

# 2 Context and History





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## 2

### 2 Context

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## 2.1 LOCATION AND TOPOGRAPHY

The location and topography of the subarea is shown in [Figure 14](#). The subarea includes 3,963 acres in the City of Tacoma and the Puyallup Tribe of Indians Reservation. It is at the mouth of the Puyallup River, on Commencement Bay, at the southern end of the Puget Sound basin between the Olympic Mountain Range to the west and the Cascade Mountain Range to the east. The subarea is generally flat and close to sea level. It contains the Puyallup River, the Thea Foss Waterway, the Blair Waterway, and the Hylebos Waterway. Steep topography northeast of the subarea separates it from Northeast Tacoma. The Thea Foss Waterway forms the western boundary of the subarea and separates it from Downtown Tacoma. The City of Fife forms the southern boundary of the subarea. There are two major roads in and around the southern part of the subarea, SR 509 and I-5. These roads separate the subarea from most of Fife and areas further up the Puyallup River. Commencement Bay forms the northwest boundary. The combination of topography and transportation corridors creates strong edges that physically separate the subarea from adjacent neighborhoods.

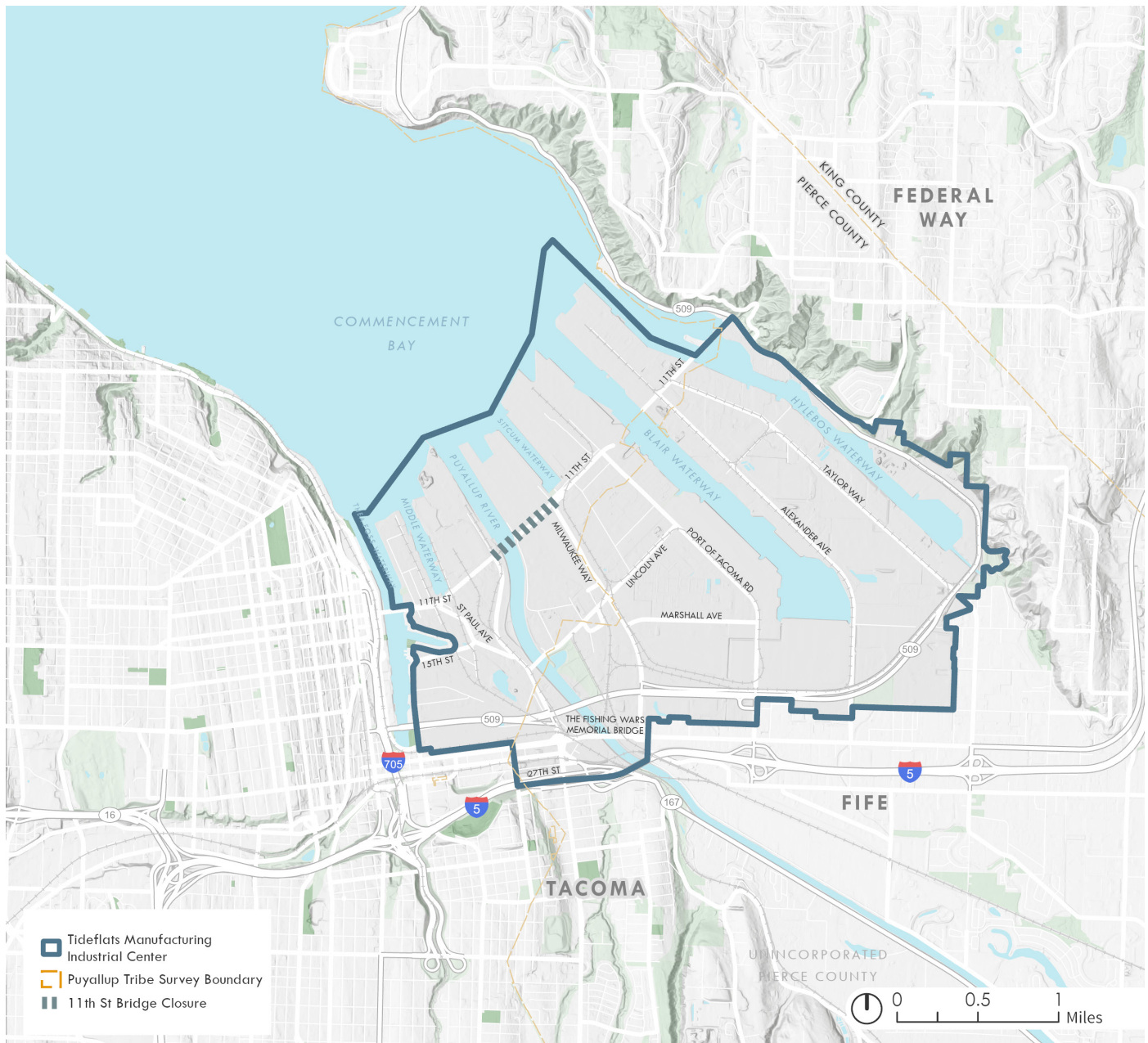


The Tideflats area as viewed from Downtown Tacoma, across the Thea Foss Waterway. A drastic topographical shift, visible in the distance, separates Commencement Bay and the Tideflats subarea from Northeast Tacoma.

### For further information

This chapter describes conditions in the subarea. Additional detail is provided in the [Appendices](#)





**Figure 14. Location and Topography of Subarea**

Source: City of Tacoma, 2020; Seva Workshop 2024

## 2.2 HISTORY OF DEVELOPMENT

The subarea is part of the ancestral lands of the Puyallup Tribe of Indians. For centuries, the Puyallup Tribe, with other Native American communities, fished the rivers, hunted in the forest, and lived in the lands along the shores of Puget Sound and the Puyallup-White River watershed, including the subarea.

In the 1800s European settlers came to the region with a different view of land use and ownership. In 1854, Territorial Governor Issac Stevens executed the Treaty of Medicine Creek. Various Tribes ceded their claims to land in Washington in return for relatively much smaller land within reservations, hunting and fishing rights, and promises of cash payments. By 1857, the Puyallup reservation was created and expanded to 18,060 acres. The reservation lay along the Puyallup River and Commencement Bay and included parts of the cities of Tacoma, Fife, and Puyallup, including the subarea.





**Figure 15. Tideflats Activities in the 1890s-1900s**

*Note: Top left image, 1888 shoreline and shoreline modifications in 1986. Top right image, waterfront and 11th Street bridge looking east. Bottom image, A look from Commencement Bay in 1890, with the old Northern Pacific Railroad trestle bridge that crossed the Tideflats with the Tacoma Hotel in the background. Source: City of Tacoma, Marv Coleman: Department of Ecology Toxics Cleanup Program, and Tacoma Public Library, 2020; Washington Department of Historic Preservation, 2020*

The arrival of the transcontinental railroad in the 1880s spurred development in Tacoma. Much of the tribal lands were stolen, alienated, or sold to non-Indian ownership. The railroad brought thousands of new settlers and new trade, business and port activities to Tacoma.

Starting from this time in the 1880s, the study area has a history of maritime industrial activity, as shown in Exhibit 10. Early uses included lumber and shingle mills, as well as shipyards, flour mills, electrometallurgy, and electrochemical uses. In 1918, the Port of Tacoma was established. Starting in 1919, the Port of Tacoma started to build industrial facilities to support local and regional trade.

In 1966, the Port dredged and extended the Blair and Hylebos waterways creating more than 1,400 acres of new land. The waterway extension and dredging set the stage for increased activity with new terminals, industrial development sites and jobs. By 1981, shipping and transportation innovations transformed the subarea. Changes such as the addition of the North Intermodal Yard shifted the Port's activities into the logistics of cargo handling.

Today, the subarea is developed with a range of industrial, manufacturing, and support uses with a primary focus on port maritime industrial activities. The Tideflats is also a unique natural environment, containing shoreline, river deltas, tidal creeks, marshes, naturalized creeks, and river channel corridors. Much of the area is within Puyallup Indian Reservation boundaries and is an important location for cultural traditions and the practice of tribal treaty rights.



## 2.3 TRIBAL RESOURCES

The subarea is located within the ancestral lands of the Spuyaləpabš who are also known today as the Puyallup Tribe of Indians. The Tribe has been in the subarea for hundreds of years. The subarea contains many tribal resources that are part of people's day to day lives, and this plan seeks to protect them. Tribal members continue to hunt, fish, and gather food in the subarea. They meet in the subarea for ceremonies and cultural activities. The subarea is also a place where Tribal members work, and where the Tribe owns land and operates businesses and administrative offices.

### Cultural Resources

The Spuyaləpabš, who are also known as the Puyallup Tribe of Indians, have lived on the headwaters of the Puyallup River since time immemorial. The Spuyaləpabš continue to live and practice traditional lifeways in this area such as hunting, fishing, and gathering. There are 19 recorded ethnographic places known to be within or near the Tideflats; these include locations of important events, village sites, burial locations, and geographical features.

Depending on the relative depths of site burial and ground disturbances caused by historic and recent development, this area has the potential to contain Holocene archaeological sites. The Department of Archaeology and Historic Preservation's Statewide Predictive Model classifies the study area as Very High risk for precontact-era archaeological sites (DAHP 2010). This is consistent with the Tribe's Historic Preservation Department models as well.

Activities within the Tideflats have the potential to both directly and indirectly impact cultural resources. Potential restoration work can impact known and unknown archaeological resources because of the associated ground disturbance and associated increases in public access. With increased public access comes the increased likelihood that archaeological resources could be damaged or destroyed, or the character of unknown cultural resources associated with a traditional tribal belief or practice could be impacted. Areas that should be approached with caution are:

- > Submerged lands that previously served as coastal areas
- > Areas above the historic shoreline
- > Areas near recorded precontact-era archaeological sites
- > Areas with a high probability of containing unrecorded precontact-era archaeological sites
- > Areas near Spuyaləpabš cultural sites



2018 Power Paddle to Puyallup, hosted by the Puyallup Tribe of Indians, landing in Commencement Bay. Photo: Andrew Strobel.



## Natural Resources

Natural resources in the subarea are connected to the Tribe's culture and traditions. The traditional diet of the Tribe was based on fishing, shellfish harvesting, hunting, and gathering of roots, bulbs, and berries. Salmon were an especially important part of tribal culture and continue to be so today.

The natural environment in the subarea is currently degraded due to the history of industrial land use and filling and dredging of the Puyallup River estuary. Despite this, the subarea still has salmon and shellfish populations. The Tribe has been working with the City, Port, and other partners to restore habitat areas and protect the natural resources that have long been part of their culture.

## Treaty and Land Resources

### Treaty of Medicine Creek: Puyallup Tribe of Indians Reservation (1854, 1857, 1873)

The Puyallup Tribe of Indians Reservation was established in 1854 by the Treaty of Medicine Creek which is the supreme governing law over the subarea. The reservation was enlarged two subsequent times through presidential executive orders in 1857 and 1873. The treaty federally designated several proto-land use types including reserving the lands for hunting, gathering, fishing, and homesteading. The following articles of the Treaty of Medicine Creek outline these uses:

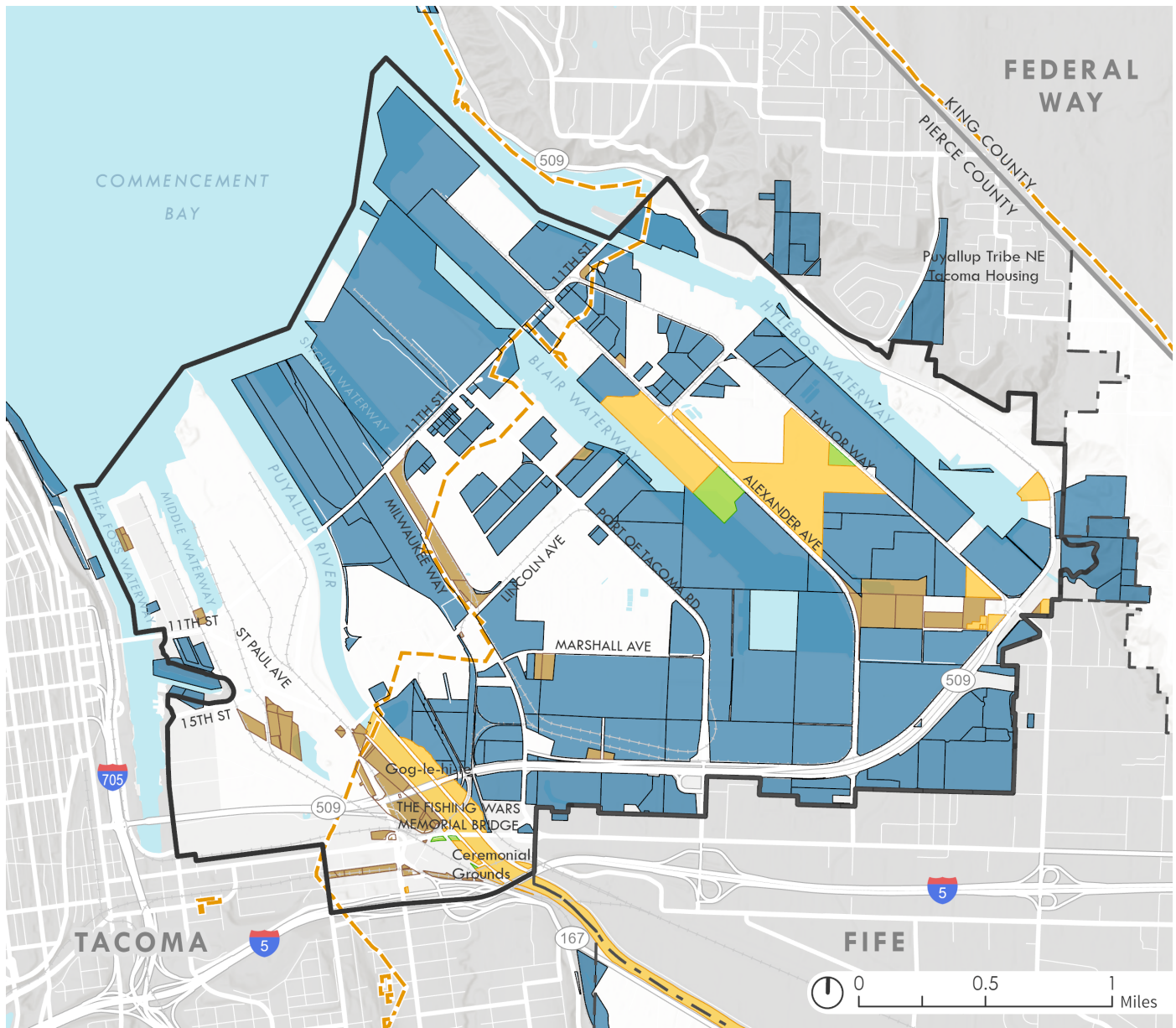
**ARTICLE 3:** The right of taking fish, at all usual accustomed grounds and stations, is further secured to said Indians in common with all citizens of the Territory, and of erecting temporary houses for the purpose of curing, together with the privilege of hunting, gathering roots and berries, and pasturing their horses on open and unclaimed lands[...]

**ARTICLE 5:** To enable the said Indians to remove to and settle upon their aforesaid reservations, and to clear, fence, and break up a sufficient quantity of land for cultivation[...]

### Puyallup Tribe of Indians Land Claims Settlement (1990)

A federal appeals court ruled in 1983 in the tribe's favor, awarding 12.5 acres of the Port of Tacoma to the Tribe. In 1988, the Tribe, the Port, and numerous other governments and private entities entered into a Land Settlement Agreement, a historic event that resolved a number of land, jurisdictional, and other issues between the parties. President Bush signed the Puyallup Indian Settlement in 1989, making way for future growth and Port Tribe cooperation. One of the most significant elements of that agreement was the return of close to 900 acres of land to the Puyallup, including land on the Blair Waterway which the parties envisioned would be developed by the Tribe as an international marine terminal. The agreement outlines the federal requirement for notification and consultation on all development and planning within the Tacoma Tideflats.

In April 2008 the Tribe and the Port signed agreements to aid in the development of facilities on the Blair-Hylebos Peninsula. As part the agreement, the parties exchanged additional parcels of land and agreed to cooperate on the ongoing development of the Blair Waterway.

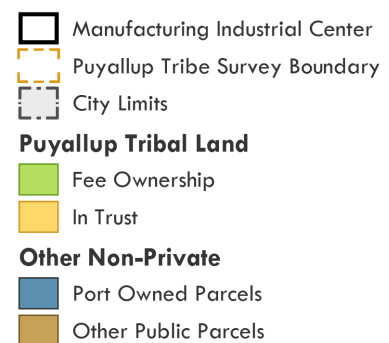


## Reservation Lands

Today the Tribe owns various parcels within the subarea. The most significant of these properties is located along the Hylebos and Blair Waterways. The Tribe utilizes these properties for economic, cultural and administrative uses. The Tribe operates a marina, automobile import facility, and processing facilities. The Tribe also has non-industrial uses within the area including a cultural site, dxʷtalilali “a place to come ashore” and the Tribal Ceremonial Grounds. These are places where various ceremonies and cultural activities take place. Additionally, the Tribe operates several administrative departments within the area. In addition to these properties, parts of the Puyallup River within the subarea are also owned by the Puyallup Tribe. See [Figure 16](#).

**Figure 16. Non-Private Ownership, 2020**

*Note: Port and public ownership based on land use designation, taxpayer address, and business name fields in the assessor data. Source: City of Tacoma, 2020; BERK, 2020; Seva Workshop 2024*





## 2.4 LAND USE CONDITIONS

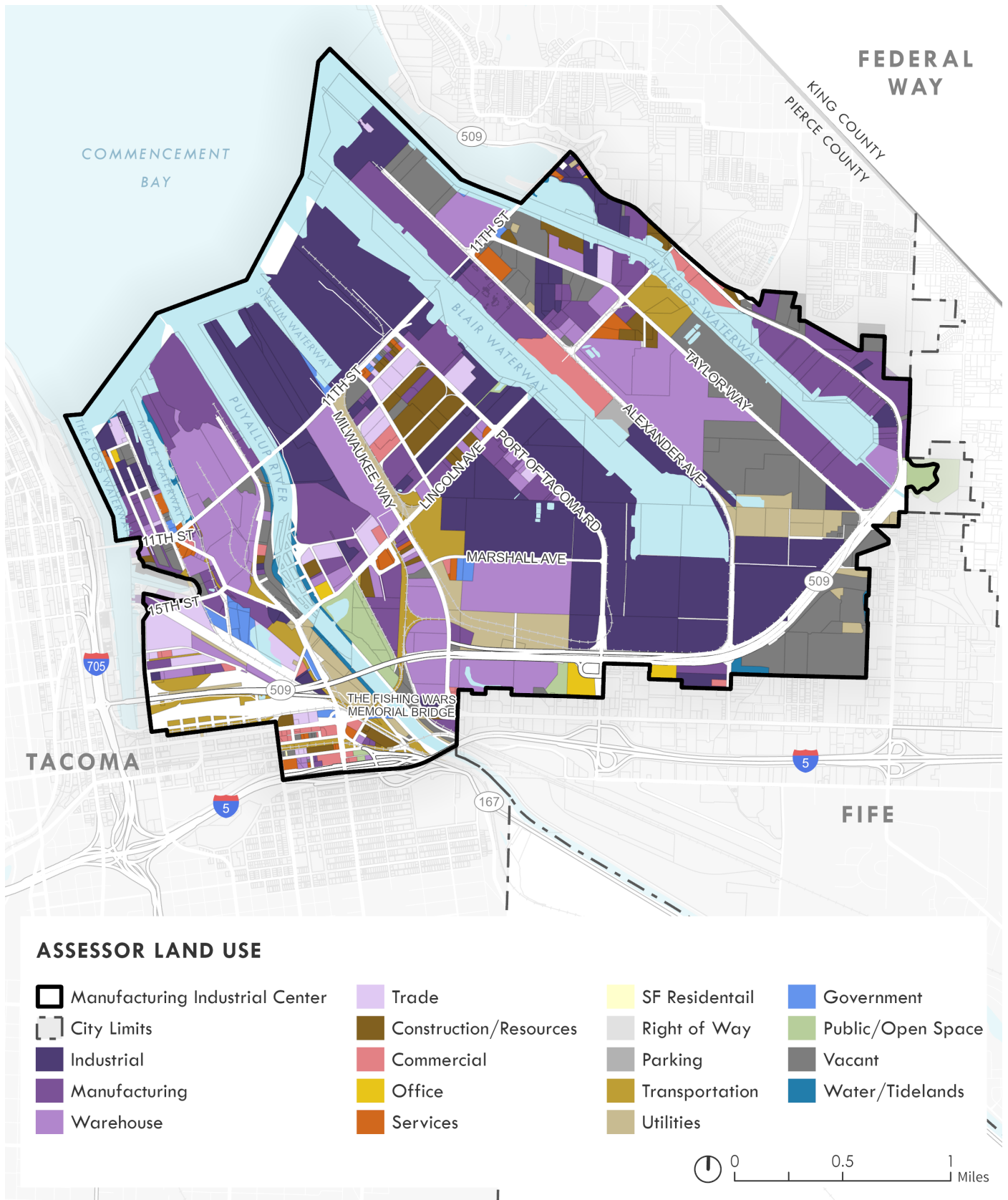
The subarea contains a large and diverse set of land uses, including a working port, an industrial support sector, and a range of land uses that also need transportation access and outdoor storage and need to be located away from residential uses. Industrial uses (including manufacturing, warehousing, and transportation) account for the majority of the subarea, about 70%. State, regional, and local policies support the subarea as being a concentrated area of industrial activity and it is also a designated manufacturing industrial center (MIC). See [Figure 17](#) for current land uses in the subarea.

This Subarea Plan establishes a new zoning concept for the planning area. Since 2014, there have been three zones in the subarea: Port Maritime and Industrial District (PMI), M2 Heavy Industrial District, and M1 Light Industrial District. PMI represents the majority of the subarea and allows the most intensive industrial uses and Port facilities, as well as a mix of commercial uses. M2 allows heavy industrial and commercial uses. There are slight variations between PMI and M-2 but they are pretty limited. The M-2 does allow some more commercial and civic/service uses (like a detox center) but the allowances are minor. For the most part the two zones both focus primarily on heavy industry. M1 is intended to serve as a buffer zone between heavy industrial and commercial/residential uses, allowing a variety of commercial uses and smaller scale light industrial uses. See [Figure 18](#) for a 2020 zoning map of the subarea.

There is a need for better transitions between the subarea and surrounding areas and adjacent jurisdictions to help reduce land use conflicts between industrial and non-industrial development. There are a variety of uses surrounding the subarea: tourist attractions, residential and commercial development to the west, the Tacoma Export Marketing Company Grain Terminal to the north, commercial uses (within the City of Fife) and a tribal community to the south, and open space to the east. Industrial activity in the subarea produces several impacts, including air quality, noise, and odor that have the potential to impact surrounding land uses and jurisdictions. The Tacoma Comprehensive Plan and the Container Port Element supports providing adequate buffers to avoid land use conflicts, though these policies largely rely on geography (such as the Thea Foss Waterway separating the subarea from surrounding development) and may need to be further evaluated to ensure buffers are adequate. There are also opportunities to improve transitions and connections to the South Downtown Subarea and the Tacoma Dome Station area.

Public access to the shoreline is available at points along the Thea Foss Waterway, such as at the City of Tacoma Fire Department Facility. There is interest and opportunity to expand public shoreline access in the subarea while still meeting goals and requirements outlined in Tacoma's Shoreline Master Program.

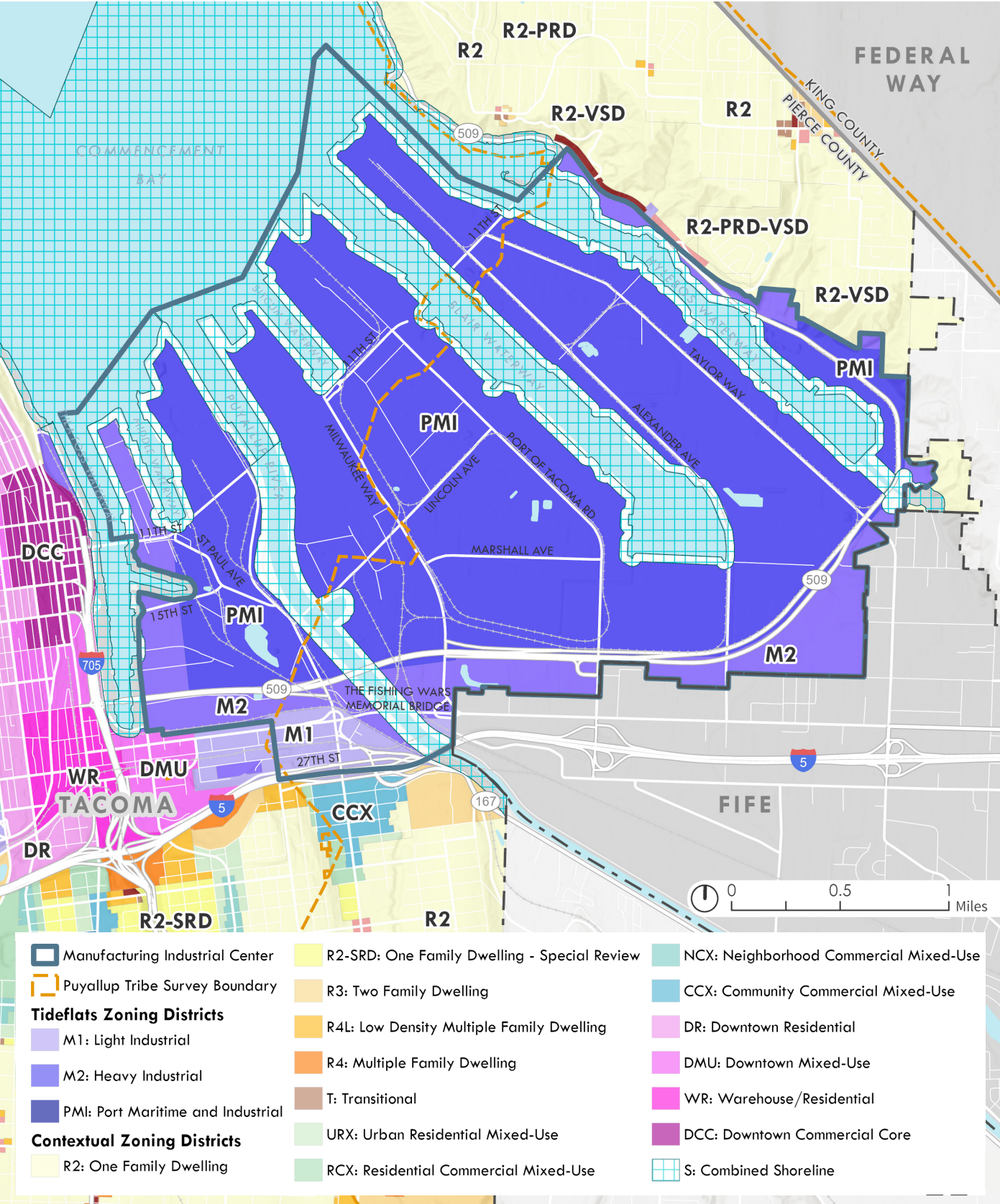
Lastly, there is a large share of publicly owned land in the subarea that represents potential opportunities for future development for public use. Further evaluation of this land for its development potential and vulnerability to climate change impacts will need to be studied. See [Figure 16](#) for a map of non-private land ownership in the subarea.



**Figure 17. Land Use, 2020**

Source: City of Tacoma, 2020; BERK, 2020; Seva Workshop 2024





**Figure 18. Zoning Districts, 2020**  
*City of Tacoma, 2020; BERK, 2020; Seva Workshop 2024*

## 2.5 ENVIRONMENTAL CONDITIONS

The Tideflats are an environmentally important area containing shoreline, river deltas, tidal creeks, marshes, naturalized creeks, upland forests, and river channel corridors. These areas support a variety of plant and animal species even though habitat for plants and animals is limited due to intense industrial and port land uses. Commercial and industrial activity has significantly transformed the Tideflats, and adjacent communities, impacting air and water quality, intensifying the urban heat island effect and reducing ecosystem services.

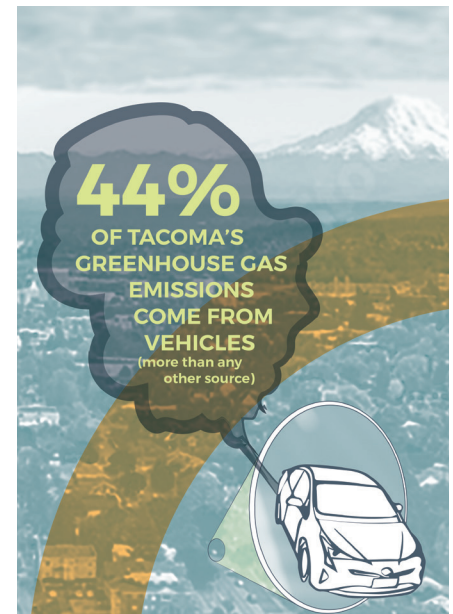
### Air Quality

Air quality is affected by pollutants that are generated by both natural and manmade sources. The largest manmade contributors to air emissions are transportation vehicles and power-generating equipment, both of which typically burn fossil fuels. Air quality does not affect every individual in the population in the same way, and some groups are more sensitive to adverse health effects than others. Population subgroups sensitive to the health effects of air pollutants include groups that encounter environmental or occupational health exposures (e.g., indoor air quality), which affect cardiovascular or respiratory diseases. Workers are not considered sensitive receptors because all employers must follow regulations set forth by the Occupational Safety and Health Administration (OSHA) to ensure the health and well-being of their employees (BAAQMD 2011). There is some concern for cumulative air quality impacts due to multiple industrial discharge points within the Tideflats.

The primary pollutant of concern for the Tacoma Tideflats study area is diesel particulate matter (DPM), primarily because of the number of diesel-fueled vehicles and equipment operating within and near the MIC. On road vehicles, primarily heavy-duty trucks, nonroad equipment, vessel operations, and locomotive operations are existing sources of air pollutants including DPM. Additionally, the subarea is bordered by I-705 and State Highway 509, which carry a high volume of diesel truck traffic. Particulate matter emissions (both  $PM_{10}$  and  $PM_{2.5}$ ) are also pollutants of interest given the history of elevated concentrations in the region. Summertime wildfire smoke also contributes to unhealthy air.

In 2019, industrial activity city-wide accounted for 30% of Tacoma's total greenhouse gas emissions (GHG)<sup>1</sup>. Transportation across the city accounted for 44% of its emissions.<sup>2</sup> The Tideflats receive energy services from both Tacoma Power and Puget Sound Energy. The fuel mix of these providers includes fossil fuels like coal and natural gas as well as renewables such as wind and hydroelectricity. As climate change impacts become more salient, activities to reduce GHG emissions are becoming common practice.

Ecology began monitoring air toxics found in the Tacoma Tideflats in 1987. The Tideflats area was designated as nonattainment for  $PM_{10}$  at the time the 1990 Clean Air Act Amendments were enacted. In 1999 the region had demonstrated attainment with the  $PM_{10}$  established National Ambient Air Quality Standards (NAAQS) and the EPA approved the maintenance plan in 2001. With the region's continued compliance with the  $PM_{10}$  NAAQS, the maintenance plan expired in May 2021.



