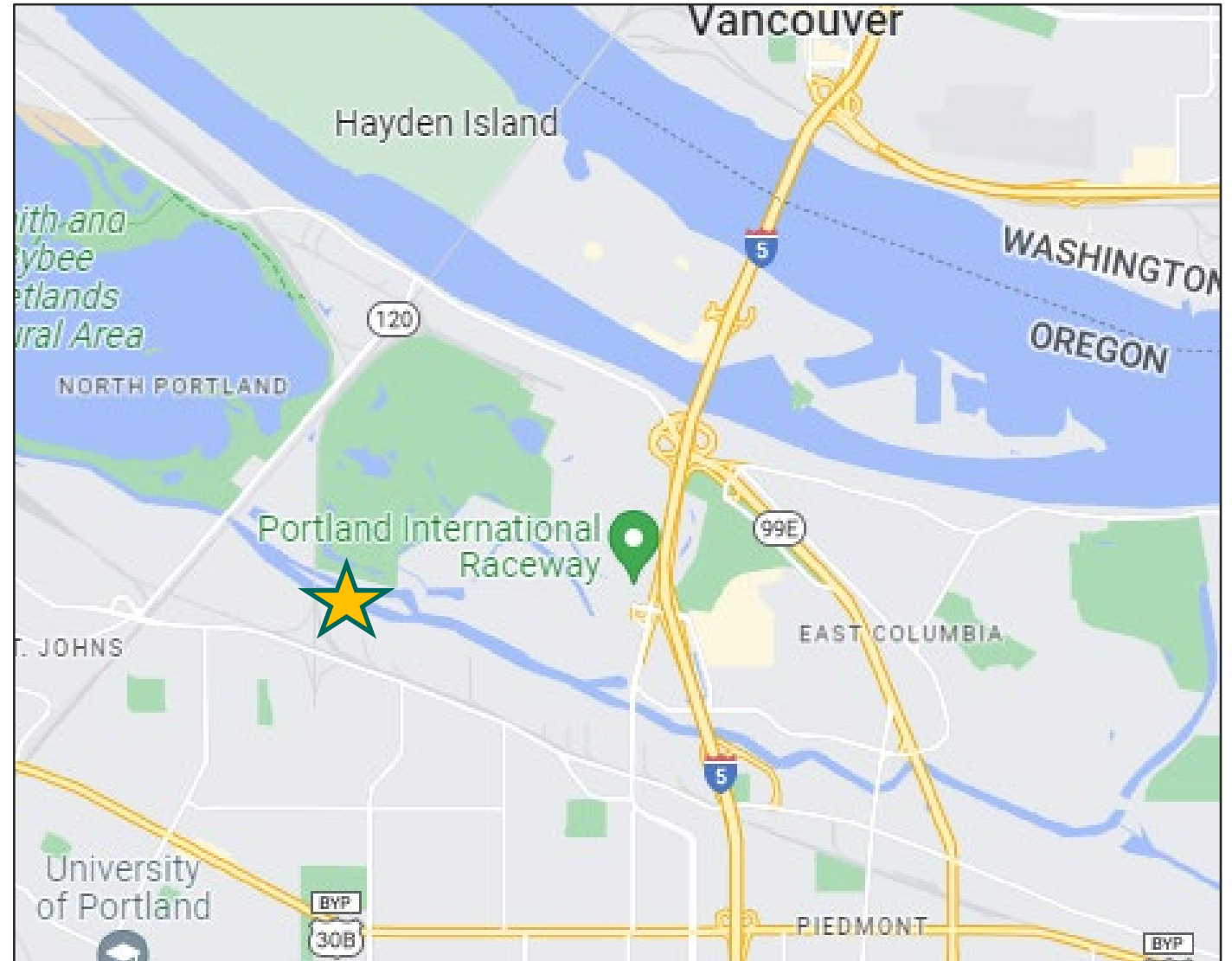


# Moore and Wright Islands Natural Area Sediment Cleanup

Columbia Slough Watershed Council: Quarterly Update

Sarah Miller and Heidi Nelson  
Oregon Department of Environmental Quality

October 8, 2025



# Thank You to Our Project Partners



# Moore & Wright Islands Sediment Area



သတိပေးချက်  
注意  
Kapas auchea  
တပ်ပလီ  
ကပ္ပဗုဗ္ဗီ  
चेतावनी  
Avertizare  
Предупреждение  
Advertencia  
Digniin  
Убара  
Cảnh báo

