



Image source: Jon Thompson



# Port Angeles Rayonier Mill Public Comment Period

Marian Abbett, P.E., Section Manager TCP-SWRO and Site Manager

Connie Groven, P.E., UST/Technical Support Unit Supervisor

Abby Zabrodsky, Public Involvement Coordinator

July 8, 2025

# Rayonier Mill Public Review

Consent Decree, Draft Interim Action Plan,  
SEPA Determination of Non-significance

## Schedule of Events

5:00-6:00 Open House

6:00-7:15 Presentation and Q&A

7:15-8:00 Open House

## Public Comment Period

Comments accepted until August 12, 11:59 PM

Submit comments online:

[go.ecology.wa.gov/comment2270](https://go.ecology.wa.gov/comment2270)



Ecology's Rayonier Mill Webpage



Submit your comments online

## Introductions

Ecology Project Team	
Bobbak Talebi	Southwest Region Director
Nhi Irwin	Toxics Cleanup Program Manager
Marian Abbett	Section Manager/Project Manager
Connie Groven	Unit Supervisor
Nancy Davis	Environmental Planner
Thomas Praisewater	Environmental Engineer
Valerie Chu	Toxicologist
Abby Zabrodsky	Public Involvement Coordinator
Carolyn Subramaniam	Public Involvement Coordinator
Sarah Miller	Public Involvement Coordinator

## Documents Available for Comment

### We are accepting comments on:

- Consent Decree
- Draft Interim Action Plan
- State Environmental Policy Act Determination of Nonsignificance and Checklist



# Document Review

## In-person document review

Port Angeles Main Library


Ecology Lacey Office (by appointment)

- [PublicDisclosureSWRO@ecy.wa.gov](mailto:PublicDisclosureSWRO@ecy.wa.gov)
- or 360-407-6365



## Online review

Visit [go.ecology.wa.gov/2270](https://go.ecology.wa.gov/2270)

 DEPARTMENT OF  
**ECOLOGY**  
State of Washington

### Cleanup and Tank Search

Home Search Cleanups Search US Ts Contact Help

#### Port Angeles Rayonier Mill Site

700 N Ennis  
Port Angeles, Clallam County

Facility Site ID: 19  
Cleanup Site ID: 2270

##### Site Status

Cleanup Started

##### Brownfield

This site has received funding as part of our Brownfields Program. [Brownfields Public Fundings: \\$200,000.00](#)

##### Site Details

Download Site Report

**View documents 116**

View contaminants 16

##### Contacts


Marian Abbott PE  
marian.abbott@ecy.wa.gov  
Site Manager  
360-489-4569

Southwest Regional Office  
360-407-6300

##### More about cleanup

- Cleanup comment periods and events
- Terms and acronyms
- The cleanup process
- Contaminated sites in Washington

##### Site Description



Visit the [Rayonier Mill project home page](#) for more information and the latest news about the cleanup.

Rayonier ran a pulp mill on the property from 1930 to 1997, and then afterwards dismantled the mill. When the mill was running, sulfite and acid would break down wood chips into cellulose fibers. Operations at the mill contaminated air, soil, groundwater, and sediments.

In 2008, the City of Port Angeles and the Port of Port Angeles created the Port Angeles Harbor Works Development Authority (PAH-WDA) with the intention of acquiring the Rayonier Mill property to integrate redevelopment into the cleanup.

In 2010, the city's and port's PAH-WDA received an Ecology (Brownfields Program) Integrated Planning Grant for \$200,000. PAH-WDA used these funds to conduct due diligence and market analysis in support of their plans to acquire the property.

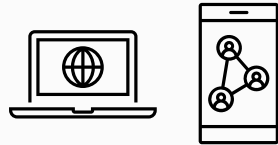
The extent of contamination at the site is unknown, so we decided to focus on a study area that includes the former mill property and adjacent marine environment.

The amount and type of contamination vary across the upland portion of the Study Area. Most of the contaminated hot spots were cleaned up with interim actions in the 1990s and 2000s. Over 30,000 tons of contaminated soil was removed from the site.

##### Status Update

The remedial investigation and feasibility study for the Study Area are complete. We are preparing the public review draft of the interim action plan for the Study Area and a new legal agreement to implement the plan. Both the plan and the legal agreement will be available for public comment when they are ready.

Comment period will close  
**Tuesday, August 12 at 11:59 PM**



**Submit comments online**

[go.ecology.wa.gov/comment2270](https://go.ecology.wa.gov/comment2270)



**Or by mail or email**

**Marian Abbett, Site Manager**

WA State Department of Ecology

PO Box 47775

Olympia, WA 98504-7775

[Marian.Abbett@ecy.wa.gov](mailto:Marian.Abbett@ecy.wa.gov)

**How to  
Comment**

## After the comment period, we will:

- Consider your comments
- Update the documents as needed
- Respond to comments in a comment responsiveness document

# Comment Response

# Presentation Overview

**1**

Washington's Cleanup Process

**2**

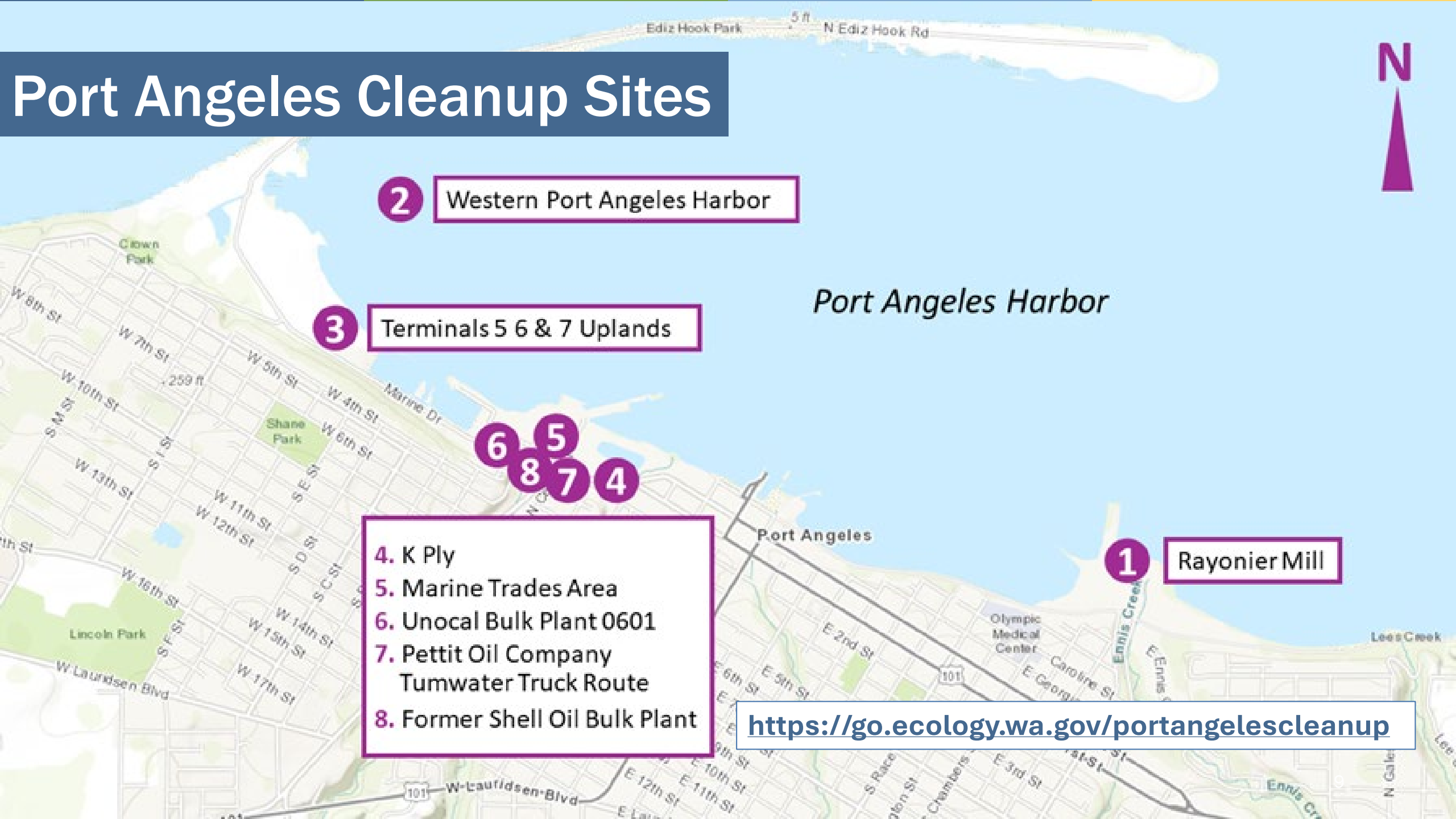
Rayonier Mill Study Area Cleanup

- Draft Interim Action Plan
- Cleanup, Structure Removal, and Restoration
- Consent Decree

**3**

Next Steps

# Port Angeles Cleanup Sites



2 Western Port Angeles Harbor

3 Terminals 5 6 & 7 Uplands

4 5 6 7 8

- 4. K Ply
- 5. Marine Trades Area
- 6. Unocal Bulk Plant 0601
- 7. Pettit Oil Company  
Tumwater Truck Route
- 8. Former Shell Oil Bulk Plant

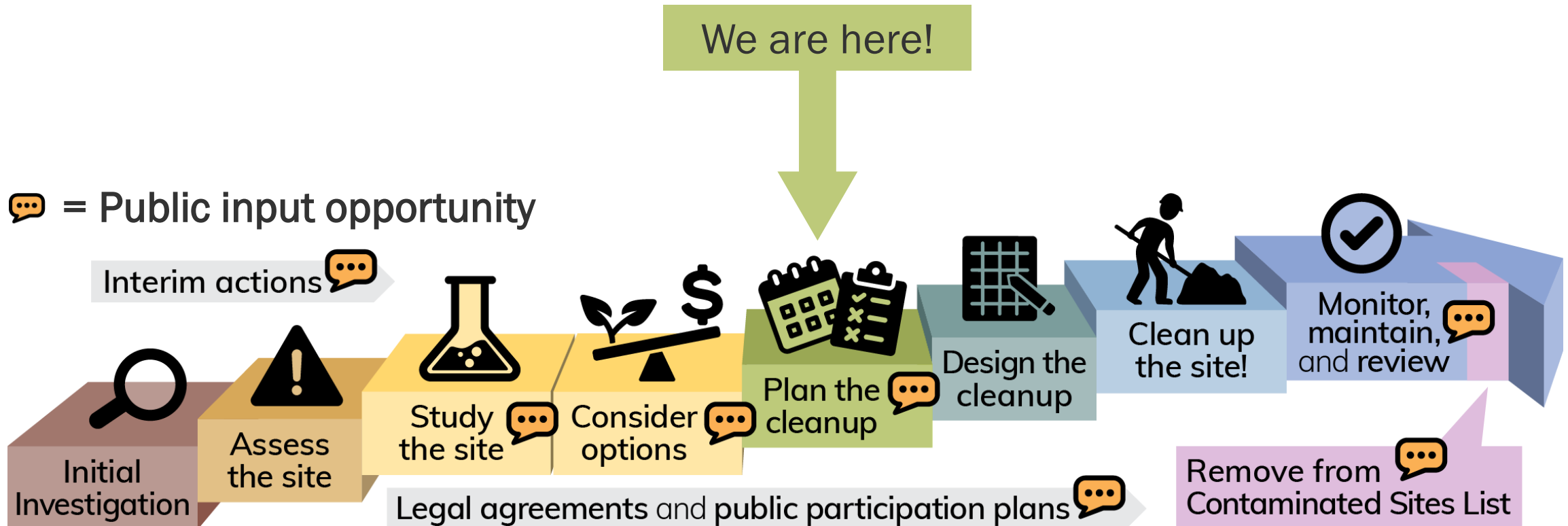
1 Rayonier Mill

<https://go.ecology.wa.gov/portangelescleanup>

# Cleanup Process

We are here!

