



2021 Stormwater Management Program Plan

Port of Tacoma

Permit WAR044200

March 2021

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LIST OF ACRONYMS AND ABBREVIATIONS

Acronym/ Abbreviation	Definition
AKART	All known, available, and reasonable methods of prevention, control, and treatment
Alliance	Northwest Seaport Alliance
BMP	Best Management Practice
CA	Corrective Action
CNE	Conditional No Exposure
DMR	Discharge Monitoring Report
Ecology	Washington State Department of Ecology
ECOSS	Environmental Coalition of South Seattle
ILA	Interlocal Agreement
ISGP	Industrial Stormwater General Permit
LID	Low-impact development
NPDES	National Pollutant Discharge Elimination System
OTR	Over-the-road
Port	Port of Tacoma
SIC	Standard Industrial Classification
SMGM	Port of Tacoma’s Stormwater Management Guidance Manual
SWMMWW	Western Washington Stormwater Management Manual
SWMP	Stormwater Management Program

INTRODUCTION

The Port of Tacoma (Port) 2021 Stormwater Management Program (SWMP) Plan documents the Port's adaptive management approach to the requirements of the Phase I Municipal Stormwater Permit (Permit) issued by the Washington Department of Ecology (Ecology). The Port's responsibilities for the SWMP Plan are detailed in Special Conditions 6.E, 7, 8 and 9 of the Permit. This plan is laid out in order of these sections for ease in comparing the Permit to the SWMP Plan.

The National Pollutant Discharge Elimination System (NPDES) permit program is a requirement of the Clean Water Act, which is intended to protect and restore waters for many human and aquatic uses. The US Environmental Protection Agency (EPA) has delegated permit authority to state environmental agencies. In Washington, the NPDES-delegated permit authority is Ecology.

The Permit allows municipalities to discharge stormwater runoff from municipal drainage systems into the state's water bodies (i.e., streams, rivers, lakes, wetlands, bays, etc.). Discharges are allowed only as long as municipalities implement programs to protect water quality. Protection is achieved by reducing the discharge of "non-point source" pollutants to the "maximum extent practicable" (MEP) through application of Permit-specified "best management practices" (BMPs). The practices specified in the Permit are collectively referred to as the SWMP and grouped under the following program components:

- Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Construction Site Stormwater Runoff Control
- Post-Construction Stormwater Management for New Development and Redevelopment
- Operation and Maintenance Program
- Source Control in Existing Developed Areas
- Monitoring



The Port and the City of Tacoma entered into an Interlocal Agreement (ILA) for the “common interest in the proper management of surface water runoff (stormwater) to protect the water quality of Commencement Bay, its waterways and other receiving waters in and around the City and the Port.” Both parties have individual responsibilities for their respective Phase I Municipal Stormwater Permits, and this ILA aims to provide the framework for coordination between the parties for respective permit compliance. The parties meet annually to verify billing rates, discuss drainage and conveyance structures that drain one party’s property onto the other’s, set inspection schedules, and discuss any other objectives for successful implementation of their respective permit obligations.

The Port’s currently active Permit was issued by Ecology in August 2019 with an expiration date of July 2024.

The Permit requires the Port to issue a document describing the Port’s SWMP. This document serves as a planning tool for the Port and is updated annually. Many of the planned activities during 2021 are associated with implementing requirements in the 2019-2024 Phase I Permit and the City of Tacoma Interlocal Agreement. The Permit requires annual reporting on activities conducted during the previous year. These reports are submitted to Ecology on March 31 of each year.

PORT OF TACOMA REGULATED AREA

As a secondary permittee under the Permit, the Port is responsible for complying with applicable terms of the Permit for the municipal separate storm sewers it owns or operates, including tenant-occupied properties. The Port owns approximately 2,600 acres of land—2,500 acres are located on the Tacoma Tideflats and 106 acres in unincorporated Pierce County. On the Tacoma Tideflats, stormwater flows through approximately 2,200 catch basins to discharge into Commencement Bay through about 130 outfalls.

A boundary map is included as Figure 1 (see also Attachment A) depicting Port properties as of March 2019.