# WARNING!

## Fish Smart. Eat Safe.

Fish from the Columbia Slough  
may be harmful to eat

**DO NOT EAT**  
Throw away  
head, skin, tail,  
guts, and fats.  
Fats have more  
pollutants.

**OKAY TO EAT**  
Eat  
only fillets  
1 time  
each month.

**WHO IS MOST  
AT RISK?**  
Mothers, babies,  
small children

FOR MORE INFORMATION  
City of Portland  
Bureau of Environmental Services  
[www.portlandoregon.gov/bes/FishAdvisory](http://www.portlandoregon.gov/bes/FishAdvisory)  
Oregon Health Authority  
[www.healthoregon.org/fishadv](http://www.healthoregon.org/fishadv)

FOR TRANSLATION AND  
OTHER SERVICES  
Call 503-823-7740

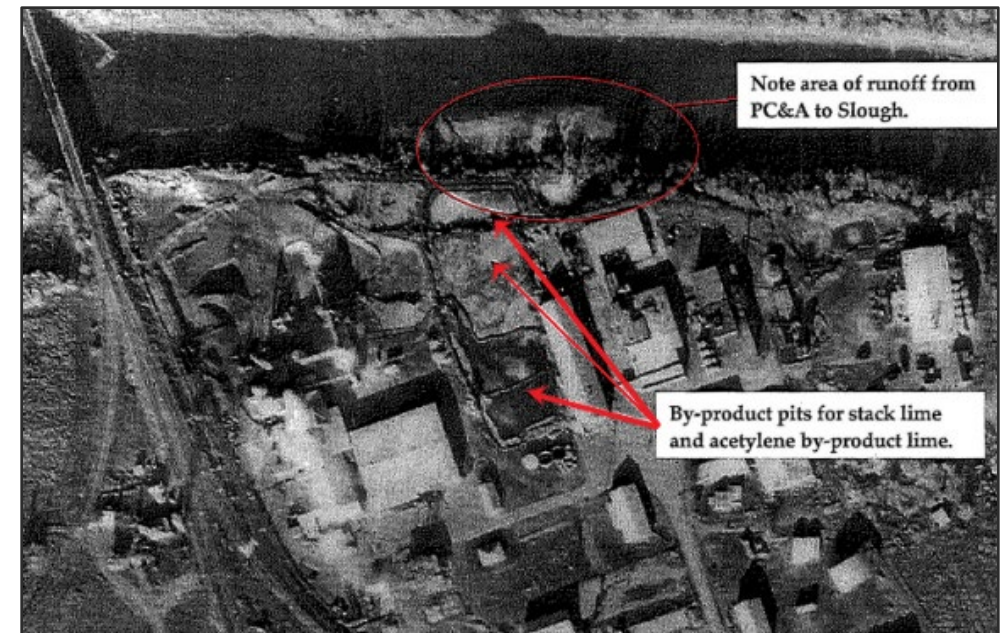
Oregon Health  
ENVIRONMENTAL SERVICES  
CITY OF PORTLAND  
working for clean rivers