 = Public input opportunity



# Remedial Investigation and Feasibility Study (RI/FS) Process



## 1. Collect Data

- What?
- Where?
- How much?



## 3. Set Cleanup Standards

- Cleanup Levels
- Points of Compliance



## 2. Evaluate Risk

- Pathways



## 4. Evaluate Remedies

- Benefits
- Cost
- Permanence





# Rayonier Mill Study Area



Rayonier Mill and floating log ponds while in operation.

# Rayonier Mill Study Area

*Strait of Juan de Fuca*

*Port Angeles Harbor*

Study Area

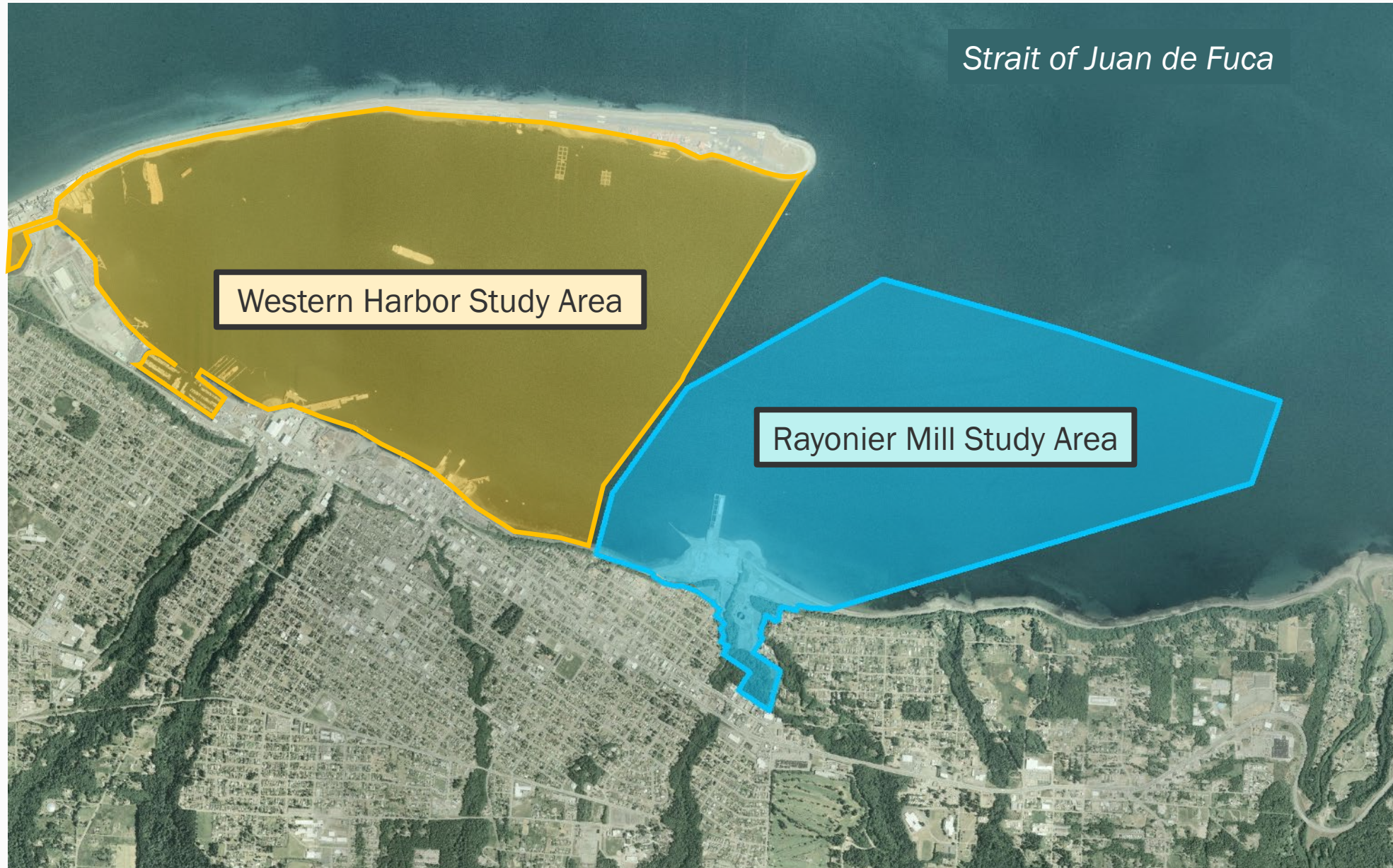
Marine

Upland

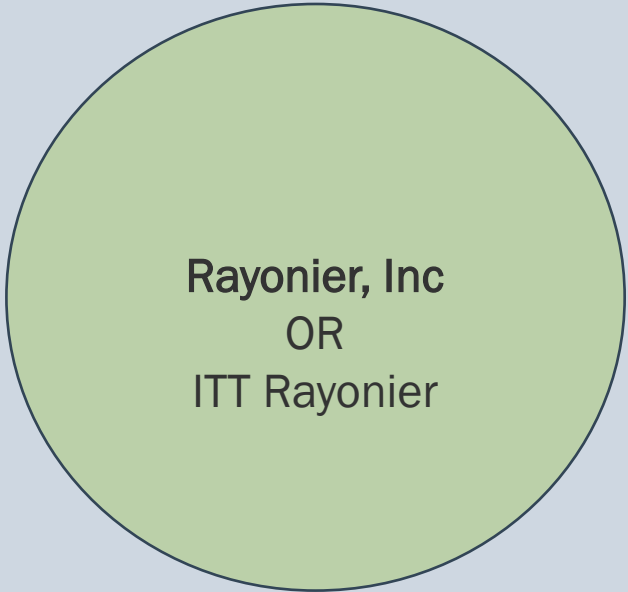
— Deep Water  
Outfall Line



# Rayonier Mill and Western Harbor Study Areas



# Rayonier – What's In a Name...



A large green circle with a black outline. Inside the circle, the text "Rayonier, Inc" is on the top line, "OR" is on the second line, and "ITT Rayonier" is on the third line.

Rayonier, Inc  
OR  
ITT Rayonier

Before 2004



A large green circle with a black outline. Inside it is a smaller light blue circle with a black outline. The text "Rayonier, Inc" is at the top of the green circle. The text "Rayonier Properties LLC" is centered inside the light blue circle.

Rayonier, Inc

Rayonier  
Properties  
LLC

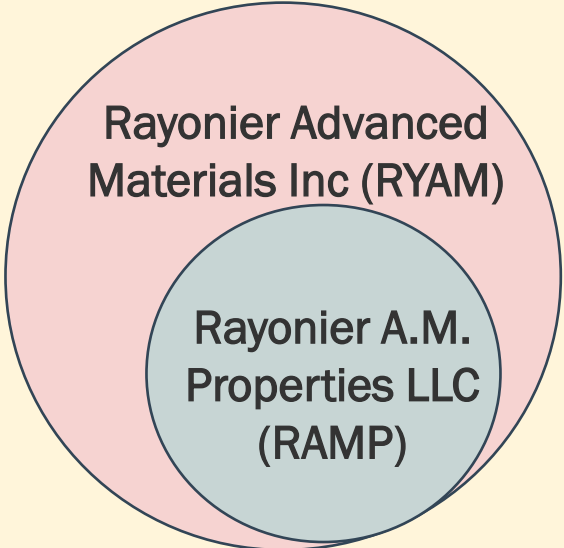
2004-2014



A large green circle with a black outline. Inside the circle, the text "Rayonier, Inc" is centered.

Rayonier, Inc

Forest Resources,  
Real Estate



A large pink circle with a black outline. Inside it is a smaller light blue circle with a black outline. The text "Rayonier Advanced Materials Inc (RYAM)" is at the top of the pink circle. The text "Rayonier A.M. Properties LLC (RAMP)" is centered inside the light blue circle.

Rayonier Advanced  
Materials Inc (RYAM)

Rayonier A.M.  
Properties LLC  
(RAMP)