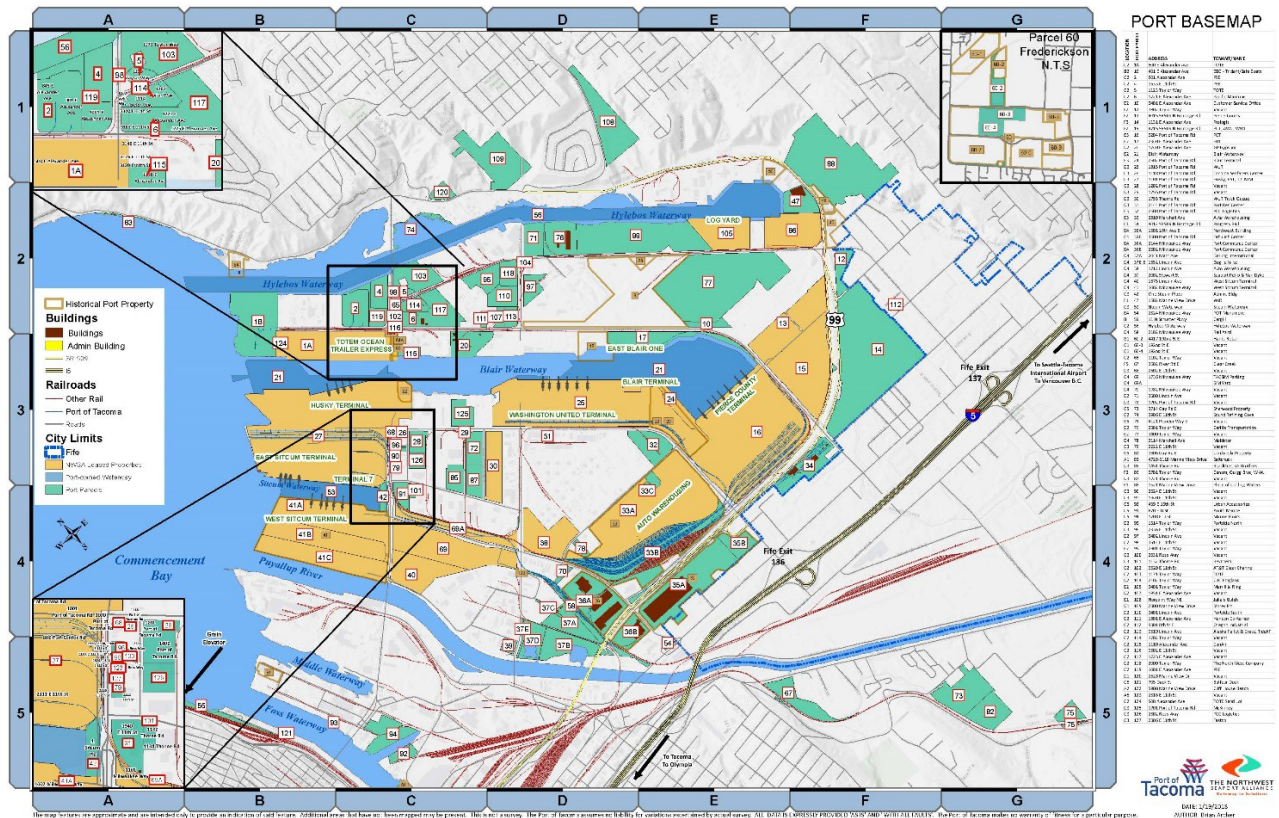


Figure 1. Port-owned properties.

SWMP IMPLEMENTATION RESPONSIBILITIES

The Permit requirements affect departments across the Port organization. The primary entity responsible for administering the SWMP is Environmental Programs and Planning Services. Other departments, including Real Estate, Maintenance, External Affairs, and Engineering are responsible for executing some tasks and do so in cooperation with Environmental Programs.

SWMP Components

S6.E.1 EDUCATION PROGRAM

The Port's SWMP includes an education program aimed at tenants and Port Employees. The goal of the education program is to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts. By extension, the education program is designed to protect the waterways and Commencement Bay.

WHAT THE PERMIT REQUIRES

The Port shall make educational materials available to tenants and employees whose job duties could impact stormwater.

