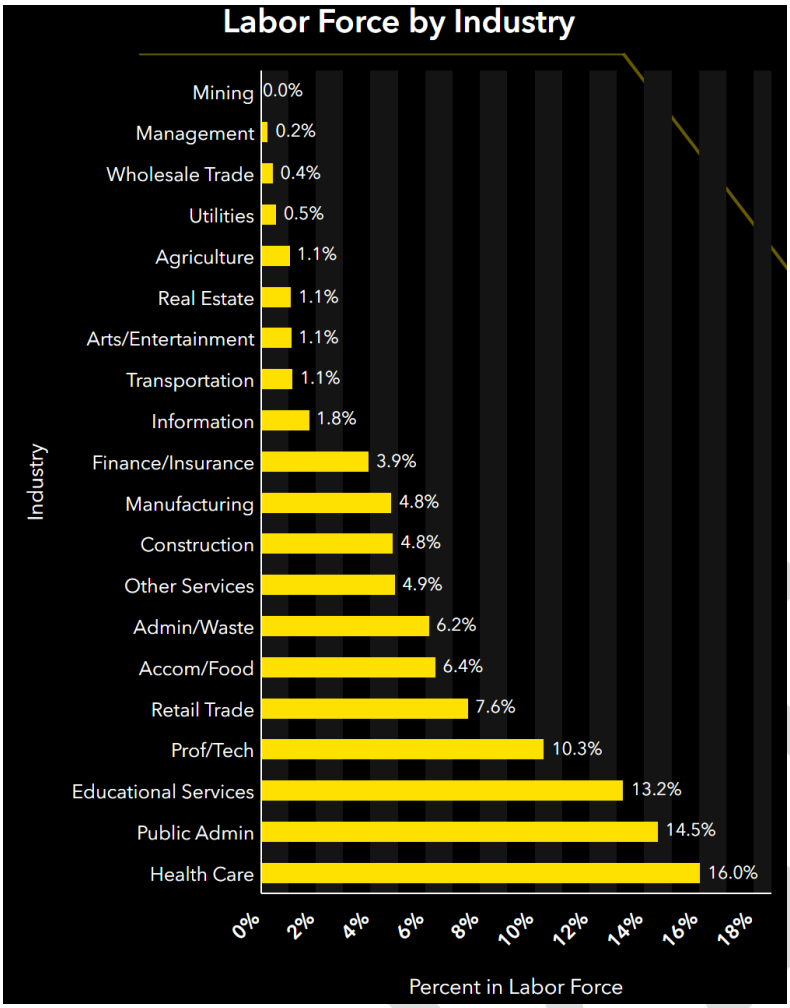
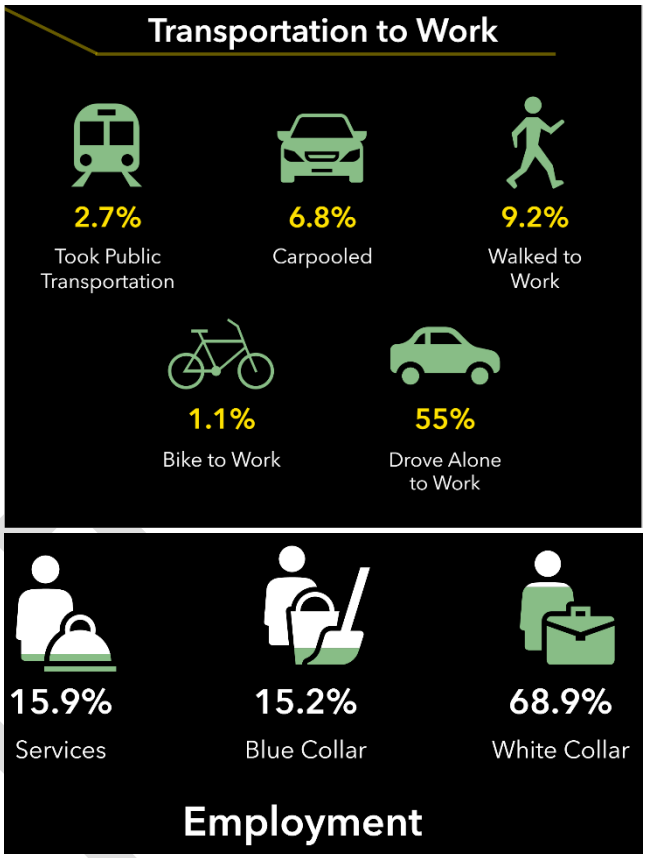


Figure 9: Infographic Demographic Summary, Education (Esri) Station 1 Response Area





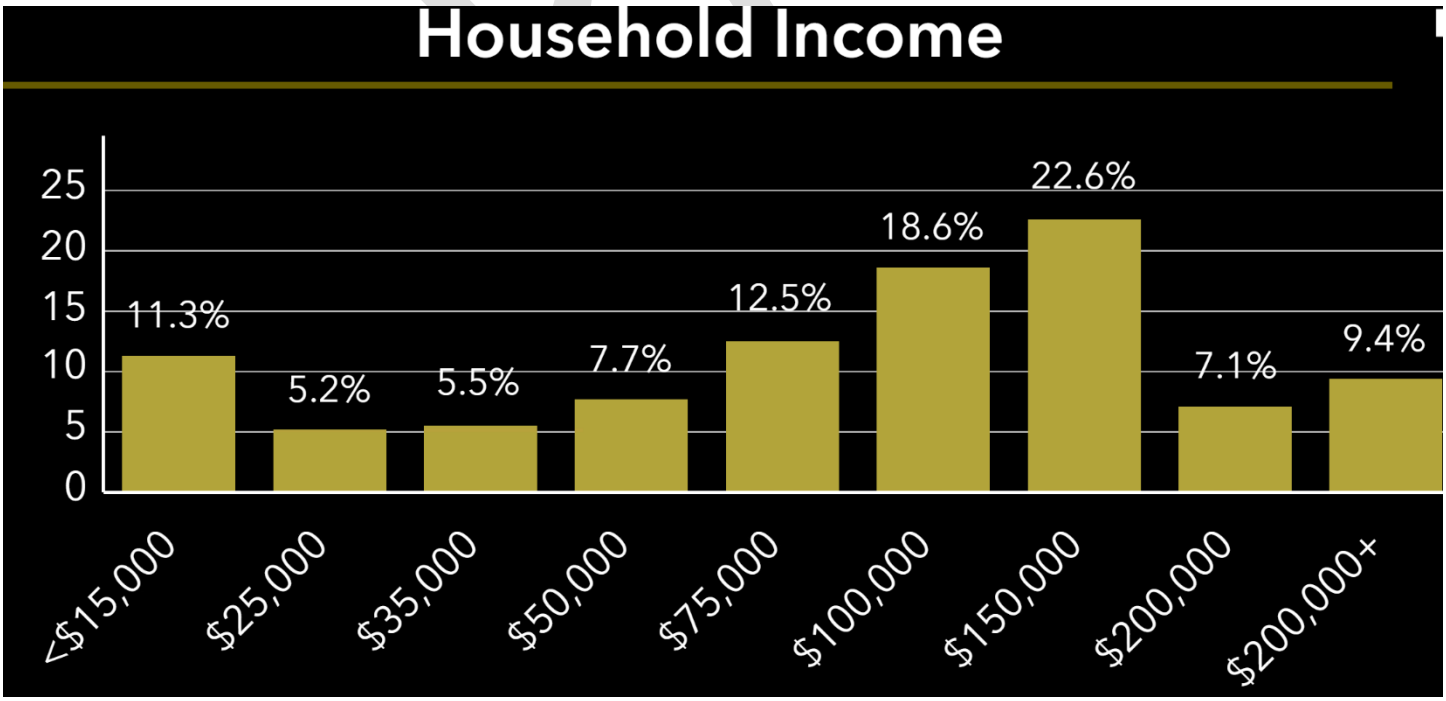


Figure 11: Infographic Economic Development Profile (Esri) Station 1 Response Area

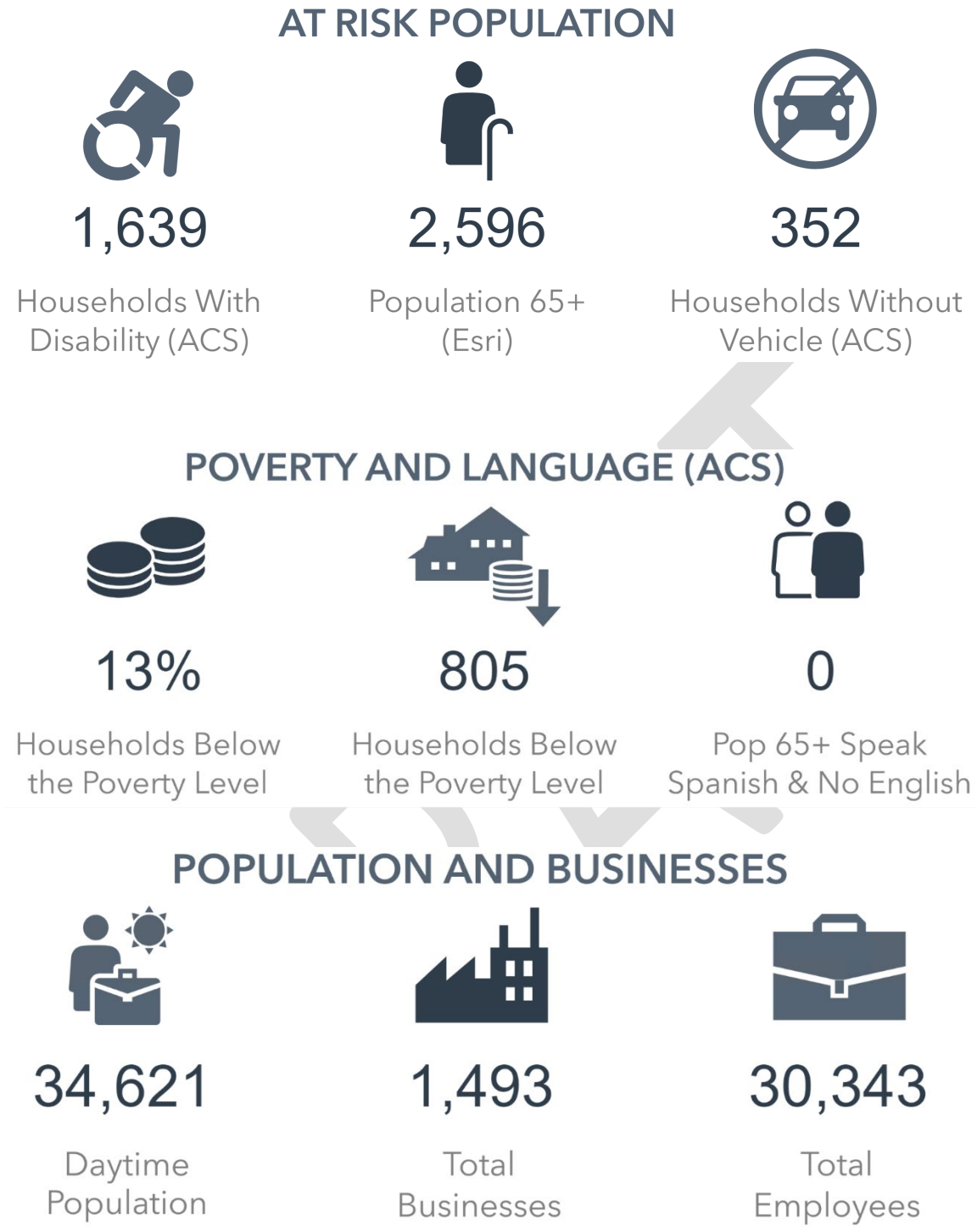


Figure 12: Infographic At Risk Population (Esri) Station 1 Response Area

Station 2 Response Area Population Profile

22,204	10,227	2,901.5	2.19	9,810	55.2
Total Population	Housing Units	Population Density	Average Household Size	Total Households	Diversity Index

Figure 14: Infographic 2020 Census Summary (Esri) Station 2 Response Area

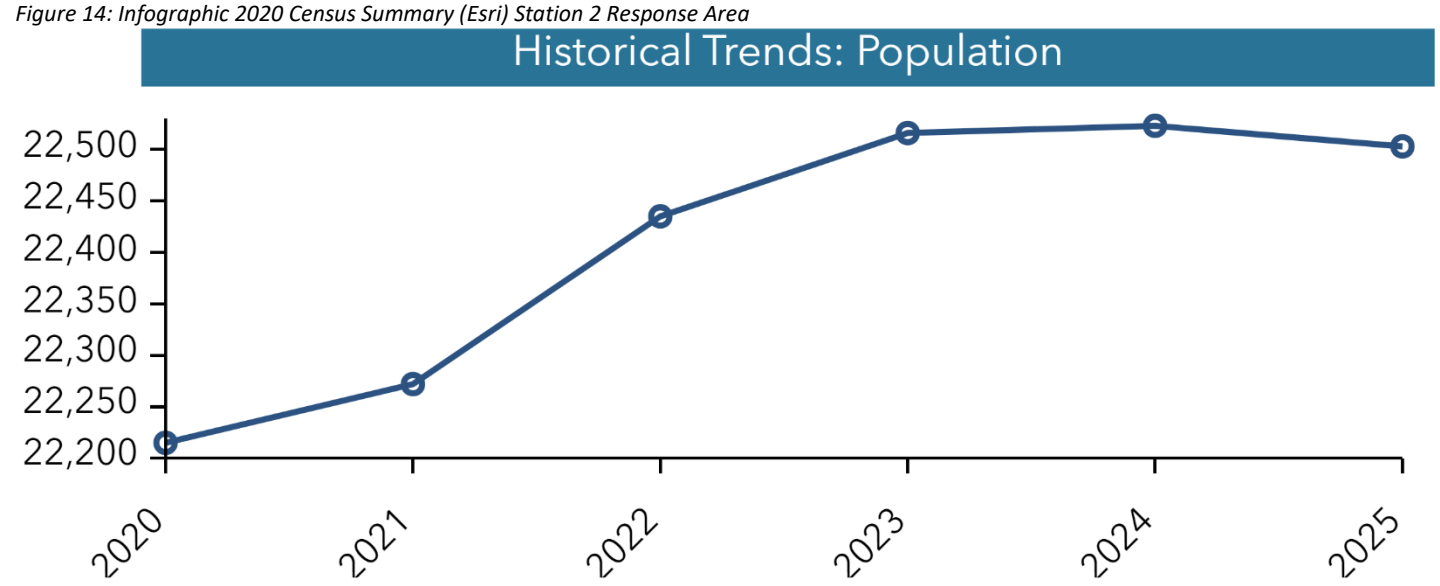


Figure 13: Infographic Population Trends (Esri) Station 2 Response Area

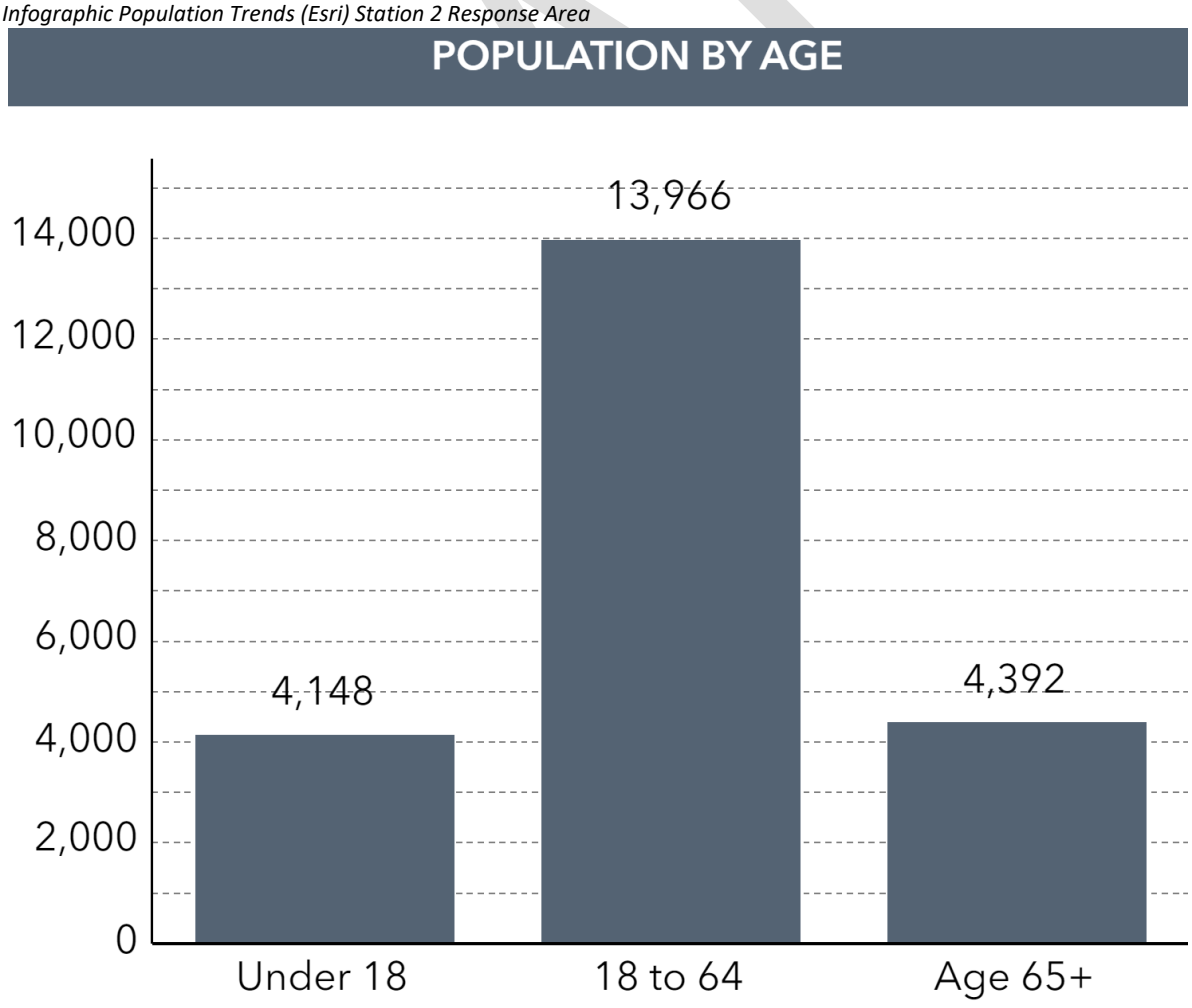
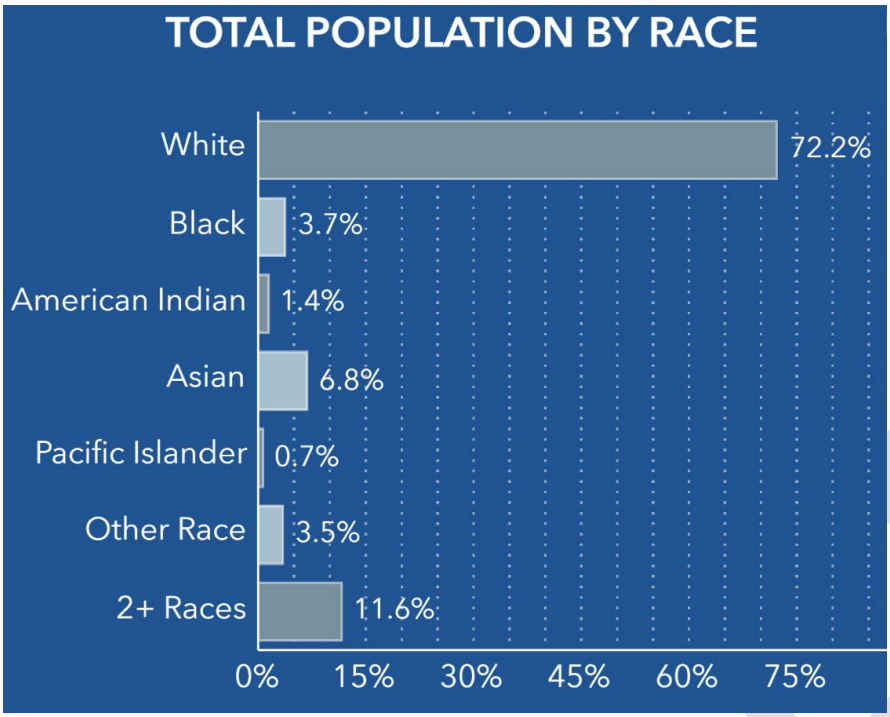
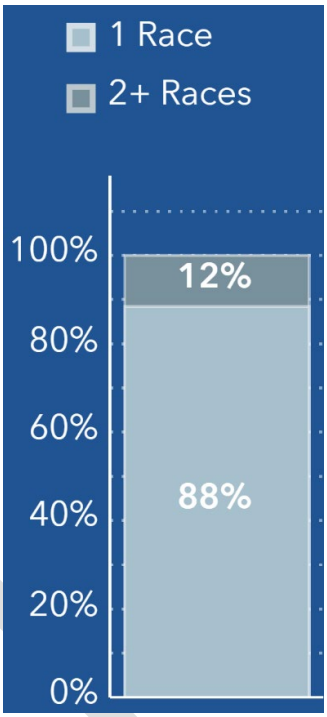


Figure 15: Infographic At Risk Population, Age (Esri) Station 2 Response Area





HISPANIC POPULATION BY AGE AND RACE	Less Than 18 Years	18 Years and Older	Total
Total	731	1,421	2,151
1 Race	449	940	1,389
White	222	393	615
Black	20	31	52
American Indian/Alaska Native	9	63	72
Asian	20	17	38
Pacific Islander	4	5	9
Some Other Race	174	431	604

Figure 17: Infographic 2020 Census Summary, Age and Race (Esri) Station 2 Response Area

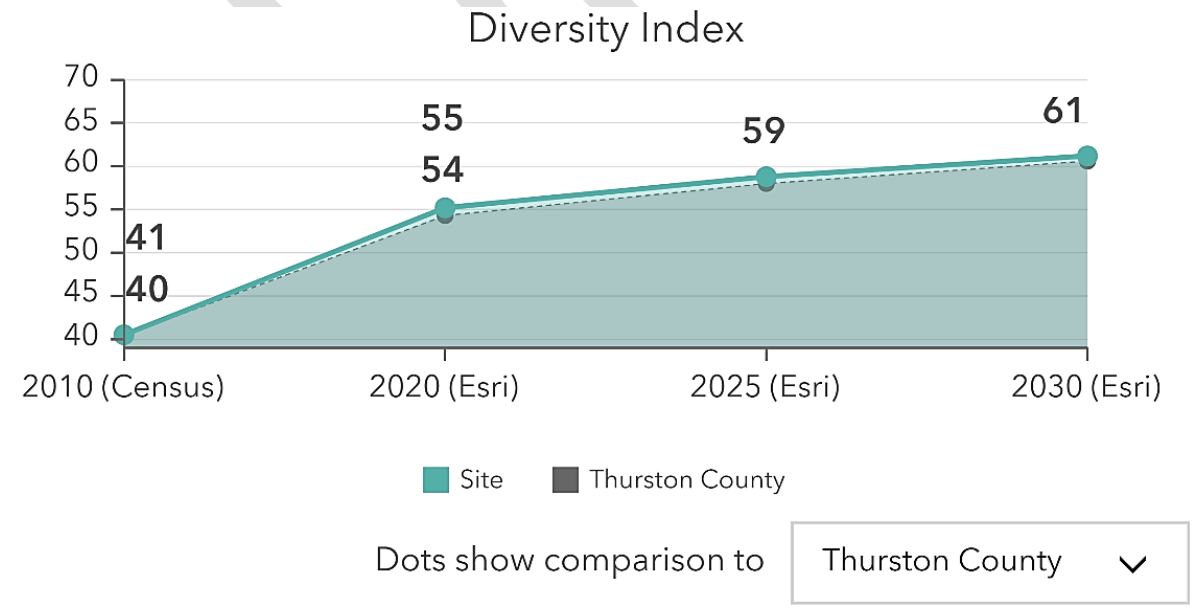
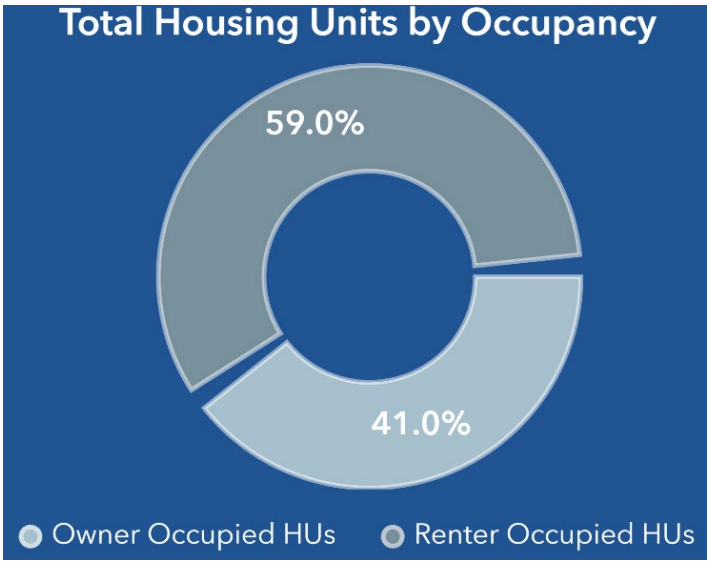


Figure 16: Infographic Community Change Snapshot, Diversity (Esri) Station 2 Response Area



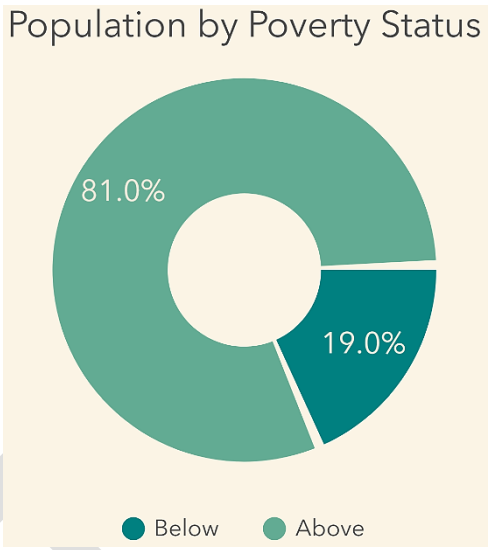


Figure 18: Infographic 2020 Census Summary, Housing (Esri) Station 2 Response Area

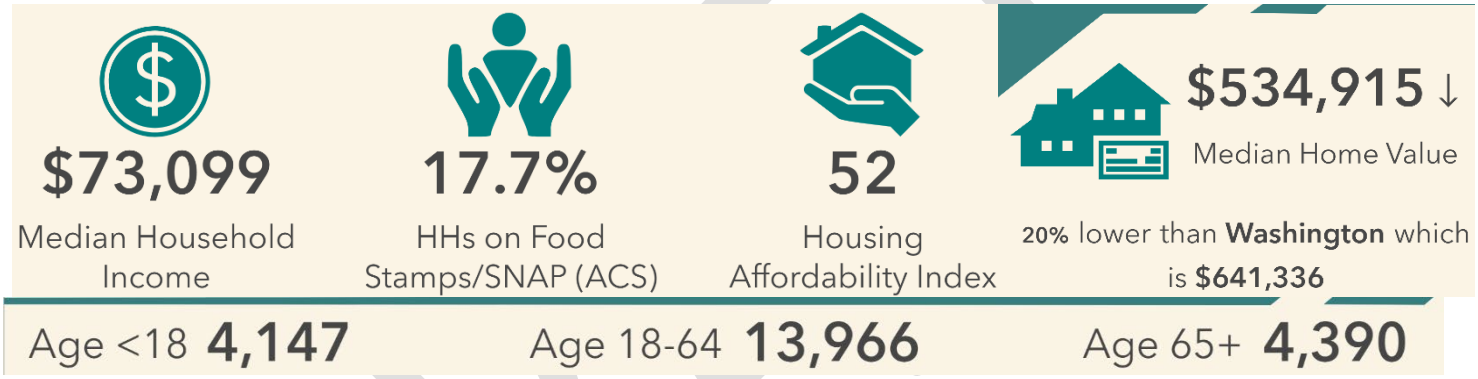


Figure 20: Infographic Childhood and Female Equity (Esri) Station 2 Response Area

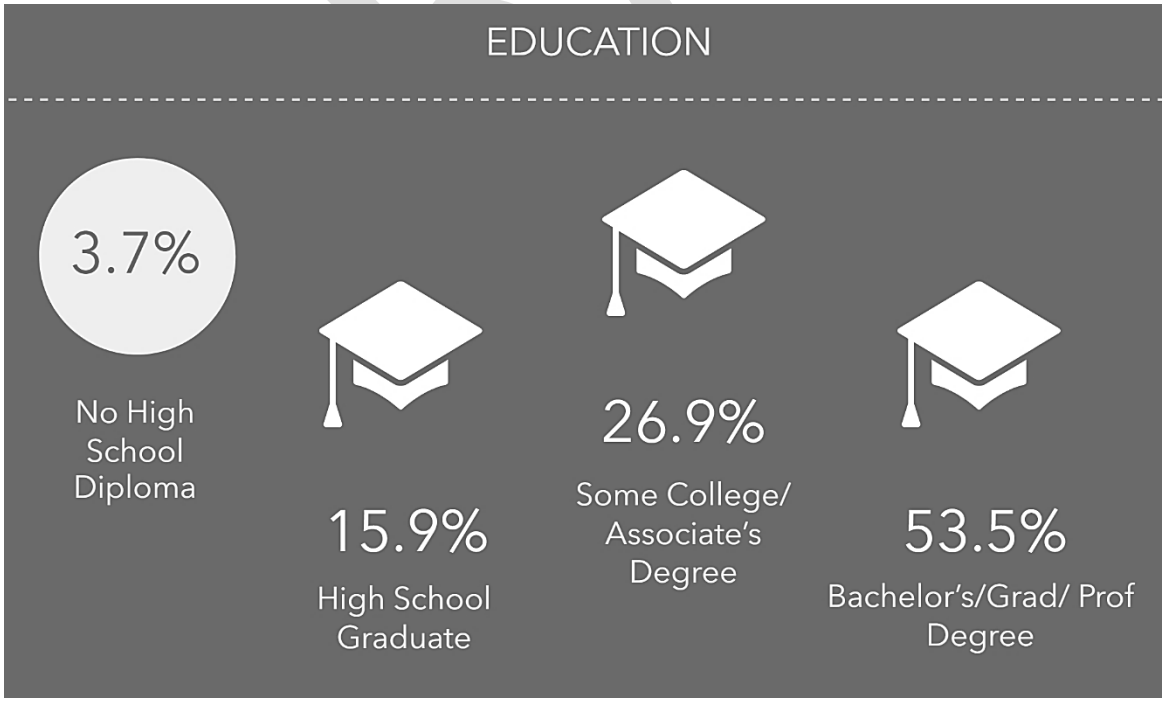
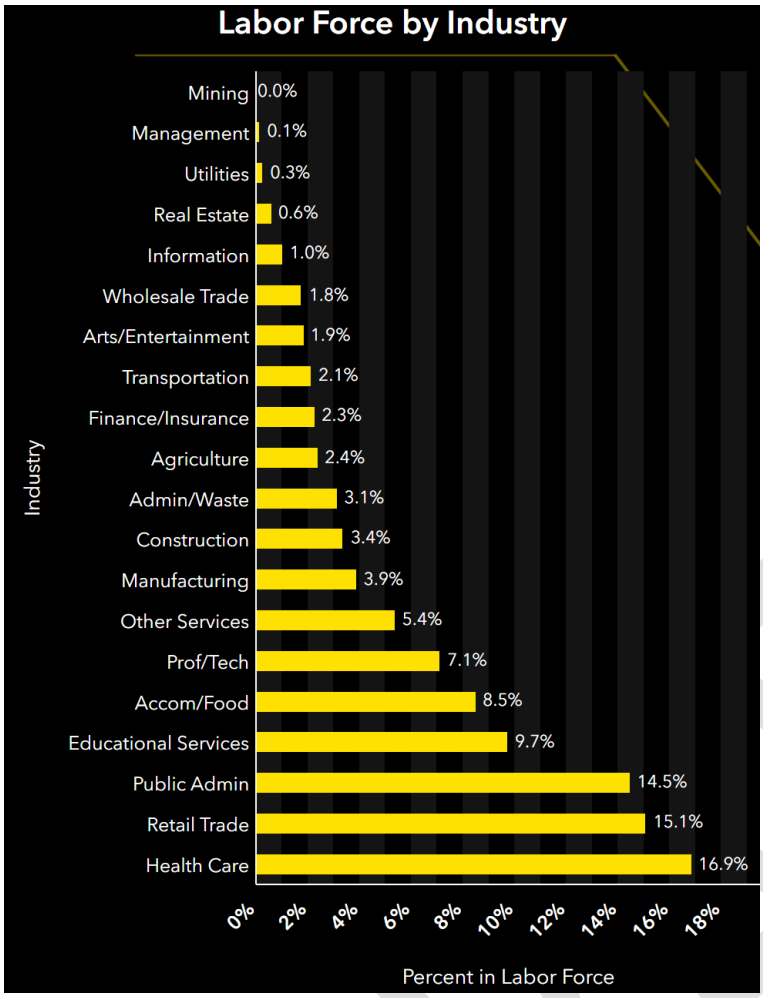
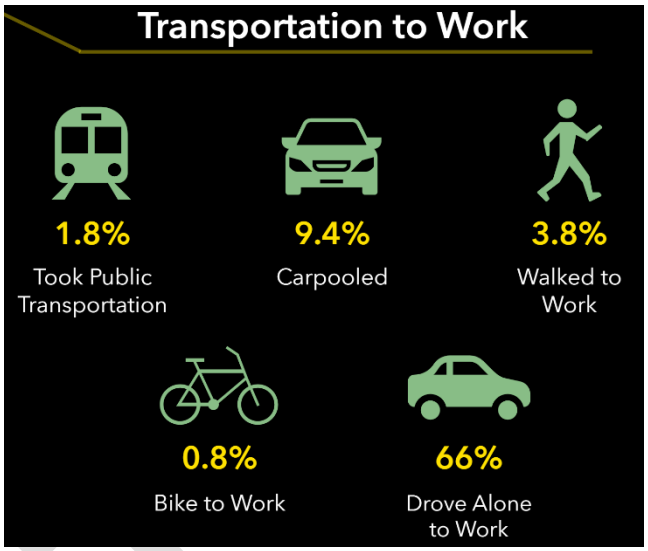


Figure 19: Demographics Summary, Education (Esri) Station 2 Response Area





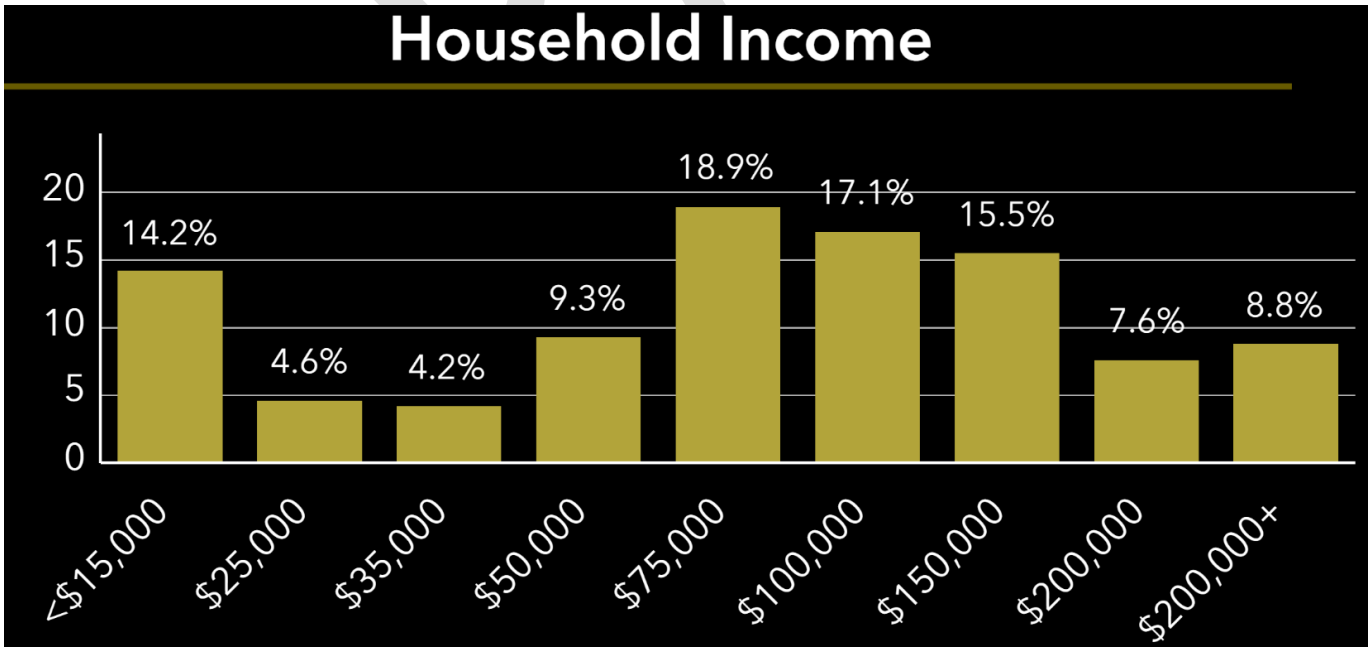


Figure 21: Infographic Economic Development Profile (Esri) Station 2 Response Area

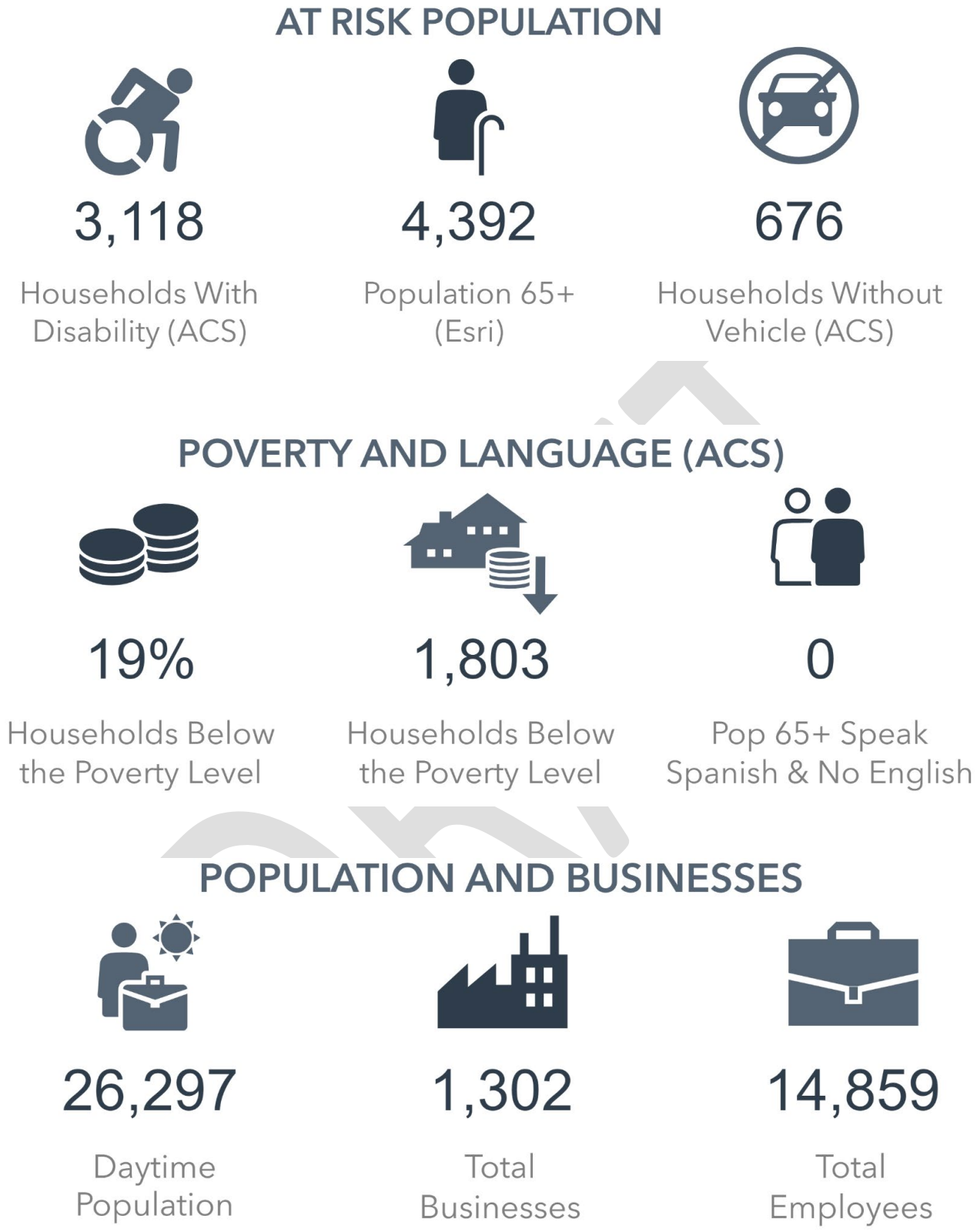


Figure 22: Infographic At Risk Population (Esri) Station 2 Response Area

Station 3 Response Area Population Profile

14,203	5,811	2,619.2	2.51	5,626	48.7
Total Population	Housing Units	Population Density	Average Household Size	Total Households	Diversity Index