One Tacoma community engagement infographic

<sup>1</sup> Tacoma Climate Action Plan, 2021

<sup>2</sup> Emissions from transportation include gasoline and diesel for personal vehicles, commercial vehicles, public buses, and freight.



LOCAL JURISDICTIONS	GHG EMISSIONS REDUCTIONS TARGET
<b>City of Tacoma</b>	Net zero by 2050
<b>Northwest Seaport Alliance</b>	Phase out scope 3 emissions from seaport-related activities by 2050, scope 1 and 2 emissions by 2040
<b>Port of Tacoma</b>	Phase out scope 3 emissions from seaport-related activities by 2050, scope 1 and 2 emissions by 2040
<b>Puyallup Tribe of Indians</b>	Transition existing fossil fuel facilities to non-fossil fuel sources by 2035 Commitment to a carbon neutral economy by 2050
<b>Pierce County</b>	Reduce emissions 45% below 2015 levels by 2030
<b>Puget Sound Clean Air Agency</b>	Reduce regional emissions to 50% below 1990 levels by 2030

The Tacoma-Pierce County area was designated as nonattainment for the 24-hour PM<sub>2.5</sub> NAAQS in 2009. In 2012, the region's PM<sub>2.5</sub> design values demonstrated compliance with the NAAQS and the EPA suspended the need for attainment plans. Despite this suspension, Ecology elected to continue with the plans, with a particular focus on reducing residential wood smoke county. The region's maintenance plans identified wood smoke as a primary driver to the elevated concentrations of PM<sub>2.5</sub> and, historically, PM<sub>10</sub>. The ongoing attainment planning proved to correspond with decreasing PM<sub>2.5</sub> concentrations in the region and in 2015, the EPA redesignated the Tacoma-Pierce County nonattainment area to attainment. The county currently operates under a maintenance plan that will expire in March of 2035. In 2021, The Northwest Seaport Alliance, Port of Seattle, Port of Tacoma, and Port of Vancouver, British Columbia, updated the Northwest Ports Clean Air Strategy (NWPCAS), setting the direction for their air quality and sustainability programs for the next 30 years and beyond. The NWPCAS is an opportunity for ports to align emission reduction strategies with current policy, including the ports' response to the Paris climate accord, align with current technology trends, increase stakeholder involvement, increase visibility and clarity around how emission reduction projects are prioritized, and improve flexibility in achieving performance-based targets. The NWPCAS is a collaboration to voluntarily reduce seaport-related emissions that contribute to air pollution in the shared Puget Sound-Georgia Basin Airshed as well as climate change.

First adopted in 2008, the NWPCAS was the first international strategy of its kind in the Port community. The original Strategy sought to encourage environmental action above competition and created a means for the four Northwest Ports to work collectively and voluntarily to reduce air pollution. To date, the NWPCAS has focused on diesel particulate matter (DPM), the key driver of air pollution related impacts in the Puget Sound region, and greenhouse gasses (GHGs). In the 2020 NWPCAS, the ports place increased focus on other air pollutants and emissions that affect climate such as nitrogen oxides, volatile organic compounds, and black carbon, while maintaining focus on DPM and GHGs.

The ports met the DPM and GHG emission reduction goals for 2020 by the end of 2016. Based on the 2015/16 inventories, a total of 174.8 million metric tons of cargo were moved through the four ports, and port-related activities resulted in the emission of 501 metric tons of DPM and 1.75 million metric tons of GHG emissions.<sup>1</sup> DPM emissions per metric ton of cargo moved: 80% lower in 2015/16, compared to 2005. GHG emissions per metric ton of cargo moved: 17% lower in 2015/16, compared to 2005.

**Figure 19.** GHG Emissions Reductions Comparison

The significant reductions in DPM emissions can be attributed to changes in international, national and provincial regulations, industry action, and port policies and programs to accelerate the turnover of equipment and use cleaner fuels, with the most substantial impact resulting from implementation of sulfur limits on fuel used in the North America Emission Control Area. Overall DPM emissions also dropped by 75%. Progress continues to be documented in annual *Implementation Reports*.<sup>3</sup>

In addition to the federal standard, the PSCAA Board of Directors adopted a more stringent health goal for 24-hour PM<sub>2.5</sub> of 25 µg/m<sup>3</sup> in 1999, based on recommendations from the PSCAA Particulate Matter Health Committee. In 2021, the Tideflats had 6 days where air quality exceeded PSCAA's health goal; wildfire smoke contributed to 1 day. In 2022, the Tideflats had 15 days where air quality exceeded PSCAA's health goal; wildfire smoke contributed to 13 days.

## Earth

The subarea contains earth hazards due to its history of industrial use, its location in an earthquake prone area, and its soils and topography. For a discussion of contaminated sites and brownfields remediation, [see section 2.11](#).

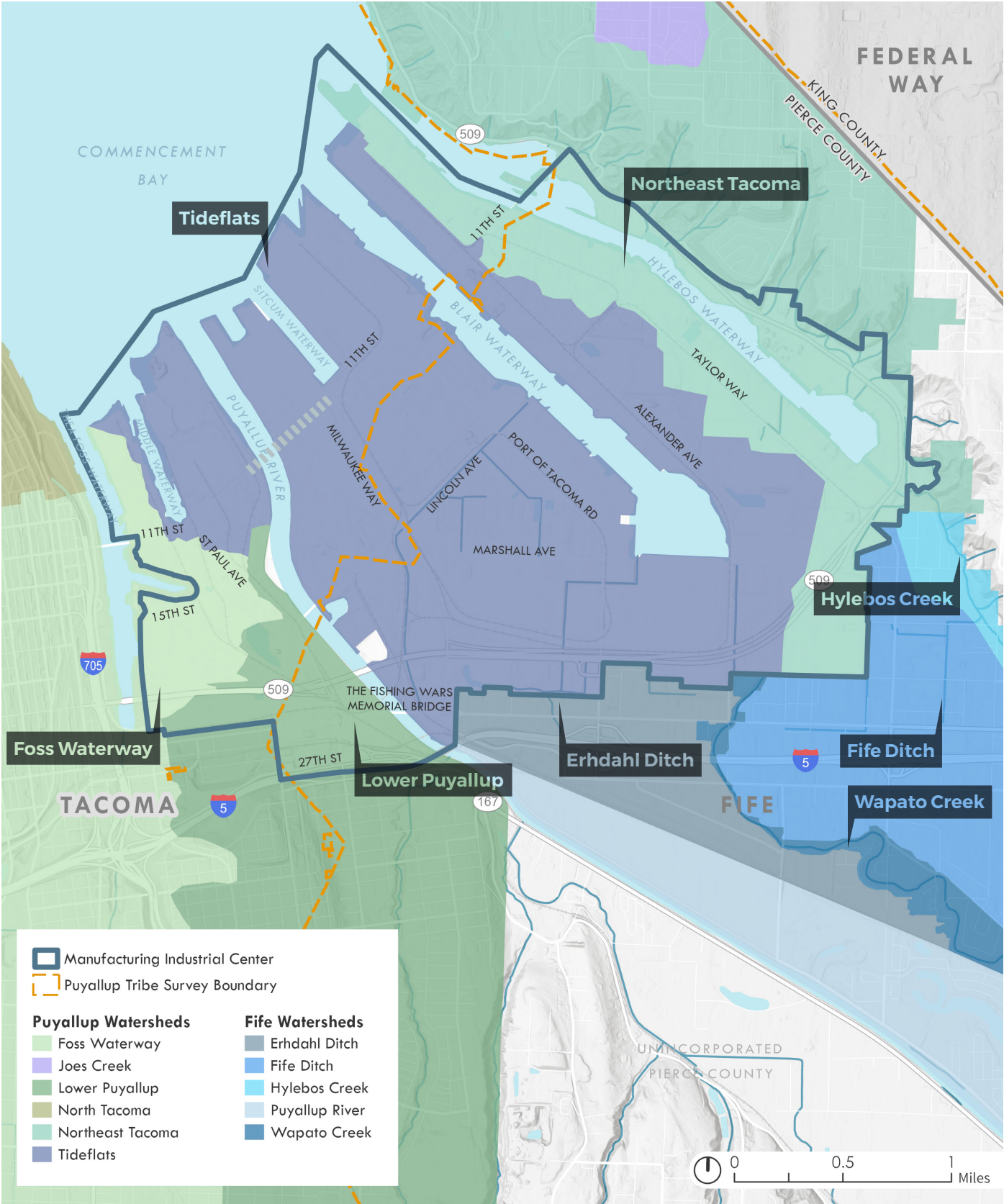
There are seismic and landslide hazards area in the subarea. Seismic hazards are associated with the major fault zones that traverse the Puget Sound region. Thick deposits of unconsolidated materials and the presence of fill areas, as found in the subarea, can amplify earthquakes waves and cause far more damage to structures than the same waves passing through bedrock. The entire subarea is susceptible to liquefaction hazards, which has often been the cause of damage to structures during past earthquakes. The edges of the waterways are also susceptible to landslide hazards.

## Water Quality

There are six receiving waterbodies in the Tideflats area: Thea Foss Waterway, Middle Waterway, Puyallup River, Sitcum Waterway, Blair Waterway (Including Wapato Creek), and the Hylebos Waterway (Including Hylebos Creek). The Puyallup Watershed drain into these waterbodies through streams, creeks, rivers, ditch systems, and underground conveyance systems. The built environment's stormwater and wastewater systems also drain into these waterbodies through pipes and outfalls. Stormwater from precipitation can carry pollutants such as sediment, debris, oil, grease, and chemicals across land surfaces into waterbodies. In the Tideflats, stormwater flows through approximately 2,200 catch basins, which help capture pollutant and debris, and directly discharges into Commencement Bay through about 130 outfalls. Wastewater (separate from stormwater) for numerous jurisdictions is treated at two wastewater plants before it is released into Commencement Bay; the Central Wastewater Treatment Plant is located on the banks of the Puyallup River in the Tideflats. The Central Wastewater Treatment Plant is permitted a Maximum Month Flow (MMF) of 60 Million Gallons per Day (MDG) or 227,000 m<sup>3</sup>/day.

<sup>3</sup> [Northwest Ports Clean Air Strategy | Northwest Seaport - Port of Tacoma \(nwseaportalliance.com\)](#)





**Figure 20. Watersheds in the Tacoma Tideflats Subarea**  
Source: ESA, 2020; BERK, 2020; Seva Workshop, 2024

The Clean Water Act regulates water quality standards for waterbodies through the National Pollutant Discharge Elimination System (NPDES). NPDES permits are required to discharge stormwater and wastewater in municipal and non-municipal systems. NPDES permits are also required for operations with manufacturing, industrial, and certain transportation uses.

The City requires enhanced water quality treatment for projects that discharge to sensitive habitat areas. Tacoma's [Stormwater Management Manual \(SWMM\)](#) Figure P-4 shows the Natural Resource Damage Assessment (NRDA) areas and other sensitive habitat areas proximate to the Tideflats that would be subject to enhanced water quality treatment requirements.

All of the receiving waterbodies are part of the Commencement Bay Superfund site. Various remediation efforts have occurred and continue to occur. For additional information on past and existing remediation efforts, refer to [Appendix A](#).

The Puyallup River supports several salmonid species including coastal cutthroat trout, bull trout, steelhead/rainbow trout, and Chinook (spring and fall), sockeye, coho, pink, and chum salmon (WDFW 2020a; WDFW and NWIFC 2020). Wapato Creek and Hylebos Creek support a smaller set of salmonid species including steelhead, coho, Chinook (fall), pink, and chum. Three of these fish species are listed as threatened under the federal Endangered Species Act (ESA) (Chinook, bull trout and steelhead), have designed critical habitat in the study area and are also listed in Washington State by WDFW.

## Plants and Animals

The Tideflats have been extensively altered by dredging, filling and diking as well as installing high levels of impervious surface coverage associated with the intense industrial and port land uses. Natural drainage features, which historically supported wetlands and streams important for fish and wildlife, either no longer exist or have been heavily modified. About 230 acres of restoration activity have occurred as mitigation for impacts in the Tideflats, and these areas provide important habitat patches for fish and wildlife traveling through the Tideflats. The Port has participated in restoration and mitigation activities by building most of the mitigation acreage in the lower Puyallup River.

Despite substantial modification of the Commencement Bay nearshore, Washington Department of Fish and Wildlife (WDFW) has documented forage fish (i.e., surf smelt and sand lance) spawning at the west edge of the Middle Waterway, near the mouth of the Puyallup River, and along the upper intertidal zone of the sand-gravel beaches of the former Milwaukee Waterway, which is a 30-acre habitat mitigation site located between the Puyallup River and Sitcum Waterway. Restored intertidal wetlands and riparian buffers associated with mitigation sites have provided habitat for shorebirds, waterfowl, and upland birds to breed and overwinter. The edges of the Tideflats' waterways are also productive habitats for shellfish.

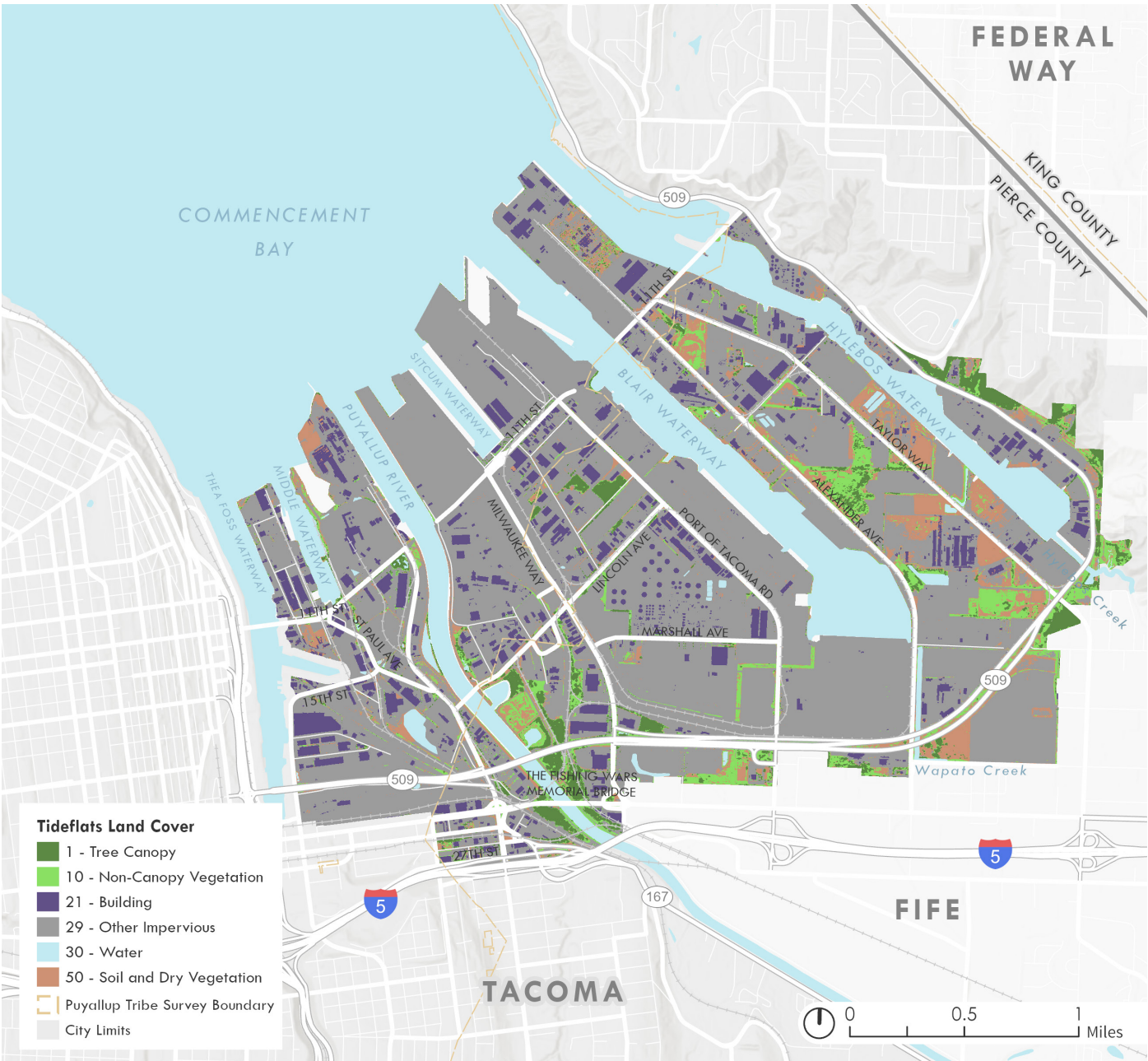
The Tribe also practices commercial and ceremonial crab, shrimp, sea urchin, sea cucumber, and geoduck fisheries within the Tideflats. Fishing Area Section 26D is the area which includes the entirety of the Tideflats. These fisheries can be seasonal in nature or serve a special ceremonial purpose.

Restoration projects recreating intertidal habitat improve plant diversity in the area by installing native plants. Vegetation, where present, is typically grass, street trees, or shrubs. Given the industrial nature of uses in the Tideflats and surrounding urban areas, there are no old-growth forests in the study area.



*Habitat restoration in the Tideflats*





### Tree Canopy

The 2018 Tacoma Tree Canopy Report concluded that Tacoma’s urban tree canopy represented 20% of the total land area found within city limits; this is the least amount of tree canopy as a percentage of land cover for all communities assessed in the Puget Sound Region.

The Tideflats have 4% total tree canopy cover. Non-canopy vegetation, bare soil, and dry vegetation<sup>4</sup> represents 14% of the land cover. Further, impervious surfaces represent 81% of the land cover in the Tideflats, which reflects the heavy industrial uses found in the area as well as the historic transformation of the Tideflats.

<sup>4</sup> Non-canopy vegetation includes grass, open spaces, and shrubs. Dry vegetation describes landscaping that is dried or dead vegetation.

**Figure 21. Land Cover by Classification**  
Source: City of Tacoma Environmental Services, 2017; Seva Workshop, 2024



Impervious surfaces such as pavement and buildings absorb a significant amount of heat during the day and slowly release it back into the surrounding area. Areas with a high prevalence of impervious surfaces, such as the Tideflats, are prone to higher extremes in temperatures, also known as urban heat island effect. Elevated temperatures can pose serious threats to human health, which include increased risk of cardiovascular diseases, respiratory diseases, and heat stroke. The Tideflats subarea currently supports over 10,000 jobs. With limited natural landscapes in the area, workers are exposed to elevated and extreme heat.

The 2018 Tacoma Tree Canopy Report identified over 200 acres of land within the Tideflats that could be suitable for plantings, which would expand the tree canopy to represent 10% of the total land cover in the Tideflats. An expanded tree canopy could provide numerous ecological benefits such as improved air quality, enhanced water quality, stormwater management, and temperature regulation. However, it should be noted that 90% of the land was determined as currently unsuitable for plantings due to existing land cover being primarily paved surfaces and structures. Increasing opportunities for tree planting above the 10% of landcover would require pavement removal or other considerations to access new planting areas.



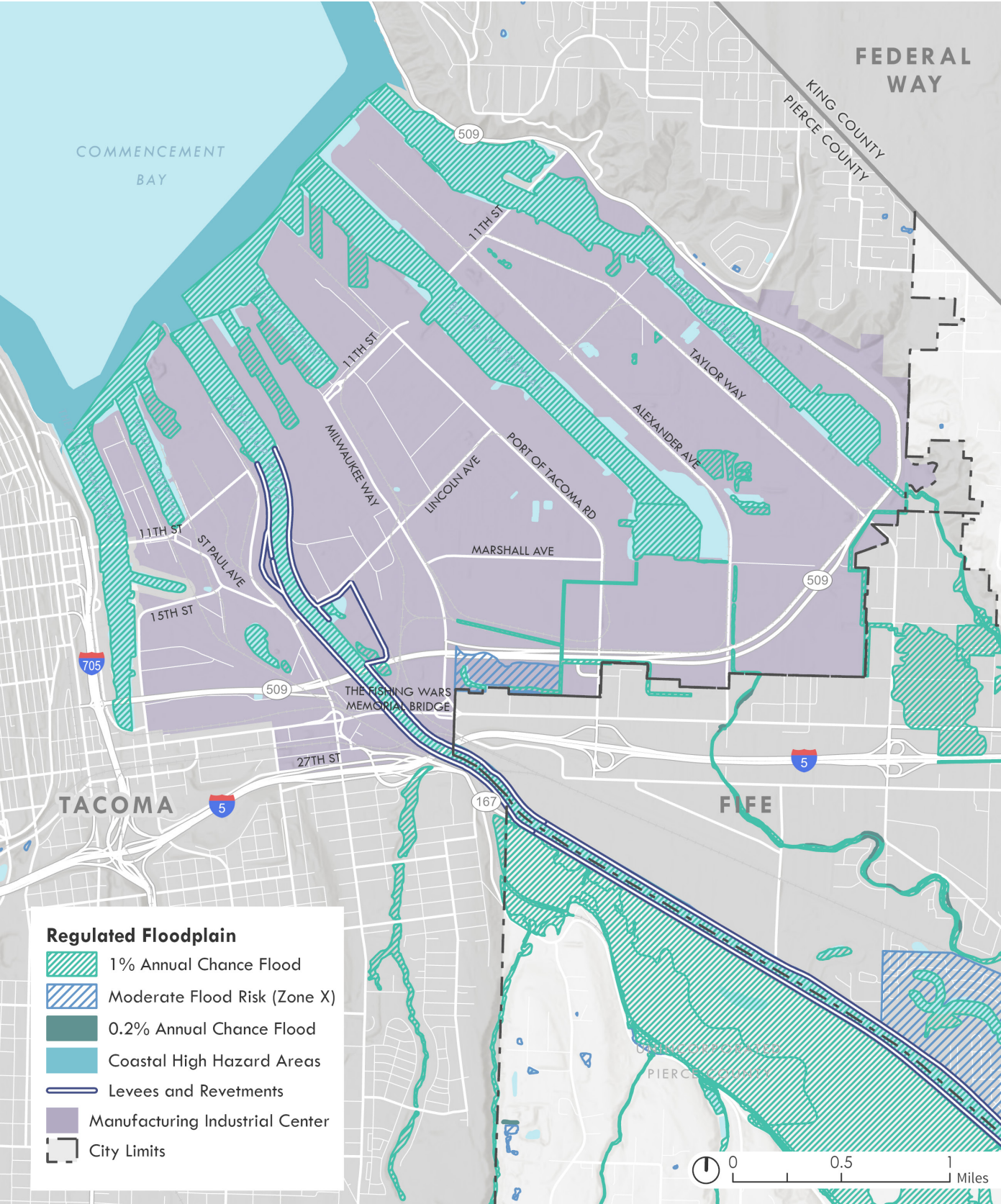
*Example of extensive impervious surface coverage in the Tideflats.*

## Floodplains

Under current conditions, flooding is not a significant hazard for the subarea. The Federal Emergency Management Agency (FEMA) maps floodplain areas in the United States. The subarea is not mapped within the FEMA 1% annual chance floodplain, except for some isolated low-lying areas (see [Figure 22](#)). The subarea is protected from flooding by levees on both sides of the Puyallup River. The primary threats to the subarea from flooding relate to Puyallup River levees further upstream overtopping or to the potential inundation of access routes including roads and rail to the Port of Tacoma, potentially causing substantial supply chain delays.

The City of Tacoma's wastewater treatment plant is in the floodplain in the subarea. In a 2009 flood event, the treatment plant was considered at risk of flooding, and 17,000 sandbags were placed around the plant to protect it from inundation. In that event, the banks did not overtop. However, if the treatment plant had flooded, untreated wastewater could have been released into Puget Sound, and business at the Port of Tacoma could have been disrupted. In 2015, a floodwall was constructed with funding from the Pierce County Flood Control Zone District and the City of Tacoma, increasing the protection of the treatment plant from inundation.

While flooding does not currently pose a substantial threat to the Tacoma Tideflats area, climate change will likely increase the risk of flooding in coming years. [See section 2.6, Sea Level Rise](#), for more information.



**Figure 22. Regulated Floodplain, Levees, and Revetments in the Subarea**

Source: ESA, 2020; BERK, 2020; Seva Workshop, 2024

## Stormwater Management

All surface water in the City of Tacoma drains from two regional watersheds: the Puyallup-White River Watershed and the Chambers-Clover Creek Watershed. The portions of the two regional watersheds that are located within Tacoma's city limits are divided into nine sub-watersheds and drain into local waterbodies. The Tideflats sub-watershed encompasses over 2,600 acres. In addition to the identified nine sub-watersheds, there are 15 priority subbasins<sup>5</sup> identified in the City of Tacoma's Stormwater Management Action Plan; three priority subbasins are located within the Tideflats (Exhibit 5).

Stormwater infrastructure within the Tideflats includes drainage structures, inlets, and catch basins, underground storm drainpipes, and surface ditches. Over 70% of waterfront operations have stormwater treatment/filtration systems installed and operational to capture pollutants from their properties.

As part of the NPDES Phase I Municipal Stormwater Permit (MS4), the City of Tacoma maintains a Stormwater Management Program Plan (SWMP). An Interlocal Agreement (ILA) between the City of Tacoma and the Port facilitates coordinated stormwater compliance. The Puyallup Tribe also manages and permits discharge points within the study area on tribal properties, including the section of the Puyallup River starting at the Lincoln Avenue Bridge and extending beyond the study area boundary upstream (Strobel 2023).

The Port manages stormwater through their own NPDES Phase I MS4 permit as a secondary permittee. As part of this permit, the Port is also required to maintain a SWMP for lands it owns and operates within the Tideflats. The SWMP summarizes how the Port complies with its permit requirements including: an education program, public involvement and participation, illicit discharge detection and elimination, construction site runoff control, post-construction stormwater management for new development and redevelopment, operation and maintenance program, and source control in existing developed areas.

Through the management of the City of Tacoma's SWMP, the Tideflats were identified as a priority area in the City of Tacoma's stormwater planning process. The City of Tacoma is conducting several studies to find ways to improve surface water quality prior to discharge to waterways, such as stormwater treatment devices and Low Impact Development (LID) technologies. Further, Tacoma's Capital Facilities Program plans to expand its stormwater system with an increasing emphasis on green infrastructure. The City of Tacoma is also in the process of developing Tacoma's first Urban Waters Protection Plan, which is a watershed management plan to protect Tacoma's streams, wetlands, lakes, and shorelines from pollutants carried in stormwater.

The City of Fife, through the Western Washington Phase II Municipal Stormwater Permit, manages stormwater through a Stormwater Management Manual. Stormwater runoff generated in Fife reaches the Tideflats waterways through a combination of storm drains, pipes, pumps, man-made ditches, and streams. Three natural watercourses flow through Fife before entering the Tideflats: Puyallup River, Wapato Creek, and Hylebos Creek. Two manmade ditch systems provide

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<sup>5</sup> A subbasin is a smaller delineated area within a larger watershed. Planning at the subbasin level allows for more detailed analysis and understanding of the distribution of water resources, hydrological processes, and potential impacts from human activities. Planning at the subbasin level usually targets localized water quality issues, managing stormwater runoff, protecting sensitive habitats or species, and addressing infrastructure needs such as drainage systems or flood control measures.



storm drainage to large portions of Fife, with their outfalls being locating within the MIC boundary. The Fife Ditch discharges into the Hylebos Waterway, and drains approximately 1,205 acres in Fife, including the City Center and ST TDLE station location(s). The Fife Ditch is currently under the control of a special purpose district, Drainage District 23, who has been in conversations with the City of Fife to dissolve into Fife’s drainage system. The Erdahl Ditch discharges into the Blair Waterway via a city/private maintained system of ditches which terminate in two pumps in the southwest corner of the Blair turning basin. The Erdahl system drains approximately 1,100 acres of Fife including development on Tribal Trust property (70 acres) and property owned by the Union Pacific Railroad (200 acres). The City of Fife also consults and coordinates with the Puyallup Tribe and Drainage District 23, a special purpose district that manages the drainage ditches and culverts in north Fife and adjoining Pierce County areas.

Stormwater management around the Puyallup River, Blair Waterway, and Hylebos Waterway<sup>6</sup> is critical as these waterbodies support several salmonid species, including coastal cutthroat trout, bull trout, steelhead/rainbow trout, and Chinook (spring and fall), sockeye, coho, pink, and chum salmon. Three of the fish species found in these waterways are listed as threatened under the federal Endangered Species Act (ESA): Chinook, bull trout, and steelhead.

2.6 SEA LEVEL RISE

For over a century, the Tideflats has been industrialized and transformed into a strategic seaport. It hosts critical infrastructure and services, supports marine cargo operations and major shipping activities, and serves as a prime location for manufacturing. While economically significant, the Tideflats also provide important environmental services as a unique natural environment, containing shoreline, river deltas, tidal creeks, marshes, naturalized creeks, and river channel corridors. Additionally, much of the area is part of the ancestral lands of the Puyallup Tribe and is an important location for cultural traditions, the practice of tribal treaty rights, and essential governmental facilities. Natural, human, or technological hazards can endanger and threaten the facilities, overall operations, and activities found within the Tideflats as well as public health and safety.

As climate change impacts become more salient, climate related hazards such as sea level rise and coastal flooding are emerging. Communities and infrastructure in low-lying areas may see increased flooding risks in the future if no actions are taken today to protect existing facilities, assets, and infrastructure.