WHAT THE PORT IS DOING

The Port provides the following education materials and training events to our customers and staff:

- Tenant education book about stormwater compliance best practices.
- Training materials for Port employees whose job duties could impact stormwater.
- Port of Tacoma Website which contains links and information about water quality <https://www.portoftacoma.com/community/environment/water-quality>
- A "Frequently Asked Questions" document based on questions tenants ask. The document is maintained as needed and is available to tenants.
- An annual stormwater workshop in the Fall for tenants, consultants and employees. This may be virtual depending on current COVID restrictions.
- Stormwater pollution prevention education during tenant source control inspections and the lease process
- Site specific environmental requirements, including applicable laws and regulations related to stormwater management, in a Lease Exhibit to tenants.
- Educational tables at fairs, organization meetings, and events such as the Tacoma Farmer's Market, Children's Water Festival and other community events.
- Stormwater education and outreach by partnering with the Industrial Stormwater Community of Interest, a Puyallup Watershed Initiative.

For information on specific activities for 2021, please refer to Attachment D.

S6.E.2 PUBLIC INVOLVEMENT AND PARTICIPATION

The Port makes the latest version of the SWMP Plan and annual report available to the public.

WHAT THE PERMIT REQUIRES

The Port shall make the latest updated version of the SWMP Plan available to the public. The most recent SWMP Plan and Annual Report shall be posted on the Port's website.

WHAT THE PORT IS DOING

The SWMP Plan and Annual Report are posted to the Port of Tacoma website: <https://www.portoftacoma.com/community/environment/water-quality>.

Included on the website are useful links to the current permit, stormwater pollution prevention plan (SWPPP) templates, stormwater guidance manual and an effluent curve template. The effluent curve template is useful for tenants to use as a helpful tool when selecting stormwater treatment for their site.

S6.E.3 ILLICIT DISCHARGE DETECTION AND ELIMINATION

The Port's SWMP includes a program to identify, detect, remove, and prevent illicit connections and illicit discharges, including spills, into the Municipal Separate Storm Sewer System (MS4) owned or operated by the Port.

WHAT THE PERMIT REQUIRES

- Comply with relevant ordinances, rules, and regulations of the local jurisdiction.
- Implement policies prohibiting illicit discharges and an enforcement plan to ensure compliance with illicit discharge policies.
- Map the MS4 with locations of all storm drain outfalls and discharge points, label the receiving waters, delineate the contributing areas to each outfall and discharge point.
- Conduct field inspections and visually inspect for illicit discharges. Implement procedures to identify and remove illicit discharges. Keep records of inspections and follow-up activities.
- Implement a spill response plan that includes coordination with a qualified spill responder. Also comply with Tacoma Municipal Code (TMC) 12.08.090 F.
- Provide staff training for stormwater compliance or coordinate with existing training efforts to train staff on proper BMPs for preventing illicit discharges, including spills. Train all permittee staff who, as part of their normal job responsibilities, have a role in preventing illicit discharges.

WHAT THE PORT IS DOING

Comply with Relevant Ordinance, Rules and Regulations

- Continue coordinating and complying with local jurisdiction ordinances, rules and regulations that govern non-stormwater discharges. Water Quality staff attend the Environmental Services Commission to stay abreast of regulatory changes and provide input to the capital program and rate structure discussions.
- Continue working on the interlocal agreement with the City of Tacoma for the purpose of spill response and stormwater site plans for developments on Port property that do not discharge to City MS4 infrastructure.

Implement IDDE Policies and Procedures

- Maintain an IDDE policy as part of the Port's Environmental Policies and Procedures. This policy is reviewed and updated as necessary to ensure it remains current with Permit requirements. The document is available upon request.

- Inspect Port facilities regularly for illicit discharges. Develop and implement procedures for tracing sources of illicit discharges include visual inspections and dye tests. Camera inspections of storm drain lines are conducted when necessary. The Port also works closely with its tenants to recognize and report any illicit discharges or illegal dumping.

Map the Stormwater System

- Map all MS4 outfalls with a 12-inch or larger nominal diameter. This information is part of the Port's GIS database and is updated regularly.
- Map all known connections with an 8-inch or greater nominal diameter. This information is part of the Port's GIS database and is updated regularly.
- Map Port's land use and permit coverage are also shown in Attachments B and C.

Conduct Field Inspections

- Field screening at least 20% of all MS4 structures by the end of the year. These records are accessible to staff via work order management software that integrates the Port's stormwater mapping with inspection records.

Implement a Spill Response Plan

- Maintain a list of emergency contacts for emergency response to IDDE concerns.
- Maintain a spill response and prevention plan including agency notification procedures.