Figure 23: Infographic 2020 Census Summary (Esri) Station 3 Response Area

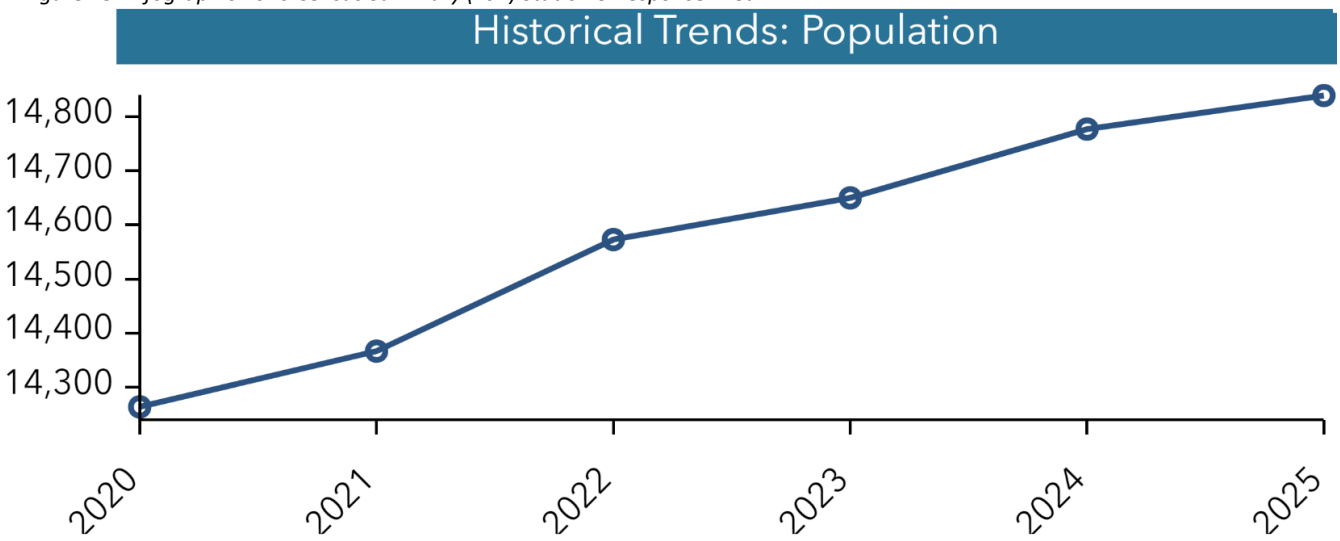


Figure 24: Infographic Population Trends (Esri) Station 3 Response Area

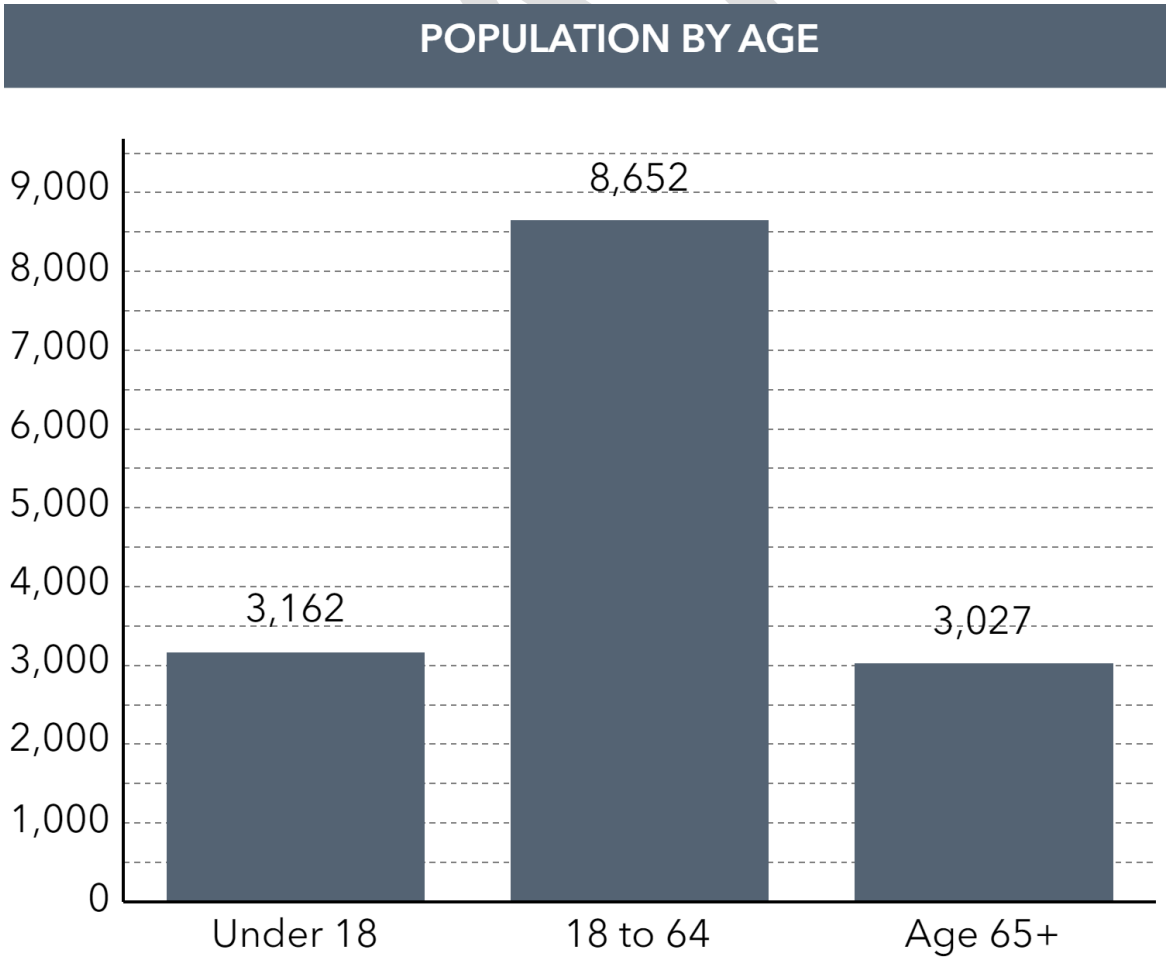
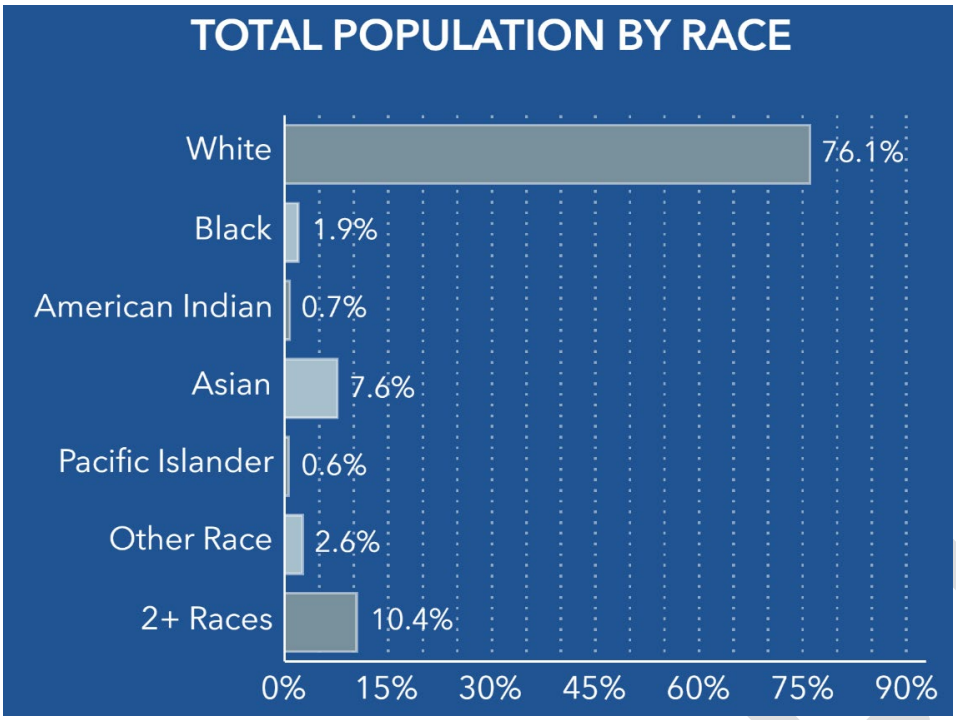
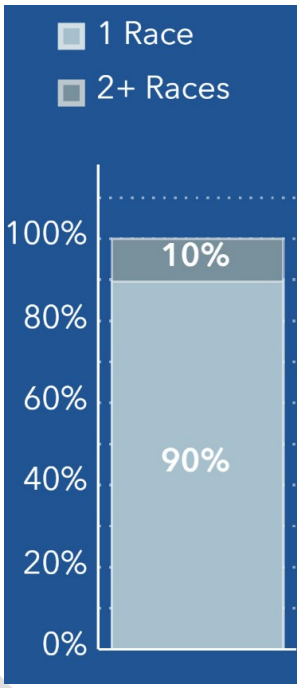


Figure 25: Infographic At Risk Population, Age (Esri) Station 3 Response Area





HISPANIC POPULATION BY AGE AND RACE	Less Than 18 Years	18 Years and Older	Total
Total	414	664	1,078
1 Race	214	399	613
White	99	158	257
Black	7	7	14
American Indian/Alaska Native	14	11	24
Asian	3	13	16
Pacific Islander	0	2	2
Some Other Race	91	208	299

Figure 26: Infographic 2020 Census Summary, Age and Race (Esri) Station 3 Response Area

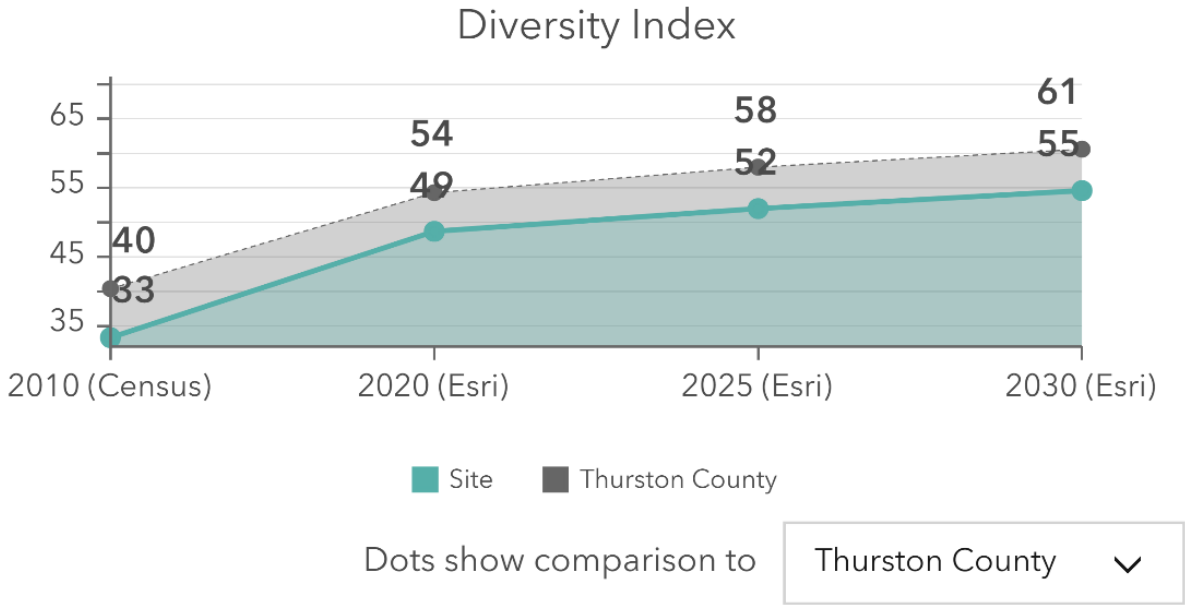
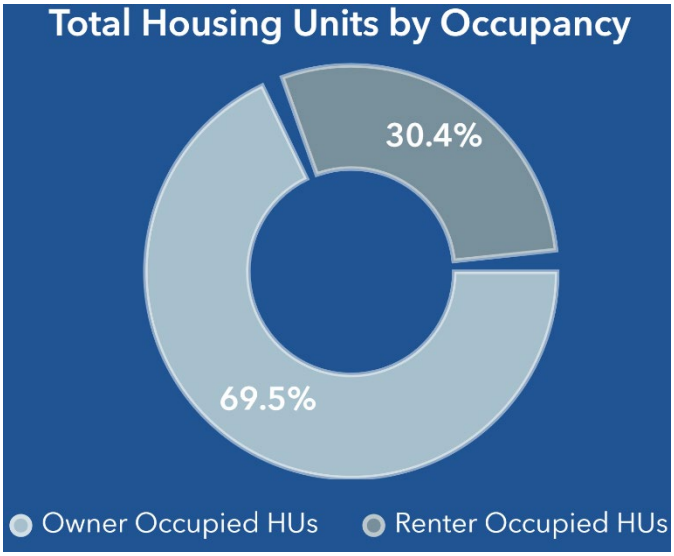


Figure 27: Infographic Community Change Snapshot, Diversity (Esri) Station 3 Response Area



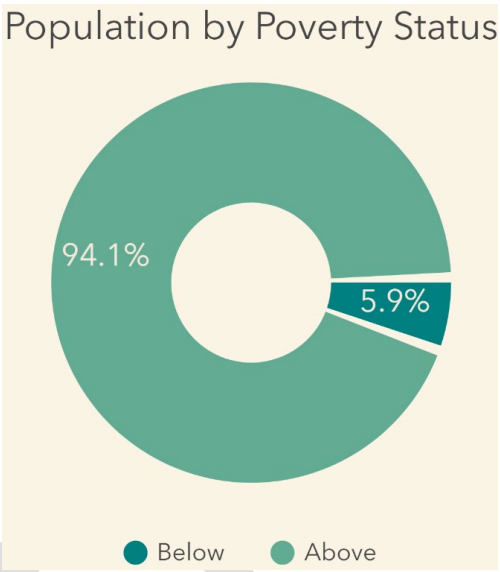


Figure 28: Infographic 2020 Census Summary Housing (Esri) Station 3 Response Area

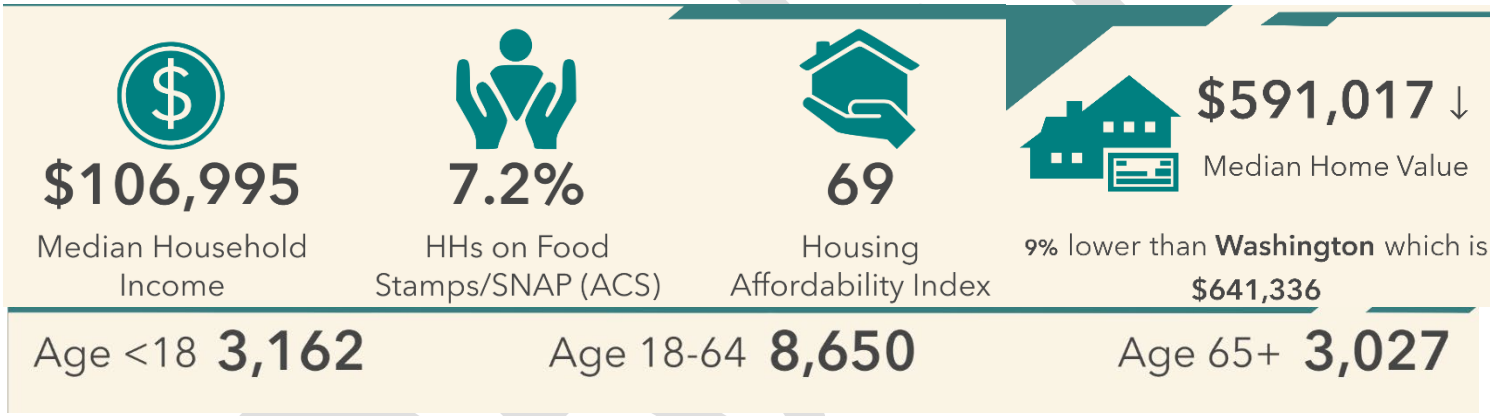


Figure 29: Infographic Childhood and Family Equity (Esri) Station 3 Response Area

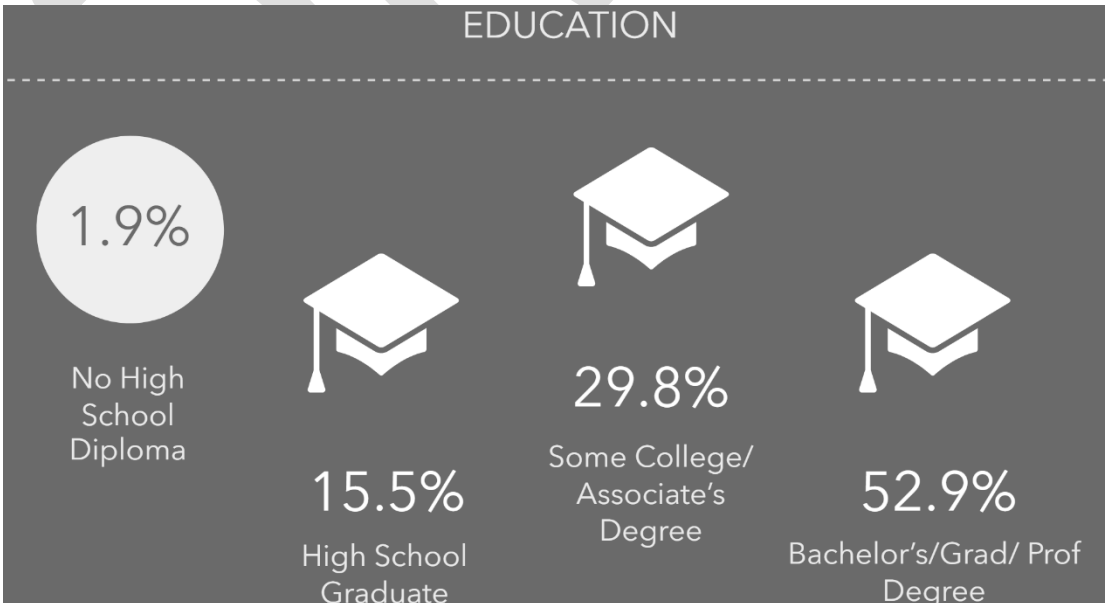


Figure 30: Infographic Demographic Summary, Education (Esri) Station 3 Response Area

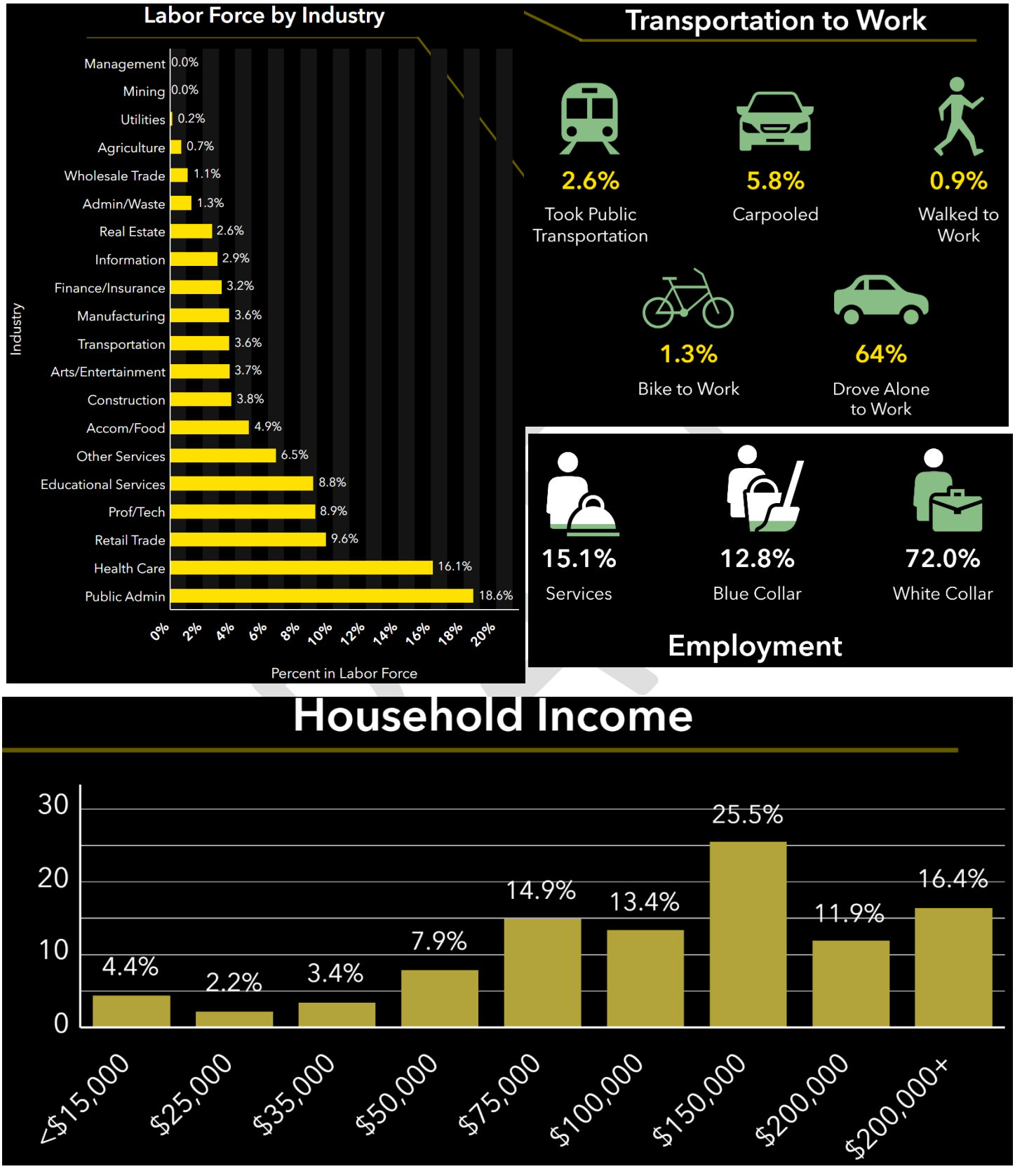


Figure 31: Infographic Economic Development Profile (Esri) Station 3 Response Area

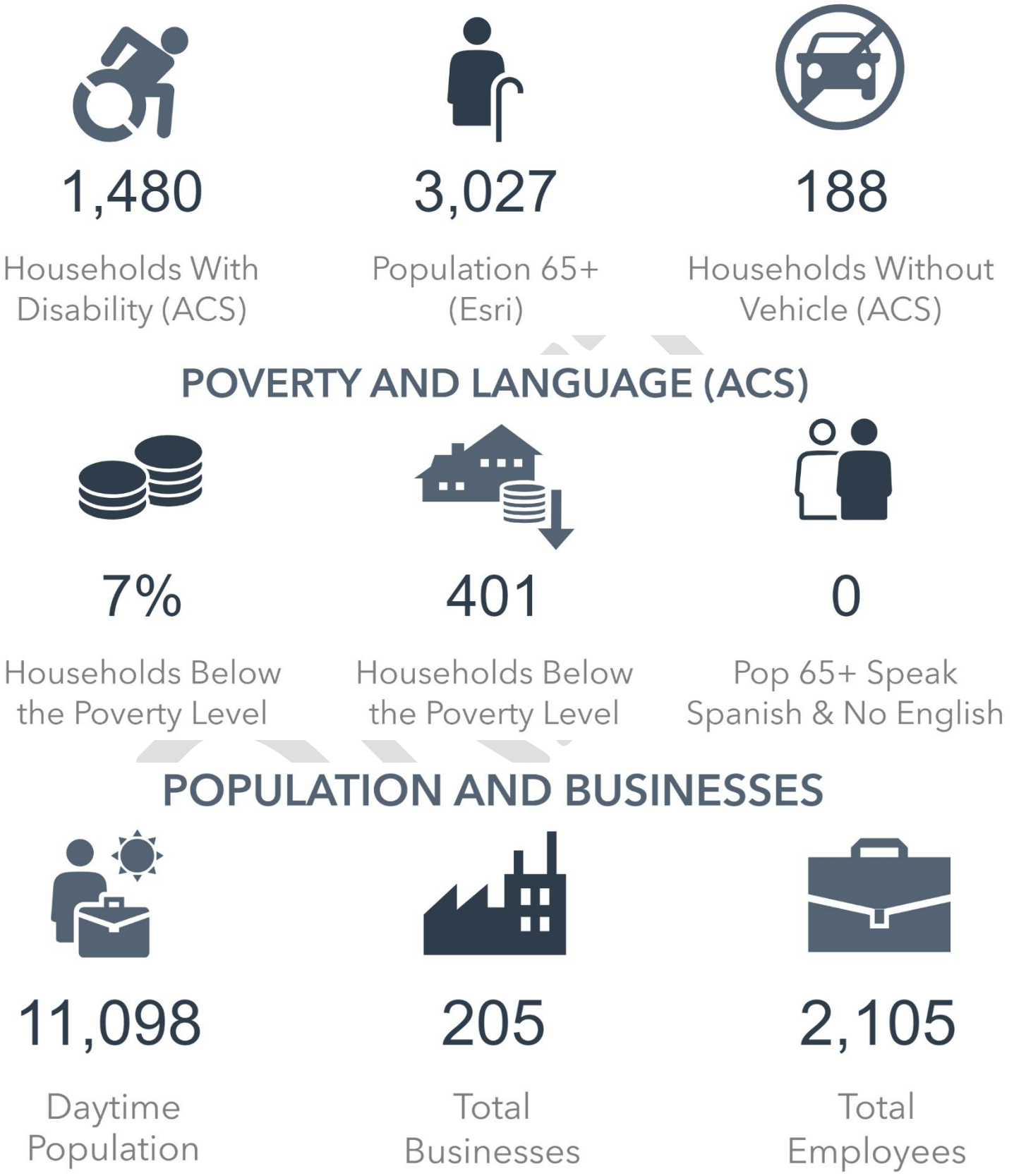


Figure 32: Infographic At Risk Population (Esri) Station 3 Response Area

Station 4 Response Area Population Profile

5,648	2,600	2,563.3	2.12	2,420	60.9
Total Population	Housing Units	Population Density	Average Household Size	Total Households	Diversity Index

Figure 33: Infographic 2020 Census Summary (Esri) Station 4 Response Area

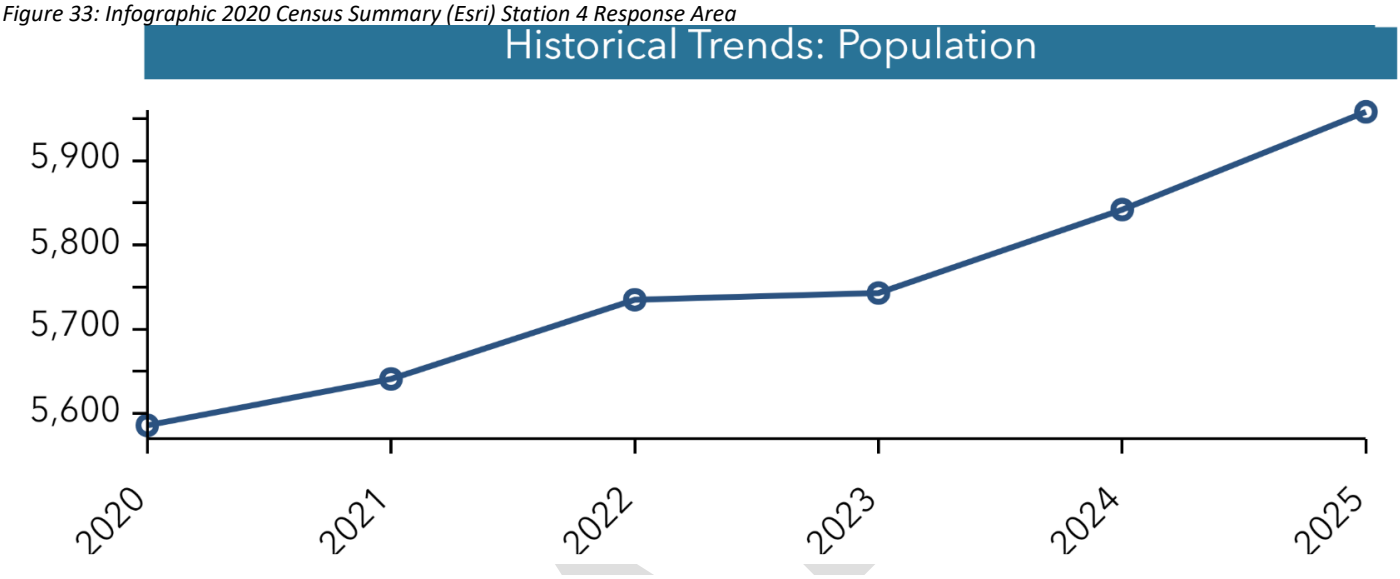


Figure 34: Infographic Population Trends (Esri) Station 4 Response Area

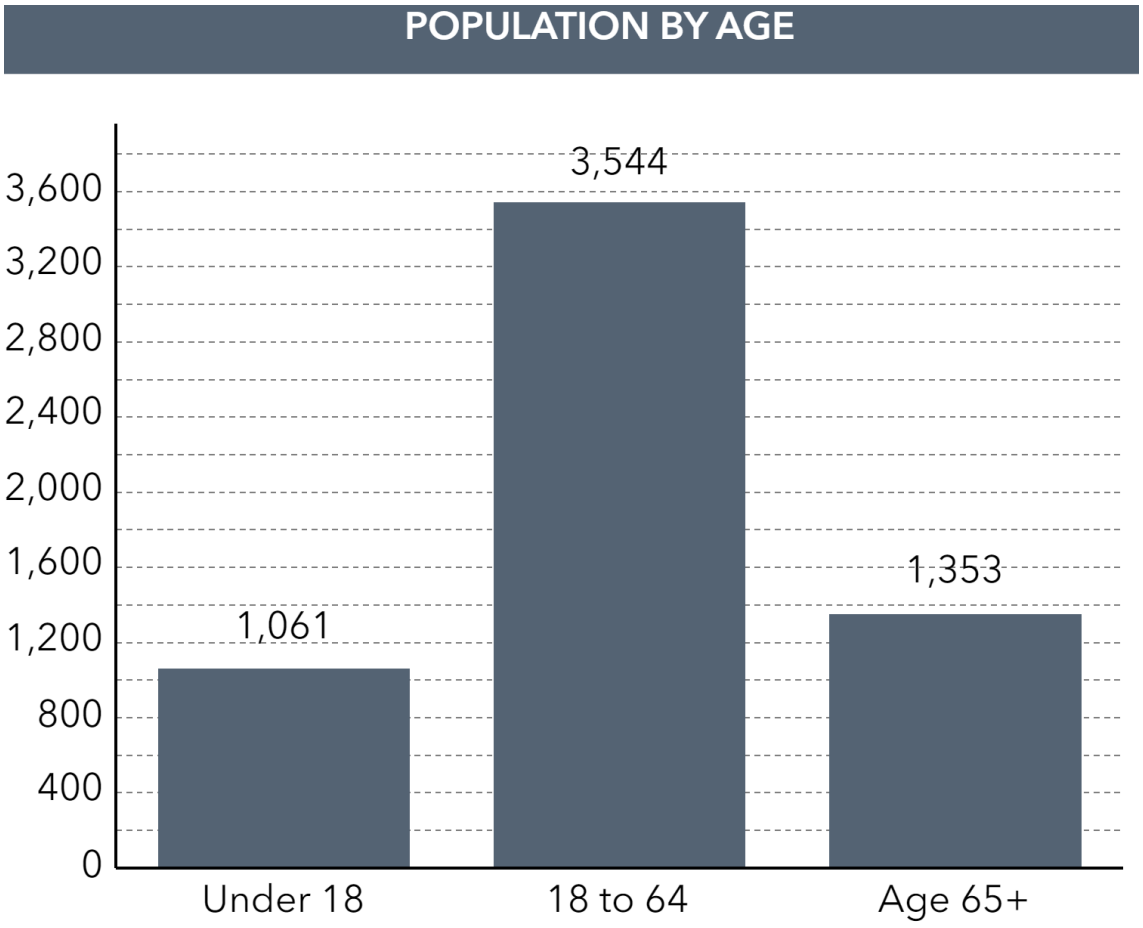
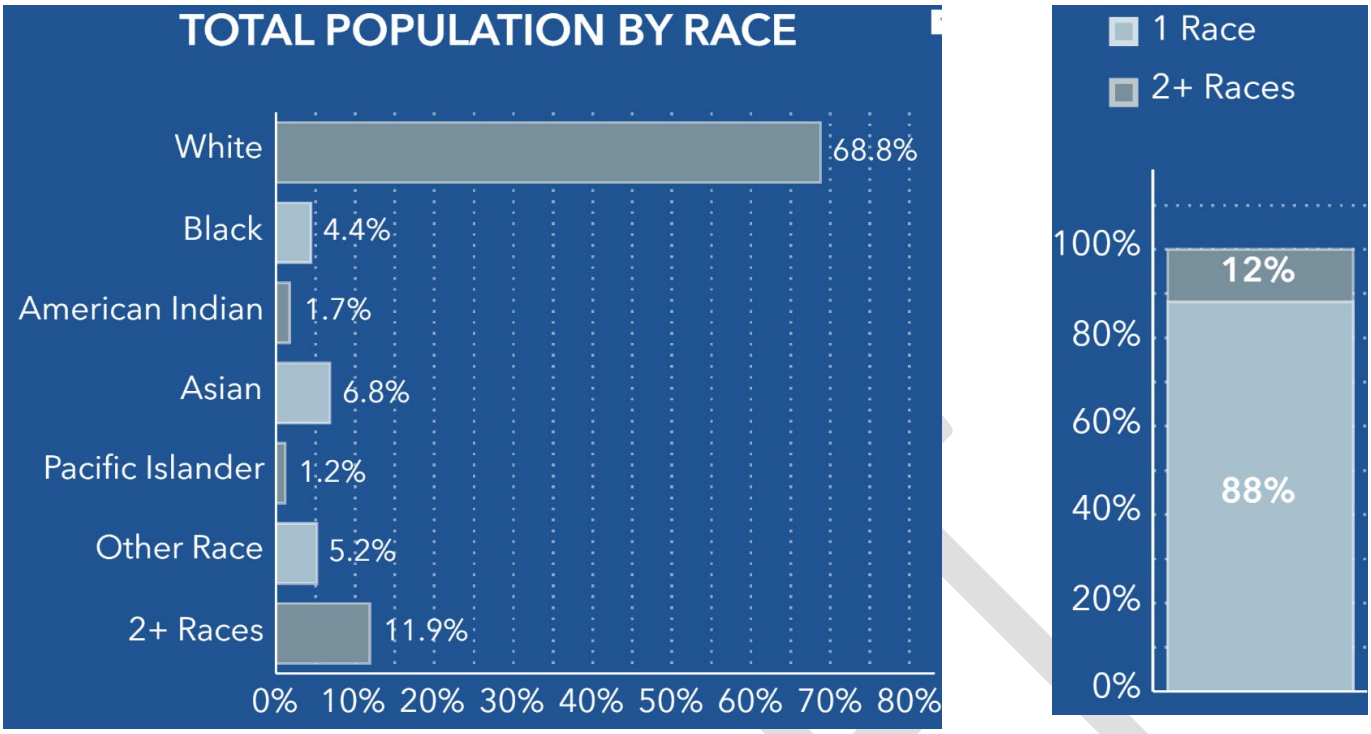


Figure 35: Infographic At Risk Population, Age (Esri) Station 4 Response Area



HISPANIC POPULATION BY AGE AND RACE	Less Than 18 Years	18 Years and Older	Total
Total	210	475	684
1 Race	136	335	470
White	54	129	183
Black	0	8	8
American Indian/Alaska Native	0	21	21
Asian	1	2	3
Pacific Islander	0	0	0
Some Other Race	81	175	256

Figure 36: 2020 Census Summary, Age and Race (Esri) Station 4 Response Area

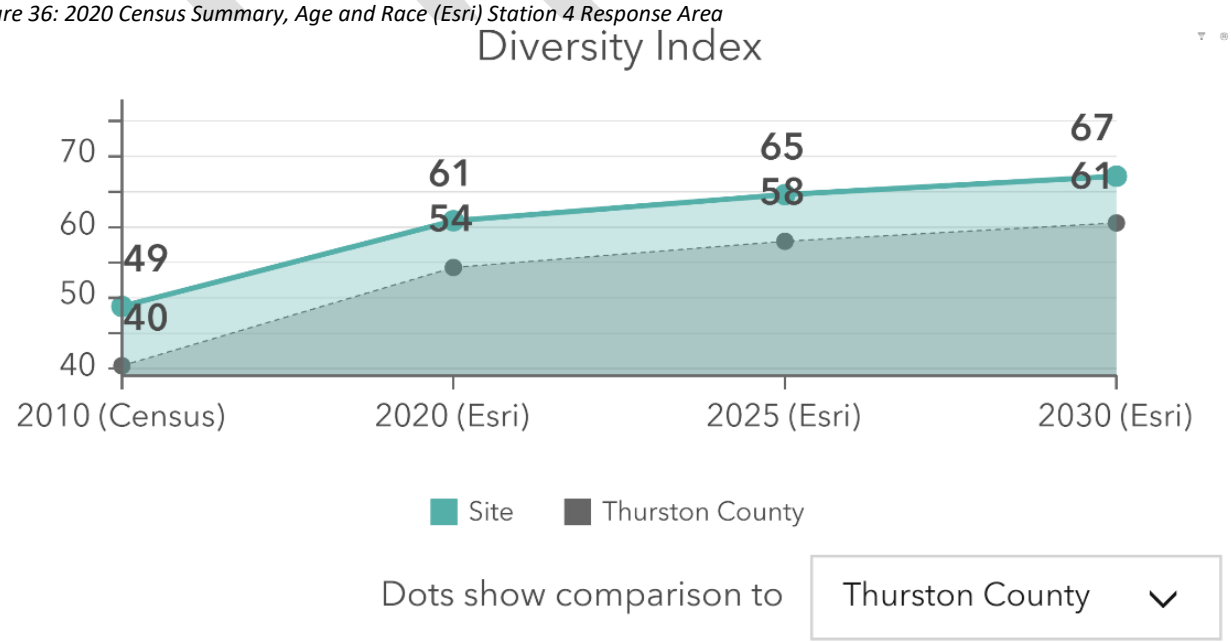
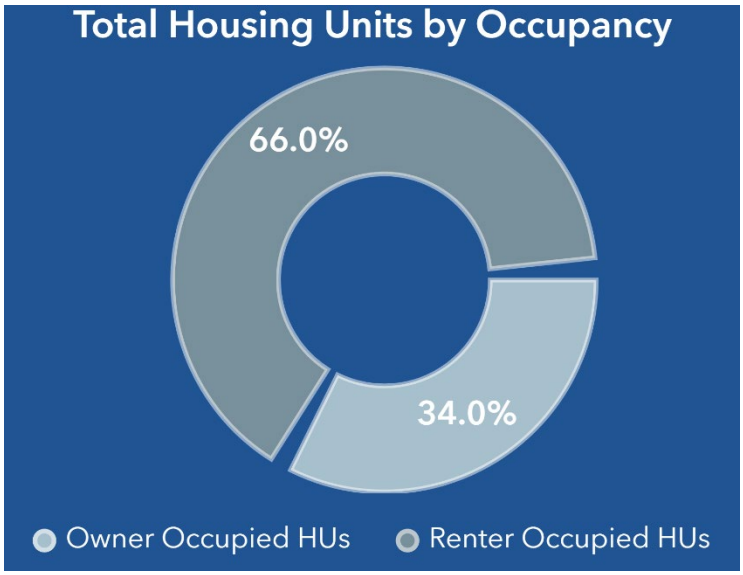


Figure 37: Infographic Community Change Snapshot, Diversity (Esri) Station 4 Response Area



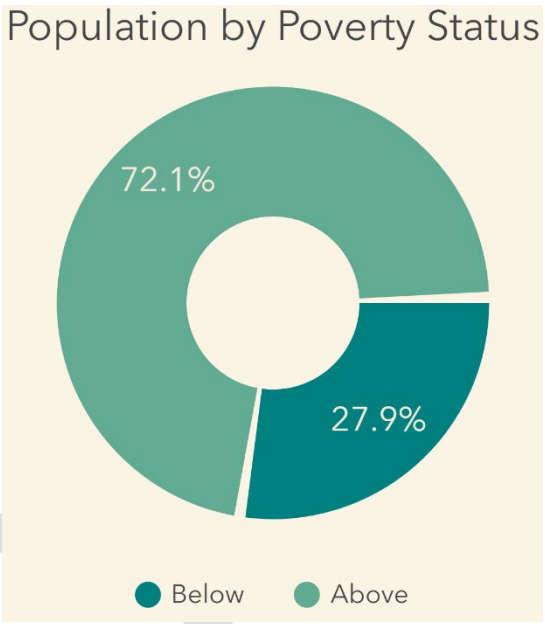


Figure 38: Infographic 2020 Census Summary, Housing (Esri) Station 4 Response Area

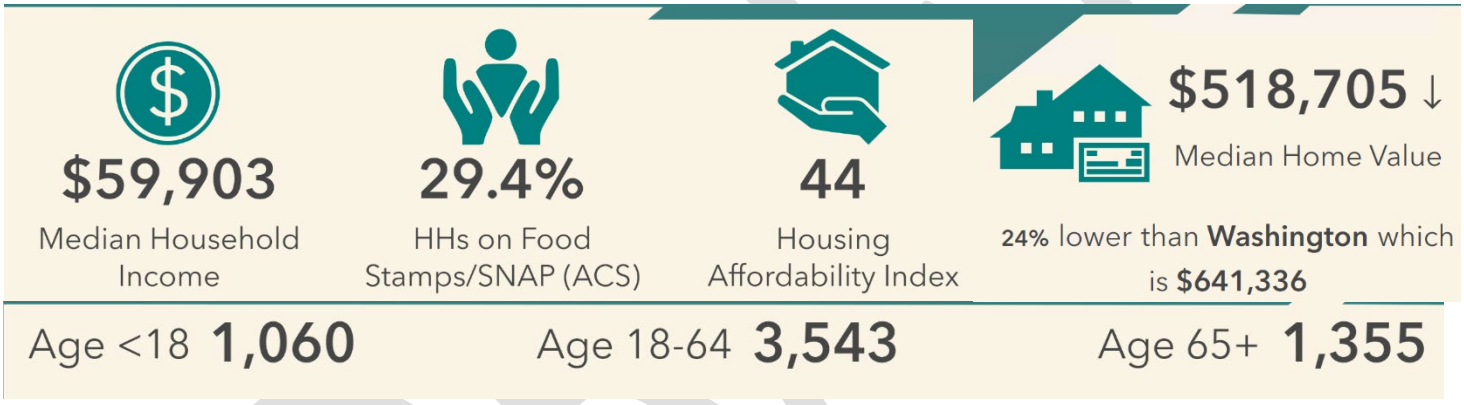


Figure 39: Infographic Childhood and Female Equity (Esri) Station 4 Response Area

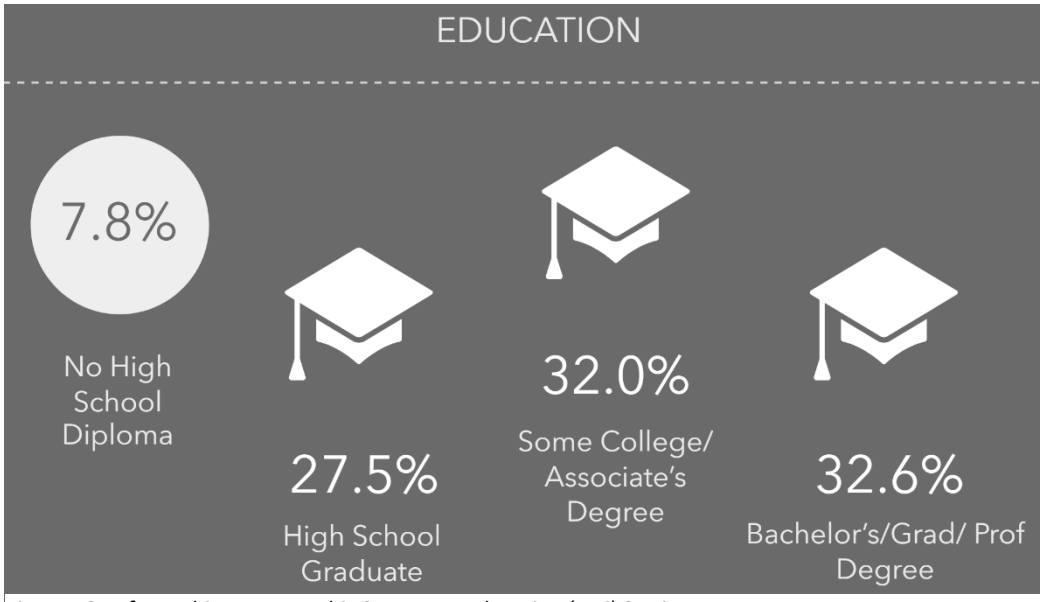


Figure 40: Infographic Demographic Summary, Education (Esri) Station 4 Response Area