Performance Fibers

2014-present



# Rayonier Mill Background



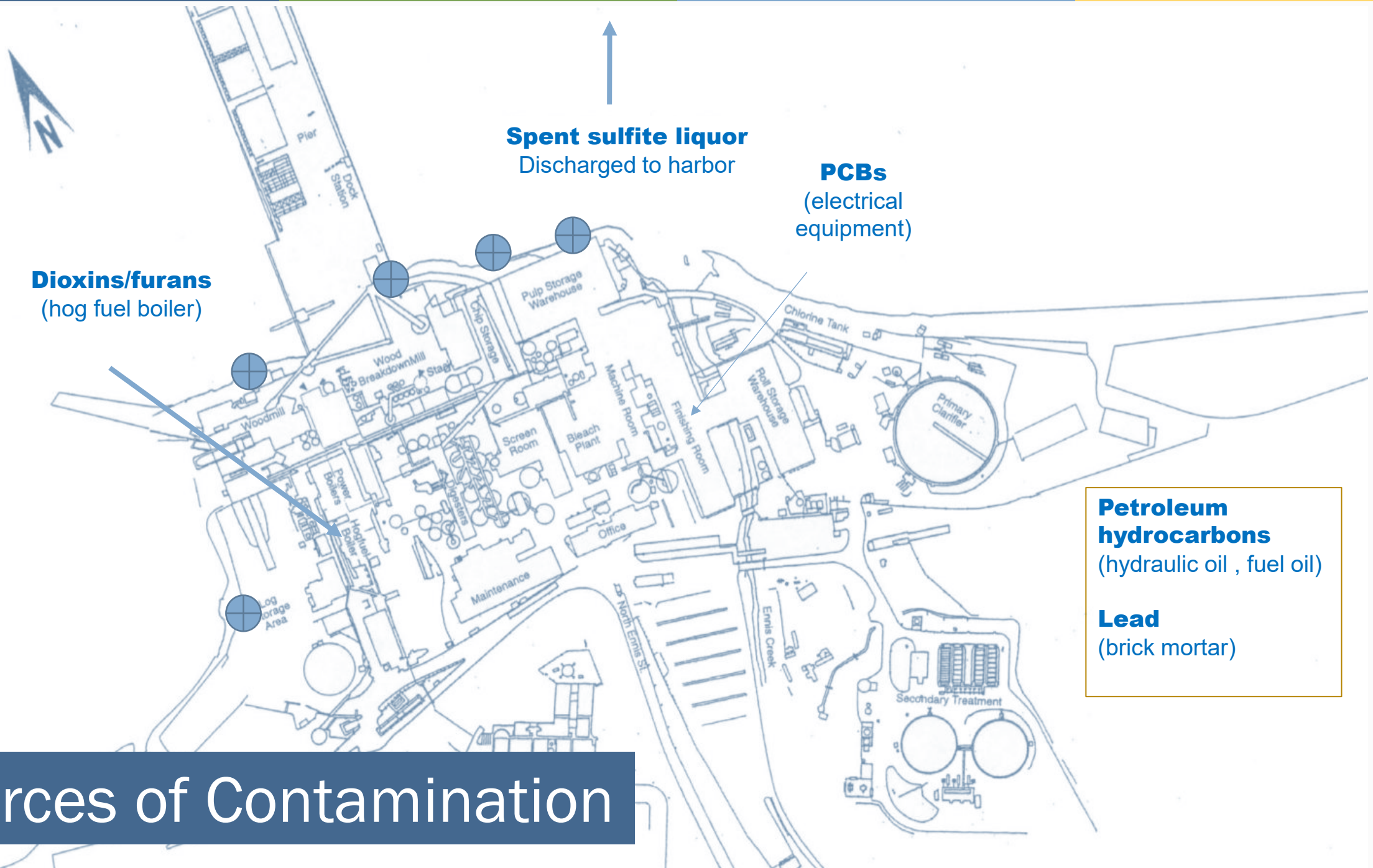
Mill in operation, 1994



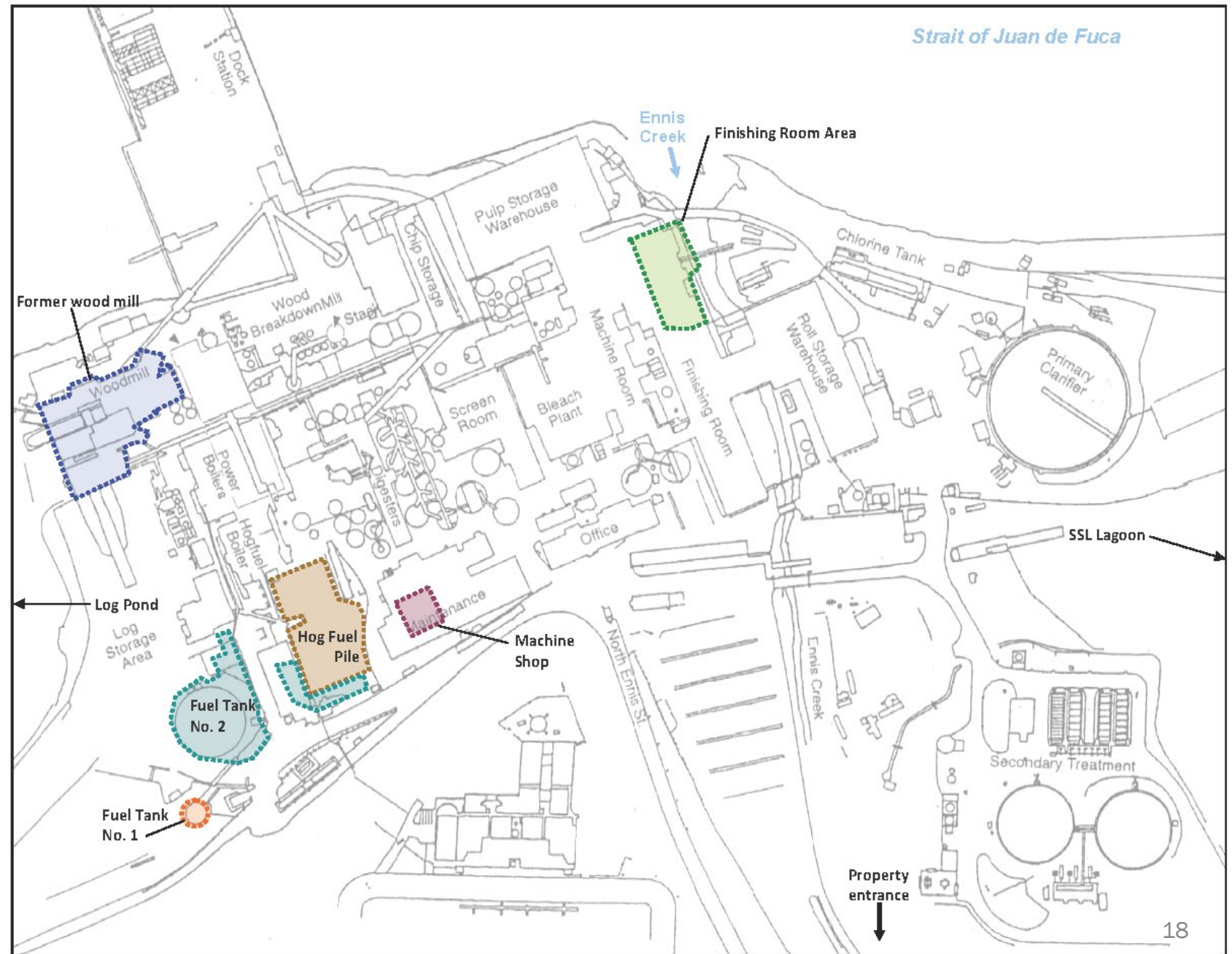
Dismantled mill site, 2006



# Sources of Contamination



# Interim Action Areas





# Study Area Cleanup Progress

## Rayonier tasks under Agreed Order

**Feb 2013** Upland data summary report (Volume I) ✓

**Dec 2014** Marine data summary report (Volume II) ✓

**July 2019** Evaluate Interim Action alternatives (Volume III) ✓

**Dec 2021** Draft Interim Action Plan (Volume IV) ✓

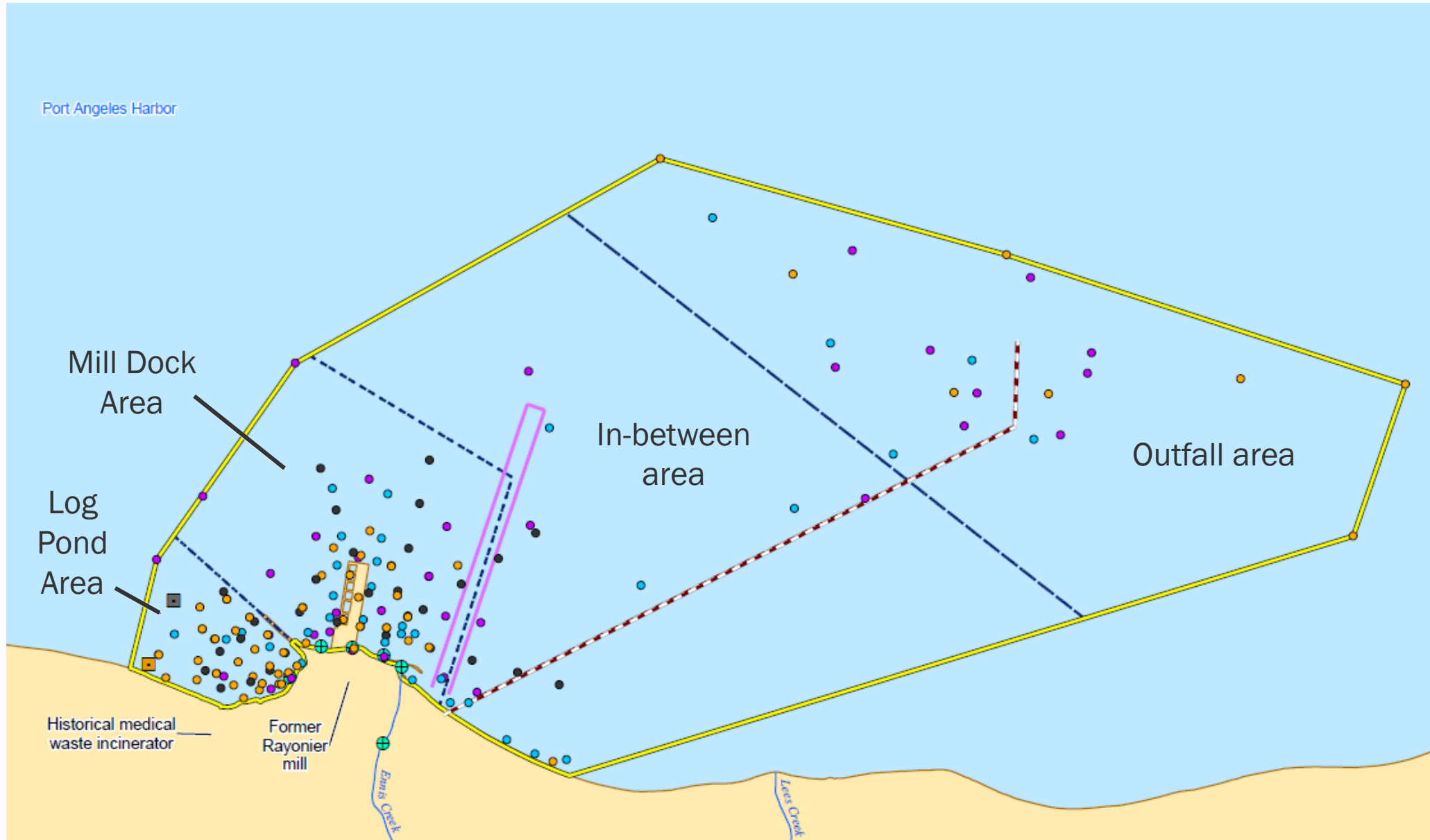
## Ecology tasks

**Aug - Nov 2019** Public Comment Period on Volumes I, II, and III ✓

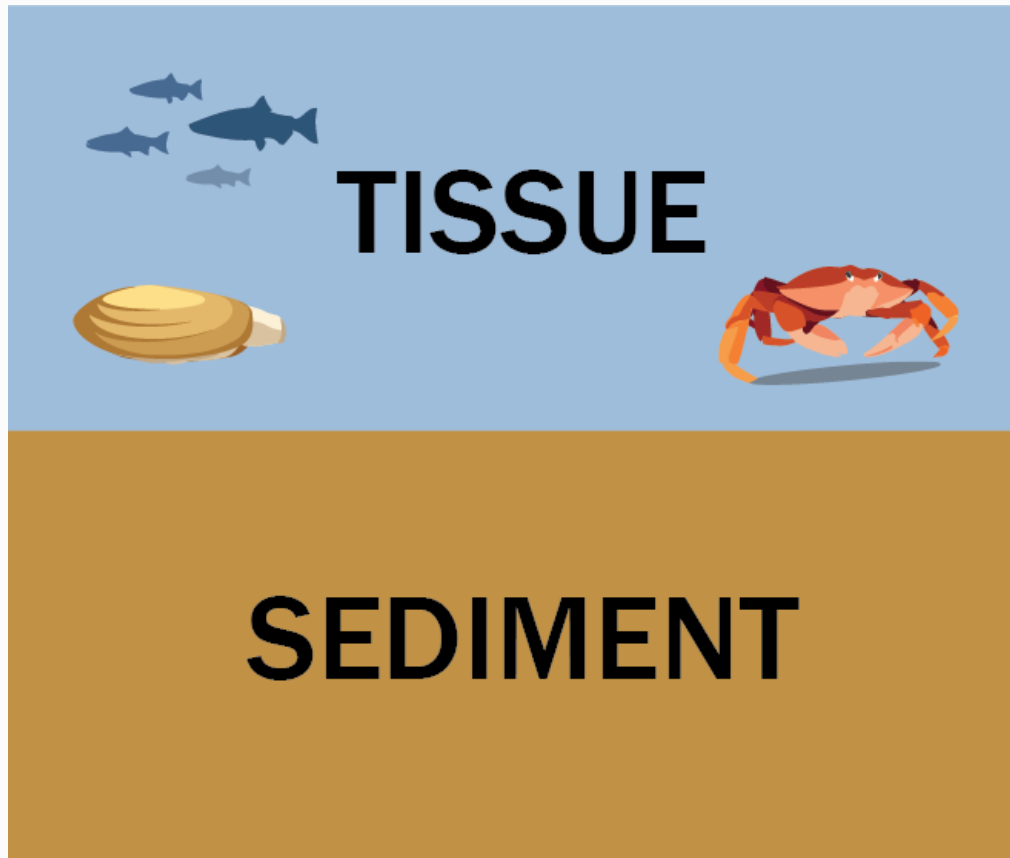
Revise into Ecology's draft Interim Action Plan ✓

