Washington's Draft Municipal Stormwater Permit Updates

Port-Specific News You Can Use

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Friday September 22, 2023

Kennedy Jenks

Today's Agenda

- MS4 Permit Applicability
- Ecology's Focus and Goals
- Direct Applicability for Ports
- Potential Indirect Impacts
- SWMMWW Updates
- Case Studies
- Implementation Timeline

DEPARTMENT OF ECOLOGY
State of Washington

Municipal stormwater general permits

Formal Draft Permits and Manuals Released for Comment

Ecology has released the formal draft Phase I, Western WA and Eastern WA Phase II Municipal Stormwater General Permits, and Stormwater Management Manuals for public comment. The comment period runs from Aug. 16, 2023 until Nov. 10, 2023, 11:59 p.m.

Visit the Municipal Stormwater Permit Reissuance webpage to view the draft documents and learn more about how to provide comments.

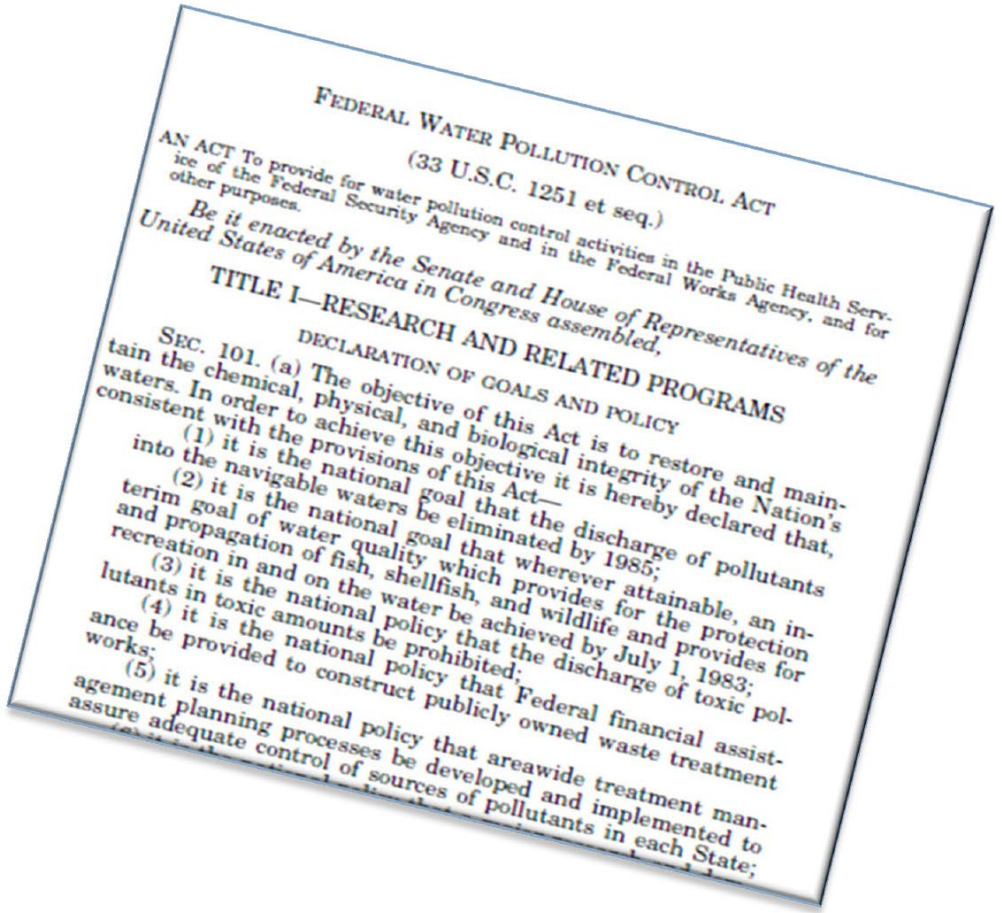
Thanks to Ecology for Photos and Slides

MS4 Permit Applicability

- Ecology is Delegated by EPA to Enforce the CWA
- Combined NPDES and State Waste Discharge Permits
- Updated Every 5 Years

Municipal Stormwater Permits implement Federal and State rules

- Federal Clean Water Act
  - Maximum Extent Practicable (MEP)
- State Water Pollution Control Act
  - All Known, Available, and Reasonable methods of prevention, control, and Treatment (AKART)



FEDERAL WATER POLLUTION CONTROL ACT

(33 U.S.C. 1251 et seq.)