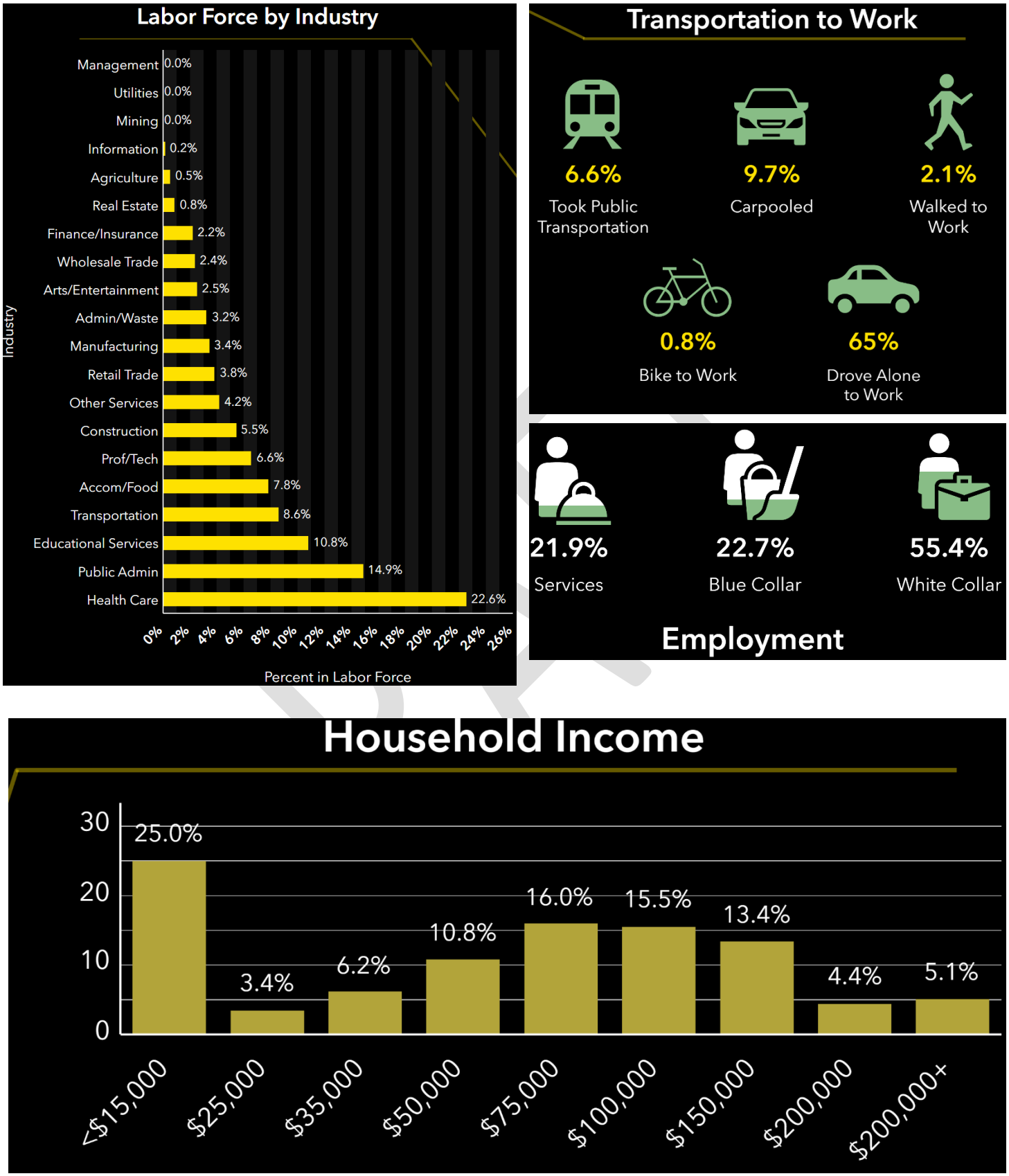


Figure 41: Infographic Economic Development Profile (Esri) Station 4 Response Area

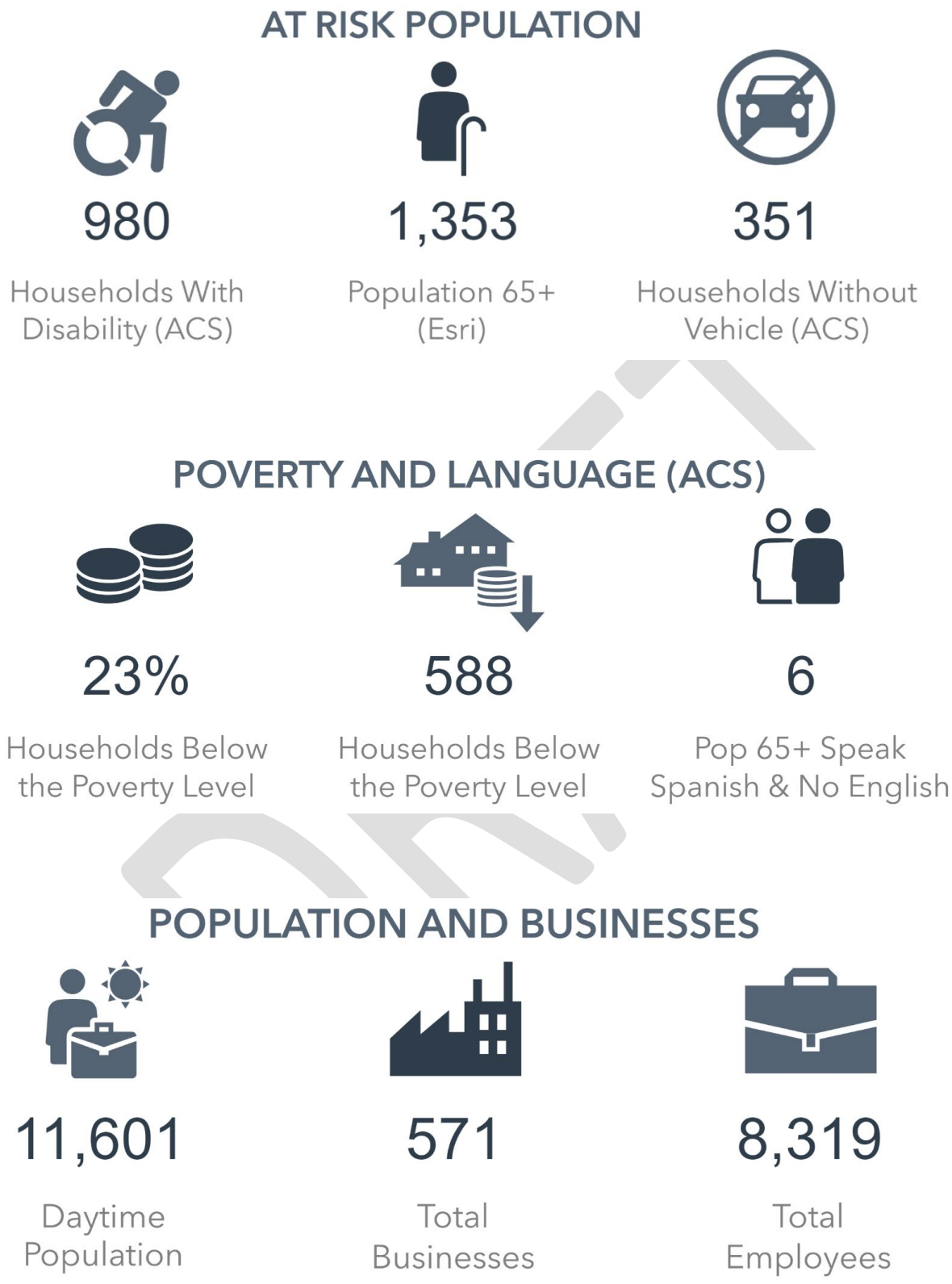
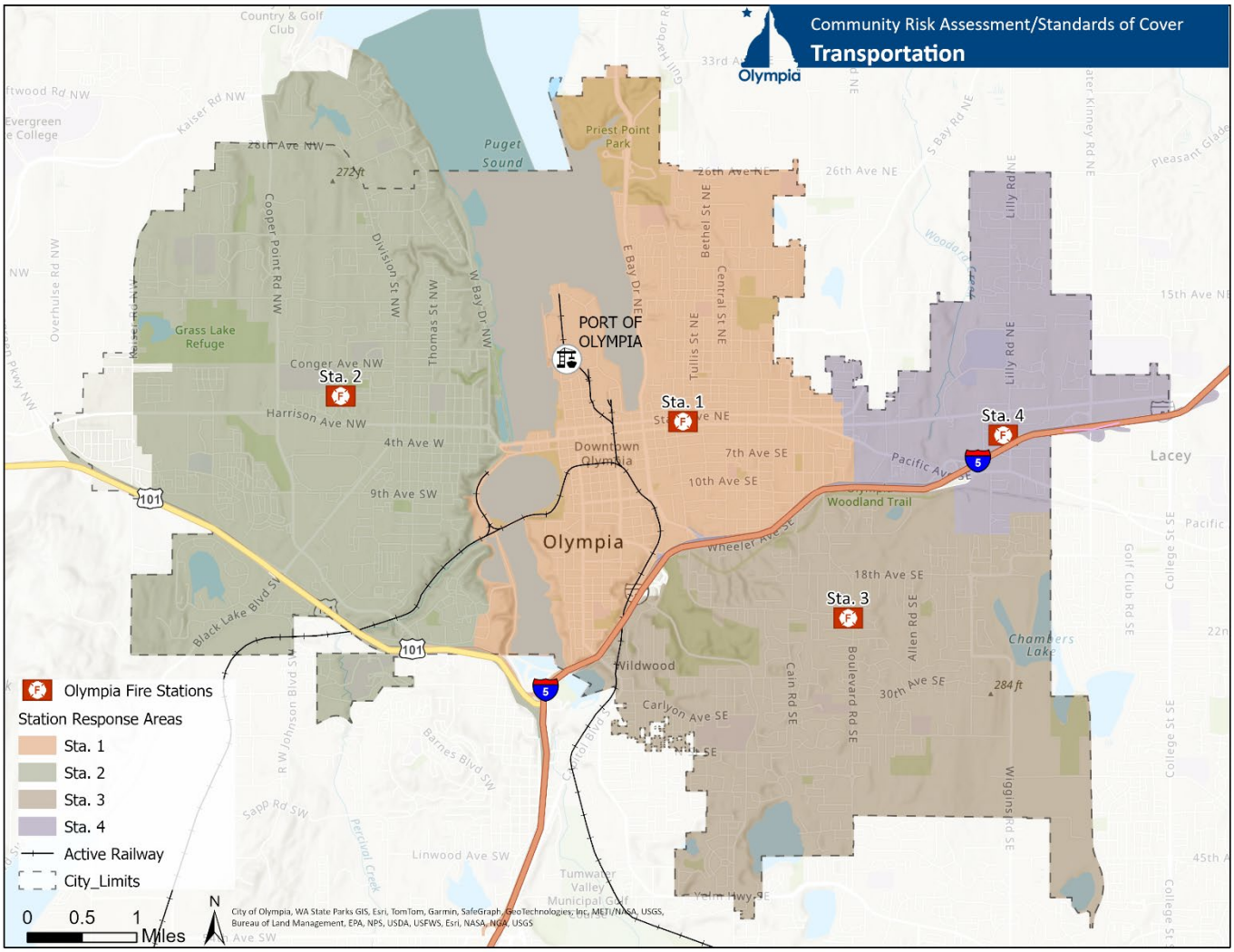


Figure 42: Infographic At Risk Population (Esri) Station 4 Response Area

Transportation



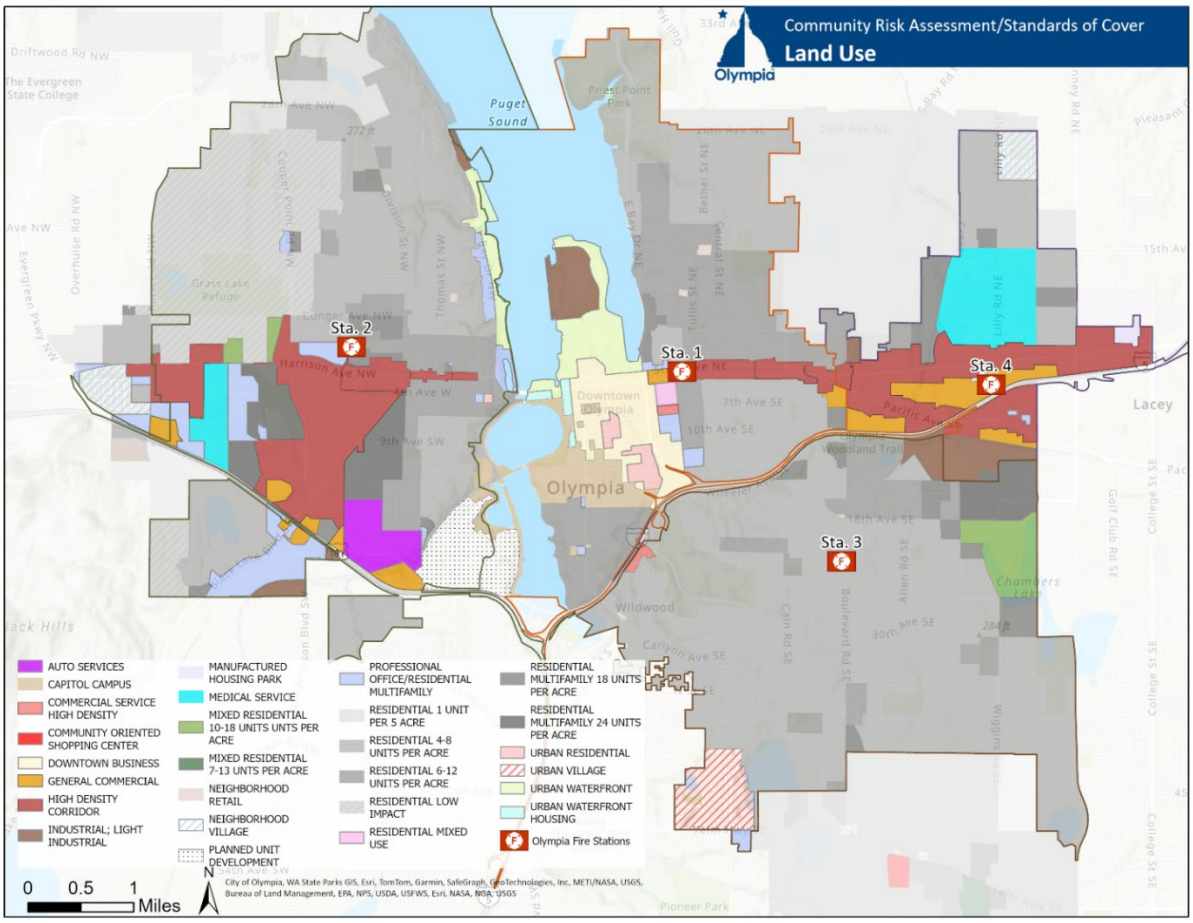
Map 5: Transportation

Several major roads facilitate transportation within Olympia's city limits and experience significant traffic volumes. Interstate 5 (I-5) is the primary north-south corridor, connecting Olympia to cities like Seattle and Portland. U.S. Route 101 branches off I-5, providing access to the Olympic Peninsula.

Historically, the Northern Pacific Railway established lines through Olympia, remnants of which still exist today, though their usage has evolved. The Olympia & Belmore Railroad (OYLO) operates freight services over approximately 12 miles of track, connecting East Olympia, Tumwater, and the Port of Olympia. OYLO provides switching and haulage services for Union Pacific and is also served by BNSF Railway, facilitating the movement of commodities such as aggregates, grain, building materials, and plastics.

At the Port of Olympia, on-dock rail services are available, with railcar switching provided by OYLO (Union Pacific. This infrastructure enables the efficient transfer of goods between maritime and rail transport, enhancing the port's logistical capabilities.

Land Use



Map 6: Land Use

Visualizing the station response areas by city land use categories provide for the following observations about each station response area.

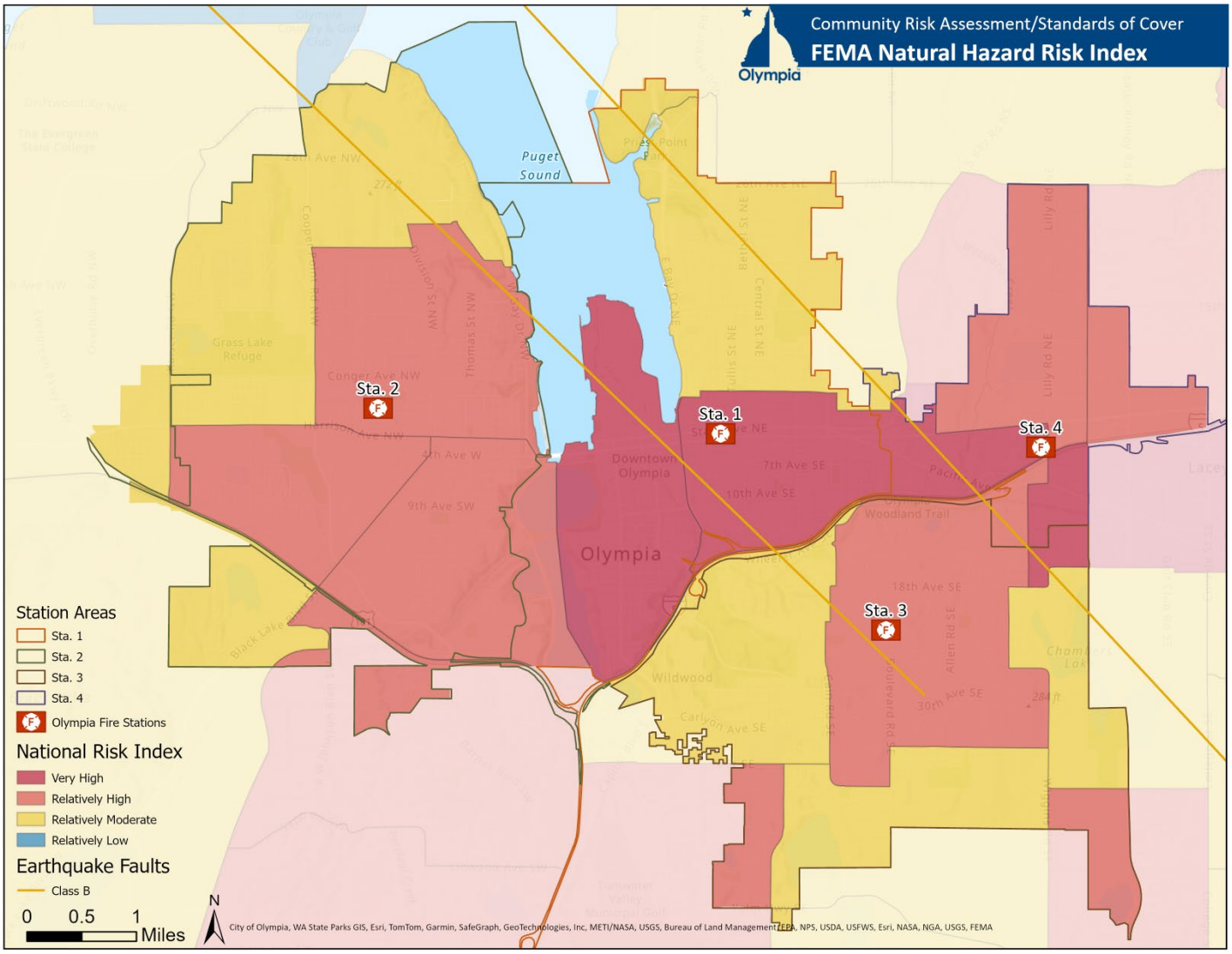
Station 1's response area is the location of the State Capitol Campus, the Port of Olympia, urban waterfront commercial and residential spaces, the downtown business core, and a high-density corridor along State and 4th Avenues heading into Station 4's response area.

Station 2's response area contains a high-density corridor, community-oriented shopping center, auto mall, medical services including a hospital and urgent care facility, and residential and mixed-use residential/office zoned land. The Station 2 response area is predominately accessed by the 4th Avenue and 5th Avenue bridges.

Station 3's response area is predominately residential, with the higher density residential occurring at the eastern edge of the response area.

Station 4's response area is dominated by medical services, including a hospital and two urgent care facilities, and contains two high-density corridor areas along Martin Way and Pacific Ave. The Station 4 response area also has a significant area zoned as general commercial.

FEMA Natural Hazard Risk Index

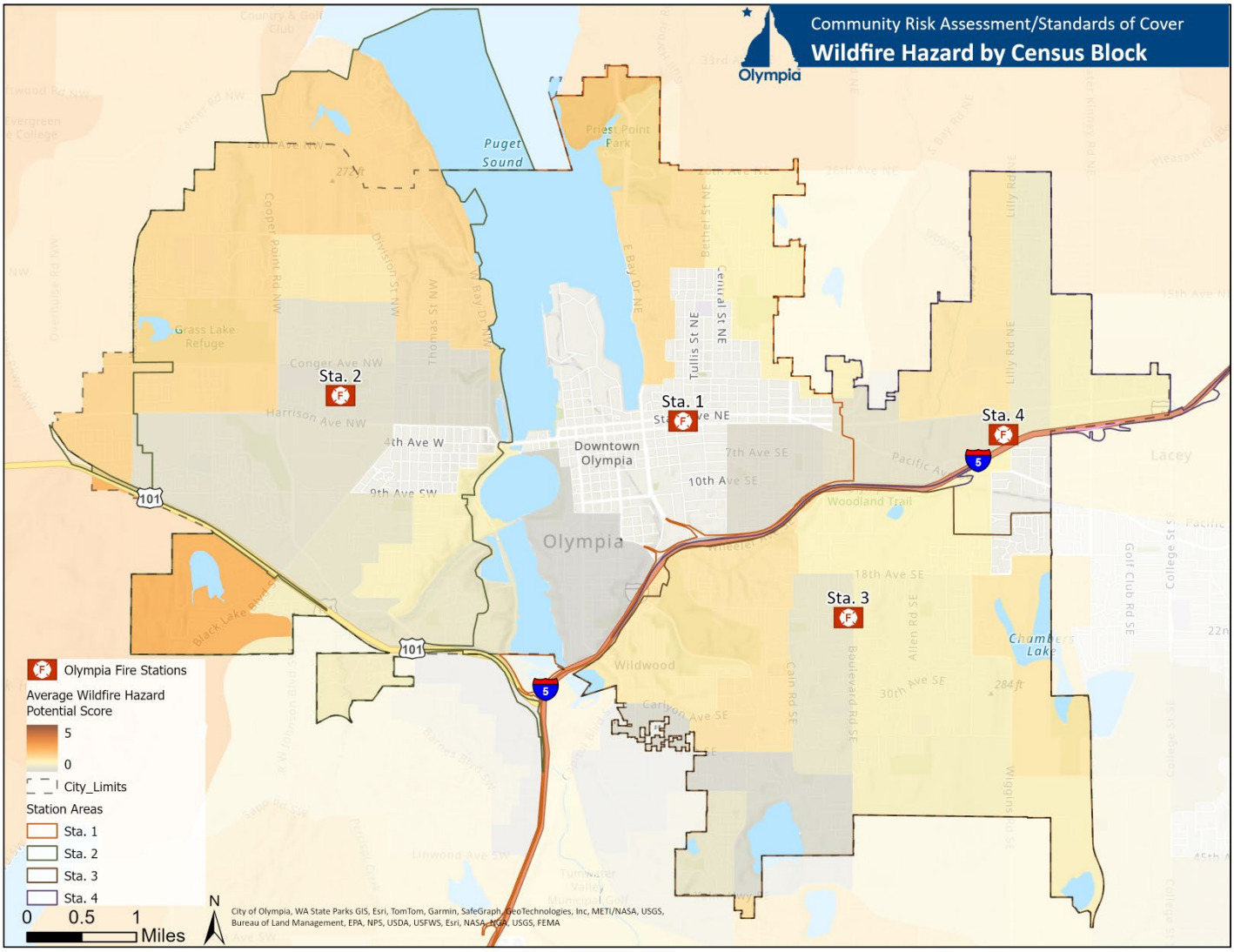


Map 7: FEMA Hazard Index

Hazards indicated as Very High or Relatively High for Olympia include Earthquake and Volcanic Activity, and indicated as Relatively Moderate include Coastal Flooding and Landslide.

Olympia is situated near several seismic faults, the most significant being the Cascadia Subduction Zone and the Seattle Fault. While the Cascadia Subduction Zone lies offshore and poses a major risk for large megathrust earthquakes, the Olympia area is also affected by crustal faults, such as the Tacoma Fault and the Olympia Fault Zone. The Olympia Fault, though less studied, is a shallow fault that runs near the city and could generate damaging earthquakes. Additionally, the nearby Seattle Fault, which runs east-west through the Puget Sound region, has the potential to cause severe shaking in Olympia. Due to the region's complex seismic setting, Olympia is at risk for strong ground shaking, liquefaction, and potential surface ruptures, making earthquake preparedness crucial for residents and city planners.

Wildfire Hazard Potential



Map 8: Wildfire Hazard

This Wildfire map contains Wildfire Hazard Potential (WHP) data for Olympia census block groups enriched with demographic data. The WHP within the city limits of Olympia, Washington, is generally considered low to moderate. However, areas with dense vegetation, particularly near the urban-wildland interface, may have an increased risk. Olympia's relatively wet climate, due to its location in the Pacific Northwest, helps reduce wildfire risk compared to drier regions. However, during hot, dry summer months, prolonged drought conditions, strong winds, and human activity can elevate the threat of wildfires.

The Washington Department of Natural Resources (DNR) and local emergency management agencies actively monitor wildfire risks and encourage fire-safe landscaping, defensible space around homes, and public awareness campaigns to reduce ignition sources. While Olympia is not as wildfire prone as Eastern Washington, the growing impacts of climate change and urban expansion near forested areas highlight the need for continued fire prevention and mitigation efforts.

Asset Preservation/Loss

Data that includes property, life, injury, environmental, and other associated losses, as well as the human and physical assets preserved and or saved, are recorded for three years.

2022 Station Response Area	Value of Property Affected	Estimated Fire Loss
Station 1	$3,758,500	$71,000
Station 2	$3,757,048	$377,776
Station 3	$1,676,200	$301,000
Station 4	$1,240,000	$50,000
Total	$10,431,748	$799,776

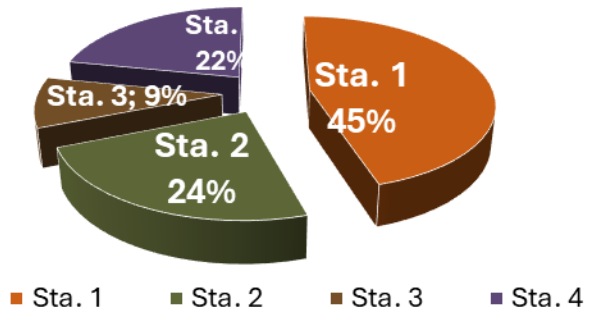
Table 3: 2022 Fire Loss by Station Response Area

2023 Station Response Area	Value of Property Affected	Estimated Fire Loss
Station 1	$37,649,700	$964,775
Station 2	$145,788,129	$448,000
Station 3	$1,001,000	$1,050
Station 4	$4,886,500	$265,400
Total	$189,325,329	$1,679,225

Table 4: 2023 Fire Loss by Station Response Area

2024 Station Response Area	Value of Property Affected	Estimated Fire Loss
Station 1	$1,206,300	$574,500
Station 2	$4,821,915	$13,900
Station 3	$99,100	$25,000
Station 4	$12,758,175	$460,000
Total	$18,885,490	$1,073,400

Table 5: 2024 Fire Loss by Station Response Area



2022-2024	Estimated Fire Loss	% of Total City Fire Loss
Station 1	$1,610,275	45%
Station 2	$839,676	24%
Station 3	$327,050	9%
Station 4	$775,400	22%
Total	$3,552,401	

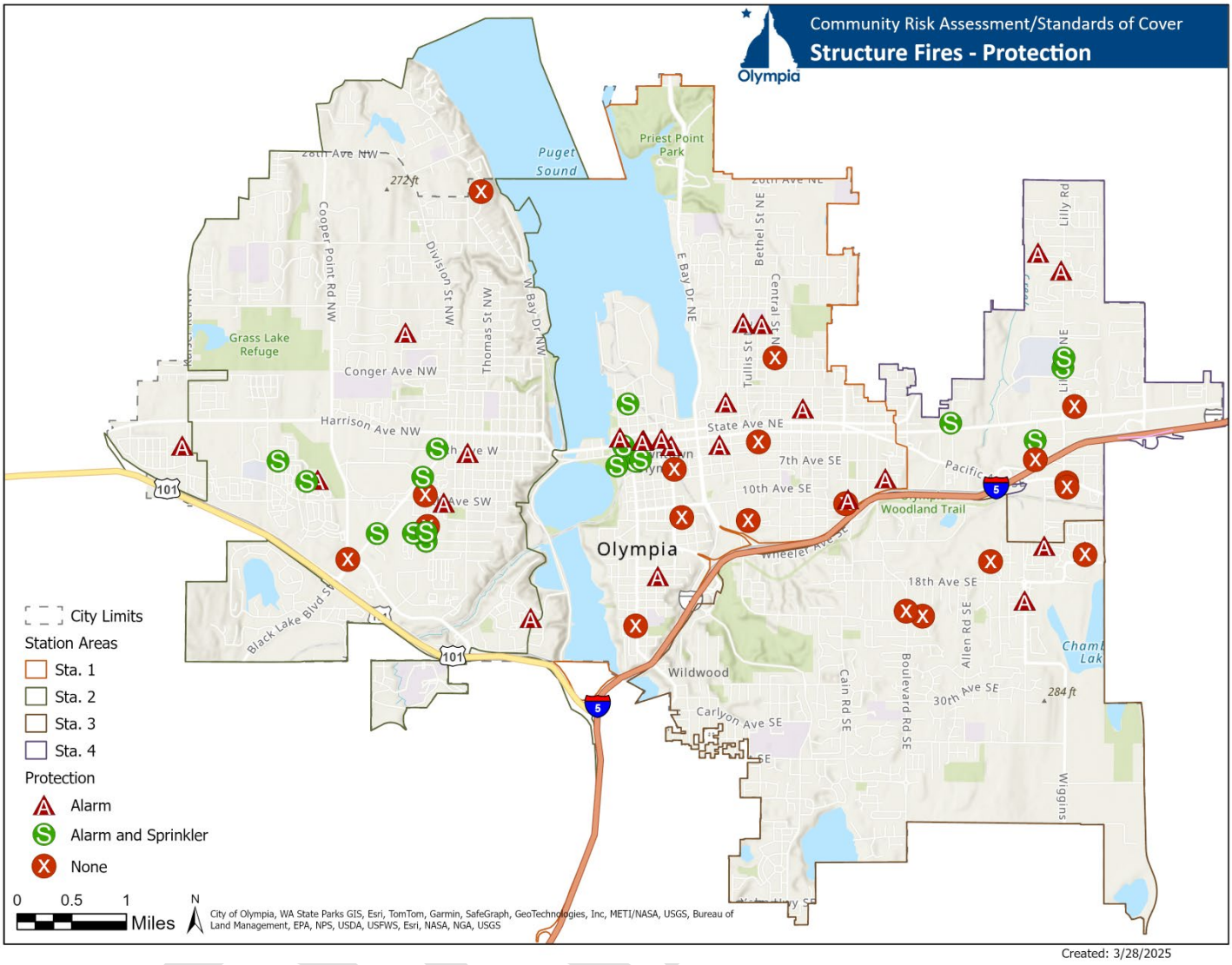
Table 6: 2022-2024 Fire Loss by Station Area

Station 1 with the highest estimated 3-year fire loss of $1,610,275, serves a densely developed area encompassing the State Capitol Campus, the Port of Olympia, and the downtown business core. This area's high daytime population of 37,136, combined with urban waterfront commercial and residential spaces, increases fire risk due to high occupancy rates, diverse land uses, and older infrastructure. The concentration of government buildings and critical facilities further elevates potential fire loss impacts.

Station 2 with an estimated 3-year fire loss of $839,676, covers the largest area (7.7 square miles) and the highest residential population (22,612). Its mix of residential, commercial, and medical facilities, including a hospital and urgent care, contributes to moderate fire loss levels. High-density corridors and mixed-use developments increase the complexity of fire response and potential property damage.

Station 3 reports the lowest fire loss at $327,050, reflecting its predominantly residential character, lower population density, and higher socioeconomic stability. With the highest median income ($104,341), the lowest poverty rate (2%), and the highest rate of owner-occupied housing (70%), this area benefits from well-maintained properties and a lower crime index. These factors likely reduce fire risks and associated losses.

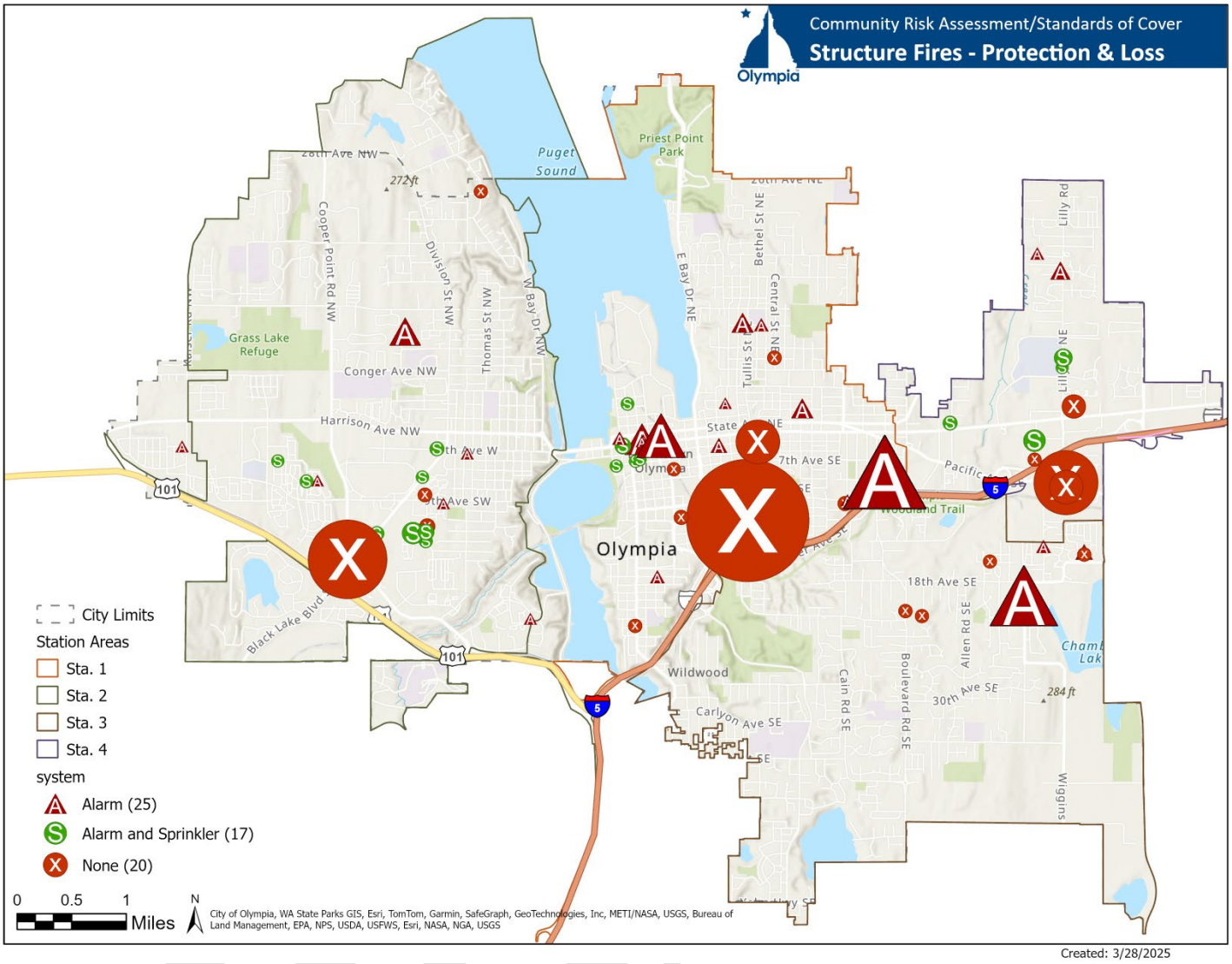
Station 4, despite being the smallest response area (2.2 square miles), has a significant estimated fire loss of $775,400. Its concentration on medical services, general commercial zoning, and high-density corridors along Martin Way and Pacific Ave influence this. The area's socioeconomic factors, such as the highest poverty rate (10%) and crime index (210), may also correlate with increased fire incidents and greater property vulnerability.



Map 9: 2022-2024 Structure Fires

Represented are structure fires (111) symbolized by presence of systems: Alarm, Alarm and Sprinkler, and None.

Sprinkler systems significantly reduce fire loss by automatically detecting and suppressing fires at their earliest stages, limiting the spread of flames, heat, and smoke. By activating only in the area affected by the fire, they control or extinguish the blaze before it can grow large enough to cause extensive damage. This rapid response not only protects property and reduces repair costs, but also provides valuable time for occupants to evacuate safely and for firefighters to arrive. As a result, buildings equipped with sprinkler systems experience dramatically lower fire-related losses and fatalities compared to those without them.



Map 10: 2022-2024 Structure Fires symbolized by Loss

Represented are structure fires (111) 2022-2024 symbolized by presence of systems: Alarm, Alarm and Sprinkler, and None, with the size of the symbology based on the property loss value.

Between 2022 and 2024, the City of Olympia responded to 966 fire calls, 64 of which involved house or building structure fires. Of these, 15 occurred in buildings equipped with sprinkler systems, while the remaining 49 took place in structures without such protection. The effectiveness of sprinkler systems in reducing fire loss is clearly reflected in the property damage data: the 15 sprinkler-protected buildings saw an estimated property loss of just $213,000, compared to a staggering $3,341,401 in losses for the 49 non-sprinklered structures. This stark contrast underscores how sprinkler systems play a critical role in minimizing fire damage. By detecting and suppressing fires early—often before they can spread—sprinklers contain the flames and reduce the intensity of the fire, which not only limits property loss but also enhances occupant safety and provides crucial time for emergency response. These statistics strongly support the value of sprinkler systems as an effective fire mitigation tool in protecting both lives and property.

Safety Remediation Programs

OFD identifies and documents all safety and remediation programs. These programs reside in the operations division or the CRR division.

Operations 911 Response

The fire department's operations division is the fire department's core, and it addresses all-hazard 911 response, fire and EMS training, and supporting public education events. Operations consist of 105 uniformed members.

Fire Suppression

The fire suppression program provides comprehensive fire suppression and emergency response to minimize loss of life and destruction of property due to fire. Fire suppression is achieved by rapidly deploying trained personnel on and with the appropriate equipment. OFD provides structural and wildland fire protection. All four stations have a Type 1 structural fire engine staffed with three firefighters. Station 1 has a 105-foot aerial ladder truck staffed with three firefighters. Station 4 has a Type 5 brush engine cross-staffed with engine 4. All suppression personnel have structural and wildland personal protective equipment (PPE).

Fire suppression medium risk first alarm structure fire responses (single-family detached) include three Type 1 engines, one truck, one on-duty battalion chief, and one medic unit or aid unit for a total of 17 personnel. Fire suppression high-risk first alarm structure fire responses (commercial, apartment complex, medium-rise, high-rise, assisted living) include five Type 1 engines, two trucks, two on-duty battalion chiefs, and three medic units and or aid units for a total of 28 personnel.

As with all emergency events, personnel manage incidents via the Incident Command System (ICS). Unified command is utilized with the Olympia Police Department, Washington State Patrol, and mutual aid agencies to enhance coordination and communication activities. Additional alarms are requested as needed by the incident commander.

Emergency Medical Services

Thurston County Medic One (TCMO) coordinates our county-wide Emergency Medical Services (EMS) response system. TCMO's coordination includes county and region system integration, procurement, staff training and support, system quality management, ambulance licensing, financial administration, and county-wide resident CPR training and education.

OFD is responsible for providing EMS to all residents and visitors within the city. The Thurston County EMS levy funds and supports OFD's EMS program. EMS is delivered using two tiers: Basic Life Support (BLS), Emergency Medical Technicians (EMTs), and Advanced Life Support (ALS) Paramedics. The engines, truck, and aid units provide BLS-level care, while the two OFD-operated medic units provide ALS-level care. The medic units provide ALS ground emergency transport services, while the aid units provide BLS ground emergency transport services. A non-profit EMS helicopter service, AirLift Northwest, provides air transport.

All OFD suppression personnel are state-licensed and county-certified EMTs or paramedics. The minimum level of response to EMS incidents is two personnel. OFD policies, TCMO standing orders, and protocols direct medical care to meet organizational and community expectations. Each apparatus contains a standardized level of EMS equipment based on their respective level of care (BLS vs. ALS). EMS equipment and medications are based on TCMO and OFD policies.

Wildland Fire

Most of the city is an urban environment with pockets of watershed, shoreline, and wildland-urban interface. Despite our city's relatively low wildfire risk, we have seen an increase in these events due to climate change.

All firefighters are provided wildland operational and safety training on an annual basis and are required to comply with the National Wildfire Coordinating Group (MWCG) 310-1 qualification guide for ICS assignments. OFD maintains a cooperative wildland agreement with the Washington State Department of Natural Resources (DNR) to further our capabilities.

Brush or grass fires are responded to with one type 1 engine. When the topography or limited access dictates, the Type 5 brush truck can respond. During the dry months (May to October), all front-line fire apparatus carry wildland personnel protective equipment and the necessary tools and equipment. OFD can request mutual assistance from our neighboring fire departments or DNR.

Technical Rescue

OFD provides technical rescue capabilities, including safely rescuing victims from life-threatening causes. The department responds with three-tiered levels of training (awareness, operations, and technician) for structural collapse, trench, confined space, high-angle rope rescue, vehicle extrication, hazmat, and water rescue. All department personnel are trained to the awareness level, with others at the operations and technician levels.

OFD is a Thurston County Special Operations Rescue Team (SORT) member. OFD has 12 members on the 45-person team. The SORT team primarily provides rescue services to Thurston County and Washington Homeland Security Region 3 (HSR3) counties, including Mason, Lewis, Grays Harbor, and Pacific counties. The SORT team is also available for statewide responses through the Washington All-Hazard Mobilization Plan and Emergency Mutual Aid Compact (EMAC).

The SORT team maintains a large cache of equipment strategically located throughout the core of Thurston County. Rescue O1 is a heavy rescue vehicle housed at Station O1.

Hazardous Materials

The department's uniformed personnel are trained and respond to hazardous material events at the operations level. Responders working at the operations level play a hands-on and defensive role in the initial phases of a hazardous materials response. Operation-level tasks include defensive measures to minimize spread by damming or diverting and using vapor dispersion and suppression. Safety is achieved through a basic understanding of chemical properties; air monitoring; technical and mass decontamination; evaluation and victim rescue assistance; and establishing hazard zones. When a higher level of capabilities is needed, OFD has a mutual aid agreement with the U.S. Army, Joint Base Lewis McChord, for technician-level hazardous materials response.