**June - Aug 2025** Public Comment Period on draft Interim Action Plan and Consent Decree ★

# Marine Sampling Locations



# Marine Contamination

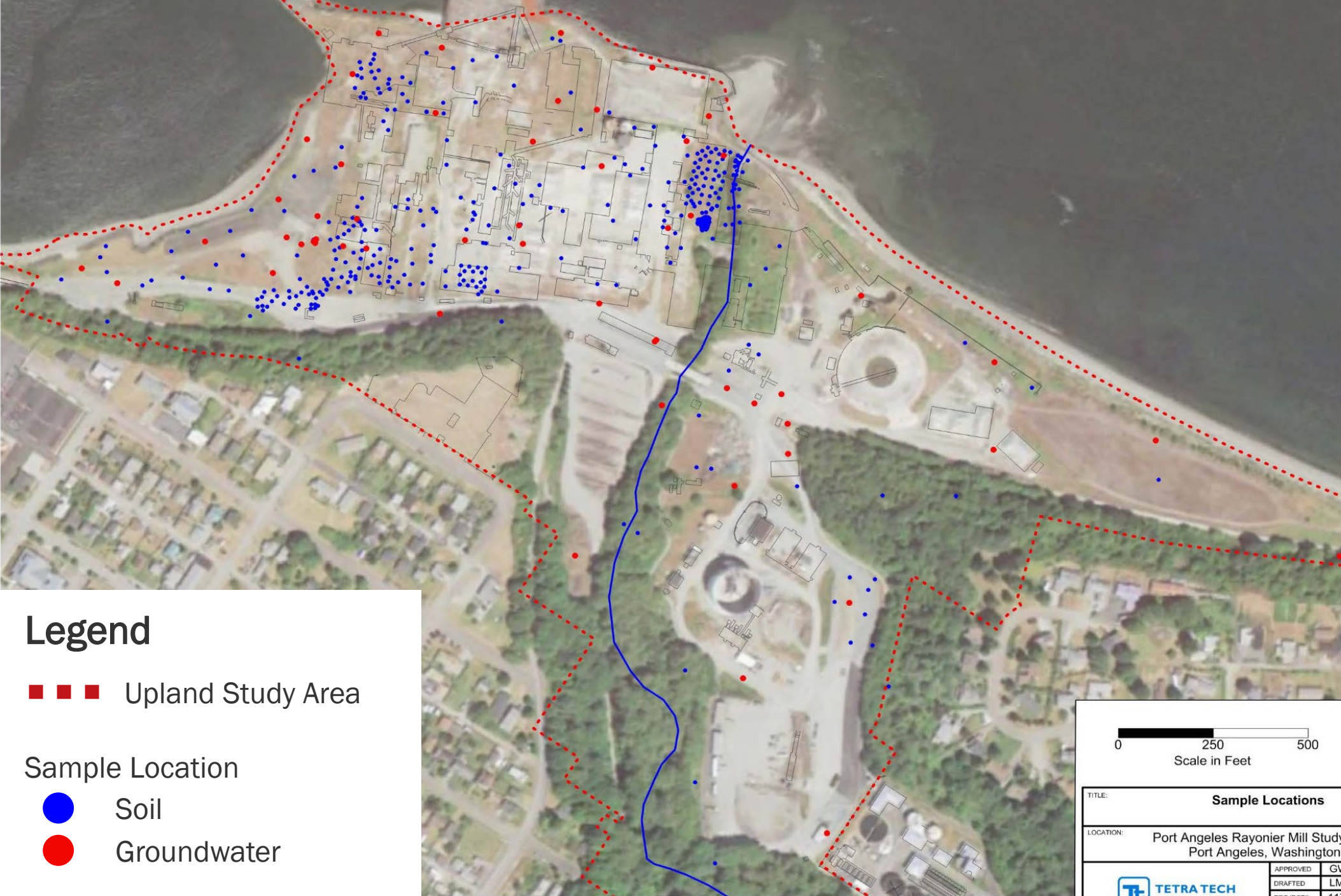


Metals  
PAHs  
PCBs  
Dioxins

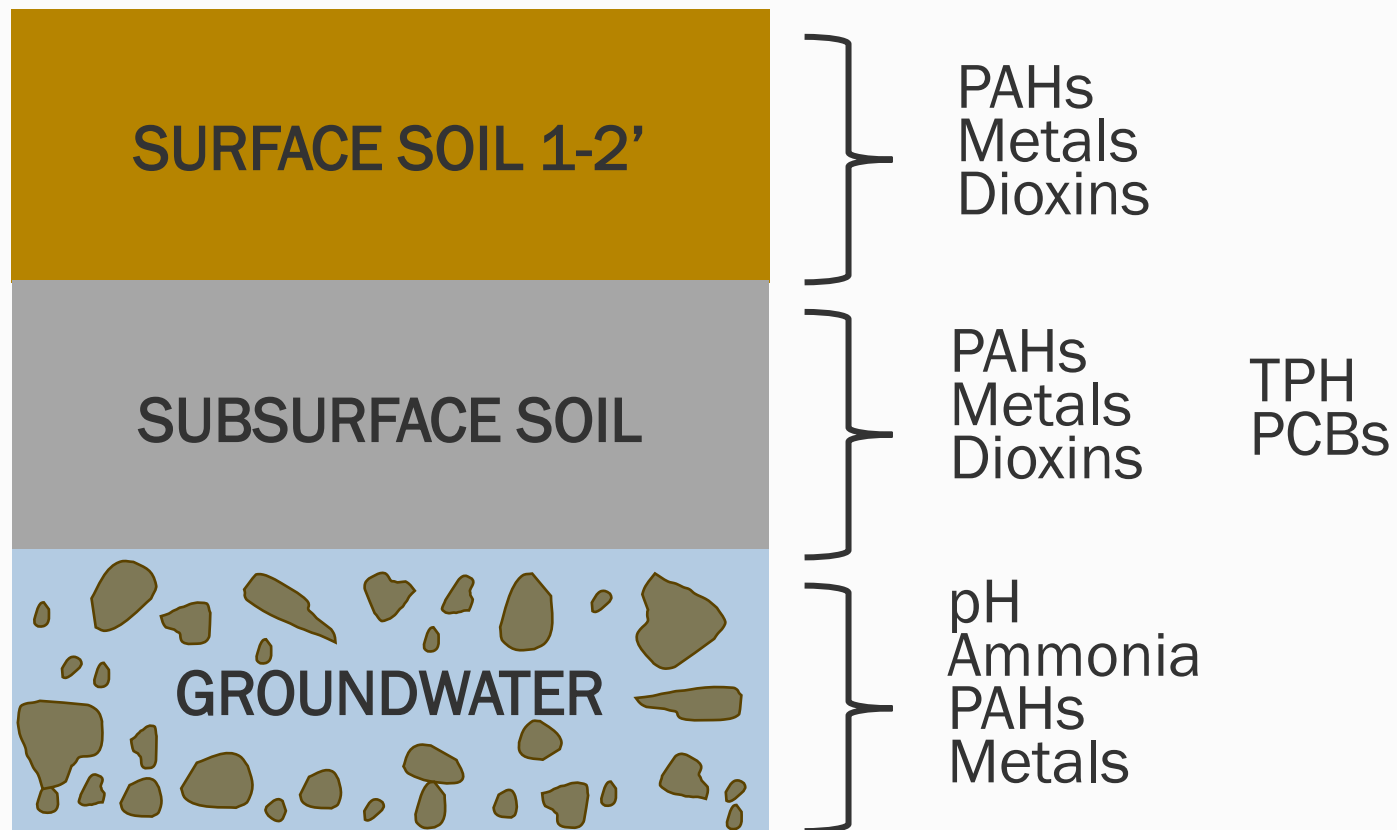
Metals  
PAHs  
PCBs  
Dioxins

Phenols  
Phthalates  
Wood debris

# Upland Sampling Locations

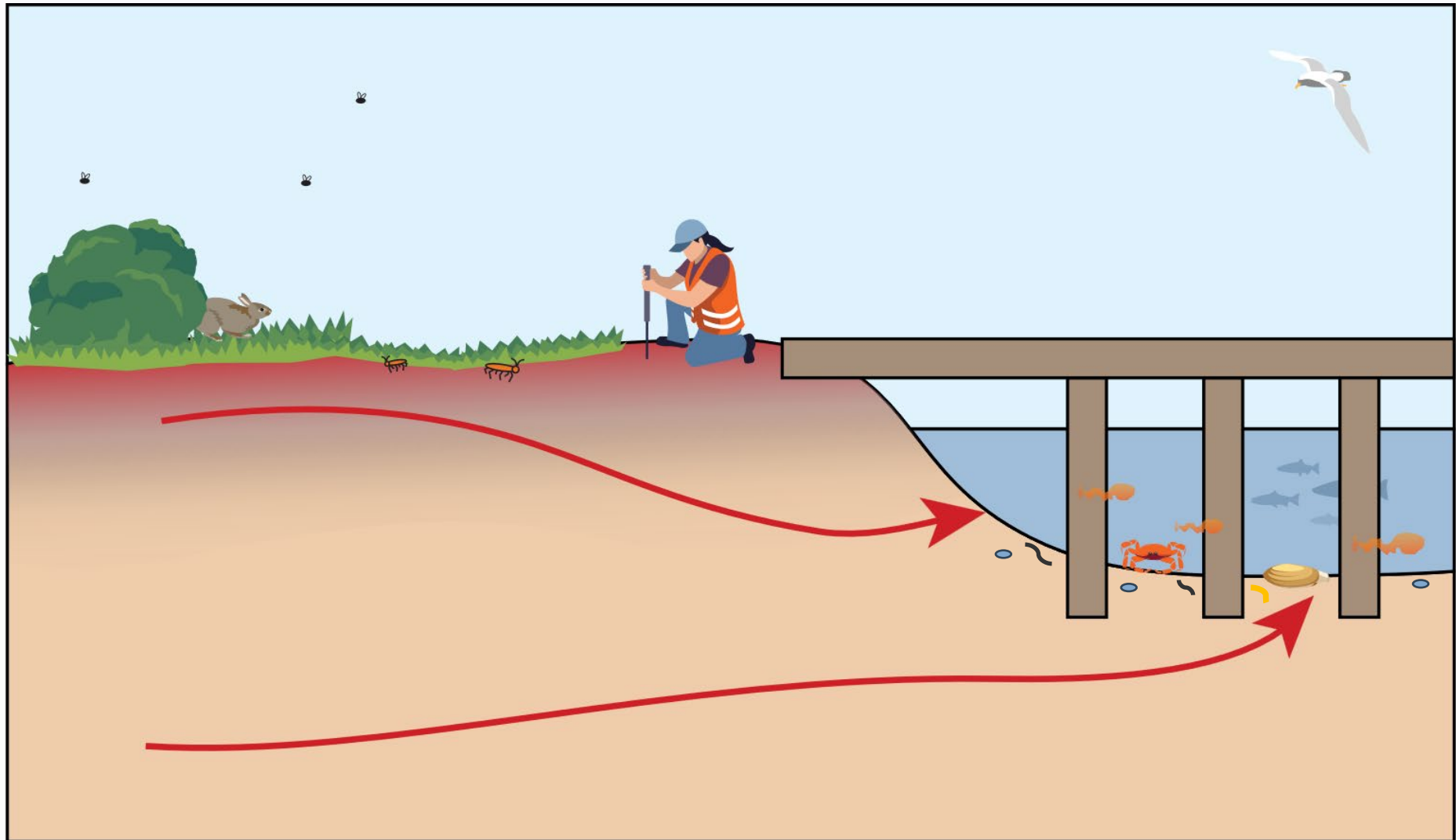


# Upland Contamination





# Exposure Pathways



# Selected Remedy

Media	Cleanup Actions	Cost (2019 \$)
Sediment	SMA1 – fill berth, EMNR SMA2 – dredge intertidal; EMNR subtidal SMA3 – contingent (EMNR or thin-layer cap or dredge) SMA4 – contingent (EMNR or thin-layer cap or dredge)	\$10.9M - \$13M
Soil	Consolidate and cap where soil exceeds unrestricted use cleanup levels	\$10M
Groundwater	Air sparging in phased approach	\$5.7M
Total		\$26.6M - \$28.7M