AN ACT To provide for water pollution control activities in the Public Health Service of the Federal Security Agency and in the Federal Works Agency, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

TITLE I—RESEARCH AND RELATED PROGRAMS

DECLARATION OF GOALS AND POLICY

SEC. 101. (a) The objective of this Act is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. In order to achieve this objective it is hereby declared that, consistent with the provisions of this Act—

(1) it is the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985;

(2) it is the national goal that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by July 1, 1983;

(3) it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited;

(4) it is the national policy that Federal financial assistance be provided to construct publicly owned waste treatment works;

(5) it is the national policy that areawide treatment management planning processes be developed and implemented to assure adequate control of sources of pollutants in each State;

MS4 Permit Applicability

- **ISGP** applies to Facilities (New 2025)
- **MS4** applies to drainage district (New 2024)

So, what is regulated?

- Discharges from **publicly owned** Municipal Separate Storm Sewer Systems (MS4s).
- Including:
  - ✓ Roads with drainage systems
  - ✓ Municipal streets
  - ✓ Catch basins
  - ✓ Curbs and gutters
  - ✓ Ditches and other man-made channels
  - ✓ Storm drains

Credit: Federal Way D.Smith

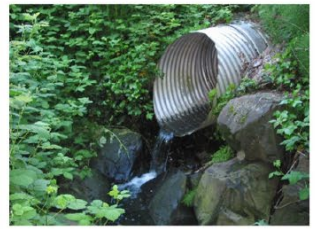
MS4 Permit Applicability

- Apply to City's, Counties, and other owners of Municipal Separate Storm Sewer Systems (MS4s)
- Phase I for Large Cities and Counties
- Phase II for Smaller Ones
- Port of Seattle and Tacoma are Phase I Secondary Permittees
- Ports of Anacortes, Bellingham, Skagit County, Olympia, Vancouver, and Everett (**Proposed**) are Phase II Secondary Permittees
- Appendix 1 of City & County MS4 Permits impact all port new development and redevelopment projects
- Permits require adherence to the Stormwater Management Manual for Western WA (or approved equivalent)

Municipal Program Elements

- Programmatic permits
- Phase I & Phase II have similar program elements
- Phase II requirements limited compared to Phase I to more limited resources
- Secondary Permittee requirements are also limited compared to municipalities
- Eastern WA Has Similar Phase II Permit (No Ports Covered Directly)

Stormwater Management Program



- Stormwater Planning
- Mapping
- Public Education & Outreach
- Public Involvement
- Illicit Discharges Detection & Elimination (IDDE)
- Controlling Runoff from New Development
- Operations & Maintenance (O&M)
- Source Control for existing development
- Structural Stormwater Controls (PH I only)
- Monitoring & Assessment
- Total Maximum Daily Loads (TMDLs)

Muni-Specific Requirements (Right Now)

- Mostly Applicable to Cities and Counties
- Topics for Another Day
  - Tree Canopy Goals (Mapping, Preservation, Creation)
  - Mapping (Outfalls, Materials, Basins w/w/o Treatment & Flow Control)
  - Stormwater Management for Existing Development (Retrofits)

Tree Canopy as a water quality tool

Mapping:

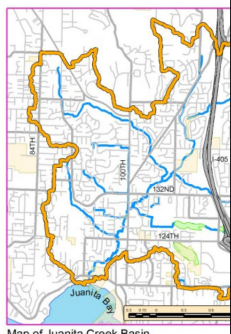
- Muni-owned properties with tree canopy

Stormwater Planning:

- Tree canopy goals and policies as a water quality tool to support stormwater management

Stormwater Planning

- Long range planning
- LID – preferred and commonly used
  - Tree canopy goals and policies
- Stormwater Management Action Plan (SMAP)
  - Next steps



