# 2024 Municipal Stormwater Permit Reissuance - Eastern Washington focus

Water Quality Program
Abbey Stockwell

# Welcome!

## To–do

- ✓Quick permit overview
- ✓Permit reissuance - Eastern WA focus
  - ✓Early Input summary
  - ✓Early thinking
- ✓Break ☺
- ✓SWMM Updates
- ✓Hear from you

https://www.pexels.com/photo/crop-ethnic-psychologist-writing-on-clipboard-during-session-5699456/

# Municipal Stormwater Permits

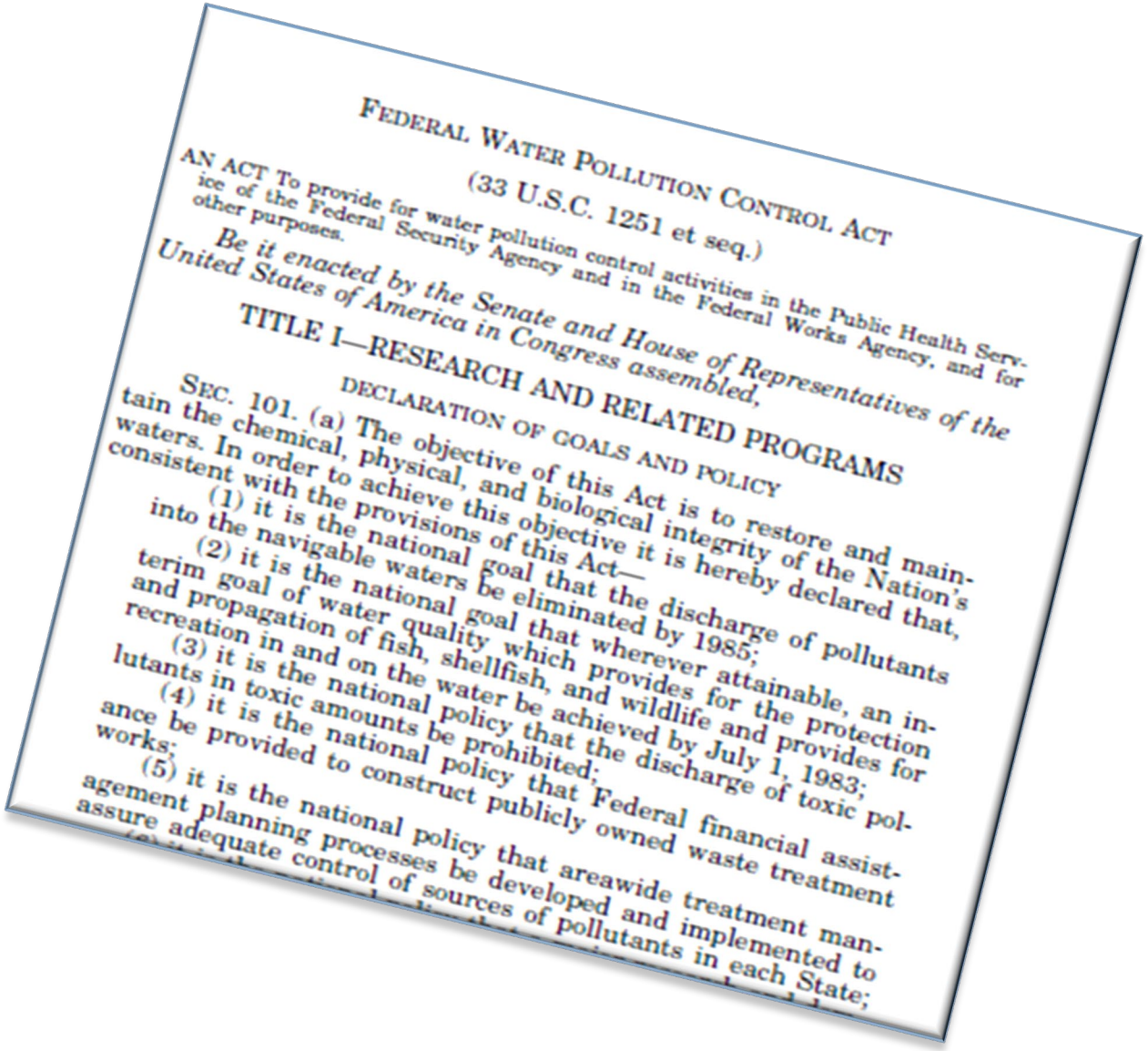
Quick permit overview

# The problem with stormwater is…

# … how we all use the land every day

# 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;

# 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

# Permit History

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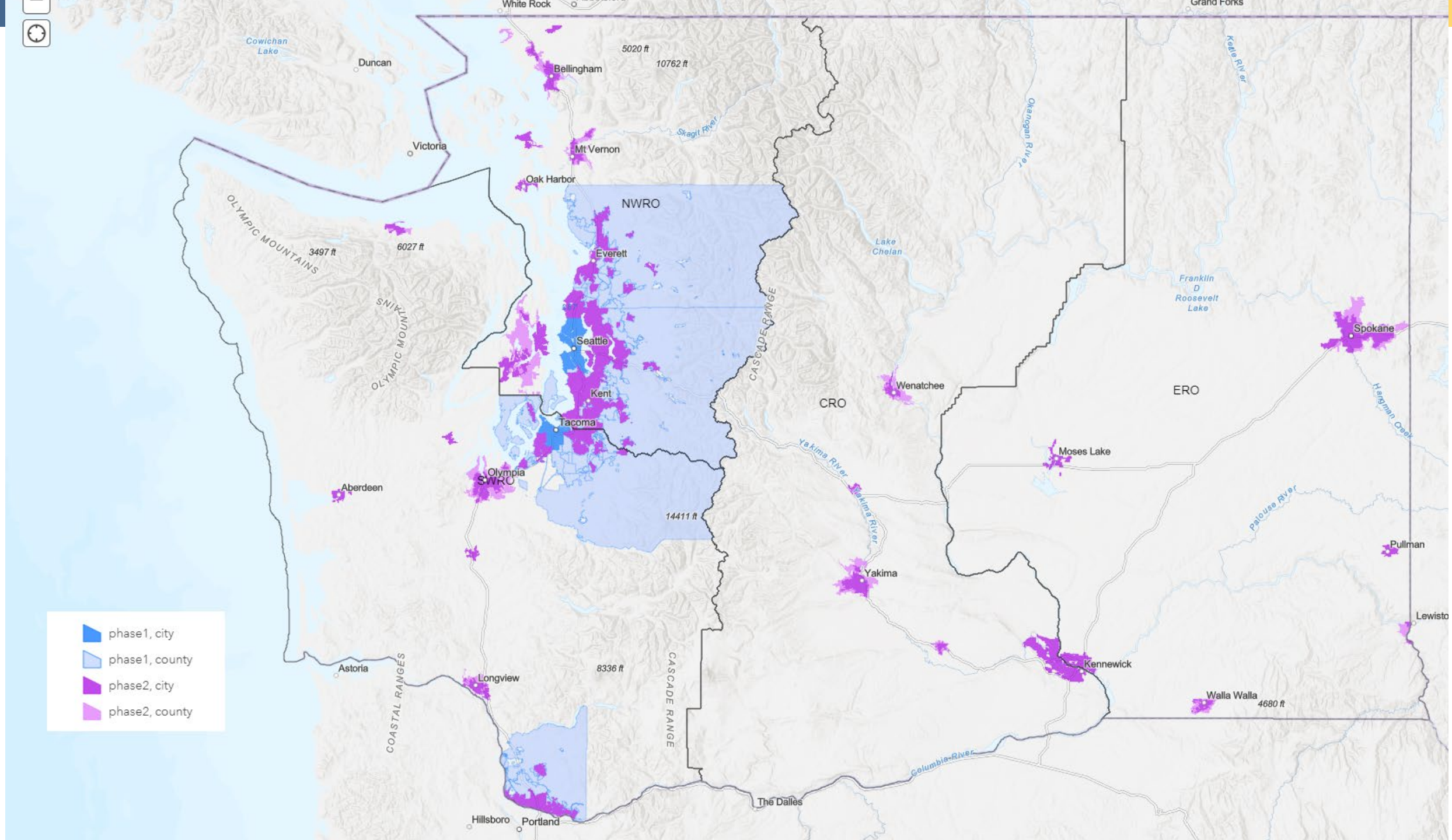
| | |
|---|---|
| **Phase I** (Issued 1995, reissued 2007, 2012, 2019) | • King, Snohomish, Pierce, & Clark Counties; Cities of Seattle & Tacoma |
| **Western WA Phase II** (Issued 2007, reissued 2012, 2019) | • 83 cities and parts of 5 counties |
| **Eastern WA Phase II** (Issued 2007, reissued 2012, 2019) | • 19 cities and parts of 6 counties |
| Phase I&II permits include **Secondary Permittees** | • 47 Ports, Schools, Irrigation Districts, etc. |