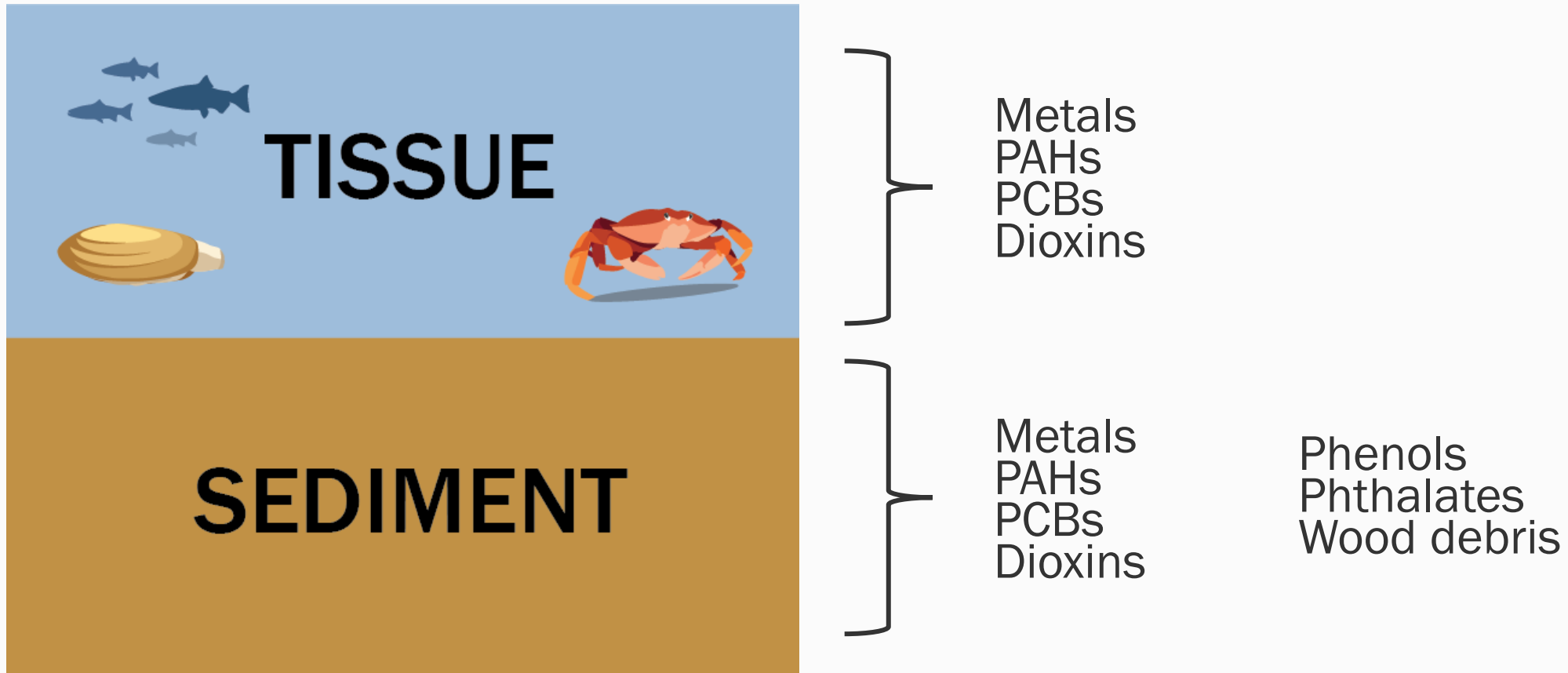


# Sediment

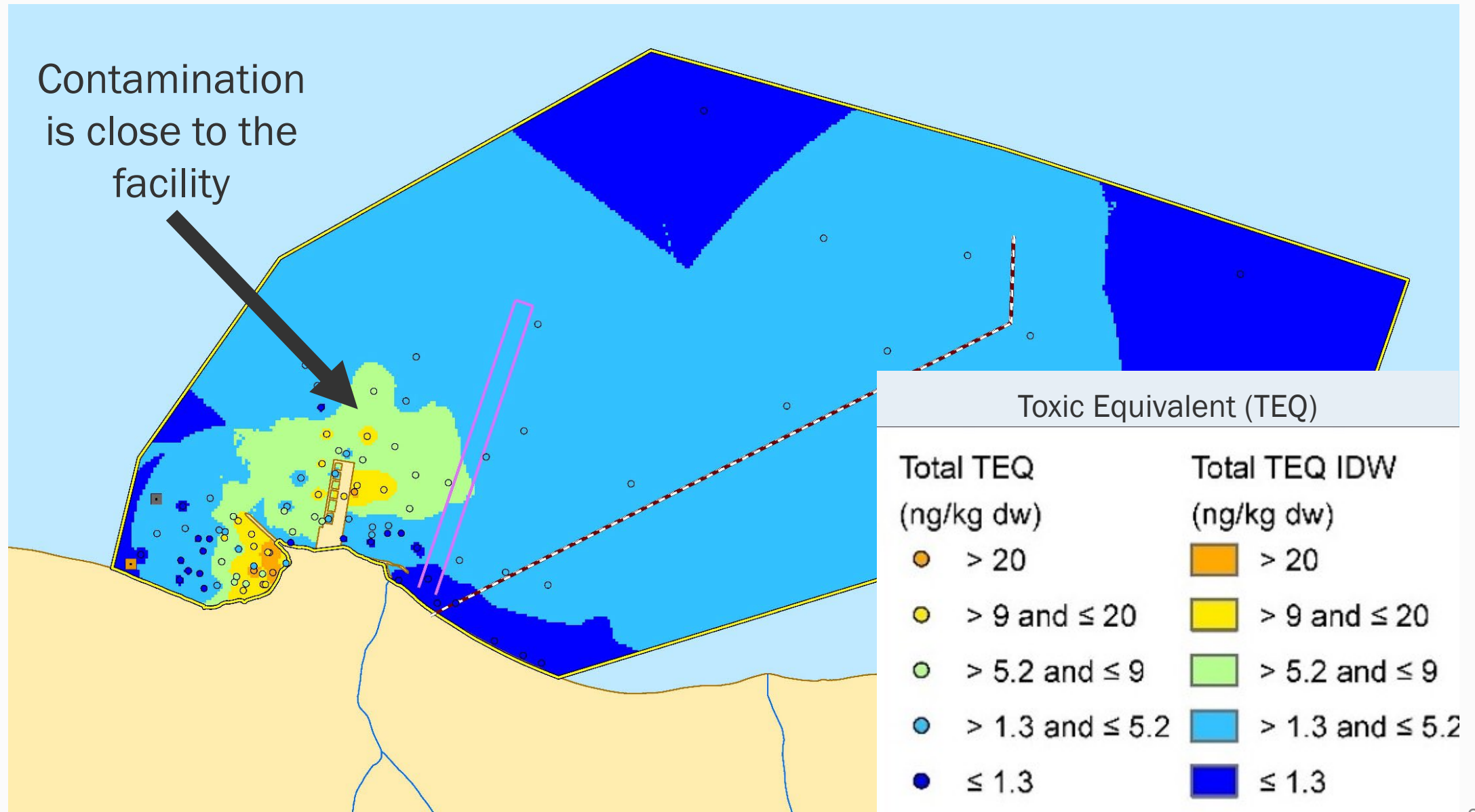


Beach looking east

# Marine Contamination

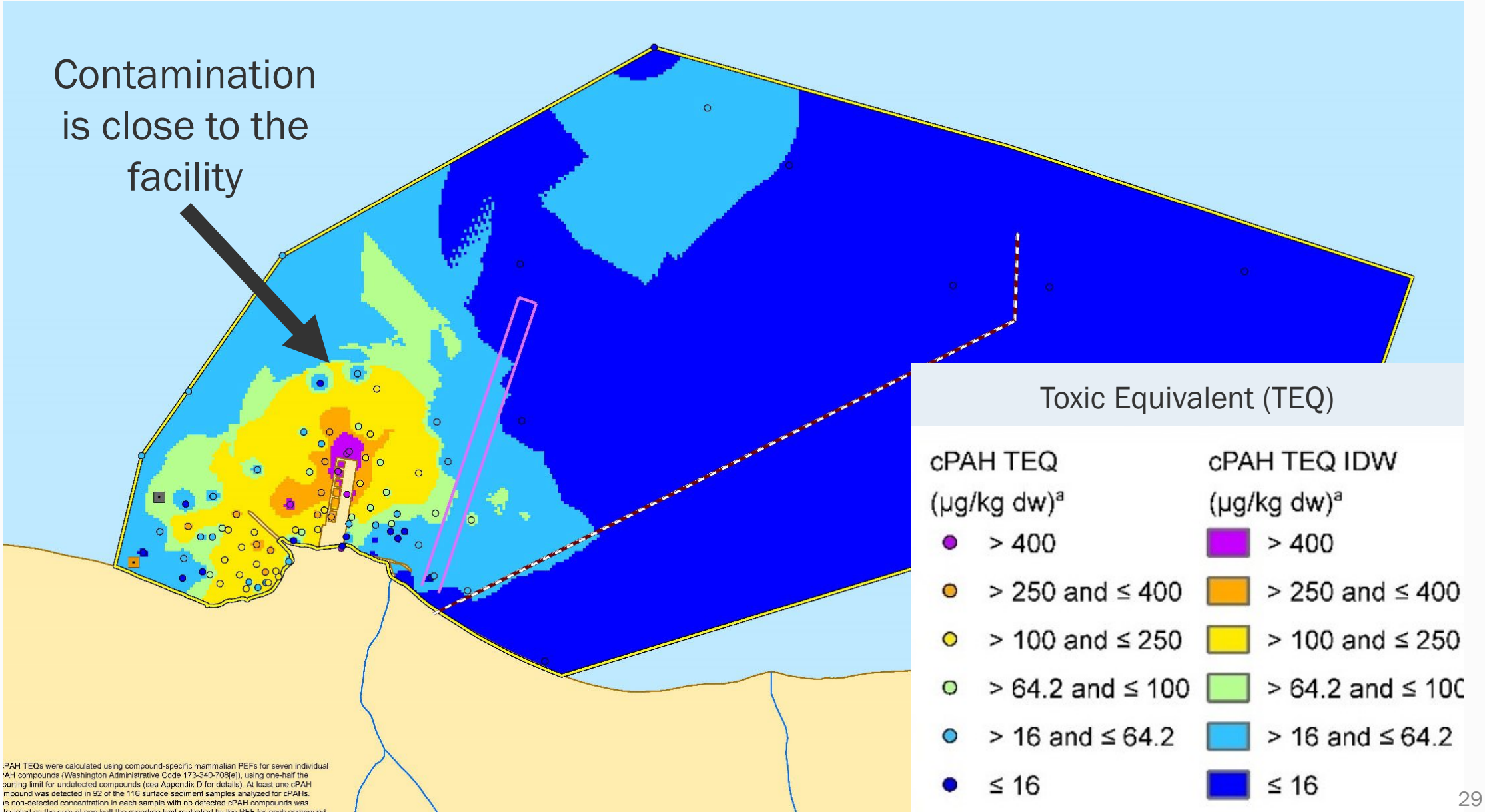


# Sediment Contamination – PCB and Dioxin

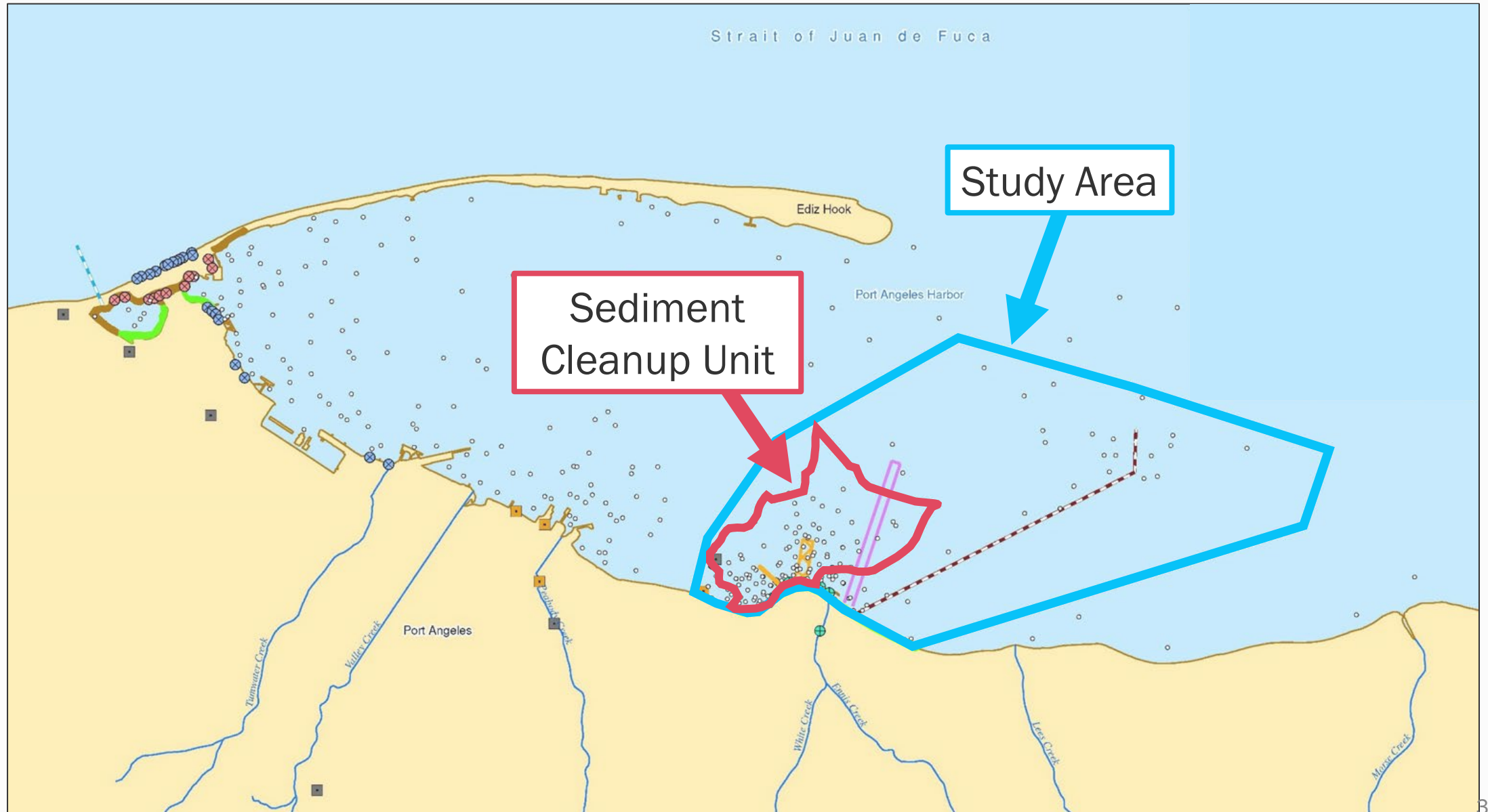