Map of Juanita Creek Basin

Ecology's Purpose & Goals

- Similar Focus for **ALL** Permittees to Escalating Degrees
- Tires, PBCs, PFAS, and Treatment
- New Requirement to Update Stormwater Management Program Plan (SWMPP) Plan Annually and to Submit to Ecology.
- Remember the SWMPP is a Clean Water Act-required Plan, like an Industrial Facility SWPPP, so **BE CAREFUL ABOUT WHAT YOU PUT IN IT!**

- Address tire wear research findings
- Update Stormwater Planning & "Retrofit" programs
- Enhance Source Control requirements
  - street sweeping program
  - PCBs in building materials
  - PFAS in firefighting foams
- Updates to Appendix 1
  - Project review thresholds

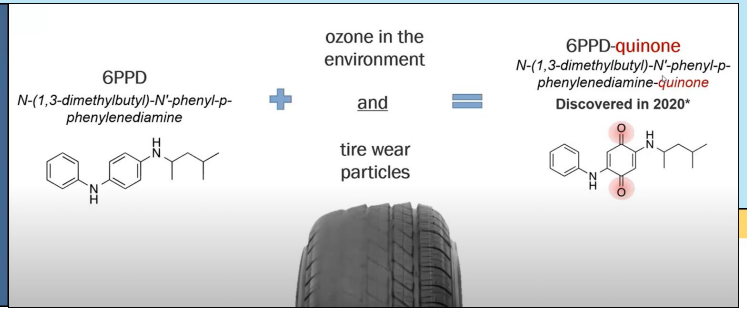
Ecology's Purpose & Goals – Tire Wear (Reduce 6PPD-q)

- Phase I – New Sweeping Requirements (Quarterly for Port Owned **OR** Operated Properties)
- All – Reduced Thresholds Treatment and Flow Control
- All – Clarified Maintenance Exemptions
- New ISGP Focus on Transportation (Thousands of New Facilities Covered)

Address road runoff

Toxicity and BMP research

Urban Runoff Mortality Syndrome (URMS)



Ubiquitous Tire Preservative Kills Salmonids

- It took 20+ years of investigation to identify the chemical that causes pre-spawn mortality of Coho

Road runoff

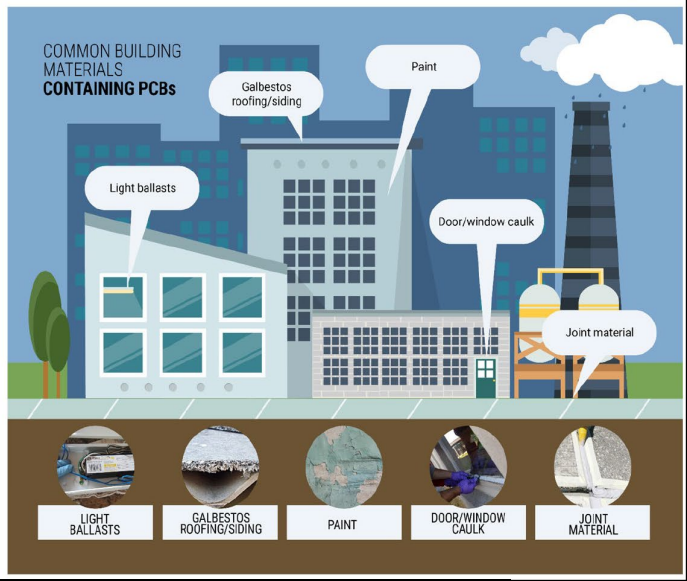
6PPD-quinone

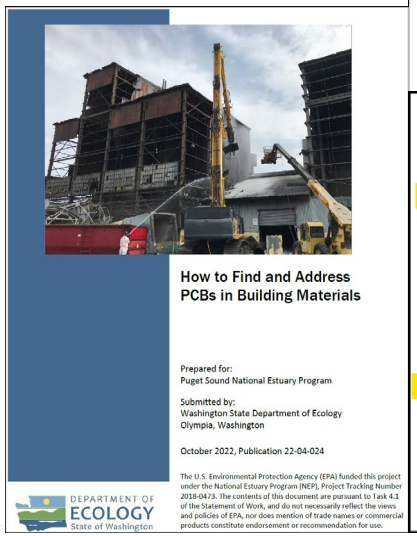
Ecology's Purpose & Goals – Reduce PCBs

- All – New Provisions to Educate Public and Tenants
- All – IDDE & O&M Procedures for Building Washdown
- All - Additional Investigation for Planned Demo & Renovation
- Phase I – Label and Maintain Drain Inlet Markings