State of Oregon  
Department of  
Environmental  
Quality  
DEQ



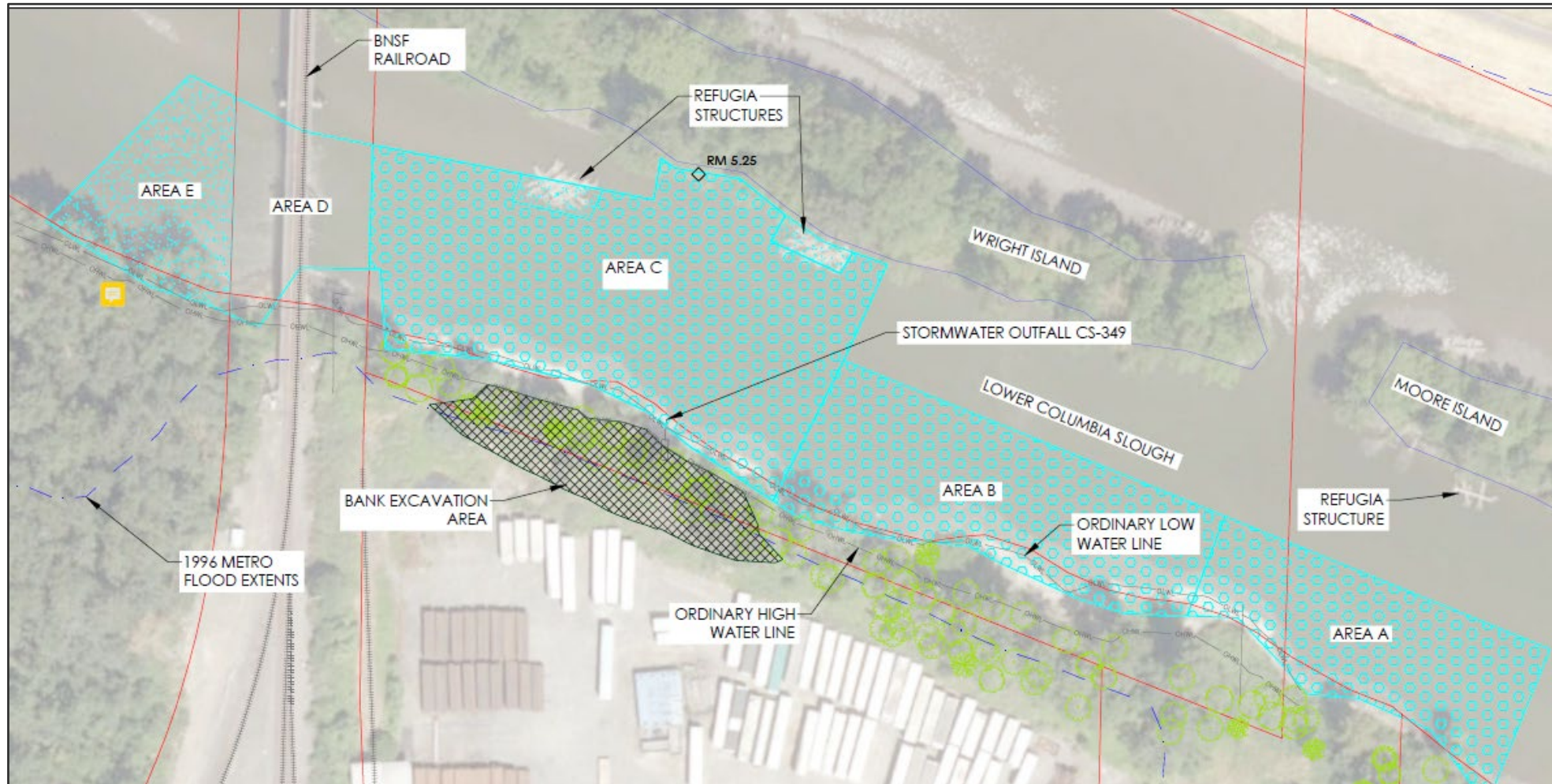
# Pacific Carbide Site Background

- Calcium carbide manufacturing plant (1940s-1987)
- Wastes stored onsite settling basins adjacent to slough
- Discharge pipes and bank failures between basins and slough prior to 1970s
- Contaminants: PAHs, PCBs, metals,  
pH and significant calcium
- 2003 enters DEQ VCP
- Upland source control in 2013
  - RP settled for in-water impacts
- 2015-DEQ investigation & design
- 2023-Orphan declared in adjacent sediments





# Moore & Wright Islands Remedy Design 2015-2024





# March 2025 – Site Prep Work Completed

- Installed erosion controls
- Installed tree protection fencing at bank boundaries
- Cleared vegetation flush to ground surface to reduce chances of nesting birds
- Applied seedless hydro-mulch to stabilize the bank and prevent erosion
- Stockpiled cut logs on-site for reuse in future habitat and bank restoration efforts