# Sediment Contamination – Polycyclic Aromatic Hydrocarbons (PAHs)



# Remediation Footprint – Sediment Cleanup Unit





Rayonier Mill and  
Western Port Angeles Harbor  
Cleanups

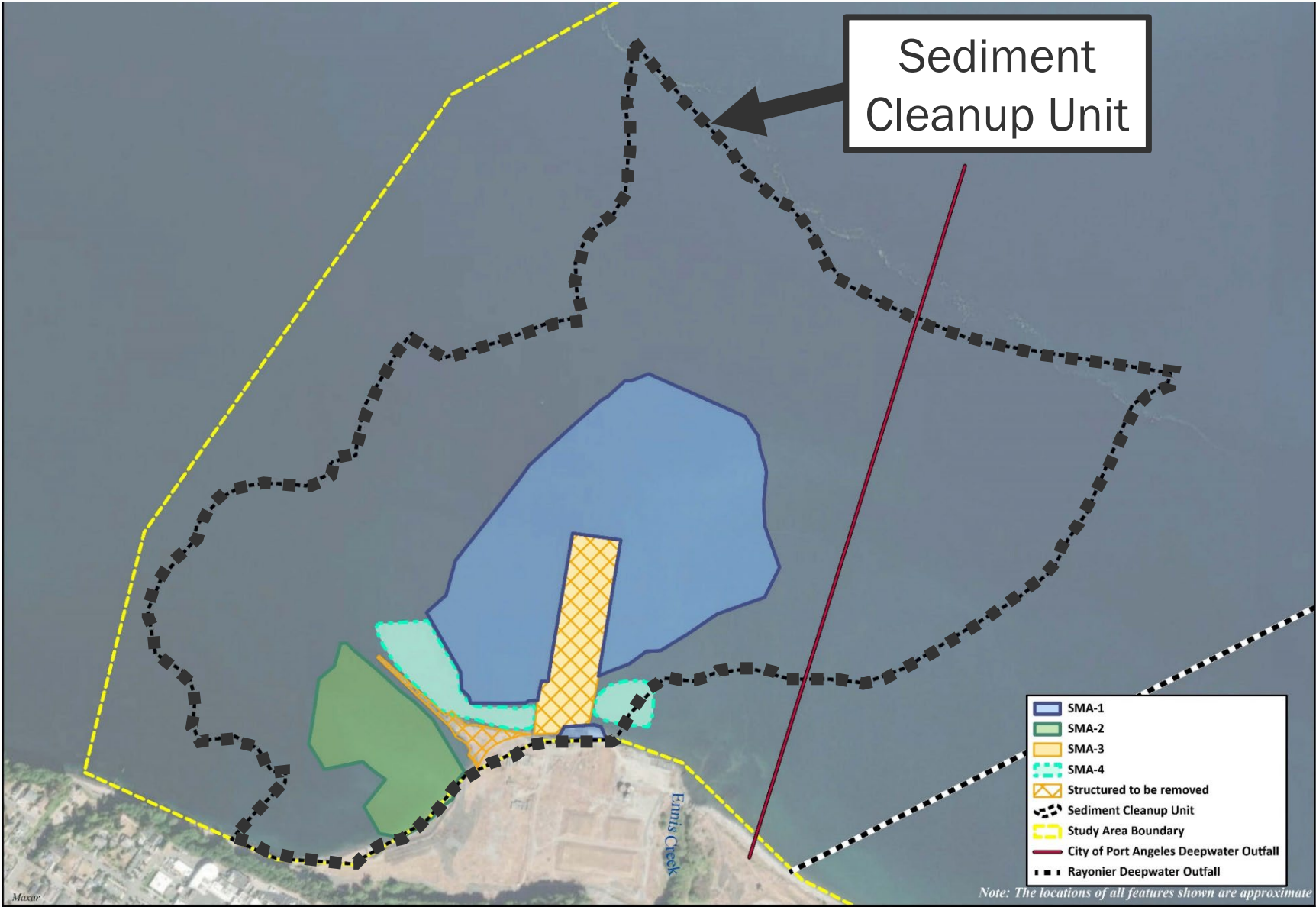
Rayonier Mill  
Sediment Cleanup Unit

Rayonier Mill  
Study Area



# Sediment Management Areas (SMAs)

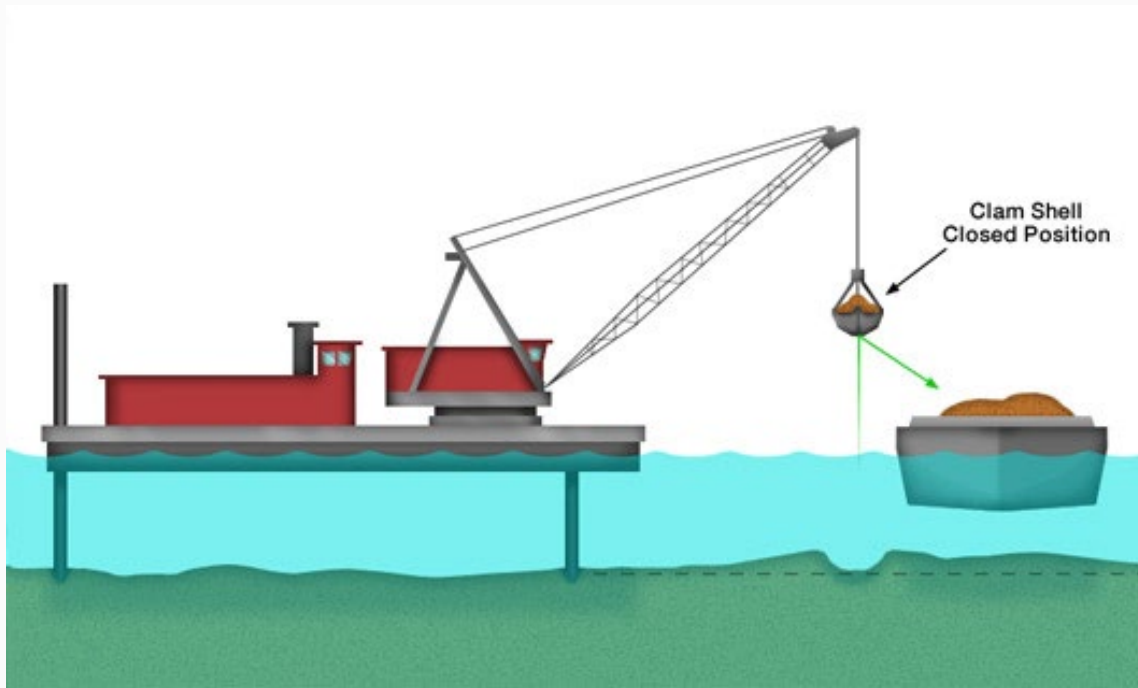