Marine and Shipboard Firefighting Services

Marine and shipboard firefighting is conducted from the shoreside. Our firefighter training is limited to land-based (shoreside) operations. We utilize and support existing fire suppression systems, exterior standpipes, and hose deployment for confinement and extinguishment. OFD applies this defensive model to pleasure boats, boats stored at marinas, and large ships moored at the Port of Olympia. OFD relies on mutual aid from fire departments with qualified and equipped marine firefighting resources for more significant incidents.

Community Risk Reduction

OFD embraces the philosophy of Community Risk Reduction (CRR) and has committed to this effort by making a significant investment in establishing our department's first CRR Division. OFD's CRR Division comprises three programs: The Fire Marshal's Office, CARES, and Emergency Management. CRR is the strategic process of identifying and prioritizing local risks, followed by the integrated and strategic investment of resources to reduce their occurrence and impact. CRR is accomplished by identifying and prioritizing fire and life safety risks, determining how to prevent or mitigate them, and focusing efforts and resources on reducing them. The CRR process requires collaboration with external stakeholders, increasing our department's presence and involvement in our community. CRR comprises a combination of uniformed and civilian members, totaling nine members.

Fire Marshal's Office

In addition to a highly skilled and well-equipped operations division for fire suppression, the OFD places significant emphasis on fire prevention. The Fire Marshal's Office (FMO) has four full-time uniformed personnel: an assistant chief (fire marshal), a captain (assistant fire marshal), and two fire prevention officers. The office also employs one business office specialist. The current fire marshal is an International Code Council (ICC) Certified Fire Marshal and a Certified Building Official. The current assistant fire marshal is an ICC-certified Fire Inspector II, and the fire prevention officers are ICC-certified Fire Inspector I.

The FMO fulfills these critical public safety functions of conducting annual life safety inspections of all commercial properties, completing fire safety plan reviews for all new construction projects within the city, investigating fires, and performing fire safety education. The FMO conducts life safety occupancy inspections for all city businesses, as well as plan reviews and new construction inspections for fire suppression systems. The FMO also manages the fire investigation program, which currently includes four investigators who are certified Fire Investigator Technicians (FIT).

The FMO collaborates with other city departments to conduct land use and development plan reviews, new construction plans, fire sprinklers, fire alarm construction permits, special permit inspections, fire investigation, and hazardous materials compliance.

The information learned from fire investigations is used to educate firefighters and the public about the specific causes of fires. This information is applied to mitigate future fires. The FMO conducts fire safety education through fire extinguisher training and evacuation planning for specific occupancy types (assemblies, high-rises, etc.) and provides fire education classes in Olympia for primary and secondary schools.

CARES

OFD recognizes an underserved population of citizens seeking aid for social and non-emergent medical needs. The Community Assistance Referral and Education Services (CARES) program offers a pathway between emergency services and applicable social service support programs. OFD CARES focuses on social well-being, physical health, and chronic illness to mitigate ongoing concerns and frequent 911 usage. CARES supports the needs of our community by providing short-term case management services and tailored treatment planning that meets individual needs.

Through compassionate and professional care, the CARES team is dedicated to elevating assistance and education services in a way that meets people where they are and where they hope to be. Clients receive sustainable tools and connections to culturally competent social service and mental health professionals, community resources, and health care providers available to provide long-term services and assistance.

The CARES team strives to support a healthier community and reduce reliance on the 911 system and local emergency departments for non-acute concerns. This goal is accomplished through advocacy, assistance, education, and mobile-integrated healthcare.

Emergency Management Program

Washington State law requires city government to establish and maintain a disaster prevention, mitigation, preparedness, response, and recovery program. The fire department's emergency management program is responsible for planning and coordinating response during major emergencies and/or disasters. Depending on the nature of the scope of an incident, city personnel, services, and facilities may be reassigned to support emergency and disaster operations.

The emergency management program maintains a Comprehensive Emergency Management Plan (CEMP). The CEMP was developed to define the policies and procedures necessary for an emergency management program. The CEMP outlines the duties of each city department and various supporting agencies. The CEMP also defines how the City of Olympia will coordinate with neighboring cities and towns, Thurston County, Washington State, and federal agencies.

The City of Olympia is included in the 4th Edition Hazard Mitigation Plan (HMP) for the Thurston Region. The HMP outlines a multijurisdictional strategy to reduce the risks of the most destructive natural hazards threatening Thurston County, such as floods, earthquakes, and wildfires. Implementing the plan's goals, policies, and actions will minimize losses and protect the people and community assets from future disasters.

The incident command system is used to coordinate and manage information and resources. The primary Emergency Operations Center (EOC) is at fire station 1 and is staffed by members of the Emergency Management Committee.

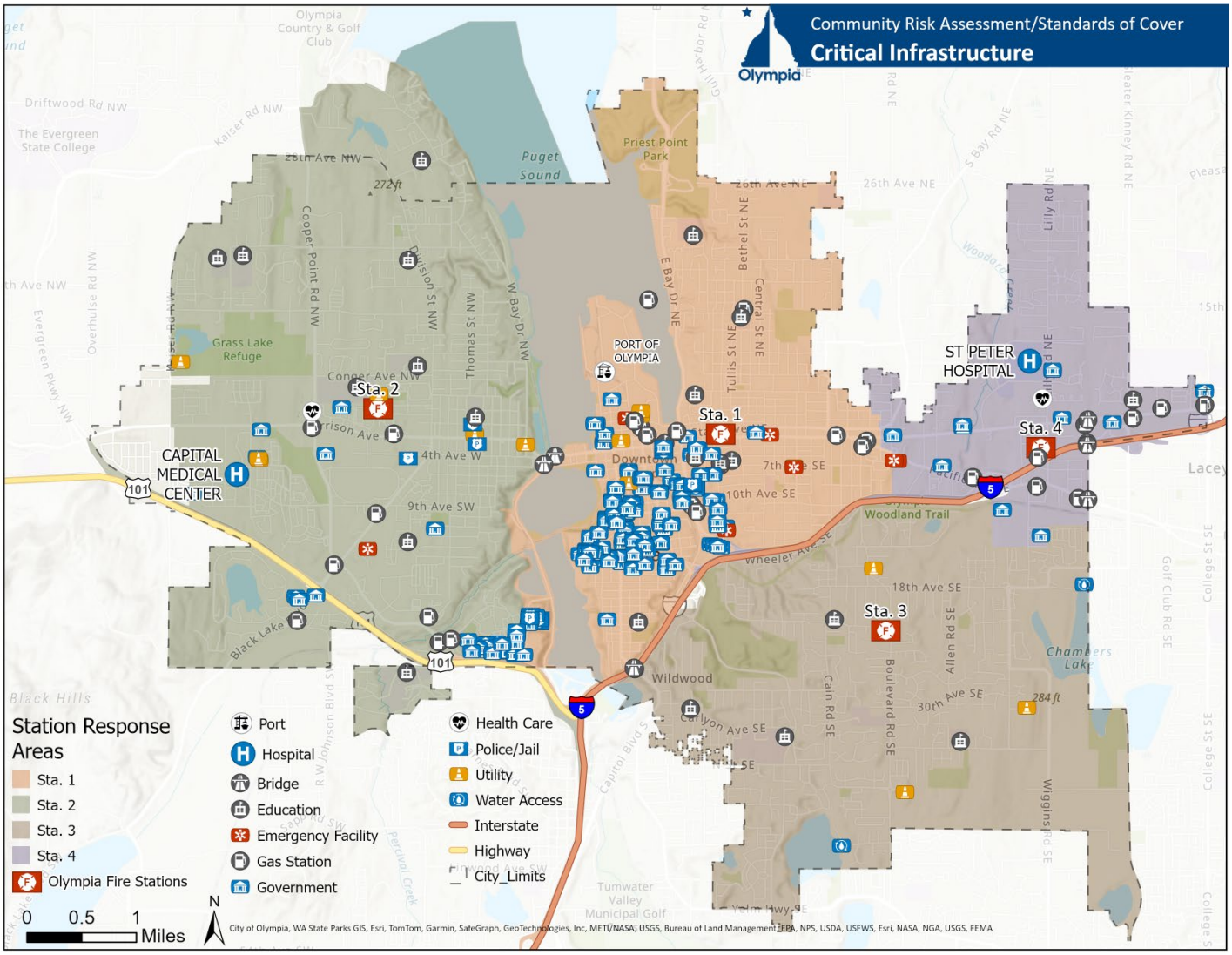
Public Outreach

Public Outreach and Education Events	2023	2024
Station 1	39	68
Station 2	13	22
Station 3	11	16
Station 4	5	8
Grand Total	**68**	**114**

Table 7: Public Outreach by Station Response Area

Public outreach is a vital component of the Olympia Fire Department's Community Risk Reduction program and is carried out year-round through the combined efforts of Operations, CARES, and the Fire Marshal's Office. As a core element of the department's mission, outreach fosters strong community relationships, allowing OFD to better understand the needs and challenges of the people we serve—building a foundation for a safer, more resilient community through collaboration. Each station plays a unique role in this effort: Station 1 leads in citizen ride-alongs, school and preschool tours, car seat checks, and hosts major community events such as Lakefair and the Hands On Children's Museum. Station 2 contributes through school visits, public events, and engine appearances at local schools. Station 3 focuses on outreach to Olympia School District, supporting high school functions and engaging with surrounding neighborhoods. Station 4 participates in ride-alongs, fall prevention programs, and local community events. However, data shows a need for expanded engagement in the Station 4 service area. In response, the CARES unit and the Fire Marshal's Office are prioritizing increased outreach efforts in this region in 2025 to ensure all Olympia neighborhoods benefit equally from public education and risk reduction initiatives.

Community Critical Infrastructure



Map 11 Critical Infrastructure:

The characteristics of the station areas vary significantly based on the distribution of critical facilities.

Station 1 has the highest concentration of critical infrastructure facilities with a dominant presence of government buildings, followed by education institutions and gas stations. Station 1 also hosts multiple emergency facilities, utilities, and bridges, making it a central hub for essential services.

Station 2 has a balanced mix of critical facilities, including government buildings, healthcare centers, and educational institutions, alongside other essential services. Station 3 is the least dense with critical facilities comprising education and utilities, with additional water access points. Station 4 has critical infrastructure facilities include government facilities, healthcare centers, gas stations, and bridges.

This distribution highlights Station 1's prominence as a critical infrastructure center, while Stations 2, 3, and 4 serve more specialized or localized roles.

Tier II Hazardous Substance Sites

Tier II reporting is an annual requirement under the Emergency Planning and Community Right-to-Know Act (EPCRA) for facilities that store or handle hazardous chemicals in quantities above certain thresholds. These reports provide information about hazardous chemicals, storage locations, and emergency contact information to help local emergency responders and planning committees prepare for potential chemical emergencies.

The City of Olympia has 31 sites submitting Tier II Hazardous substance reports annually.

OFD receives Tier II Hazardous Material reports annually from locations with this requirement. The Tier II reports are attached to the Occupancy record in the ESO Records Management system. Occupancy records including this Tier II report are available to first responders on tablets in the response units through ESO.

Tier II Reporting	Sta. 1	Sta. 2	Sta. 3	Sta. 4
Section 312 Tier Two Site	4	3	0	6
Sec 302 Extremely Hazardous Substance Site	9	3	1	5
Grand Total	**13**	**6**	**1**	**11**

Table 8: Tier II Hazardous Substance Sites

All-Hazard Risk Assessment and Response Strategies

Risk Assessment Methodology

OFD has developed and adopted a methodology for identifying the category and classification of fire and non-fire risk across the City of Olympia. The methodology as described in this document included analysis of 3 years of historical response data including emergency response as well as outputs from the Fire Marshal's Office, administration, public outreach, community engagement and demographics, as well as researching industry standards and attending educational seminars on the best practices of quality improvement and development of a Community Risk Assessment and Standard of Cover.

The Fire Marshal's office analyzed all inspected commercial occupancies. Risk scores were created using a Risk Assessment Fire Emergency Response (RAFER) spreadsheet which classified risk factors based on occupancy type, life hazard and impact to the community.

As a result of this analysis it has been determined that the deployment strategy meets the response, prevention and mitigation needs of the community, while the performance gaps and areas that need improvement are identified along with a plan for ongoing analysis.

Historical Service Demands

The historical emergency and non-emergency service demands for three previous years by service type, have been identified and documented by station response area.

The probability of hazard events occurring that drive emergency responses is a foundational component of a risk assessment and analysis process. Non-emergency operations are analyzed for frequency of occurrence that may have an influence on related resource demands. Probability is determinable by a review and analysis of historical events and a trend projection from those histories.

The three-year history is documented to establish credible trends. A consistent ongoing annual process will support determining and predicting future response demands.

Citywide Service Demands

Incident Type	2022	2022 % of Total	2023	2023 % of Total	2024	2024 % of Total	3 Year TOTALS	
Fire	261	1.93%	397	2.74%	308	2.07%	966	2.25%
Explosion	7	0.05%	2	0.01%	11	0.07%	20	0.05%
EMS/Rescue	8920	65.84%	9826	67.86%	10383	69.85%	29129	67.91%
Hazard Condition	116	0.86%	126	0.87%	163	1.10%	405	0.94%
Service Call	1498	11.06%	1256	8.67%	1431	9.63%	4185	9.76%
Good Intent Call	2089	15.42%	2141	14.79%	1739	11.70%	5969	13.92%
Alarm Activation	647	4.78%	727	5.02%	820	5.52%	2194	5.12%
Severe Weather	8	0.06%	3	0.02%	8	0.05%	19	0.04%
Special/Misc	1	0.01%	1	0.01%	2	0.01%	4	0.01%
Total Incidents	13,547		14,479		14,865		42,891	

Table 9: 2022-2024 Service Demands by Incident Type

Station 1 Service Demands

Incident Type	2022	2022 % of Total	2023	2023 % of Total	2024	2024 % of Total	3 Year TOTALS	
Fire	71	1.76%	123	2.85%	81	1.88%	275	2.17%
Explosion	2	0.05%		0.00%	5	0.12%	7	0.06%
EMS/Rescue	2588	64.15%	2790	64.60%	2955	68.48%	8333	65.78%
Hazard Condition	50	1.24%	44	1.02%	61	1.41%	155	1.22%
Service Call	402	9.97%	305	7.06%	307	7.11%	1014	8.00%
Good Intent Call	716	17.75%	821	19.01%	658	15.25%	2195	17.33%
Alarm Activation	199	4.93%	235	5.44%	245	5.68%	679	5.36%
Severe Weather	5	0.12%	1	0.02%	2	0.05%	8	0.06%
Special/Misc	1	0.02%	0	0.00%	1	0.02%	2	0.02%
Total Incidents	4,034		4,319		4,315		12,668	

Table 10: 2022-2024 Station 1 Response Area Service Demands by Incident Type

Station 2 Service Demands

Incident Type	2022	2022 % of Total	2023	2023 % of Total	2024	2024 % of Total	3 Year TOTALS	
Fire	60	1.32%	133	2.61%	112	2.21%	305	2.07%
Explosion	2	0.04%	1	0.02%	2	0.04%	5	0.03%
EMS/Rescue	3085	68.09%	3587	70.28%	3651	72.04%	10323	70.21%
Hazard Condition	34	0.75%	43	0.84%	54	1.07%	131	0.89%
Service Call	476	10.51%	443	8.68%	405	7.99%	1324	9.00%
Good Intent Call	611	13.48%	615	12.05%	530	10.46%	1756	11.94%
Alarm Activation	262	5.78%	280	5.49%	312	6.16%	854	5.81%
Severe Weather	1	0.02%	2	0.04%	2	0.04%	5	0.03%
Special/Misc	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Total Incidents		4,531		5,104		5,068		14,703

Table 11: 2022-2024 Station 2 Response Area Service Demands by Incident Type

Station 3 Service Demands

Incident Type	2022	2022 % of Total	2023	2023 % of Total	2024	2024 % of Total	3 Year TOTALS	
Fire	26	1.77%	28	1.98%	11	0.75%	65	1.52%
Explosion	2	0.14%	1	0.07%	0	0.00%	3	0.07%
EMS/Rescue	1005	68.23%	1007	71.07%	1090	74.40%	3102	72.43%
Hazard Condition	19	1.29%	22	1.55%	24	1.64%	65	1.52%
Service Call	199	13.51%	178	12.56%	162	11.06%	539	12.58%
Good Intent Call	167	11.34%	124	8.75%	107	7.30%	398	9.29%
Alarm Activation	54	3.67%	57	4.02%	68	4.64%	179	4.18%
Severe Weather	1	0.07%	0	0.00%	3	0.20%	4	0.09%
Special/Misc	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Total Incidents		1,473		1,417		1,465		4,283

Table 12: 2022-2024 Station 3 Response Area Service Demands by Incident Type

Station 4 Service Demands

Incident Type	2022	2022 % of Total	2023	2023 % of Total	2024	2024 % of Total	3 Year TOTALS	
Fire	104	2.96%	113	3.11%	104	2.59%	321	2.88%
Explosion	1	0.03%	0	0.00%	4	0.10%	5	0.04%
EMS/Rescue	2242	63.89%	2442	67.11%	2687	66.89%	7371	66.02%
Hazard Condition	13	0.37%	17	0.47%	24	0.60%	54	0.48%
Service Call	421	12.00%	330	9.07%	557	13.87%	1308	11.72%
Good Intent Call	595	16.96%	581	15.97%	444	11.05%	1620	14.51%
Alarm Activation	132	3.76%	155	4.26%	195	4.85%	482	4.32%
Severe Weather	1	0.03%	0	0.00%	1	0.02%	2	0.02%
Special/Misc	0	0.00%	1	0.03%	1	0.02%	2	0.02%
Total Incidents		3,509		3,639		4,017		11,165

Table 13: 2022-2024 Station 4 Response Area Service Demands by Incident Type

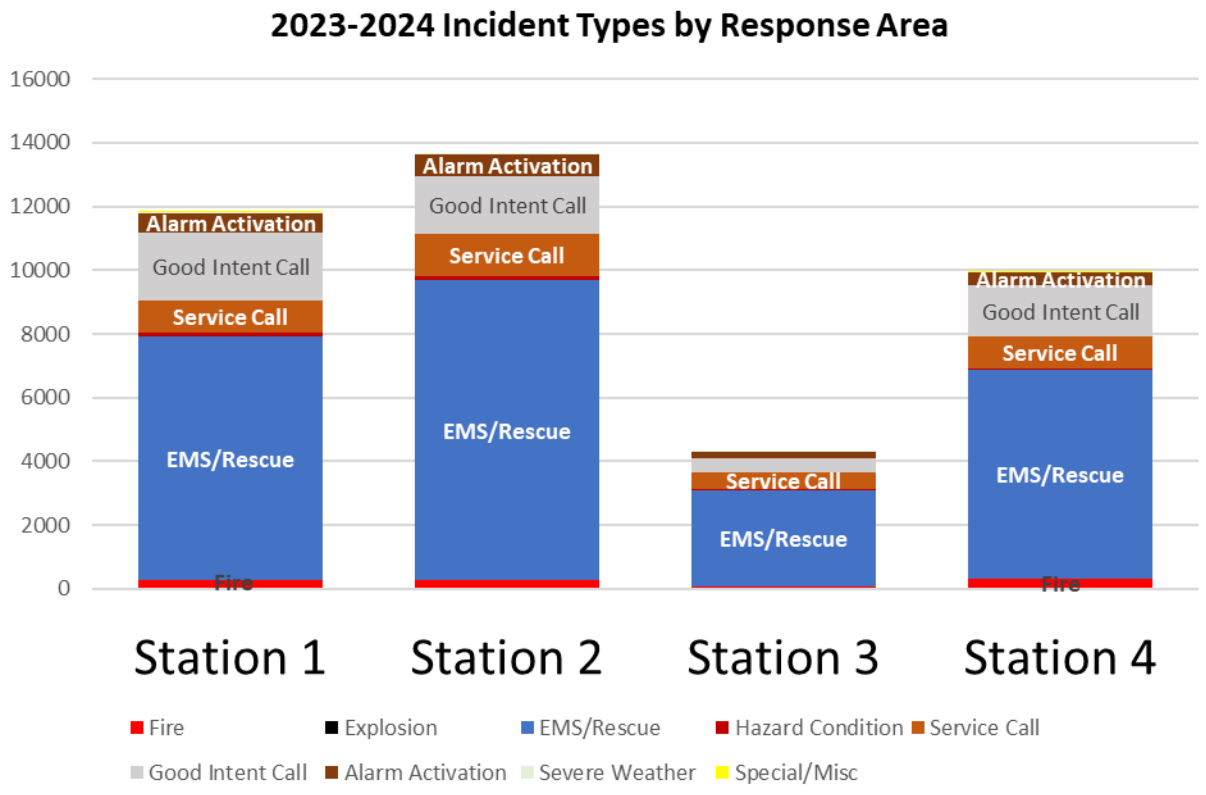


Figure 44: Chart of 2023-2024 Incident types by Response Area

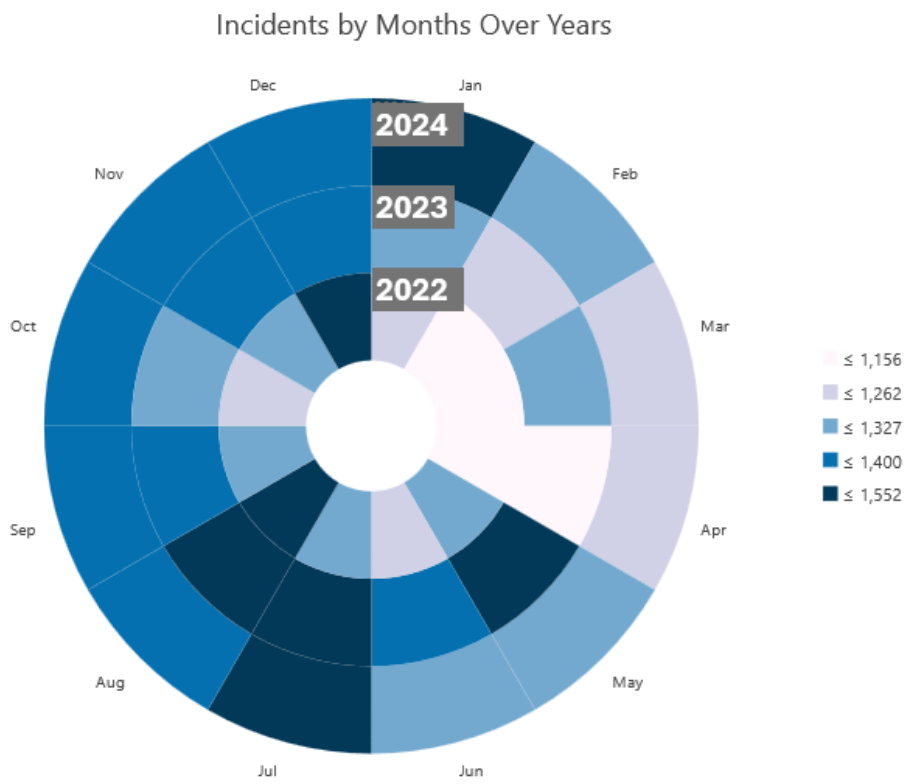
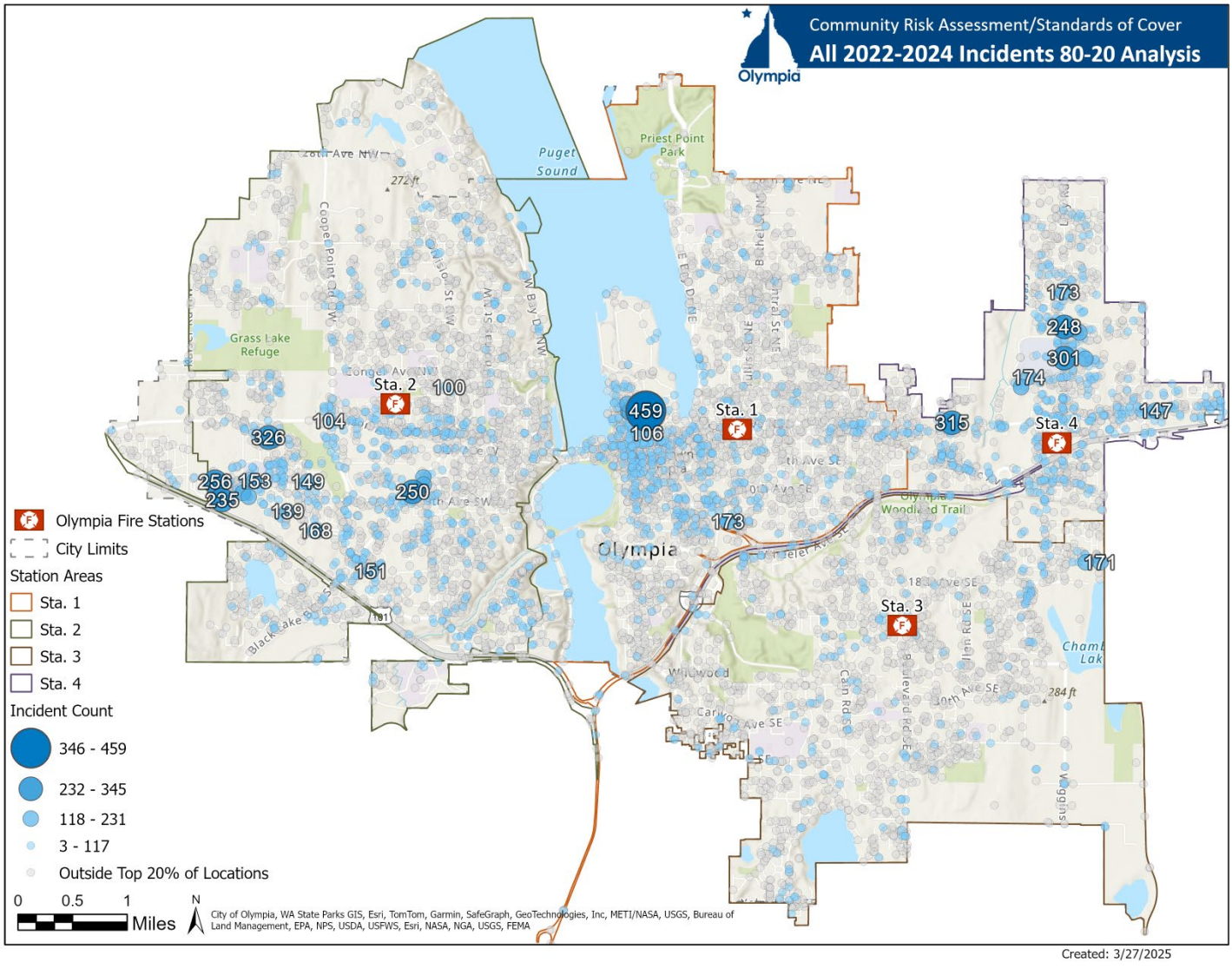


Figure 45: Incidents by Months over Years

The month of July and August are our busiest while March and April have historically seen lower call volumes.

Historical Service Clusters

The map displayed in this section show the results of an 80-20 analysis. The 80/20 rule is a theoretical concept in which a large majority of incidents occur at a small minority of locations. For example, 80 percent of incidents at 20 percent of locations. This is helpful to determine where are the highest risk locations. The locations represent the downtown core, and elder care and supportive housing locations in the Station 2 and 4 response areas.



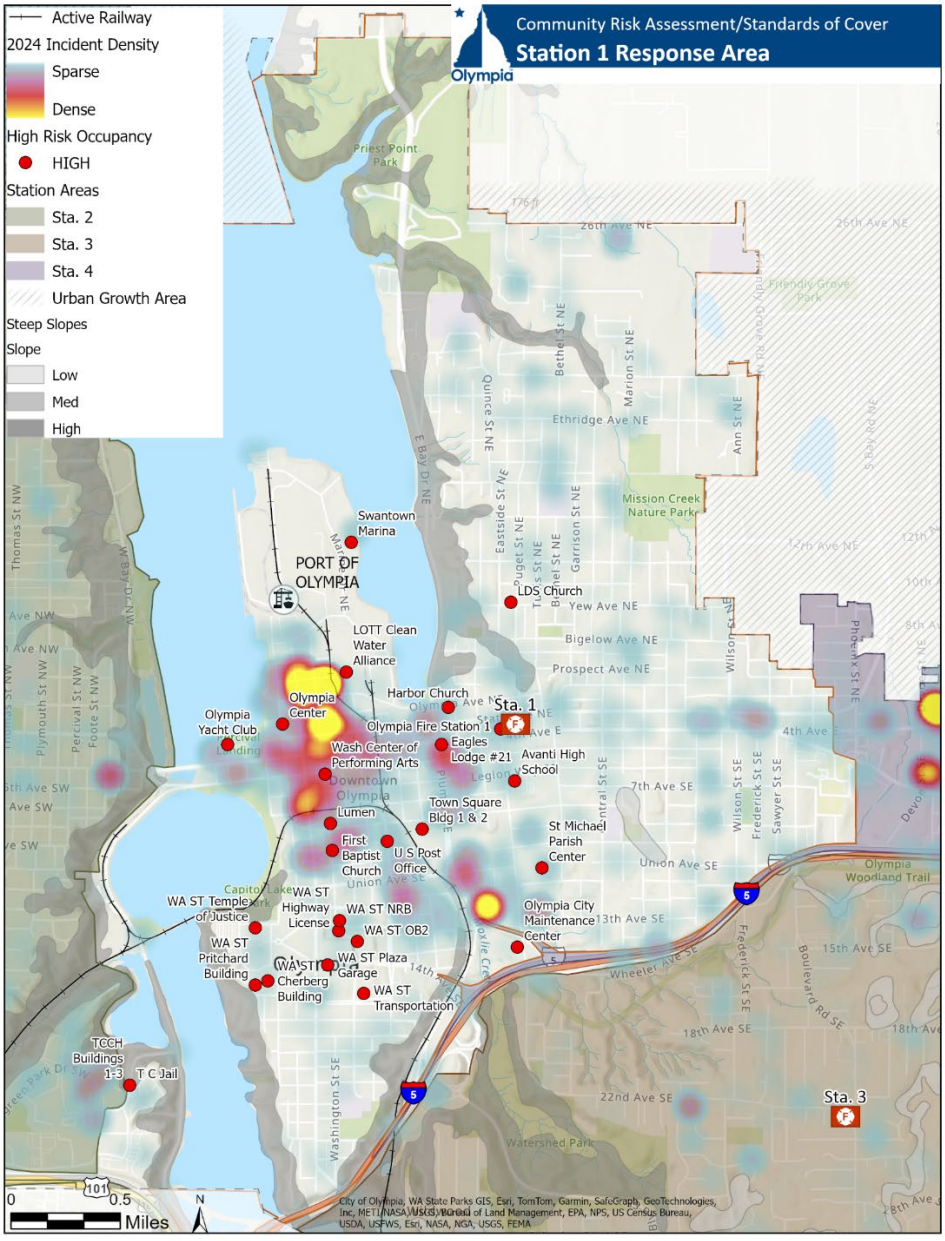
Map 12: 2022-2024 20-20 Analysis Incident Locations

Represented are 42,048 Incidents 2022-2024.

Station Response Area Characteristics

The following maps were created as a profile of each Station Area to show the occupancies in each station area that have been identified as high risk using a Risk Assessment Fire Emergency Response (RAFER) score, overlayed with incident call volume density and the higher risk and rescue challenges in areas with steeper slopes.

Station 1 Response Area Characteristics



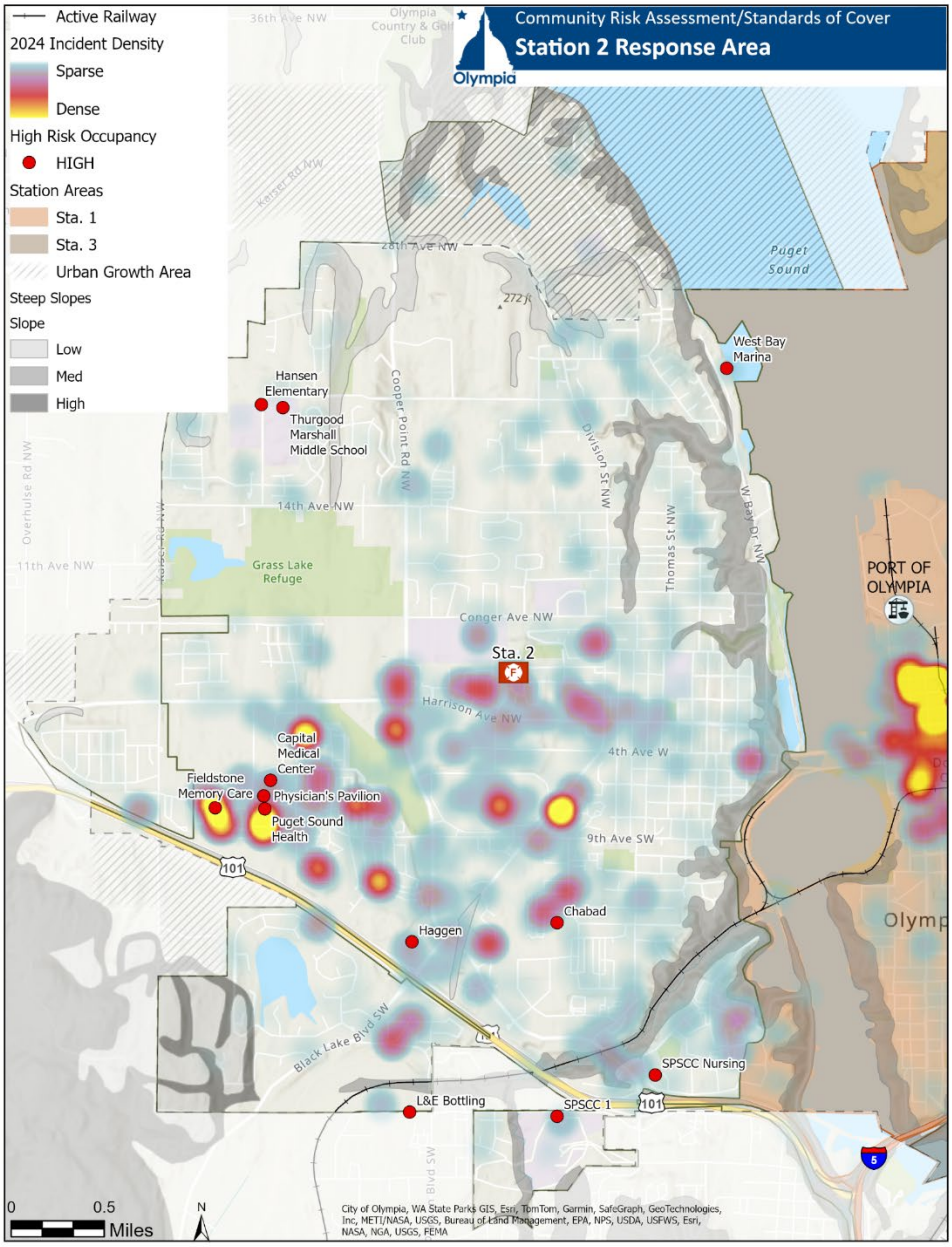
Map 13: Station 1 Response Area Incident Heat Map

The Station 1 Response Area is the location of the State Capitol, several marinas, critical infrastructure, and the Port of Olympia. In the three year time frame 2022-2024, OFD responded to 12,668 incidents in this area,

our inspectors performed 2,399 occupancy inspections, and the Fire Marshal's office reviewed 559 development plans. This area faces significant flooding risks due to its low-lying geography and infrastructure built on fill material dredged from Budd Inlet and is particularly vulnerable to tidal flooding, especially during high tides, heavy rains, and low barometric pressure events. During flooding events OFD is an integral part of a unified City response to mitigate any danger to the community and protect property.

In addition to the critical infrastructure, high service demand, and high concentration of high risk buildings, there are location in this response area with steep slopes that present danger to the community and present challenges for the firefighters when responding to these areas. Some of the locations in the station 1 response area that we see higher incident response volume include the locations of community support solutions such as the food bank and supportive housing. The state capitol buildings and garages present unique challenges to the firefighters response. The Fire Marshal's office and training division are continually assessing these risks and educating our members on the best response strategies in those areas.

Station 2 Response Area Characteristics



Map 14: Station 2 Response Area Incident Heat Map

The Station 2 Response Area is the location of the Capital Medical Center Hospital, Capitol High School, a large shopping complex including the Westfield Capital Mall, the South Puget Sound Community College, residential areas and Ken Lake. In the three year time frame 2022-2024, OFD responded to 14,703 incidents in this area, our inspectors performed 2,233 occupancy inspections, and the Fire Marshal's office reviewed 504 development plans.

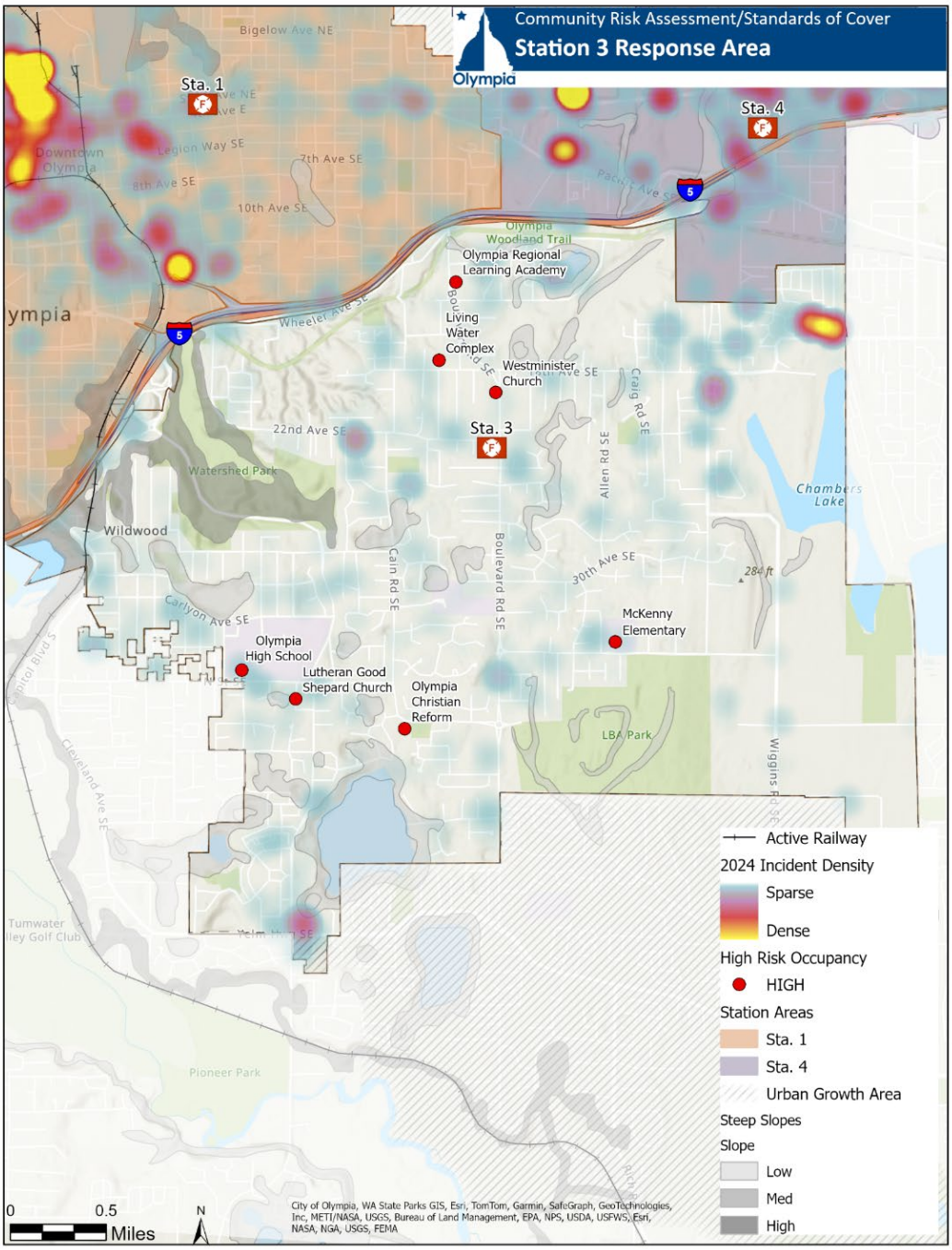
The station 2 response area has locations with access challenges due to steep slopes, which necessitate extra training and equipment as well as additional resources for rescue and fire response. The Percival creek area

along the eastern edge of this response area is of particular concern. OFD addresses these challenges by ensuring the membership has the appropriate tools and training to serve and protect the community.

The City of Olympia's Capital Mall Triangle Subarea Plan envisions transforming the current commercial district in the station 2 response area into a mixed-use urban neighborhood over the next 20 years. This redevelopment aims to introduce higher-density housing, enhanced public spaces, improved pedestrian and transit infrastructure, and a more connected street grid . The increased population density and mixed-use developments will likely lead to higher call volumes and more complex emergency response scenarios, necessitating strategic planning for resource allocation and potential station relocations or upgrades. Furthermore, the introduction of taller buildings and denser construction could impact fire suppression strategies, requiring updated training, equipment, and possibly the construction of additional fire stations to maintain adequate response times and coverage.

To address these challenges, the OFD is actively participating in the planning process, collaborating with city planners to ensure that fire safety considerations are integrated into the development framework. This proactive approach aims to align the fire department's capabilities with the evolving needs of the community, ensuring that the Capital Mall Triangle's transformation enhances both the quality of life for residents and the safety of the area.