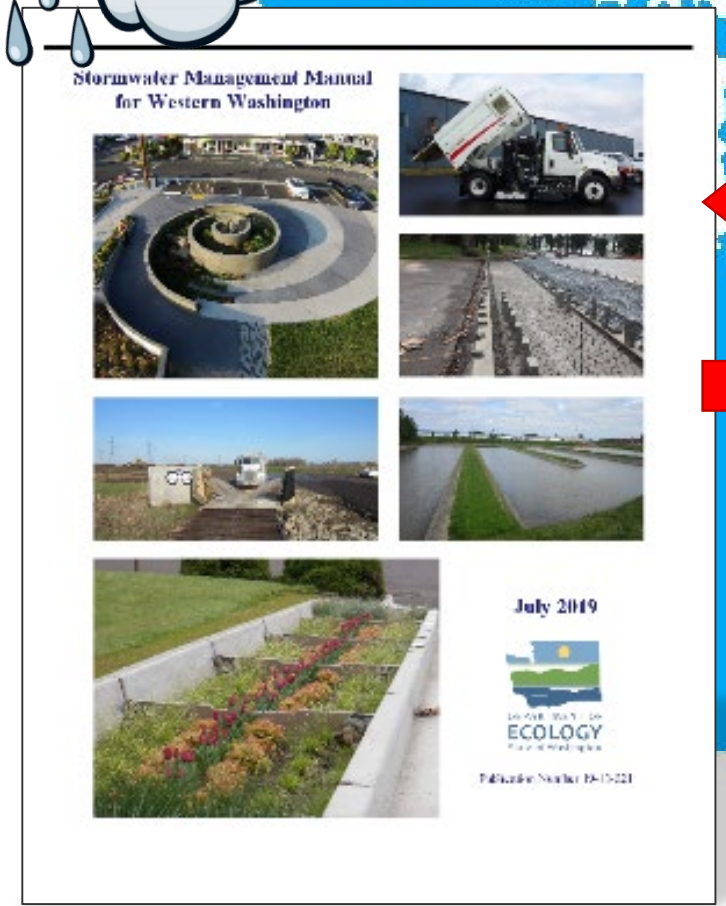

phase1, city
phase1, county
phase2, city
phase2, county
NWRO
SWRO
CRO
ERO
White Rock
Grand Forks
Cowichan Lake
Duncan
Victoria
Bellingham
5020 ft
10762 ft
Skagit River
Mt Vernon
Oak Harbor
Okanogan River
Kettle River
OLYMPIC MOUNTAINS
3497 ft
6027 ft
Everett
Lake Chelan
Franklin D Roosevelt Lake
Spokane
Seattle
CASCADE RANGE
Wenatchee
Kent
Tacoma
Hangman Creek
Yakima River
Moses Lake
Olympia
Aberdeen
14411 ft
Palouse River
Pullman
Yakima
Lewiston
Kennewick
Astoria
Longview
8336 ft
COASTAL RANGES
Walla Walla
4680 ft
Columbia River
The Dalles
Hillsboro
Portland