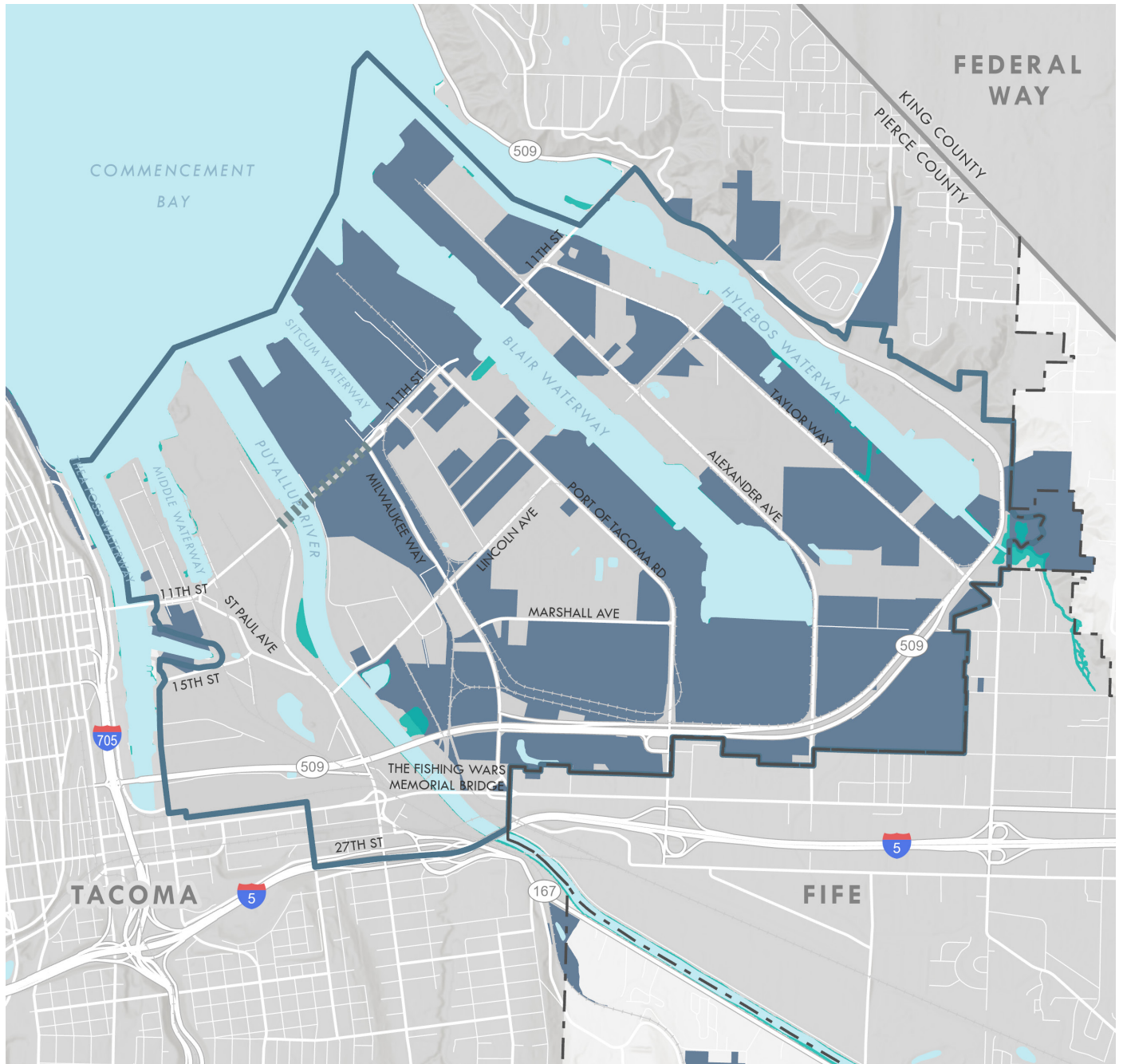
Existing Policies and Regulations

There is a range of existing policies and regulations that highlight mitigation and adaptation strategies for sea level rise and climate change related hazards. The following table (Figure 23) provides an overview of these policies and regulations.

6 The Wapato Creek drains to the Blair Waterway. The Hylebos Creek drains to the Hylebos Waterway.

Figure 23. Policies and Regulations Related to Sea Level Rise

PLANNING GOAL, POLICY, CODE, ORDINANCE	JURISDICTION	DESCRIPTION
<b>Goal EN-1, One Tacoma Plan</b>	City of Tacoma	Ensure that Tacoma's built and natural environments function in complementary ways and are resilient to climate change and natural hazards.
<b>Policy EN-1.30, One Tacoma Plan</b>	City of Tacoma	Promote community resilience through the development of climate change adaptation strategies. Strategies should be used by both the public and private sectors to help minimize the potential impacts of climate change on new and existing development and operations, include programs that encourage retrofitting of existing development and infrastructure to adapt to the effects of climate change.
<b>Policy EN-3.5, One Tacoma Plan</b>	City of Tacoma	Discourage development on lands where such development would pose hazards to life, property or infrastructure, or where important ecological functions or environmental quality would be adversely affected: <ul style="list-style-type: none"> <li>a. Floodways and 100-year floodplains</li> <li>b. Geologic hazard areas</li> <li>c. Wetlands</li> <li>d. Streams</li> <li>e. Fish and wildlife habitat conservation areas</li> <li>f. Aquifer recharge areas</li> <li>g. Shorelines</li> </ul>
<b>Chapter 19.06.010 Shoreline Use</b>	City of Tacoma	Evaluate sea level rise data and consider SLR risk and implications in the development of regulations, plans and programs.
<b>Chapter 19.06.020 Site Planning</b>	City of Tacoma	Development should be located, designed, and managed both to minimize potential impacts from sea level rise and to promote resilience in the face of those impacts, by such actions as protecting wetland and shoreline natural functions, incorporating green infrastructure, retaining mature vegetation, and considering soft-shore armoring wherever possible. Assess the risks and potential impacts on both City government operations and on the community due to climate change and sea level rise, with special regard for social equity.
<b>Chapter 19.06.040 Critical Areas and Marine Shoreline Protections</b>	City of Tacoma	Protect natural processes and functions of Tacoma's environmental assets (wetlands, streams, lakes, and marine shorelines) in anticipation of climate change impacts, including sea level rise.
<b>Policy 7.6, Puyallup Tribes of Indians Comprehensive Land Use Plan</b>	Tribal	Create and restore off-channel habitat (including wetlands and marshes) in place to prepare for the inundation of saline conditions as sea level rise pushes the salt wedge further inland.
<b>Policy 11.3, Puyallup Tribes of Indians Comprehensive Land Use Plan</b>	Tribal	Encourage local jurisdictions to remove bulkheads and shore defense works to restore shoreline, preserve natural processes, and help adapt to sea level rise.
<b>Policy 16.1, Puyallup Tribes of Indians Comprehensive Land Use Plan</b>	Tribal	Identify Tribal facilities & land that will be inundated by sea level rise and explore options for federal compensation.
<b>Policy 16.2, Puyallup Tribes of Indians Comprehensive Land Use Plan</b>	Tribal	Inventory Tribal property, structures, and cultural sites at risk from natural hazards and sea level rise. Create criteria for assessing an approach for adaptation or relocation of identified land and facilities.
<b>Policy 16.4, Puyallup Tribes of Indians Comprehensive Land Use Plan</b>	Tribal	Study economic development impacts associated with sea level rise in the Tideflats.
<b>MPP-CC-10, Vision 2050 PSRC</b>	Regional	Address rising sea water by siting and planning for relocation of hazardous industries and essential public services away from the 500-year floodplain.
<b>CC-Action-4, Vision 2050 PSRC</b>	Regional	Cities and counties will update land use plans for climate adaptation and resilience. Critical areas will be updated based on climate impacts from sea level rise, flooding, wildfire hazards, urban heat, and other hazards.
<b>Northwest Ports Clean Air Strategy 2021 Joint Resolution</b>	Regional	[The Port of Seattle, Port of Tacoma, The Northwest Seaport Alliance, and The Vancouver-Fraser Port Authority] embrace the aspirational vision articulated in the 2020 NWPCAS: "Phase out emissions from seaport-related activities by 2050, supporting cleaner air for our local communities and fulfilling our shared responsibility to help limit global temperature rise to 1.5°C."



## Baseline Conditions

Sea level is a measure of the relative height of the ocean and land surface. In a tectonically active region like the Puget Sound, land motion is an important consideration for determining sea level rise, which represents an increase in overall water levels. It is expected that with higher water levels, sea level rise will increase the likelihood of coastal flooding or inundation of areas within the Tideflats.

Coastal floods are caused by extreme sea levels, which arise as a combination of four main factors: waves, King Tides, storm surges, and relative mean sea level. The effects of coastal flooding can occur during high tide events and storm events. While high tide events are predictable, sea level rise projections indicate that these events are expected to become more severe over time.

**Figure 24.** 0' Mean Higher-High Water

*Note: The map does not account for areas that may be inundated by wave runoff.*

*Source: NOAA, 2020; BERK, 2020; Seva Workshop, 2024*

- Inundated Areas
- Port of Tacoma Parcels
- Manufacturing Industrial Center
- City Limits
- 11th St Bridge Closure



The typical high tide in the Tideflats today is represented by 0’ Mean Higher-High Water (MHHW)<sup>7</sup> as seen in [Figure 24](#). Under the 0’ MHHW condition, a few low-laying areas are at risk of flooding during a high tide event.

Sea Level Projections

Most coastal areas of Washington State and the Puget Sound will be affected by sea level rise. Regionally, sea level has risen by 7.8 inches over the last century. Under a low and high emissions scenario<sup>8</sup>, sea levels in Washington State are projected to increase by -0.1 to 1.6 feet by 2050, and by 0.3 to 4.7 feet by 2100, relative to 2000 levels. Tacoma is projected to see 1.5 to 3.3 feet of sea level rise by 2100 as described in [Figure 25](#). The rate of rise is projected to accelerate throughout the 21st century, with the largest changes occurring after 2050 (Tacoma Climate Change Resilience Study, 2016 and NWSA Resilient Gateway – Vulnerability Assessment, 2023). The potential extent of flooding due to sea level rise can be seen illustrated in [Figure 26](#).

Flooding Vulnerabilities

While high tide events are predictable, sea level rise predictions indicate that high tide events and storm events are expected to become more severe over time, which ultimately increases the likelihood of coastal flooding. Tidal events can aggravate stream, river, and upland flooding by backing up water into those channels and into nearshore drainage pipes and infrastructure. Likewise, wind events can increase the impacts from wave action and exacerbate damage from high tide events, which is often referred to as “storm surge.” A rise in sea level will increase the reach of coastal floods even in the absence of a change in surge and wave heights. This means that coastal flood elevations should be expected to rise in tandem with sea level rise (Pierce County Comprehensive Flood Hazard Management Plan, 2023).

7 The MHHW is the average of the higher of the two high tides.

8 Representative Concentration Pathways (RCP) describe different possible futures based on the volume of greenhouse gases emitted over time. RCPs are labeled after the expected radiative forcing level by 2100; radiative forcing quantifies the imbalance between incoming solar radiation and outgoing infrared radiation, which influences the Earth's temperature. The Intergovernmental Panel on Climate Change (IPCC) uses 4 RCPs – RCP 2.6, 4.5, 6.0, 8.5. For the purposes of this issue paper, low and high RCPs refer to RCP 4.5 and 8.5, respectively. RCP 4.5 is a low scenario, where emissions peak around mid-century and then decline. RCP 8.5 is a high scenario that assumes increases in emissions until the end of the century.

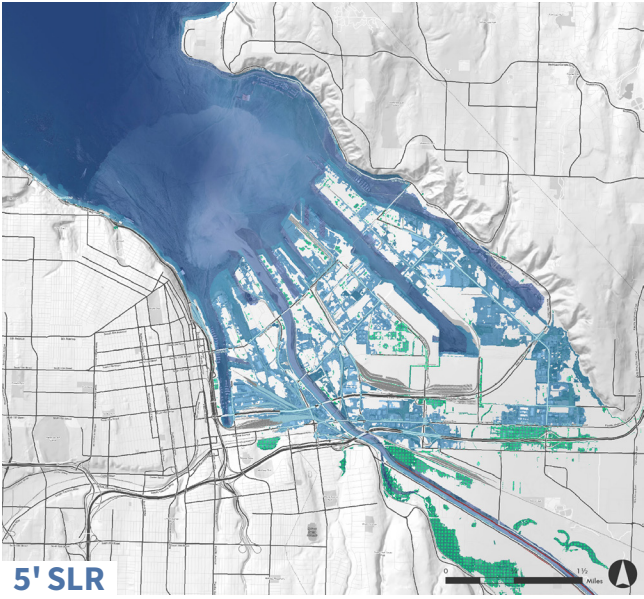
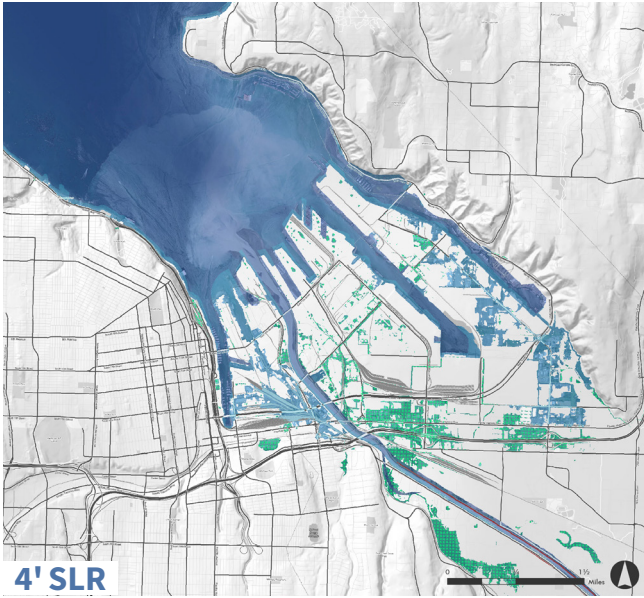
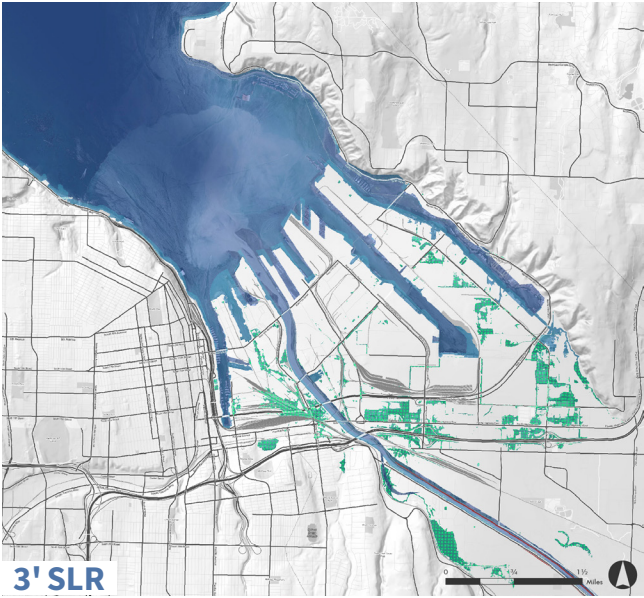
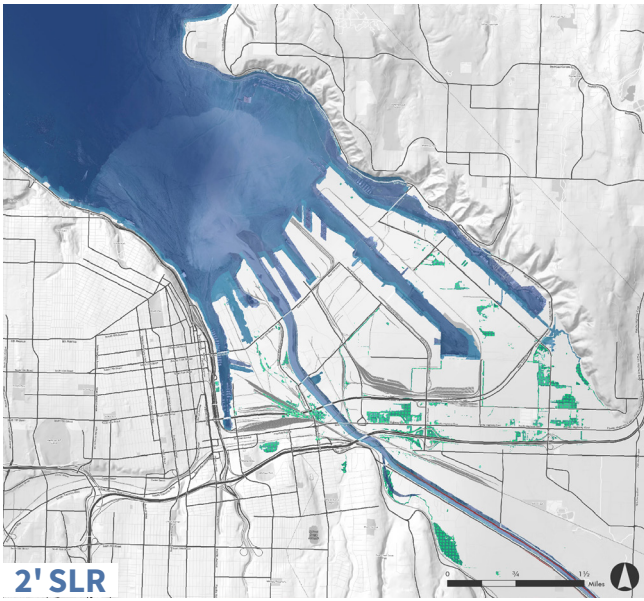
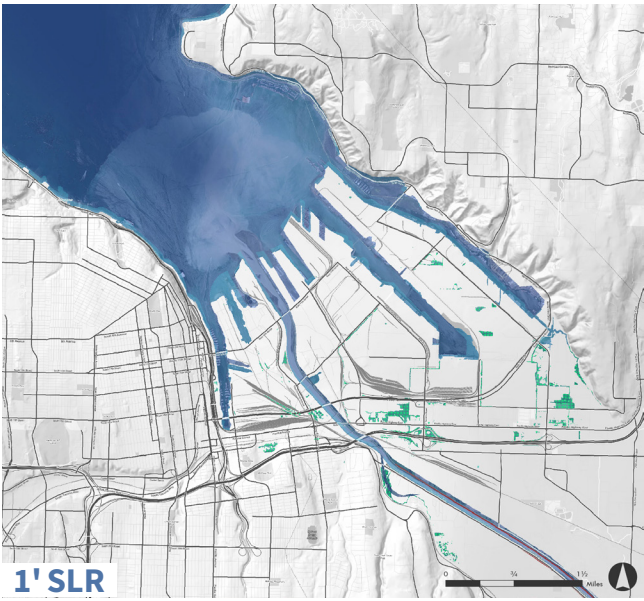
Figure 25. Tacoma Harbor Sea Level Rise Projections

TIME PERIOD	GREENHOUSE GAS SCENARIO	TACOMA HARBOR LIKELY RANGE OF SLR (FT)
2050	Low	0.6 - 1.1
	High	0.7 - 1.2
2100	Low	1.5 - 2.7
	High	1.9 - 3.3
2150	Low	2.1 - 4.6
	High	3.0 - 5.7

The tides they are a-changing

Water levels are always changing with the tides and weather conditions. In Washington, there are two low tides and two high tides. The difference between the typical low and high tide in Tacoma is over 11 feet.

Note: Greenhouse gas scenario low corresponds with the Representative Concentration Pathway (RCP) 4.5 and high corresponds with RCP 8.5. These projections are probabilistic, that is, the likelihood that the sea level will rise above a certain level. The projected sea level rise quoted in this table has a probability range of 17-83% probability, but the uncertainty range can expand beyond that. Source: Washington Coastal Resilience Project



**Figure 26.** Flooding impacts due to sea level rise across 1ft to 5ft scenarios  
*Source: Climate Central Surging Seas Risk Zone Map, additional elevation data courtesy of NOAA*

According to the relative sea level rise (RSLR) scenarios<sup>9</sup>, flooding is largely restricted to low-lying areas bordering drainage canals and do not extend into any terminal areas in the Tideflats. Exposed infrastructure under mean higher high water (MHHW) conditions for 1ft and 2ft RSLR primarily consists of outfalls and stormwater infiltration ponds. Additionally, flood hazard exposure for potable water, wastewater, and power infrastructure is minimal. Similarly, flood hazard exposure for transportation infrastructure is also minimal, with only the local roadways bordering Hylebos Waterway drainage channels projected to experience flood impacts.

Exposure to risks increase under a 1% annual chance floodplain condition<sup>10</sup>. Under this condition, coastal flood projections with 1ft RSLR show inundation at additional stormwater outfalls and important utility resources such as the Central Wastewater Treatment Plant. The flood hazard exposure for power utility infrastructure also increases under a 1% annual chance flood condition with 2 ft RSLR as flood projections illustrate potential inundation at several substations in areas bordering the Hylebos Waterway, Blair Waterway, and Sitcum Waterway. The flood hazard exposure for water utility infrastructure also becomes significant under these conditions due to projected flooding at numerous outfall locations.

Roadways such as Taylor Way and St Paul Avenue located within areas under a 1% annual chance flood conditions will also see its flood hazard exposure increase. Additionally, low-lying areas surrounding State Route 509 are also projected to experience flooding between the Thea Foss Waterway and Puyallup River under these conditions. Further, under the 1% annual chance flood conditions with 2 ft RSLR hazard exposure grows to encompass significant portions of local roadways within the Tideflats. Segments of Interstate 5 south of the Blair Waterway are projected to experience flooding. However, bridges crossing the Thea Foss Waterway, Puyallup River, and Hylebos Waterway are expected to have minimal flood hazard exposure across the 1 ft and 2 ft RSLR scenarios due to their elevation above grade or at Puyallup River levee height.

Coastal environmental resources such as wetlands have a high exposure to RSLR hazards as these areas are continuously exposed to changes in tidal water elevations over time. Though wetlands are largely resistant to temporary inundation hazards, coastal wetlands can be highly sensitive to consistently elevated non-storm water levels, as these changes can significantly alter the structure and function of wetland ecosystems. This is particularly true if the inland migration of tidal floodwaters exceeds the landward migration rate or sediment accretion rate of wetland areas. If wetlands areas cannot match the gradual increase in tidal elevations due to RSLR, these systems will gradually transition to subtidal areas, covered by water at all states of the tide.

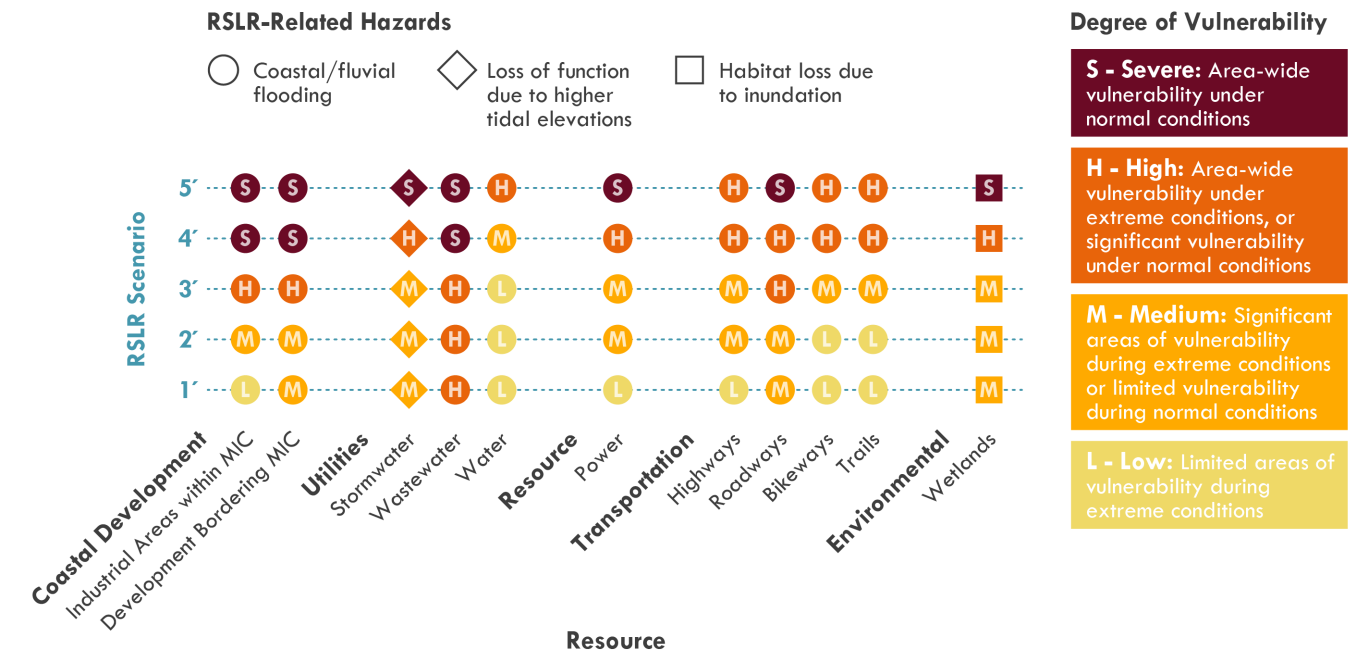
**Figure 26** summarizes the flooding vulnerabilities for RSLR scenarios 1ft to 5ft.

<sup>9</sup> Relative sea level rise (RSLR) combines estimates of absolute sea level rise and vertical land movement. RSLR scenarios are limited to a 20-year planning horizon and utilize MHHW conditions, which illustrate flooding during high tide events.

<sup>10</sup> Areas designated by the Federal Emergency Management Agency (FEMA) with a 1% annual chance floodplain have a 1% chance that a 100-year flooding event will occur in any given year. Areas within the Tideflats that are designated with a 1% annual chance floodplain has a 1% chance of a flood reaching water conditions of 1-2 ft in height under the 1-2 ft RSLR scenario in any year through the end of the century.



**Figure 27. Vulnerability Rating for Resources and Infrastructure within the Study Area**  
*Source: Draft Tideflats Baseline Report, 2024*



As illustrated in **Figure 26**, flooding under 1ft to 3ft is limited to a few areas in the Tideflats. While flooding does not currently pose a substantial threat to the Tideflats, the risk of flooding due to sea level rise and climate related hazards remains.

Sea levels will rise in Commencement Bay, impacting not only the shoreline. Sea level rise will also impact the riverine, stream and urban systems directly connected or in close proximity to saltwater sources; the rise in the sea level limits the ability of these systems to drain causing back water situations in urban systems and sediment deposition in riverine systems (Pierce County Comprehensive Flood Hazard Management Plan, 2023). Both rainstorms and riverine flooding will become more frequent and severe. It is projected that there will be an increase in streamflow volume of 37% or greater during a 100-year flood. Furthermore, it is projected that there will be an increase of 5 or more additional days of heavy rain events (an increase from 2 days to 7 days) by the 2080 and a 22% increase in the intensity of 24-hour rain events by the 2080s (Climate Change in the Puyallup River: A Quick Reference Guide for Local Decision-Makers, 2018). These factors suggest that flooding could become a significant threat to the Tideflats in the coming decades.

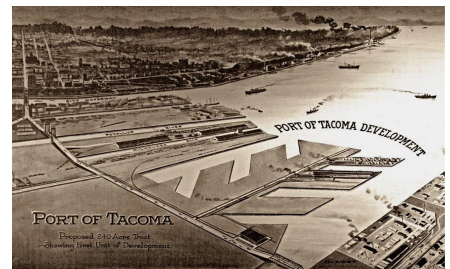
Additionally, high and severe vulnerability ratings become more common beyond the 20-year planning horizon at 3ft and greater RSLR scenarios. Vulnerability becomes high to severe across all resource types for the 4ft and 5ft RSLR scenarios except for potable water infrastructure, which maintains moderate vulnerability under the 4ft RSLR scenario due to lack of projected flooding at pump stations.

## 2.7 ECONOMY

### Economic and Employment Profile

The Tideflats has an established history of maritime industrial activity, dating back to the 1800s. Early uses included lumber and shingle mills, as well as shipyards, flour mills, electrometallurgy, and electrochemical companies. Today it continues to be a key component of the regional industrial ecosystem, though the definition of U.S. domestic industrial activity has grown to include the storage and transportation of goods and products on their way to final consumer in addition to more traditional industrial production activities like manufacturing - a shift due to increased competition stemming from globalization. A modern definition of the industrial sector describes a range of activities centered on not just the production, but also distribution and repair of goods and materials. For the purposes of this study, we define the industrial sector as including Manufacturing, WTU (Warehousing, Transportation, and Utilities), and Construction and Resources.

The Port of Tacoma MIC is an active industrial area with significant existing jobs in core industrial sectors, including cargo terminals, manufacturers, warehouses, repair facilities, and rail yards, and is a catalyst for significantly more related and indirect jobs throughout the region. The study area's industrial strengths center around the warehousing, transportation, and utility (WTU) sector which is closely related to the Port of Tacoma's presence in the study area.



Top: Ackerman Mill in the 1880s. Bottom: 1918 Port of Tacoma master plan.

### Key Economic Takeaways

#### 1 The Tideflats is a local, regional, and national asset.

The MIC is an active industrial area with significant existing jobs in core industrial sectors. The area has a long history of industrial employment and is a key component of a regional system of manufacturing and industrial centers that stretches from the Cascade Industrial Center in the North to the Frederickson MIC in the south.

#### 2 Industrial activities rely on a diverse and concentrated support cluster present in the study area.

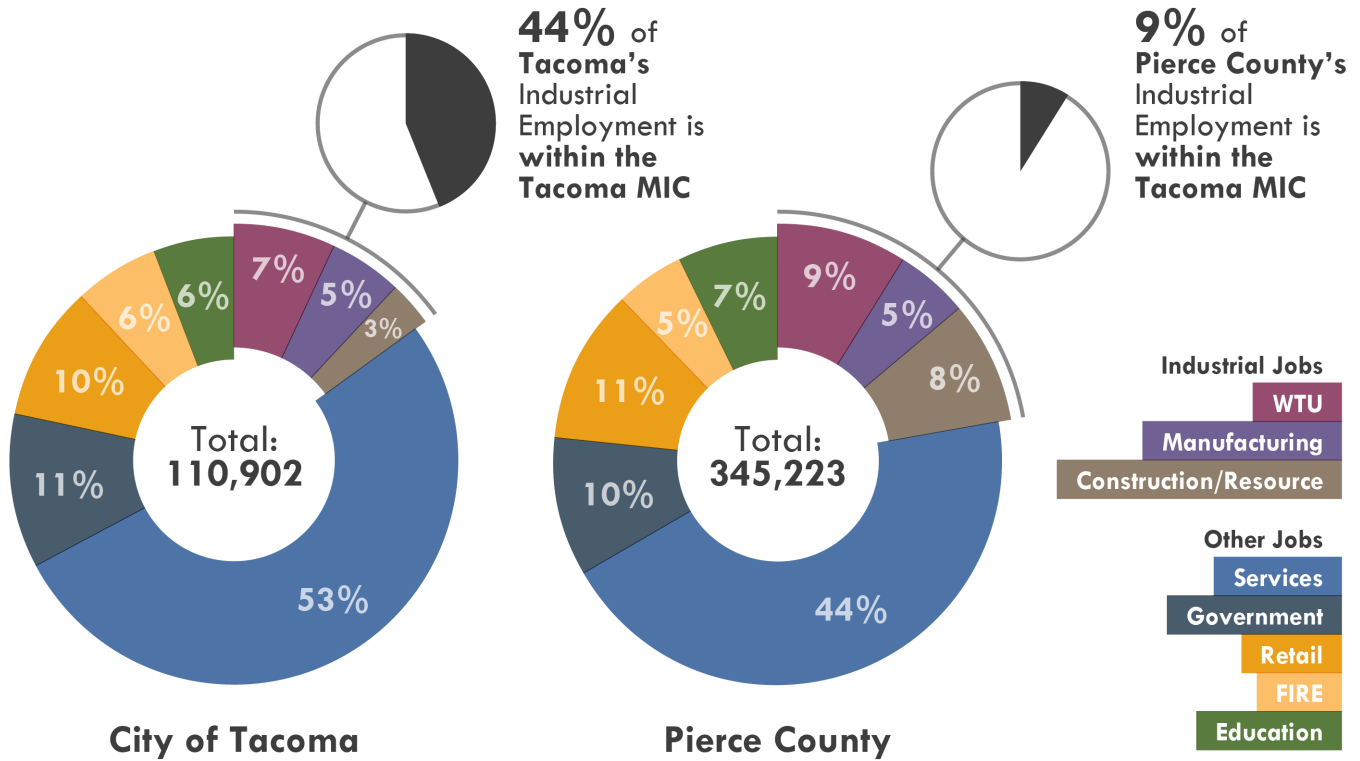
This includes businesses engaged in fueling operations, marine electronics, refrigeration and gear manufacture, naval architecture, and other professional services. The study area also includes a range of industrial services and repair, metal fabricators and machine shops, and commercial, residential, and civil construction contractors and builders.

#### 3 As of 2019, total employment within the Port of Tacoma MIC was 10,161, an increase of 735 jobs over the preceding ten years.

About 68% of employment in the MIC is either within the Wholesale Trade, Transportation, and Utilities (WTU) sector (42%) or the Manufacturing sector (26%). Much of the growth between 2010 and 2019 has been driven by the WTU sector while the Manufacturing sector has shrunk from 2010 levels.

#### 4 Industrial activities provide a range of job opportunities.

Manufacturing, transportation, utility, maritime, industrial services and repair, metal fabricators, machinist, and contractor jobs are available to workers with formal education less than a college degree. These jobs provide a source of stable family-wage employment with opportunities for advancement, relative to service sector jobs accessible at similar levels of education.



The Port of Tacoma enjoys assets such as a strategic location relative to the origins and destinations of container traffic, a naturally deep harbor with the ability to accept large ships, significant public investment in a robust set of terminal facilities, and efficient cargo handling operations. The Port of Tacoma's activities are centered around the port and industrial lands adjoining the Hylebos Waterway, Blair Waterway, Sitcum Waterway, Puyallup River, Saint Paul Waterway, and Middle Waterway.