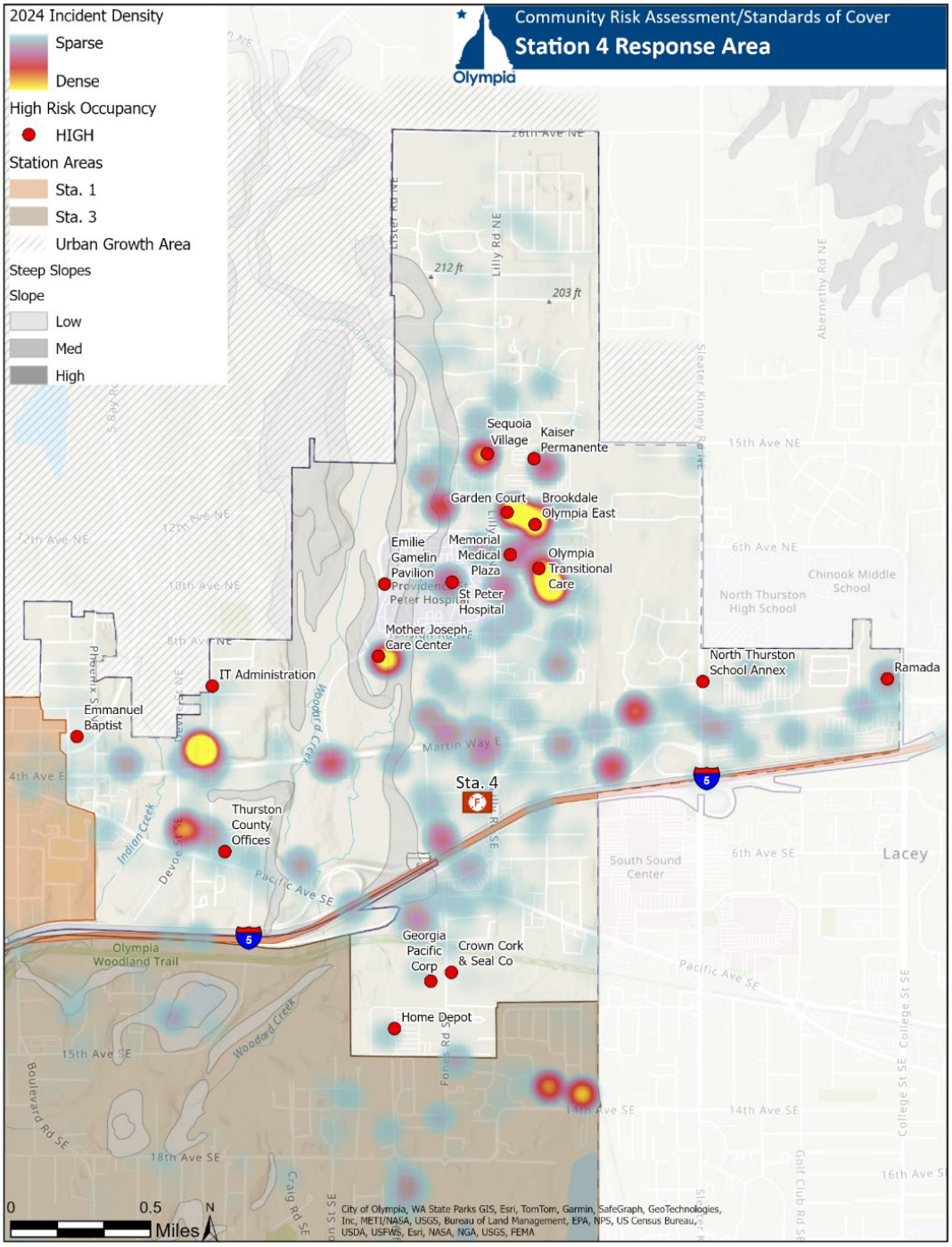
Station 3 Response Area Characteristics



Map 15: Station 3 Response Area Incident Heat Map

The Station 3 Response Area is the location of the Olympia High School, as well as several other schools and churches as well as LBA and Watershed park. Watershed park is a 153 acre park with some significant slopes, providing some access challenges for incident response. Development in the past three years has increased the amount of senior housing in this area. In the three year time frame 2022-2024, OFD responded to 4,283 incidents in this area, our inspectors performed 249 occupancy inspections, and the Fire Marshal's office reviewed 186 development plans.

Station 4 Response Area Characteristics



Map 16: Station 4 Response Area Incident Heat Map

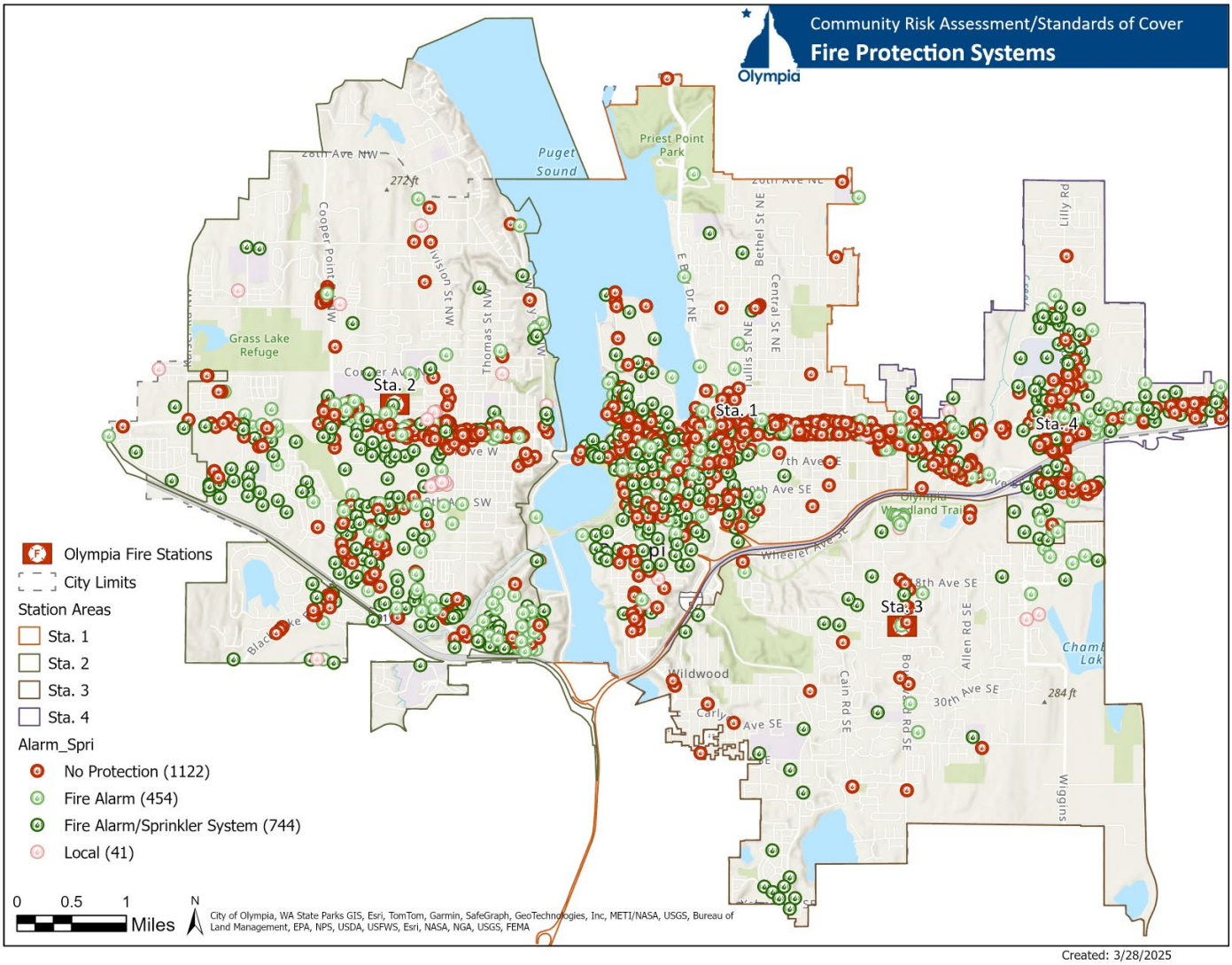
The Station 4 Response Area is the location of St. Peter Hospital, numerous medical facilities and senior care homes, several industrial facilities, and supportive housing locations as well as a large partially wooded area with an unofficial camping community. In the three year time frame 2022-2024, OFD responded to 11,165 incidents in this area, our inspectors performed 1,179 occupancy inspections, and the Fire Marshal's office reviewed 361 development plans.

Outputs and Outcomes

OFD continuously evaluates whether its outputs—such as staffing levels, apparatus deployment, station placement, and budget allocations—effectively support the community's desired outcomes: reduced loss of life, minimized property damage, and improved public safety and resilience. During 2022--2024 OFD responded to 42,891 total incidents, including 966 fires, 29,129 medical emergencies, and 425 hazardous situations. The department's strategic placement of four stations, combined with 107 uniformed personnel, 5 front-line apparatus, 2 transport capable basic life support Aid units and 2 paramedic advanced life support units, directly impacts response times and service coverage. Data shows that sprinkler-equipped buildings experienced significantly less property loss ($213,000) compared to non-sprinklered structures ($3,341,401), underscoring how targeted prevention and protection systems contribute to better outcomes. These findings highlight the value of aligning fire department outputs with measurable outcomes and demonstrate the need for continued investment in risk management strategies—ranging from emergency response and fire suppression to public education and code enforcement—to mitigate the critical impacts of fire and other emergencies in the community.

Fire Protection Systems Considerations

The City of Olympia began requiring fire sprinkler systems in all new residential construction on July 1, 2014. This mandate was enacted by the City Council in May 2013, reflecting a commitment to enhancing life safety and reducing fire-related risks in the community. The requirement applies to new single-family homes, accessory dwelling units (ADUs), and certain residential structures undergoing significant alterations or reconstruction. The ordinance aligns with the National Fire Protection Association (NFPA) 13D standards and is enforced under the Washington State Building Code, specifically RCW 18.160. Notably, Olympia is one of only eight cities in Washington state to implement such a mandate, underscoring its proactive approach to fire prevention and public safety. This recognizes the significant value of those systems for reducing or mitigating incident probabilities and consequences in the risk analysis and classification process. The resulting lower risk also allows potential reductions in resource demands, both human and physical.

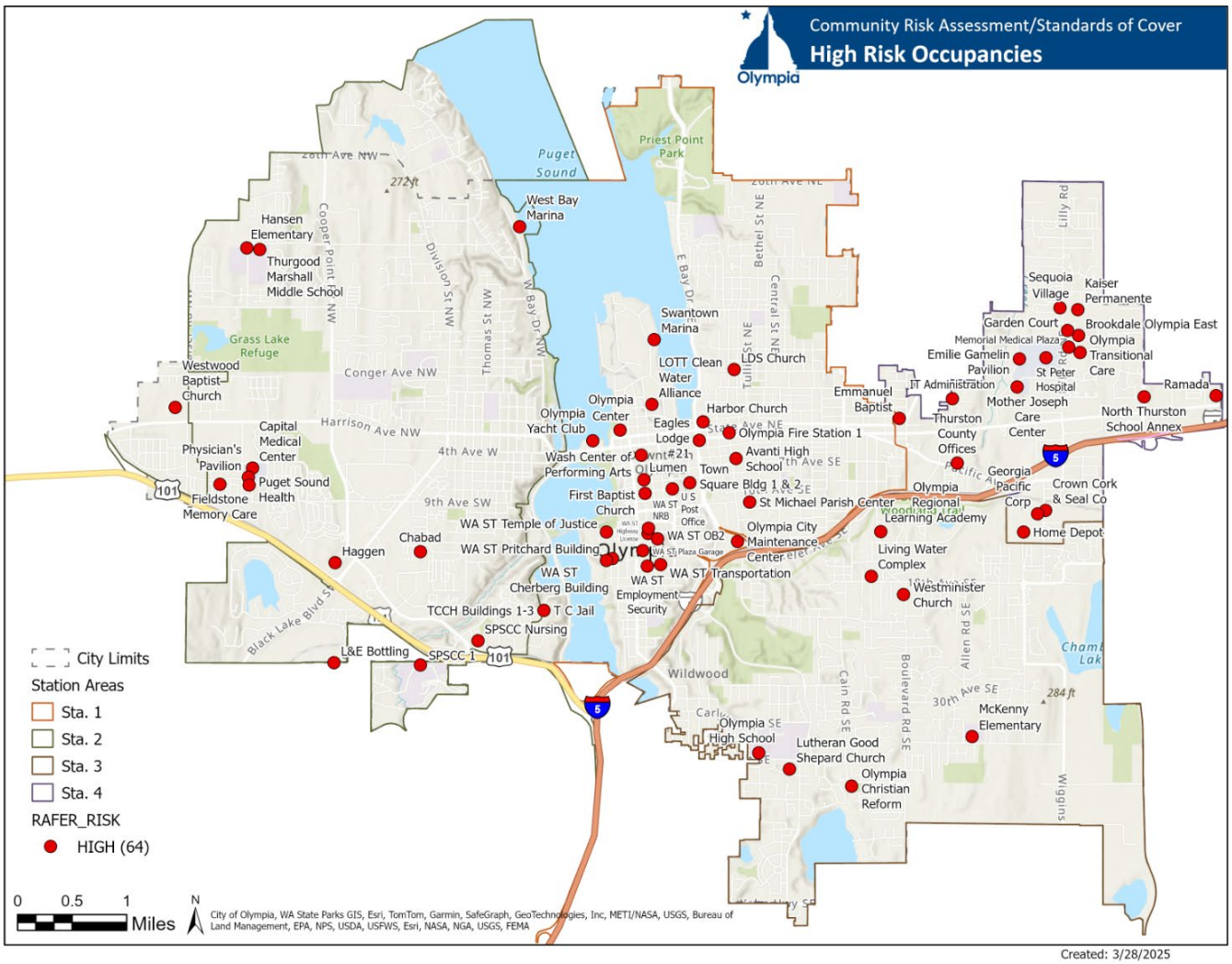


Map 17: Commercial Occupancies Fire Protection Systems

Fire Protection	Sta. 1	Sta. 2	Sta. 3	Sta. 4
No Protection	501	332	25	264
Fire Alarm	180	136	18	121
Fire Alarm/Sprinkler System	232	347	31	134
Local	17	20	3	2
Grand Total	**930**	**835**	**77**	**521**

Table 14: Fire Protection Systems by Station Response Area

The Fire Marshal's Office has conducted an analysis of 2,322 commercial occupancies in the City and given each occupancy a risk score based on the following criteria: life hazard (# of occupants), community impact, hazard index, water supply, building usage, building construction, number of stories, and square footage, and presence of extinguishing systems. This resulted in a risk score of Low, Medium, or High for each occupancy. As a result of this analysis, the Fire Marshal's office is currently working on restructuring the inspection schedules to use the risk score as a factor in determining the frequency of inspection.



Map 18: High Risk Commercial Occupancies

RAFER RISK	Sta. 1	Sta. 2	Sta. 3	Sta. 4
HIGH	26	13	7	18
LOW	346	369	15	259
MEDIUM	541	439	54	235
Grand Total	**913**	**821**	**76**	**512**

Table 15: Risk Scores for Commercial Occupancies by Station Response Area

The City of Olympia Fire Marshal's Office plays a crucial role in the city's development process by reviewing and approving building plans to ensure compliance with fire safety codes and regulations. This involvement is integral to maintaining public safety and minimizing fire risks in both new constructions and significant renovations.

The Fire Marshal's Office collaborates closely with the Community Planning and Development Department, providing fire code expertise during the permit review process. They assess various aspects of proposed projects, including building design, materials, and access routes, to ensure they meet the necessary fire safety standards. This proactive approach helps identify potential hazards early in the planning stages, allowing for timely modifications that enhance safety.

Additionally, the Fire Marshal's Office contributes to the city's broader planning efforts, such as the Olympia 2045 Comprehensive Plan. Through this involvement, they help shape policies that integrate fire safety considerations into the city's long-term development strategies, ensuring that growth and infrastructure improvements align with best practices in fire prevention and emergency response.

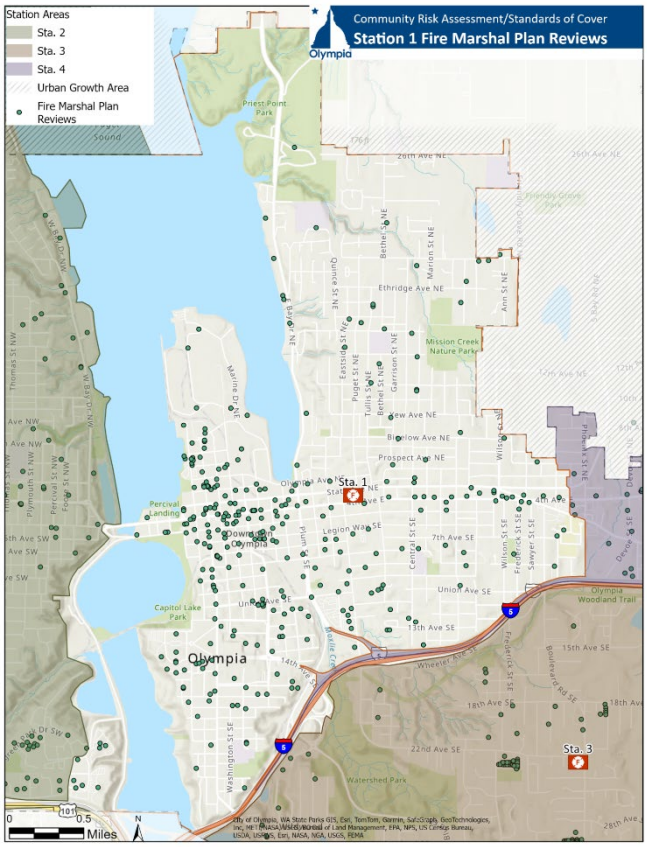
By actively participating in the planning and review processes, the Fire Marshal's Office ensures that Olympia's development is both safe and sustainable, protecting residents and property from fire hazards.

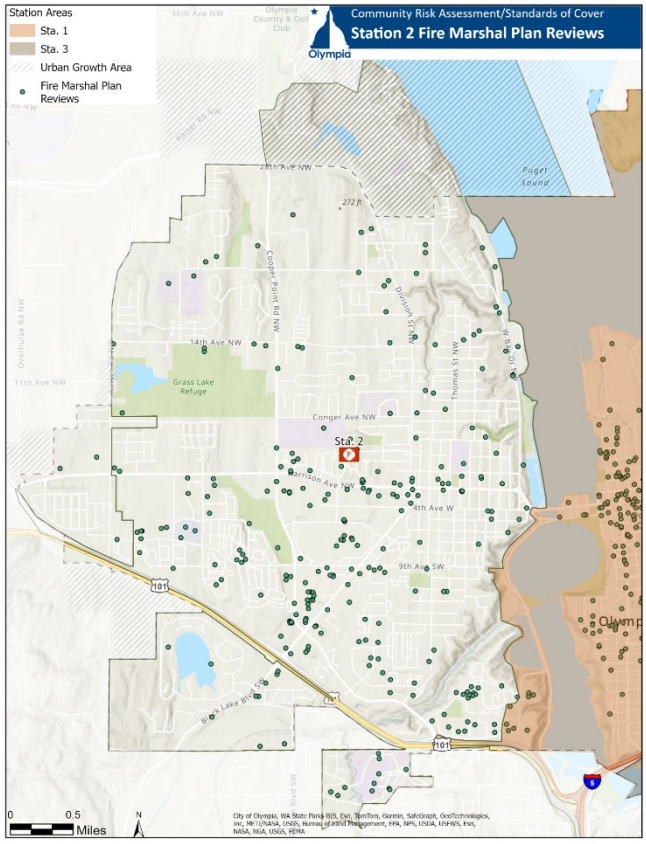
Fire Marshal Plan Review	2022-2024
Station 1	559
Station 2	504
Station 3	186
Station 4	361
Grand Total	**1,610**

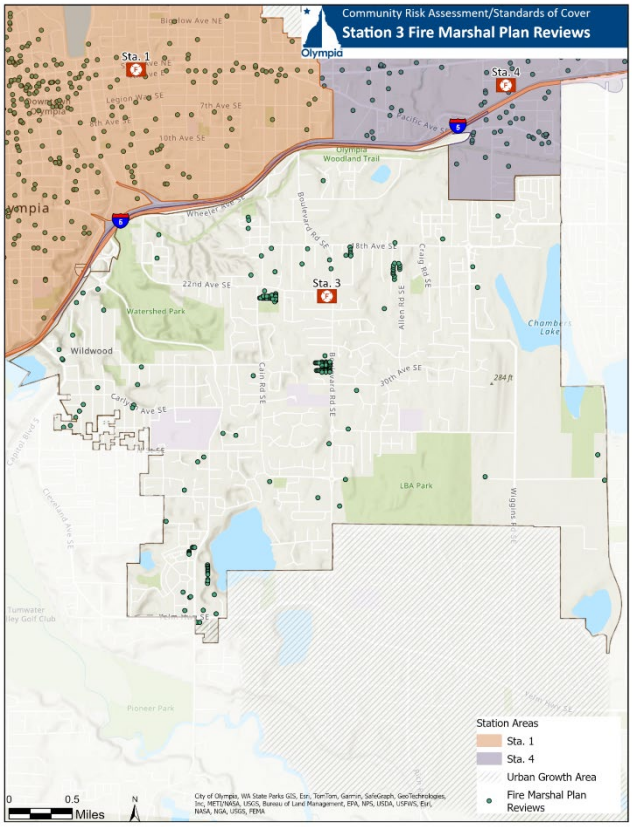
Table 16: 2022-2024 Fire Marshal Plan Review by Station Area

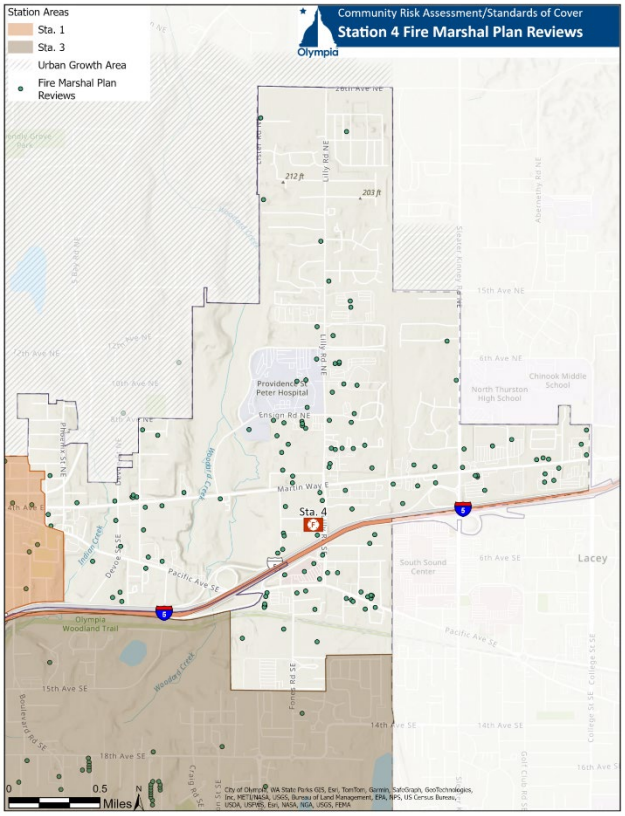
Between 2022 and 2024, the Fire Marshal's Office conducted a total of 1,610 plan reviews across a wide range of project types, reflecting the department's ongoing role in supporting safe community development and construction. The most frequent review types included Tenant Improvements (292 reviews), Mechanical Commercial (239), Fire Alarm systems (234), and Fire Sprinkler – Residential (187). Other consistently reviewed categories included Demo Fuel Tank (61), Commercial Miscellaneous (60), and Civil Engineering projects (52). While some categories, such as Building Relocation, Commercial Re-roof, and Single Family Residential, saw minimal submissions, the diversity of review types highlights the department's engagement across both routine and specialized projects. The year-to-year variation in totals—603 in 2022, 443 in 2023,

and 564 in 2024—suggests fluctuations in development activity and permitting cycles, but overall reflects a steady and significant workload managed by the fire marshal's office.









Map 19: Response Area Plan Reviews

The City of Olympia Fire Department conducts routine inspections of commercial and multi-family residential buildings to help keep our community safe. These inspections are part of our responsibility under state law and internationally recognized fire and building codes.

Our fire inspectors visit businesses across the city to check for potential fire hazards and ensure life safety systems—like fire alarms, sprinklers, and exits—are in good working order. These visits also provide a great opportunity for business owners to ask questions and learn more about fire prevention practices.

Currently, we are evaluating how often buildings should be inspected based on risk factors such as size, use, and occupancy type. This helps us focus on our resources where they are needed most, while still ensuring all buildings receive regular attention.

From 2022 through 2024, the Olympia Fire Department completed more than 6,000 inspections across the city. These included scheduled inspections, follow-ups, and walk-throughs in partnership with business owners.

Occupancy Inspections by Station Response Area

Station Response Area	2022	2023	2024	TOTAL
Station 1	1,020	973	406	2,399
Station 2	923	859	451	2,233
Station 3	104	83	62	249
Station 4	587	402	190	1,179
Grand Total	**2,634**	**2,317**	**1,109**	**6,060**

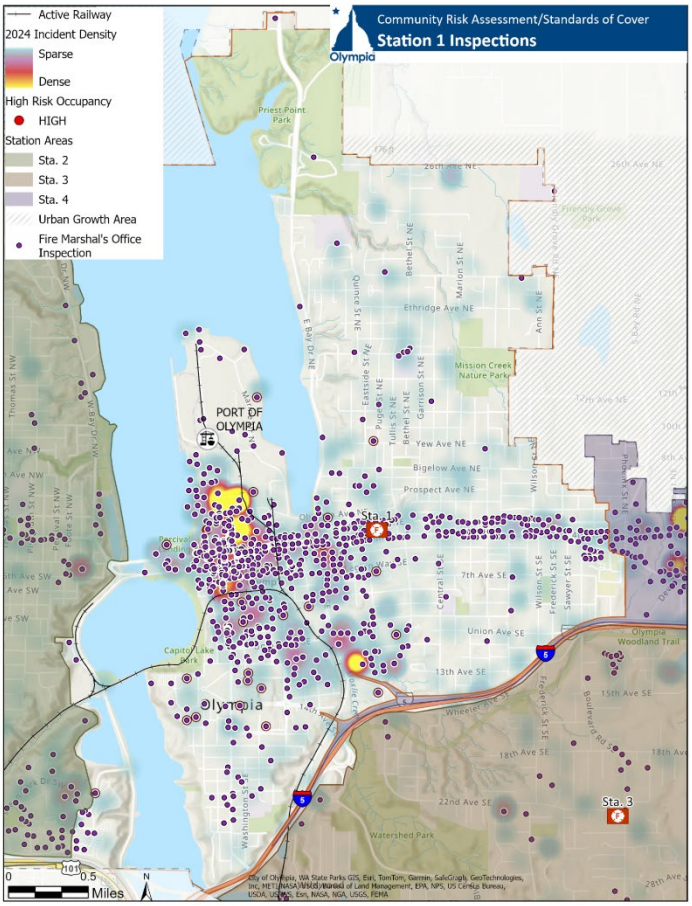
Table 17: 2022-2023 Occupancy Inspection by Station Response Area

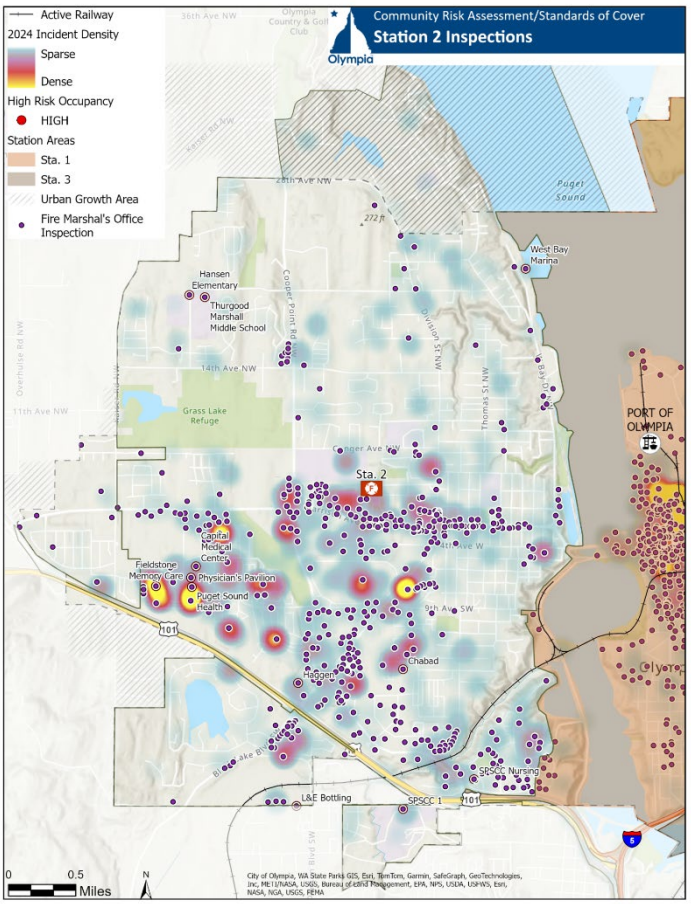
Occupancy Inspection Types

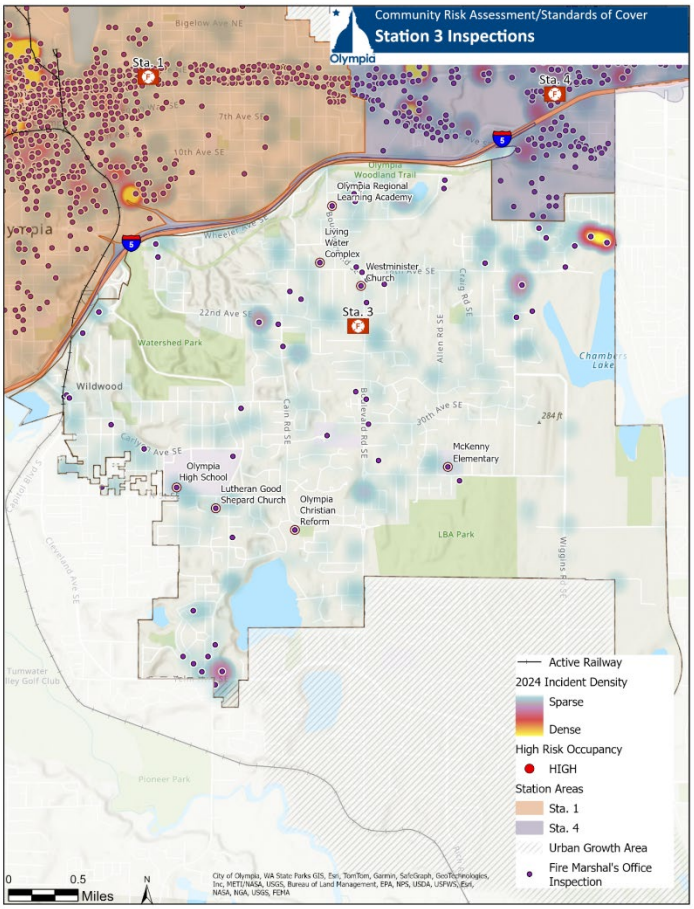
Inspection Types	2022	2023	2024
Inspection (Billed)	2,214	1,955	988
Inspection (Non-Billed)	266	232	39
Phone Follow-up (Non-Billed)	11	37	41
Reinspection (Billed)	3	1	2
Reinspection (Non-Billed)	152	106	50
Walk-Thru (Non-Billed)	4	1	
Grand Total	**2,634**	**2,317**	**1,109**

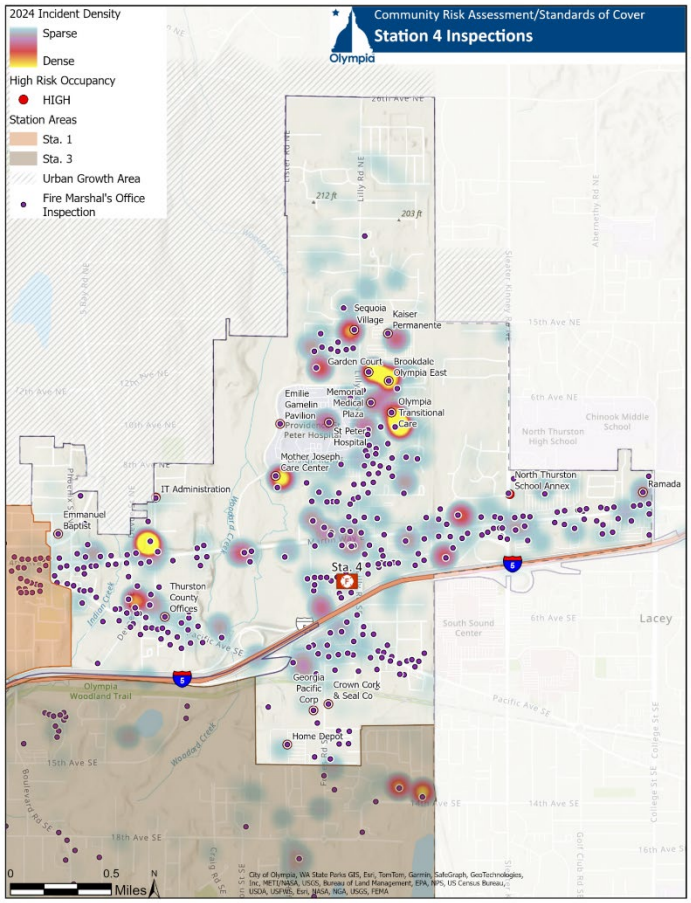
Table 18: Occupancy Inspection Types by Station Response Area

The following maps were created to illustrate the Fire Marshal's office occupancy inspection program and show that the inspections performed are located in areas with high call density and that all high risk occupancies have been inspected in the 3 year period represented here (2022-2024).









Map 20: Response Area Occupancy Inspections

Critical Infrastructure Capabilities and Capacities

The intent of this assessment is for OFD to evaluate whether our existing critical infrastructure—such as fire stations, apparatus, and personnel—is capable of meeting the service demands posed by the community's specific risks, as identified in this risk assessment. This analysis is performed by response area, which aligns with how population density, building use, socioeconomic factors, and historical incident data vary across different areas of Olympia.

In downtown and east Olympia, Station 1 serves a densely populated urban core with a mix of commercial, governmental, and residential structures, including mid-rise buildings and high pedestrian activity. Its minimum staffing of seven personnel, including a battalion chief, supports both an engine and a ladder truck, which is critical for vertical response capability and incident command in this higher-risk zone.

Station 2 covers the west side, including the busy Westfield Capital mall area, which is undergoing significant redevelopment into a high-density, mixed-use neighborhood. The minimum staffing of seven, supporting an engine, aid van, and medic unit, reflects the growing EMS demand and need for transport-capable units in a rapidly developing area. The station 2 response area is 7.7 square miles and with growth in the area and expectations for growth in the future, the fire department staffing and deployment in this area may need to change to meet community needs.

Station 3 serves southeast Olympia, a primarily residential zone with aging infrastructure and limited commercial development. With only three personnel staffing a single engine, this area may be under-resourced for simultaneous incidents or high-risk events, such as structure fires in older homes without modern fire protection systems.

Station 4, located in northeast Olympia near key transportation corridors and a mix of residential and commercial properties, is staffed similarly to Station 2. It supports an engine, aid unit, and medic unit with seven personnel. Brush O4, cross-staffed by engine personnel, supports wildland urban interface risks.

By assessing each station’s staffing and apparatus in the context of the risks unique to their response zones, the department can better determine where enhancements are needed—whether that means increasing staffing, reallocating units, investing in additional equipment, or improving public education and fire prevention strategies—to ensure response capabilities are aligned with community needs.

Other Risk Assessments

The Olympia Fire Department (OFD) actively collaborates with a wide array of internal city departments and external agencies to enhance community resilience and ensure effective emergency response. This collaborative approach allows the OFD to integrate diverse expertise, align strategies, and address emerging risks comprehensively.

OFD works closely with internal departments such as the Community Planning and Development department to review and influence land use and zoning decisions, ensuring that fire safety considerations are integrated into the city's growth and development plans.

OFD partners through the Emergency Management office with the Department of Natural Resources on the Wildfire Hazard and Risk Mapping initiative, which aims to enhance wildfire preparedness by identifying areas at risk and providing general hazard assessments.

Through the Emergency Management office OFD also contributes to the Thurston County Hazard Mitigation Plan, which outlines strategies to reduce risks from natural hazards such as floods, earthquakes, and wildfires.

OFD collaborates with the Department of Health to monitor health trends and emerging risks, ensuring that response plans are adapted to address public health concerns effectively.

As a member of the Thurston County Chief's Association, OFD participates in regional decision-making and the development of response strategies, fostering a unified approach to fire and emergency services across the county.

Through these partnerships, OFD ensures that its strategies are informed by a broad range of expertise, enabling a coordinated and effective response to the community's needs.

Current Deployment and Performance

Deployment Methodology

Given the levels of risks, area of responsibility, demographics, and socio-economic factors, OFD has determined, documented, and adopted a methodology for the consistent provision of service levels in all service program areas through response coverage strategies.

OFD has herein documented the process of how we provide a constant and measurable level of response service for all risk classifications including fire, EMS, technical rescue, and hazmat**.** Response resources are located in the geographic areas where the resources are needed the most as outlined in the critical infrastructure section of this document.

Emergency Response Performance Methodology

OFD has adopted a process consistently used to provide a constant and measurable level of response service for each station response area and the city as whole. Service demands and performance are documented monthly, quarterly and annually by station area. This provides the opportunity for analysis and changes in deployment to be made to better meet the needs of the community. For example, in 2020 the department recognized the need for transport units dedicated to the community of Olympia. The establishment of the OFD transport capable aid units in 2024 has addressed that need, and as a result the availability of all the OFD units in the station areas where those aid units were placed have improved significantly. By continually evaluating performance and deployment strategies, OFD seeks to identify the needs of the community before quality service delivery is negatively impacted.

The establishment of the CARES program in 2024 was also in response to an analysis of community needs and impacts on service delivery. By addressing the needs of our most vulnerable members with non emergency staff, we are seeing better outcomes in both emergency service delivery and reduction in 911 call volume for those who are identified as frequently calling for non-emergent issues. As we evaluate and identify additional or changing needs in the community, OFD will continually seek to meet those needs in innovative ways.

Risk Classification and Categories

OFD uses the Three-Axis Method to classify and categorize risk. This methodology determines and documents the different categories and classes of risks within each planning zone. The three axis's consist of probability, impact, and consequence using historical incident type codes, deployment standards, and loss. This risk evaluation can be used to make more informed decisions about future incidents and policies.

The methodology for determining probability uses the frequency of each NFIRS incident type code to determine the likelihood of a similar event occurring.

Impact refers to the extent to which multiple simultaneous incidents affect a fire department's operations. It reflects the department's capacity to continue delivering services to the rest of the community, particularly when high-demand areas experience frequent activity.

The methodology for determining consequences involves evaluating the loss of life, injuries, and property loss that result from an incident. If the incident results in one or more deaths, the incident receives the highest risk score. Injuries and property loss are independently classed using the Jenks natural breaks classification method. The scores for these three variables are then summed and classified to calculate the final consequence score. This methodology combines probability, impact, and consequence scores to establish the total risk score and uses Heron's Formula modified for tetrahedrons.

Three years of incident data were loaded into the ESRI Fire Accreditation Analysis solution to perform the risk analysis. In performing this analysis, shortcomings were found with the data to include missing injury, death, and property loss information in the incidents records management system. For this reason, the output of the incident analysis was adjusted to more accurately reflect consequences. We also learned that due to the limitations of the records management system, classifying the risk by more granular incident and dispatch type is not effective at this time. OFD is currently planning on addressing these shortcomings with more advanced data analysis tools and connections to dispatch data.

Critical Task Analysis

Critical task analysis is the process of identifying the critical tasks that must be accomplished to successfully mitigate an identified risk (fire and non-fire). These tasks drive resource deployment at OFD so we can effectively and efficiently mitigate the problem. Should resources not meet the needs of the risk, we can begin to look for other ways to either prevent or address the issue. OFD analyzed the critical tasks for each category and class of risk in the station response areas. The process of conducting a critical task analysis was validated through reviewing activities and time stamps on prior incidents and other methods to determine actual capabilities of OFD's response resources. The analysis includes critical tasks associated with first-due unit capabilities and the required effective response force for the levels of risks.

Figure A.7 – Magnitude of the Risk - the greater the triangle area, the Greater the Risk Category. Calculating a risk score for each of the analysis components provides a location on each axis. Applying Heron's Formula, modified for tetrahedrons, a calculation is made of the shaded area of the triangle.

Reference: CRA-SOC Certificate Program Manual p.89

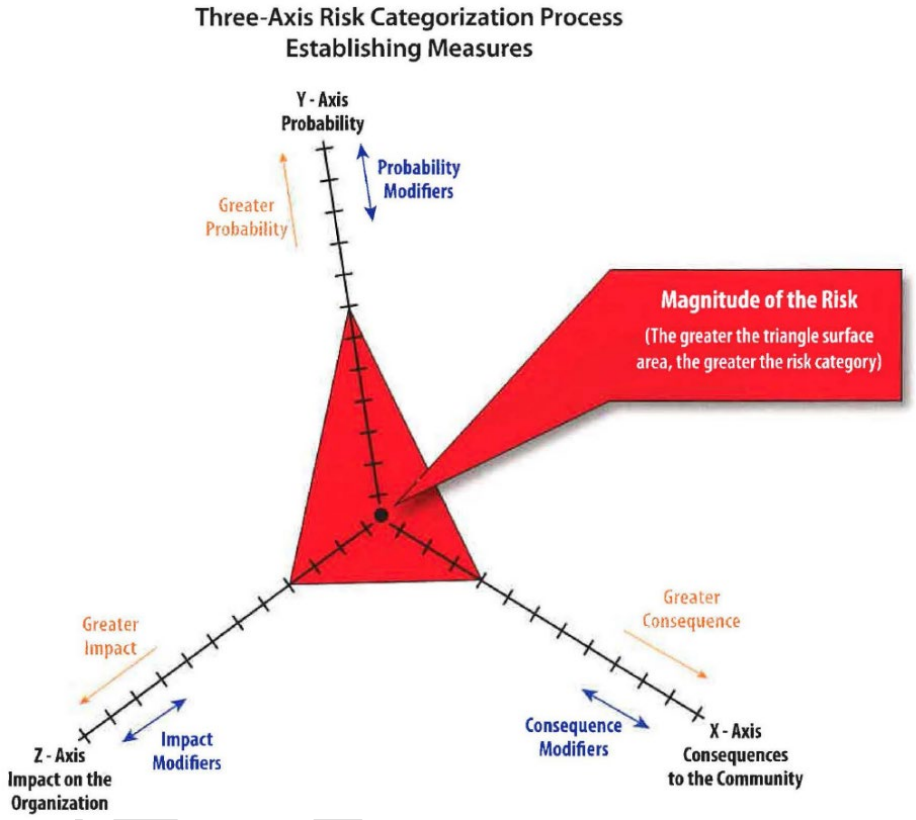


Figure 46: Three-Axis Risk Categorization Process

$$Risk\ Score = \sqrt{\frac{(PC)^2}{2} + \frac{(CI)^2}{2} + \frac{(IP)^2}{2}}$$

P= Probability
C= Consequence to the community
I= Impact on the agency (in drawdown vulnerability)

OFD's staffing and deployment model is based on NFPA 1710 minimum staffing requirements for career fire departments. NFPA recommends having 4 firefighters on each Engine, OFD staffs our engines with 3 firefighters, but follow the recommendations from NFPA for minimum staffing on incidents as outlined in the table below.

Staffing Recommendation Based on Risk

Incident Type	High Risk	Moderate Risk	Low Risk
Fire Suppression	28	17	3
Emergency Medical Service	11	6	3
Rescue	19	7	3
Hazardous Materials	15	7	3

Table 19: Staffing Recommendation Based on Risk

High Risk Fire	
Probability of Occurrence	3
Consequence to Community	7
Impact on Fire Department	10
SCORE	**55.8614**

Table 20: Risk Score High Risk Fire

Figure 47: Risk Score High Risk Fire

Fire Suppression High Risk: Commercial, Apartment Complex, Medium-Rise, High-Rise, Assisted Living

Critical Task	Number of Personnel
Fire Attack/Primary Search	4
Pump Operator	1
Water Supply	3
Primary Search/Check for Extension	3
Primary Search/Check for Extension	3
Ventilation/ Secondary Egress	3
Utilities/Exposure	3
Rapid Intervention	3
Medical	2
Incident Safety Officer	1
Division Supervisor	1
Incident Command	1
Total	**28**

Table 21: Critical Tasks High Risk Fire

The Effective Response Force of these critical tasks is accomplished by the arrival of 8 OFD units which include 4 engines, a truck, battalion chief, and two medic units and/or Aid units as well as 3 mutual aid units.