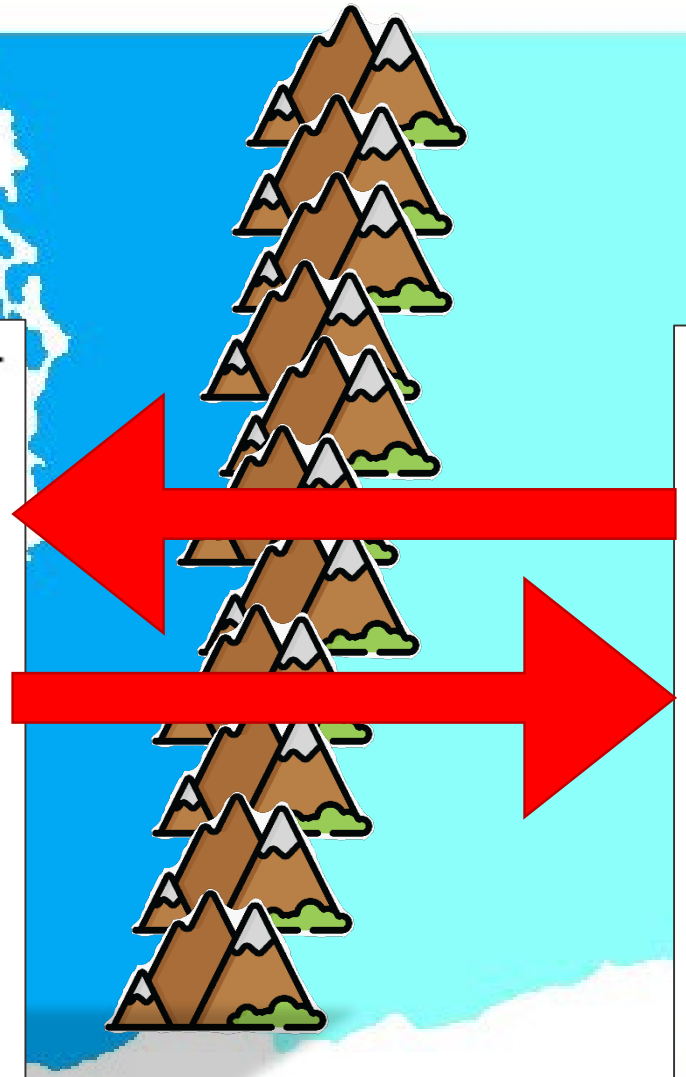
# Municipal Stormwater Permits

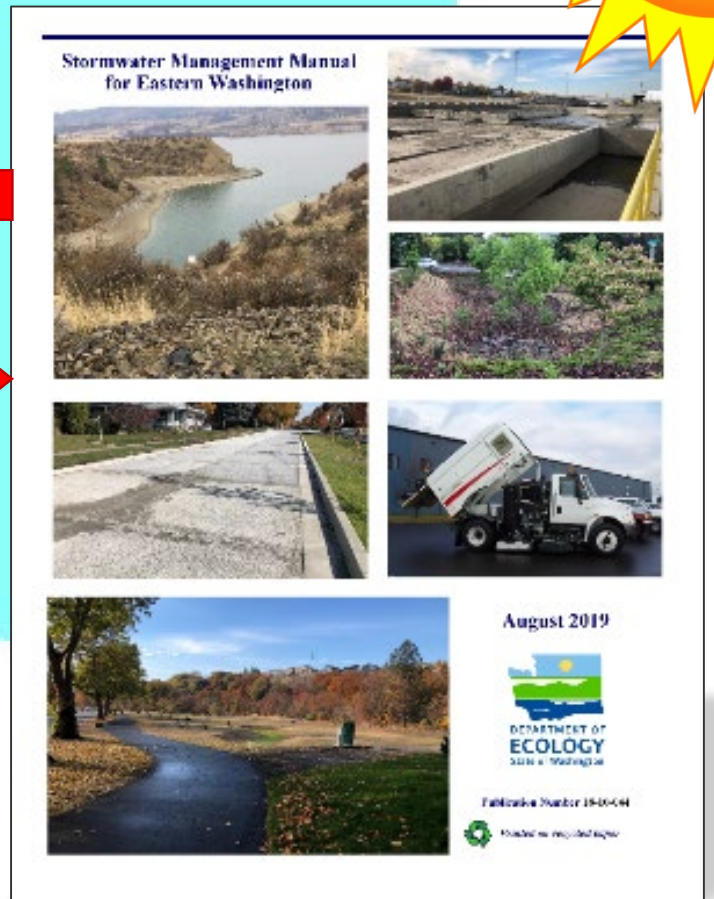
# Stormwater Management Program

- 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)

# Stormwater Management Manuals





# Tentative Reissuance Timeline

Where we're headed next

**Feb. 2022**

Early Input

**Spring 2022**

Listening Sessions

**Fall/Winter 2022**

*Informal draft permits & comments*

**Summer/ Fall 2023**

Draft permits published & hold public hearings

**July 2024**

Make final decision to reissue

# Questions?

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# Early Input – Thank you!

**Western WA Topics**

- 6PPD
- Annual reports
- EJ
- IDDE/Source Control
- O&M
- Retrofits
- S4 – Compliance w/ Stds
- Scaling
- SMAP
- SSC
- Stormwater Planning
- SWMMWW
- TMDLs
- Specific topics & language edits

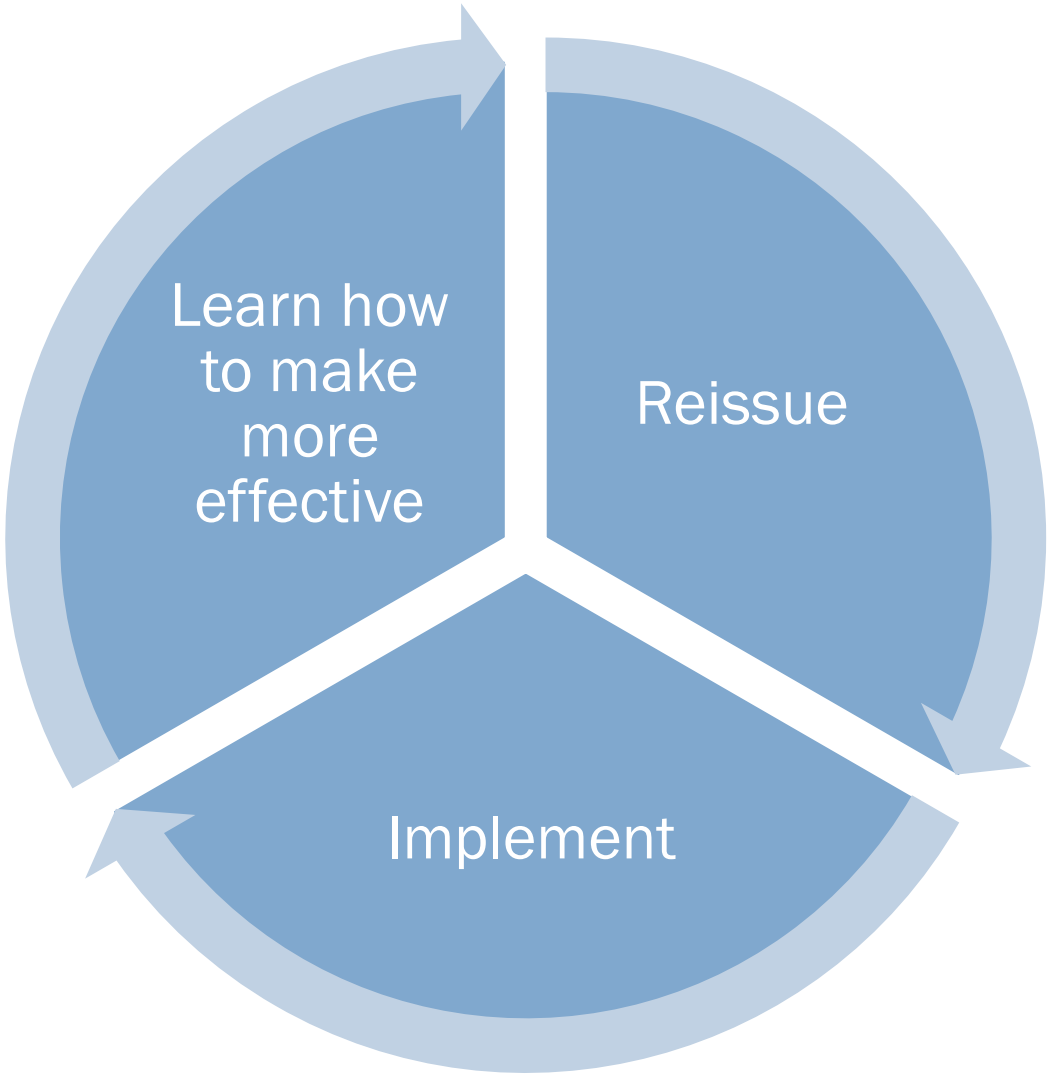
**Eastern WA Topics**

- Controlling runoff
- Ed & Outreach
- Effectiveness Studies
- SSC
- Source Control
- Sweeping
- UICs
- Specific topics & language edits