**Figure 28** outlines Tacoma's and Pierce County's employment by sector in 2019. Combined manufacturing and WTU jobs make up about 12% and 14% of Tacoma's and Pierce County's total employment, respectively. Construction jobs make up 3% Tacoma's jobs while it makes up 8% of Pierce County jobs. Services are by far the most significant employment sector at 53% and 44% of Tacoma's and Pierce County's total employment, respectively.

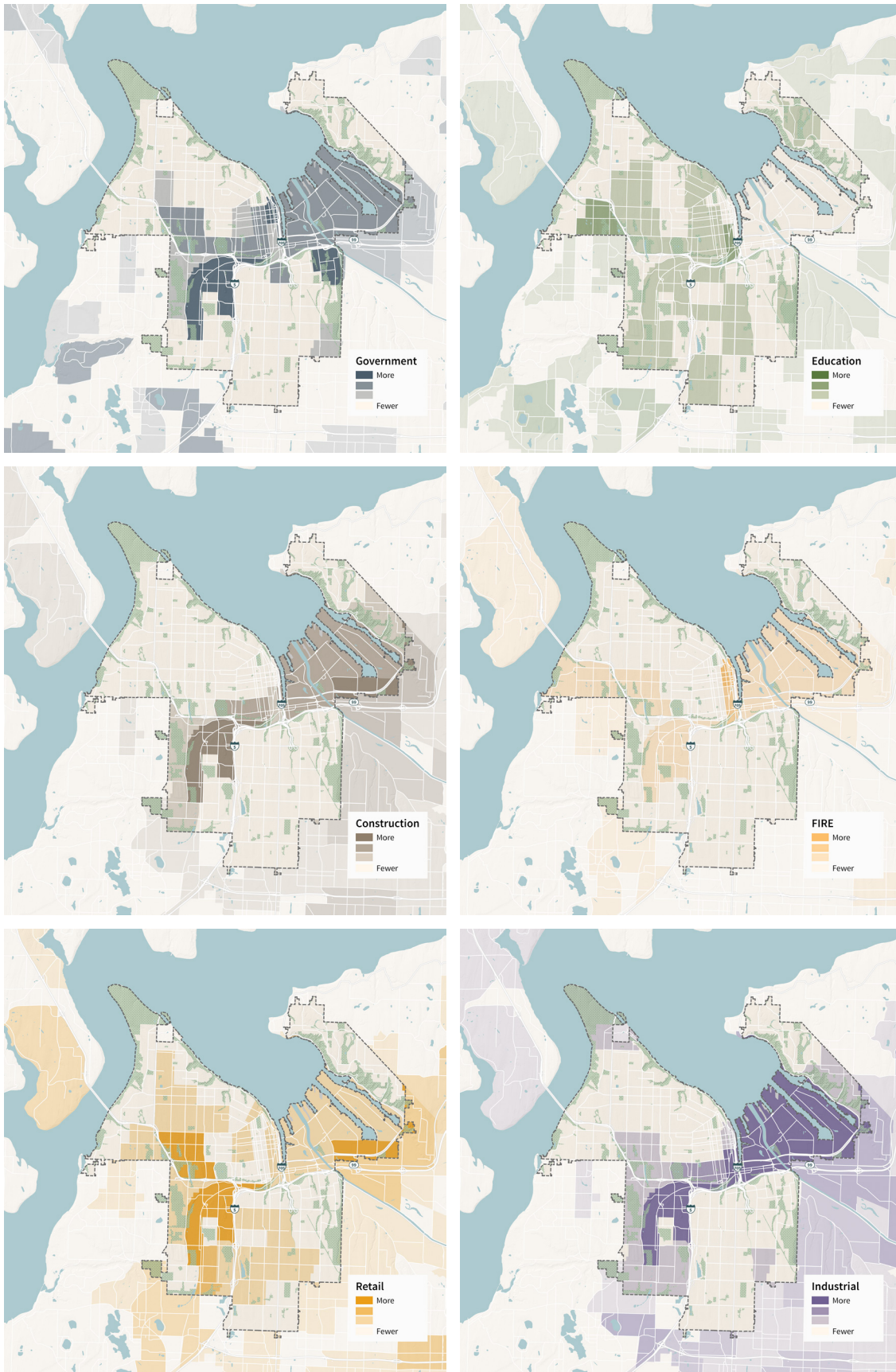
Unsurprisingly given its status as a one of three manufacturing industrial centers in Pierce County, the Port of Tacoma MIC accounts for a significant portion of both the City of Tacoma's and Pierce County's industrial employment. **Figure 28** outlines the share of Tacoma's and Pierce County's industrial employment coming from within the Port of Tacoma MIC and the share coming from outside the Port of Tacoma MIC.

Industrial jobs in the Port of Tacoma MIC account for 44% of all industrial jobs in Tacoma. Other clusters of industrial jobs in Tacoma include the southern portion of Central Tacoma around the Interstate 5 (I-5) and Highway 16 (WA-16) crossing as well as portions of South Tacoma alongside both sides of South Tacoma Way. Industrial jobs in the City of Tacoma are clustered in these three areas while jobs in other sectors are more distributed across the city. This pattern likely reflects the locational needs and advantages of the study area and South Tacoma for industrial uses as well as zoning and land use regulations within the city. See **Figure 29**.

**Figure 28.** Tacoma and Pierce County Employment by Sector and Share of Industrial Employment Within the Port of Tacoma MIC, 2019

*Notes: Industrial employment defined as including manufacturing, WTU, and construction and resources jobs. Source: PSRC, 2020; BERK, 2020*





**Figure 29. Employment Concentrations by Major Industry – City of Tacoma, 2022**

Source: PSRC, 2022; Seva Workshop, 2023

Industrial jobs in the Port of Tacoma MIC account for 9% of all industrial jobs in the County. In comparison, the Frederickson MIC accounted for about 4% of all industrial jobs in the County as of 2010 while the Sumner-Pacific MIC accounted for about 14% of all industrial jobs in the County as of 2015.<sup>11</sup>

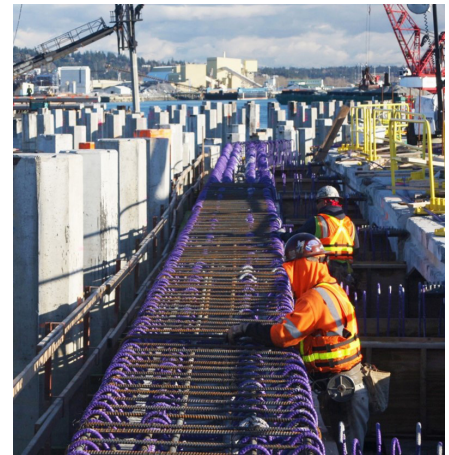
Industrial jobs can be a significant source of employment for people without college degrees. For workers without a college degree and/or lower skilled workers, industrial jobs can typically provide higher wages, better benefits, and better opportunities for career advancement and skill development compared with other employment opportunities. For some workers in the region, industrial jobs are a pathway to economic advancement. See [Figure 30](#) and [Figure 31](#).

<sup>11</sup> Employment density alone does not capture the extent and impact of industrial activity, especially for an area like the Port of Tacoma MIC, since trends such as containerization have reduced the need for personnel but increased productivity.

**Figure 30. Industrial Sectors Compared with Other Sectors – Tacoma, 2018**

Sources: American Community Survey (ACS) 5-Year Estimates, 2014-2018; BERK, 2020

SECTOR	EMPLOYMENT	%	MEDIAN ANNUAL EARNINGS
<b>Industrial: Manufacturing, WTU, and Construction</b>			
Manufacturing	8,922	8.7%	\$46,802
Transportation, warehousing, and utilities	6,447	6.3%	\$41,726
Wholesale Trade	2,906	2.8%	\$47,832
Construction	6,711	6.5%	\$42,893
<b>Services</b>			
Educational services, and health care and social assistance	25,084	24.4%	\$39,701
Arts, entertainment, and recreation, and accommodation and food services	10,883	10.6%	\$22,323
Professional, scientific, and management, and administrative and waste management services	9,925	9.7%	\$51,458
Other services, except public administration	5,347	5.2%	\$27,851
Information	1,862	1.8%	\$49,432
<b>Retail</b>			
Retail trade	12,012	11.7%	\$27,925
<b>Resources</b>			
Agriculture, forestry, fishing and hunting, and mining	623	0.6%	\$24,634
<b>Government</b>			
Public Administration	6,680	6.5%	\$59,638
<b>Finance, Insurance, and Real Estate (FIRE)</b>			
Finance and insurance, and real estate and rental and leasing	5,230	5.1%	\$41,058



Construction activity in the Tideflats

**Figure 31.** Average Annual Labor Income by Line of Business and Segment, Port of Seattle, Port of Tacoma, and The Northwest Seaport Alliance, Washington, 2017 and 2019

	AVERAGE INCOME
<b>The Northwest Seaport Alliance (2017)</b>	<b>\$94,662</b>
Containerized Cargo	\$100,837
Automobiles	\$83,335
Breakbulk, Logs, and Other Cargo	\$74,840
<b>Port of Seattle Sea-Tac International Airport (2017) *</b>	<b>\$41,819</b>
<b>Port of Seattle Commercial Fishing (2017)</b>	<b>\$43,524</b>
<b>Port of Seattle Recreational Marinas and Other Business (2017)</b>	<b>\$99,217</b>
<b>Port of Tacoma Tenants and Other Business (2017)</b>	<b>\$76,225</b>

Note: \* Average income of Sea-Tac International Airport are sourced from the Port of Seattle's Sea-Tac International Airport Economic Impacts study, August 2018.

Source: Community Attributes Inc., 2019

More detailed and recent information on average incomes at the Port of Tacoma and the NWSA show the same patterns. Containerized cargo employment, on average, provides the highest annual compensation among all lines of business and segments across both Ports and The Northwest Seaport Alliance. The overall average estimated annual total compensation for the NWSA was \$94,700 for 2017.

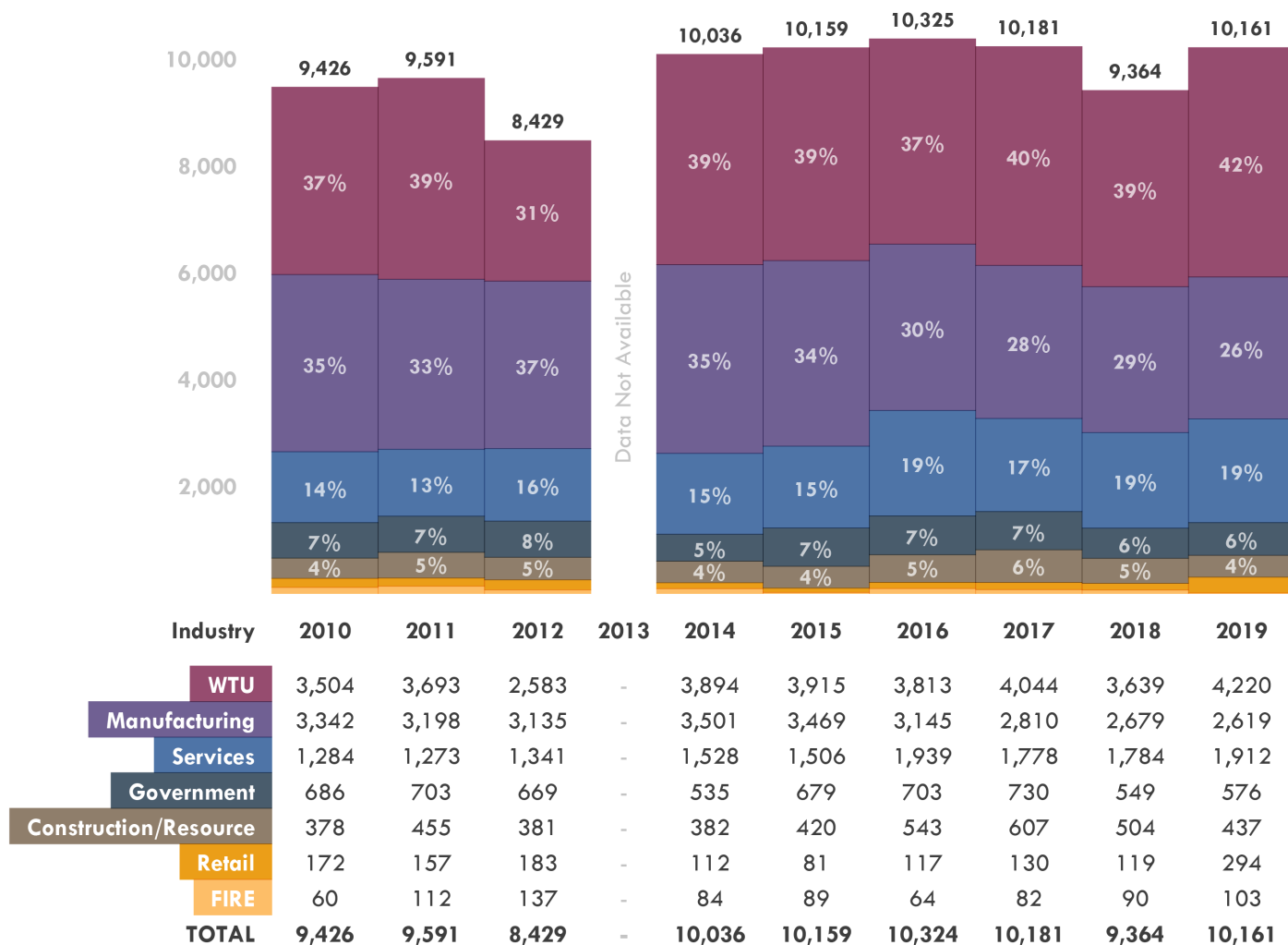
### Business Profiles: Radius Recycling



[www.radiusrecycling.com/locations/40](http://www.radiusrecycling.com/locations/40)

For more than a century, Radius Recycling has developed robust networks to collect, process, and deliver recycled metals to customers around the world. As one of North America's largest manufacturers and exporters of recycled metal products, their integrated operating model advances a circular economy where metals never become waste and instead are redesigned into new products.





**Figure 32. Tacoma MIC Employment by Sector, 2010-2019**

*Notes: Total employment estimates for 2013 are currently unavailable.*

*Source: PSRC, 2020; BERK, 2020*

## Historic Growth Trends

As of 2019, total employment within the Port of Tacoma MIC was 10,161, an increase of 735 jobs over the past 10 years. About 68% of employment in the MIC is either within the Wholesale Trade, Transportation, and Utilities (WTU) sector (42%) or the Manufacturing sector (26%). Much of the growth since 2010 has been driven by the WTU sector while the Manufacturing sector has shrunk from 2010 levels. See [Figure 32](#). Other significant industry sectors include Services (19%), Government (6%), and Construction & Resources (4%).

Based on PSRC data from 2010 to 2019, employment in the Tacoma MIC has grown at a compound annual rate of 0.8%. However, the mix of employment has been shifting over time. Manufacturing jobs which comprised over one-third of jobs in the area in 2010, account for about one-quarter in 2019, equivalent to an annual decline of 2.4%. Government employment has also been on a declining trajectory, by 1.7% annually. Warehousing, transportation, and utilities (WTU) accounts for about 42% of employment in 2019 and continues to grow in pace with the overall employment growth. Sectors that are growing more rapidly compared to overall growth include Services (4.1%), Retail (5.5%), and FIRE (5.6%), albeit from a smaller initial base of employment.

Industry	CAGR 2010-19	2010 Shares	2019 Shares
WTU	1.9%	37%	42%
Manufacturing	-2.4%	35%	26%
Services	4.1%	14%	19%
Government	-1.7%	7%	6%
Construction/Resource	1.5%	4%	4%
Retail	5.5%	2%	3%
FIRE	5.6%	1%	1%
<b>TOTAL</b>	<b>0.8%</b>		

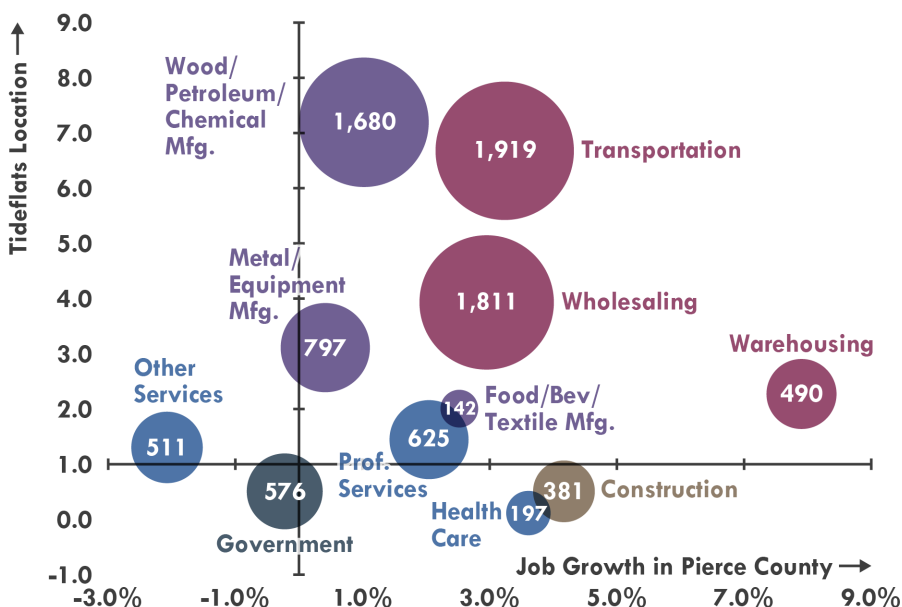
**Figure 33.** Tacoma MIC Employment Growth Rates Overall and by Sector, 2010-2019

Source: PSRC, 2020; BERK, 2024

## Port of Tacoma MIC Competitive Strengths

The Port of Tacoma MIC has competitive strengths in the sectoral clusters of manufacturing as well as WTU (Figure 34). Cluster analysis based on employment data categorized to two-digit NAICS sub-sector codes derived from the Puget Sound Regional Council (PSRC) is one way to analyze competitive strengths. On the vertical axis of Figure 34 is the location quotient of each cluster, with sub-sectors with location quotients greater than 1.0 representing sub-sectors that have a greater concentration in the Port of Tacoma MIC than elsewhere in Pierce County. On the horizontal axis is compound annual employment growth in Pierce County over the last ten years from 2010 to 2019. The size of the bubbles represents the employment in each sub-sector in the Port of Tacoma MIC for 2019.

The upper right-hand quadrant of the graph shows the sub-sectoral clusters in the Port of Tacoma MIC with the highest concentration of jobs and highest employment growth. Sub-sectors with both high concentration of jobs and relatively high employment growth include transportation, warehousing, and wholesaling – all sub-sectors associated with the WTU sector. The transportation (6.7 location quotient) and wholesaling (3.9 location quotient) sub-sectors are highly concentrated in the Port of Tacoma MIC. Employment in the transportation subsector is likely fueled by Port of Tacoma marine cargo operations as well as



**Figure 34.** Location Quotient and Job Growth Analysis, 2019

Note: Job growth is calculated by taking the compound annual growth rate for each industry sector between 2010 to 2019 for Pierce County. Location quotients are calculated using 2019 employment information provided by PSRC. Sources: PSRC, 2020; BERK, 2020

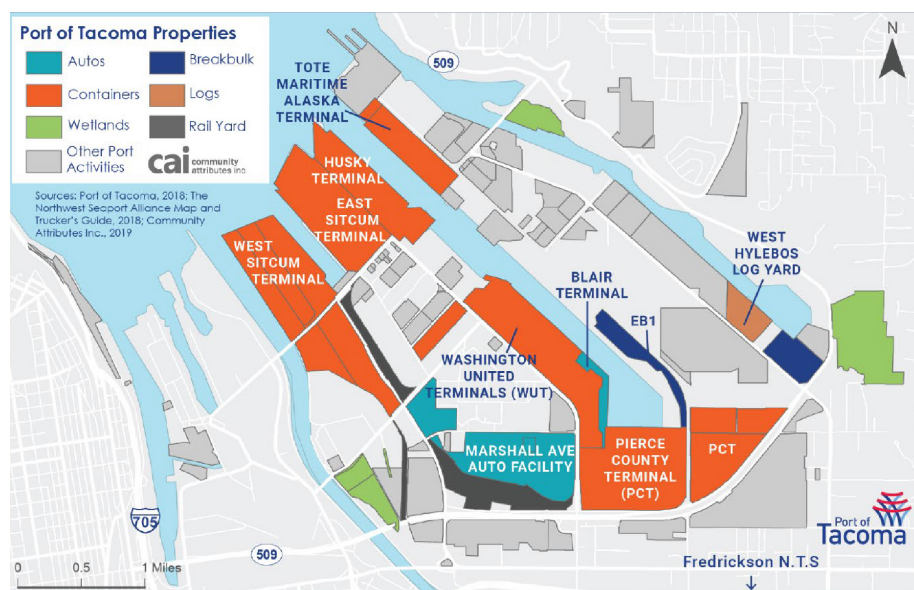
related private businesses involved in general freight trucking, coastal freight transportation, pipeline transportation, general warehousing, and storage, among others. The wholesaling subsector is made up of a diverse array of private firms wholesaling motor vehicle parts, lumber, construction equipment, professional and industrial supplies, hardware, fresh fruit, and groceries, among others.

Other sub-sectors highly concentrated in the MIC include wood, petroleum, and chemical manufacturing (7.2 location quotient) as well as metal and equipment manufacturing (3.1 location quotient). Firms in the metal and equipment sub-sector include such businesses as boat and shipbuilding firms, firms related to iron foundries and metal manufacturing, and firms manufacturing motor vehicle parts, among others. These sub-sectors are also among the slowest growing sub-sectors in Pierce County over the last several years. One potential cause for the slowing growth of these manufacturing sub-sectors may be recent innovations such as increasing automation. Studies suggest a negative relationship between automation and routine manual employment in local labor markets (Bharadwaj and Dvorkin, 2019).

## Employment Centers and Location

Jobs within the MIC include employment from the Port of Tacoma, the Puyallup Tribe, and from private firms within the area. Employment supported by the Port of Tacoma includes both jobs supporting the Port's marine cargo operations as well as jobs with tenants and/or businesses leasing Port of Tacoma real estate. The Puyallup Tribe's employment sectors include a growing marine cargo operation under its subsidiary economic development arm, Tahoma Global Logistics, as well as jobs under general government. Tribal members also fish within the MIC supporting Treaty fisheries-oriented jobs.

In 2015, the Port of Tacoma and Port of Seattle combined marine cargo operations to form the Northwest Seaport Alliance (NWSA). Information on employment supporting marine cargo operations is available for NWSA based on a recent economic impact analysis produced for NWSA in October 2019. Activities included in employment estimates include employment located on South Harbor properties which includes land and activities outside the study area. See [Figure 35](#).



**Figure 35.** South Harbor Properties – Northwest Seaport Alliance

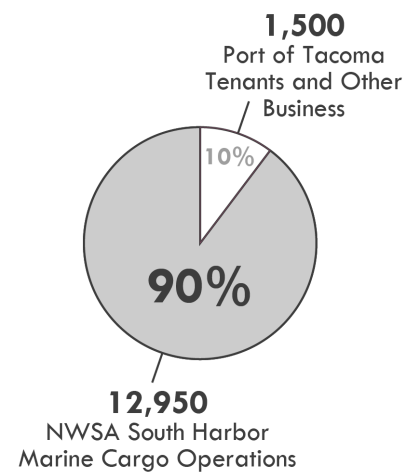
Sources: CAI, 2019





**Figure 36. Port of Tacoma Tenant Properties**

Sources: CAI, 2019



**Figure 37. Port of Tacoma Employment, 2017**

Source: CAI, 2019

Other employment within the Port of Tacoma MIC comes from private businesses. These include a broad range of industrial and non-industrial tenants and activities. These include the Earley Business Center, SAFE Boats for boat manufacturing, and the Fabulich Center which provides office space for government employees. In addition, tenants include Trident Seafoods, Darling International, PepsiCo/Quaker and Puget Sound Energy. Activities in the MIC have seen recent shifts and changes that may not be captured in this data. For example, SAFE Boats closed its Tacoma shipyard and has since reopened but employment has not yet fully recovered.

As shown in **Figure 37**, direct employment at the Port of Tacoma from the NWSA South Harbor Marine Cargo operations was around 12,950 in 2017. Employment with tenants or other businesses leasing real estate from the Port of Tacoma was around 1,500 in 2017. The total direct employment was estimated to be 14,450. These jobs reflect employment connected to the NWSA activities connected to the Port of Tacoma, which includes land and activities outside the MIC study boundary. Direct

CITY	JOBS	OUTPUT (MILS \$)	LABOR INCOME (MILS \$)
Seattle	18,410	\$3,297.1	\$1,246.2
<b>Tacoma</b>	<b>10,040</b>	<b>\$3,298.2</b>	<b>\$940.3</b>
Sumner	1,820	\$500.2	\$174.0
Fife	1,150	\$315.8	\$110.3
Kent	660	\$184.9	\$63.2
Puyallup	510	\$140.0	\$48.9
Uninc. Pierce	480	\$132.4	\$46.3
Auburn	360	\$98.3	\$34.3
Renton	250	\$68.3	\$23.9
Tukwila	220	\$62.3	\$21.3
Lakewood	190	\$52.4	\$18.3
Uninc. King	100	\$28.2	\$9.8
Bellevue	60	\$17.5	\$5.4
Issaquah	50	\$14.5	\$5.1
Burien	30	\$9.0	\$3.2
Kirkland	30	\$7.4	\$2.6
Des Moines	10	\$4.0	\$1.4
Kenmore	10	\$3.8	\$1.3
Edgewood	10	\$3.3	\$1.2
<b>TOTAL</b>	<b>34,390</b>	<b>\$8,238.1</b>	<b>\$2,756.9</b>

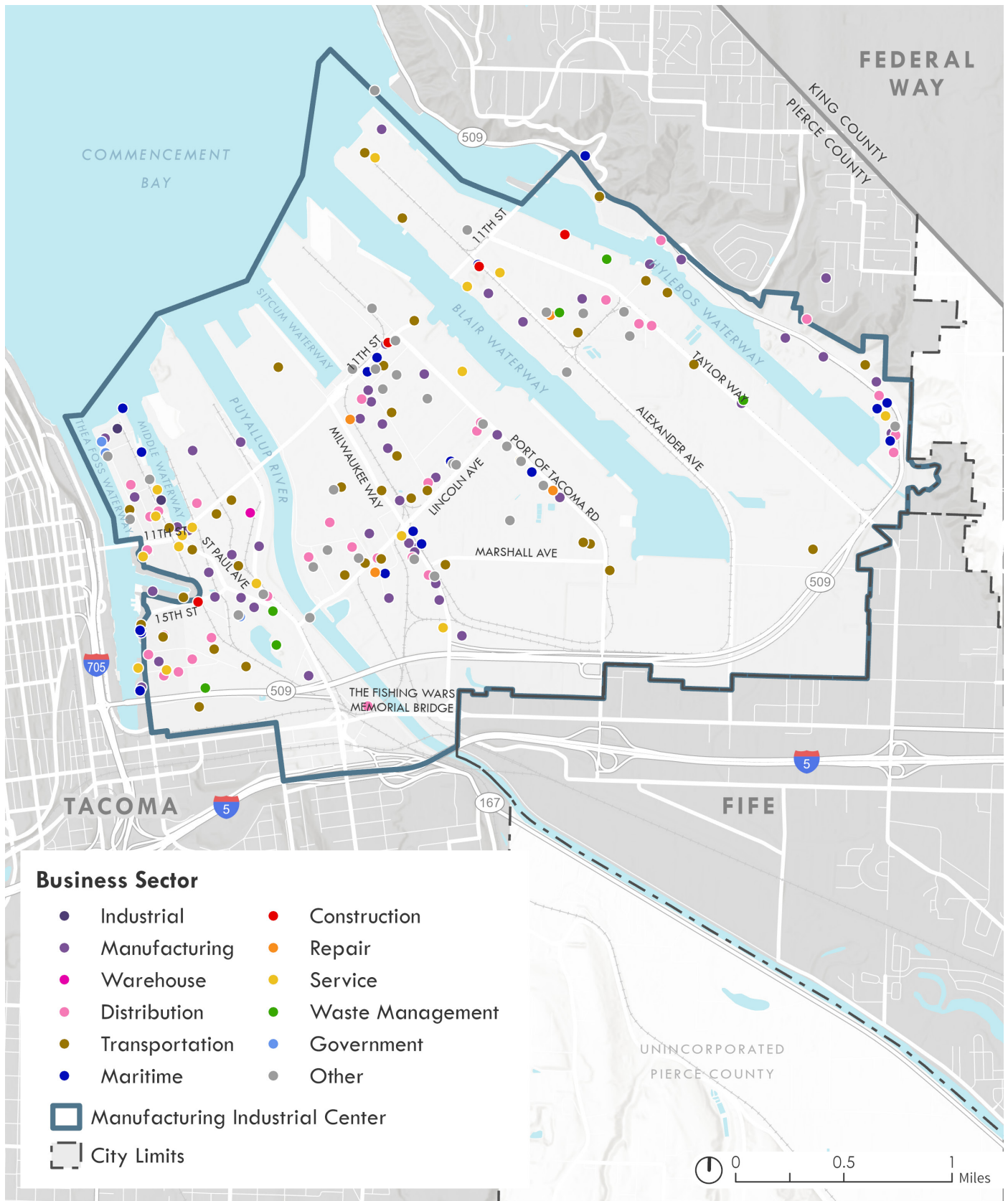
**Figure 38.** Direct Jobs, Revenue, and Income by Jurisdiction, King and Pierce Counties, 2017*Sources: CAI, 2019*

CATEGORY	JOBS
<b>Port of Tacoma MIC</b>	10,161 (2019)
<b>Port of Tacoma MIC</b>	9,941 (2022)

**Figure 39.** Port of Tacoma MIC Employment*Sources: PSRC, 2022*

jobs in the city of Tacoma were estimated to be 10,040. As of 2019, PSRC data on employment indicates there is a total of 10,161 jobs within the MIC.

