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Environment and Health

ENVIRONMENT AND HEALTH GUIDING PRINCIPLES

GUIDING PRINCIPLE 1: Salmon and shellfish are thriving and plentiful in Commencement Bay, the Puyallup River, Wapato Creek, and Hylebos Creek.

GUIDING PRINCIPLE 2: The subarea supports healthy communities and ecosystems with clean air, water, and soil.

GUIDING PRINCIPLE 3: Employees in the subarea have a safe and healthy work environment.

GUIDING PRINCIPLE 4: An inclusive and equitable growth strategy fulfills environmental justice principles and protects frontline communities from health and human hazards.

GUIDING PRINCIPLE 5: The subarea offers diverse opportunities to participate in cultural, educational, scientific, and recreational activities.

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- 1 Introduction
- 2 Policies
- 3 Priority Actions and Regulatory Recommendations

3.1 INTRODUCTION

The purpose of this chapter is to provide policy guidance and priority implementation actions and regulatory recommendations, in order to protect the environment and improve community health in the Tacoma Tideflats Subarea.

3.2 POLICIES

GUIDING PRINCIPLE 1: Salmon and shellfish are thriving and plentiful in Commencement Bay, the Puyallup River, Wapato Creek, and Hylebos Creek.

Policy EH-1: Monitor salmon and shellfish populations, and work with partners to develop strategies to support them.

GUIDING PRINCIPLE 2: The subarea supports healthy communities and ecosystems with clean air, water, and soil.

Policy EH-2: Work in partnership with the Port of Tacoma and other property owners to promote protection, restoration and enhancement of native vegetative cover, waterways, wetlands and buffers.

Policy EH-3: Encourage the use of low impact development standards and stormwater features.

Policy EH-4: Partner with the Port of Tacoma and other interested stakeholders to establish environmental improvement goals for Commencement Bay, including providing for greater baywide diversity of ecosystems, restoration of historic functions and improvement of physical conditions. Support efforts to identify funding mechanisms and legislative support for strategies to achieve these goals.

Policy EH-5: Address the legacy of industrial pollution in the center, working with property owners to clean up contaminated sites, and ensuring permitting processes require site-specific evaluation and mitigation.

Policy EH-6: Develop partnerships with local municipalities to advance brownfield cleanup and redevelopment.

Policy EH-7: Pursue public/private partnerships to support cleanup funding.

Policy EH-8: Pursue federal and state grants for Site Assessment and Cleanup.

Policy EH-9: Improve subarea site assessment databases to support brownfield prioritization, cleanup, and facilitate due diligence around future property transactions.

Policy EH-10: Work with Ecology to streamline the MTCA process specific to the Tideflats.

Policy EH-11: Partner with local Universities to advance research and the state of the science while supporting job skills development.

GUIDING PRINCIPLE 3: Employees in the subarea have a safe and healthy work environment.

Policy EH-12: New critical facilities should be located outside of geohazard and flood hazard areas when possible – however, still close enough to provide workers in the center with services such as police, fire, emergency medical, and childcare.

Policy EH-13: Collaborate with businesses and workers in the subarea to support workplaces that meet or exceed the latest standards for health and safety, reducing employee exposure to air pollution and other occupational hazards.

GUIDING PRINCIPLE 4: An inclusive and equitable growth strategy fulfills environmental justice principles and protects frontline communities from health and human hazards.

Policy EH-14: Avoid or mitigate environmental impacts for vulnerable populations, including communities who already bear a higher burden of environmental impacts within the subarea and neighborhoods immediately adjacent to the subarea. *Existing vulnerable populations include the Benthien Loop Neighborhood, NE of the intersection of 4th St E/54th Ave E, and the Willows neighborhood/tribal residents on the south side of 12th St E, east of Alexander Ave E.*

Policy EH-15: Establish design standards that help mitigate environmental health impacts of manufacturing and industrial activities both within the center and on adjacent areas.

Policy EH-16: Site and design public spaces to minimize exposure to health hazards including those generated by current and past industrial and transportation sources.

GUIDING PRINCIPLE 5: The subarea offers diverse opportunities to participate in cultural, educational, scientific, and recreational activities.