# Things not covered today

- S4- Compliance with Standards
- Clarifications
- Annual Reports
- TMDLs
- New Permittees
- UICs

# 2024 Municipal Stormwater Permit Reissuance
# 5-year permit cycle

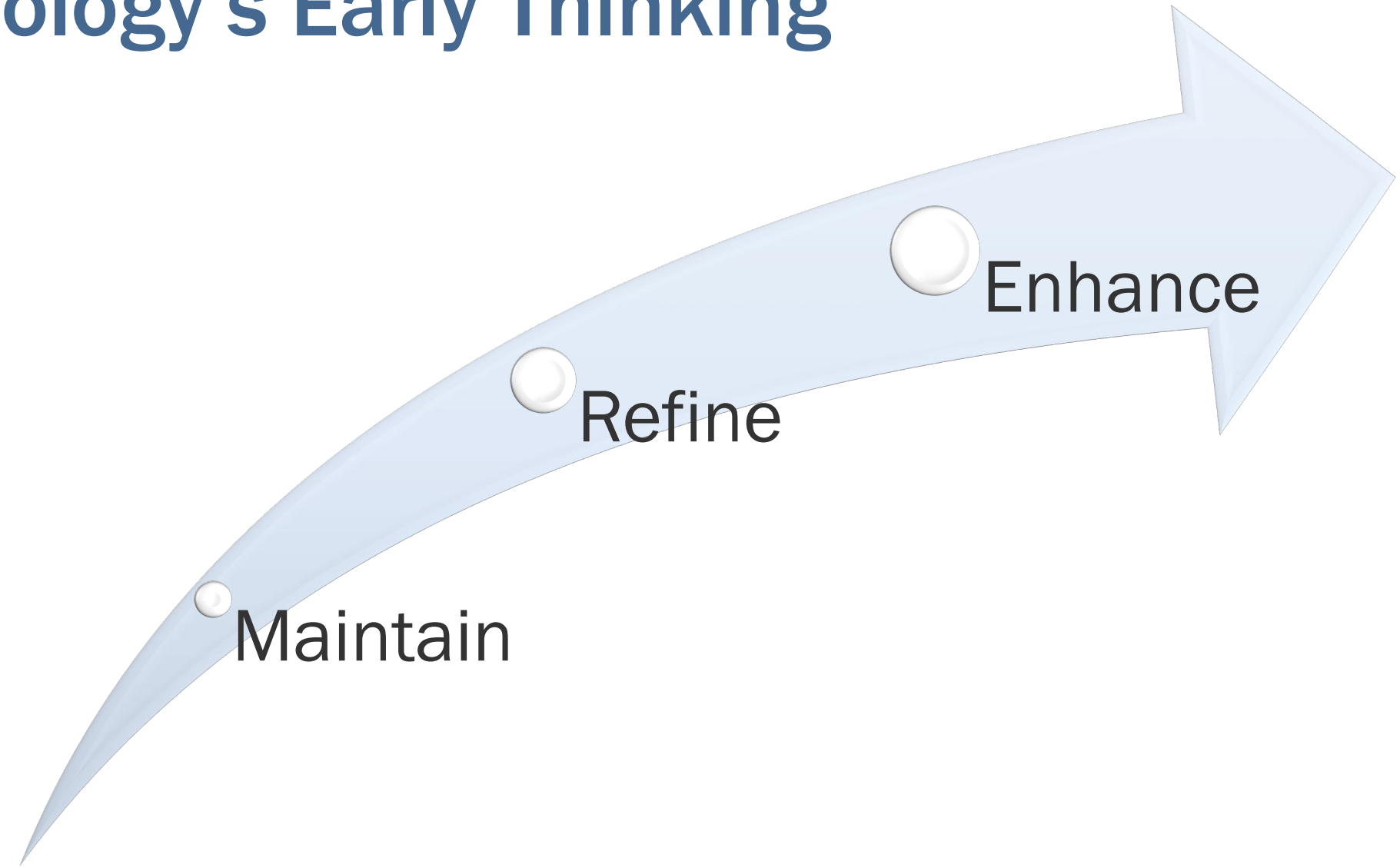


https://www.wnyc.org/shows/longestshortesttime/

# 2024 Municipal Stormwater Permit Reissuance

- Learning and Applying what we learn

# Ecology's Early Thinking



# Proposed changes to S5

- Initial thinking - Not an exhaustive list
- Revised formatting throughout
- Statewide consistency – *where appropriate*

# Significant Updates Proposed

- Address tire wear research findings – Road Runoff
- Enhance Source Control requirements
  - street sweeping program
  - PCBs in building materials
- Update Appendix 1 in Eastern WA
  - Project review thresholds
  - Wetland protections

# Environmental Justice

# Environmental Justice + Municipal Stormwater Permits

- EPA definition of “Overburdened Communities”
  - Public Involvement
  - Public Education and Outreach – target audience
  - Stormwater Planning
  - SSC implementation

Image from: https://www.healthandenvironment.org/environmental-health/social-context/history/environmental-justice-or-rather-injustice

# EJ + Muni Permits

- EJ review of SWMP
- Equitable services
  - Source control
  - O&M
- Access to reporting for overburdened communities