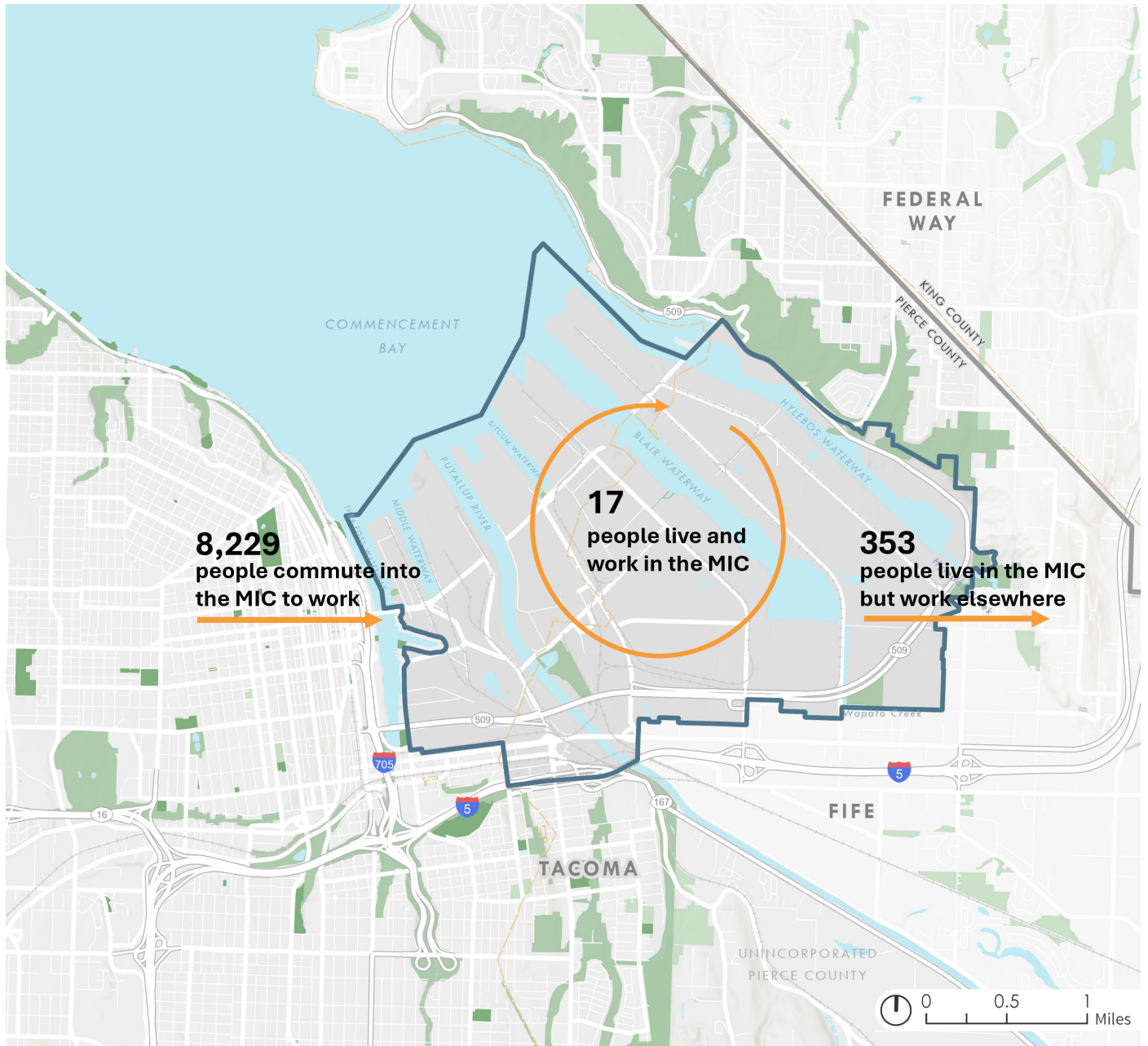
As mentioned previously, significant sub-sectors of employment from private businesses include paper and wood manufacturing, metal and equipment manufacturing, wholesaling, transportation/distribution, and warehousing/storage. These sub-sectors can often be complementary and, as a result, many firms within these sub-sectors may often be located together to take advantage of synergies. In the Port of Tacoma MIC, many of these private businesses are clustered together in the western portion of the MIC alongside the Thea Foss and Middle waterways as well as in the central portion of the MIC between the Puyallup River and Blair Waterway below the Port of Tacoma's Marine Terminal (**Figure 40**). Mapping of firms in the MIC is based on a 2019 study done by the School of Engineering and Technology at the University of Washington – Tacoma (West, 2019).



**Figure 40. Map of Firms by Sector, Port of Tacoma MIC**

Note: Mapping based on existing 2019 study from UW-Tacoma with additional sector classification done by BERK.  
 Sources: School of Engineering and Technology, University of Washington – Tacoma, 2019; BERK, 2020





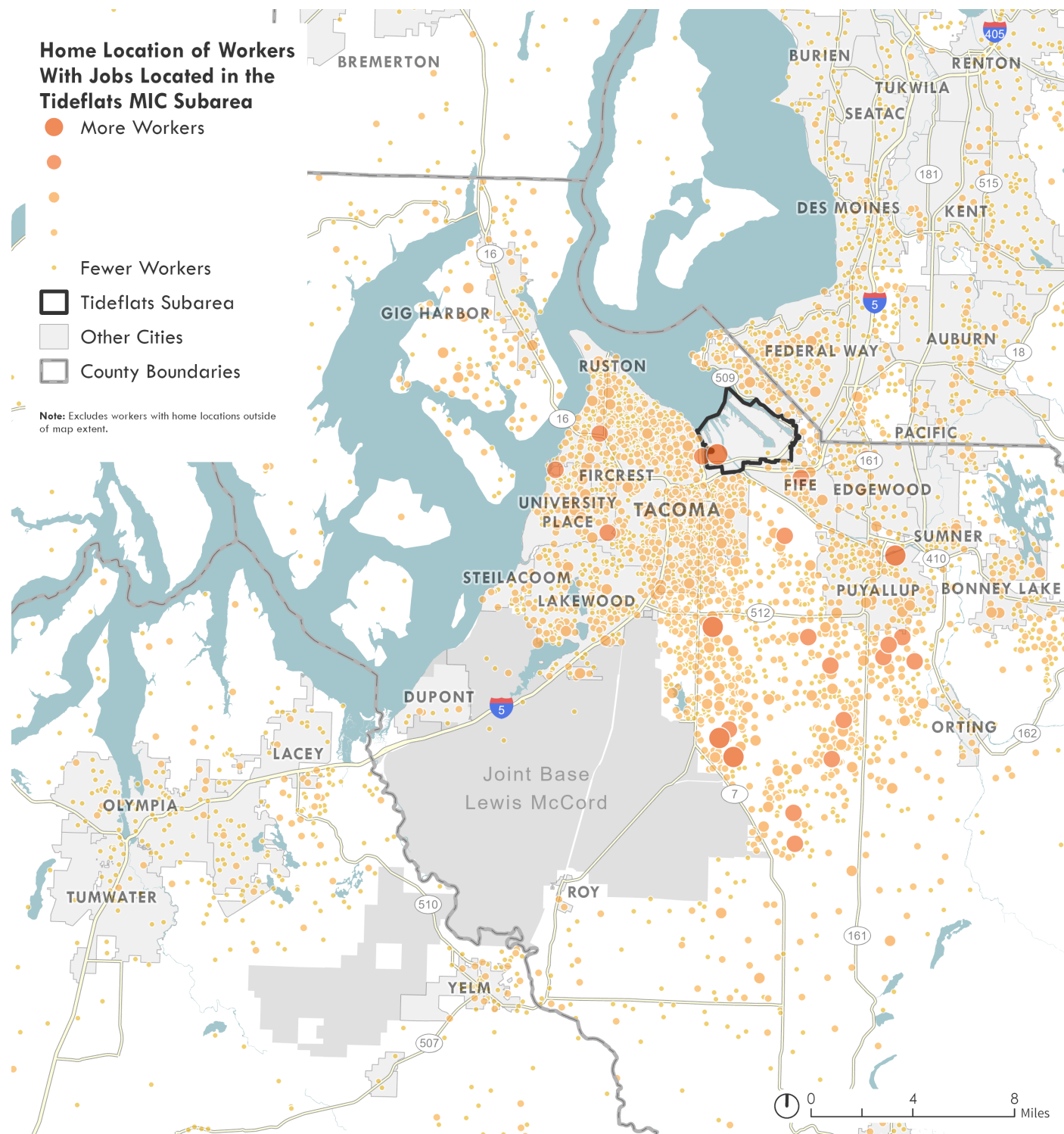
## Journey-to-Work Analysis

**Figure 41** shows inflow and outflow for all jobs in the Port of Tacoma MIC for 2017. The MIC primarily sees workers who live outside of the area commuting in for work and sees very few residents who live in the area. About 8,229 workers are estimated to commute into the area for work while 353 residents are estimated to leave the area to work in another location. Only 17 residents are estimated to live and work in the MIC area.

This data illustrates that the MIC is a regional employment destination within the South Sound. Workers in the Port of Tacoma MIC primarily live in either the City of Tacoma or surrounding communities in the South Sound such as South Hill, Lakewood, Parkland, and Spanaway. **Figure 42** outlines the home locations of workers with jobs located in the Port of Tacoma MIC.

**Figure 41.** Inflow/Outflow Counts of all Jobs for Port of Tacoma MIC, 2017

*Note: Overlay arrows do not indicate directionality of worker flow between home and employment locations. Source: US Census, OnTheMap, 2017; Seva Workshop, 2024*



**Figure 42. Home Location of Workers with Jobs Located in the Port of Tacoma MIC**  
Sources: U.S. Census Bureau, OnTheMap, 2017; Seva Workshop, 2024

## Employment Estimates

A complex set of economic and market factors affect whether development takes place, whether it results in changes in employment density, and on what timeline these changes will occur. Land use changes and regulatory changes can create conditions where development can occur, but they cannot predict future employment.

The Environmental Impact Statement (EIS) tested a range of employment estimates associated with four development Alternatives. The No Action/Alternative 1 and Alternative 4 were tested with an employment estimate of 12,500 jobs, Alternative 2 had an estimate of 16,800 jobs, and Alternative 3 had an estimate of 20,000 jobs. These estimates were based on historic trends and the compound annual growth rate in jobs from 2010 to 2019. Under the No Action (current plan) Alternative, and Alternative 4, these historic growth trends were continued until 2044. For Alternatives that include land use changes (Alternatives 2 and 3), comparable employment densities from recent regional studies were used to estimate employment.

PSRC sets minimum eligibility criteria for designation as an Industrial Growth Center MIC or an Industrial Employment Center MIC. Under these criteria, the Port of Tacoma MIC today would meet all of the criteria for an Industrial Growth Center MIC but would not meet criteria for designation as an Industrial Employment Center MIC. Policies and actions that address employment retention and additional job creation will be necessary for the Port of Tacoma MIC to reach the 20,000 job target that is required of Industrial Employment Center MIC designation.

## Economic Impact Assessment

The Port of Seattle and Tacoma represent a core economic development asset for Washington state and elsewhere in the U.S. In addition to facilitating the movement of millions of twenty-foot equivalent units (TEUs) of containerized cargo as well as millions of metric tons of breakbulk, automobiles, logs, and liquid bulk, these ports support industrial and non-industrial activities that spur job growth and economic wealth creation in the central Puget Sound region and Washington state.

The industrial activity in the MIC is inextricably linked to other key sectors in the greater Pierce County and Washington State economy, such as retail, services and agriculture. For example, food products are stored, packaged and distributed from the study area to restaurants, grocery stores, and other businesses throughout the city and Pierce County region. Similar linkages include local shipbuilding firms supplying the region's maritime economy.

One way to assess and quantify the impact of these linkages is to quantify the purchasing patterns of key sectors as they relate to goods and services demanded by other sectors. This form of analysis is referred to as input-output analysis. Results of these analyses and the main activities that drive these linkages are described below.

The Northwest Seaport Alliance (NWSA), of which the Port of Tacoma is a part, is one of the largest marine cargo gateways in the U.S. In 2017, The NWSA handled more than 3.7 million twenty-foot equivalent units (TEUs) of containerized cargo. The majority of this cargo was international, though 700,000 TEUs were shipped to and from Alaska, Hawaii, and other domestic locations. In addition to containerized shipping, The Northwest Seaport Alliance also handles non-containerized cargo,



including breakbulk, liquid bulk, automobiles, and logs. The Port of Tacoma, as part of the NWSA, is a significant driver of economic activity within the Port of Tacoma MIC. The economic impact of the Port of Tacoma is driven by two lines of business: marine cargo operations and Port of Tacoma tenants. Economic impacts for the Port of Tacoma were estimated by a 2019 study produced by Community Attributes Inc. for the NWSA (NWSA, 2019). The results from this study are outlined in below

Within the NWSA, the largest driver of economic impact was containerized cargo. In 2017, the NWSA handled more than 26.1 million metric tons of containerized cargo, directly supporting an estimated 14,900 jobs, \$1.5 billion in labor income (including wages and monetized benefits), and \$4.5 billion in business output.

Automobile import activities directly supported 1,330 jobs in 2017, as well as more than \$108.4 million in labor income and nearly \$309 million in business output. Breakbulk and other marine cargo handling directly supported 3,880 jobs in 2017, nearly \$292 million in labor income and more than \$1 billion in business output.

Combined across all marine cargo activities, the NWSA directly supported 20,100 jobs, and \$1.9 billion in labor income in 2017. The average annual wage among direct jobs supported by marine cargo through the NWSA, including benefits, was nearly \$95,000. In total, the NWSA marine cargo directly supported \$5.9 billion in business output in 2017.

Factoring in upstream business-to-business transactions (indirect) and worker earned income household consumption expenditures (induced), the NWSA activities supported 58,400 jobs across the state economy, or the equivalent of a job multiplier of 2.9. In other words, for every direct job, marine cargo activities through the NWSA support an additional 1.9 jobs throughout the Washington state economy.

The 2019 study found that the marine cargo operations for Port of Tacoma directly employed a total of 12,950 people and those jobs directly generated \$3.70 billion in annual economic output. Port of Tacoma tenants and other businesses were found to directly employ 1,500 people and those jobs directly generated \$0.85 billion in annual economic output.

ECONOMIC IMPACT	EMPLOYMENT	ECONOMIC OUTPUT
<b>Direct Economic Impact</b>		
Marine Cargo Operations	12,950	\$3.70 Billion
Port of Tacoma Tenants and Other Businesses	1,500	\$0.85 Billion
<b>Indirect Economic Impact</b>		
Marine Cargo Operations	36,900	\$7.78 Billion
Port of Tacoma Tenants and Other Businesses	5,200	\$1.55 Billion
<b>Total Economic Impact</b>	<b>56,550</b>	<b>\$13.88 Billion</b>

The economic output from the direct jobs supporting marine cargo operations at NWSA indirectly supported an additional 36,900 jobs across the Washington State economy while jobs from Port of Tacoma tenants and other businesses indirectly supported an additional 5,200 jobs across the Washington State economy. In total, the Port of Tacoma's economic impact across the state was estimated to support 56,550 jobs and \$13.88 billion in annual economic output.

ECONOMIC IMPACT	EMPLOYMENT	ECONOMIC OUTPUT
Direct Economic Impact	5,165	\$1.99 Billion
Indirect/Induced Economic Impact	10,640	\$3.31 Billion
<b>Total Economic Impact</b>	<b>15,805</b>	<b>\$5.30 Billion</b>

A 2019 study from the Center of Business Analytics at the Milgard School of Business at the University of Washington-Tacoma utilized an input-output model to measure the economic impact of the private businesses in the Port of Tacoma MIC on Pierce County. The results from this study are shown in **Figure 43**. It should be noted that this study was not a professionally prepared study and the findings should be used for reference purposes only.

The UW-Tacoma study found that all private businesses in the Port of Tacoma MIC directly employed a total of 5,165 people and those businesses directly generated nearly \$2 billion in annual economic output. Those businesses and employees were estimated to then support an additional 10,640 jobs indirectly in Pierce County which are estimated to generate over \$3 billion in annual economic output. The total impact of the private businesses in the Port of Tacoma MIC on Pierce County is estimated to support 15,805 jobs directly and indirectly and generate over \$5 billion in annual economic output.

## Economic Development Trends Summary

Global trends including the changing role of ports, trends in sectors such as logistics, warehousing, transportation, and utilities and manufacturing, changes to shipping technology, and growing interest in environmental sustainability will influence and shape the development and composition of the Port of Tacoma MIC in the years to come. These trends include (World Bank Transport Division, 2007):

**Figure 43.** Estimated Total Impacts from Port of Tacoma in the Port of Tacoma MIC

Sources: CAI, 2019; BERK, 2020

**Figure 44.** Estimated Total Impacts from Private Businesses in the Port of Tacoma MIC

Sources: Center for Business Analytics at Milgard School of Business University of Washington, Tacoma, 2019; BERK, 2020

- > **Increased role of ports in regional economies.** Globalization of supply chains ensures that the extent of port access influences the competitiveness of local or regional producers. Low-cost, efficient port services can be a competitive advantage for local and regional firms. Along with anticipated growth in the regional economy, this dynamic suggests continued demand for efficient port services.
- > **Consolidation of manufacturing.** Manufacturers have been concentrating production activity in fewer locations. This has increased demand for logistics and makes existing manufacturing activity highly dependent on transportation. Investments in transportation improvements are therefore a key economic development strategy.
- > **Growing strength of logistics.** Logistics is a fast-growing sector that is expected to see increased demand. As businesses expand the geographic reach of their sourcing and distribution operations and consolidate manufacturing, logistics and transportation have become increasingly important. Specialist logistics providers have emerged who take on tasks such as preassembly, sequencing of parts, and customization of products. These emerging users prefer port areas and areas with easy access to ports and a key existing strength of the study area is the Warehousing, Transportation, Utility (WTU) sector which includes logistics. Logistic providers are already located in MICs such as the Sumner Pacific MIC with easy access to the Port of Tacoma and other MICs both north and south of Pierce County.
- > **Technology impacts.** Technological advances are changing industrial sectors, affecting the nature and extent of port infrastructure and services. For example, containerization has reduced personnel requirements for cargo handling, increased the productivity of existing berths, and increased the capital needs of port operations.

### Business Profiles: DTG Recycling



[www.dtgreycle.com/facilities/tacoma-wa](http://www.dtgreycle.com/facilities/tacoma-wa)

DTG Recycling (formerly Recovery 1) is a waste management and recycling center located in the Tideflats for construction and demolition (C&D). Recovery 1 accepts primarily mixed C&D loads from local contractors, haulers, and government organizations and through separation, shredding and sorting develops products. Recovery 1 has been an industry leader in recycling innovation for over two decades and has received the prestigious CORR certification by the Recycling Certification Institute (RCI), a protocol for verifying the accuracy of recycling and recovery rates of building materials with a high level of confidence.



> **A range of advances in automation has increased productivity in recent decades.**

Like containerization, these technology advances in automation may reduce employment densities, but the resultant productivity increases are likely to grow these sectors.

> **Changing workforce needs.** Technology has also changed the skills required for industrial operations, creating workforce development and retraining needs across sectors. Workforce needs are also shifting toward higher-skilled, technologically proficient workers. The relative concentration of these workers in the central Puget Sound region may give this region a competitive advantage over other industrial areas. Economic development strategies will, however, need to directly address these workforce development needs.

> **Balancing environmental quality with economic development.** Industrial areas and maritime ports face growing concerns about environmental protection around a wide range of topics such as water pollution, air pollution, aesthetics, noise, transfer of foreign marine species, and more. Climate vulnerability is also an issue. These concerns have increased demand for more environmentally sustainable land uses in industrial areas. Many industrial users and ports are making significant investments in facilities and changes in operations to address these concerns.

Local and regional dynamics also offer insight to future economic development strategies:

> **Maritime Sector.** Washington state has a large and diverse maritime sector with several competitive advantages that the Tacoma Tideflats can leverage. The state maritime industry has grown from a strong base of fishing fleets to include the full range of support services, international and regional ports, yard services, and more. The maritime sector now includes 1) commercial fishing and seafood products 2) logistics and shipping 3) passenger water transportation 4) ship and boat building, repair, and maintenance 5) ocean science technology and 6) maritime support services. Regional assets include world class research institutions and capabilities in ocean science, strong technology sector, fishing and seafood sectors that manage a large, productive and sustainable wild fishing grounds, and the presence of advanced manufacturing including aerospace, military and defense, clean technology, and ship building. In comparison to other maritime clusters, Washington's maritime industry is a global leader in best practices, technology deployment and sustainable actions, from innovative port stormwater systems to the world's first hybrid tugboat. Investments such as the Maritime Innovation Center (MInC), the Tacoma Maritime Blue incubator based out of the Center for Urban Waters in the Tideflats contribute to innovation and economic growth in the region. The Port of Tacoma recently adopted the Northwest Ports Clean Air Strategy, which envisions changes in equipment, fuels, and infrastructure to phase out seaport-related emissions by 2050.

> **Green Energy Sector.** Transitioning to clean energy is key to addressing the climate crisis, and an economic opportunity for companies and cities that can supply viable and affordable clean energy solutions. It is also an enormous economic opportunity for companies that can power their operations with clean energy – doing so enables companies to sell to different customers and markets that are concerned with sustainability, even if the product itself does not change. An example of this is green hydrogen.

### Business Profiles: Aloha Carbon



Aloha Carbon is a sustainable aviation fuel company seeking a site here to establish a green refinery. This would divert organic C&D waste from the landfill and convert it to a fuel. This project to create renewable jet fuel for the commercial aviation market by converting construction debris is an example of the type of business that could locate in the Tideflats based on the vision of this subarea plan.

- > **Industrial Symbiosis Sector.** Symbiosis infrastructure enables the efficient recovery and exchange of “waste” resources such as thermal energy (waste heat), water, nutrients, and bio-feedstock for production of chemicals, plastics, and wide variety of other materials and green products.
- > **Green Building Technologies Sector.** This sector includes both new building products (e.g., cross-laminated timber, sustainable concrete) and related processes (e.g., modular building design, waste heat capture system design). Several innovative building products companies are located in Tacoma and the area is well positioned to take advantage of growing demand for these products.
- > **Warehousing growth.** National real estate investment companies have been investing in new construction in warehousing and logistics properties, showing market demand for the area. Given the strength of the logistics sector, strategic focus of the Port of Tacoma on cargo, as well as higher rents found in the Duwamish area, the study area may see demand for development of this type. There have also been trends within neighboring Fife and Puyallup of residential land conversion to industrial lands for this use.
- > **Vulnerability to displacement.** Displacement of low and high impact industrial uses is a concern. Lower impact industrial uses may be able to fit into commercial areas but competition with other uses can put these uses at a disadvantage in acquiring space. While commercial land in other locations may be able to absorb some cleaner, lower-impact industrial businesses, some businesses such as metal fabrication are high-impact and are unlikely to be able to find locations that are an easy substitute for the study area. In addition to the need for buffering given their impacts, land values and rents in these locations are unlikely to be affordable to these businesses. Potential displacement of these businesses in the face of growing demand for port-related sites will need to be addressed. The use of space for manufacturing in the study area is declining with new warehousing and logistics development pressure. Manufacturing uses that are not strongly marine- or logistics-oriented may be forced out over time. Anti-displacement strategies and spaces for both low and high impact industrial uses will need to be considered.

## 2.8 TRANSPORTATION

### Vehicle Freight

The subarea is a vehicle-oriented environment, and its roads primarily serve the Port of Tacoma and other freight, manufacturing, and industrial facilities. There is a large share of truck freight traveling between the subarea and regional roads. Congestion occurs both in and out of the subarea, with congestion occurring on some roads outside the subarea and near terminals within the subarea. This congestion leads to increased delay for commuters trying to access the Subarea, in addition to introducing delay to freight and military vehicles accessing the Port. There are limited over-water connections to the subarea, meaning that traffic generated by the subarea has a limited number of access points to the regional road network.

The transportation network within and around the Subarea move millions of tons of freight per year, both over land (via roadway and rail) and over sea. This includes a strategic waterway classified as W-2 that connects the Port to the wider strategic waterway system. This classification means that the waterway is designated to support the movement of between 10 and 25 million tons of goods to and from the Port of Tacoma. Several roads in the subarea have significant designations to provide strategic connection to this waterway. For example, Power Projection Platform (PPP) routes connect Joint Base Lewis-McChord (JBLM) via I-5 to the Port of Tacoma and are specifically designated to deploy military equipment on public roads to strategic seaports during a national emergency. Additionally, many roads within and connecting to the Port are classified as Strategic Freight Corridors by the Freight Mobility Strategic Investment Board (the T-1 and T-2 truck routes, as shown in [Figure 46](#)). These corridors are identified as transportation corridors of great economic importance within an integrated freight system and are eligible for grant funding.

### Rail Freight

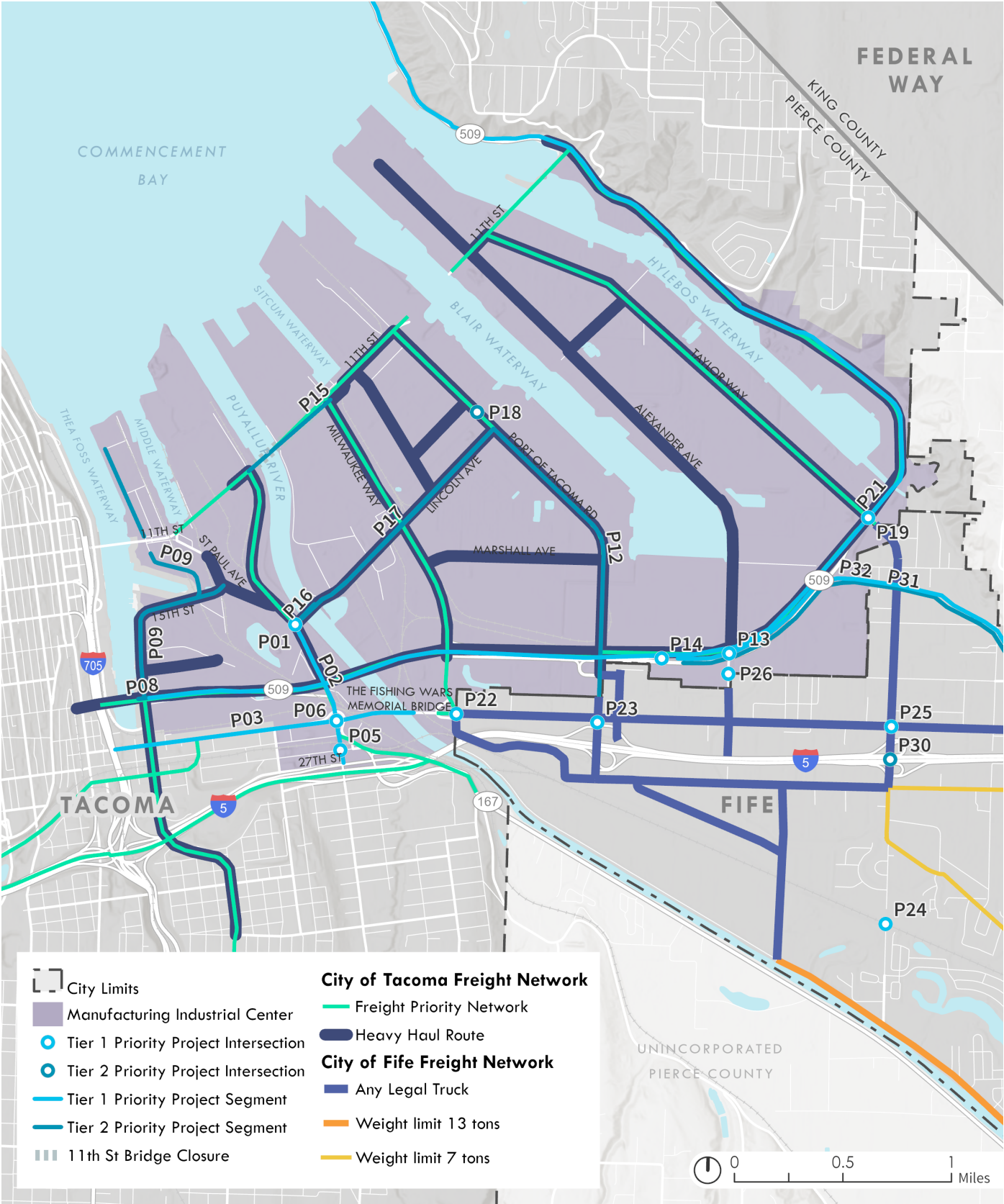
As with vehicle infrastructure, the subarea contains a large amount of rail infrastructure to facilitate connection to the strategic waterways and support the subarea's terminals and other facilities. Of these, two are classified as Class 1 (the BNSF Railway and the UP Railroad), both of which serve as PPP rail routes that connect the Port of Tacoma directly to the national Strategic Rail Corridor Network, providing a freight rail connection between the port and JBLM. These two rail connections are also identified as strategic rail corridors by WSDOT. A significant portion of the rail operations in the subarea are conducted by Tacoma Rail, a short line railroad owned by the City of Tacoma.

Although much of the major rail line connections are separated from major highways (such as SR 99, SR 509, and I-5) via grade separation, there are many points where the rail lines crosses highway at-grade (i.e. at the same level). These at-grade crossings can delay vehicle traffic and create the potential for safety conflicts between trains and other users in the right-of-way, as shown in [Figure 45](#).





**Figure 45. Rail Crossings Within the Tideflats Subarea**  
Source: Fehr & Peers and Heffron Transportation, 2024



**Figure 46.** Existing Facilities and Planned Vehicle and Freight Improvements within the Subarea  
*Source: Fehr & Peers and Heffron Transportation, 2024*

## Planned Vehicle and Freight Network

There are several planned investments in the vehicle and freight networks within the subarea, including City of Tacoma and City of Fife projects, as well as more regional Pierce County and WSDOT projects. The planned vehicle and freight network (including rail infrastructure updates) within the subarea is shown in **Figure 46**. Included in this map are projects flagged as a priority for City investment by subarea plan stakeholders. More detail on each of these projects is provided in the [Investments section of the Implementation chapter](#).

## Parking

The subarea currently has an abundance of both on- and off-street parking (i.e., surface parking lots) for general purpose vehicles outside of the industrial area. That said, it is critical to maintain existing supply and explore options to better support truck parking (as part of freight activity) through a more centralized approach. Demand for parking and queuing areas is high in certain areas of the MIC and the City of Fife, during certain times of the day. Parking options for larger trucks, which are a critical component of the freight activity in the subarea, are more limited. Although there are larger firms that provide off-street parking lots for truck drivers parking overnight, many drivers still park in the subarea and adjacent communities overnight, using on-street parking supply and non-approved locations. Additionally, off-street staging areas are at times inadequate to accommodate truck demand, and the spill-over from these staging areas take up on-street parking areas while waiting at the terminals.

## Transit

Currently, only the Tideflats Runner on-demand transit (provided by Pierce Transit) serves areas within the Subarea. This Runner service is point to point, providing limited on-demand transit service anywhere within the Subarea. Additionally, the surrounding roadway network is served by both Pierce Transit and Sound Transit, providing a mix of bus, light rail, and Sounder commuter rail service to downtown and areas southwest and west of the subarea. The Tacoma Dome Station is a key regional transportation facility where Pierce Transit and Sound Transit services converge. The Station generates many regional commute trips. The Tacoma Dome Link Extension will bring additional light rail service to the subarea and immediately adjacent neighborhoods as early as 2035.

## Future Transit Network

**Figure 47** shows the existing and planned transit adjacent to the subarea, including the Tacoma Dome Link Extension, which is considered a priority project for the subarea. Pierce Transit is current defining its Long-Range Plan for the 2045 horizon, including considering service to facilitate access to Sound Transit's planned Tacoma Dome Link Extension. Additionally, Sound Transit's long-term plans include a light rail extension connecting the current Tacoma Link to Tacoma Community College, which would further expand the local high-capacity transit network. One additional consideration for the subarea would be to coordinate with Pierce Transit to further expand the Tideflats Runner service. This would facilitate connection between





**Figure 47. Existing Facilities and Planned Transit Improvements within the Subarea**  
Note: The exact route and station locations for the Tacoma Dome Light Rail Link Extension is still being finalized; the routing on the map represents the most recent preferred alternative. Source: Pierce Transit and Sound Transit, 2024. Data compiled by Fehr & Peers, 2024

employment centers within the subarea and the light rail, commuter rail, and bus networks.