Policy EH-17: Where practical, development should include public recreation spaces within the subarea, including access to tidal areas and views of historic and cultural sites. Within these public spaces provide educational signage or other opportunities for people to learn about the history and culture of the area.

Policy EH-18: Where practical, provide opportunities, spaces, and appropriate facilities for diverse forms of water-oriented recreation that take advantage of the unique waterfront setting within the Tideflats subarea and informs and educates the community about a maritime industrial Port.

Policy EH-19: Promote and protect access to tidelands and waterways within the subarea for traditional Tribal cultural practices like fishing, clamming, crabbing, and canoeing activities consistent with federal maritime security regulations.

Policy EH-20: Ensure shoreline public access within the Port of Tacoma Manufacturing Industrial Center is consistent with federal maritime security regulations and is not focused on the cargo shipping waterways.

Policy EH-21: Coordinate with property owners in the center to provide programming opportunities where people can learn about local industries and the history and culture of the area.

Policy EH-22: Shoreline public access and recreation should be sited in such a way as to:

- > Avoid and minimize conflicts with Port operations
- > Avoid and minimize conflicts with Tribal Treaty fishing rights
- > Ensure safety and security of the site and adjacent uses
- > Provide low-impact access to natural areas and habitat sites

Policy EH-23: Where practical, focus shoreline public access and recreation in the transition areas to balance the needs of industrial activities and Port operations in the core area.

Policy EH-24: Where practical, development should include shoreline public access and public recreation spaces within the subarea, including access to tidal areas and views of historic and cultural sites. Within these public spaces provide educational signage or other opportunities for people to learn about the history and culture of the area.

Policy EH-25: Where practical, provide opportunities, spaces, and appropriate facilities for diverse forms of water-oriented recreation that takes advantage of the unique waterfront setting within the Tideflats subarea and informs and educates the community about a maritime industrial Port.

Policy EH-26: Coordinate changes in shoreline public water access and design of public access sites with the Puyallup Tribe to ensure these sites are supportive of Treaty fisheries access.

Policy EH-27: Design facilities to respond to the unique cultural, maritime, and environmental setting of the site.