# Pre-Construction Work – Benthic Survey



## Spring round of benthic monitoring



5 Locations:

SL-1, SL-2, SL-3/Dup,  
SL-4, SL-5/Dup



# Pre-Construction Work – BMPs and Fish Salvage

- Installation of Silt Curtains
- Background turbidity readings



Fish salvage within the work area



# Bank Soil Removal



- Above ordinary high water (line of the orange silt curtain)
- Reduce slopes
- Create additional flood storage (cut/fill balance)
- Removed about 2,600 yards (residually impacted soil)



# Soil Stockpiling and Management



- Stockpile management area
  - Lined
  - Bermed
  - Covered when not actively placing soil
- Material profiled as non-hazardous waste
- Material transported off-site to Wasco County Landfill for disposal



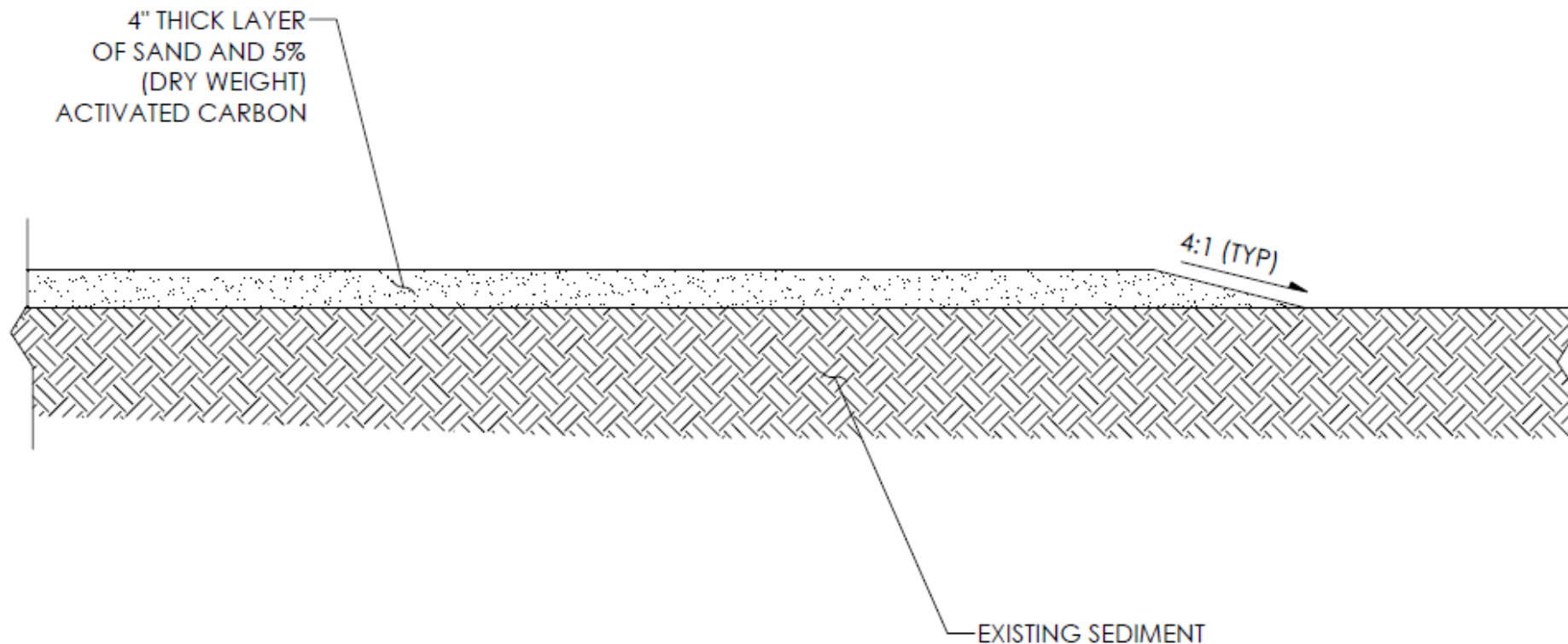
# Graded Bank



- Final bank slope 2:1
  - Stable bank and lowered erosion potential
  - Easier access for animals moving within this habitat corridor (island and downgradient trails and natural areas near Smith and Bybee)
- Ready for additional top-soil and native plantings