# Comments/ Questions?

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# Education and Outreach

# Ed & Outreach

# Comments/ Questions?

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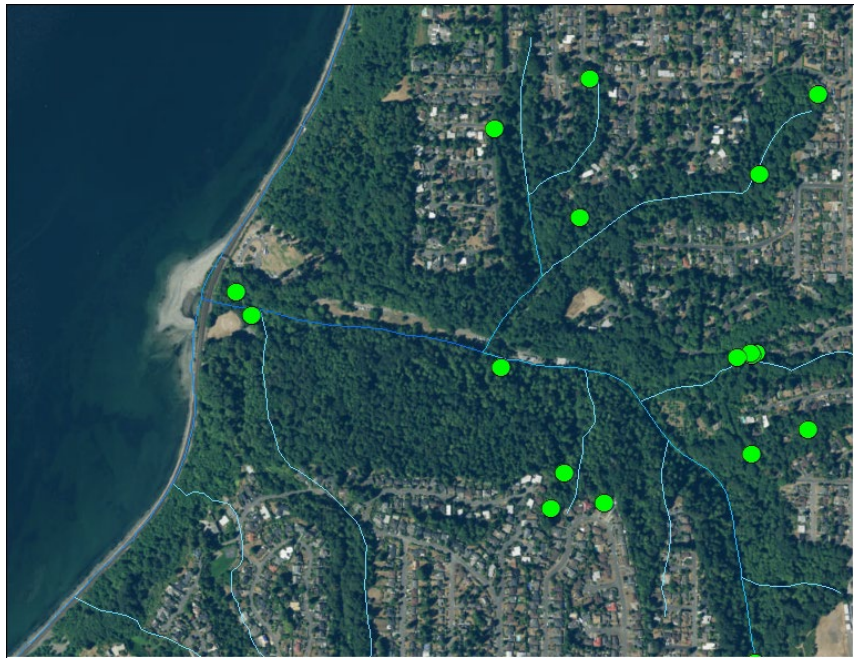
# Mapping

Standard outfall reporting

# SW Outfalls to Surface Water



# A Reporting Standard…

Will make it easier to share outfall data with each other and with Ecology.

# Proposed Attributes

| | |
|---|---|
| Outfall_ID | REQUIRED |
| Permit_Number | REQUIRED |
| Latitude_Decimal_Degrees | Required IF using excel template to submit |
| Longitude_Decimal_Degrees | Required IF using excel template to submit |
| Horizontal_Datum | Required IF using excel template to submit |
| Horizontal_Coordinate_Accuracy | REQUIRED |
| Horizontal_Coordinate_Collection_Method | REQUIRED |
| Outfall_Elevation | Recommended |
| Elevation_Units | |
| Vertical_Datum | |
| Elevation_Accuracy | |
| Elevation_Collection_Method | |
| Pipe_Or_Ditch_Size | |
| Pipe_or_Ditch_Size_Units | |
| Pipe_Or_Ditch_Material | |

# Questions?

# Address road runoff

Tire wear research

# 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 questions about 6PPD/q

1. Is there a safe, viable alternative to 6PPD?
2. Do we have the analytical methods we need?
3. What are other biological effects of 6PPD-quinone?
4. What are the best stormwater management approaches?
5. Where should we prioritize mitigation efforts?

https://www.pexels.com/photo/person-in-white-shirt-with-brown-wooden-frame-4769486/

# 6PPD -> 6PPD-Quinone

# Proviso work

- 2021: Identify *existing* BMPs for reducing the toxicity to Coho and other aquatic life
- 2022: Study and develop BMPs to treat stormwater containing tire wear

# Tire/tire wear sources

# statewide priority

https://www.pexels.com/photo/photo-of-mustang-on-side-of-the-road-3536271/

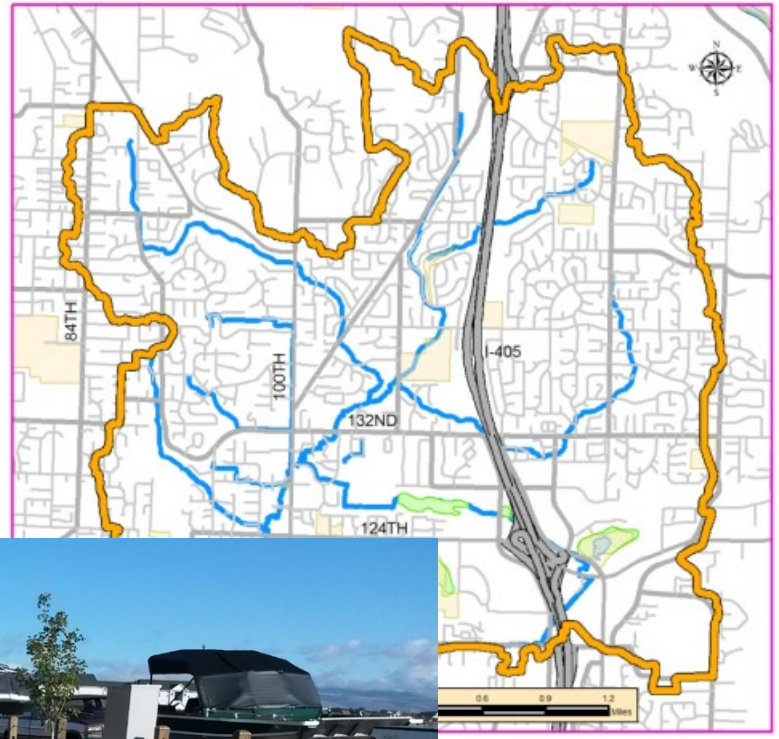
# Muni Permit programs

Reviewing requirements to enhance for Road runoff

- SSC and SW retrofits
- Street sweeping program
- And More

# Stormwater Planning in EWA

- Retrofit planning?



Credit: J.Morrow

# Comments/ Questions?

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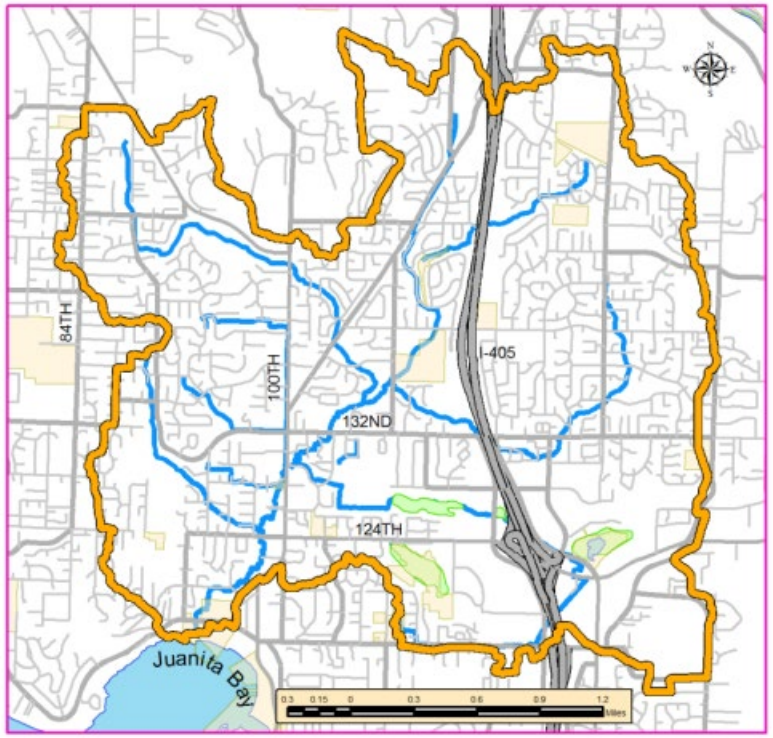
# Structural Stormwater Controls (SSC)