3.3 PRIORITY ACTIONS AND REGULATORY RECOMMENDATIONS

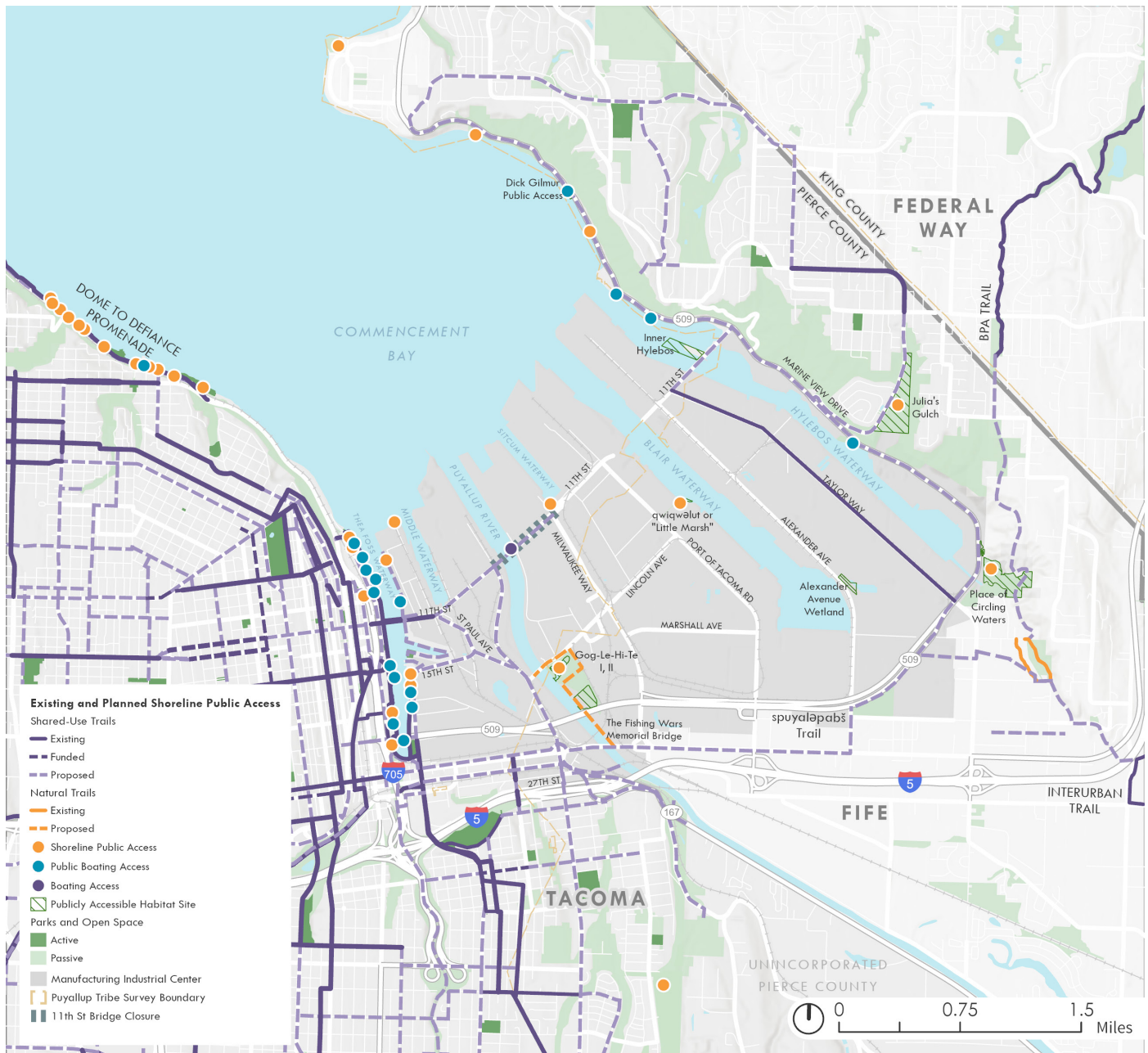
Action A-1: Support existing programmatic efforts to increase shoreline public access and recreation to the subarea such as boat tours, and maritime-oriented cultural facilities like the Foss Waterway Seaport.

Action A-2: Support regular coordination between government and Tribal partners to regularly communicate access issues related to boat ramps and other fisheries & water vessel access points.

Action A-3: Limit on-site access to restoration sites to protect ecological functions while providing opportunities for wildlife viewing and education about the area's ecology and restoration efforts.

Action A-4: Consider offering public access fee-in-lieu methodology into the Shoreline Master Program to provide greater clarity and certainty to future permit applicants. Consider performance tracking and periodic updates to the fee methodology and priority project list to ensure the program is effective in delivering public access opportunities.

Action A-5: On the Foss Waterway, consider new development opportunities and public facilities such as fishing piers, bike paths, an exercise course, a boat



launch, and benches and paths along the shoreline where feasible, and consistent with the Shoreline Public Access Alternatives Plan and Tacoma Waterfront Design Guidelines.

Action A-6: Work with the Washington Department of Natural Resources, Department of Ecology, Department of Fish and Wildlife, the [National Oceanic and Atmospheric Administration \(NOAA\) Marine Debris Program](#), and the Coast Guard to remove and dispose of abandoned or derelict vessels in marinas or surrounding waters.

Action A-7: Where practical, promote access to shellfish harvesting and fishing in the subarea through protecting existing shoreline environments from further encroachment, consider expansion of these environments, and identify rehabilitation efforts to prevent contamination.

Figure 66. Planned Shoreline Public Access and Recreation System

Source: City of Tacoma, 2023

Action A-8: Implement priority near-term shoreline public access improvements that include:

> **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**

Implement 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.

> **Regional Trails**

Funding and construction of the spuyaləpabš Trail

Evaluation of the feasibility of a shared use segment for the Puyallup River Levee Trail that connects Downtown Tacoma to Gog-Le-Hi-Te.