# Cap Details - Area E

## Cap Profile for Area West of the Railroad Bridge





# Amended Sand Cap Materials





# Cap Material Preparation



- GAC is placed in water to hydrate
- Sand is added to GAC
- Mix ratio is 5% GAC to Sand
- Excavator combines in hopper
- Hopper is transferred by the crane to the overwater barge
- GAC is placed on the surface using a bark spreader



# Amended Sand Cap Placement

On-water loading of mixed materials

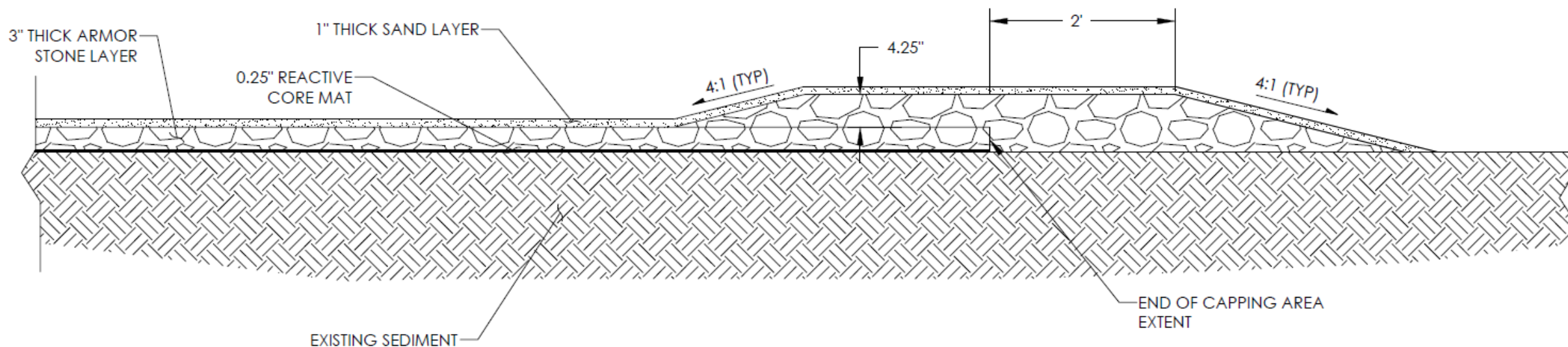


Application using the spreader



# Cap Details – Areas A, B, and C

## Cap Profile for Areas East of the Railroad Bridge

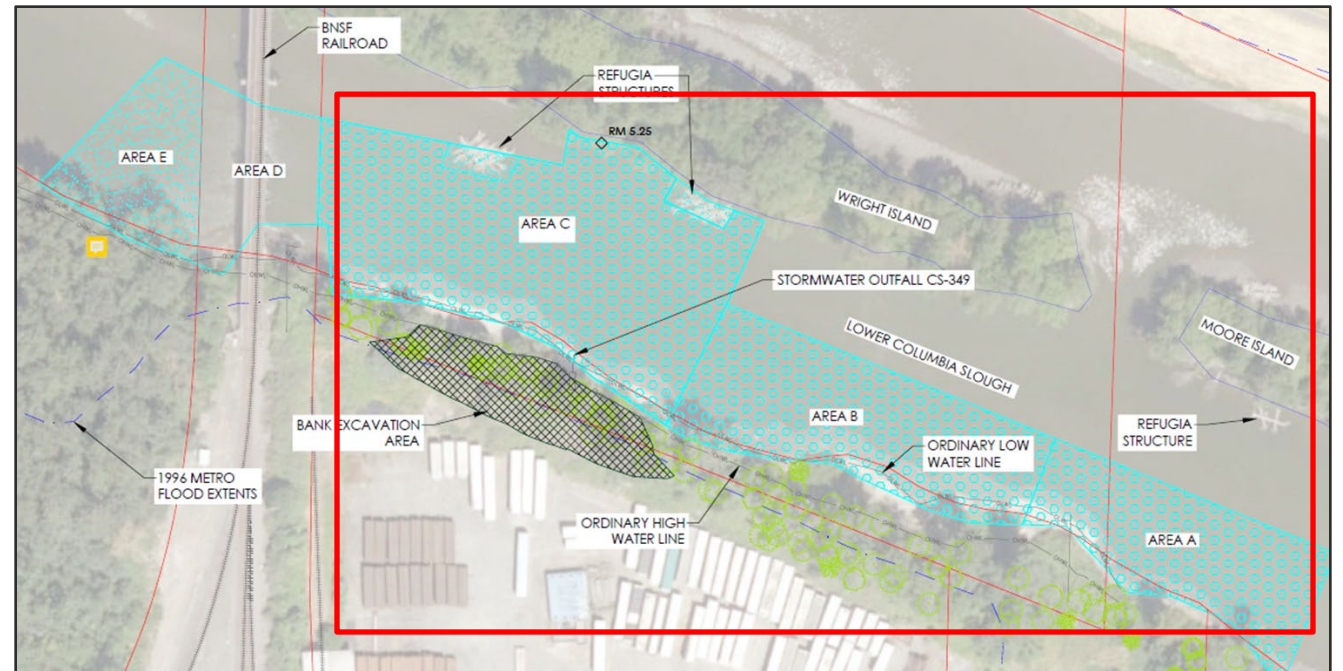




# Reactive Core Mat Overview



<https://www.mineralstech.com>



Placement area with schematic of  
how the panels are laid down.

Longevity



# Reactive Core Mat Panel Layout

Pre-cut panels delivered to the site, ranging in size from 40 to 200 feet





# Reactive Core Mat Installation



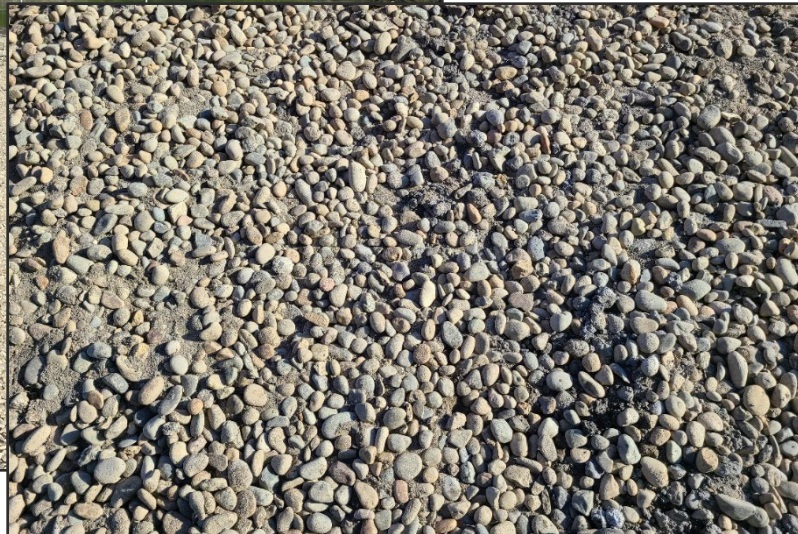
2-foot-deep anchor trench at bank-side of each panel



Panels overlapped a minimum of 1-foot  
(shingle layover)



# RCM Liner Armor Layer



- Graded rounded rock  
2-inch minus
- Minimum depth  
3-inches
- Rock is covered with clean sand
  - Habitat layer
  - Provide stability in rock lift



# Challenges



- Manufacture and shipping of custom capping materials took longer than expected and caused a ~ month delay
- Unknowns related to RCM installation and tidal fluctuations during king tides
- In-water work variance issued until Oct 17
- Vandalism – silt curtain and rigging materials

# EPA Brownfield Grant

- EPA Brownfield Grant-
  - DSL/DEQ receive \$1 Million EPA Brownfield Grant in 2023

## Grant Objectives:

- Active cleanup of environmental contaminants
- Support environmental justice
- Community engagement
- Measurable environmental progress
  - Contaminant Reduction – Immediate
  - Fish-Tissue Sampling – 10-year intervals
  - Plant Survivorship – 3-years
  - Benthic Monitoring





# Summer Outreach & Education Events





# Next Steps

**Oct 10** - Complete in-water and upland work with Tapani

**Oct 17-Dec 31**

- Bank Restoration - Maintain erosion controls, mulch, seed and plant native plants – Oregon Woods
- Permit close-out reporting