Longer-term, the City could consider coordination with Pierce Transit and Sound Transit to evaluate fixed-route service within the subarea itself, including the key employment centers on the peninsulas. The City should also consider opportunities to improve pedestrian and bicycle infrastructure within a buffer of key transit facilities to improve safe connection to and from the transit stops.

## Active Transportation

### Pedestrian Network

Major roads outside of the industrial area generally have sidewalks on at least one side of the street. However, some of these sidewalks do not meet the City's minimum width, do not have Americans with Disabilities (ADA) compliant ramps, and do not provide for continuous travel. Within the industrial area, sidewalks are generally not present (except on portions of selected major roads), which presents challenges for pedestrians to move around the industrial area. There are limited marked pedestrian crossings within the subarea. Additionally, there are a limited number of corridors providing pedestrian access into and out of the subarea itself, most of which carry high levels of vehicle traffic.

### Bicycle Network

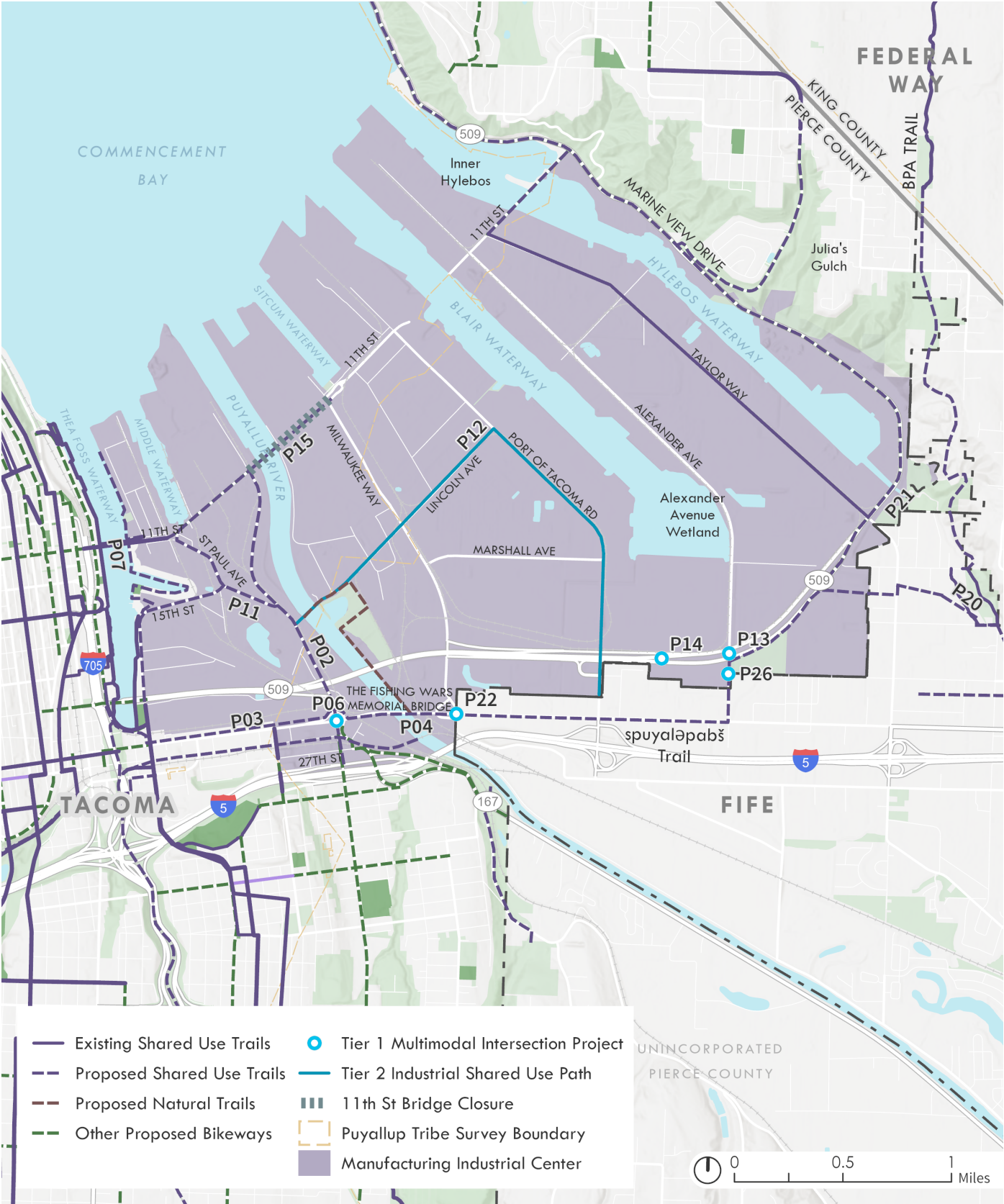
Most major roadways within the subarea do not have any bike facilities, and none have protected/separated bike lanes or a shared use path. Some lower traffic volume roads within the industrial area have surplus right of way width, which could easily accommodate bike lanes separate from vehicular lanes in future redesigns.

There are gaps in the pedestrian and bicycle networks, with primary needs being improving local connections to land uses within and through the subarea. For example, there is currently no safe connection for bicyclists to travel to/from Northeast Tacoma, Downtown, or Fife. It is likely that adding such a connection will require either expansion of an existing bridge or construction of a new bridge as the existing bridges over the Puyallup River are not suitable for bike facilities to make the connection to Downtown Tacoma.

### Future Active Transportation Network

**Figure 48** shows a map of existing and planned active mode facilities and improvements within and around the subarea. These include shared use facilities to accommodate both bicyclists and pedestrians, with the intent of improving safety for these vulnerable users by improving separation as well as design in facilities that would see interaction between freight vehicles and vulnerable users. It also includes any active mode or multimodal roadway projects flagged as a priority for City investment by subarea plan stakeholders. More detail on each of these projects is provided in the [Investments section of the Implementation chapter](#).

The City's priority when it comes to active transportation within the subarea is to expand opportunities for those walking, cycling, or rolling to connect with employment, retail, and other uses. This includes focusing investments in areas that would facilitate connection to transit stops in and around the subarea.



**Figure 48. Existing Facilities and Planned Active Mode Improvements within the Subarea**  
Source: Fehr & Peers, 2024; Seva Workshop, 2024



## Past Planning Efforts

### City of Fife Comprehensive Plan – Transportation Element (2023)

The City of Fife plan for transportation is contained within the Transportation Element of the City’s Comprehensive Plan project list which is implemented by adoption of the City 6-year transportation improvement plan. The City’s transportation efforts consistently focus on freight movement to and from the port and attempts to balance the impacts on residential and commercial portions of Fife. In addition, the City’s transportation planning efforts are focusing on the Tacoma Dome Link Extension and the expected transit-oriented development that will follow. As it relates to freight access to the port, this includes routing large truck traffic around the “City Center” area through the implementation of various transportation improvement projects, namely State Route (SR) 167, 54<sup>th</sup> Interchange Improvements, Port of Tacoma Road Interchange Improvements, Wapato Way Frontage Road, and a gridded street pattern with pedestrian facilities in the station area core.

### Tacoma Vision Zero Action Plan (2022)

The Tacoma Vision Zero Action Plan, adopted in September 2022, built upon the City’s past work on traffic safety plans, actions and policies to outline a holistic, equitable and data-driven approach to achieving zero traffic deaths in Tacoma, with a particular emphasis on safe walking and biking. The goal of the Vision Zero Action Plan is zero traffic deaths or serious injuries on Tacoma roadways. Identified as key methods for achieving Vision Zero were designing and constructing safe roads, implementing safe speeds, planning for vulnerable users, and proactively assessing crash causation and data to make informed policy decisions. Within the Port of Tacoma area, Portland Avenue from Lincoln Avenue southward was identified as a high-risk pedestrian corridor, while the following segments were identified as high-risk motorist corridors:

- > SR 509 from Port of Tacoma Road to ~2,000 feet east of Alexander Avenue
- > Marine View Drive from McMurray Road to the Hylebos Marina

The Vision Zero Action Plan identified several broad actions to address safety across the City, including lowering the speed limit citywide, implementing traffic calming measures, and implementing recommendations from the City’s previous Local Road Safety Plan.

### Port of Tacoma’s 2021–2026 Strategic Plan (2021)

The *Port of Tacoma’s 2021–2026 Strategic Plan*, adopted in 2021, aims to identify strategic investments in the harbor and community that promote prosperity, trade, and jobs, while protecting and enhancing the environment. The plan includes five foundational goals: community connections, environmental leadership, economic vitality, organizational success, and transportation advocacy. Under transportation advocacy, strategies include supporting infrastructure projects that increase Port freight mobility, advocating for infrastructure and system management needs of Port-related businesses in the subarea, and developing policies to guide decision-making for transportation advocacy and prioritizing infrastructure investments.

## **Port of Tacoma Comprehensive Scheme of Harbor Improvements (2017)**

The Port of Tacoma maintains a *Comprehensive Scheme of Harbor Improvements*, as mandated by state law; generally, these schemes should be updated every 10 to 20 years. The intent of this document and its amendments is to give the public a reasonably detailed picture of the Port's planned improvement projects and the geographic limits of development needed to support these projects, prior to the Port Commission's vote and adoption of a comprehensive scheme of harbor improvements.

## **Tideflats Emergency Response Plan (2016)**

The *Tideflats Emergency Response Plan* assesses the ability for emergency services to access and egress the study area considering the impact of rail and traffic congestion through 2035. The plan outlines a set of recommendations that can address emergency response needs in the subarea over the short, medium, and long term based on emergency response analysis. The recommendations are related to transportation infrastructure, fire station locations, staffing, and operations. Two high-priority infrastructure improvements identified in the plan are the Fishing Wars Memorial Bridge Replacement and Port of Tacoma Road and I5 Interchange. The document acknowledges that the planned roadway projects would improve overall accessibility to and from the subarea, but they alone would not be sufficient to substantially affect emergency response times given the locations of existing fire stations and general increases in traffic congestion in 2020 and 2035. Note: this plan was completed prior to the implementation of Fire Station No. 5 at E 11<sup>th</sup> Street and Taylor Way.

## **Puyallup Tribe Road Safety Audit – SR509/Marine View Drive (2016)**

The *Puyallup Tribe Road Safety Audit* identified several different routes and their corresponding safety concerns withing the Puyallup Tribe's transportation network. Road Safety Audits are a tool designed to take in-office safety analysis performed during the development of the Tribe's Safety Plan and enhance those findings to provide opportunities for improvements with onsite physical assessments of specific corridors and intersections. SR 509/Marine View Drive was studied as part of this plan and is located within this plan's study area.

## **Tacoma Transportation Master Plan (2015)**

The *Tacoma Transportation Master Plan* (TMP) is an element of the One Tacoma Comprehensive Plan and contains a vision for how the future transportation network will serve additional growth (City of Tacoma 2015 and 2018 amendments). The TMP states that the City is moving toward a more multimodal approach that considers more than the traditional vehicle delay metrics. Currently, the City uses two metrics to evaluate transportation performance: first, a system completeness measure to track progress in implementing the multimodal transportation network, and second, an intersection level of service (LOS) standard of D in the Tideflats area. The plan includes several policies related to freight mobility, including addressing inter-modal conflicts and strengthening Tacoma as a primary hub for goods movement by integrating freight considerations into the transportation network.

## Tideflats and Port of Tacoma ITS Strategic Plan (2015)

The *Tideflats and Port of Tacoma Intelligent Transportation Systems (ITS) Strategic Plan* identifies the needs and strategies to improve safety, increase freight mobility, and accommodate growth in the subarea. The plan assesses six high-level ITS strategies including signal optimization, signal priority and pre-emption, incident management, subarea “511” service, active lane management, and supporting ITS infrastructure. Specific projects tied to the strategies were developed and prioritized for short (0–5 years), mid (6–10 years), and long-term (over 10 years) phasing, with cost estimates for short-term projects. Two short-term ITS projects recommended constructing initial ITS infrastructure needed for basic information sharing among stakeholders and adding cameras to key existing at-grade rail crossings.

## Port of Tacoma Land Use & Transportation Plan (2014)

The *Port of Tacoma Land Use and Transportation Plan* guides future development and infrastructure priorities to achieve the goals considered in the Port’s 2012–2022 Strategic Plan. The plan establishes a development vision for all Port-owned property in the subarea using seven development designations: marine terminals, commercial, mixed commercial/maritime support, marine services, industrial/maritime support, public utilities/public safety, and habitat/public access. These designations are consistent with the adopted City of Tacoma land use and shoreline regulations. The transportation section of the plan prioritizes freight system improvement strategies and investments in four user group areas: regional and port access, subarea circulation and preservation, rail facilities, and waterways. Two of the high-priority projects highlighted in the plan are the SR167 Completion project (in Tacoma and Fife) and the Port of Tacoma Road/I5 Interchange project (in Fife). These two facilities would serve major port-related traffic once completed. Regarding rail infrastructure, the plan considers nine Tacoma Rail capital projects and eight Port and Tacoma Rail collaborative projects. High-priority rail projects include the connection of EB1 Terminal to the railroad system (now completed) and the construction of industrial lead tracks and preservation of Taylor Way crossings to support future cargo customers on the Blair-Hylebos Peninsula.

## Tideflats Area Transportation Study (2011)

The *Tideflats Area Transportation Study* examines the multimodal transportation network within the subarea, with project partners including the Port of Tacoma, City of Tacoma, City of Fife, Puyallup Tribe, and Pierce County. Based on input from stakeholders, future travel demand forecast, and micro-simulation of the roadway network, the plan recommends a package of roadway and rail transportation improvement projects to increase mobility, accessibility, and safety. The plan highlights the need to complete the portion of SR167 between SR161 in Puyallup and SR509, to reduce the potential for a highly congested network. The recommended projects, which have an estimated cost of \$290–\$335 million (in 2010 dollars), are categorized according to the user group that they most benefit: subarea, Port, industrial, and local access. Two additional high-priority projects include extending Canyon Road from Pioneer Way across the Puyallup River to 70<sup>th</sup> Avenue E and adding truck lanes on Port of Tacoma Road.



## **East Thea Foss Waterway Transportation Corridor Study (2008)**

The East Thea Foss Waterway Transportation Corridor Study analyzes and develops a transitional transportation corridor system to improve access, circulation, and functional separation in the East Thea Foss Peninsula area. The recommendations focus primarily along the East D Street corridor and are elaborated for two future scenarios, with and without an operational Murray Morgan Bridge. The study's priority recommendations include improving the E 11<sup>th</sup> Street/East F Street/St. Paul Avenue intersection and moving forward with the East D Street/SR509 ramp feasibility study working with WSDOT and BNSF.

## **Assumed Transportation Improvements**

Several vehicle and transit projects were assumed to be completed as part of the future modelling efforts performed for the EIS and Subarea Plan. As such, these projects are not considered to be actions, but are considered a baseline assumption for the subarea. These projects are at various stages of planning and completion and are mapped in **Figure 49**.

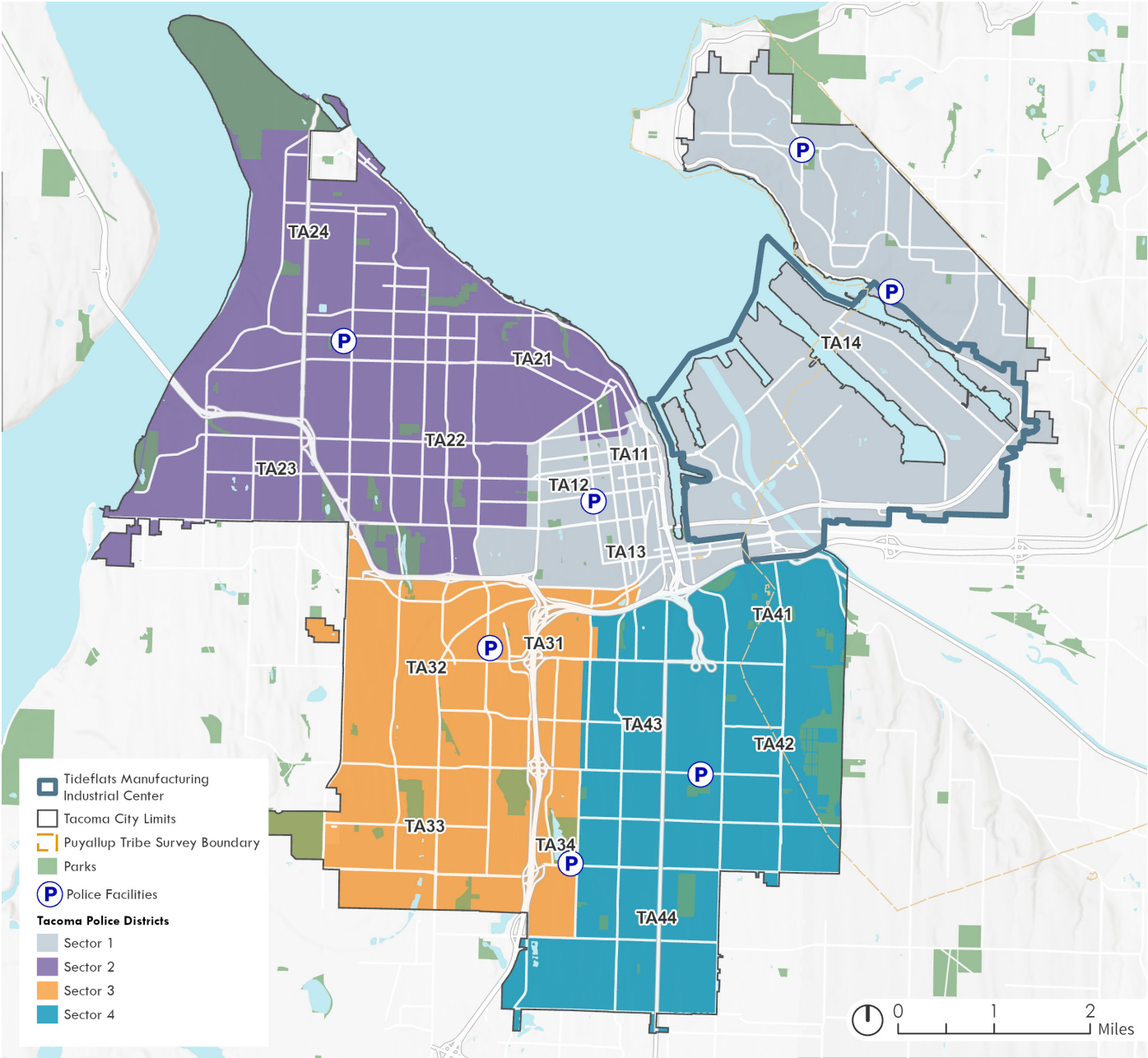
See the Draft EIS summary for findings of the EIS. This Subarea Plan will focus on fostering interagency collaboration to develop a funding plan that combines the following potential funding sources to address proposed actions and mitigation:

- > City and County impact fees
- > SEPA mitigation fees, related to:
  - Concurrency
  - Safety
  - Multimodal
- > Local Improvement District
- > Transportation Benefit District
- > Grant funding



**Figure 49. Planned Transportation Projects Within or Related to the Subarea**

Source: Fehr & Peers, 2024



## 2.9 PUBLIC SERVICES

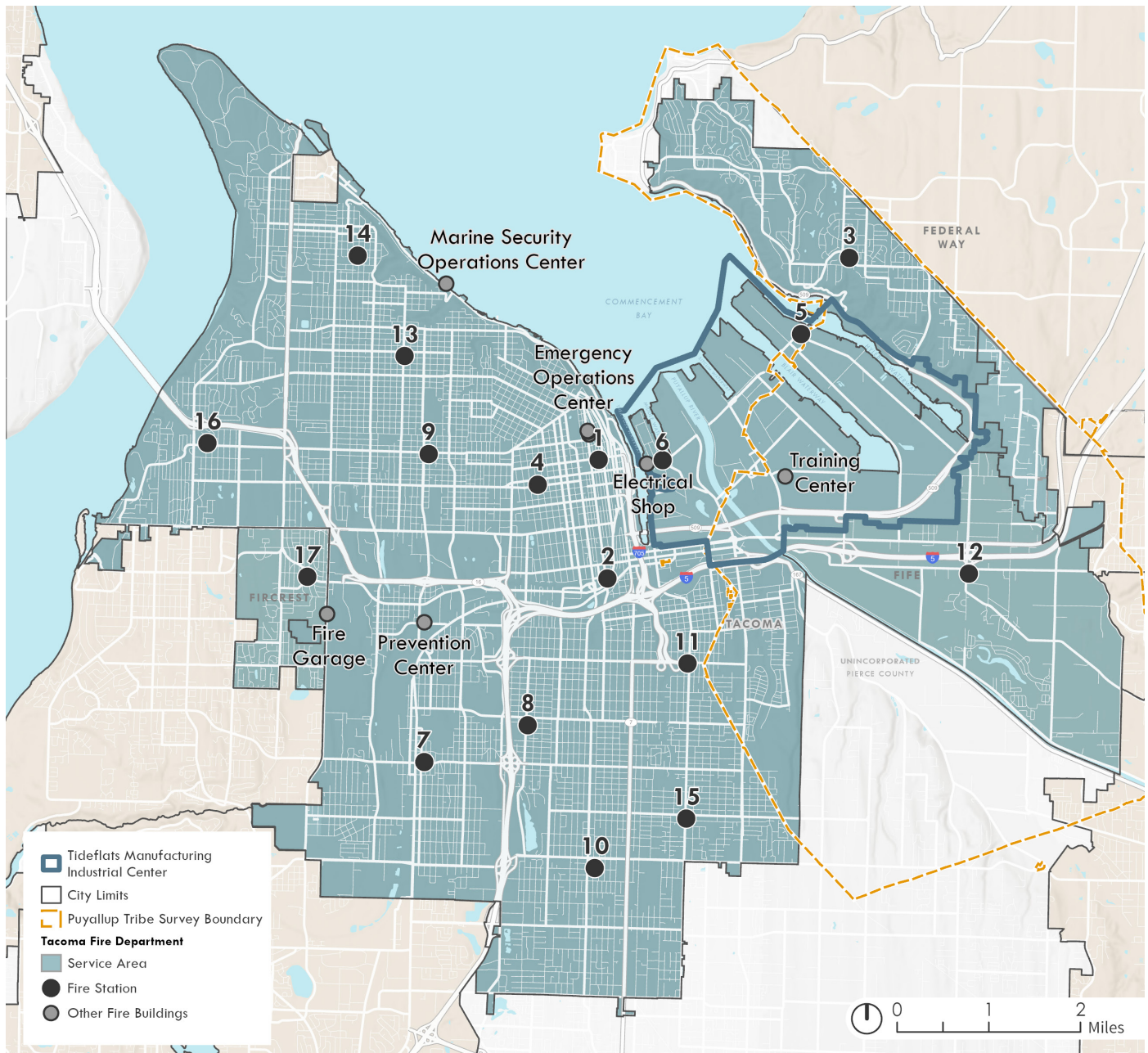
### Police and Fire

Police and fire services for the subarea are provided by the City of Tacoma. The Puyallup Tribe also has officers that can enforce Puyallup Tribal Law in the portion of the subarea that overlaps the Puyallup Reservation. Additionally, The Port of Tacoma has its own security team with port officers that monitor facilities, rail and road systems, respond to calls, and have authority to access all marine terminals and cargo facilities. The Port of Tacoma is one of 17 federally designated Strategic Seaports that coordinate efficient port operations during peacetime and national emergencies. The Port is a key support facility for Joint Base Lewis McChord (JBLM).

**Figure 50.** Tacoma Police Department Service Sectors and Facilities, 2020

Sources: City of Tacoma, 2024; Seva Workshop, 2024



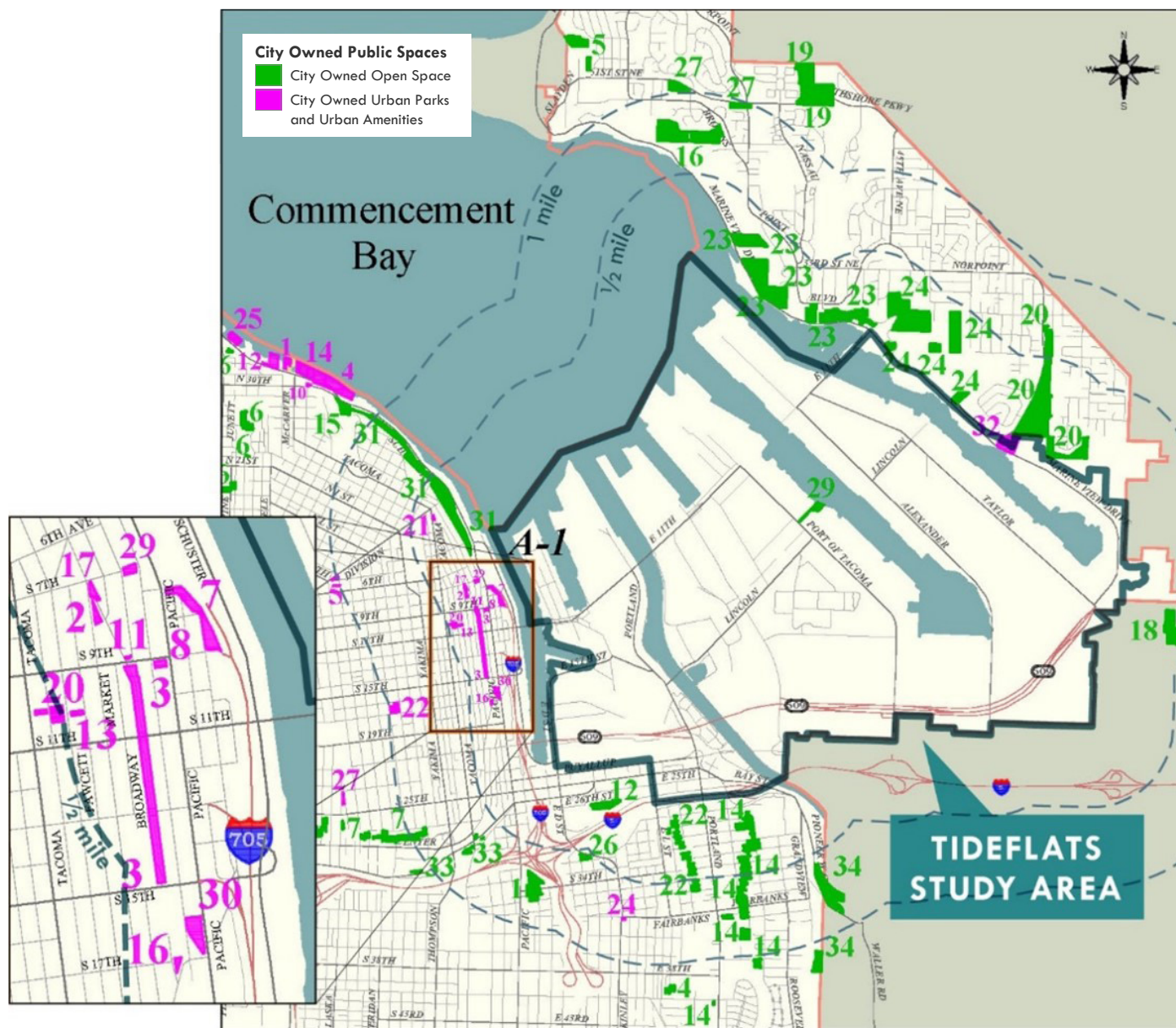


**Figure 51. Tacoma Fire Department Service Area and Fire Buildings, 2020**

Sources: Pierce County GIS, 2020; Tacoma Fire Department, 2020; City of Tacoma 2021-2026 Capital Facilities Plan, 2020; BERK, 2020

Both the Tacoma Police Department (TPD) and Fire Department (TFD) are currently meeting level of service standards established by the City. While this is the case, emergency response times in the subarea can be lengthy at times due to impacts from rail and the limited number of access routes. TPD and TFD will likely need additional staff, equipment, and facilities in the future in order to maintain service levels, because calls for police and fire service increases over time as development occurs. The City has regular planning and budgeting processes in place to minimize the impacts of growth and meet future demand for police and fire services. For instance, Fire Station No. 5 was recently built at 3510 E 11th Street to provide additional fire response, EMS, and hazardous materials capabilities in the Port area.

See [Figure 50](#) for a map of TPD service facilities and [Figure 51](#) for a map of TFD's facilities. There are no police stations in the subarea but there are stations located nearby to the east and west. There are three fire stations located in the subarea.



## Parks

Parks and open space services for the subarea are provided by the City of Tacoma and Metro Parks. There is one urban park (Viewpoint Park) and one open space (qwiqwəlut “Little Marsh” formerly known as Rhone Poulenc) on the subarea. Additionally, there are two City of Tacoma signature trails that run within and adjacent to the subarea (Puyallup River Levee and Marine View Drive). There are no Metro Parks facilities within the subarea, though there are several within one mile. See **Figure 52** and **Figure 53** for City of Tacoma owned parks and trails near and within the subarea. See **Figure 54** for Metro Parks owned facilities near the subarea.