# Structural Stormwater Controls Policy Advisory Committee

https://www.pexels.com/photo/photo-of-people-joining-hands-together-3183197/

# Stormwater Planning

- LID – preferred and commonly used
- Long range planning connection?
- Stormwater Management Action Plan (SMAP)
  - Next steps



Map of Juanita Creek Basin

# Phase II Retrofit program

# Questions and Discussion

# Enhance Source Control requirements

street sweeping program
PCBs in building materials

# Street Sweeping

# Questions?

# Source control for PCBs

- Exterior building materials –building built between 1950-1980

# Why we should (still) care about PCBs

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## Sources of PCBs are still in use

Mass of PCBs still in use is much larger than the PCBs currently in the environment

## Stormwater is a known and measured pathway

## Sediment, tissue, and surface waters impacted by PCBs

WQA Cat 5 listings (plus 4b sediment)

Puget Sound Sediment Cleanup Sites & Superfund sites

Spokane River

DOH PCB Fish Advisories

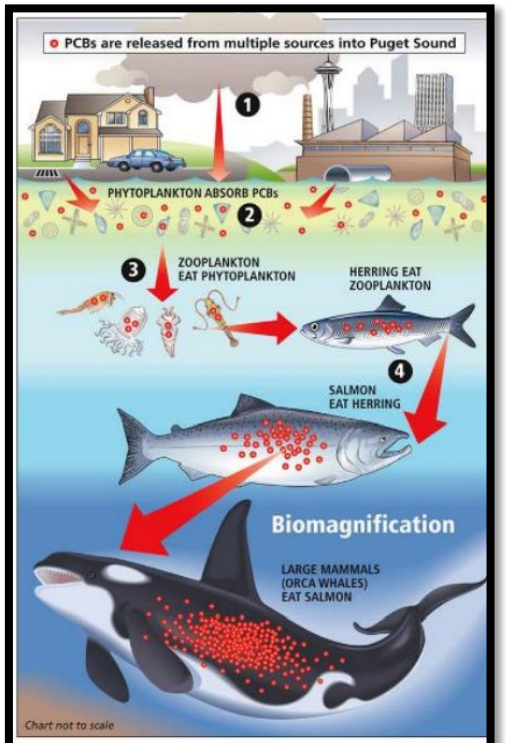
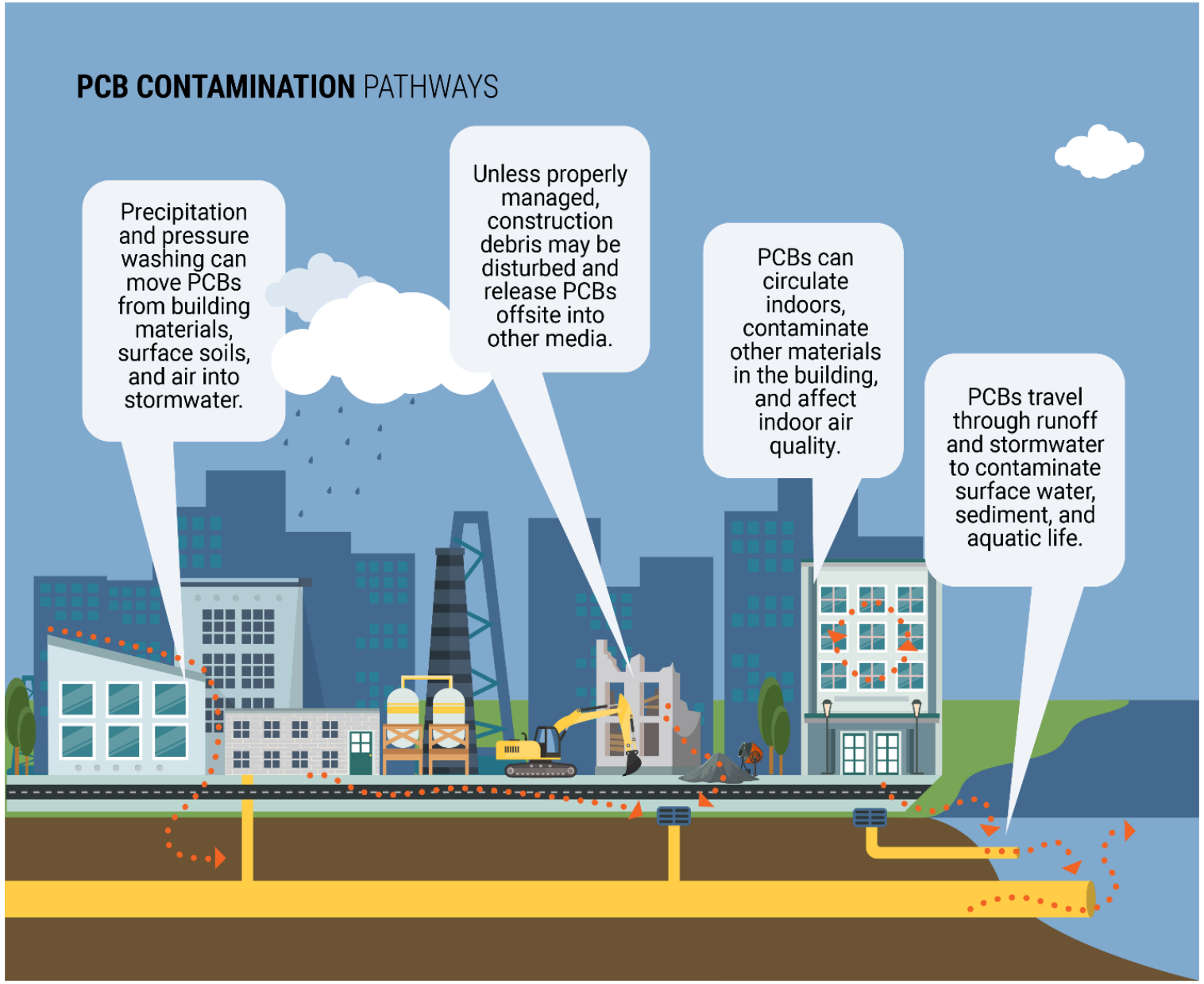



Figure 3-1. Exposure pathways and bioaccumulation of PCBs in aquatic life in a coastal pelagic foodweb (i.e., southern resident killer whale foodweb). WDFW.




Exterior PCB-containing materials on a building degrade and flake off over time.

Widely understood that unmitigated remediation and demolition activities exacerbate this.