Moderate Risk Fire	
Probability of Occurrence	4
Consequence to Community	5
Impact on Fire Department	10
SCORE	**47.4342**

Table 22: Risk Score Moderate Risk Fire

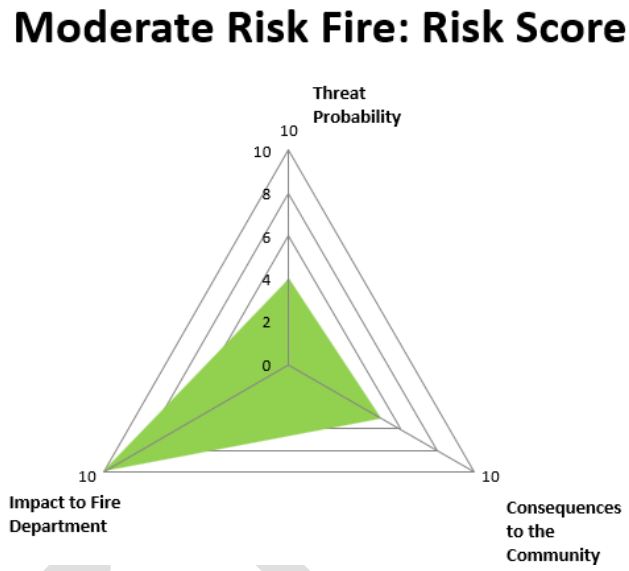


Figure 48: Risk Score Moderate Risk Fire

Fire Suppression Moderate Risk: One or two family detached dwelling

Critical Task	Number of Personnel
Fire Attack/Primary Search	4
Pump Operator	1
Water Supply	2
Primary Search/Check for Extension	3
Ventilation/ Secondary Egress	3
Rapid Intervention/ Utilities	2
Safety Officer	1
Incident Command	1
Total	**17**

Table 23: Critical Tasks Moderate Risk Fire

The Effective Response Force of these critical tasks is accomplished by the arrival of 7 OFD units which include 3 engines, a truck, battalion chief, and two medic units and/or Aid units.

Low Risk Fire	
Probability of Occurrence	5
Consequence to Community	3
Impact on Fire Department	4
SCORE	**19.6087**

Table 24: Risk Score Low Risk Fire

Figure 49: Risk Score Low Risk Fire

Fire Suppression Low Risk: Isolated Outside Fires, Rubbish, Passenger Vehicle

Critical Task	Number of Personnel
Attack Line	1
Pump Operator	1
Incident Command	1
Total	3

Table 25: Critical Tasks Low Risk Fire

The Effective Response Force of these critical tasks is accomplished by the arrival of 1 OFD engine company.

High Risk EMS	
Probability of Occurrence	2
Consequence to Community	5
Impact on Fire Department	9
SCORE	**34.9929**

Table 26 Risk Score High Risk EMS

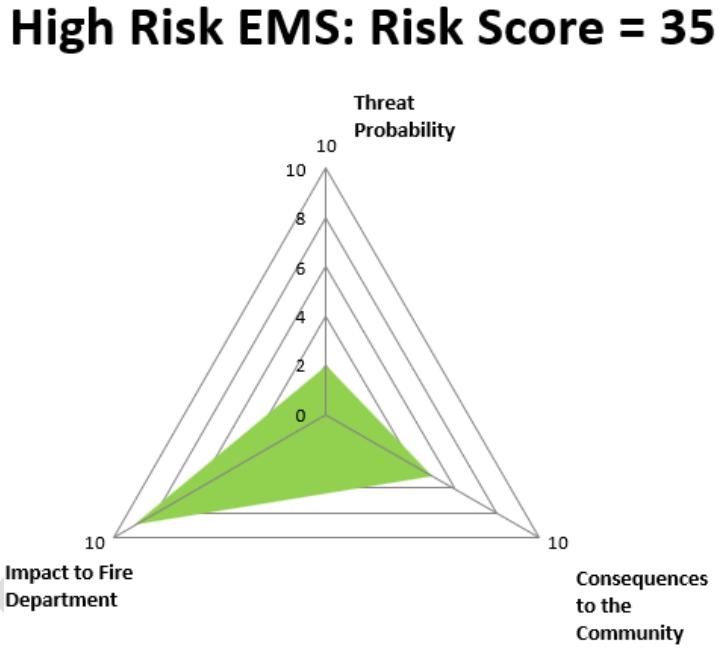


Figure 50: Risk Score High Risk EMS

Emergency Medical Response High Risk: Multiple Patients, Active Shooter, Multi-Casualty Incident

Critical Task	Number of Personnel
Command and Documentation	1
Triage Unit Leader	1
Triage	2
Medical Communications	1
Triage	2
Command	1
Treatment	3
Total:	**11**

Table 27: Critical Tasks High Risk EMS

The Effective Response Force of these critical tasks is accomplished by the arrival of 5 OFD units which include 3 basic life support units, one battalion chief, and one advance life support unit.

Moderate Risk EMS	
Probability of Occurrence	6
Consequence to Community	2
Impact on Fire Department	8
SCORE	**36.7670**

Table 28: Risk Score Moderate Risk EMS

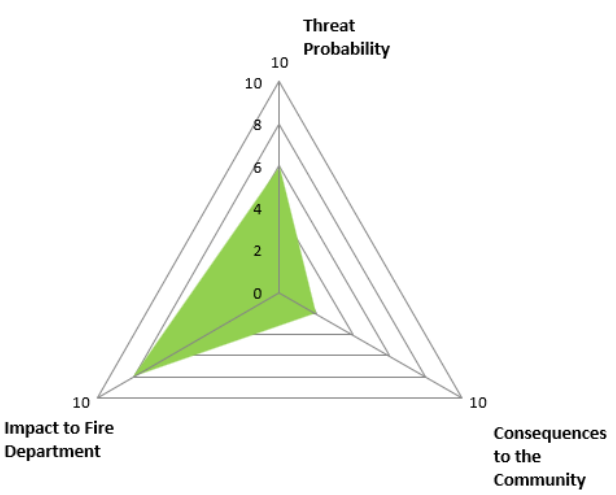


Figure 51: Risk Score Moderate Risk EMS

Emergency Medical Response Moderate Risk: Cardiac Arrest

Critical Task	Number of Personnel
Command and Documentation	1
Airway Management	1
Compressions/Cardiac Monitor	2
Medication Management	1
Patient Care	2
Family Liaison	1
Total:	**8**

Table 29: Critical Tasks Moderate Risk EMS

The Effective Response Force of these critical tasks is accomplished by the arrival of 3 OFD units which include 2 basic life support units and one advance life support unit.

Low Risk EMS	
Probability of Occurrence	10
Consequence to Community	2
Impact on Fire Department	3
SCORE	**25.8457**

Table 30: Risk Score Low Risk EMS

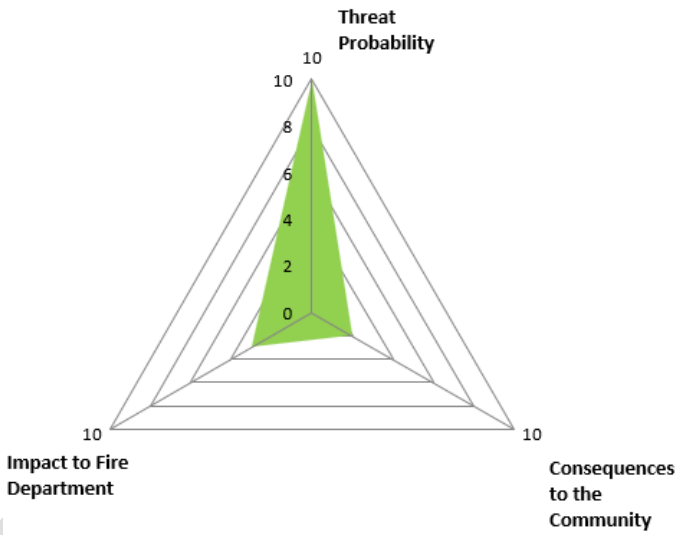


Figure 52: Risk Score Low Risk EMS

Emergency Medical Response Low Risk: Basic Life Support

Critical Task	Number of Personnel
Command and Documentation	1
Patient Care	1
Vitals	1
Total:	**3**

Table 31: Critical Tasks Low Risk EMS

The Effective Response Force of these critical tasks is accomplished by the arrival of 1 OFD basic life support unit.

High Risk Technical Rescue	
Probability of Occurrence	2
Consequence to Community	2
Impact on Fire Department	6
SCORE	**12.3288**

Table 32: Risk Score High Risk Technical Rescue

Figure 53: Risk Score High Risk Rescue

Rescue High Risk: Trench, confined space, rope, structural collapse

Critical Task	Number of Personnel
Command	1
Rescue Group Supervisor	1
Rescue Team	2
Rigging Team	2
Back-Up Team	3
Safety Officer	1
Support Operations	3
Support Operations	3
Support Operations	3
Total:	**19**

Table 33: Critical Tasks High Risk Rescue

The Effective Response Force of these critical tasks is accomplished by the arrival of 5 OFD units and 1 mutual aid unit which includes 3 engines, a truck, and a battalion chief as well as 1 mutual aid truck. The complexity of the incident may also require the arrival of the Thurston County Special Operations Rescue Team.

Medium Risk Rescue	
Probability of Occurrence	3
Consequence to Community	2
Impact on Fire Department	4
SCORE	**11.0454**

Table 34: Risk Score Medium Risk Rescue

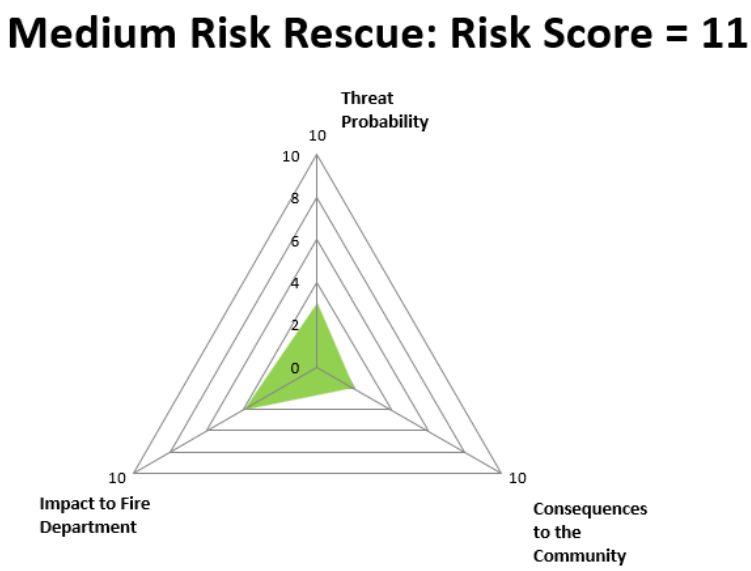


Figure 54: Risk Score Medium Risk Rescue

Rescue Medium Risk: Motor Vehicle Accident with Extrication

Critical Task	Number of Personnel
Command, Safety	1
Extrication	3
Medical	3
Total:	**7**

Table 35: Critical Tasks Medium Risk Rescue

The Effective Response Force of these critical tasks is accomplished by the arrival of 3 OFD units which include 1 engine, a truck with specialized rescue equipment, and a battalion chief.

Low Risk Rescue	
Probability of Occurrence	3
Consequence to Community	2
Impact on Fire Department	2
SCORE	**6.6332**

Table 36: Risk Score Low Risk Rescue

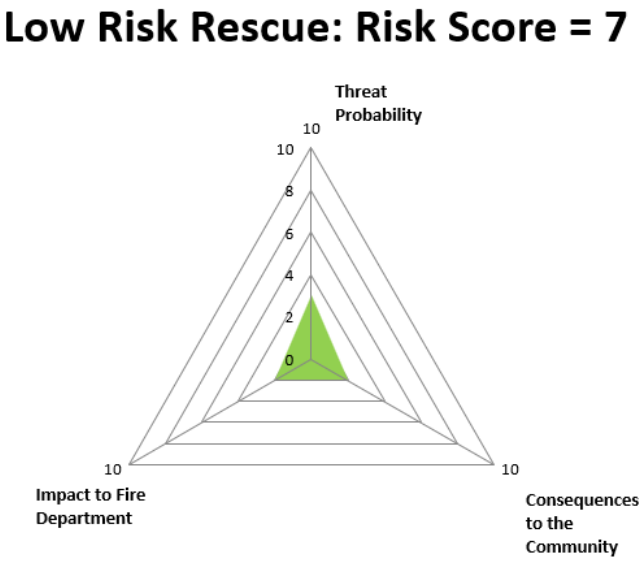


Figure 55: Risk Score Low Risk Rescue

Rescue Low Risk: Elevator Entrapment, Lock-ins

Critical Task	Number of Personnel
Command	1
Extrication	2
Total:	**3**

Table 37: Critical Tasks Low Risk Rescue

The Effective Response Force of these critical tasks is accomplished by the arrival of 1 OFD units which include an engine or truck company depending on the nature of the emergency.

High Risk Hazardous Material	
Probability of Occurrence	2
Consequence to Community	6
Impact on Fire Department	3
SCORE	**15.8745**

Table 38: Risk Score High Risk Hazardous

Figure 56: Risk Score High Risk Hazardous

Hazardous Material High Risk: Radiological, biological, explosive, any release with victims

Critical Task	Number of Personnel
Command, Identification, Notification	1
Isolate and Deny Entry	2
Containment	2
Command and Notifications	1
Medical Group Leader	1
Hazard Assessment and Planning	1
Medical Group	1
Safety Officer	1
Emergency Decontamination	2
Standby	3
Total:	**15**

Table 39: Critical Tasks High Risk Hazardous

The Effective Response Force of these critical tasks is accomplished by the arrival of 6 OFD units which include 4 engines, a battalion chief, and 1 medic unit. Regional hazmat response teams may also be required depending on the nature of the emergency.

Moderate Risk Hazardous Material	
Probability of Occurrence	3
Consequence to Community	3
Impact on Fire Department	3
SCORE	**11.0227**

Table 40: Risk Score Moderate Risk Hazardous

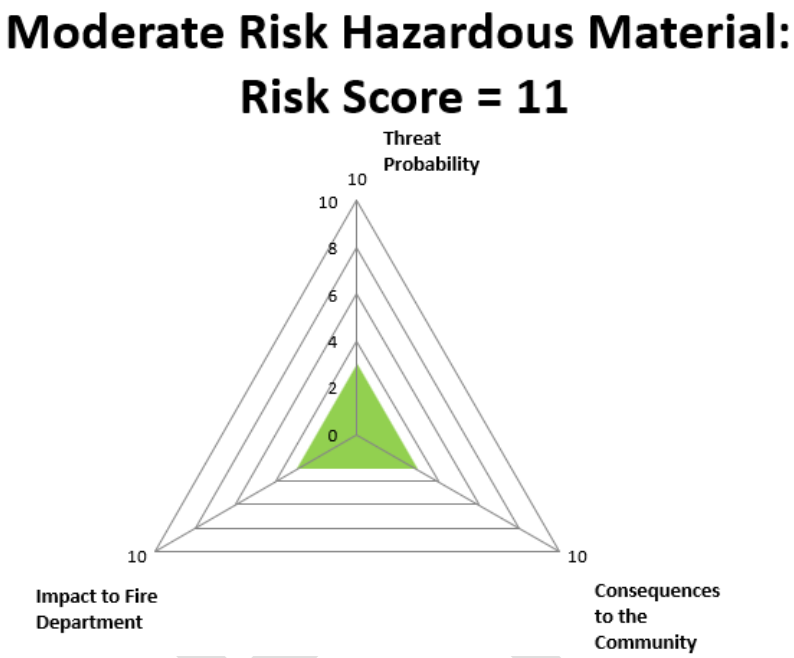


Figure 57: Risk Score Moderate Risk Hazardous

Hazardous Material Moderate Risk: Bulk transportation leak, distribution leak inside of a building

Critical Task	Number of Personnel
Command, Identification, Notification	1
Isolate and Deny Entry	2
Containment and Control	1
Hazard Assessment and Action Planning	2
Command and Safety	1
Total:	**7**

Table 41: Critical Tasks Moderate Risk Hazardous

The Effective Response Force of these critical tasks is accomplished by the arrival of 3 OFD units which include 2 engines, and a battalion chief.

Low Risk Hazardous Material	
Probability of Occurrence	5
Consequence to Community	2
Impact on Fire Department	3
SCORE	**13.4350**

Table 42: Risk Score Low Risk Hazardous

Figure 58: Risk Score Low Risk Hazardous

Hazardous Material Low Risk: Oil spill, Chemical Hazard (no spill or leak), hazardous condition (no fire), vehicle accident general cleanup

Critical Task	Number of Personnel
Command, Identification, Notification	1
Isolate and Deny Entry	1
Containment and Control	1
Total:	**3**

Table 43: Critical Tasks Low Risk Hazardous

The Effective Response Force of these critical tasks is accomplished by the arrival of 1 OFD units which include 1 engine.

Response Time Components

OFD has identified the total response time components from receipt of initial 911 to when first responders arrive on location, and all subcomponents therein, (call processing, turn out, travel time) for each classifications and category of risk such as fire, EMS, technical rescue, and hazmat; and the service level provided is consistent and reliable over time, throughout the entire response area. The same components apply to the total response time for the effective response force.

Each component of total response time has a benchmark (target) that is established, consistent with jurisdictional expectations and based on industry research.

OFD uses response time data from emergent incidents only to develop the total response time components for each program in each response area.

The response time components are as follows:

A. **Alarm Processing Time** – The time from Dispatch Notified to Alarm, indicates the total amount of time the call was with the dispatch center before department resources were alerted.

B. **Turnout Time** – The time from Dispatch to Enroute, representing the total time the unit took to prepare for the call and leave the station or other area to head to the scene.

C. **Travel Time** – The time from Enroute to Arrival, representing the total time the unit took to travel to the scene.

D. **Total Response Time** – The time elapsed between the 911 call taker receiving the 911 call and the arrival of the first qualifying emergency response unit. Total response time combines alarm handling, turnout, and travel times.

E. **Effective Response Force (ERF)** – The minimum amount of staffing and equipment that must reach a specific emergency zone location within a maximum prescribed total response time and is capable of initial fire suppression, EMS, and/or mitigation. The ERF is the result of the critical tasking analysis conducted as a part of standards of cover development.

The 90th percentile response time represents the maximum time in which 90% of emergency responses are completed, offering a more accurate and consistent measure of service performance than an average.

- 1 minute 46 seconds or less for dispatch processing time.
- 1 minute or less for turnout time for EMS incidents, 1 minute 20 seconds or less for non EMS incidents.
- 4 minutes or less travel time for the first arriving unit
- 7 minutes 6 seconds or less for first fire Engine at a fire suppression incident (the time it takes from notification to first unit arrival).
- 8 minutes or less for the arrival of a full first-alarm assignment at a low hazard fire suppression incident, 10 minutes 10 seconds for a high hazard fire suppression incident.

Our department's key performance indicator for response time reporting is 7 minutes 6 seconds or faster for 90 percent of all incidents.

ALS Response time reporting is coordinated through Thurston County Medic One.

Monthly reports detailing call volume and response trends, including locations driving increases in call volume, are distributed to OFD leadership. Quarterly reports are published to the entire department and are discussed in a quarterly staff meeting which is recorded and made available to all members of the department. The quarterly report includes monthly response data as well as the following performance measures: Availability by Station Response Area, Reliability by Station Response Area, as well as a reporting of the 90th percentile times for each response time component. The Quarterly report includes additional information as is pertinent to the trending of the data for that quarter. One quarterly report may look at turnout times by hour of day, while another may have information on transports or scene delays. Going forward the quarterly report will incorporate the key components of this Standard of Cover.

Availability

Tracking the rate of availability of fire apparatus to respond to calls in their first due area helps the city identify trends and allocate resources to improve public safety. It also provides valuable feedback in evaluating the success or opportunities to improve allocation of resources to best meet the community risk analysis.

OFD's performance goal is for apparatus to be available to respond to incidents in their first due areas 95% of the time or more.

Availability is calculated by using the records management system, ESO's Insights module, to obtain a count of number of incidents. The data in ESO is not labeled by Station Response Area, it is recorded by dispatch zone (see appendix E). An ESO insights dashboard is configured to count the number of incidents in each dispatch zone and combine those into the station response area, for a count of incidents per station response area. The other component of Availability is the number of incidents for first due units in their station response area. For example, for the Station 1 Response area, the component is the count of incidents Truck 1 and Engine 1 responded to that were in their primary response area. This component would not include in the count an incident that Engine 1 responded to in the Station 2 Response area. Availability is the percentage resulted in dividing the # of calls the first due units responded to in their station area, by total number of incidents in that station response area.

Availability = ([Station 1 First Due Units incident count]]/[[Station 1 all incidents count])

Reliability

A rapid fire department response to priority calls helps to ensure public safety and save lives. Tracking response time reliability helps effectively allocate resources and identify opportunities for improved operational efficiency. The NFPA standard calls for Fire Department total response time to be 7 minutes and 6

seconds or less 90% of the time. OFD reports reliability as the percent of time our response is meeting the 7 minute 6 second standard in each station response area, with a target goal of 90%.

Each month the response time data in ESO is audited and response times over 20 minutes are evaluated to see if there are systematic issues with the data and these are corrected where possible. This is a more effective methodology than using a standard which eliminates outliers. The consensus in the fire service analysis community* currently is that if you are using percentile measurements instead of averages, using outliers to exclude data is not necessarily the right practice. A more accurate data analysis looks to solve the issues creating the data anomalies and preventing them from occurring at a large enough scale to affect the 90th percentile. Our methodology focuses on improving the dataset rather than trying to exclude data. *Reference: “Outliers” Presentation by Blake Boyd, ESO WAVE 2025.

Reliability is reported by analyzing response times. An ESO Insights dashboard is configured to export to a data file (.csv) the response time components (call processing, turnout, travel, total response time) in seconds by station area for first due units in that area. The performance measure for reliability is reporting on the percentage the time from dispatch notified to first unit arriving on scene is meeting the NFPA standard of 7 minutes 6 seconds. Other response time components are also reported on to analyze where improvements can be made.

The insights dashboard is configured to filter out the response times that are not relevant to this analysis. The response times filtered out are those that are not first arriving, and non emergent, as well as incidents that have the incident type “EMS with Safety Concerns” as these are incidents with elongated response times due to staging for law enforcement support.

The response times downloaded from ESO are copied into an excel spreadsheet that calculates the reliability percentage by dividing the number of incidents longer than the response time goal of 7 minutes 6 seconds by the total number of incidents in that station area.

Reliability = ([# of incidents longer than 7m 6s]/[# of incidents])

Performance Objectives – Benchmarks

Taking into account both first-due and effective response force (ERF), the total response time continuum is made up of three time components: Alarm handling, Turnout, and Travel. See Appendix F for NFPA benchmark reference. The following statements describe the target level of performance for OFD for each risk classification and category.

Benchmarks			FIRE	EMS	HAZMAT	TECH RESCUE
Alarm Handling	Pick-up to Dispatch	Urban	1:46	1:46	1:46	1:46
Turnout Time	Turnout Time 1st Unit	Urban	1:20	1:00	1:20	1:20
Travel Time	Travel Time 1st Unit	Urban	4:00	4:00	4:00	4:00
	Travel Time ERF Concentration	Urban	8:00	8:00	8:00	8:00
Total Response Time	Total Response Time 1st Unit Distribution	Urban	7:06	6:46	7:06	7:06
	Total Response Time ERF Concentration	Urban	Low Hazard 8:00 High Hazard 10:10	Low Hazard 8:00 High Hazard 10:10	Low Hazard 8:00 High Hazard 10:10	Low Hazard 8:00 High Hazard 10:10

Low Risk Fire

First Due

For 90 percent of all fires not involving a structure, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer, shall be: 7 minutes 6 seconds in all areas. The first-due unit for all risk levels shall be capable of: providing 500 gallons of water and 1,500 gallons per minute (gpm) pumping capacity; initiating command; requesting additional resources; establishing a back-up line and advancing an attack line, each flowing a minimum of 150 gpm; establishing an uninterrupted water supply; containing the fire; rescuing at-risk victims; and performing salvage operations. These operations shall be done in accordance with departmental standard operating procedures while providing for the safety of responders and the general public.

Moderate Risk Fire

First Due

For 90 percent of all fires involving a one or two family detached dwelling, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer, shall be: 7 minutes 6 seconds in all areas. The first-due unit for all risk levels shall be capable of: providing 500 gallons of water and 1,500 gallons per minute (gpm) pumping capacity; initiating command; requesting additional resources; establishing a back-up line and advancing an attack line, each flowing a minimum of 150 gpm; establishing an uninterrupted water supply; containing the fire; rescuing at-risk victims; and performing salvage operations. These operations shall be done in accordance with departmental standard operating procedures while providing for the safety of responders and the general public.

Effective Response Force

For 90 percent of all fires involving a one or two family detatched dwelling, the total response time for the arrival of the effective response force (ERF), staffed with 17 firefighters and officers, shall be: 10 minutes 10 seconds minutes in all areas. The ERF shall be capable of: establishing command; appointing a site safety officer; providing an uninterrupted water supply; advancing an attack line and a backup line for fire control; complying with the Occupational Safety and Health Administration (OSHA) requirements of two-in and two-out; completing forcible entry; searching and rescuing at-risk victims; ventilating the structure; controlling utilities; and performing salvage and overhaul. These operations shall be done in accordance with departmental standard operating procedures while providing for the safety of responders and the general public.

High Risk Fire

First Due

For 90 percent of all commercial structure fires, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer, shall be: 7 minutes 6 seconds in all areas. The first-due unit for all risk levels shall be capable of: providing 500 gallons of water and 1,500 gallons per minute (gpm) pumping capacity; initiating command; requesting additional resources; establishing a back-up line and advancing an attack line, each flowing a minimum of 150 gpm; establishing an uninterrupted water supply; containing the fire; rescuing at-risk victims; and performing salvage operations. These operations shall be done in accordance with departmental standard operating procedures while providing for the safety of responders and the general public.

Effective Response Force

For 90 percent of all commercial structure fires, the total response time for the arrival of the effective response force (ERF), staffed with 28 firefighters and officers, shall be: 10 minutes 10 seconds minutes in all

areas. The ERF shall be capable of: establishing command; appointing a site safety officer; providing an uninterrupted water supply; advancing an attack line and a backup line for fire control; complying with the Occupational Safety and Health Administration (OSHA) requirements of two-in and two-out; completing forcible entry; searching and rescuing at-risk victims; ventilating the structure; controlling utilities; and performing salvage and overhaul. These operations shall be done in accordance with departmental standard operating procedures while providing for the safety of responders and the general public. OFD relys on response from Mutual Aid partners from surrounding districts and municipalities to meet the staffing requirements for high risk fires.

Low Risk EMS

First Due

For 90 percent of all low risk EMS responses, the total response time for the arrival of the first-due unit, staffed with a minimum of 2 firefighters, shall be: 6 minutes 46 seconds an all areas. The first-due unit shall be capable of: assessing scene safety and establishing command; sizing-up the situation; conducting an initial patient assessment; obtaining vitals and patient's medical history; initiating mitigation efforts within one minute of arrival; providing first responder medical aid; and transporting or assisting transport personnel with packaging the patient.

Moderate Risk EMS

First Due

For 90 percent of all moderate risk EMS responses, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer, shall be: 6 minutes 46 seconds in all areas. The first-due unit shall be capable of: assessing scene safety and establishing command; sizing-up the situation; conducting an initial patient assessment; obtaining vitals and patient's medical history; initiating mitigation efforts within one minute of arrival; providing first responder medical aid including automatic external defibrillation (AED); and assisting transport personnel with packaging the patient.

Effective Response Force

For 90 percent of all high EMS response incidents, the total response time for the arrival of the effective response force (ERF), staffed with 8 firefighters and officers, shall be: 10 minutes 10 seconds in all areas. The ERF shall be capable of: providing incident command and producing related documentation; appointing a site safety officer; completing patient assessment; providing appropriate treatment; performing AED; initiating cardio-pulmonary resuscitation (CPR); and providing intravenous (IV) access-medication administration.

High Risk EMS

First Due

For 90 percent of all high risk EMS responses, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer, shall be: 6 minutes 46 seconds in all areas. The first-due unit shall be capable of: assessing scene safety and establishing command; sizing-up the situation; conducting an initial patient assessment; obtaining vitals and patient's medical history; initiating mitigation efforts within one minute of arrival; providing first responder medical aid including automatic external defibrillation (AED); and assisting transport personnel with packaging the patient.

Effective Response Force

For 90 percent of all high EMS response incidents, the total response time for the arrival of the effective response force (ERF), staffed with 11 firefighters and officers, shall be: 10 minutes 10 seconds in all areas. The ERF shall be capable of: providing incident command and producing related documentation; appointing a site safety officer; completing patient assessment; providing appropriate treatment; performing AED; initiating cardio-pulmonary resuscitation (CPR); and providing intravenous (IV) access-medication administration.

Low Risk Technical Rescue

First Due

For 90 percent of all low risk technical rescue incidents, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer, shall be: 7 minutes 6 seconds in all areas. The first-due unit shall be capable of: establishing command; sizing up to determine if a technical rescue response is required; requesting additional resources; and providing basic life support to any victim without endangering response personnel.

Moderate Risk Technical Rescue

First Due

For 90 percent of all moderate risk technical rescue incidents, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer, shall be: 7 minutes 6 seconds in all areas. The first-due unit shall be capable of: establishing command; sizing up to determine if a technical rescue response is required; requesting additional resources; and providing basic life support to any victim without endangering response personnel.

Effective Response Force

For 90 percent of all moderate risk technical rescue incidents, the total response time for the arrival of the effective response force (ERF), staffed with 15 firefighters and officers including the technical response team,

shall be: 10 minutes 10 seconds in all areas. The ERF shall be capable of appointing a site safety officer; establishing patient contact; staging and apparatus set up; providing technical expertise, knowledge, skills, and abilities during technical rescue incidents; and providing first responder medical support.

High Risk Technical Rescue

First Due

For 90 percent of all high risk technical rescue incidents, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer, shall be: 7 minutes 6 seconds in all areas. The first-due unit shall be capable of: establishing command; sizing up to determine if a technical rescue response is required; requesting additional resources; and providing basic life support to any victim without endangering response personnel.

Effective Response Force

For 90 percent of all high risk technical rescue incidents, the total response time for the arrival of the effective response force (ERF), staffed with 19 firefighters and officers including the technical response team, shall be: 10 minutes 10 seconds in all areas. The ERF shall be capable of appointing a site safety officer; establishing patient contact; staging and apparatus set up; providing technical expertise, knowledge, skills, and abilities during technical rescue incidents; and providing first responder medical support. OFD relies on the county wide resource Specialized Operations Rescue Team (SORT) to complete the staffing and expertise needed for high risk technical rescue response.

Low Risk Hazardous Materials

First Due

For 90 percent of all low risk hazardous materials response incidents, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer, shall be: 7 minutes 6 seconds in all areas. The first-due unit shall be capable of: establishing command; sizing up and assessing the situation to determine the presence of a potential hazardous material or explosive device; determining the need for additional resources; estimating the potential harm without intervention; and begin establishing a hot, warm, and cold zone.

Moderate Risk Hazardous Materials

First Due

For 90 percent of all moderate risk hazardous materials response incidents, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer, shall be: 7 minutes 6 seconds in all areas. The first-due unit shall be capable of: establishing command; sizing up and assessing the situation to determine the presence of a potential hazardous material or explosive device; determining the need for

additional resources; estimating the potential harm without intervention; and begin establishing a hot, warm, and cold zone.

Effective Response Force

For 90 percent of all moderate risk hazardous materials response incidents, the total response time for the arrival of the effective response force (ERF) staffed with 7 firefighters and officers, shall be: 10 minutes 10 seconds in all areas. The ERF shall be capable of: appointing a site safety officer; and providing the equipment, technical expertise, knowledge, skills, and abilities to mitigate a hazardous materials incident in accordance with Department standard operating guidelines.

High Risk Hazardous Materials

First Due

For 90 percent of all high risk hazardous materials response incidents, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer, shall be 7 minutes 6 seconds in all areas. The first-due unit shall be capable of: establishing command; sizing up and assessing the situation to determine the presence of a potential hazardous material or explosive device; determining the need for additional resources; estimating the potential harm without intervention; and begin establishing a hot, warm, and cold zone.

Effective Response Force

For 90 percent of all high risk hazardous materials response incidents, the total response time for the arrival of the effective response force (ERF), staffed with 15 firefighters and officers, shall be: 10 minutes 10 seconds in all areas. The ERF shall be capable of: appointing a site safety officer; bringing in outside resources; and providing the equipment, technical expertise, knowledge, skills, and abilities to mitigate a hazardous materials incident in accordance with Department standard operating guidelines.

Performance Objectives – Baselines

The performance statements that follow are used to illustrate what OFD is currently delivering with existing resources and processes and based on qualified data. These statements are provided for each risk classification, if supporting data exists, and based on each risk category. The methodology used to used to calculate the baselines included the following process:

1. Using ESO Dashboard (named Effective Response Force Template by Station) to calculate the 90% time for call processing, turnout, travel, and total response time for the first arriving unit. The dashboard is configured to calculate these times for the entire city, and also for each station response area. It is filtered for active and locked incidents, with emergent response and is configured to be filtered by incident type code.
2. To capture the ERF concentration, download the times for the arrival order unit needed to complete the concentration (i.e.. unit arrival order = 3 for Medium Risk Technical Rescue) and calculated the 90th percentile time in excel using the percentile.inc function.
3. For Risk types that needed filtering beyond incident type, we have a dashboard (named Effective Response force), which has a formula which provides for filtering the incident response data by the number of units dispatched. To capture EMS risk level this strategy was used.
4. Further into the process a pivot chart was developed to calculate this information, using formulas for the 90th percentile, grouped by unit arrival order and filtered by district. The percentile calculation used is PERCENTILE.INC.

For High Risk Structure fires, the Effective Response Force component needs the arrival times for mutual aid units. These units' times are not part of the ESO record and were collected manually using dispatch tools as available to us.

In the high and moderate risk fire, high and low risk technical rescue, high, moderate and low risk hazmat categories, the numbers of incidents is too low to calculate a reliable 90th percentile. For this purposes of this document the calculation was performed but is a rough estimate and may not be a reliable indicator of the true 90th percentile of the underlying distribution. For more reliable percentile estimates, a larger sample size is required.

As OFD develops new response time analysis tools, processes will be explored to facilitate using data points with better reliability at the 90th percentile. A more effective measure may have been to combine the three years to have more data points for the analysis.

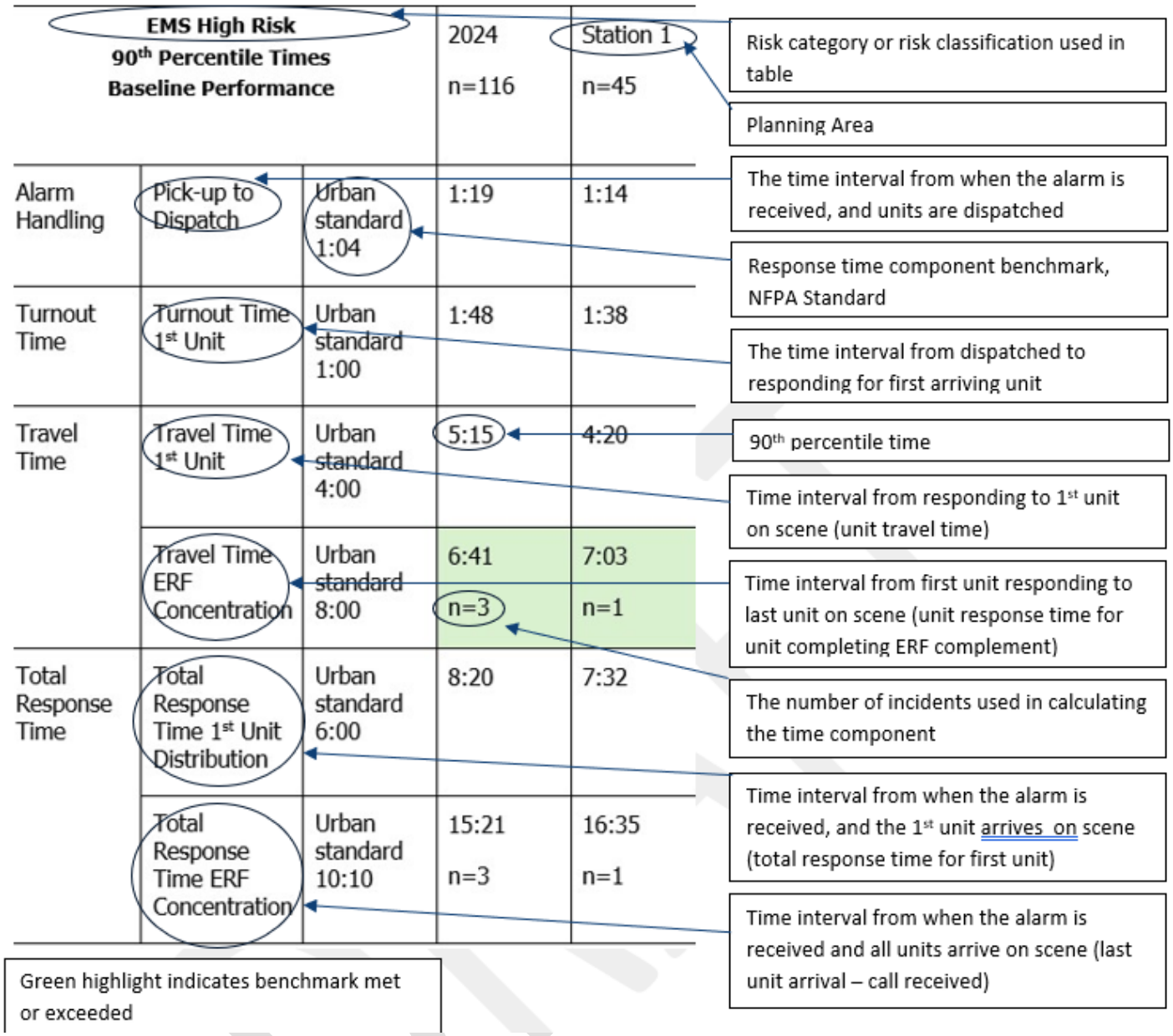


Figure 59: Response time components

Fire Suppression High Risk Fires Baseline

The following tables reflect actual performance during 2023 to 2024 where the data was available. OFD relies on the use of automatic aid from neighboring fire departments to provide its effective response force complement of personnel for high risk fires. These resources are immediately available as part of a seamless response system. The department's actual baseline service level performance is as follows:

The times indicated for 1st Unit are the first unit on scene with extinguishing capabilities (this excludes the Battalion Unit which is usually on scene first). Because our current system is not capturing the on scene time of mutual aid units, the Travel time ERF Concentration and Total Response time ERF Concentration is calculated by printing dispatch CAD data and extracting the times for the ERF units for High Risk Structure Fires. This was identified as a shortcoming in our analysis capabilities and a solution is being explored to access data directly from our dispatch agency to aid in this analysis. Another shortcoming identified was that dispatch was not reporting alarm handling times to us, this was fixed in August of 2023.

High risk structure fires require 28 Firefighters on scene to complete all critical tasks. To achieve this OFD relies upon mutual aid partners to complete the effective response force for these types of incidents with the addition of a mutual aid truck, engine, and battalion unit, we meet our critical task needs on high risk structure fires. For this analysis we used fires coded as building fires (code 111) and property use is anything other than 1 or 2 family dwelling (code 419). For sprinkler controlled fires, mutual aid units may be cancelled before they arrive on scene.

2024 Baseline Performance High Risk Structure Fires

For 90 percent of all high-risk fires during 2024, the total response time for arrival of the first unit is: 6 minutes and 46 seconds. The first on-scene engine, is capable of providing personnel for rescue and fire suppression abilities. The first due unit, and all subsequent arriving apparatus, follow standard operating procedures established in the agency standard operating procedures.

ERF concentration is reporting the arrival of the eleventh unit. To capture the mutual aid times, we looked at the Dispatch CAD data and calculated the response times for the 11th unit's arrival on scene. The department is currently working on having access to mutual aid unit arrival times to include the times for the full complement of 11 units for ERF of high-risk structure fires.

For high-risk fires in 2024, the total response time for the arrival of the ERF, staffed with 28 firefighters and officers, is 22 minutes and 42 seconds.

Fire Suppression High Risk Commercial, apartment complex, medium-rise building, assisted living 90th Percentile Times Baseline Performance			2024 n=13	Station 1 n=5	Station 2 n=3	Station 3 n=1	Station 4 n=4
Alarm Handling	Pick-up to Dispatch	Urban standard 1:46	1:34	1:29	1:18	0:09	1:20
Turnout Time	Turnout Time 1st Unit	Urban standard 1:20	2:08	1:59	1:14	n/a	2:35
Travel Time	Travel Time 1st Unit	Urban standard 4:00	4:46	4:17	4:44	4:51	2:34
	Travel Time ERF Concentration	Urban standard 8:00	22:32 n=7	20:37 n=3	23:15 n=1	n/a	16:28 n=3
Total Response Time	Total Response Time 1st Unit Distribution	Urban standard 7:06	6:46	5:55	7:05	6:29	4:44
	Total Response Time ERF Concentration	Urban standard 10:10	22:42 n=7	20:59 n=3	23:24 n=1	n/a	17:23 n=3

Table 44: 2024 Baseline Performance High Risk Fire

The small number of data points means that the numbers represented may not be an accurate prediction of 90th percentile performance. For high risk structure fires in 2024, the total response time for the first unit on scene is meeting the response time goals. The effective response force (ERF) concentration times are exceeding the standard and are dependent on units traveling to the incident from outside the city. The differences we see between station response areas are consistent from what we see in our analysis of all responses, faster response times from Station 1 and 4 response areas. For high risk structure fires, the response time for the first arriving unit has improved from 2023 to 2024. This may be attributed to greater availability for the front line engine units upon the addition of aid units in 2024.

2023 Baseline Performance High Risk Structure Fires

For 90 percent of all high risk fires during 2023, the total response time for arrival of the first unit is: 9 minutes and 8 seconds. The first on scene engine, is capable of providing personnel for rescue and fire suppression abilities. The first due unit, and all subsequent arriving apparatus, follow standard operating procedures established in the agency standard operating procedures.

For high risk fires in 2023, the total response time for the arrival of the ERF, staffed with 28 firefighters and officers, is 13 minutes and 43 seconds.