Action A-9: Update Public Access Alternatives Plan with partner governments and Metro Parks Tacoma to re-evaluate city-wide access system and roles and responsibilities, funding mechanisms, and cost estimates to complete the system.

Action A-10: Consider updates to project prioritization criteria in the City of Tacoma Comprehensive Plan Park and Recreation and Transportation Elements to reflect multiple values of projects that enhance waterfront access as well as perform other transportation and recreation functions.

TACOMA MARITIME CENTER FACILITY

A partnership between Tacoma Public Schools (TPS) and the Port of Tacoma has broken ground on a Tacoma Maritime Center facility that will include a TPS Maritime Skills Center facility and Port Maritime Center facility. The facility design is meant to invoke a maritime theme and complement other architecturally significant buildings in Tacoma and encourages public use of the buildings and surrounding outdoor areas, as well as access to the waterfront.

TPS will be involved in the programming efforts specific to their portion of the facility, Maritime|253: an educational/skills center facility specializing in programs and coursework to prepare students to enter the trades related to the maritime and logistics industries. Both TPS and Port facilities will include collaborative spaces that encourage innovation.

The TPS facility is designed to accommodate up to 300 students in a building area of 30-35,000 square feet. The program would include classroom/lecture spaces, lab/shop spaces, collaborative project work areas, offices, storage, warehousing, and administrative and support functions. The Port facility is designed to accommodate approximately 160 staff in a two and a half story building of approximately 60,000 square feet. In addition to the buildings, the project includes extension of utilities, parking lots, walkways, landscaping, off-site improvements and other on- and off-site amenities.



Action A-11: Building on the Environmental Protection Agency (EPA) and the Port's Brownfield Advisory Committee, create a brownfield redevelopment workgroup and forum to collaborate, prioritize, and advocate for brownfield cleanup in the Tideflats.

Action A-12: Pursue brownfield remediation of contaminated City, Port, Puyallup Tribe, and County-owned properties as a strategy to encourage redevelopment in the Subarea, prioritizing strategically located sites that are at the highest risk to the environment or are potential catalysts for the type of development envisioned in the Plan.

Action A-13: Coordinate with local businesses and possibly team with private developers, to create business support services that reduce the burden of brownfield development.

Action A-14: Develop an intergovernmental partnership plan to answer the following questions:

- > What funding tools are readily available, like industrial revenue bonds or tax increment financing, to support private companies to overcome the fear of environmental liability?
- > What tools are available to create disincentives for an owner to leave a property underutilized?

Action A-15: Continue to pursue funding, including grants from the EPA, Department of Commerce, Department of Ecology, and other sources to fund area-wide brownfield assessment work.

Action A-16: Coordinate with the funding agencies to clarify and possibly update eligibility requirements. Work to streamline grant requirements while maximizing the benefits of a particular grant.

Action A-17: Maintain and enhance the Site Inventory Tool of the Tideflats, recently developed for EPA's Environmental Assessment Grant.

Action A-18: Review and improve data inputs and data quality of Ecology's database of confirmed and suspected Sites list to better assist in areawide cleanup planning within the Tideflats.

Action A-19: Develop public information pages documenting cleanup status and actions for individual properties to record the site cleanup history, improve public communications, and reduce the due diligence transaction cost with future property lease or sale.

Action A-20: Every contaminated site is treated as if it is unique. However, there are commonalities that could be evaluated through Subarea wide studies. Potential examples include:

- > An areawide assessment of drinking water use, to ensure protection of human health and the environment.
- > An areawide tidal study to evaluate groundwater to surface water interactions and improve understanding of contaminant plume fate and transport.
- > An update to the 1980 Hart Crowser, Geology of the Port of Tacoma.

Action A-21: Develop Model Remedies with Ecology specific to the Subarea to streamline remedy selection.

Action A-22: Develop Remediation Levels that consider Subarea specific human health and ecological exposure pathways, to guide remedy selection and implementation.