Provide Staff Training

- Provide training to staff and tenants on how to identify and prevent illicit discharges. The staff who receive training includes the environmental crew responsible for operation and maintenance of the storm sewer system, equipment maintenance personnel and Port personnel who work on the various terminals the Port operates.
- Keep records of training provided and staff trained.

S6.E.4 CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

The Port's SWMP includes a program to reduce pollutants in stormwater runoff from construction activities under the functional control of the Port.

WHAT THE PERMIT REQUIRES

- Comply with local jurisdiction ordinances, rules, and regulations for construction phase stormwater pollution prevention measures.
- Ensure construction projects under the functional control of the Port obtain a Construction Stormwater General Permit when applicable.
- Coordinate with City of Tacoma regarding projects owned or operated by other entities which discharge into Port's MS4 to assist in compliance.
- Provide or coordinate training to educate relevant staff in erosion and sediment control BMPs and requirements.
- Coordinate with Ecology and City of Tacoma to provide access for inspections of construction sites under the functional control of the Port.

WHAT THE PORT IS DOING

- Port staff coordinates with the local jurisdiction where the Port intersects with other agencies' MS4 connections. The Port entered into an Interlocal Agreement with the City of Tacoma in 2013. The agreement facilitates the permitting process for construction projects under the functional control of the Port.
- The Port coordinates with City of Fife on projects adjacent to their jurisdiction. Current projects include the Alexander / 54th street interchange, SR 167 / 509, and a Wapato Creek restoration project.
- The Port typically files Notices of Intent in compliance with Ecology's Construction NPDES Permit for construction projects, where the size of site disturbance requires the permit, prior to advertising for bid. Once the project is successfully under contract, the Port usually transfers the permit to contractor for the duration of the project. In the unusual instance where the Port retains the permit, all necessary permit actions and reports are completed on time.
- Port Water Quality staff train other Port staff and tenants (as they request) to ensure correct implementation of appropriate construction stormwater requirements. Port field staff are specifically trained on appropriate use of erosion and sediment control BMPs. The Port ensures that appropriate staff are CESCL (Certified Erosion and Sediment Control Lead) trained and certified.

- Water Quality staff develop construction stormwater SWPPPs for construction projects greater than one acre, as required by the Construction Stormwater General Permit, when the SWPPP must be completed prior to the project going out to bid. The CSW permit is transferred to the Contractor after Notice to Proceed has been issued and is responsible for permit compliance until the project is complete. For projects smaller than one acre, the contractor is responsible for SWPPP implementation and compliance with the Port's Phase I Municipal Stormwater Permit.

S6.E.5 POST-CONSTRUCTION STORMWATER MANAGEMENT FOR NEW DEVELOPMENT AND REDEVELOPMENT

The Port's SWMP includes a program to address post-construction stormwater runoff from new development and redevelopment projects. The program has established controls to prevent or minimize water quality impacts.

WHAT THE PERMIT REQUIRES

- Comply with local jurisdiction's relevant ordinances, rules and regulations for post construction stormwater pollution prevention measures. This also requires compliance with Minimum Technical requirements for new development and redevelopment contained in the Phase I Municipal Stormwater Permit Appendix 1.
- Coordinate with local jurisdictions regarding projects owned or operated by other entities which discharge into Port of Tacoma's MS4 to assist with compliance.

WHAT THE PORT IS DOING

- Coordinate with City of Tacoma and the City of Fife to ensure compliance with their relevant ordinances, rules and regulations. Specifically, the Port works with the City of Tacoma to ensure completed projects are mapped in both GIS systems.
- In 2019, the Port and the City of Tacoma completed another one-year extension of the Interlocal Agreement. Water Quality staff continue to work on an agreement that can be durable for an entire Permit term.
- Comply with applicable minimum technical requirements for new development and redevelopment that are contained in Appendix 1 of the Permit. This is accomplished by providing guidance and recommendations to Port Engineering staff during project development.
- Port Water Quality staff train other Port staff and consultants on design and installation of appropriate stormwater treatment BMPs in accordance with the minimum technical requirements and the Port's Stormwater Management Guidance Manual.
- The Port has developed a Stormwater Management Guidance Manual specific to port operations including integrating Industrial Stormwater General Permit needs with the development requirement of the MS4. The Port continues to develop a Port-specific BMP manual with treatment BMPs proven to be effective in the tidally influenced, heavily developed Port environment.
- Coordinate and provide training for Port Departments to ensure that appropriate stormwater treatment applications are designed, installed, and maintained.