**Greater chance that more PCBs will be released into the environment during reno and demo.**

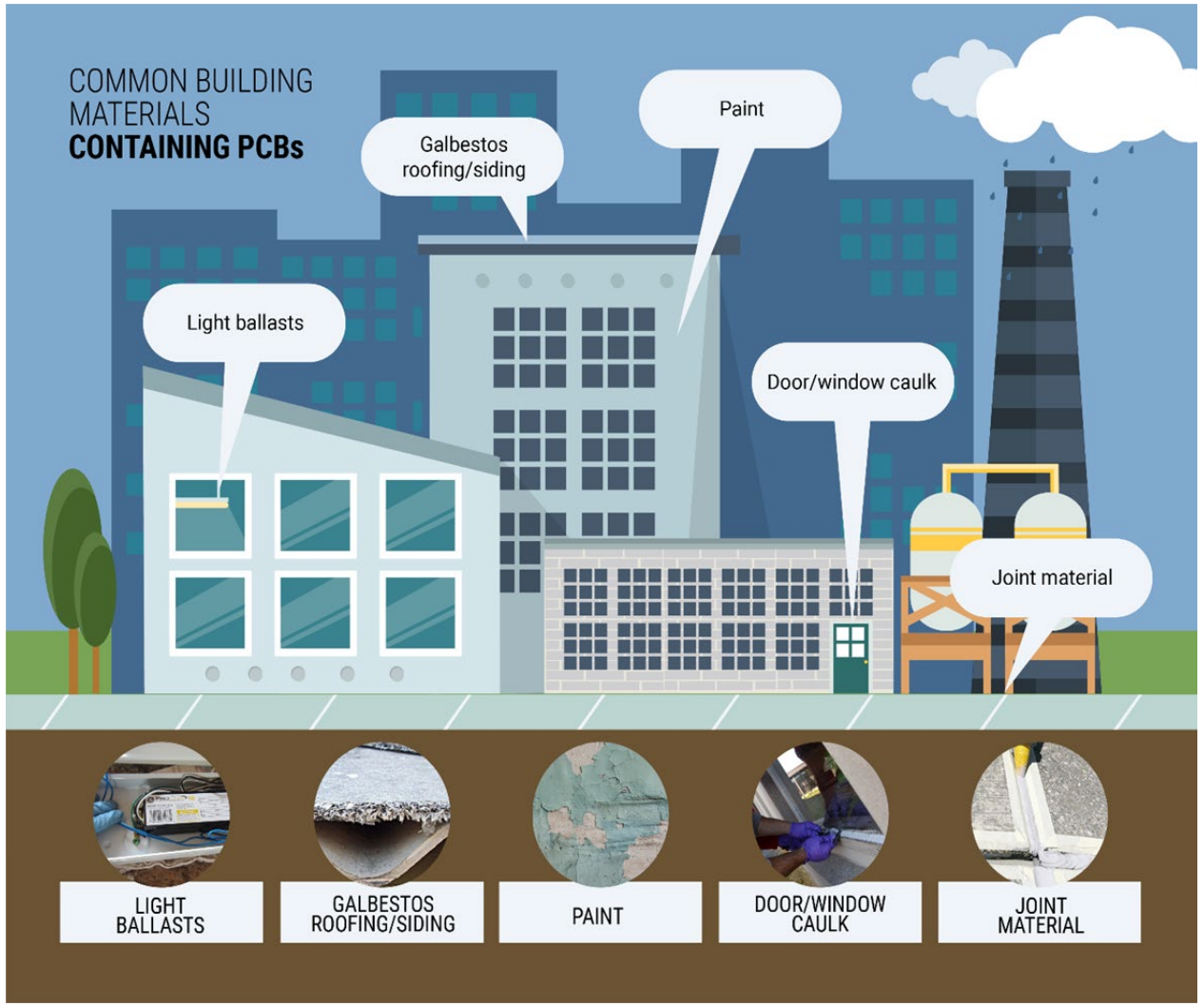
OLD
RAINIER
BREWERY
Rainier

12/03/2013 12:17

# Source control for PCBs

- Exterior building materials – building built between 1950-1980

- Ed & Outreach
- IDDE – exterior washing of buildings of PCB concern
- O&M – policies, practices re: exterior washing and reno/demo of PCBs in building materials



Questions

# Controlling runoff & Appendix 1

Thresholds

Wetlands

# EWA Controlling runoff and Appendix 1

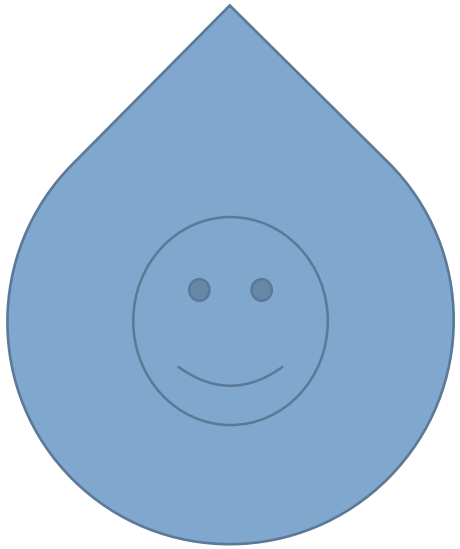
- Exploring options re: One-Acre Land disturbing threshold

1-Acre land disturbance (43,560 sf)

5000 sf of Pollution Generating Imp. Surface (PGIS)

10,000 sf of New Imp. Surface

Credit: J.Morrow



# EWA Controlling runoff and Appendix 1

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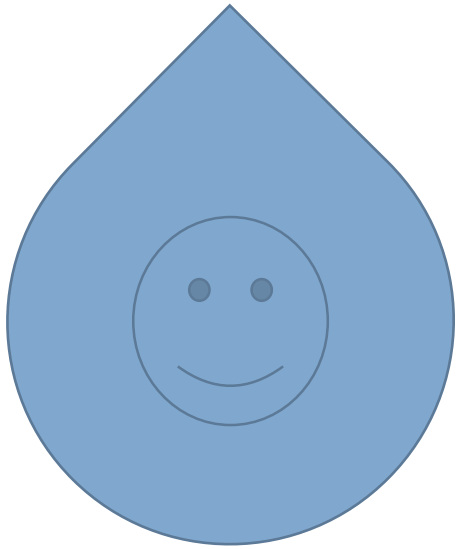

# EWA Controlling runoff and Appendix 1

- Wetland protections

# Comments/ Questions?

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State of Washington

# Monitoring & Assessment

# Early input - Effectiveness studies

Eastern Washington
Stormwater Effectiveness Studies

Technical Evaluation Report (TER)

Street Sweeping and Catch Basin Cleaning Comparison

Study Classification: Operational BMPs

December 2020

Prepared For:
Jon Morrow, Stormwater Manager
City of Ellensburg
Public Works Department
501 N Anderson Street
Ellensburg, WA Zip 98926
509.925.6819

Prepared By:
Osborn Consulting, Inc.