Source control for PCBs

- Ed & Outreach – new topic
- IDDE –assessment needed before exterior washing
- O&M – policies, practices re: exterior washing and reno/demo of PCBs in building materials





PCBs in building materials

Many industrial uses of PCBs ended after 1979. However, studies show the widespread presence of PCBs from construction and renovation between 1950–1979. The PCBs that remain in building materials are considered to be in use and are subject to PCB regulations. Buildings built or renovated during this time period are more likely to contain PCBs (typically mixed into products as a liquid).

EPA research found that caulking put in place between 1950–1979 typically contains 5–30% PCBs.[15] Buildings built or renovated in the 1980s may also contain PCBs because stocks of PCBs purchased before the manufacturing ban were likely used (such as paint or sealants).

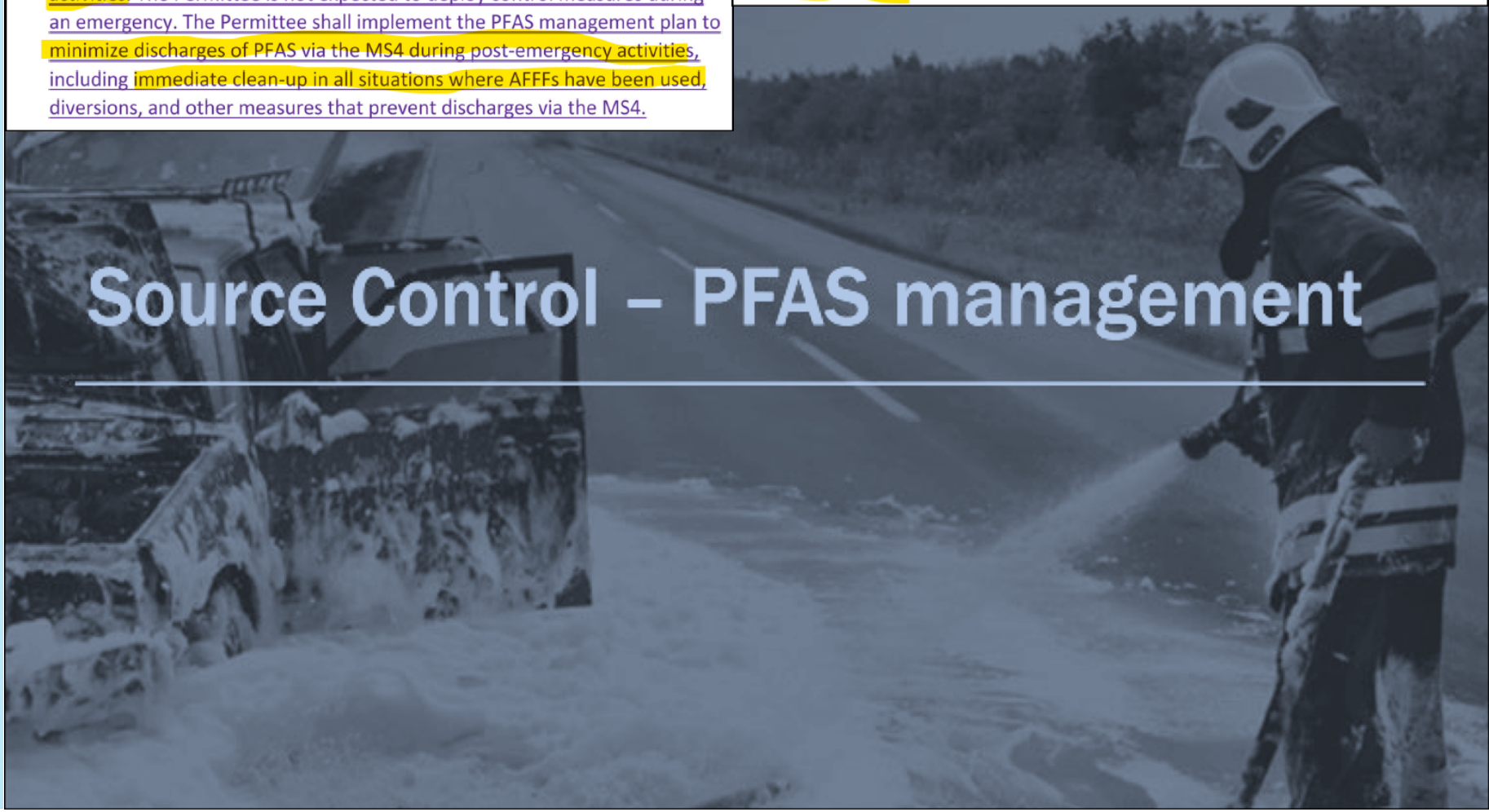
Remediating PCBs in building materials properly will help protect human health and the environment from the effects of this chemical class.