- The Port currently references the “Guidance Document, Western Washington Low Impact Development (LID) Operation and Maintenance (O&M) document on the Ecology website ([LID Link](#)). Water Quality staff are developing a Port-specific LID use policy for new/redevelopment projects.

S6.E.6 OPERATION AND MAINTENANCE PROGRAM

The Port has an operation and maintenance program for all stormwater treatment and flow control BMPs/facilities and catch basins to ensure that BMPs continue to function properly.

WHAT THE PERMIT REQUIRES

- An O&M Manual for all stormwater treatment and flow control BMPs/facilities and catch basins under the functional control of the Port and which discharge stormwater to the Port's MS4 or to the City of Tacoma's MS4.
- Maintain a copy of the O&M manual in appropriate departments and update as needed.
- Develop maintenance standards for those BMPs that do not otherwise have one and establish facility-specific maintenance standards that are as protective (or more so) than the Stormwater Management Manual for Western Washington (SWMMWW). The manual shall be updated as necessary.
- The manual shall prescribe standards by which Port employees can determine whether a facility or structure needs maintenance. The manual shall prescribe necessary maintenance actions for each facility or structure and the timeline in which these shall be completed.
- Manage maintenance activities to inspect all stormwater facilities listed in the O&M manual annually and take appropriate maintenance action in accordance with the O&M manual.
- Provide appropriate training to Port Maintenance staff.
- Maintain records of these inspections and maintenance activities.

WHAT THE PORT IS DOING

- Maintain an O&M manual for all stormwater BMPs that are currently in use at the Port. The manual is kept in the Water Quality Department with copies of the manual in the Maintenance and Facilities Development Departments. This manual includes inspection checklists for each BMP type.
- Routinely update the Stormwater Map Book which is used by Maintenance staff and tenants to locate stormwater infrastructure appurtenances.
- Train Maintenance staff on BMP inspections, catch basins, oil/water separators, drainage pipes, and outfalls. The purpose of the training is to orient Maintenance staff to the use of the structure-specific inspection checklists.

- Maintenance staff inspect all stormwater facilities in the functional control of the Port on an annual basis. When maintenance is required, appropriate steps are taken according to the O&M manual specifications. The Port also performs spot checks of stormwater facilities after major storm events. Storm drains are cleaned at that time, if needed, to prevent flooding of streets and parking lots.
- Maintain records of inspections and maintenance activities using NPDESPro and Maximo for tracking work orders associated with maintenance activities.
- Facilities and structures under the functional control of the Port changes frequently. Maintain a master list of parcels, leases, and stormwater assets on all the parcels to ensure that maintenance inspects all applicable structures and facilities.

S6.E.7 SOURCE CONTROL IN EXISTING DEVELOPED AREAS

The Port's SWMP includes the development and implementation of one or more SWPPPs to adequately document the Port's work to implement and monitor source control practices to prevent and control the contamination of stormwater discharges to surface or groundwater on properties under the Port's functional control. SWPPPs shall be prepared and implemented for all Port-owned lands, except environmental mitigation sites owned by the Port, that are not covered by an NPDES permit issued by Ecology that authorizes stormwater discharges.

WHAT THE PERMIT REQUIRES

- Update SWPPPs as necessary to reflect changes at each facility.
- SWPPPs shall include a site plan, identification of pollutant sources, and description of the drainage system.
- The SWPPPs shall provide a description of the source control BMPs used or proposed for use by the Port. Implementation of non-structural BMPs shall begin immediately after the pollution prevention plan is developed. Where necessary, a schedule for implementation of structural BMPs shall be included in the SWPPPs.
- Maintain a list of sites covered by the SWPPPs required under the Permit. At least 20% of the listed sites shall be inspected annually.
- The SWPPPs shall include policies and procedures to reduce pollutants associated with the application of pesticides, herbicides, and fertilizer.
- The SWPPPs shall include measures to prevent, identify and respond to illicit discharges, including illicit connections, spills, and improper disposal. When the Port submits a notification pursuant to G3, the Port shall also notify the City of Tacoma.
- The SWPPPs shall include a component related to inspection and maintenance of stormwater facilities and catch basins that is consistent with the Port's O&M Program.