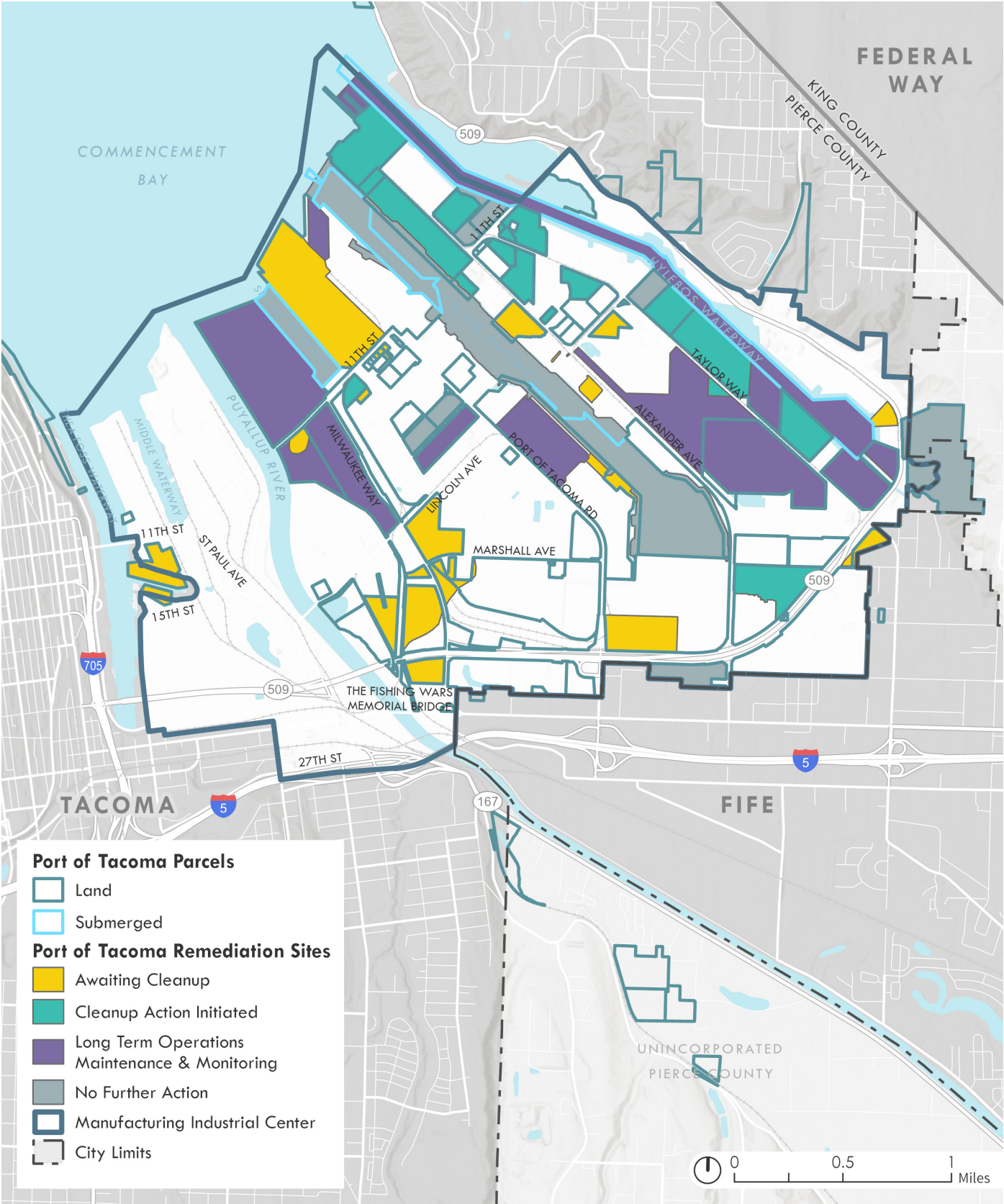


Figure 67. Port Properties and Remediation Projects
Source: Port of Tacoma, 2024; Seva Workshop, 2024

Action A-23: Develop partnerships with local universities aiming to combine academic research with the practical implementation of Port and industrial projects within the subarea. Fostering these relationships will improve work skills and lead to enhanced workforce development.