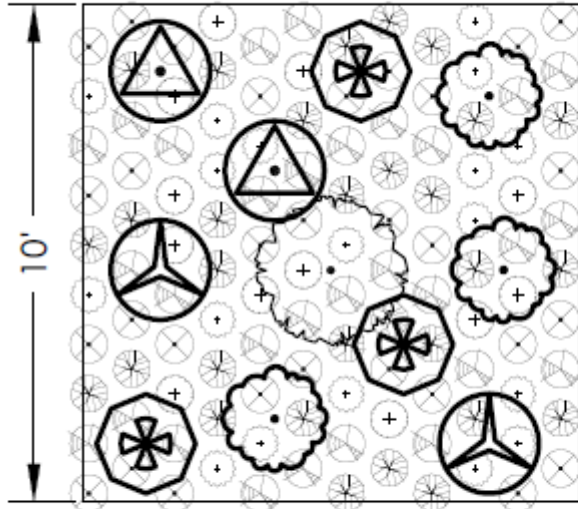
**May 2026** - Benthic sampling

**Longer Term** – Vegetation Monitoring, and Implement Institutional Controls





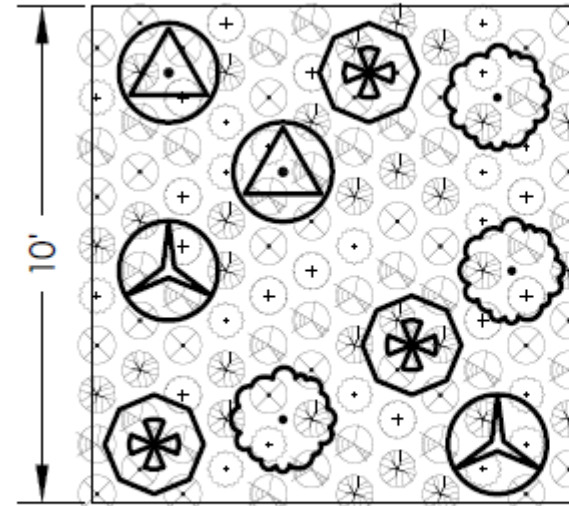
# Bank Restoration



1 ENLARGED PLANTING PLAN: UPLAND  
SCALE: 1" = 5'

## PLANT LEGEND

- OREGON ASH, BIGLEAF MAPLE, OR DOUGLAS FIR
- RED TWIG DOGWOOD
- DOUGLAS' SPIREA
- TALL OREGON
- SNOWBERRY
- SWORDFERN
- PACIFIC WATER



## PLANT LEGEND

- RED TWIG DOGWOOD
- DOUGLAS' SPIREA
- TALL OREGON GRAPE
- SNOWBERRY
- SWORDFERN
- PACIFIC WATERLEAF
- GOLDENROD
- FRINGECUP
- LARGELEAF AVENS

2 ENLARGED PLANTING PLAN: RIPARIAN  
SCALE: 1" = 5'



# Project Close-Out Reporting

- Construction Completion Report, As-Built
  - Army Corps of Engineers, Dept of State Lands, City of Portland, Portland Parks, Property Owners
  - Due end of 2025
- Wildlife, Fish Salvage-
  - ODFW, Army Corps (NMFS)
- Archeological Report
  - Army Corps of Engineers, State of Oregon (SHPO)
- Annual Vegetation Monitoring Report
  - Dept of State Lands, Annually for 3 years
- Post Inspection Walk
  - Portland Parks and Recreation





# How To Stay Informed

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- <https://ordeq.org/Moore-Wright>
  - Weekly updates on story map link
  - Thursday afternoon
- Columbia Slough Watershed Council
  - Quarterly meeting





# Wrap up and Questions

- Sarah Miller
  - 503-229-5040
  - [sarah.miller@deq.oregon.gov](mailto:sarah.miller@deq.oregon.gov)
- Heidi Nelson
  - 503-229-6802
  - [Heidi.nelson@deq.oregon.gov](mailto:Heidi.nelson@deq.oregon.gov)
- Bill Ryan
  - [Bill.Ryan@dsl.oregon.gov](mailto:Bill.Ryan@dsl.oregon.gov)

[www.ordeq.org/columbiasloughcleanup](http://www.ordeq.org/columbiasloughcleanup)



# End

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