Ecology's Purpose & Goals – Reduce PFAS

- New Requirements Develop a PFAS Management Plan
- Minimize PFAS Discharges "post-emergency"
- New Protocol Requirements

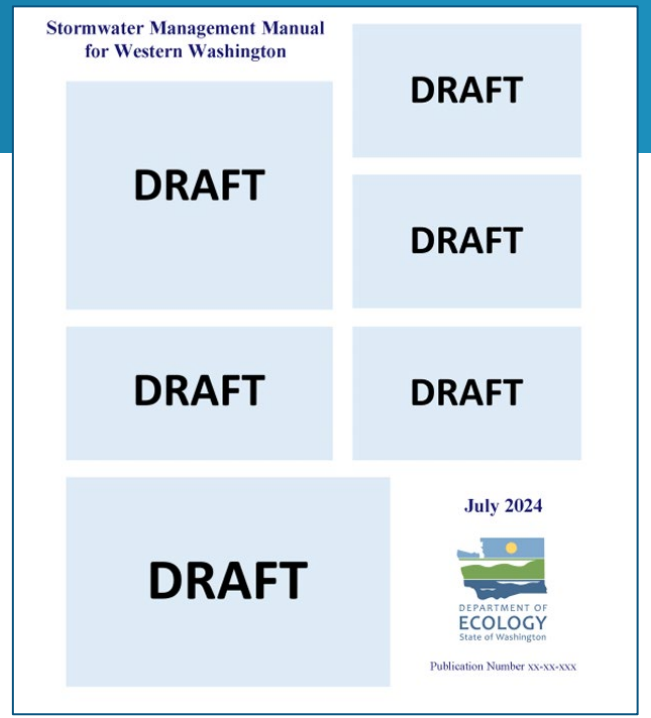
a. No later than December 31, 2026, the Permittee shall coordinate with firefighting agencies/departments that serve the areas that drain to the MS4 to develop a PFAS management plan which will implement measures to minimize discharges of PFAS via the MS4 during emergency firefighting activities. The Permittee is not expected to deploy control measures during an emergency. The Permittee shall implement the PFAS management plan to minimize discharges of PFAS via the MS4 during post-emergency activities, including immediate clean-up in all situations where AFFFs have been used, diversions, and other measures that prevent discharges via the MS4.

b. No later than December 31, 2027, the Permittee shall implement specific protocols for minimizing the resuspension, conveyance, and discharge of PFAS already in the MS4, both during normal operations and during all maintenance.



SWMMWW Update Highlights

- **Updated Redevelopment Project Thresholds** (revised flow charts on next slides)
  - New/replaced hard surface threshold reduced for new development
  - Underground utility projects exemption revision
- **Climate Change Impacts on Stormwater**
  - Future hydrologic projections (precipitation & receiving water stream flows)
  - High-level mitigation guidance (improve awareness, preparation, etc.)
- **Nutrients and Toxic Organics**
  - PFAS, 6PPD & 6PPD-q, PAHs, PCBs
- **High Performance Bioretention Soil Mix**
  - Added to BMP T7.30: bioretention
  - Applicability reducing 6PPD and 6PPD-q
- **UIC Program Guidance Updates**
- **Light Rail BMPs**