Action A-24: Create a proactive habitat restoration plan for the Tideflats to increase restoration acreage. The Plan can address opportunities and priorities to protect and gain ecological functions. This could include:

- > A coordinated mitigation and restoration strategy and site prioritization, a greater focus on connectivity among restoration areas, as well as pro-active investments in restoration.
- > A programmatic approach to mitigation and restoration that considers the habitats and species utilizing the study area, and opportunities to structurally enhance specific sites and corridors for the benefit of all or portions of species life history stages.
- > Consider sea level rise, and plan to enhance habitats at a range of topographic elevations to allow for habitat adaptation and resiliency to sea level rise.
- > Opportunities for the City of Tacoma to collaborate with the other governments to identify and implement further riparian restoration within the Tideflats.
- > Identifying sites for mitigation or working with property owners to enhance or preserve existing open space to serve as possible mitigation locations.

Action A-25: Increase tree canopy in the Tideflats from 4% land cover to 8% (as measured at tree maturity) land cover by 2030 and 16% by 2045. Potential steps to increase tree canopy include:

- > Modify existing street tree policy to require street trees for all development regardless of location and type of improvement, provided they do not create a safety (such as sightlines) concern for rail or freight truck operations. Existing policy requires street trees in PMI and M1/M2 districts under 2 conditions: 1) for new development, alterations, and street improvements on 4 gateway corridor or 2) for street improvements, sidewalk improvements, or sidewalk replacements.
- > Target tree plantings along the gateway corridors: Marine View Drive, E. 11th Street west of Portland Avenue, Portland Avenue (south of E. 11th Street), Port of Tacoma Road (south of E. 11th Street).
- > Establish tree credit requirements where active land developments must comply with minimum requirements. Determine the appropriate minimum requirements for the subarea.
- > Inventory the subarea to determine potential tree planting opportunity areas that are suitable for additional tree planting before making broad requirements.

Action A-26: Develop landscaping requirements for the subarea to mitigate light and noise of new development while recognizing truck and rail operations must retain appropriate clearance and sightlines for safety. Potential regulatory changes could include:

- > Increase site landscaping requirements to 10% of total site area.
- > Establish requirements for subarea perimeter landscaping in the Seaport Transition and Seaport Conservancy Districts.

Action A-27: Develop impervious surface standards for the subarea.

- > Consider impervious surface limits for new development outside of the Seaport Core Primary and Manufacturing Districts with a limit of 75% of lot area and/or 85% with a mitigation plan.
- > Consider incentive programs, education, marketing, and partner programs like Depave Tacoma, that can support existing business and property owners to increase pervious surfaces and implement low impact development.

Action A-28: During the next shoreline master program amendment, consider increasing building setbacks from shoreline for buildings that are not a water-dependent use.

Action A-29: During the next shoreline master program amendment, review best available science to inform updates to the Shoreline Master Program and Critical Areas code regarding critical area buffer widths and functionality, buffer modification allowances, and the potential cumulative impacts of continuing industrial activities. Code updates should also consider increased coastal flooding potential from sea level rise.

Action A-30: Inventory and characterize the culverts within the Tideflat Subarea to determine asset age, replacement needs, and assess potential fish passage barriers.

Action A-31: Implement riparian improvements along Alexander Ave E between 4th St E and 509 to manage stormwater runoff and further improve water quality and habitat value of Wapato Creek.

Action A-32: Increase habitat restoration along the Puyallup River such as correcting encroachment for areas that have seen decreases in buffer widths, designing and implementing projects that ensure ecologically productive buffers.

Action A-33: Require the use of green stormwater infrastructure and low-impact development where feasible to address increased storm intensities and stormwater runoff, especially in areas found within the priority subbasins for Stormwater Management defined below. *See related Action A-27.*

Action A-34: Work with FEMA, Pierce County, and other agencies in the lower Puyallup watershed to update the 100 and 500-year floodplain maps; consider local update and adoption of 500-year floodplain maps for the purposes of applying local building code, critical area development standards, and land use development standards.

Action A-35: Work with the Army Corps of Engineers to update levee standards to improve fish and wildlife habitat along the Puyallup River. Partner with Pierce County and the Flood Control District to acquire properties along the Puyallup River for future flood control and riparian improvements.