WHAT THE PORT IS DOING

The Port began developing SWPPPs in 2008 and now has an established program in place to address source control in existing developed areas through the ongoing development and implementation of SWPPPs. The Port's ongoing activities include:

- Maintain a SWPPP template for tenants not covered by another NPDES permit. These templates are available on the Port website, and assistance is given when requested; www.portoftacoma.com.

- Maintain a list of Port-owned lands covered by a SWPPP required by the Phase I Municipal Stormwater Permit. This list is updated annually. A current map is marked as Attachment A.
- Provide annual training on maintaining and implementing the required SWPPPs. Water Quality staff train affected Port employees and tenants (as requested) to identify pollutant sources and to understand pollutant control measures, spill prevention and response, BMPs in the Port SWPPP, and environmentally acceptable material handling/management practices. BMPs related to vehicle and equipment liquids such as fuels, and vehicle/equipment cleaning are highlighted and reinforced through training. Training records are included in the applicable SWPPPs. The largest tenant education event is the annual stormwater workshop held in the fall.
- Tenant SWPPPs are maintained in an electronic file. SWPPPs are updated as necessary.
- Review new leases and add site-specific stormwater language, as appropriate. New lease exhibits are updated on the permit layer in the GIS system and Maintenance is notified of any added or deleted stormwater structures for maintenance.
- Inspect tenant sites with Real Estate Department staff to minimize the number of site visits per tenant. This also helps Real Estate understand important source control issues.

S6.E.8 MONITORING PROGRAM

Monitoring requirements for the Port are included under Special Condition S8.

See Section S8 Monitoring and Assessment on page 18 for more information.

S7. COMPLIANCE WITH TOTAL MAXIMUM DAILY LOAD REQUIREMENTS

The Total Maximum Daily Load (TMDL) requirements only apply if a stormwater TMDL has been established for waters of the state that receive stormwater discharges from the stormwater system on Phase I Properties owned or operated by the Port. The applicable TMDLs that require additional compliance activities are listed in Appendix 2 of the Permit. At the time of publication, none of the TMDLs listed in Appendix 2 affect the Port. As such, no additional activities are required for compliance with TMDL conditions.

S8. MONITORING AND ASSESSMENT

The Port makes annual payments into the collective fund to implement regional receiving water status and trends monitoring.

WHAT THE PERMIT REQUIRES

- Make a one-time payment into the collective fund to implement regional small streams and marine nearshore areas status and trends monitoring in Puget Sound.
- Make an annual payment into a collective fund to implement regional receiving water status and trends monitoring of small streams and marine nearshore areas in Puget Sound, or conduct stormwater discharge monitoring per requirements in S8.C of the Phase I Permit.
- Make an annual payment into a collective fund to implement effectiveness and source identification studies or conduct stormwater discharge monitoring per requirements in S8.C of the Phase I Permit.

WHAT THE PORT IS DOING

The Port makes annual payments into the collective funds to implement receiving water status and trends monitoring and effectiveness and source identification studies.

S9. REPORTING REQUIREMENTS

The Port's SWMP includes a program to address the Phase I Permit's reporting requirements.