Appendix I Requirements

- Appendix 1 – New Development and Redevelopment Requirements Municipalities Must Mandate
- Enforced During Permitting Stormwater Review
- Evaluation of Minimum Requirement Applicability Triggered by New and Replaced "Hard" Surfaces
- MR#6 (Treatment) & MR#7 (Flow Control) Generally Add $$
- Conflicts Between ISGP and MS4 Permit Requirements (Treatment Required/Applicable)

APPENDIX 1 - Minimum Technical Requirements for New Development and Redevelopment

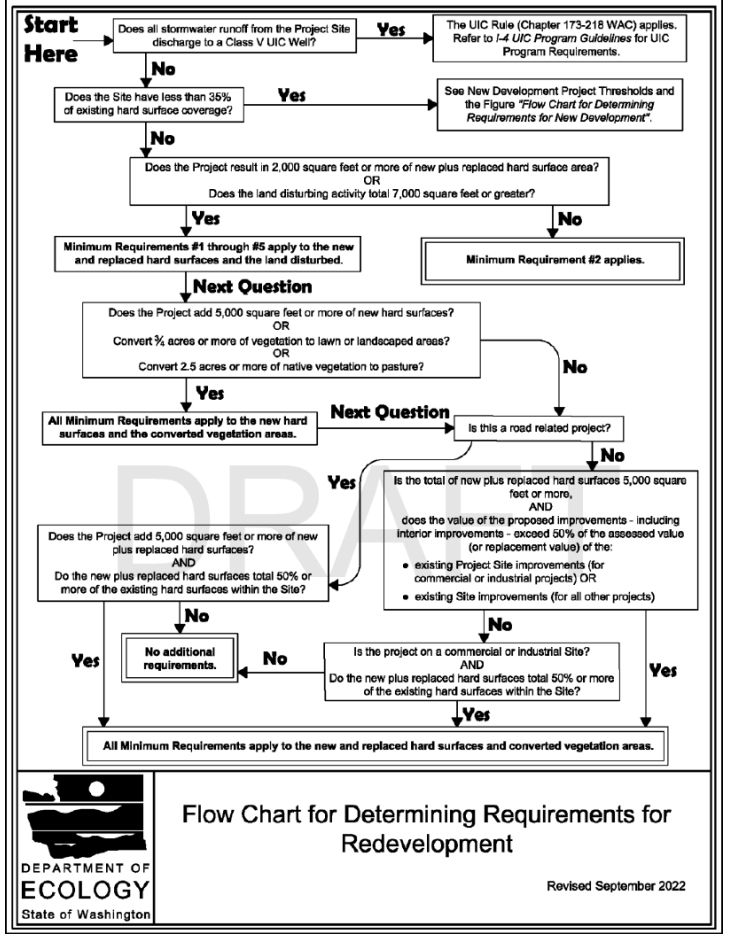
4.6 Minimum Requirement #6: Runoff Treatment

4.7 Minimum Requirement #7: Flow Control

WWA Appendix 1 –Proposed Updates

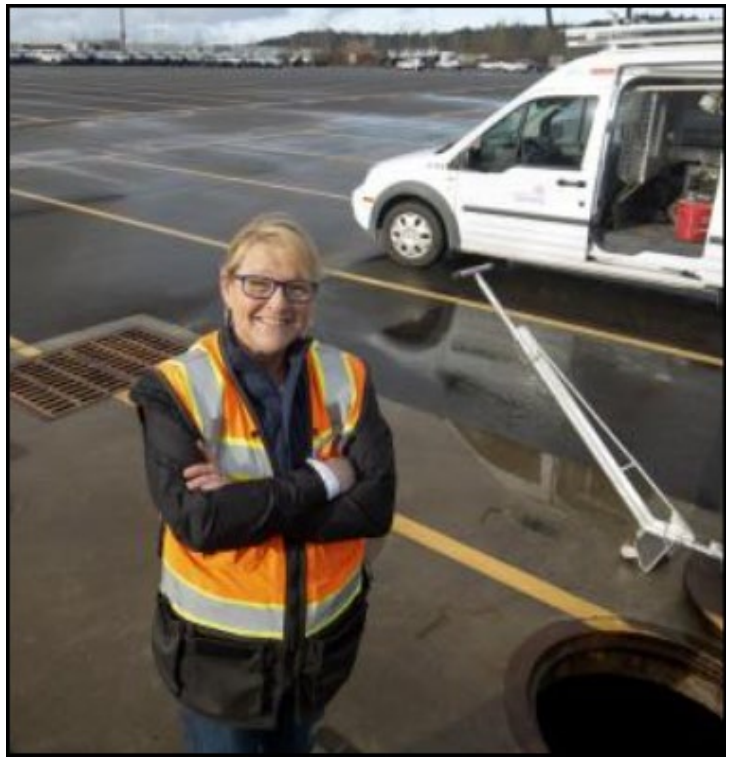
- Lowering Project level thresholds - Redevelopment
  - To capture more road and commercial/industrial projects with potential to pollute
- Runoff Treatment (MR6)
  - Lowering Threshold Discharge Area for runoff treatment
    - Threshold used after considering the Project Level