Action A-36: Establish an Equitable Climate Action Plan Consistency Checklist. Proposed projects must submit the Checklist; the project must demonstrate it aligns with the Tacoma Climate Action Plan and has a greenhouse gas emissions reduction plan that aligns with local greenhouse gas emissions reduction goals.

Action A-37: Increase street sweeping along roads and highways to decrease exposure to road dust and improve stormwater management. *See related Action A-27.*

Action A-38: Explore the idea of a local pollution surcharge for the largest generators of air and water pollutants and potential revenue to support habitat restoration and mitigation projects.

Action A-39: Develop and implement an urban heat resilience strategy.

Action A-40: Explore with the Puyallup Tribe a phased transfer of ownership of open space and land designated for habitat or habitat protection.

Action A-41: Evaluate integrating health assessment into the permit process.

Action A-42: To ensure indoor air quality in places where people will live, work, or gather, encourage the upgrade of ventilation systems and pursue resources and grants to facilitate conversions.

Action A-43: Require projects and developments that register new air pollution equipment to monitor air emissions and provide the city an annual air quality report.

Action A-44: Work with the Puget Sound Clean Air Agency (PSCAA) and WA State Department of Ecology to establish appropriate regional air toxic standards and mitigation approaches for facility and mobile emission sources. Include standards for limiting cumulative air quality impacts.

Action A-45: Update city code to require new projects to strive for zero greenhouse gas emission design, construction, and operation. Specifically consider updating building and energy codes to increase the number of EV-capable or EV-ready parking spaces and solar readiness.

Action A-46: Incentivize projects which are focused on clean technologies and/or processes as well as those operators that deploy clean fleet relative to fleet standards in Washington.

Action A-47: Improve community information and action for air quality:

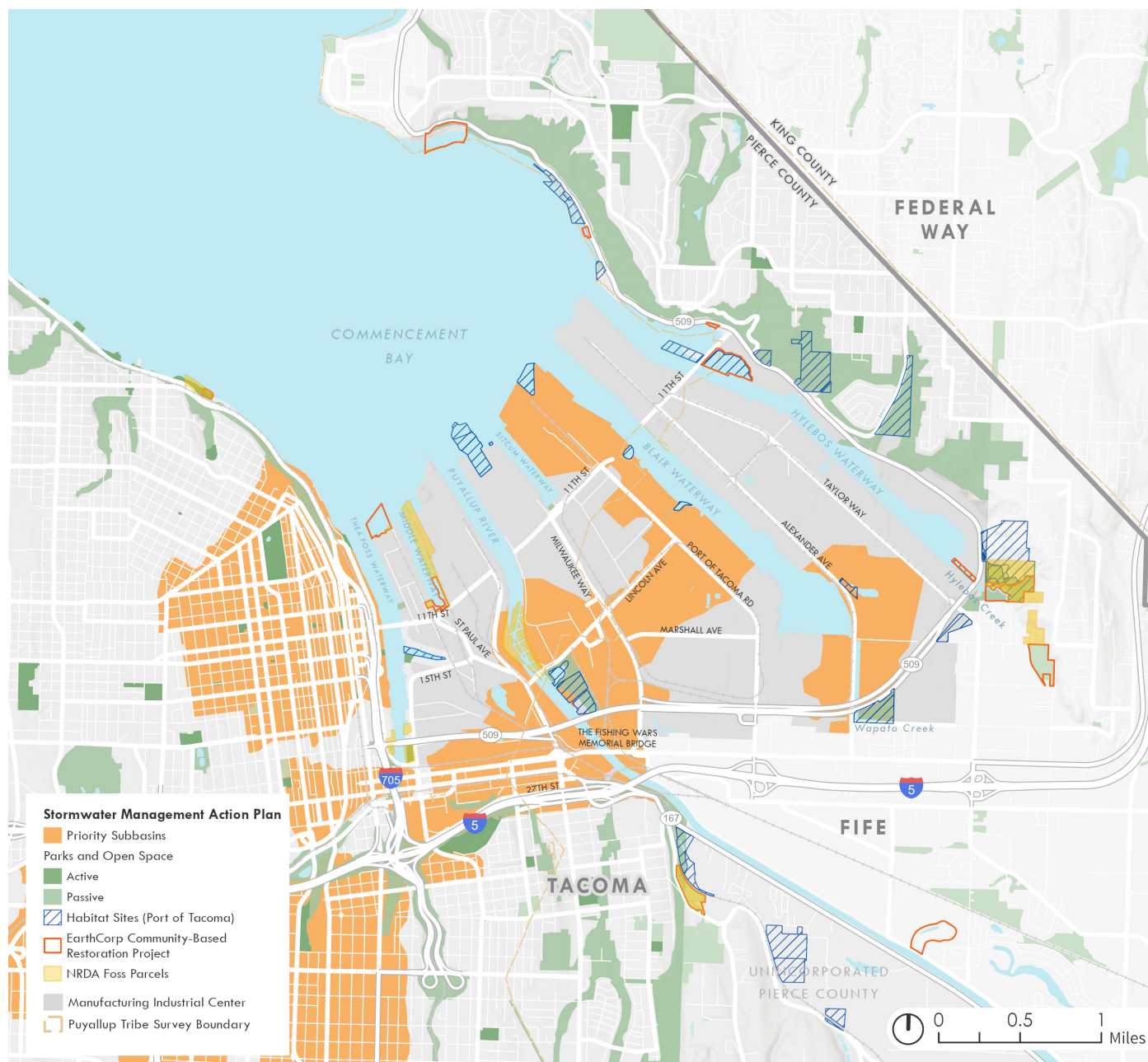
- > Implement community-based air quality monitoring (CBAQM). Lower-cost air quality sensors could be installed and help identify micro-climates and exposures. It could help inform equitable policies, investments, or actions. The City of Tacoma is working with the Nature Conservancy to set up an AQ monitoring program in specific neighborhoods (currently working on Tacoma Mall Subarea).
- > Sponsor Community Action Plans to address environmental justice and health impacts. The City could support communities in Tacoma to create the strategic plans, in conjunction with the Tacoma-Pierce County Health Department, Puget Sound Clean Air Agency (PSCAA), or WA State Department of Ecology.