EASTERN WASHINGTON
STORMWATER EFFECTIVENESS STUDIES

TECHNICAL EVALUATION REPORT

YAKIMA CAR WASH WASTEWATER EDUCATION & OUTREACH EFFECTIVENESS STUDY

☐ Operational BMP ☑ Education & Outreach

☐ Compare Effectiveness

February 2022

Prepared For:
City of Yakima
Stormwater Department

EASTERN WASHINGTON
STORMWATER EFFECTIVENESS STUDIES

TECHNICAL EVALUATION REPORT (TER)

BUSINESS EDUCATION AND OUTREACH EFFECTIVENESS STUDY

Structural BMP ☐ Operational BMP ☑ Education & Outreach

☑ Evaluate Effectiveness ☐ Compare Effectiveness

March 2022

Prepared For:
City of Ellensburg
Stormwater Utility Department
501 N Anderson St
Ellensburg, WA 98926
(509) 962-7230

Prepared By:

Mobile Contractor Illicit Discharge Education & Outreach Effectiveness Study

Participating Partners: City of Wenatchee (Lead Agency)
City of East Wenatchee, Douglas County, Chelan County, City of Kennewick, City of Pullman, City of West Richland, City of Richland, City of Spokane Valley

Study Completed January 30, 2020

Project Description

In 2010, the Dump Smart Program (DS Program) for mobile contractors was implemented in six eastern Washington Communities. The goal of this study was to assess the effectiveness of the DS Program, an education and outreach program, in eastern Washington specifically for carpet cleaners. Carpet cleaning businesses in jurisdictions were surveyed as well as business in areas that did not participate in the DS Program. While the survey for mobile contractors was occurring, the jurisdictions in the test and control areas were given a separate survey to evaluate mobile contractor education and outreach efforts and reported illicit discharges associated with carpet cleaners.

The effectiveness of the program was evaluated based on the number

Carpet cleaner emptying waste water into driveway, Wenatchee.

Study Methods

Action Research was hired to conduct the surveys and provide all statistical analysis of results. All of the data was collected by the consultant following standard operating procedures provided by the Lead Agency.

Activities Implemented:

- A pilot test was conducted in the City of Pullman to validate the survey instrument for both mobile contractors and the jurisdiction.
- Following the survey in Pullman, the survey procedure was modified to include a postcard to be sent to carpet cleaning businesses in the test and control areas from the lead agency to assure respondents that this was not a scam or telemarketing.

# S8 – Monitoring & Assessment

Eastern Washington
Stormwater Effectiveness Studies

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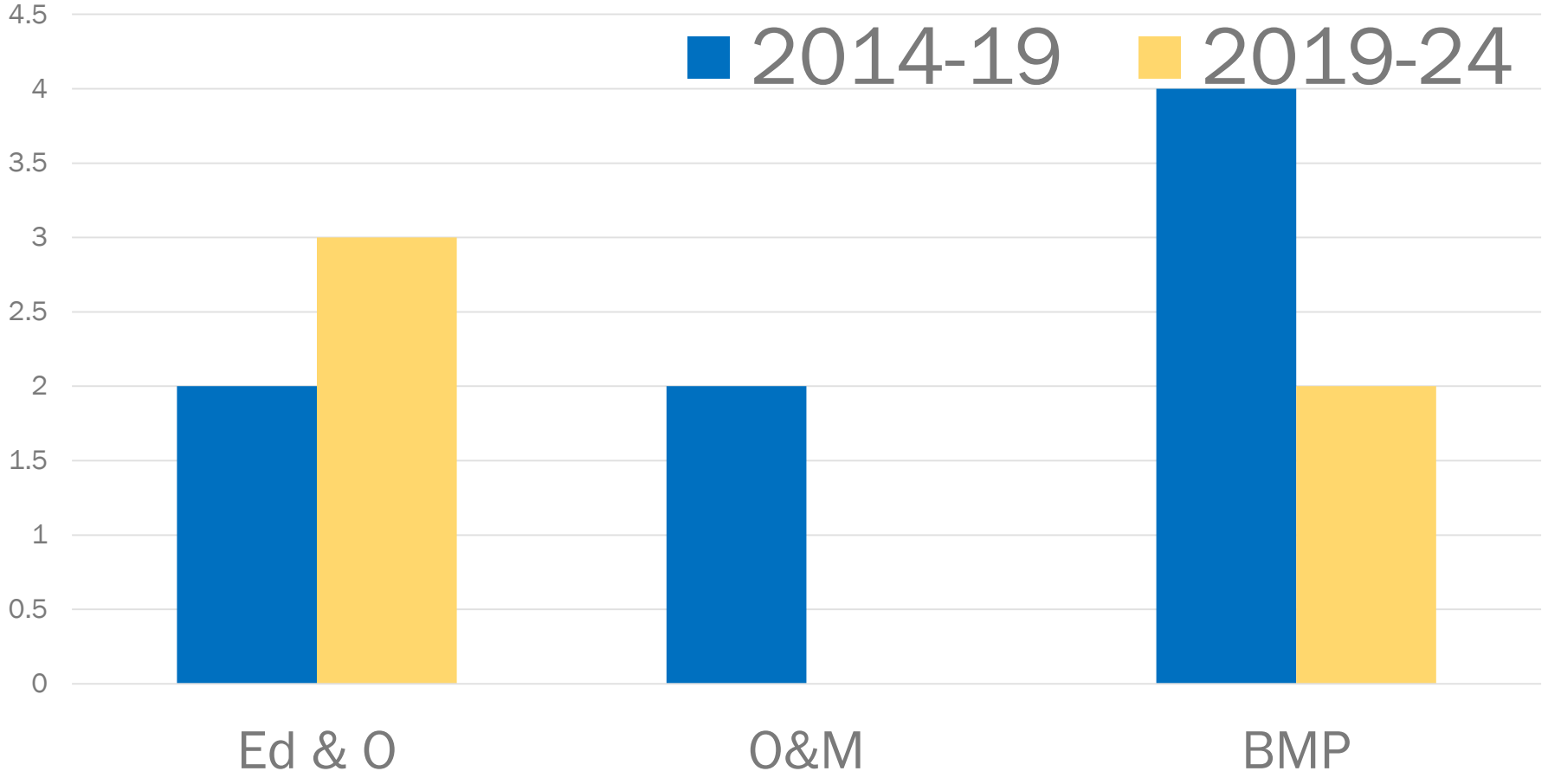
# EWA Effectiveness studies

Number of studies by type



# S8. Monitoring and Assessment - EWA

- Continuing to implement a regional stormwater monitoring program, or lead own study – similar to current requirements
- Participate in Effectiveness Studies Program – as established in SAM
  - Pooled funding program – based on population
  - Leverage other studies to be statewide or EWA specific
  - Vote on studies
- Outfall discharge monitoring?

# Questions/Comments?

# Comments/ Questions?

abbey.stockwell@ecy.wa.gov

amanda.heye@ecy.wa.gov

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