WHAT THE PERMIT REQUIRES

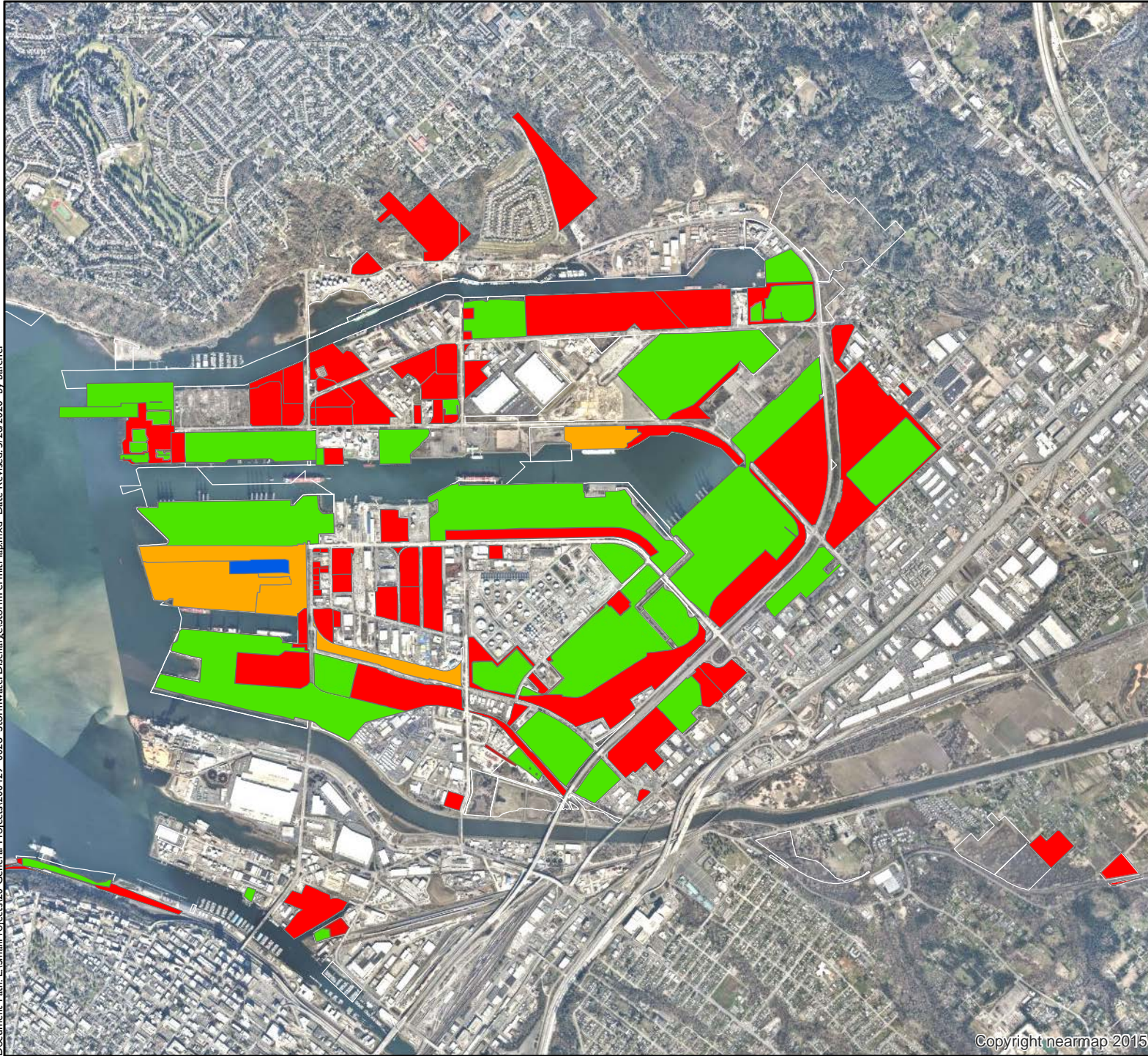
- Submit an Annual Report no later than March 31 of each year through Ecology's Water Quality Permitting Portal.
- Keep all records related to this Permit and the SWMP for at least five years.
- Make all records related to this Permit and the SWMP available to the public and any individual or entity, upon request.

WHAT THE PORT IS DOING

- Prepare and submit an Annual Report each year of the permit term.
- Routinely update the Stormwater Map Book which is used by Maintenance staff and tenants to locate stormwater infrastructure appurtenances.








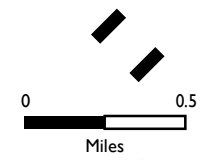
ATTACHMENT B – PORT PARCEL PERMIT COVERAGE



NPDES PERMIT AREA

Legend

-  NWSA, Industrial permit
-  POT, Industrial permit
-  POT, MS4 permit
-  Tenant, Industrial permit
-  PortParcels



Data Source: Imagery (Nearmap Imagery)