Action A-48: Incentivize industries focused on clean technologies/processes. Consider strategies in Tacoma's Green Economic Development Strategy (RM Donahue Consulting et al, 2023).

Action A-49: Support zero emission technology innovation in the marine, trucking and rail sector. Offer more incentives to replace diesel trucks with cleaner engines or zero emission engines.

Action A-50: Adopt applicable best management practices (BMPs) to manage particulate tire wear, 6PPD, and 6PPDquinone and their effects on fish habitat:

- > **Stormwater source control BMPs:** Prevent stormwater contamination with methods such as street sweeping to control runoff from tires, tire products, and tire wear particulates.
- > **Flow control BMPs:** Where possible, reduce runoff volumes using infiltration methods such as ponds, infiltration basins, and bioretention.
- > **Runoff treatment BMPs:** Where possible, reduce concentrations of the targeted pollutants, typically through physical filtration or chemical sorption media like biofiltration swales, bioretention, or manufactured treatment devices.



> **Support research and design and development of best available science** related to manage particulate tire wear, 6PPD, and 6PPDquinone and their effects on fish habitat.

> Support development of a statewide BMP.

Action A-51: Fund grants for building energy efficiency upgrades to reduce infiltration of pollutants and to install high-efficiency air filtration systems at critical and sensitive facilities (schools, day care facilities, apartments, other).

Action A-52: Expand urban greening to filter pollution and employ equitable funding strategies to advance Tacoma's Urban Forest Management Plan in overburdened communities.

Action A-53: Consider adopting noise standards for non-port related uses (i.e. terminal operations, shipping, trucking, rail) in the subarea and options for

Figure 68. Priority Subbasins for Stormwater Management

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

businesses to develop noise compliance plans with measures to reduce noise levels outside the subarea.

Action A-54: Coordinate regularly with agencies who rely on public utilities within the Port of Tacoma MIC to meet state and federal requirements within their jurisdictions. Provide unified support, and funding where appropriate, for necessary upgrades to these facilities.