Fire Suppression High Risk Commercial, apartment complex, medium-rise building, assisted living 90th Percentile Times Baseline Performance			2023 n=11	Station 1 n=4	Station 2 n=6	Station 3 n=0	Station 4 n=1
Alarm Handling	Pick-up to Dispatch	Urban standard 1:46	1:08	1:44	0:47	n/a	0:32
Turnout Time	Turnout Time 1st Unit	Urban standard 1:20	2:13	1:30	2:16	n/a	n/a
Travel Time	Travel Time 1st Unit	Urban standard 4:00	6:30	5:31	6:35	n/a	1:50
	Travel Time ERF Concentration	Urban standard 8:00	12:45 n=4	8:18 n=1	12:50 n=3	n/a	n/a
Total Response Time	Total Response Time 1st Unit Distribution	Urban standard 7:06	9:08	8:31	8:53	n/a	4:08
	Total Response Time ERF Concentration	Urban standard 10:10	13:43 n=4	12:58 n=1	13:43 n=3	n/a	n/a

Table 45: 2023 Baseline Performance High Risk Fire

2024 Baseline Performance Moderate Risk Structure Fires

The department does not rely on the use of automatic aid from neighboring fire departments to provide its effective response force complement of personnel for moderate risk fires. These resources are immediately available as part of a seamless response system. The department's actual baseline service level performance is as follows:

Moderate risk structure fires require 17 Firefighters on scene to complete all critical tasks. For this analysis we used fires coded as building fires (code 111) and property use is 1 or 2 family dwelling (code 419). The times indicated for 1st Unit are the first unit on scene with extinguishing capabilities (this excludes the Battalion Unit which is usually on scene first). Incidents excluded from the analysis include those with inaccuracies in the travel times as recorded by dispatch. There was no data available for moderate risk structure fires for the 2022 time frame.

For 90 percent of all moderate risk fires during 2024, the total response time for arrival of the first unit is: 6 minutes and 45 seconds. The first on scene engine, is capable of providing personnel for rescue and fire suppression abilities. The first due unit, and all subsequent arriving apparatus, follow standard operating procedures established in the agency standard operating procedures.

For 90 percent of all moderate risk fires during 2024, the total response time for the arrival of the ERF, staffed with 17 firefighters and officers, is: 13 minutes and 45 seconds. The ERF used during this period is capable of the following actions: establishing formal command, uninterrupted water supply, fire attack, search group, ventilation, rapid intervention team (RIT), scene lighting, and medical care. All the operations described above are based on the agency standard operating procedures.

Fire Suppression Moderate Risk 1 or 2 family dwelling 90th Percentile Times Baseline Performance			2024 n=3	Station 1 n=1	Station 2 n=1	Station 3 n=0	Station 4 n=1
Alarm Handling	Pick-up to Dispatch	Urban standard 1:46	0:57	0:55	0:58	n/a	0:41
Turnout Time	Turnout Time 1st Unit	Urban standard 1:20	2:23	2:03	2:28	n/a	0:17
Travel Time	Travel Time 1st Unit	Urban standard 4:00	3:50	3:58	2:36	n/a	3:18
	Travel Time ERF Concentration	Urban standard 8:00	12:49	13:11	11:21	n/a	10:51
Total Response Time	Total Response Time 1st Unit Distribution	Urban standard 7:06	6:45	6:56	6:02	n/a	4:16
	Total Response Time ERF Concentration	Urban standard 10:10	13:45	14:06	12:19	n/a	11:32

Table 46: 2024 Baseline Performance Moderate Risk Fire

In reviewing this chart, keeping in mind that the small number of data points means that the numbers represented may not be an accurate prediction of 90th percentile performance, we have the following observations. For moderate risk structure fires, the travel and total response time for the first unit on scene is meeting the response time goals. The effective response force (ERF) concentration times are exceeding the standard and may be due to units being unavailable due to simultaneous incidents. In reviewing the 2023 chart, we see that there have been improvements in response times in 2024 as compared to 2023. This may be attributed to greater availability for the front line engine units upon the addition of aid units in 2024.

2023 Baseline Performance Moderate Risk Structure Fires

For 90 percent of all moderate risk fires during 2023, the total response time for arrival of the first unit is: 8 minutes and 43 seconds. The first on scene engine, is capable of providing personnel for rescue and fire suppression abilities. The first due unit, and all subsequent arriving apparatus, follow standard operating procedures established in the agency standard operating procedures.

For 90 percent of all moderate risk fires during 2023, the total response time for the arrival of the ERF, staffed with 17 firefighters and officers, is: 14 minutes and 4 seconds. The ERF used during this period is capable of the following actions: establishing formal command, uninterrupted water supply, fire attack, search group, ventilation, rapid intervention team (RIT), scene lighting, and medical care. All the operations described above are based on the agency standard operating procedures. *one response time which was over an hour was excluded from the calculation as it was a data entry error.

Fire Suppression Moderate Risk 1 or 2 family detached dwelling 90th Percentile Times Baseline Performance			2023 n=12	Station 1 n=5	Station 2 n=2	Station 3 n=3	Station 4 n=2
Alarm Handling	Pick-up to Dispatch	Urban standard 1:46	0:50	0:14	0:27	1:25	0:47
Turnout Time	Turnout Time 1st Unit	Urban standard 1:20	2:36	2:11	2:35	2:11	2:47
Travel Time	Travel Time 1st Unit	Urban standard 4:00	6:05	3:22	6:01	3:38	7:11
	Travel Time ERF Concentration	Urban standard 8:00	11:15	10:51	10:27	9:54	n/a
Total Response Time	Total Response Time 1st Unit Distribution	Urban standard 7:06	8:43	5:57	8:39	6:43	11:40
	Total Response Time ERF Concentration	Urban standard 10:10	14:04	11:37	15:34	10:21	n/a

Table 47: 2023 Baseline Performance Moderate Risk Fire

Baseline Performance Low Risk Fires

The department does not rely on the use of automatic aid from neighboring fire departments to provide its effective response force complement of personnel for low risk fires. These resources are immediately available as part of a seamless response system. Low risk fires require 2 Firefighters and 1 officer on scene to complete all critical tasks. For this analysis we used all series 100 Fires, excluding building fire (code 111). The department's actual baseline service level performance is as follows:

2024 Baseline Performance Low Risk Fires

For 90 percent of all low risk fires during 2024, the total response time for arrival of the first unit is: 10 minutes and 44 seconds. The first on scene engine, is capable of providing personnel for rescue and fire suppression abilities. The first due unit, and all subsequent arriving apparatus, follow standard operating procedures established in the agency standard operating procedures.

Fire Suppression Low Risk –Outside Fires, Rubbish, Passenger Vehicle 90th Percentile Times Baseline Performance			2024 n=269	Station 1 n=66	Station 2 n=103	Station 3 n=10	Station 4 n=90
Alarm Handling	Pick-up to Dispatch	Urban standard 1:46	1:50	1:40	1:58	1:20	1:34
Turnout Time	Turnout Time 1st Unit	Urban standard 1:20	2:22	2:19	2:14	2:44	2:26
Travel Time	Travel Time 1st Unit	Urban standard 4:00	7:14	5:30	8:42	8:00	5:12
Total Response Time	Total Response Time 1st Unit Distribution	Urban standard 7:06	10:44	8:54	11:38	11:28	8:43

Table 48: 2024 Baseline Performance Low Risk Fire

2023 Baseline Performance Low Risk Fires

For 90 percent of all low risk fires during 2023, the total response time for arrival of the first unit is: 10 minutes and 18 seconds. The first on scene engine, is capable of providing personnel for rescue and fire suppression abilities. The first due unit, and all subsequent arriving apparatus, follow standard operating procedures established in the agency standard operating procedures.

Fire Suppression Low Risk – Isolated Outside Fires, Rubbish, Passenger Vehicle 90th Percentile Times Baseline Performance			2023 n=331	Station 1 n=103	Station 2 n=106	Station 3 n=23	Station 4 n=99
Alarm Handling	Pick-up to Dispatch	Urban standard 1:46	1:26	1:46	1:21	1:08	1:16
Turnout Time	Turnout Time 1st Unit	Urban standard 1:20	2:22	2:19	2:15	2:45	2:21
Travel Time	Travel Time 1st Unit	Urban standard 4:00	6:51	6:09	7:39	7:11	6:11
Total Response Time	Total Response Time 1st Unit Distribution	Urban standard 7:06	10:18	9:11	10:48	10:05	9:29

Table 49: 2023 Baseline Performance Low Risk Fire

For low risk structure fires in 2024, the total response time for the first unit on scene is not meeting response time goals. The differences we see between station response areas are consistent from what we see in our analysis of all responses, faster response times from Station 1 and 4 response areas. For low risk fires, the response time for the first arriving unit has lengthened from 2023 to 2024.

Emergency Medical Services Baseline Statements

EMS high risk incidents with gunshot wounds or multiple patients require 11 Firefighters on scene to complete all critical tasks. For this analysis we used incidents coded as medical (code 300 series) with 5 OFD units responding. Incidents excluded from the analysis include those with inaccuracies in the travel times as recorded by dispatch and incidents coded as EMS with Safety Concerns as those have extended response times due to staging for law enforcement support. In our analysis we found that while there was a significant number of incidents where 5 units were dispatched, very few EMS incidents that had 5 or more initially dispatched units arrive on scene, with most of these units cancelled en route as the initially arriving commander modifies the response upon assessing the scene.

In conducting this analysis, challenges were found with data integrity, and strategies to improve this are underway. Response times and ERF distribution times are impacted by delays in dispatching due to safety concerns, and unit staging while awaiting for law enforcement or other support. With the implementation of NERIS, we are developing strategies to better identify and analyze these high risk and unique incidents.

In February of 2024 our incident reporting system began receiving the initial dispatch code along with the incident type. This will allow for a more detailed analysis of responses, as will implementing a direct connection to the CAD system with an analysis tool such as Power BI or Darkhorse. We also expect the implementation of NERIS to give us access to more analysis tools. The 2023-2024 analysis was limited to incident type and number of units on scene to discern the risk level of the incident. There was insufficient data for 2022 analysis

The following tables reflect actual performance during 2023 to 2024 where the data was available. OFD does not rely on the use of automatic aid from neighboring fire departments to provide a effective response force complement of personnel. These resources are immediately available as part of a seamless response system. The department's actual baseline service level performance is as follows:

2024 Baseline Performance High Risk EMS

For 90 percent of all high risk EMS responses in 2024, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer, is: 8 minutes and 20 seconds. The first-due unit is capable of: establishing command; maintaining scene safety; evaluating the need for additional resources; initiating basic life support and early defibrillation; and assisting transportation of the patient to the appropriate receiving facility.

For 90 percent of all high EMS response incidents in 2024, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 11 firefighters, firefighter paramedics, and officers, is: 15 minutes and 21 seconds. The ERF is capable of: maintaining command and scene safety; delivering advanced life support including the appropriate treatment; and transporting the patients to the appropriate receiving facility.

EMS High Risk 90th Percentile Times Baseline Performance			2024 n=116	Station 1 n=45	Station 2 n=42	Station 3 n=6	Station 4 n=23
Alarm Handling	Pick-up to Dispatch	Urban standard 1:46	1:19	1:14	1:37	1:00	1:17
Turnout Time	Turnout Time 1st Unit	Urban standard 1:00	1:48	1:38	1:43	1:59	1:53
Travel Time	Travel Time 1st Unit	Urban standard 4:00	5:15	4:20	5:11	7:52	5:16
	Travel Time ERF Concentration	Urban standard 8:00	6:41 n=3	7:03 n=1	n/a	n/a	5:11 n=2
Total Response Time	Total Response Time 1st Unit Distribution	Urban standard 6:46	8:20	7:32	8:16	10:13	8:33
	Total Response Time ERF Concentration	Urban standard 10:10	15:21 n=3	16:35 n=1	n/a	n/a	10:04 n=2

Table 50: 2024 Baseline Performance High Risk EMS

2023 Baseline Performance High Risk EMS

For 90 percent of all high risk EMS responses in 2023, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer, is: 7 minutes and 59 seconds. The first-due unit is capable of: establishing command; maintaining scene safety; evaluating the need for additional resources; initiating basic life support and early defibrillation; and assisting transportation of the patient to the appropriate receiving facility.

For 90 percent of all high EMS response incidents in 2023, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 11 firefighters, firefighter paramedics, and officers is: 9 minutes and 35 seconds. The ERF is capable of: maintaining command and scene safety; delivering advanced life support including the appropriate treatment; and transporting the patients to the appropriate receiving facility.

EMS High Risk 90th Percentile Times Baseline Performance			2023 n=111	Station 1 n=45	Station 2 n=31	Station 3 n=7	Station 4 n=28
Alarm Handling	Pick-up to Dispatch	Urban standard 1:46	1:17	1:03	1:12	1:01	1:23
Turnout Time	Turnout Time 1st Unit	Urban standard 1:00	1:54	1:51	1:38	2:26	1:45
Travel Time	Travel Time 1st Unit	Urban standard 4:00	5:04	4:52	5:36	4:27	4:40
	Travel Time ERF Concentration	Urban standard 8:00	6:54 n=2	n/a	n/a	6:29 n=1	6:57 n=1
Total Response Time	Total Response Time 1st Unit Distribution	Urban standard 6:46	7:59	8:00	8:21	7:46	6:59
	Total Response Time ERF Concentration	Urban standard 10:10	9:35 n=2	n/a	n/a	8:19 n=1	9:43 n=1

Table 51: 2023 Baseline Performance High Risk EMS

2024 Baseline Performance Moderate Risk EMS

For 90 percent of all moderate risk EMS responses in 2024, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer, is: 7 minutes and 57 seconds. The first-due unit is capable of: establishing command; maintaining scene safety; evaluating the need for additional resources; initiating basic life support and early defibrillation; and assisting transportation of the patient to the appropriate receiving facility.

For 90 percent of all high EMS response incidents in 2024, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 8 firefighters, firefighter paramedics, and officers is: 16 minutes and 8 seconds. The ERF is capable of: maintaining command and scene safety; delivering advanced life support including the appropriate treatment; and transporting the patients to the appropriate receiving facility.

EMS Moderate Risk –CPR Incident 90th Percentile Times Baseline Performance			2024 n=65	Station 1 n=18	Station 2 n=18	Station 3	Station 4 n=29
Alarm Handling	Pick-up to Dispatch	Urban standard 1:46	1:46	2:31	1:25	n/a	1:30
Turnout Time	Turnout Time 1st Unit	Urban standard 1:00	2:05	1:51	1:54	n/a	2:07
Travel Time	Travel Time 1st Unit	Urban standard 4:00	5:38	4:12	5:40	n/a	5:38
	Travel Time ERF Concentration	Urban standard 8:00	7:57	6:20	7:53	n/a	8:13
Total Response Time	Total Response Time 1st Unit Distribution	Urban standard 6:46	8:43	8:24	8:31	n/a	8:39
	Total Response Time ERF Concentration	Urban standard 10:10	16:08	14:26	15:57	n/a	16:07

Table 52: 2024 Baseline Performance Moderate Risk EMS

2023 Baseline Performance Moderate Risk EMS

For 90 percent of all moderate risk EMS responses in 2023, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer, is: 8 minutes and 52 seconds. The first-due unit is capable of: establishing command; maintaining scene safety; evaluating the need for additional resources; initiating basic life support and early defibrillation; and assisting transportation of the patient to the appropriate receiving facility.

For 90 percent of all moderate EMS response incidents in 2023, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 8 firefighters, firefighter paramedics, and officers is: 14 minutes and 24 seconds. The ERF is capable of: maintaining command and scene safety; delivering advanced life support including the appropriate treatment; and transporting the patients to the appropriate receiving facility.

EMS Moderate Risk –CPR Incident 90th Percentile Times Baseline Performance			2023 n=49	Station 1 n=28	Station 2 n=7	Station 3 n=6	Station 4 n=8
Alarm Handling	Pick-up to Dispatch	Urban standard 1:46	1:06	1:02	0:37	0:49	1:16
Turnout Time	Turnout Time 1st Unit	Urban standard 1:00	1:49	1:28	1:52	2:15	1:47
Travel Time	Travel Time 1st Unit	Urban standard 4:00	5:54	5:38	6:21	6:44	3:22
	Travel Time ERF Concentration	Urban standard 8:00	8:57	8:57	10:03	6:59	7:34
Total Response Time	Total Response Time 1st Unit Distribution	Urban standard 6:46	8:52	8:28	10:00	9:13	6:27
	Total Response Time ERF Concentration	Urban standard 10:10	14:24	14:17	14:02	14:40	14:35

Table 53: 2023 Baseline Performance Moderate Risk EMS

2024 Baseline Performance Low Risk EMS

For 90 percent of all moderate risk EMS responses in 2024, the total response time for the arrival of the first-due unit, staffed with 2 firefighters, is: 7 minutes and 33 seconds. The first-due unit is capable of: establishing command; maintaining scene safety; evaluating the need for additional resources; initiating basic life support and early defibrillation; and assisting transportation of the patient to the appropriate receiving facility.

For 90 percent of all high EMS response incidents in 2024, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 2 firefighters is: 10 minutes and 21 seconds. The ERF is capable of: maintaining command and scene safety; delivering advanced life support including the appropriate treatment; transporting or arranging for transport of the patients to the appropriate receiving facility.

For this analysis NFIRS incident data was filtered for district, emergent, suppression apparatus count < 2, excluding Medic units, excluding cancelled en route, incident type group = medical (300 series) to capture single unit incidents.

EMS Low Risk – Basic Life Support 90th Percentile Times Baseline Performance			2024 n=7,733	Station 1 n=2,107	Station 2 n=2,830	Station 3 n=848	Station 4 n=1,948
Alarm Handling	Pick-up to Dispatch	Urban standard 1:46	1:27	1:28	1:28	1:22	1:27
Turnout Time	Turnout Time 1st Unit	Urban standard 1:00	2:19	2:16	1:28	2:19	2:15
Travel Time	Travel Time 1st Unit	Urban standard 4:00	7:33	5:57	8:40	8:03	6:21
Total Response Time	Total Response Time 1st Unit Distribution	Urban standard 6:46	10:21	8:34	11:27	10:47	9:18

Table 54: 2024 Baseline Performance Low Risk EMS

2023 Baseline Performance Low Risk EMS

For 90 percent of all moderate risk EMS responses in 2023, the total response time for the arrival of the first-due unit, staffed with 2 firefighters, is: 7 minutes and 13 seconds. The first-due unit is capable of: establishing command; maintaining scene safety; evaluating the need for additional resources; initiating basic life support and early defibrillation; and assisting transportation of the patient to the appropriate receiving facility.

For 90 percent of all high EMS response incidents in 2023, the total response time for the arrival of the effective response force (ERF), staffed with a minimum of 2 firefighters is: 9 minutes and 51 seconds. The ERF is capable of: maintaining command and scene safety; delivering basic life support including the appropriate treatment; and transporting or arranging for transport of the patients to the appropriate receiving facility.

EMS Low Risk – Basic Life Support 90th Percentile Times Baseline Performance			2023 n=7,338	Station 1 n=2,079	Station 2 n=2,629	Station 3 n=817	Station 4 n=1,813
Alarm Handling	Pick-up to Dispatch	Urban standard 1:46	1:13	1:17	1:10	1:09	1:17
Turnout Time	Turnout Time 1st Unit	Urban standard 1:00	2:13	2:20	1:10	2:21	2:14
Travel Time	Travel Time 1st Unit	Urban standard 4:00	7:13	6:21	8:03	8:00	6:01
Total Response Time	Total Response Time 1st Unit Distribution	Urban standard 6:46	9:51	9:03	10:30	10:41	8:47

Table 55: 2023 Baseline Performance Low Risk EMS

High Risk Technical Rescue Baseline Statements

The following tables reflect actual performance during 2023 to 2024. The department relies on the use of automatic aid from the Thurston County Special Operations Team (SORT) to add capabilities to its effective response force complement of personnel. These resources are immediately available as part of a seamless response system. The department's actual baseline service level performance is as follows:

2024 Baseline Performance High Risk Technical Rescue

For 90 percent of all high risk technical rescue incidents in 2024, the total response time for the arrival of the first-due unit, staffed with a minimum of 2 firefighters and 1 officer, is: 8 minutes and 49 seconds. The first-due unit is capable of: establishing command; evaluating the need for additional resources; and controlling immediate hazards and life safety issues. There was statistically insufficient data to report on ERF concentration for this risk level.

Technical Rescue High Risk – trench, confined space, rope rescue, structure collapse 90th Percentile Times Baseline Performance			2024 n=8	Station 1 n=6	Station 2 n=2	Station 3 n=0	Station 4 n=0
Alarm Handling	Pick-up to Dispatch	Urban standard 1:46	1:47	1:42	1:29	n/a	n/a
Turnout Time	Turnout Time 1st Unit	Urban standard 1:20	1:40	1:43	1:17	n/a	n/a
Travel Time	Travel Time 1st Unit	Urban standard 4:00	6:09	6:22	4:58	n/a	n/a
	Travel Time ERF Concentration	Urban standard 8:00	17:05 n=1	17:05 n=1	n/a	n/a	n/a
Total Response Time	Total Response Time 1st Unit Distribution	Urban standard 7:06	8:49	9:09	7:44	n/a	n/a
	Total Response Time ERF Concentration	Urban standard 10:10	18:00 n=1	18:00 n=1	n/a	n/a	n/a

Table 56: 2024 Baseline Performance High Risk Rescue

To conduct this analysis we used incident type = Rescue, water rescue, electrical rescue, extrication rescue excluding elevator (code 351, 354, 355, 356, 357, 350, 361, 362, 363, 364, 365, 360, 371, 372, 370. Only one incident had 5 units that went on scene which resulted in statistically insignificant ERF numbers.

2023 Baseline Performance High Risk Technical Rescue

For 90 percent of all high risk technical rescue incidents in 2023, the total response time for the arrival of the first-due unit, staffed with a minimum of 2 firefighters and 1 officer, is: 12 minutes and 31 seconds. The first-due unit is capable of: establishing command; evaluating the need for additional resources; and controlling immediate hazards and life safety issues. There were no incidents with 5 units recorded on scene to complete the ERF concentration.

Technical Rescue High Risk – trench, confined space, rope rescue, structure collapse 90th Percentile Times Baseline Performance			2023 n=9	Station 1 n=4	Station 2 n=2	Station 3 n=1	Station 4 n=2
Alarm Handling	Pick-up to Dispatch	Urban standard 1:46	3:57	3:17	3:26	n/a	n/a
Turnout Time	Turnout Time 1st Unit	Urban standard 1:20	2:40	2:13	2:32	1:51	1:59
Travel Time	Travel Time 1st Unit	Urban standard 4:00	6:00	4:19	7:26	3:54	4:56
	Travel Time ERF Concentration	Urban standard 8:00	n/a	n/a	n/a	n/a	n/a
Total Response Time	Total Response Time 1st Unit Distribution	Urban standard 7:06	12:31	8:26	13:27	5:56	11:48
	Total Response Time ERF Concentration	Urban standard 10:10	n/a	n/a	n/a	n/a	n/a

Table 57: 2023 Baseline Performance High Risk Rescue

Technical Rescue Moderate Risk Baseline Statement

The department does not rely on the use of automatic aid from neighboring fire departments to provide its effective response force complement of personnel for moderate risk technical rescue. These resources are immediately available as part of a seamless response system. The department's actual baseline service level performance is as follows:

2024 Baseline Performance Technical Rescue Moderate Risk

For 90 percent of all moderate risk technical rescue incidents in 2024, the total response time for the arrival of the first-due unit, staffed with a minimum of 2 firefighters and 1 officer, is: 12 minutes and 41 seconds. The first-due unit is capable of: establishing command; evaluating the need for additional resources; and controlling immediate hazards and life safety issues.

For 90 percent of all moderate risk technical rescue incidents in 2024, the total response time for the arrival of the effective response force (ERF), staffed with 7 firefighters and officers, is: 19 minutes and 7 seconds. The ERF is capable of: appointing a site safety officer; hazard control; and patient stabilization and arranging for transport.

In this analysis it was identified that call processing times for these types of rescue incidents are extended. This may be due to the complexities of identifying the location when these incidents occur on the highway. The Incident type included in this analysis are motor vehicle accidents code 322, 352 and 323 with ERF concentration met with 3 units on scene.

Technical Rescue Moderate Risk 90th Percentile Times Baseline Performance			2024 n=227	Station 1 n=46	Station 2 n=50	Station 3 n=18	Station 4 n=85
Alarm Handling	Pick-up to Dispatch	Urban standard 1:46	3:51	3:11	3:53	2:53	4:28
Turnout Time	Turnout Time 1st Unit	Urban standard 1:20	2:09	2:16	2:01	1:42	2:05
Travel Time	Travel Time 1st Unit	Urban standard 4:00	8:01	8:44	6:21	7:59	8:31
	Travel Time ERF Concentration	Urban standard 8:00	13:26 n=36	12:19 n=24	13:00 n=14	n/a	11:02 n=17
Total Response Time	Total Response Time 1st Unit Distribution	Urban standard 7:06	12:41	13:09	11:43	10:21	19:33
	Total Response Time ERF Concentration	Urban standard 10:10	19:07 n=36	13:53 n=24	20:24 n=14	n/a	20:05 n=17

Table 58: 2024 Baseline Performance Moderate Risk EMS

2023 Baseline Performance Technical Rescue Moderate Risk

For 90 percent of all moderate risk technical rescue incidents in 2023, the total response time for the arrival of the first-due unit, staffed with a minimum of 2 firefighters and 1 officer, is: 10 minutes and 20 seconds. The first-due unit is capable of: establishing command; evaluating the need for additional resources; and controlling immediate hazards and life safety issues.

For 90 percent of all moderate risk technical rescue incidents in 2023, the total response time for the arrival of the effective response force (ERF), staffed with 7 firefighters and officers, is: 15 minutes and 14 seconds. The ERF is capable of: appointing a site safety officer; hazard control; and patient stabilization and arranging for transport.

Technical Rescue Moderate Risk – Motor vehicle Accident with Extrication 90th Percentile Times Baseline Performance			2023 n=187	Station 1 n=68	Station 2 n=48	Station 3 n=10	Station 4 n=61
Alarm Handling	Pick-up to Dispatch	Urban standard 1:46	2:09	2:12	1:19	3:09	2:11
Turnout Time	Turnout Time 1st Unit	Urban standard 1:20	2:06	2:23	1:53	1:44	2:04
Travel Time	Travel Time 1st Unit	Urban standard 4:00	6:13	5:48	6:15	6:12	6:28
	Travel Time ERF Concentration	Urban standard 8:00	10:20 n=32	10:36 n=18	8:18 n=4	9:45 n=2	9:24 n=8
Total Response Time	Total Response Time 1st Unit Distribution	Urban standard 7:06	10:20	9:19	10:32	9:26	10:58
	Total Response Time ERF Concentration	Urban standard 10:10	15:14 n=32	12:50 n=18	17:14 n=4	11:16 n=2	19:26 n=8

Table 59: 2023 Baseline Performance Moderate Risk EMS

The third unit on scene for these calls is most often the truck which is coming from the Station 1 response area.

Technical Rescue Low Risk Baseline Statement

The department does not rely on the use of automatic aid from neighboring fire departments to provide its effective response force complement of personnel for low risk technical rescue. These resources are immediately available as part of a seamless response system. The department's actual baseline service level performance is as follows:

2024 Baseline Performance Technical Rescue Low Risk

For 90 percent of all low risk technical rescue incidents in 2024, the total response time for the arrival of the first-due unit, staffed with a minimum of 2 firefighters and 1 officer, is: 10 minutes and 31 seconds. The first-due unit is capable of: establishing command; evaluating the need for additional resources; and controlling immediate hazards and life safety issues.

To conduct this analysis we used incident type Removal of victim(s) from stalled elevator (code 353). This analysis is only looking at incidents that are labeled as 'emergent'.

Technical Rescue Low Risk – Elevator Entrapment, Lock-ins 90th Percentile Times Baseline Performance			2024 n=42	Station 1 n=19	Station 2 n=4	Station 3 n=1	Station 4 n=17
Alarm Handling	Pick-up to Dispatch	Urban standard 1:46	1:43	0:59	1:31	0:27	2:00
Turnout Time	Turnout Time 1st Unit	Urban standard 1:20	1:56	1:57	1:52	1:42	1:42
Travel Time	Travel Time 1st Unit	Urban standard 4:00	8:27	8:19	12:31	6:24	8:01
	Travel Time ERF Concentration	Urban standard 8:00	8:27	8:19	12:31	6:24	8:01
Total Response Time	Total Response Time 1st Unit Distribution	Urban standard 7:06	10:31	10:19	14:46	8:33	10:09

Table 60: 2024 Baseline Performance Low Risk Rescue

2023 Baseline Performance Technical Rescue Low Risk

For 90 percent of all low risk technical rescue incidents in 2023, the total response time for the arrival of the first-due unit, staffed with a minimum of 2 firefighters and 1 officer, is: 11 minutes and 9 seconds. The first-due unit is capable of: establishing command; evaluating the need for additional resources; and controlling immediate hazards and life safety issues.

Technical Rescue Low Risk – Elevator Entrapment, Lock-ins 90th Percentile Times Baseline Performance			2023 n=43	Station 1 n=16	Station 2 n=6	Station 3 n=6	Station 4 n=14
Alarm Handling	Pick-up to Dispatch	Urban standard 1:46	1:25	1:26	0:43	0:59	0:56
Turnout Time	Turnout Time 1st Unit	Urban standard 1:20	2:10	1:52	2:02	1:42	2:34
Travel Time	Travel Time 1st Unit	Urban standard 4:00	8:16	7:48	8:58	9:18	5:57
Total Response Time	Total Response Time 1st Unit Distribution	Urban standard 7:06	11:09	10:04	11:42	11:28	9:47

Table 61: 2023 Baseline Performance Low Risk Rescue

High Risk Hazardous Materials Baseline Statements

The following tables reflect actual performance during 2023 to 2024 where the data was available The department relies on the use of mutual aid from county and state resources to add capabilities to its effective response force complement of personnel when necessary.

To conduct this analysis we used Incident types Radiation leak, radioactive material, Explosive, bomb removal, Biological hazard, confirmed or suspected (codes 431,471, 451). The analysis of incident zero emergent responses that were recorded with these incident types in 2023-2024. Bomb and chemical threat response is something we see as the state capitol as freqently as once a year, however the recording of the incident type may not be caputuring all of these incidents. In 2025 OFD will transition to using a new system, NERIS, to report incidents, which will improve the ability to extract data for all incident types.

Moderate Risk Hazardous Materials Baseline Statements

The following tables reflect actual performance during 2022 to 2024 where the data was available The department relies on the use of mutual aid from county and state resources to add capabilities to its effective response force complement of personnel when necessary. These resources are requestable through dispatch. The department's actual baseline service level performance is as follows:

2024 Baseline Performance Hazardous Materials Moderate Risk

For 90 percent of all moderate risk hazardous materials response incidents in 2024, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer, is: 9 minutes and 50 seconds. The first-due unit is capable of: establishing command; evaluating the need for additional resources; establishing the initial isolation distance; and assessing the situation to determine the presence of a potential hazardous material or explosive device.

For 90 percent of all moderate risk hazardous materials response incidents in 2024, the total response time for the arrival of the effective response force (ERF) including the hazardous materials response team, staffed with 7 firefighters and officers, is: 12 minutes and 12 seconds. The ERF is capable of: providing a dedicated incident safety officer; emergency or mass decontamination; defensive containment measures; and the knowledge, skills, and abilities to mitigate a hazardous materials incident.

Incident types used for this analysis include Chemical spill or leak, Carbon monoxide incident, Gasoline or other flammable Liquid spill, Class I, Gas leak (natural gas or LPG), and Refrigeration leak (code 422, 424, 411,412,423).

Hazardous Material Moderate Risk – Bulk transportation leak, distribution leak inside a building 90th Percentile Times Baseline Performance			2024 n=63	Station 1 n=22	Station 2 n=21	Station 3 n=10	Station 4 n=9
Alarm Handling	Pick-up to Dispatch	Urban standard 1:46	1:36	1:38	1:35	1:37	1:19
Turnout Time	Turnout Time 1st Unit	Urban standard 1:20	2:15	2:18	2:07	1:46	2:18
Travel Time	Travel Time 1st Unit	Urban standard 4:00	6:47	4:50	6:49	7:12	5:39
	Travel Time ERF Concentration	Urban standard 8:00	n=36 10:32	n=14 8:52	n=15 11:35	n=5 9:23	n=2 8:15
Total Response Time	Total Response Time 1st Unit Distribution	Urban standard 7:06	9:50	7:54	9:40	10:19	7:59
	Total Response Time ERF Concentration	Urban standard 10:10	n=36 12:12	n=14 12:31	n=15 12:16	n=5 9:59	n=2 9:48

Table 62:2024 Baseline Performance Moderate Risk Hazardous

2023 Baseline Performance Hazardous Materials Moderate Risk

For 90 percent of all moderate risk hazardous materials response incidents in 2023, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer, is: 13 minutes and 15 seconds. The first-due unit is capable of: establishing command; evaluating the need for additional resources; establishing the initial isolation distance; and assessing the situation to determine the presence of a potential hazardous material or explosive device.

For 90 percent of all moderate risk hazardous materials response incidents in 2023, the total response time for the arrival of the effective response force (ERF) including the hazardous materials response team, staffed with 7 firefighters and officers, is: 15 minutes and 48 seconds. The ERF is capable of: providing a dedicated incident safety officer; emergency or mass decontamination; defensive containment measures; and the knowledge, skills, and abilities to mitigate a hazardous materials incident.

Hazardous Material Moderate Risk – Bulk transportation leak, distribution leak inside a building 90th Percentile Times Baseline Performance			2023 n=54	Station 1 n=21	Station 2 n=18	Station 3 n=7	Station 4 n=9
Alarm Handling	Pick-up to Dispatch	Urban standard 1:46	1:29	0:51	2:24	1:08	0:55
Turnout Time	Turnout Time 1st Unit	Urban standard 1:20	2:22	2:16	2:22	2:26	1:59
Travel Time	Travel Time 1st Unit	Urban standard 4:00	8:35	5:25	9:59	7:01	7:03
	Travel Time ERF Concentration	Urban standard 8:00	9:41 n=27	8:33 n=12	10:27 n=7	15:55 n=3	8:16 n=5
Total Response Time	Total Response Time 1st Unit Distribution	Urban standard 6:20	13:15	8:53	13:47	9:26	11:20
	Total Response Time ERF Concentration	Urban standard 10:10	15:48 n=27	9:18 n=12	15:30 n=7	21:23 n=3	12:08 n=5

Table 63: 2023 Baseline Performance Moderate Risk Hazardous

Low Risk Hazardous Materials Baseline Statements

The following tables reflect actual performance during 2022 to 2024 where the data was available The department relies on the use of mutual aid from county and state resources to add capabilities to its effective response force complement of personnel when necessary. These resources are requestable through dispatch. The department's actual baseline service level performance is as follows:

2024 Baseline Performance Hazardous Materials Low Risk

For 90 percent of all low risk hazardous materials response incidents in 2024, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer, is: 13 minutes and 16 seconds. The first-due unit is capable of: establishing command; evaluating the need for additional resources; establishing the initial isolation distance; and assessing the situation to determine the presence of a potential hazardous material or explosive device.

Incident types used for this analysis include: Oil or other combustible Liquid spill, Class II or III, Chemical hazard (no spill or leak), Vehicle accident, general cleanup, Hazardous condition (no fire), other (incident type code 413, 421, 463, 400). In 2024 there were 6 incidents coded to these incident types which is giving us calculation results that are not reliable indicators of actual performance.

Hazardous Low Risk – Passenger vehicle fuel leak, gas leak outside, investigation 90th Percentile Times Baseline Performance			2024 n=7	Station 1 n=4	Station 2 n=2	Station 3 n=0	Station 4 n=1
Alarm Handling	Pick-up to Dispatch	Urban standard 1:04	4:47	4:49	0:16	n/a	0:37
Turnout Time	Turnout Time 1st Unit	Urban standard 1:20	1:54	1:10	0:42	n/a	2:09
Travel Time	Travel Time 1st Unit	Urban standard 4:00	7:17	6:59	7:09	n/a	4:09
Total Response Time	Total Response Time 1st Unit Distribution	Urban standard 6:20	13:16	14:48	8:07	n/a	6:55

Table 64: 2024 Baseline Performance Low Risk Hazardous

2023 Baseline Performance Hazardous Materials Low Risk

For 90 percent of all low risk hazardous materials response incidents in 2023, the total response time for the arrival of the first-due unit, staffed with 2 firefighters and 1 officer, is: 8 minutes and 58 seconds. The first-due unit is capable of: establishing command; evaluating the need for additional resources; establishing the initial isolation distance; and assessing the situation to determine the presence of a potential hazardous material or explosive device.

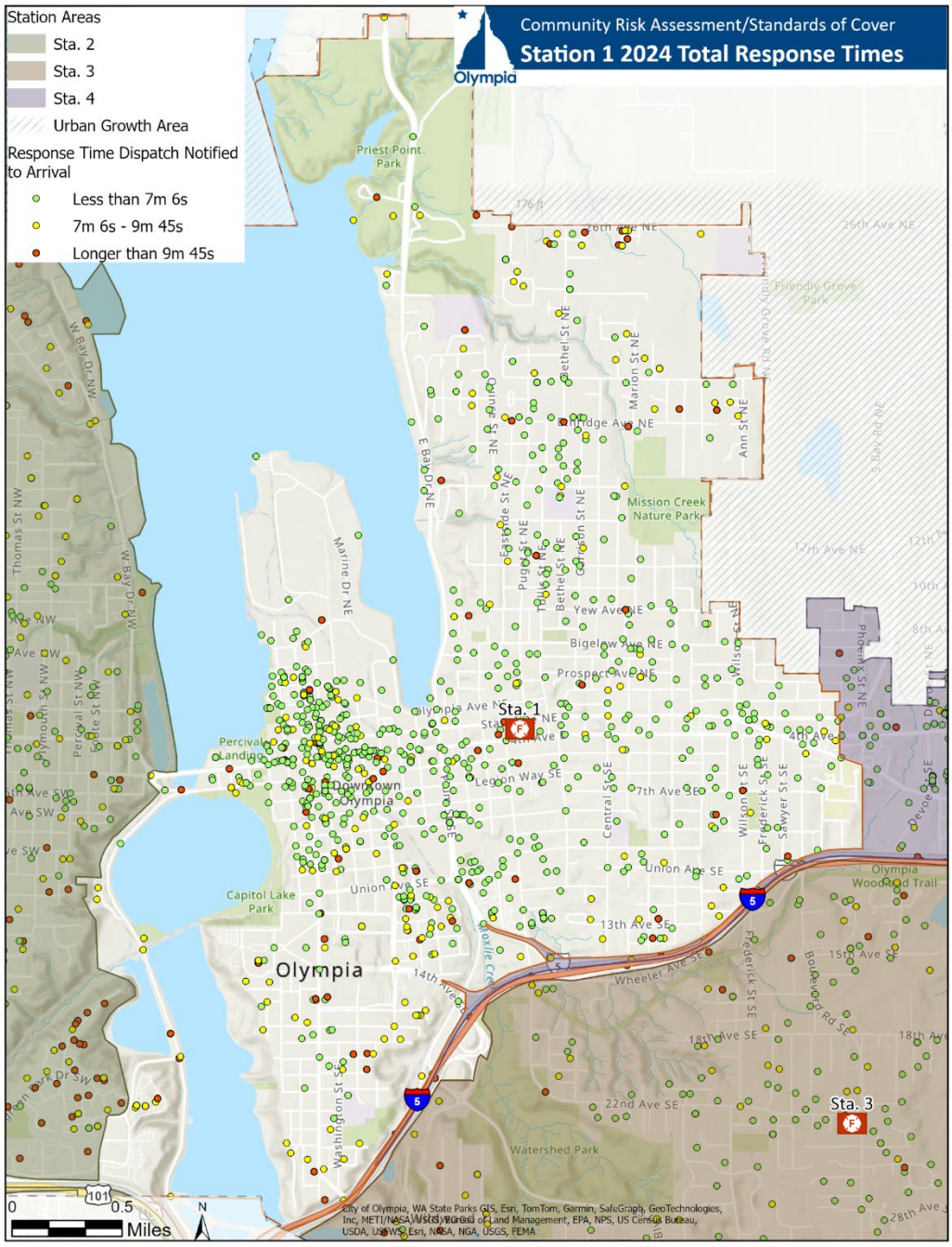
Hazardous Low Risk – Passenger vehicle fuel leak, gas leak outside, investigation 90th Percentile Times Baseline Performance			2023 n=4	Station 1 n=14	Station 2 n=11	Station 3 n=4	Station 4 n=5
Alarm Handling	Pick-up to Dispatch	Urban standard 1:04	1:10	0:51	1:04	1:26	1:27
Turnout Time	Turnout Time 1st Unit	Urban standard 1:20	2:22	2:16	1:04	3:00	2:18
Travel Time	Travel Time 1st Unit	Urban standard 4:00	7:03	6:32	11:19	7:03	5:18
Total Response Time	Total Response Time 1st Unit Distribution	Urban standard 6:20	8:58	8:53	13:15	8:58	8:55

Table 65: 2023 Baseline Performance Low Risk Hazardous

Performance Improvement Efforts

Station 1 Response Area

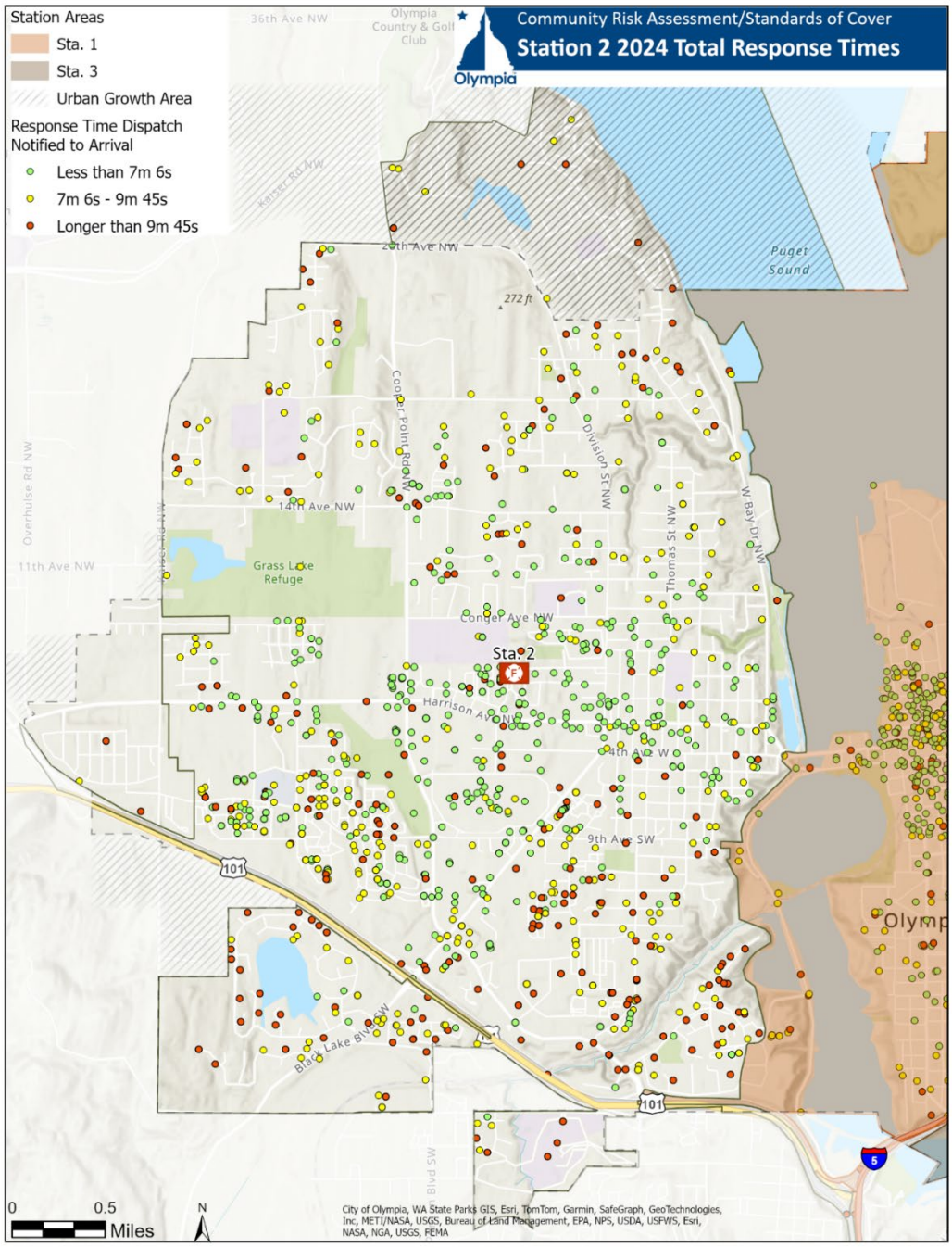
The reliability for Station 1's response area to meet the NFPA response time goal of 7 minutes 6 seconds was 77% in 2024. As evidenced by the following map, response times in the downtown core are meeting that goal, whereas the longer response times are found in the north east corner of the area, and in the South Capitol neighborhood. The South Capitol neighborhood is densely populated with narrow streets.