- SMA 1
- SMA 2
- SMA 3
- SMA 4



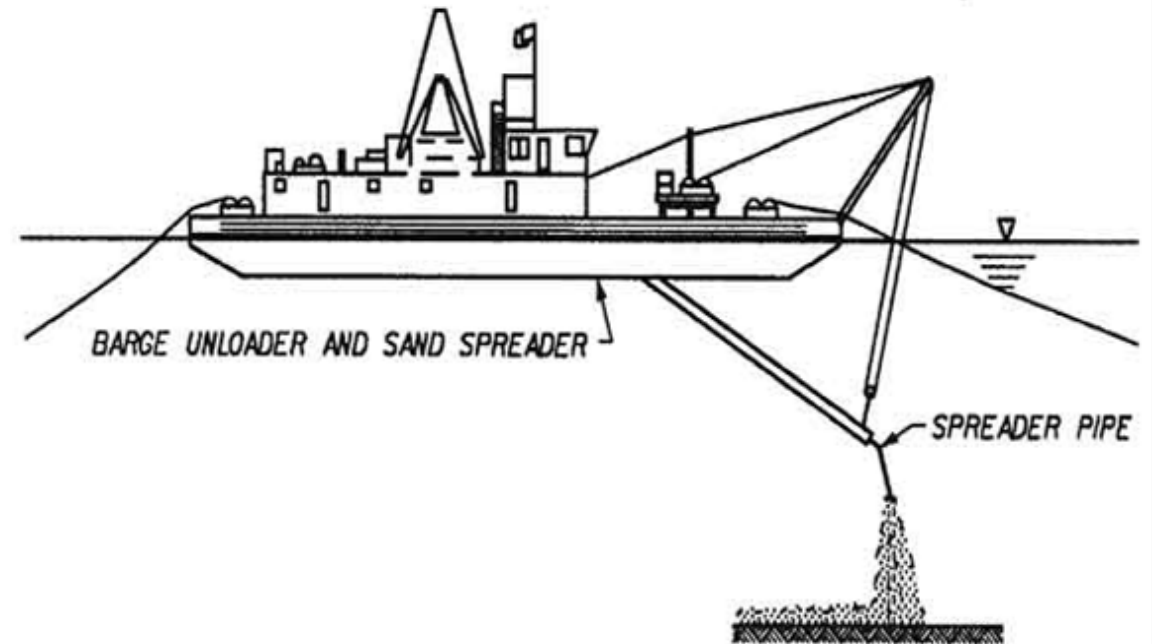


# Sediment Cleanup Methods

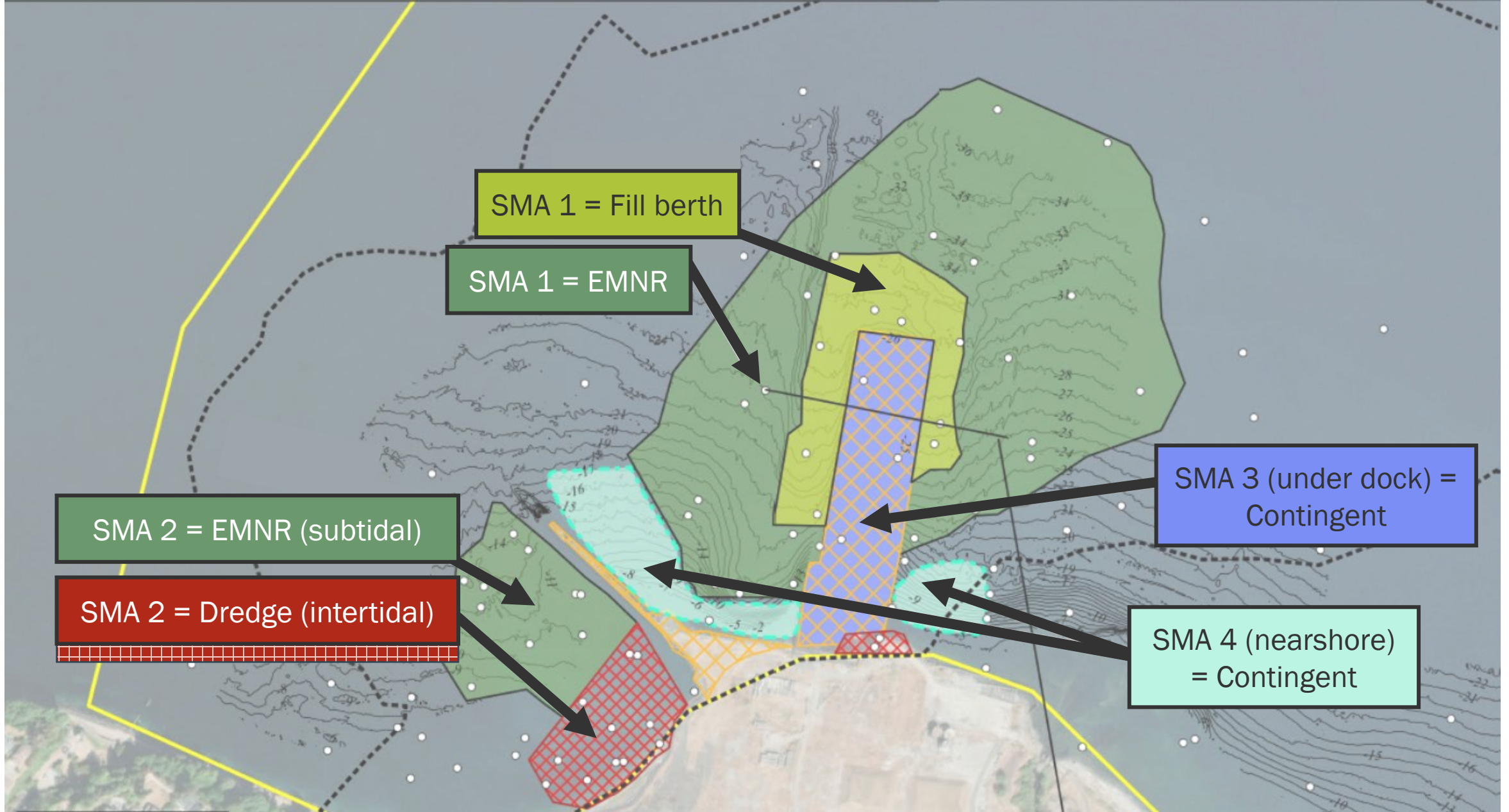
## Dredging or Excavation



## Enhanced Monitored Natural Recovery



Hydraulic barge unloader and sand spreader barge (from Kikegawa 1983)