Figure 4: Flow Chart for Determining Requirements for Redevelopment



Read the Fine Print

- Treatment Is Required for Most Projects
- The SWMMWW Defines What Meets the Muni Requirements
- Most of What's in the Manual Will Not Be Good Enough (Like Anita Said)
- That's The Permittee's Problem Not Ecology's



Project proponents shall apply whatever technology is necessary to comply with state water quality standards, Chapter 173-201A WAC, or state groundwater standards, Chapter 173-201A WAC. Additional treatment requirements to meet those standards may be required by federal, state, or local jurisdictions. The requirements of these Minimum Requirements do not excuse the project proponent from the obligation to meet applicable water quality standards.

Pollution Solutions

- Ports are Ahead of the Issue
- Applying BSM for SW Treatment Has Been Proven Effective for Turbidity, Zinc, Copper, & TSS
- Should be Effective for PCBs and 6PPD-q
- Port Project Timeline

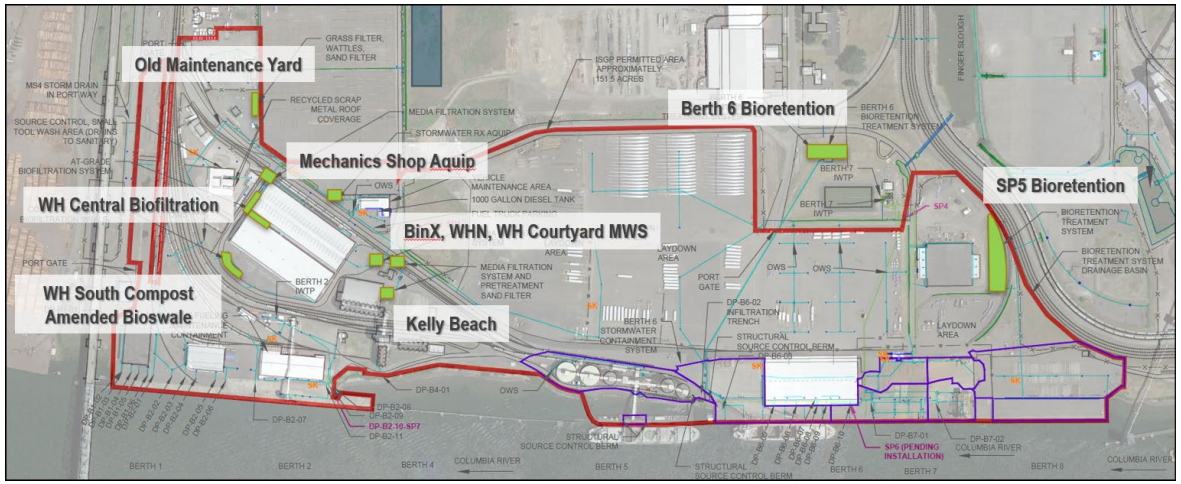
Port of Vancouver T2 (2010)

Port of Tacoma West Hylebos Pier (2013)