**Figure 52.** City of Tacoma Owned Parks and Open Space Near the Subarea, 2020

*Note: The City departments with primary management responsibility for urban parks/amenities include Public Works – Real Property Services and Street Operations Divisions, and Planning and Development Services. The City departments with primary management responsibility for open space properties include Public Works – Real Property Services and Environmental Services.*

*Sources: City of Tacoma, 2019; City of Tacoma 2021-2026 Capital Facilities Plan, 2020; BERK, 2020*





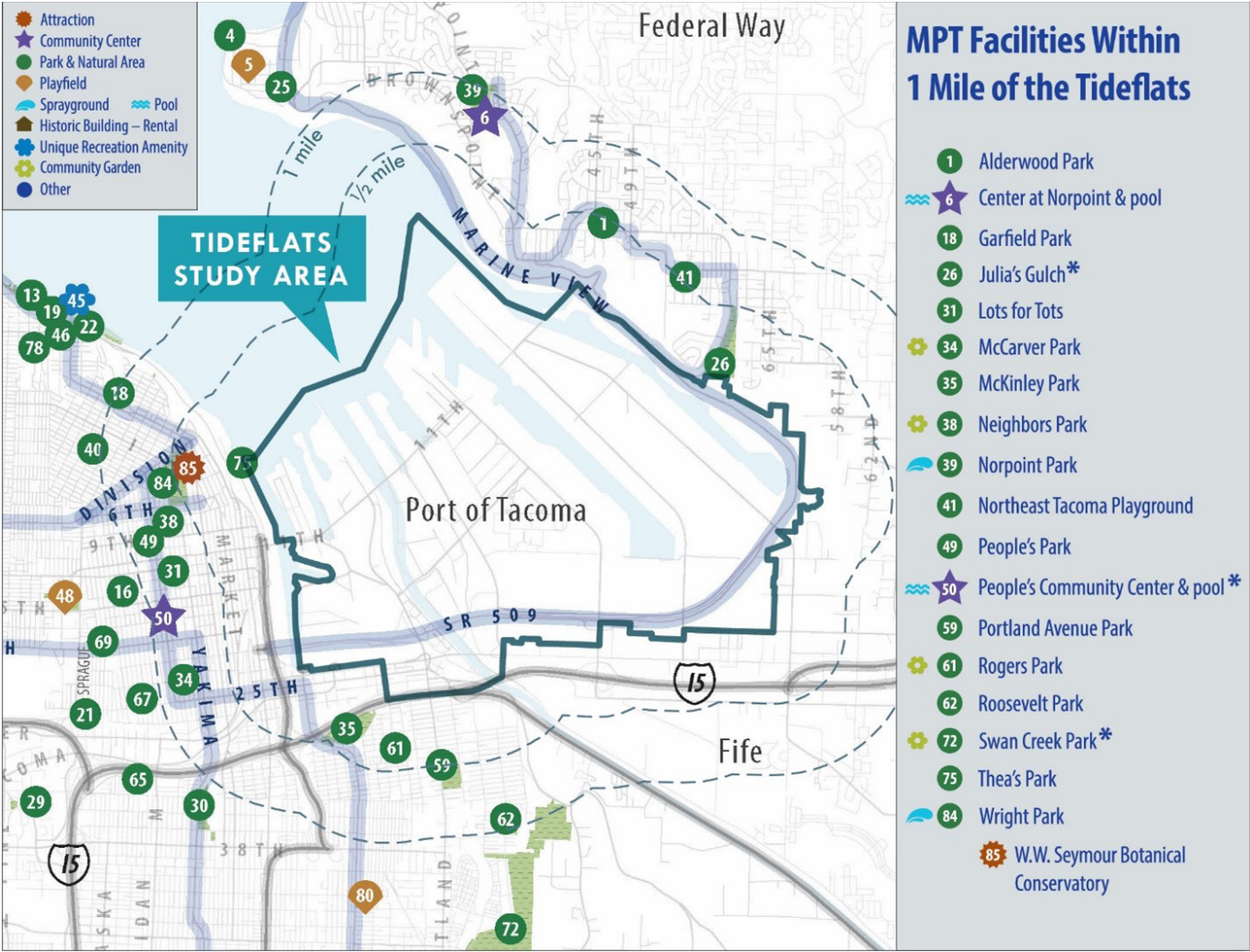
The City of Tacoma is currently not meeting Parks level of service standards, meaning that they are not providing parks services at the minimum level established, which is 3 acres per 1,000 people and within  $\frac{3}{4}$  mile of all residents. Most of the subarea is not within  $\frac{3}{4}$  mile of a local park, though the western portion of subarea is generally within  $\frac{3}{4}$  mile of recreation facilities, located either in Downtown or south of I-5.

City of Tacoma and Metro Parks have identified a need to maintain open space and expand parks facilities in the future. The Foss Waterway Parks project includes the design for two parks in the subarea along the Foss Waterway. Melanie Jan Laplant Dressel Park is currently under construction and is expected to be complete Spring/Summer 2024, while the Waterway Park is currently on hold.

**Figure 53.** City of Tacoma Signature and Natural Trails Near the Subarea, 2020

Source: One Tacoma Comprehensive Plan, 2019 (Figure 37); BERK, 2020





**Figure 54. Metro Parks Tacoma Facilities Near the Study Area, 2020**

\* Facility owned partially or fully by the City of Tacoma (see Figure 52). Julia's Gulch is owned by the Port of Tacoma and Swan Creek Park is primarily owned by Metro Parks and Pierce County, though the City of Tacoma owns some parcels as shown in Figure 52.  
Source: Metro Parks Tacoma, 2020; BERK, 2020.

## 2.10 PLANS AND POLICIES

The subarea is located within Pierce County in the City of Tacoma and the Puyallup Indian Reservation. Many plans and policies guide growth and development in the subarea. These plans and policies come from the local, regional, state, and federal levels.

### Local Policy Framework

#### City of Tacoma

The City of Tacoma's Comprehensive Plan is the community's vision for 2040 and includes goals and policies to accommodate growth in the City. The subarea is designated as a Manufacturing/Industrial Center (MIC), which is an area intended to serve as a key employment center over the long-term. The Comprehensive Plan's Container Port Element contains policies to protect industrial lands in the subarea, reduce land use conflicts, promote economic vitality, support continued preservation of the environment, and ensure adequate facilities, services, and transportation within and beyond the subarea.

The City's Shoreline Master Program (SMP) sets guidelines and regulations to protect and guide development along the City's shorelines. The subarea contains several waterways that are subject to the SMP. Public access to and recreation along the shoreline is identified by the City's Public Access Alternatives Plan (PAAL). There are several existing public access points in the subarea and other potential opportunities identified. As discussed in [Section 2.4, Land Use Conditions](#), the subarea contains three City of Tacoma zoning designations.

#### Port of Tacoma

Port districts in the state of Washington are required to prepare and update a Comprehensive Scheme of Harbor Improvements (CSHI), which describes development goals for the Port. The current Port of Tacoma CSHI was last updated in 2017, and has an update planned for late 2024. The CSHI is updated periodically as the Port of Tacoma explores new opportunities for property acquisitions or investments that change represent a change in character of a Port-owned property. The Port of Tacoma 2021-2026 Strategic Plan includes goals and strategies to promote prosperity, trade, and jobs, and to protect and enhance the environment.

#### City of Fife

The primary area of growth and development for the City of Fife will be in support of the future light rail station provided by Sound Transit, located in the "City Center". The City of Fife, as confirmed by the Pierce County Regional Council, has designated the City Center as a Center of Local Importance (COLI) pursuant to the Pierce County Countywide Planning Policies. This area is focused on the new sound transit station and encourages mixed-use high-density development and a pedestrian-oriented transportation system connecting to transit. This is where the city will accommodate most of its residential growth over the planning period. As part of their 2024 periodic update and in preparation for the development of the light rail station, the City will be adopting a new City Center Element, a planned action EIS, and new development regulations encouraging the desired mixed use/TOD land use pattern. The city center is bisected by the Interstates 5/54<sup>th</sup> Ave interchange, one of the primary entrances to

the port of Tacoma. The NW corner of Fife's City Center, and the SE corner of the MIC boundary touch each other at the intersection of 12<sup>th</sup> St E, and 52<sup>nd</sup> Ave E, in Fife.

In addition to the City Center, the City's Future Land Use map contains sufficient area of industrial zoning, and maintains a core residential area with smaller neighborhoods immediately adjacent to the Port.

Parcels along the southern and eastern edge of the study area are adjacent to the City of Fife boundary. The southern edge is adjacent to the primary business district, which runs east and west along Pacific Highway E. This area contains several commercial establishments that support both port operation as and the traveling public, tribal enterprises, scattered industrial uses, small residences (Willows Neighborhood), and underdeveloped land. This area is zoned Regional Commercial, along with some pockets of Industrial, Business Park, and Neighborhood Commercial, zoning.

The eastern edge of the study area is adjacent to the 54<sup>th</sup> St corridor as well as small portions of the Pacific Hwy Corridor. This area contains industrial uses and the residential neighborhood known as the Benthien Loop. The zoning in this area is Industrial and Neighborhood Commercial. This is the location where the study area is immediate adjacent to the City Center.

## County Policy Framework

### Pierce County Countywide Planning Policies

The Pierce County Countywide Planning Policies (CPPs) apply to Pierce County and its cities and provide a framework for directing growth and investment throughout the County. The CPPs direct cities to concentrate growth in designated centers. The subarea is a designated Manufacturing/Industrial Center.

## Regional Policy Framework

### PSRC VISION 2050

The Puget Sound Regional Council (PSRC) is a Metropolitan Planning Organization (MPO) that develops policies and makes decisions about transportation planning, economic development and growth management in the four-county (King, Kitsap, Pierce, and Snohomish) central Puget Sound region. PSRC's Vision 2050 Plan established a long-term land use and transportation framework for the region and designated the Tideflats as one of 10 Manufacturing/Industrial Centers (MIC) in the region. Vision 2050 recognizes MICs as important employment locations that serve both current and long-term regional economic objectives and calls for the provision of infrastructure and services in MICs necessary to serve intensive manufacturing and industrial activity. MICs are given funding priority both for transportation infrastructure and for economic development. PSRC provides guidance for jurisdictions in updating their center plans, including Regional Manufacturing Industrial Center Plans.



## State, Tribal and Federal Policy Framework

### Growth Management Act

The Washington State Growth Management Act (GMA) was adopted in 1990 in response to concerns over uncoordinated growth and its impacts on communities and the environment. The GMA includes 15 planning goals to help guide its implementation. GMA mandates certain topics to be included in Comprehensive Plans, and jurisdictions are allowed to include additional topics, such as subarea plans like the Tideflats Subarea Plan. Tacoma's strategy for growth in the One Tacoma Comprehensive Plan is consistent with GMA goals which restricts urban growth to urban areas to prevent sprawl and supports economic development.

### Treaties & Tribal Codes

Treaties and land claims settlement relevant to the subarea are discussed in [Section 2.3, Tribal Resources](#). The subarea includes land located within the Puyallup Tribe of Indians reservation and Tribal-owned parcels. The Puyallup Tribe operates and administers a set of laws and regulations collectively referred to as the Puyallup Tribal Codes (PTC). Title 15 of the PTC addresses land use with a Zoning Ordinance (Chapter 15.12) that contains district classifications for all lands which exist within the boundaries of the Puyallup Reservation as defined by the Plat Map of the 1873 Survey conducted by the United States General Land Office and filed in 1874 and the Puyallup Land Claims Settlement Act of 1989, Public Law 101-41. In addition, Chapter 15.08 Land Use Consultation Process Ordinance sets out the process for tribal land use decisions and land use decisions by local governments.

### Puyallup Tribe of Indians Comprehensive Land Use Plan (2023)

The Puyallup Tribe of Indians Comprehensive Land Use Plan provides a land use plan and policies intended to guide its planning area (1873 boundaries and greater area) and beyond. Its planning area includes the entire Tideflats study area. The Puyallup Tribe of Indians' Comprehensive Land Use Plan has no stated zoning for the Tideflats. However, there are a mixture of recognized cultural sites that likely will remain undeveloped or in a restoration site like state (Ceremonial Grounds, Gog-le-hi-te) and economic development sites like the Tribe's Blair frontage and backup properties which are planned to serve industrial and port maritime related uses.

## 2.11 BROWNFIELDS

The Tideflats have been used for industrial and commercial purposes for over 140 years and are currently heavily developed for commercial and industrial use. With its long history, there is a high concern for past industrial and commercial land uses to have released hazardous materials and waste to the subsurface. Prior to modern environmental practices, it was common for industrial activities to dispose of hazardous waste without regard for potential environmental impacts or concerns.

Before the 1972 Clean Water Act<sup>12</sup>, industry would discharge process and wastewater directly into Commencement Bay. Industries then shifted to disposing their wastes into unlined ponds. The Resource Conservation and Recovery Act (RCRA) was enacted in 1976, creating a framework for proper management of hazardous and non-hazardous solid waste. By this time, Commencement Bay had already been severely impacted by industrial practices. Decades of industrial activity released pollutants into the water and sediment, including arsenic, lead, zinc, cadmium, copper, mercury, Polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), dioxins, and phthalates. Action was needed to restore the health of Commencement Bay.

The uncertainty posed by the presence of known and suspected brownfields is a barrier to economic development. The cleanup of contaminated sites can add significant delay and expense to development projects, increasing the financial risk associated with redevelopment and private investment. For these reasons, the potential presence of brownfields is not only an environmental health issue but also a serious impediment to economic development, creating additional, long-term negative impacts on community welfare.

### For further information

See [Appendix A](#) for more information on the history of cleanup in the Tideflats.

## History of Cleanup in the Tacoma Tideflats

Ports and industrial facilities work under a multitude of environmental regulations and laws, which are described in [Figure 55](#). The laws that govern brownfield cleanup are the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Model Toxics Control Act (MTCA). These were enacted to force industry to cleanup legacy chemical releases, from both upland and in-water contaminated areas. The passage of these two laws has resulted in a multitude of cleanup actions conducted in the Tacoma Tideflats.

The work first began under CERCLA, when the EPA identified Commencement Bay and nearby tideflats in the south Puget Sound as a Superfund Site in 1983. The site is made of about 10 -12 square miles of shoreline, sediment in shallow water, and industrialized land between the Hylebos Waterway and Point Defiance in both Ruston and Tacoma, Washington. The site consists of seven operable units (OUs) that were established for cleanup in the EPA's 1989 Record of Decision<sup>13</sup>:

- > Tideflat sediments - Commencement Bay sediment remediation (OU 1)
- > Asarco Smelter and Tacoma Tar Pits related areas (OU 2, 3, 4, 6, 7)

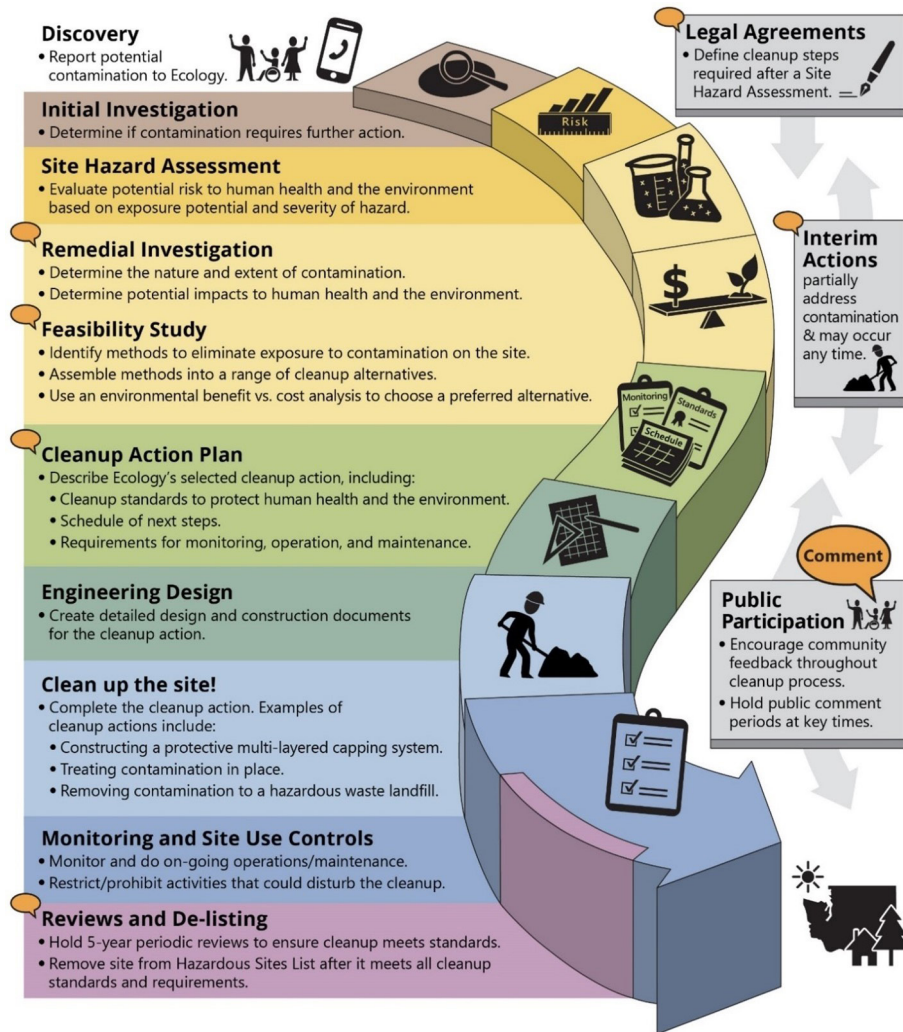
<sup>12</sup> The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was significantly reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972.

<sup>13</sup> EPA ROD R10-98/020 Commencement Bay Nearshore/Tideflats, WA Second Remedial Action

POLICY	YEAR	LEVEL	DESCRIPTION
Clean Air Act	1963	Federal	Regulates emissions of air pollutants from stationary and mobile sources.
National Environmental Policy Act	1970	Federal	Required federal agencies to assess the environmental impacts of proposed actions prior to decision-making.
State Environmental Policy Act	1971	State	Like the National Environmental Policy Act, Washington's State Environmental Policy Act requires state and local agencies to identify potential environmental impacts related to proposed projects prior to decision-making.
Clean Water Act	1972	Federal	Regulates the discharge of pollutants into navigable waters and regulates surface water quality.
Water Pollution Control Act	1973	State	Chapter 90.48 RCW Water Pollution Control Act in conjunction with Chapter 173-200 WAC Water Quality Standards for Ground Waters regulate the current and future beneficial uses of groundwater.
Toxic Substances Control Act	1976	Federal	Regulates existing and new commercial chemical substances by assessing health or environmental risks and determining the appropriate limits distribution and use.
The Resource Conservation and Recovery Act	1976	Federal	Regulates the management and disposal of solid waste and hazardous waste.
Comprehensive Environmental Response, Compensation, and Liability Act (Superfund)	1980	Federal	Authorizes the federal government to respond to releases or threatened releases of hazardous substances that may endanger public health or the environment.
Hazardous Waste Management Act	1985	State	The Hazardous Waste Management Act (HWMA) is articulated in RCW Chapter 70.105 (recodified as RCW 70A.300) and the Dangerous Waste Regulations WAC Chapter 173-303. Through the HWMA, Ecology is authorized by the EPA to implement the Resource Conservation and Recovery Act within Washington State, which regulates the management and disposal of hazardous waste.
Model Toxics Control Act	1989	State	Authorizes the Washington State Department of Ecology to oversee or manage the cleanup of contaminated sites.
Sediment Management Standards	1991	State	Chapter 173-204 WAC, Sediment Management Standards, was created in 1991 under RCW Chapters 90.48, 70.105D, 90.70, 90.52, 90.54, and 43.21 and establishes marine, low salinity, and freshwater surface sediment management standards (SMS).

**Figure 55. Environmental Regulatory Framework***Source: Port of Tacoma, 2023*





**Figure 56. Steps in the formal MTCA cleanup process**

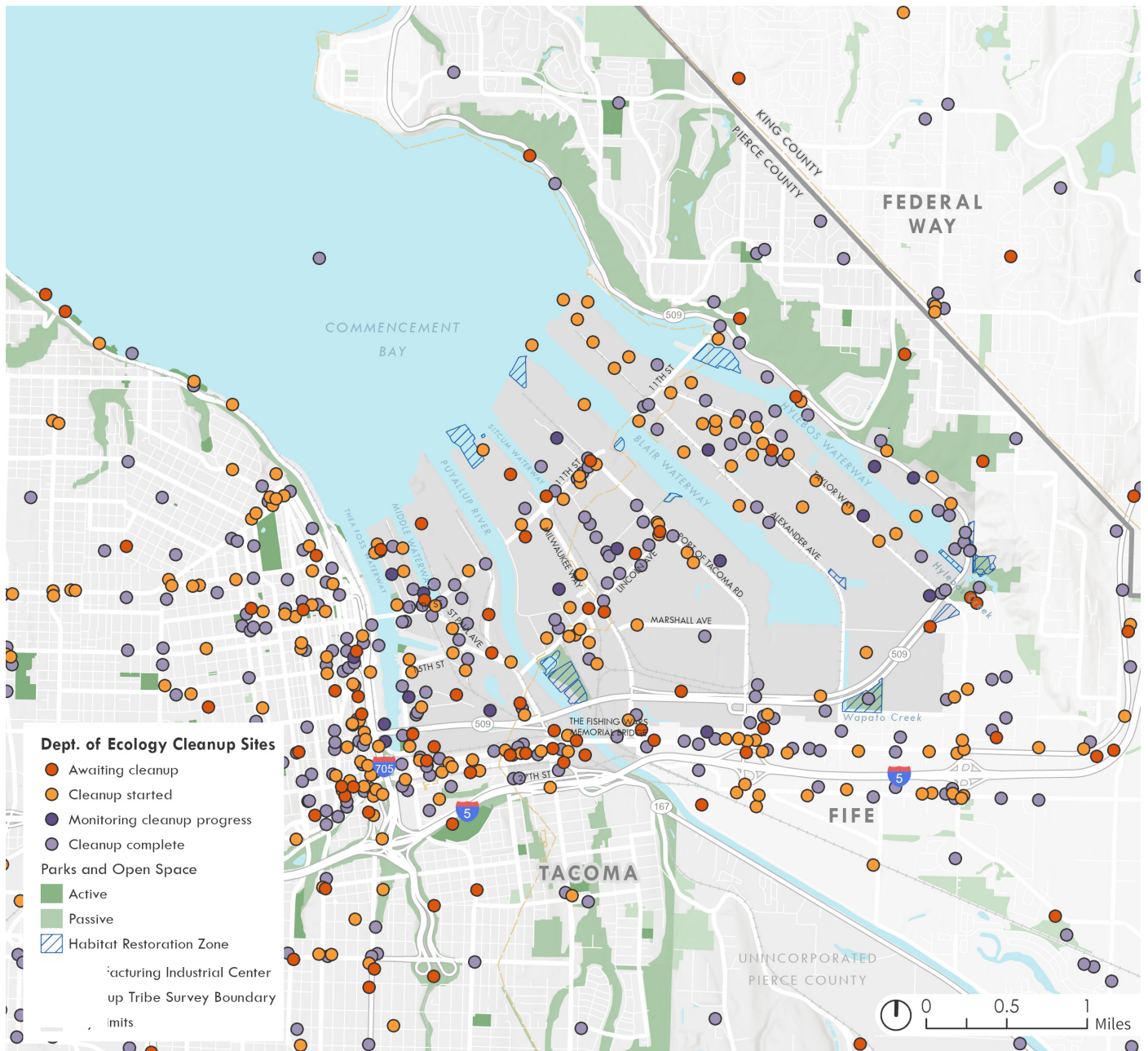
Note: How the cleanup process work, from <https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Cleanup-process>.

Source: Washington State Department of Ecology, 2023

- > Tideflats uplands - Commencement Bay source control (OU 5), consisting of over 6,000 acres of potential upland sources of sediment pollutants

Ecology's identified sources largely focused on shoreline industrial properties, except for the Thea Foss, where upland stormwater was identified with the potential to re-contaminate the Waterway. The identified upland sources were also addressed through Ecology's cleanup process.

Ecology's cleanup process begins when the release of a potential contaminant is reported. The reported incident may be the result of a spill, soil testing indicating the need for offsite disposal, or through due diligence related to a property transaction. Upon receiving the alert, Ecology will complete a Site Hazard Assessment and determine if additional evaluation is required. Ecology requires liable parties, the owner or operator of the property, to complete all site investigations, develop a cleanup action plan, and implement any required cleanup. Cleanups are conducted either through the formal process under an Ecology Order, through the Voluntary Cleanup Program, or independently. Ecology accepts public input when an interim action is considered and when selecting a preferred cleanup option. If contamination is left on the site, Ecology will place restrictions on how the site is used to ensure Site conditions are protective. Ecology will conduct periodic monitoring on the site to ensure it is meeting all cleanup standards and requirements; these reports are shared for public comment.



Since 2001, Ecology has continued to oversee upland cleanup efforts in the Tacoma Tideflats in cooperation with the liable parties. Over time, Ecology has focused on addressing high priority sites through Orders, while also supporting cleanup efforts through the Voluntary Cleanup Program. Orders are typically used for the more contaminated and impacted properties, while the Voluntary Cleanup Program is often used by developers during property redevelopment.

**Figure 57** displays Ecology’s current confirmed and suspected cleanup sites, in the Tacoma Tideflats and surrounding areas. Specifically, within the Manufacturing Industrial Center, there are a total of 216 cleanup sites, 42 % are complete, 38% are started, 6% are being monitored, and 14% are awaiting cleanup. Complete means no further remedial action is necessary, a determination made by Ecology. Started means remedial actions are taking place, including a Phase 1 and Phase 2 Environmental Site Assessment, feasibility studies, and design and implementation

**Figure 57. Cleanup Sites in the Tideflats Subarea**

Source: Department of Ecology, 2023; Seva Workshop, 2023

of an action plan. Monitoring cleanup process means protection, performance, and confirmation monitoring, which ensures remedial action attains the standards and long-term effectiveness described within the respective cleanup action plans. Awaiting cleanup means a site has been identified as a candidate for cleanup through an initial notice and investigation; however, no remedial actions have been confirmed.

## **Port of Tacoma's Brownfield Advisory Committee**

In 2022, the Port of Tacoma was awarded an EPA Region 10 Brownfield Community-Wide Assessment Grant and established a cooperative agreement with the EPA. The identified period of performance for this grant is between October 1, 2022, through September 30, 2026. As a result of receiving the grant funding, various projects and activities have been identified including community engagement through the development of a Brownfield Advisory Committee (BAC), the development of a site inventory of the Tacoma Tideflats, and completed Phase 1 and Phase 2 Environmental Site Assessments, which will help characterize and identify sites that meet the EPA's eligible funding criteria.

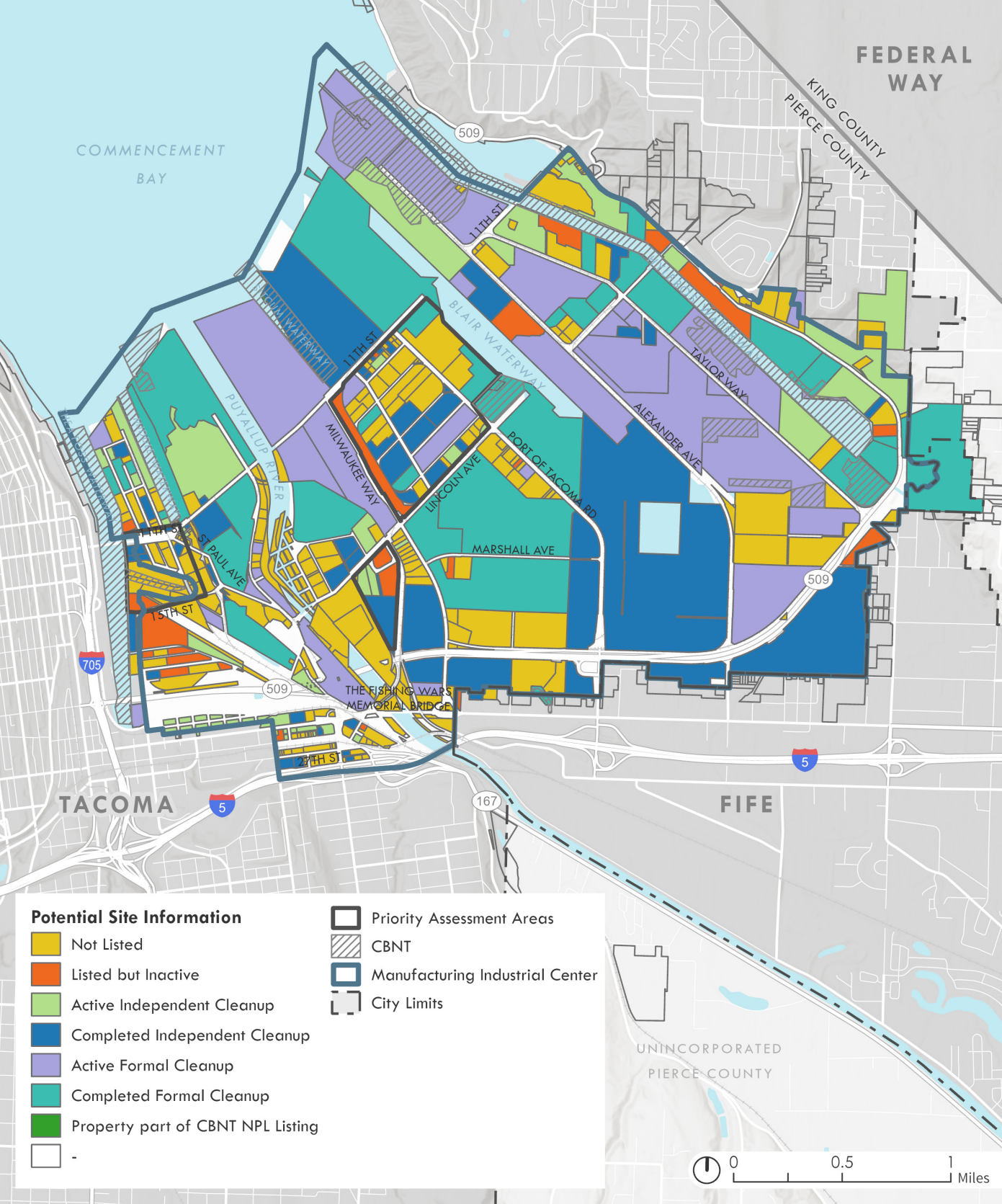
To date, the established BAC has met twice and will continue to meet on a quarterly basis. The site inventory, now largely complete, includes the development of a web-based application, combining multiple databases in one location, including Ecology's Contaminated Sites list, as well as the Pierce County Assessor's 2020 Buildable Lands Inventory. The site inventory web-based tool is suitable for identifying sites that are part of the Superfund site, sites that are under formal order with Ecology, sites that are under the Ecology's Voluntary Cleanup Program, and sites that were completed by independent action. The tool also categorizes sites by stage in the formal cleanup process, as well as properties that are not listed with Ecology. While not developed for this purpose, the BAC web-application is an excellent tool for illustrating existing brownfield remediation efforts in the Tideflats subarea.