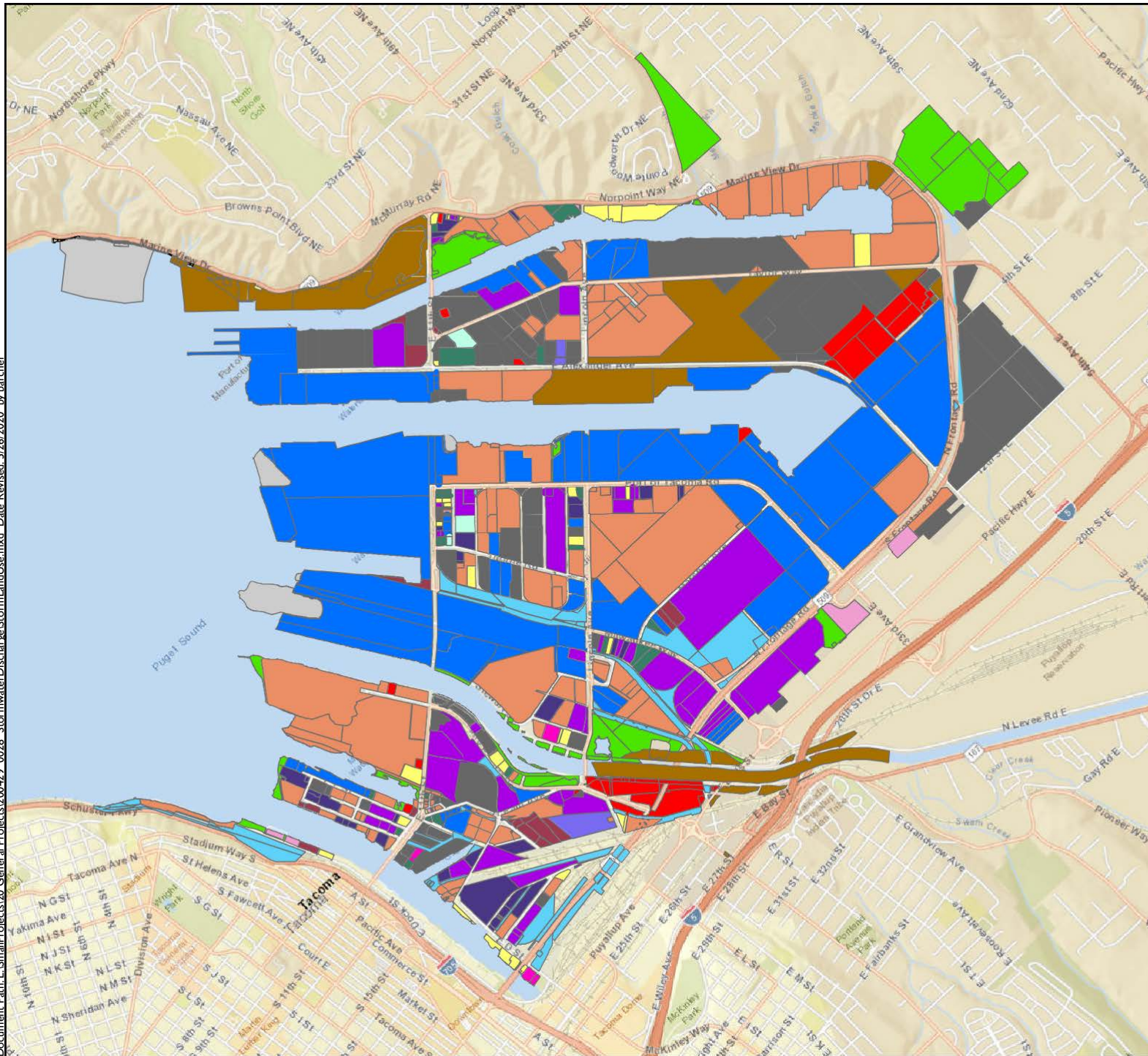


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ATTACHMENT C – PORT LAND USE MAP

Document Path: L:\SmallProjects\20_General Projects\200429_0028_StormwaterDischarge\StormLandUse.mxd Date Revised: 5/26/2020 by barcher

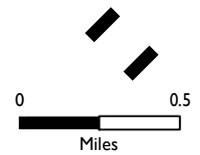


Port Land Use

Legend

Current Landuse (2014)

- COMMERCIAL
- CONTRACTOR SERVICE
- INFRASTRUCTURE
- MANUFACTURING
- NONE
- OFFICE/FIRE
- OPENSAPCE
- PUBLIC
- RECYCLING
- RESIDENTIAL
- SERVICE
- TBD
- TRANSPORTATION
- TRIBAL
- UTILITIES
- VACANT
- WAREHOUSING
- WHOLESALE TRADE



Data Source: Imagery (ESRI Street Map Imagery)



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2021 Stormwater Management Program Plan

ATTACHMENT D – 2021 WORK PLAN