Pollution Solutions

Port of Port Angeles Marine Terminal & CSA

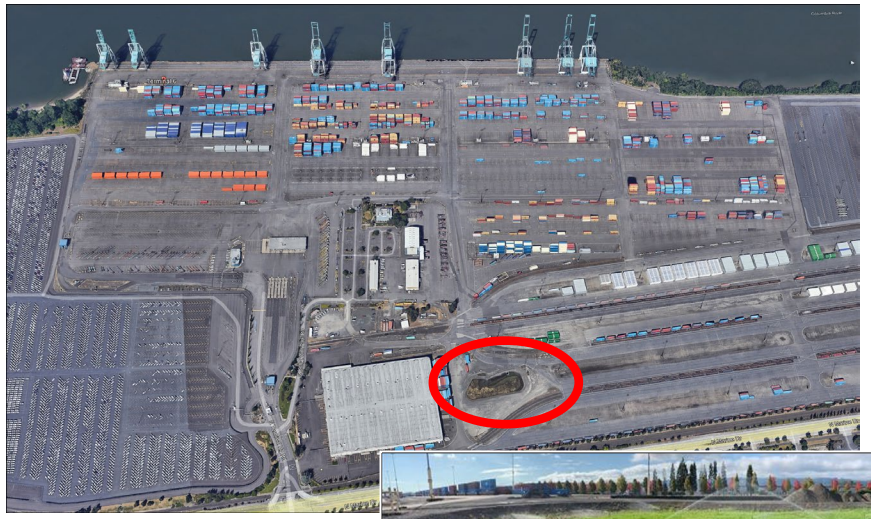
Port of Longview Stormwater Treatment Systems (2008 – 2020)



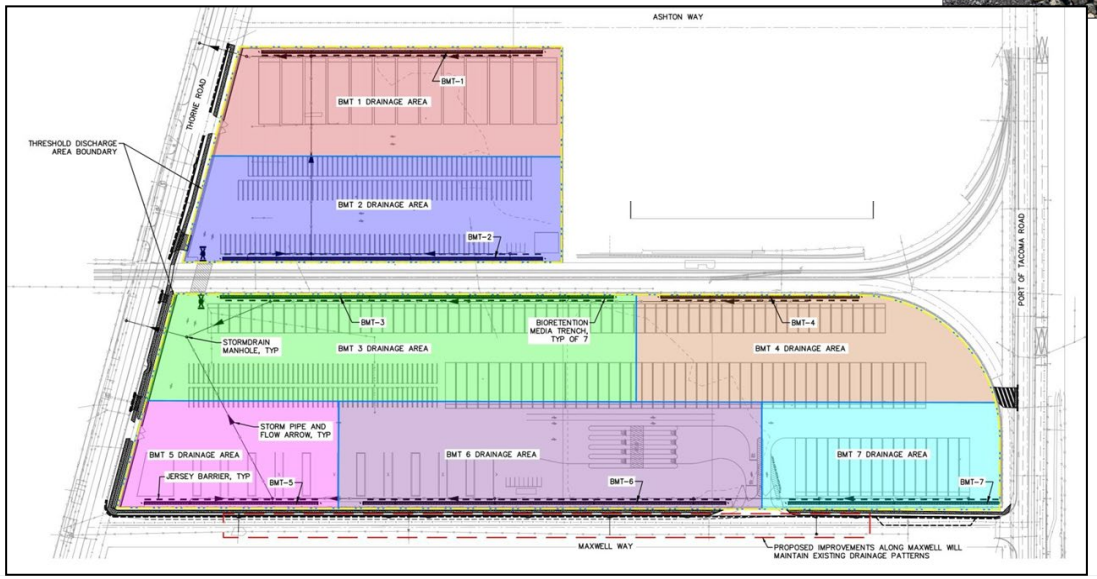
Pollution Solutions

- **Others Currently Underway:**
  - City of Seattle South Park
  - Port of Port Angeles Log Yard and Marine Trade Center
  - Port of Port Townsend Boat Haven

Port of Portland Terminal 6 (2020)



Port of Tacoma Off-Dock Container Handling Facility (2024)



MS4 Permit Update Timeline & Comments

Reissuance Timeline

Where we're headed next

Feb. 2022
Early Input

Spring 2022
Listening Sessions

Oct 2022 – March 2023
Informal draft permits & comments

August 16- Nov 10 2023
Draft permits formal comment period & hold public hearings

July 2024
Final decision

Submitting Written Comments

Online:

Draft Permit or SWMMs:
https://wq.ecology.commentinput.com/?id=C57pYMegb

Comments due by Nov. 10, 2023

Mail To:

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Questions on permit or manual?

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Q&A

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