## **Existing Brownfield Remediation Efforts**

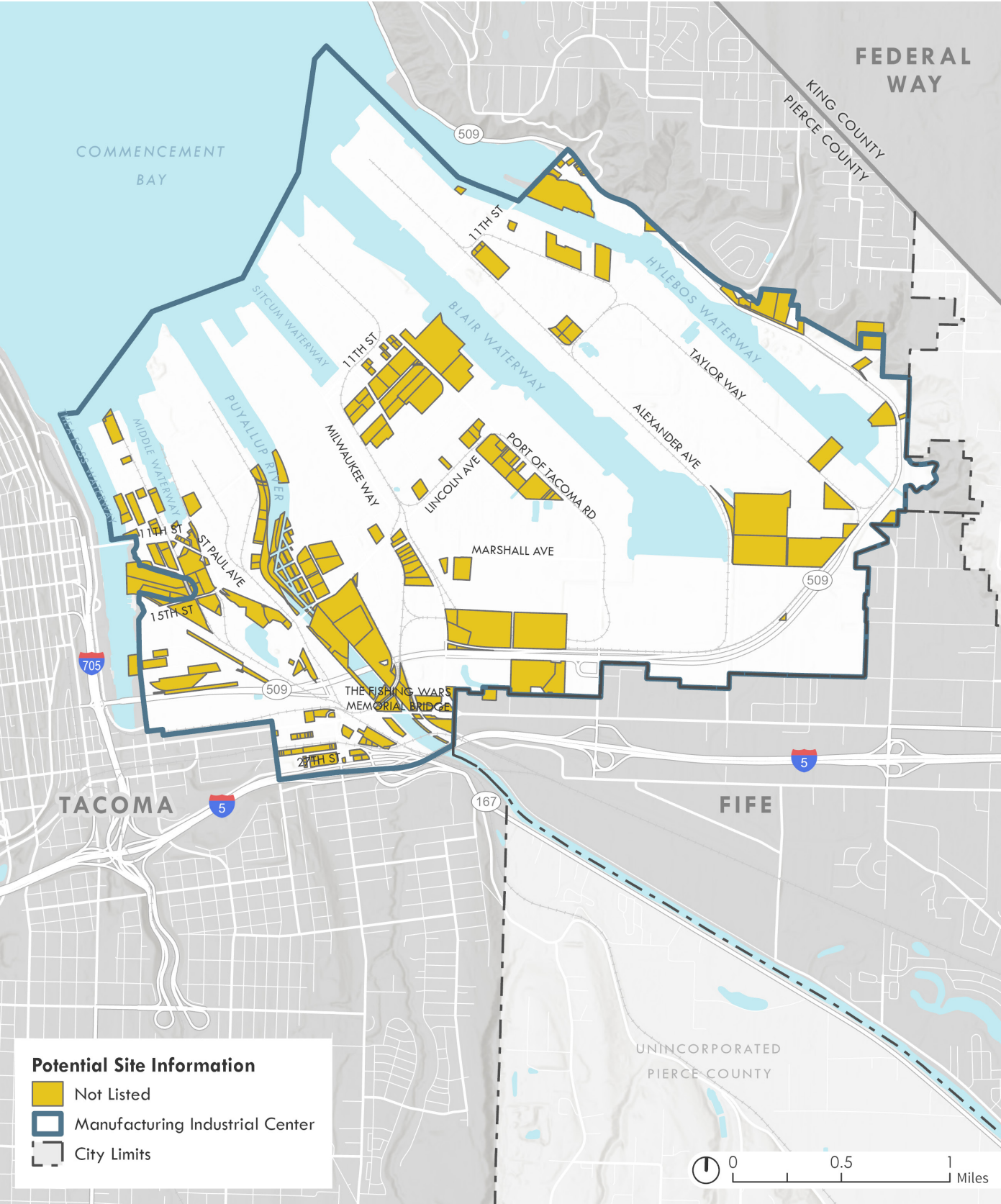
There are 371 properties in the Tideflats Subarea. Sixty-two properties are part of a formal cleanup – 32 are active, 29 are completed. These properties are Ecology's highest priority. They are the most complex, technically challenging, and likely most expensive to cleanup. The formal sites listed as active in Ecology's database are in different stages of the MTCA cleanup process, possibly just starting the Remedial Investigation or all the way through cleanup into long-term monitoring. The term active is somewhat of a misnomer, as little progress may be occurring due to various reasons, including Ecology staffing limitations.

Ninety-four properties are part of an independent cleanup – 30 are active, 46 are completed, and 18 are inactive. The 30 active sites are likely in Ecology's Voluntary Cleanup Program, undergoing investigations, cleanup planning, remediation design or actively undergoing cleanup. For completed sites, the cleanup action has been completed and Ecology has rendered an opinion of remedy sufficiency. For the inactive properties, Ecology has not engaged the property owner, or responsible party; however, the owner may be conducting cleanup work independently without Ecology's oversight.





**Figure 58. Cleanup Status of Potential Sites**  
Source: Port of Tacoma, 2024; Seva Workshop, 2024



**Figure 59. Unlisted Properties**  
Source: Port of Tacoma, 2024; Seva Workshop, 2024

Two hundred and fifteen properties are unlisted. These properties represent 22% of the uplands in the Tideflats Subarea. Most of these properties are not owned by the Port and tend to be smaller in size. If a property transaction has not occurred in the recent past, with all appropriate inquiries conducted to evaluate environmental conditions, the owner may not be aware that their property is contaminated. It is likely that many of these unlisted properties are in fact contaminated and will require cleanup in the future.

## Future Brownfield Challenges and Opportunities

Encompassing approximately 5,000 acres, with 371 upland properties, and over 100 years of heavy industrial use, most of the lands in the Tideflats have been touched by contamination. Cleanup of contaminated properties are often long, complicated, and expensive. The uncertainty posed by the presence of known and suspected brownfields is a barrier to economic development. The cleanup of contaminated sites adds significant delay and expense to development projects, increasing the financial risk associated with redevelopment and private investment. For these reasons, the potential presence of brownfields is not only an environmental health issue but also a serious impediment to economic development, creating additional, long-term negative impacts on community welfare.

As the major property owner in the Tideflats, owning approximately 50% of the land mass, the Port of Tacoma is uniquely positioned and qualified to manage contaminated brownfield properties. The Port of Tacoma has been a leader in addressing legacy contamination for decades. The Port is committed to cleaning up contaminated sites and finding new uses for them. The Port began on 200 acres a century ago and has been growing ever since, buying contaminated property in the Tideflats and repurposing them for the next economic opportunity. Unlike private landowners, ports can offset some costs by accessing state and federal funds, including money from state taxes paid by companies that import toxic chemicals. The Port of Tacoma also uses some property tax revenue for remediation and tries to recover costs from the original polluters.

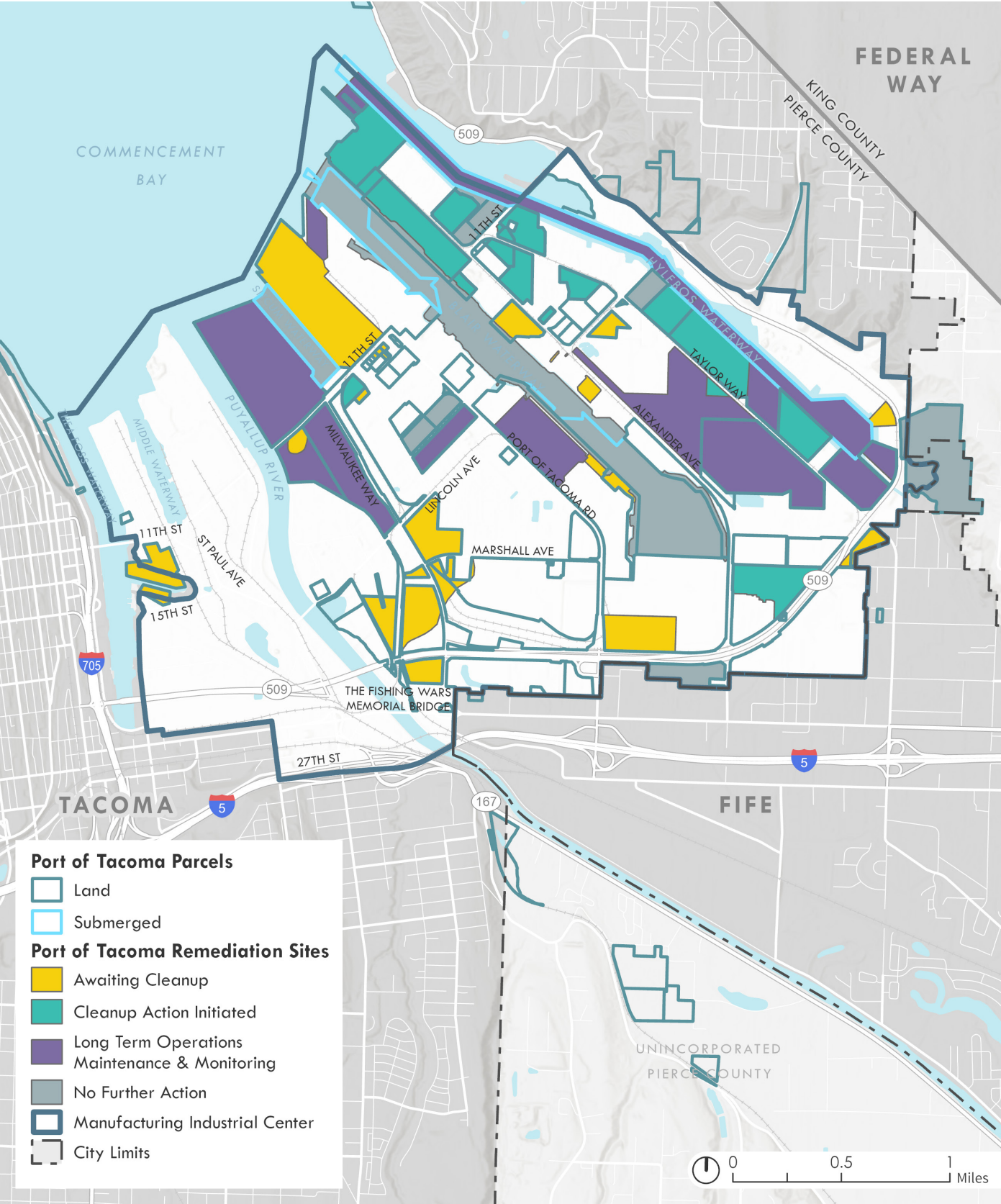
To date, the Port has spent over \$200 million remediating over 1,100 acres in the Tideflats. The Port is actively working with Ecology to remediate a few hundred more acres of port-owned contaminated property. In 2024, the Port is working toward remedy selection at 10 properties as well as conducting long-term monitoring and maintenance at 14 other properties where remedies were previously implemented.

**Figure 60** maps the Port's ongoing remediation efforts.

Additionally, the Port is working with the EPA and the BAC through the Brownfield Community-Wide Assessment Grant. Twelve candidate sites, shown in **Figure 61**, have been identified for Phase 1 and Phase 2 Environmental Site Assessments. These are a mixture of Port, City, and privately held properties. Based on the results of the Environmental Site Assessment, the properties will be recommended for cleanup eligibility based on factors of underutilization, location within a Port priority area, potential for environmental sources, and existing or anticipated site access.

Lastly, the Port is also always looking to acquire strategically located brownfield properties that may prove to be contaminated.





**Figure 60. Port Properties and Remediation Projects**  
Source: Port of Tacoma, 2024; Seva Workshop, 2024





**Figure 61. Sites Identified for Phase 1 and Phase 2 Environmental Assessments**  
Source: Port of Tacoma, 2024; Seva Workshop, 2024

- Potential Site Information**
- Not Listed
  - Listed but Inactive
  - Completed Independent Cleanup
  - Priority Assessment Areas

## 2.12 SHORELINE PUBLIC ACCESS AND RECREATION

The Tacoma Tideflats shoreline is predominantly developed with heavy industrial and Port/Terminal related facilities. As a result, there is very limited opportunity for the public to reach and touch the water in this area. Through the visioning process, many respondents noted an interest in increased shoreline public access and recreation opportunities. The community saw the role of increased shoreline public access and recreation to help understand and make connections to a working waterfront as well as learn to be better stewards of the natural environment. Shoreline public access and recreation can serve both employees and residents; and serve as educational opportunities.

Increased shoreline public access and recreation that expands the ability of the public to see, touch, and enjoy the water and shorelands, where practical, is part of the shared vision of the Tideflats Subarea Plan. The Subarea Plan envisions that development in the Tideflats contributes toward the establishment of a shoreline public access and recreation system. Access is planned in areas that will not interfere with port operations or cause public safety concerns. Where possible, trails are planned that would link recreation and transportation systems, but these are generally located on the periphery of port/industrial operations and along existing publicly owned lands and rights-of-way.

There is also considerable cleanup and restoration activity that has been undertaken in this shoreline area which could accommodate limited access, including natural trails, kayak hand launch sites, Tribal fisheries access, or separated habitat viewing platforms. Access would need to be designed sensitively to prevent damage or harm to natural areas and mitigation sites.



*Family fun in Commencement Bay*

### Existing Policy Framework

Existing policies limit shoreline public access to the core area to ensure industrial activities are not affected. Recreation access is focused on the edges of the MIC. The hillside of NE Tacoma offers visual access to the study area.

### City of Tacoma Shoreline Master Program (2019) and Public Access Alternatives Plan (2010)

The City of Tacoma's 2019 Shoreline Master Program (SMP) establishes two goals related to public access and recreation within shorelines areas in the city:

- > **Public Access Goal:** To increase the ability of the general public to reach, touch, and enjoy the water's edge, to travel on the waters of the state, and/or to view the water and the shoreline from adjacent locations, provided that private rights, the public safety, and shoreline ecological functions and processes are protected consistent with the U.S. and State constitutions, state case law, and state statutes.
- > **Recreation Goal:** To provide opportunities, spaces, and appropriate facilities for diverse forms of water-oriented recreation that takes advantage of the unique waterfront setting.

Specific objectives call for establishing a linear system of public access along the Tacoma shoreline starting with high-density intensive-use urban activity on the Thea Foss Waterway, and encouraging cooperation with other public agencies, non-profit groups, and private landowners to increase and diversify recreation opportunities.



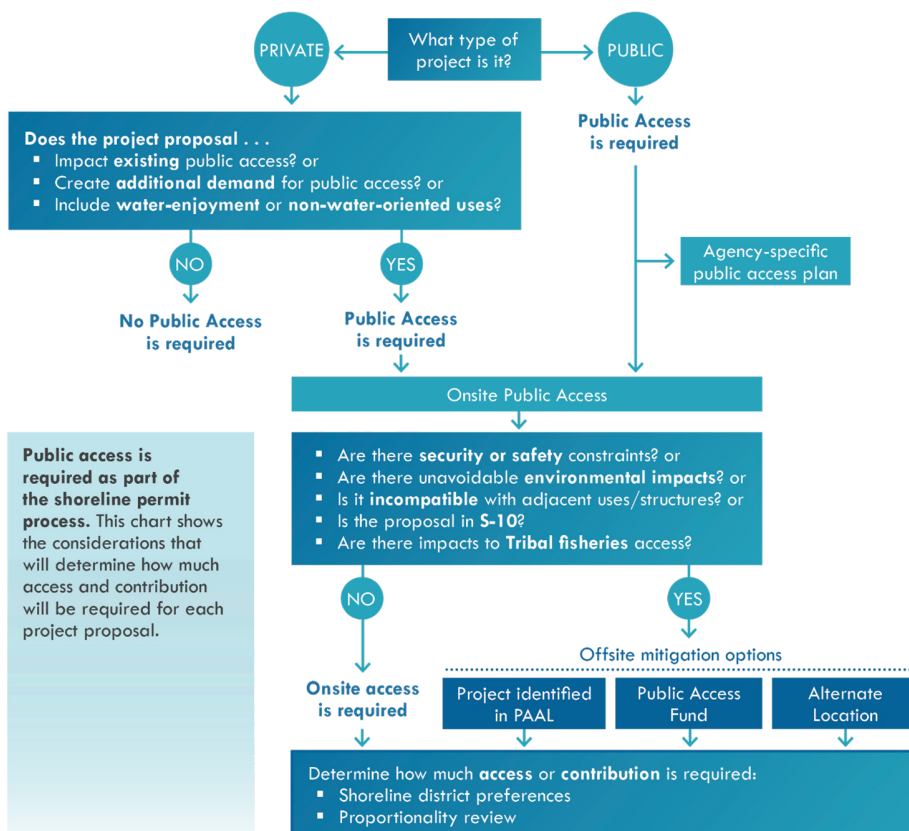
The City's Public Access Alternatives Plan (PAAL) is a stand-alone implementation plan associated with the SMP that further articulates the vision for public access to the shoreline and recreation. Several existing public access areas are within the study area (City of Tacoma, 2010, pp. 17-21):

- > Existing viewpoint at the Port of Tacoma Observation Tower.
- > Existing public marinas, private marinas, and hand boat launches on the northern shore of the Hylebos Waterway and eastern shore of the Thea Foss Waterway (including at Waterway Park).
- > Existing habitat observation points on the southern shore of the Blair Waterway (the Lincoln Ave public street end) and northern shore of the Puyallup River (near the wetlands by the Lincoln Ave bridge).

The PAAL identifies other potential projects on the Thea Foss Waterway, on Marine View Drive, and on Port Industrial shorelines in areas that will not interfere with port operations or cause public safety concerns. These projects include a pedestrian walkway on the Thea Foss Waterway, motorized and non-motorized boat launches, additional habitat observation points, improved public access/viewing signage, and new viewpoints (City of Tacoma, 2010, pp. 25-29).

## Existing Regulations

Existing City regulations implement the Shoreline Master Program's public access goals. The City currently requires shoreline public access as part of public projects and non-water dependent projects. General priority is given for shoreline public access on site, but current regulations prefer off-site public access for projects in the port/Tideflats area. The diagram below shows the public access requirements for different projects.



**Figure 62.** Existing Public Access Requirements Flow Chart

Source: City of Tacoma, 2023

## City of Tacoma & Port of Tacoma Interlocal Agreement

The City of Tacoma and the Port of Tacoma entered an interlocal agreement to authorize a flexible approach to shoreline public access provision that the Port and its tenants could use at their discretion to fulfill the public access requirements of the City's adopted Shoreline Master Program, in lieu of site-by-site requirements.

The ILA established a Fee-in Lieu and a public access fund and methodology. It also identified priority public access project locations. According to the ILA, after consultation with the City, the Port and its tenants may direct any fee-in-lieu payment associated with a particular shoreline permit to any of the following projects:

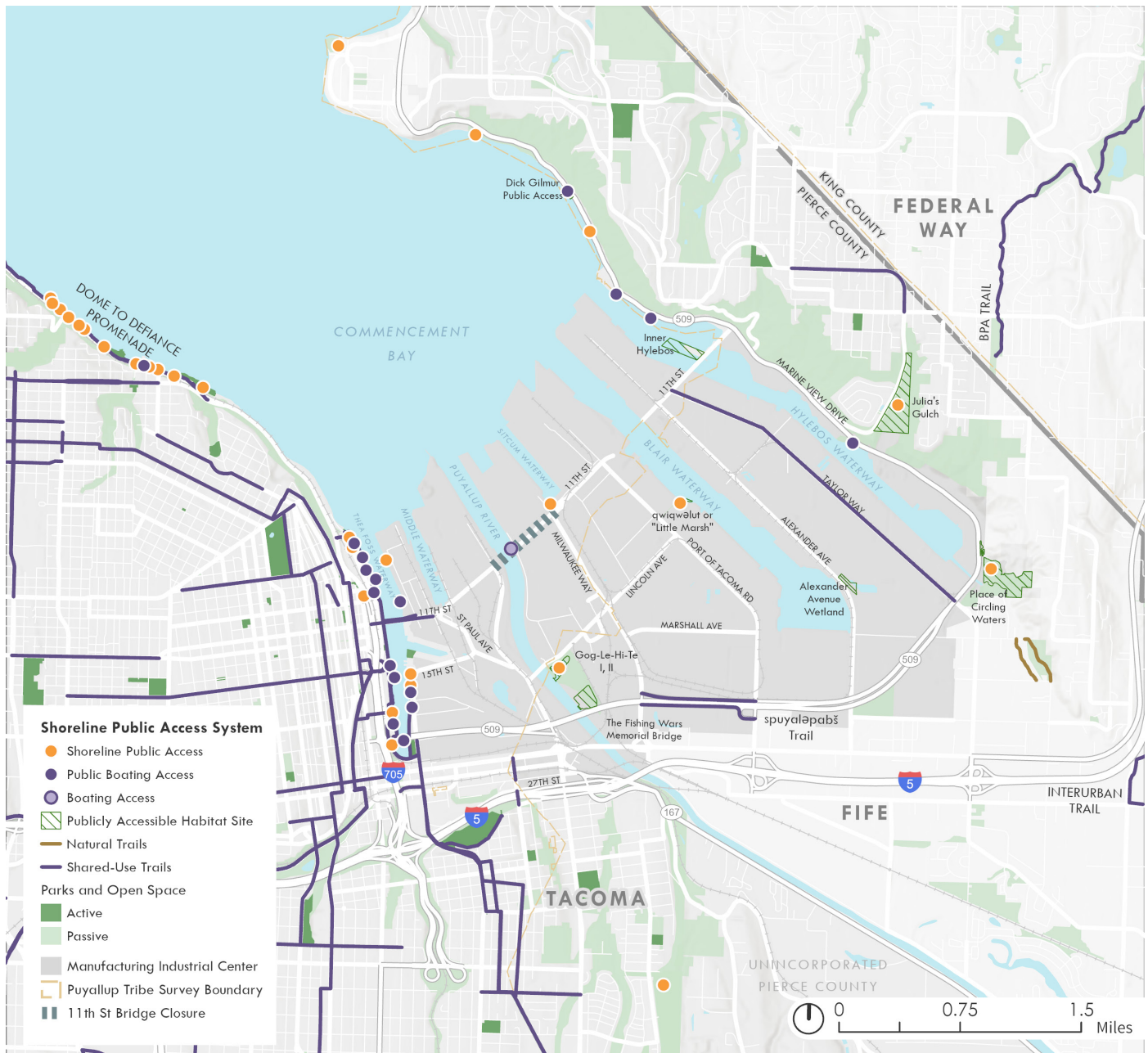
- > Chinese Reconciliation Park
- > West Foss Central Park
- > Waterway Park
- > Balfour Dock Esplanade
- > Schuster Parkway Trail
- > 11th Street Public Boat Launch
- > Or other sites as mutually agreed upon by both parties

The Port and its tenants can also direct any fee in-lieu payment associated with a particular shoreline permit in the form of public access investments to any Port owned sites at the following locations:

- > Dick Gilmur Kayak Launch and the associated Saltchuck mitigation site
- > Julia's Gulch and NE Tacoma Trail Network
- > Youth Marine Foundation
- > Or other sites as mutually agreed upon by both Parties



[CAPTION NEEDED]



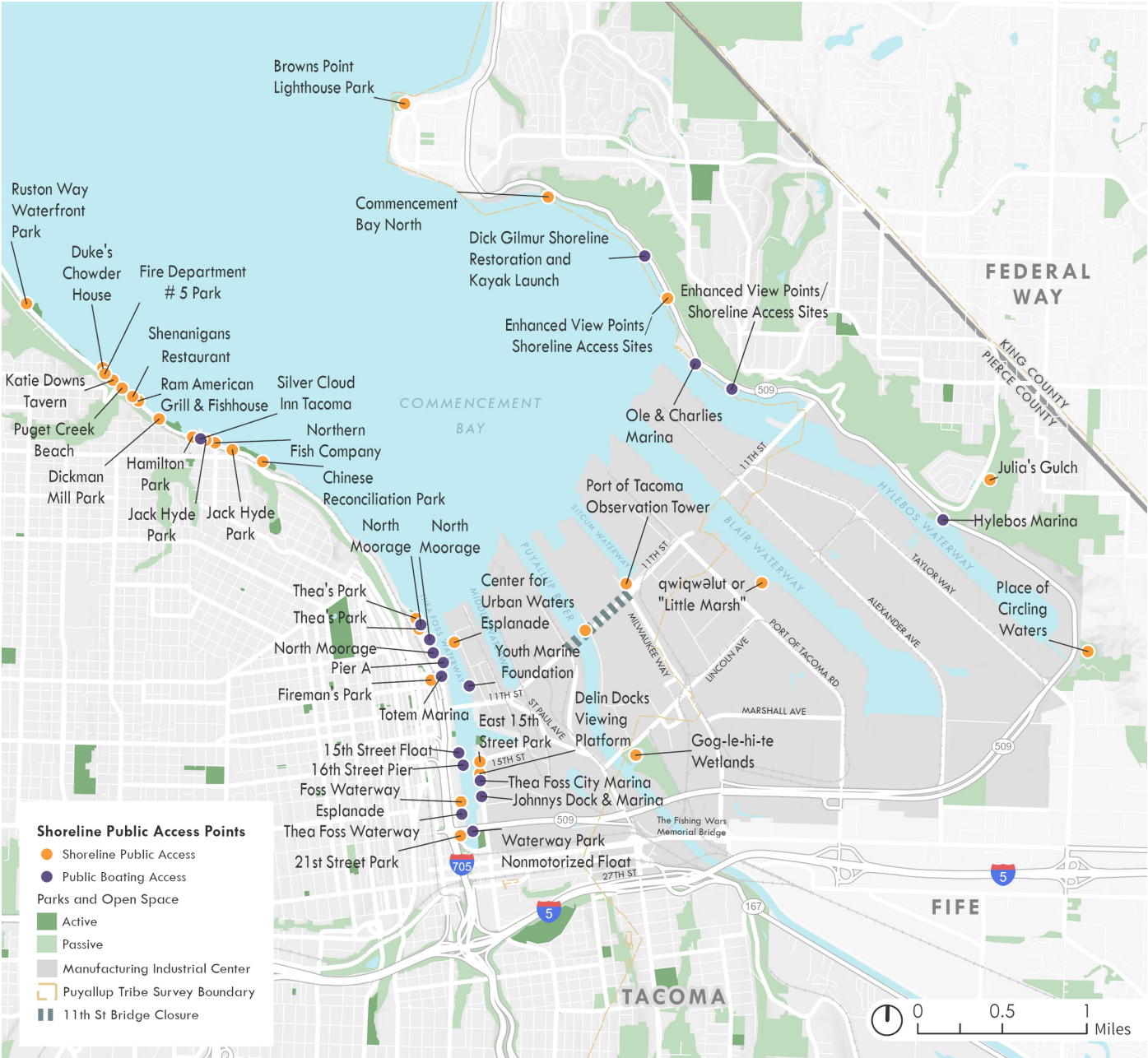
## Existing Shoreline Public Access and Recreation System

The existing shoreline public access and recreation system in the Tideflats includes trails, parks and open spaces, public access points including boating access, bikeways, and publicly accessible habitat restoration sites. See [Figure 63](#) and [Figure 64](#).

**Figure 63. Existing Shoreline Public Access and Recreation System**

*Note: Public Boating Access points include locations such as marinas and boat launches. Shared-use trails allow for off-street pedestrian and bicycle use. Wheelchairs, joggers, skaters and other non-motorized users are also welcome.*  
 Source: City of Tacoma, 2023; Seva Workshop, 2023





**Figure 64. Existing Shoreline Public Access and Recreation Points**  
Source: City of Tacoma, 2023; Seva Workshop, 2023

## Planned Shoreline Public Access and Recreation System

The following projects will be necessary to complete the shoreline public access and recreation system as shown in **Figure 65**:

### Thea Foss Waterway

- > Complete Foss Waterway Park and Recreation facilities, including the West Foss Central Park, Melanie Dressel Park, public esplanade, and pedestrian improvements along E D Street from 11th Street to the Center for Urban Waters

### Marine View Drive

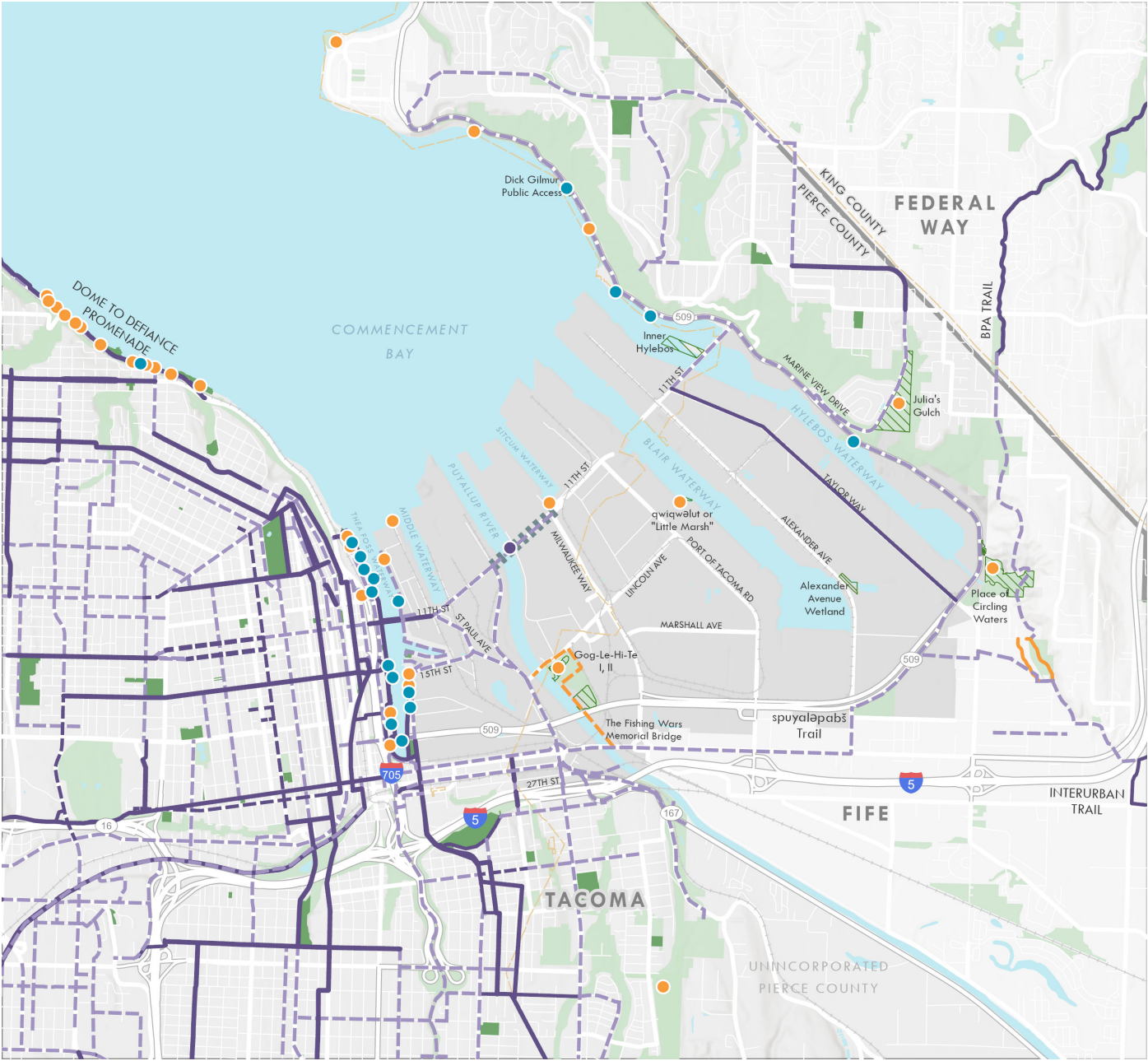
- > Marine View Drive scenic viewpoint and habitat area site improvements. Complete pedestrian sidewalks and protected bike facilities on Marine View Drive to ensure safe connectivity to shoreline public access and recreation sites along the Marine View Drive Shoreline. Enhance restoration sites to incorporate signage, parking
- > Connect the Taylor Way bikeway to Marine View Drive across 11th Street
- > Evaluate the feasibility of gulch trails connecting Northeast Tacoma neighborhoods to Marine View Drive

### Regional Trails

- > Tacoma to Puyallup Regional Trail
- > Evaluate feasibility of BPA Trail route alignments to connect to Fife and Marine View Drive

### Puyallup River

- > Establish Puyallup River Levee Trail from Downtown Tacoma, along 11th Street, connecting to existing access sites at the Gog-li-hi-te wetland



**Existing and Planned Shoreline Public Access**

- |                          |                                |                                  |
|--------------------------|--------------------------------|----------------------------------|
| <b>Shared-Use Trails</b> | <b>Shoreline Access Points</b> | <b>Parks and Open Space</b>      |
| Existing                 | Shoreline Public Access        | Active                           |
| Funded                   | Public Boating Access          | Passive                          |
| Proposed                 | Boating Access                 | Publicly Accessible Habitat Site |
| <b>Natural Trails</b>    |                                | Manufacturing Industrial Center  |
| Existing                 |                                | Puyallup Tribe Survey Boundary   |
| Proposed                 |                                | 11th St Bridge Closure           |

**Figure 65. Planned Shoreline Public Access and Recreation System**

Source: City of Tacoma, 2023; Seva Workshop, 2023