Map 21: 2024 Station 1 Total Response Time

Station 2 Response Area

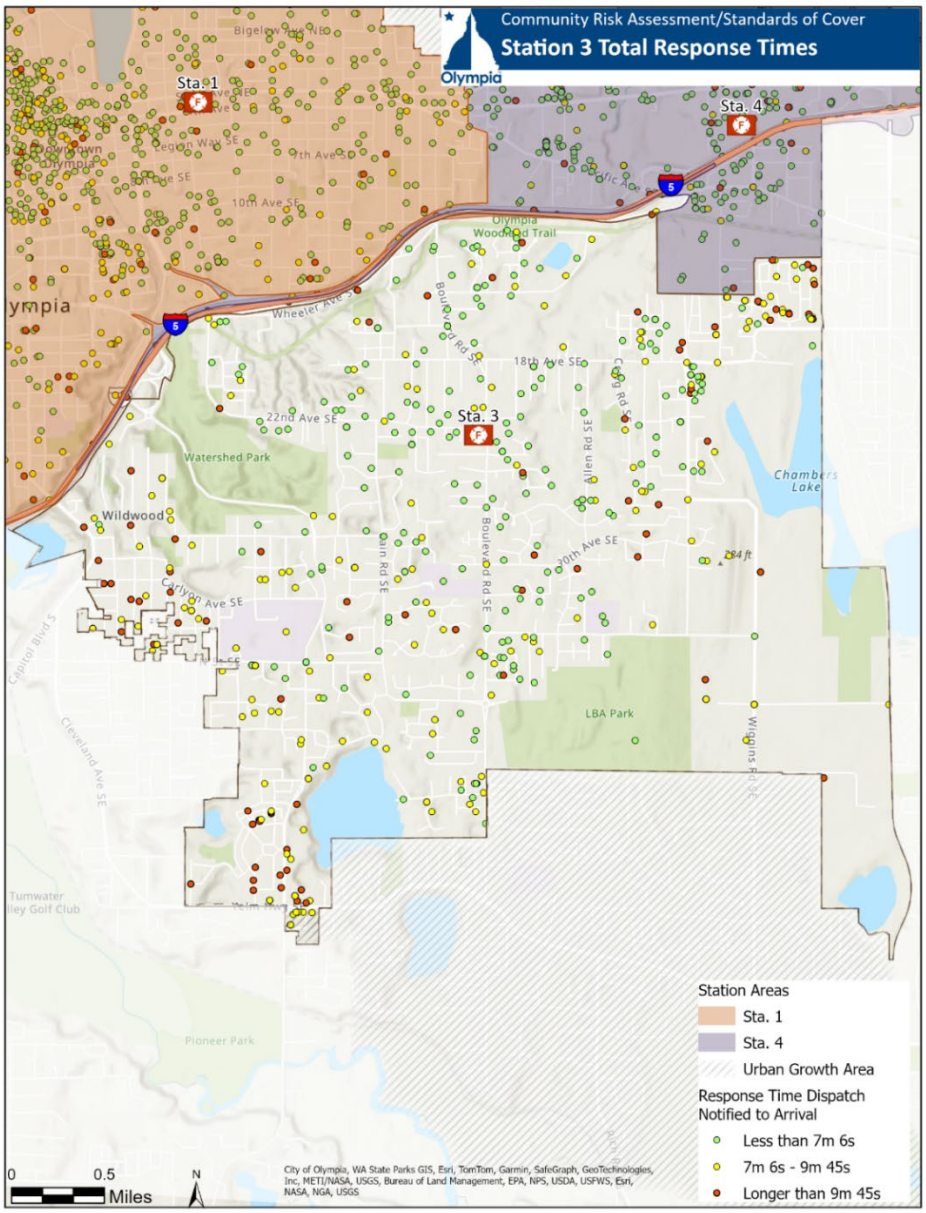
The reliability for Station 2's response area to meet the NFPA response time goal of 7 minutes 6 seconds was 49% in 2024. As evidenced by the following map, response times are extended in all of the northern and southern areas of the response area. This response time analysis clearly indicates that the location of the Station 2 facility, while central to the area, is not conducive to OFD reaching response time goals. At 7.7 square miles with areas with dense housing and narrow streets, this response area would be better served by two stations better placed to reach areas of high call volume.



Map 22: 2024 Station 2 Total Response Time

Station 3 Response Area

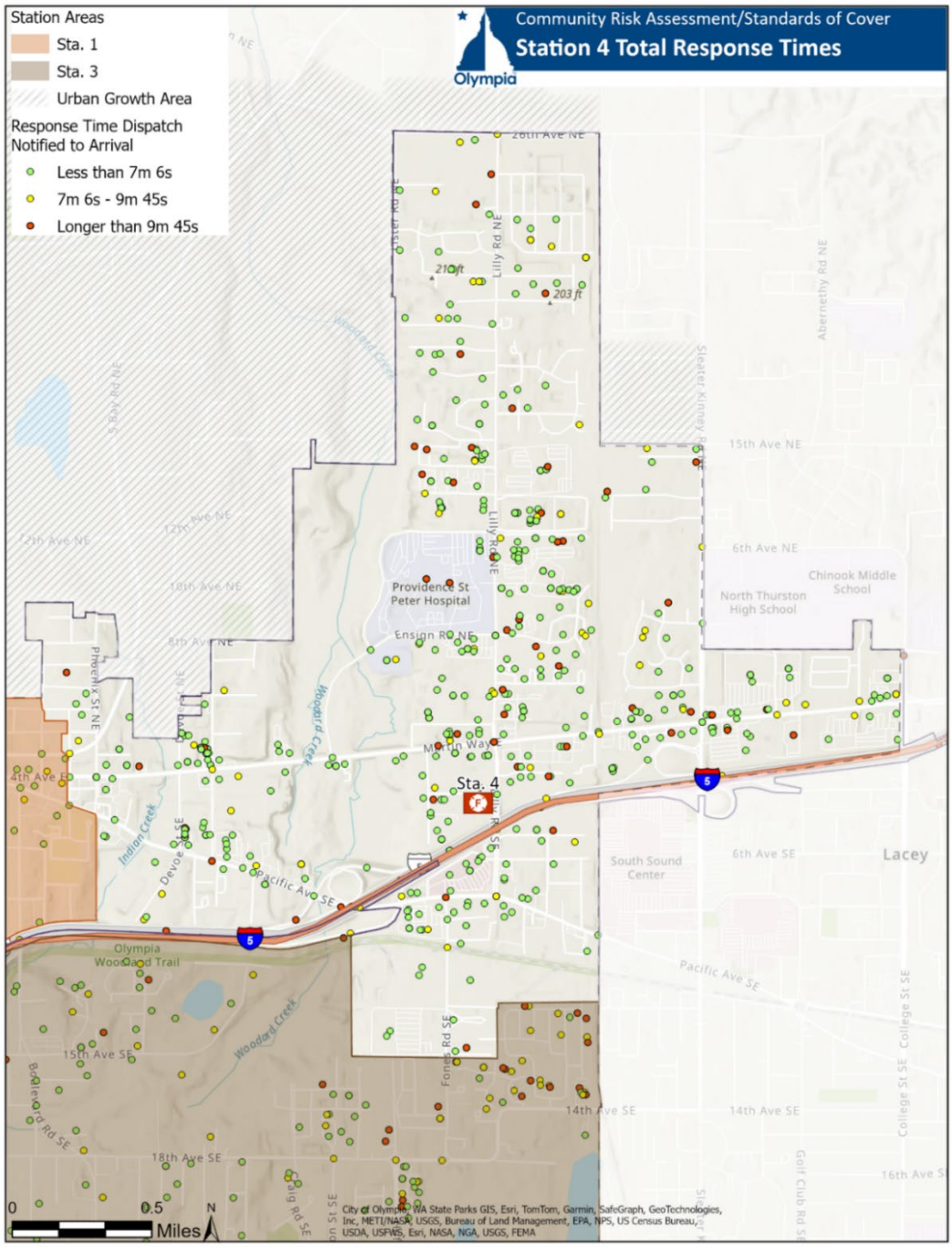
The reliability for Station 3's response area to meet the NFPA response time goal of 7 minutes 6 seconds was 45% in 2024. The Station 3 response area has a lower call volume, and the calls are spread out across the area. Another factor in the longer response times in this area are due to Engine 3 being called to cover for other units in other areas of the city. In 2024 9 percent of Station 3 calls were handled by units from other Olympia response areas. The longer response times in the Station 3 response area are along the south west edges and north east corner of the response area. If the urban growth area in the south east section is Annexed into the City of Olympia, another fire station will be required in this area, which should improve response times in this area. Some of the longer response times in this area are in the north east corner, this area should be evaluated and consideration given to possibly reassigning this to the station 4 response area.



Map 23: 2024 Station 3 Total Response Time

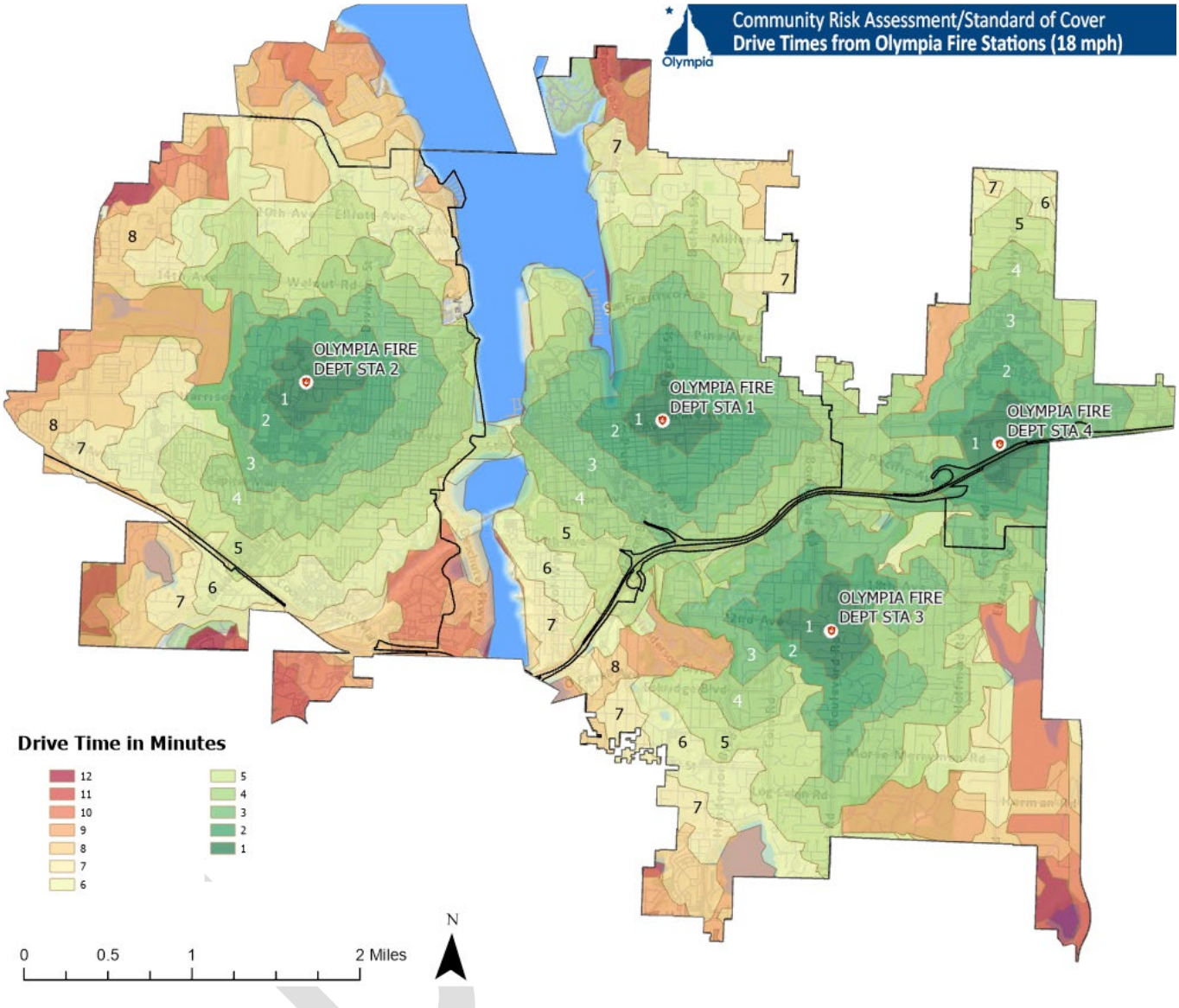
Station 4 Response Area

The reliability for Station 4's response area to meet the NFPA response time goal of 7 minutes 6 seconds was 79% in 2024. Station 4 is Olympia's newest fire station, built in 2011, and is located in the optimal location for this station response area. The station is located within a close distance of the hospital, care facilities, and supportive housing. Station 4 is close to meeting response time goals across their response area. The extended response times we are seeing in this map were primarily before the implementation of the Aid unit which was put into service in June of 2024.



Map 24: 2024 Station 4 Total Response Time

Minimum Deployment of Resources



Map 25: Drive times from fire stations

A 2024 analysis of drive times from fire stations assuming an 18 mile an hour speed, highlighted areas of concern in each station response area. The analysis limited the speed to 18 miles an hour due to the average speed the apparatus typically travels due to restrictions such as urban density, traffic, pedestrians, roundabouts, speed bumps, and other traffic calming devices. We see from this analysis that using drive times alone, we can see the need for additional studies about station locations for the Station 2 and 3 response areas. The NFPA standard is for a 4 minute drive time. The areas in our response area that are outside of the 4 minute drive time as seen on this map explain the challenges OFD has of meeting the NFPA standard response time goals.

Plan for Maintaining and Improving Response Capabilities

Performance Evaluation

Distribution Factors

Tracking the rate of availability of fire apparatus to respond to calls in their first due area helps the city identify trends and allocate resources to improve public safety. It also provides valuable feedback in evaluating the success or opportunities to improve allocation of resources to best meet the community risk analysis.

OFD's performance goal is for apparatus to be available to respond to incidents in their first due areas 95% of the time or more.

In 2024 the OFD introduced two additional Aid Units, which improved the availability of fire response apparatus to remain in the area it is assigned to. While the Aid units have only been in service for part of the year, the Westside saw a dramatic improvement in availability from 84% in 2023 to 95% in 2024. Downtown units went from 95% availability in 2023 to 97% in 2024. When we look at the City as a whole, units in 2024 were available to respond to incidents in their first due area 94% of the time.

Availability	2019	2020	2021	2022	2023	2024
Station 1	96%	96%	96%	95%	95%	97%
Station 2	86%	85%	83%	85%	84%	95%
Station 3	85%	88%	88%	89%	90%	91%
Station 4	88%	88%	90%	87%	87%	92%

Table 66: Fire Response Availability

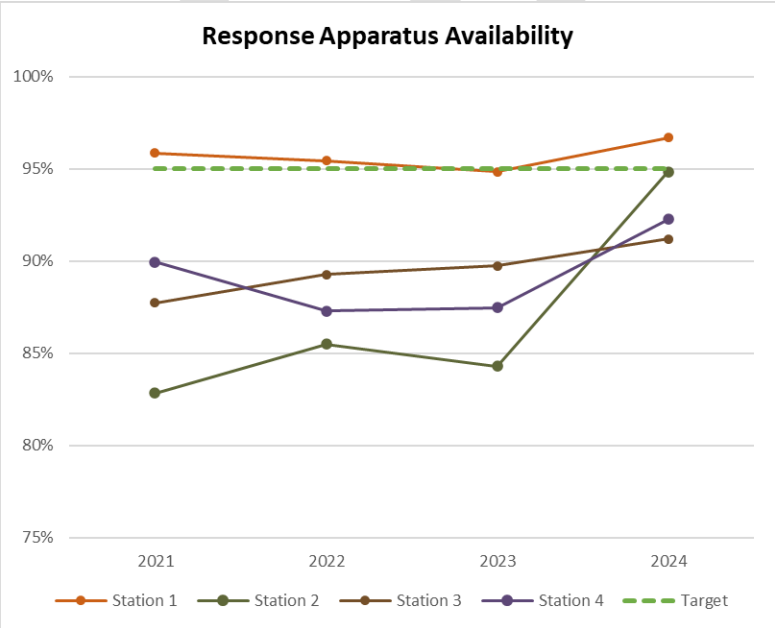


Figure 60: Fire Response Apparatus Availability

Reliability Factors

A rapid fire department response to priority calls helps to ensure public safety and save lives. Tracking response time reliability helps effectively allocate resources and identify opportunities for improved operational efficiency. The NFPA standard calls for Fire Department total response time to be 7 minutes and 6 seconds or less 90% of the time. OFD's Reliability Measures: 90% and above is On Track, 50% to 90% is Caution, below 50% is Off Track.

Through resource deployment evaluation, the introduction of Aid units and technology upgrades, the reliability of the OFD is improving, Citywide in 2024 we have met the NFPA response time goals 63% of the time. The Downtown and Northeast areas have the biggest improvement in reliability, meeting the NFPA response time goals 77% of the time Downtown and 79% of the time in the Northeast areas. The Westside and Eastside areas are geographically larger and have more challenges in meeting the standard. The OFD has a process of continuous evaluation to identify improvement strategies.

Reliability	2019	2020	2021	2022	2023	2024
Station 1	81%	80%	76%	72%	72%	77%
Station 2	51%	45%	42%	41%	52%	49%
Station 3	53%	57%	51%	42%	43%	45%
Station 4	82%	80%	81%	77%	76%	79%

Table 67: Response Time Reliability

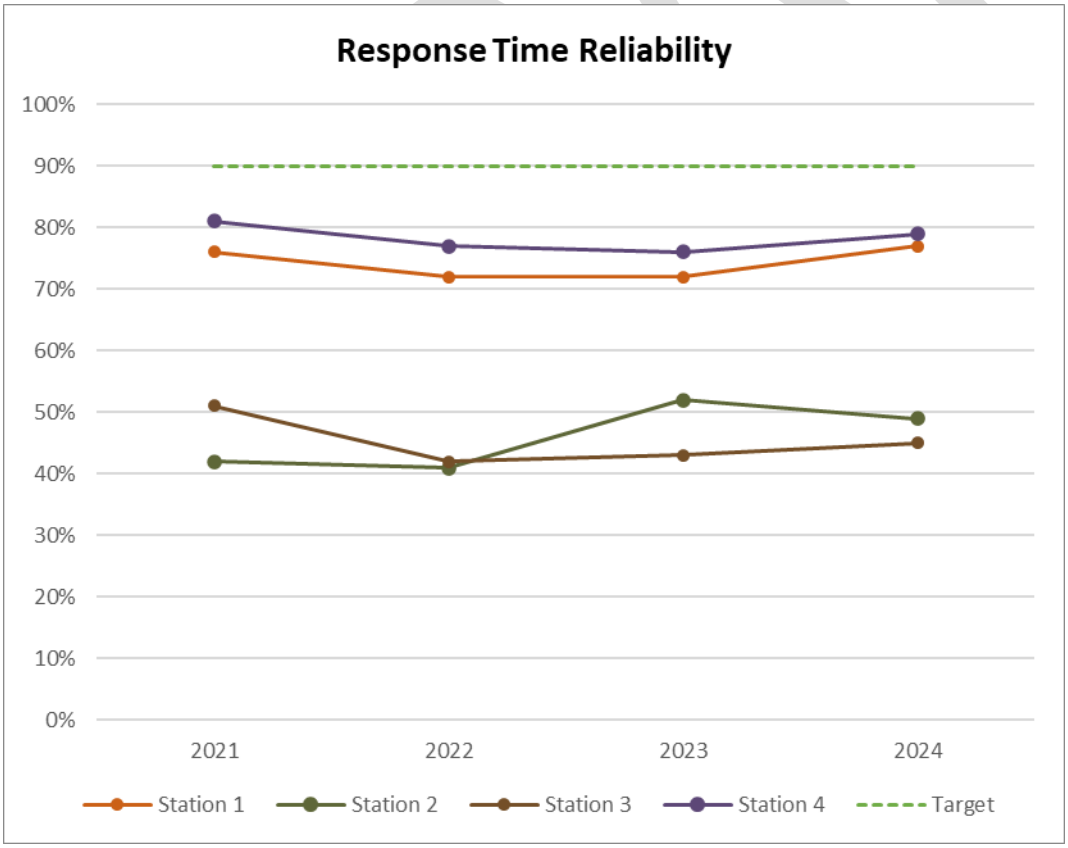


Figure 61: Response Time Reliability

Performance Gaps

Gaps in Analysis and Data Collection Process

Response times are reviewed monthly and are reported quarterly by station area, presented to the department in the quarterly report publication and meeting. Quarterly, and as needed throughout the quarter, the Operational Chiefs review response data to determine if changes are needed in response areas or deployment methodologies.

In conducting this analysis, gaps were identified in our systems, report writing, and data collection techniques.

Data prior to August of 2022 was captured using a different records management system and accessing it and integrating it into the analysis proved challenging.

Issues and needs were identified with the report writing process. The analysis conducted for this report was challenging due to the lack of the following information being tracked in our systems:

- Firefighter injuries
- Civilian injuries on fires
- Mutual Aid units and their times on our incidents
- Public service events
- Building risk scores

In June of 2025 a taskforce was created to address the report writing issues, and to evaluate and support the transition of the reporting from NFIRS to NERIS. A team of 9 firefighters, lieutenants and chiefs are supporting this transition to ensure OFD uses our tools to enhance our data analysis capabilities and enable OFD administration to properly tell the story of the fire departments success and challenges in serving the community.

Performance Gaps in Response Availability and Reliability

With the addition of the Aid units in 2024, we expect in 2025 to meet or exceed our Response Availability goal of 95% in all station response areas except for the Station 3 response area which in 2025 has a 91% availability.

All station response areas have a performance gap as measured against the NFPA 90th percentile total response time standard of 7 minutes 6 seconds. The performance gaps in the measure of reliability are most pronounced in the Station 2 and 3 response areas.

Availability	Target	2024
Station 1	95%	97%
Station 2	95%	95%
Station 3	95%	91%
Station 4	95%	92%

Reliability	Target	2024
Station 1	90%	77%
Station 2	90%	49%
Station 3	90%	45%
Station 4	90%	79%

Table 68: Availability and Reliability Gaps

Continuous Improvement Plan and Strategy

Recommendations for Improved Data Collection

Issues and needs were identified during the report writing process. The analysis conducted for this report resulted in the following systematic changes.

- With the introduction of NERIS on January 1, 2025, quality check systems will be put in place to ensure Firefighter injuries and civilian injuries on fires are tracked in the records management systems as well as indicators of mutual aid. This will be a process of continuous improvements with monthly quality checks and feedback loops.
- Administration is exploring the connection of a new system to be able to analyze events through a direct connection to the dispatch agency, TCOMM911. A connection to this data and integrated dashboards in Power BI or other proprietary tools could enhance the ability to track response times, effective response force, and mutual aid and enable us to further analyze our station response area using the planning grids. Planning grids are available in our dispatch data but are not available in our records management system.
- Administration is exploring new software tools such as DarkHorse or Power BI to enhance reporting, prediction, and forward looking analysis.
- Administration is assisting in the documentation of public service events via a SharePoint form that is being used to consolidate information input by the Battalion Chiefs into the scheduling system CrewSense. This will allow us to evaluate and target our public engagement to best utilize our resources to meet the needs of unique neighborhood communities.
- Building risk scores were created using a Risk Assessment Fire Emergency Response (RAFER) spreadsheet which classified risk factors based on occupancy type, life hazard and impact to the community. The risk scores will be integrated into the building occupancy and inspection system to be used as a tool to identify the priorities for building inspections. The Fire Marshal's office plans to have inspectors begin scoring buildings with Occupancy Vulnerability Assessment Profile (OVAP) scores in the ESO records management system as a part of their occupancy inspections. OVAP scores are an more advanced assessment tool to evaluate the vulnerability of a structure to fire and other emergencies. Once we have OVAP scores for our buildings, these scores will help determine which buildings present the highest risk and should be prioritized for inspection, pre-incident planning, and resource allocation. The recommendation is that the Fire Marshal's office moves forward with assigning OVAP scores to all commercial buildings in the city.
- Initial Dispatch Code was added into the Records Management system in 2024. This will allow for better identification and analysis of incidents aligning with the risk levels in the critical task analysis.

Recommendations for Improved Effectiveness in Deployment and Coverage

While there is room for improvement in the unit turnout times, if we were to match the NFPA standard of one minute 20 seconds in our turnout times, we would still see a large performance gap in total response time in our station response areas.

Reliability and Availability studies identified issues with Station 2 and Station 3 placement. The response availability in the station 2 response area was greatly improved in 2024 with the addition of the Aid unit, however the reliability in that area needs improvement. Station relocation and/or the addition of another station in this response area should be explored to address the heavier call volume in the outside reaches of the response area. This will require additional considerations as the city plans for the Capital Mall Triangle subarea develop.

The need for a new fire station in the station 3 response area will be addressed as the planning for annexation in this area continues.

This Community Risk Assessment Standard of Cover process has identified shortcomings in the data analysis process and outlined opportunities that will enable better decision making tools and better outcomes for the community. The software DarkHorse, could enable our Community Risk Assessment and Standard of Cover to become a living tool instead of a static document. It could provide leadership the ability to visualize OFD performance in real-time, continuously updating our risk-models and creating transparent and defensible deployment plans.

This software will give City Leadership the tools to see the outputs and outcomes of Fire Department services, so that those services can be adapted to better serve the communities needs. This will include targeting our outreach efforts in underserved areas and vulnerable communities. This will provide for a safer community.

The fire department's services have been evolving, and we have seen with the addition of the CARES team, a new focus on Community Risk Reduction and Emergency Management, there is a need to coordinate the services across teams, and to take into consideration the changing demographics and service needs of the communities we serve.

The plan for the structuring of the software deployment is to combine demographics, safety information and community characteristics from outside the department with our efforts throughout the City to enable us to see where we are making a difference and pinpoint where we need to redeploy or redirect efforts. Using the software to provide leadership and staff with this information will move the department forward and enhance the safety of all in our community.

The addition of the Dark Horse software to our tools will assist in the station placement and resource deployment studies and enable the city to evaluate performance in a way that is most often provided by consultants.

Authority Having Jurisdiction (AHJ) Notifications

The performance indicators “Reliability by Station Response Area” and ”Availability by Station Response Area” are reported to the city and the community, made available to on the city website annually by February of each year. These indicators include baseline performance (actual) versus benchmark performance (targeted) including identification if continuous improvement is being made or historical performance levels are being maintained. Annually the performance indicators of reliability and availability will be reported and will include gaps in current capabilities, capacity and the level of service provided within the OFD delivery system to mitigate the identified risks within the service area, as identified in this community risk assessment/standards of cover.

An annual update to this community risk assessment and standards of cover document will update the performance indicators, service gaps, and update the progress in the continuous improvement goals.

Appendices

Appendix A – Cited Works/References

Dillon, G. K., Menakis, J. P., & Fay, F. (2015). Wildland fire potential: A tool for assessing wildfire risk and fuels management needs. https://www.fs.fed.us/rm/pubs/rmrs_p073/rmrs_p073_060_076.pdf

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Boyd, Blake (2025) *Outliers: Are we measuring what we think we are measuring?* From ESO Wave Conference 4/24/2025.

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Vinson, Ty (2023). *Olympia officials say current plan to annex southeast area costs more than it's worth.* https://www.theolympian.com/news/local/article276049486.html

FEMA Natural Hazards Risk Map

- FEMA Natural Hazards Layer: FEMA, Compass, CDM Smith, ABS Consulting, Factor, Inc., Arizona State University (for Spatial Hazard Events and Losses Database for the United States), the Centers for Disease Control Agency for Toxic Substances and Disease Registry (for the Social Vulnerability Index), the University of South Carolina's Hazards and Vulnerability Research Institute (for Baseline Resilience Indicators for Communities), and all the other data providers and subject matter experts that have helped guide the National Risk Index over the years.
  The FEMA National Risk Index is a dataset to help illustrate the communities most at risk for 18 natural hazards, including Avalanches, Coastal Flooding, Cold Waves, Drought, Earthquakes, Hail, Heat Waves, Hurricanes, Ice Storms, Landslides, Lightning, Riverine Flooding, Strong Wind, Tornado, Tsunami, Volcanic Activity, Wildfire, and Winter Weather. Credits: FEMA, Compass, CDM Smith, ABS Consulting,

Factor, Inc., Arizona State University (for Spatial Hazard Events and Losses Database for the United States), the Centers for Disease Control Agency for Toxic Substances and Disease Registry (for the Social Vulnerability Index), the University of South Carolina's Hazards and Vulnerability Research Institute (for Baseline Resilience Indicators for Communities), and all the other data providers and subject matter experts that have helped guide the National Risk Index over the years.

- The Earthquake layer, utilizing data from the U.S. Geological Survey's Earthquake Hazards Program, displays known faults and folds in the U.S. Credits: U.S. Geological Survey (USGS)
  Earthquake Layer: U.S. Geological Survey (USGS)

Wildfire Hazard Potential Map

The data is from the USDA Forest Service Fire Modeling Institute, providing an index of WHP at a 270-meter resolution. Wildfire hazard potential includes information on the relative potential for wildfire that would be difficult for fire crews to contain. "Areas with higher wildfire potential values represent fuels with a higher likelihood of experiencing high-intensity fire with torching, crowning, and other forms of extreme fire behavior." - Fire Modeling Institute. A score of 5 is a very high risk, and a score between 0-1 is likely a non-burnable area such as water or asphalt. This map symbology has been enriched with 2020 Esri demographic attributes to better approximate wildfire hazard risk relating to the human population (Dillon, G. K., Menakis, J. P., & Fay, F. (2015).

- Wildfire Hazard: USDA U.S. Forest Service, USFS Fire and Aviation Management, Esri

Census Data

- https://data.census.gov/profile/Olympia_city,_Washington

Demographic Data from Environmental Systems Research Institute (Esri) Fire Accreditation Analysis Template

* Esri Estimate of the Total Daytime Population in the geographic area. Total Daytime Population includes workers (civilian, non-military employed at work, and armed forces personnel ages 16+) and residents (population age 0-15, unemployed adults, those not in the labor force, and employed civilians who are not working temporarily due to illness, vacation, etc.).

*Esri 2024 estimated Diversity Index in the geographic area. Esri's Diversity Indes summarizes racial and ethnic diversity, indicating the likelihood that two individuals, chosen randomly from the same location, belong to the same race or ethnic group. The index ranges from 0 (no diversity) to 100 (highest diversity). An area's Diversity index increases when the population includes more race/ethnic groups.

*Esri 2024 Estimate of Median Household Income in the geographic area.

*The Total Crime Index assesses the relative risk of seven major crime types. It is modeled using the FBI Uniform Crime Report data and demographic data from the Census and AGS.

Variable: 2025 Median Household Income, Source: Esri, Vintage: 2025
Definition: Esri 2025 estimate of Median Household Income in the geographic area. Median Household Income is the amount that divides household income (annual income for all household earners age 15+) into two equal groups in a geographic area; half of the population will have income higher than the median and half will have lower income. If the median falls in the upper income interval of $500,000+, it is represented by the value of $500,001. Esri uses the U.S. Census definition of income; reference Esri Essential Vocabulary. See Updated Demographics for more information on Esri Demographic variables.

Variable: 2023 HHs w/Food Stamps/SNAP (ACS 5-Yr): Percent, Source: ACS, Vintage: 2019-2023
Definition: ACS five-year estimate of the number of Households Receiving Food Stamps or SNAP in the geographic area. Estimate and Margin of Error (MOE) from the U.S. Census American Community Survey (ACS) rolling sample 60-month survey; Esri Reliability measure designates the usability of the estimate. See ACS data for more information.

Variable: 2025 Housing Affordability Index, Source: Esri, Vintage: 2025
Definition: Esri 2025 Housing Affordability Index (HAI) measures the ability of a typical resident to purchase a home in the geographic area. The HAI has a base of 100, representing where the median income is sufficient to qualify for a loan on a median-valued home and not be cost-burdened (cost-burdened=greater than 30% of income spent on housing). HAI values > 100 indicate increasing affordability; HAI values < 100 indicate areas where homes are less affordable and median income might be insufficient to purchase a median-valued home. See Updated Demographics for more information on Esri Demographic variables.

Variable: 2025 Median Home Value. Source: Esri, Vintage: 2025
Definition: Esri 2025 estimate of the Median Home Value in the geographic area. Median Home Value divides home values into two equal groups; half of the homes will have a value higher than the median, and half lower. If the median is $2,000,000+, it is represented by a value of $2,000,001. See Updated Demographics for more information on Esri Demographic variables.

Variable: 2025 Median Home Value, Source: Esri, Vintage: 2025
Definition: Esri 2025 estimate of the Median Home Value in the geographic area. Median Home Value divides home values into two equal groups; half of the homes will have a value higher than the median, and half lower. If the median is $2,000,000+, it is represented by a value of $2,000,001. See Updated Demographics for more information on Esri Demographic variables.

Variable: 2025 Working-Age Population, Source: Esri, Vintage: 2025
Definition: Esri 2025 estimate of the total Working Age Population (Age 18-64) in the geographic area. See Updated Demographics for more information on Esri Demographic variables.

Variable: 2025 Senior Population, Source: Esri, Vintage: 2025
Definition: Esri 2025 estimate of the total Senior Population (Age 65+) in the geographic area. See Updated Demographics for more information on Esri Demographic variables.
Labor Force by Industry
ACS five-year estimate of the Employed Civilian Population Age 16+ in Industries in the geographic area. Estimate and Margin of Error (MOE) from the U.S. Census American Community Survey (ACS) rolling sample 60-month survey; Esri Reliability measure designates the usability of the estimate. See ACS data for more information.

Variable: 2020 Population Density, Source: U.S. Census, Vintage: 2020
Definition: Population density, or population per square mile, is computed by dividing the total population within a geographic entity by the total land area of that entity, measured in square miles. See Census 2020 for more information on Census 2020.

Population of one race. Source U.S. Census 2020 DHC. See Census 2020 for more information on Census 2020.

Appendix B – Tables

Appendix C – Maps

Appendix D – Figures

Appendix E Dispatch Zones

Station Response Area	Dispatch Zone
Station 1	OL-I5F
Station 1	01101N
Station 2	02101N
Station 2	02101S
Station 1	OL-1A
Station 1	OL-1B
Station 1	OL-1C
Station 1	OL-1D
Station 1	OL-1E
Station 2	US101
Station 2	OL-2A
Station 2	OL-2B
Station 2	OL-2C
Station 2	OL-2D
Station 3	OL-3A
Station 3	OL-3B
Station 3	OL-3C
Station 3	OL-3D
Station 4	OL-3E
Station 3	OL-3F
Station 3	OL-3G
Station 4	OL-I5C

Appendix F Response Time Standards

OFD has adopted 7m 6s as the Total Response time goal as interpreted from NFPA 1710 as outlined below.

BENCHMARKS NFPA 1710 Standard in seconds	**Fire**	**EMS**	**Tech Rescue**	**Hazmat**	**OFD-ALL**
Alarm Answer (95%)*	15	15	15	15	15
Alarm Processing (90%)**	106	106	106	106	106
Turnout	80	60	80	80	80
First Due Engine Travel Time	240	240	240	240	240
Second Due Engine	360	360	360	360	360
Initial Full Alarm Low Hazard	480	480	480	480	480
Initial Full Alarm High Hazard	610	610	610	610	610
TOTAL RESPONSE TIME 1st Unit	426	406	426	426	426

* OFD does not receive Alarm Answer data

** OFD is using 106 seconds as 90% Alarm Processing goal (NFPA standard is 99th percentile see page 165)

BENCHMARKS NFPA 1710 Standards in minutes: seconds	Fire	EMS	OFD-ALL
Alarm Answer (95%)*	00:15	00:15	00:15
Alarm Processing (95%)**	01:46	01:46	01:46
Turnout	01:20	01:00	01:20
First Due Engine Travel Time	04:00	04:00	04:00
Second Due Engine	06:00	06:00	06:00
Initial Full Alarm Low Hazard	08:00	08:00	08:00
Initial Full Alarm High Hazard	10:10	10:10	10:10
TOTAL RESPONSE TIME 1st Unit	07:06	06:46	07:06

Appendix G Key Requirements for Emergency Services in NFPA 1710

FACT SHEET

KEY REQUIREMENTS FOR EMERGENCY SERVICES IN NFPA 1710

The minimum requirements for provision of emergency services by career fire departments can be found in NFPA 1710, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments*.

NFPA 1710 addresses the structure and operation of organizations providing such services, which include fire suppression and other assigned emergency response responsibilities such as EMS and special operations.

The requirements intend to provide effective, efficient, and safe protective services to help prevent fires, reduce risk to lives and property, deal with incidents that occur, and help prepare for anticipated incidents.

The requirements are listed in NFPA 1710 for fire department service deployment based on the type of occupancy, along with the appropriate response staffing levels for each. The minimum staffing level for each occupancy is listed below. For the full breakdown of staffing requirements by position, refer to the subsections specific to each occupancy in 5.2.4.

KEY REQUIREMENTS

Occupancy Type: Single-Family Dwelling
Deployment: Minimum of 16 members or 17 if aerial device is used

The initial full alarm assignment to a structure fire in a typical 2000 ft² (186 m²), two-story, single-family dwelling without a basement and with no exposures must provide for a minimum of 16 members (17 if an aerial device is used).

Occupancy Type: Open-Air Strip Mall
Deployment: Minimum of 27 members or 28 if aerial device is used

The initial full alarm assignment to a structure fire in a typical open-air strip shopping center ranging from 13,000 ft² to 196,000 ft² (1203 m² to 18,209 m²) in size must provide for a minimum of 27 members (28 if an aerial device is used).

Occupancy Type: Garden-Style Apartment
Deployment: Minimum of 27 members or 28 if aerial device is used

The initial full alarm assignment to a structure fire in a typical 1200 ft² (111 m²) apartment within a three-story, garden-style apartment building must provide for a minimum of 27 members (28 if an aerial device is used).

Occupancy Type: High-Rise
Deployment: Minimum of 42 members or 43 if building is equipped with fire pump

The initial full alarm assignment to a fire in a building with the highest floor greater than 75 ft (23 m) above the lowest level of fire department vehicle access must provide for a minimum of 42 members (43 if the building is equipped with a fire pump).

FACT SHEET

KEY REQUIREMENTS FOR EMERGENCY SERVICES IN NFPA 1710 *CONTINUED*

ADDITIONAL REQUIREMENTS

Fire departments that respond to fires in occupancies that present hazards greater than those found in 5.2.4 must deploy additional resources on the initial alarm as described in 5.2.4.6.

Even though fireground staffing levels have changed, NFPA 1710 continues to require that engine companies be staffed with a minimum of four on-duty members, as stated in 5.2.3. In addition, 5.2.2.2.1 requires that the fire department identify minimum company staffing levels as necessary to meet the deployment criteria required in 5.2.4 to ensure that a sufficient number of members are assigned, on duty, and available to safely and effectively respond with each company.

Additional changes to the 2020 edition of the standard include an update to the definition for *career fire department* and a clarification of how to determine if the department would fall under either NFPA 1710 or NFPA 1720, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments*.

Several new definitions relating to geographic areas based on population density have been added and the number of responders needed based on the type of incident and tasks to accomplish has been included. New requirements have been added for mobile water supply tankers/tenders and deployment and training of incident safety officers. Also, material on wildland fire suppression has been expanded.

RESPONSE OBJECTIVES

Documenting the benchmarks and response objectives that make up NFPA 1710 is crucial to capturing and tracking data that would be helpful in ensuring the necessary allocation of resources.

Benchmarks	Response Objectives
Alarm answer	15 sec 95% of the time or 40 sec 99% of the time
Alarm processing	64 sec 95% of the time or 106 sec 99% of the time
Turnout - Fire	80 sec
Turnout - EMS	60 sec
First-due engine	240 sec (4 min) 90% of the time
Second-due engine	360 sec (6 min) 90% of the time
Initial full alarm - Low/ medium hazard	480 sec (8 min) 90% of the time
Initial full alarm - High hazard	610 sec (10 min 10 sec) 90% of the time

Learn More

- Visit nfpa.org/1710 for free digital access to the standard.
- Sign up on nfpa.org/NFPA-Membership to:
  - Get one-on-one help with your technical questions at nfpa.org/tqs
  - Access exclusive content
  - Search content and connect with your peers to share information and answer questions on NFPA's online community at nfpa.org/xchange

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Appendix H Olympia Fire Department Strategic Plan Overview

Vision A trusted leader of a safe and thriving Capital City.

Exceed community expectation in the delivery of systems

- Provide timely and effective response to emergencies
- Recruit and retain highly trained professionals
- Ensure Olympia Fire Department is aligned with community needs and industry standards

Continuously improve resiliency and sustainability of the organization

- Assure all assets meet the needs to provide effective service
- Ensure critical business functions are efficient and adequately supported
- Reduce reliance on 911/emergency response services

Invest in the development, well-being and voice of all team members

- Provide professional growth through training opportunities for all employees
- Reduce workplace injuries and illness
- Improve physical health, mental health and overall wellness
- Build a positive culture driven by shared values, recognition and transparency

Cultivate trusted relationships in our community and region

- Improve community knowledge and understanding of Olympia Fire Department and the services provided
- Strengthen relationships with regional and community partners

City of Olympia

Community Risk Assessment/Standards of Cover

July 15, 2025

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