# Sediment Selected Cleanup Action

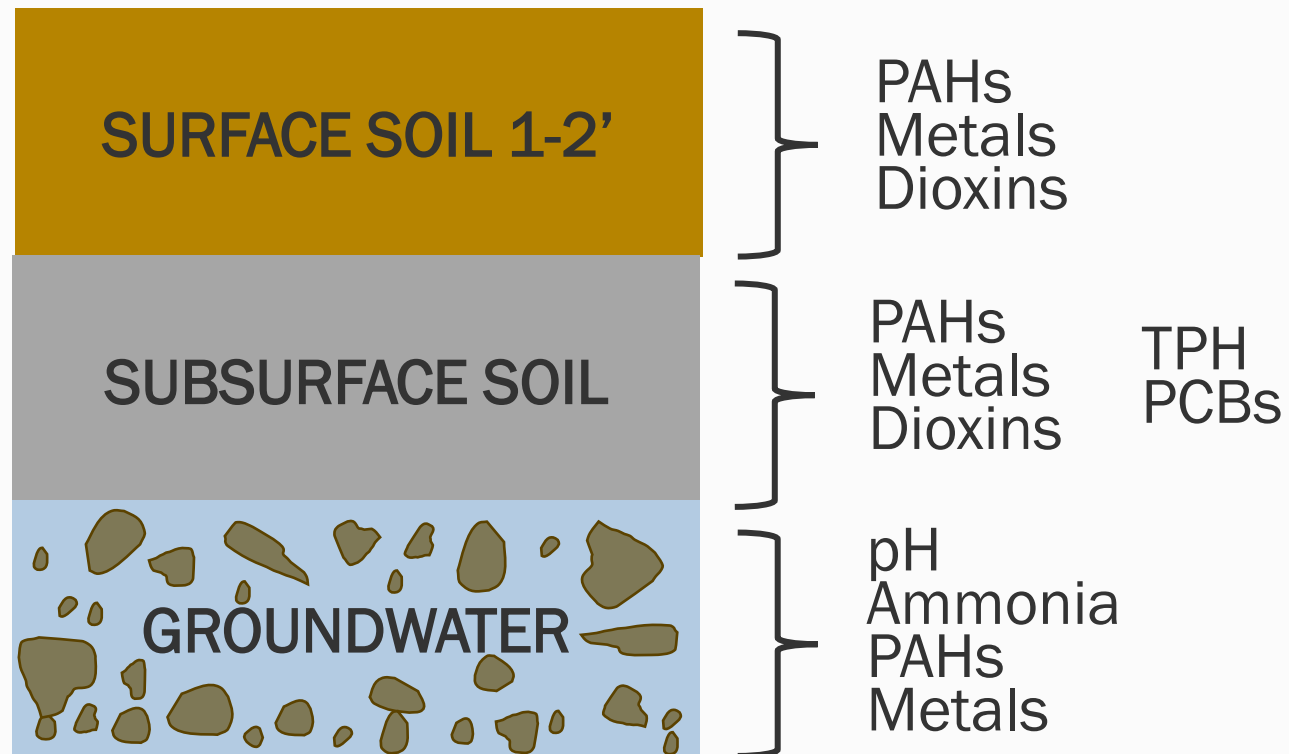


# Soil



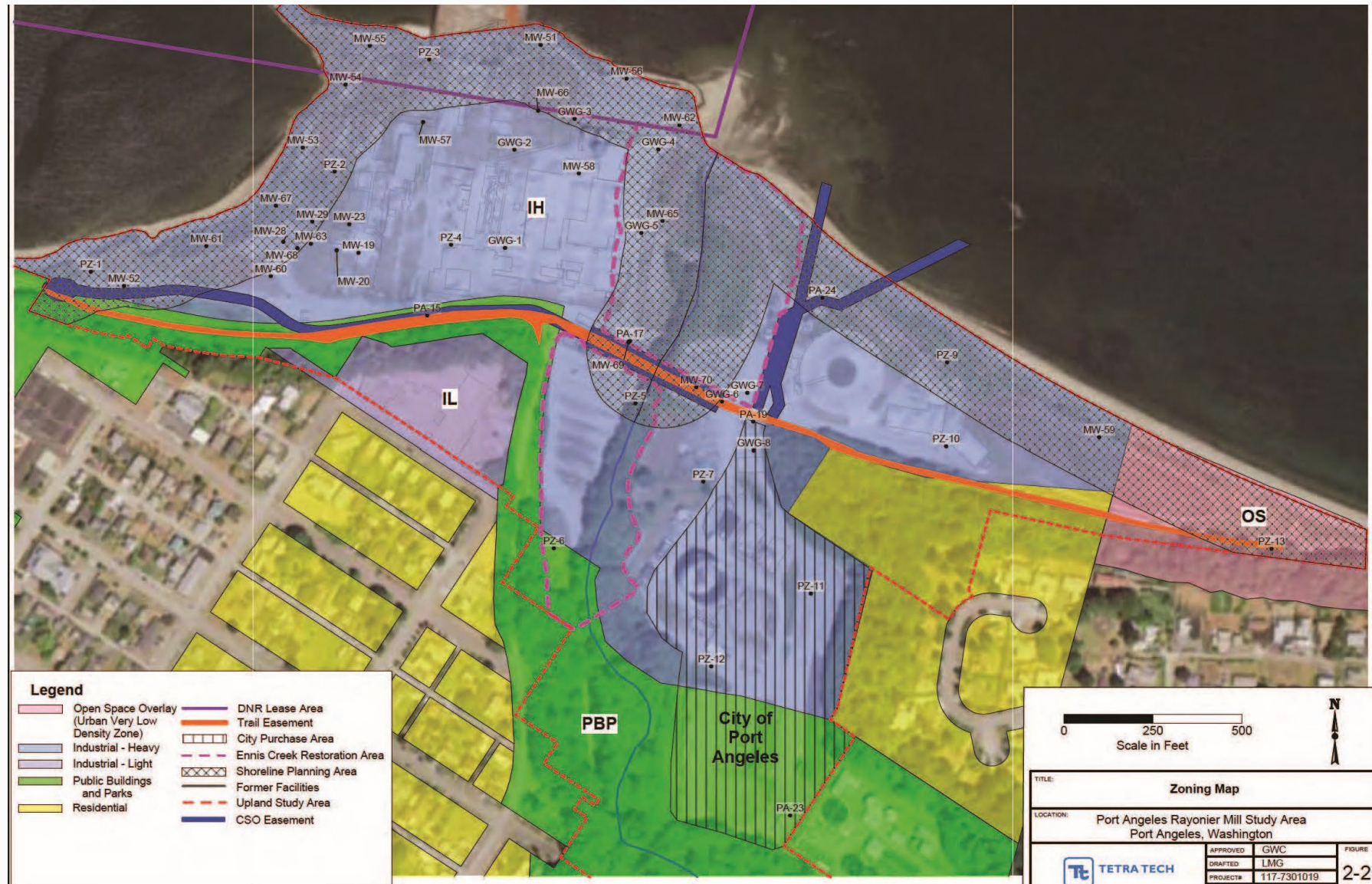
Test Pitting at Rayonier Mill

# Upland Contamination



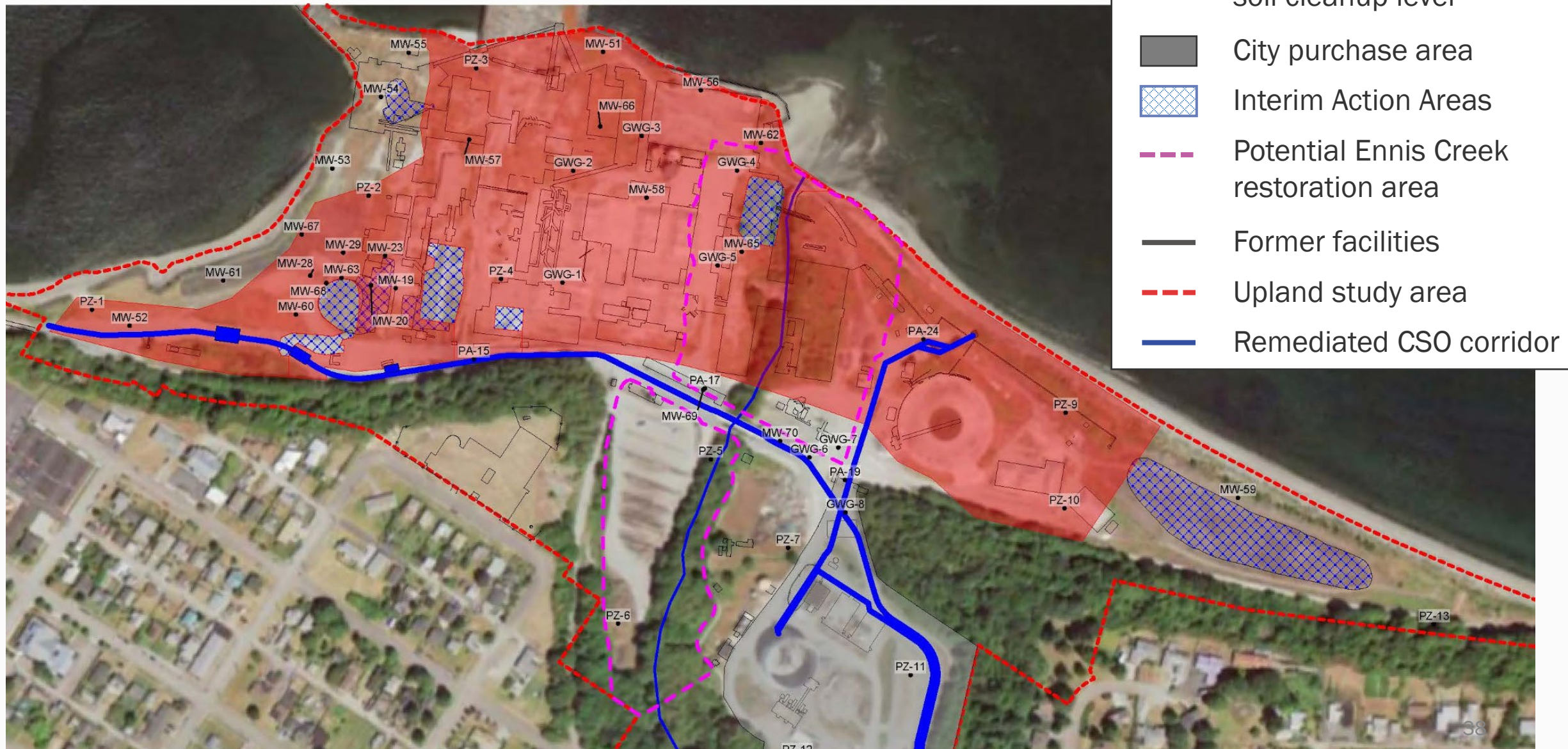


# Zoning Map





# Soil Contamination





# Soil Selected Cleanup Action

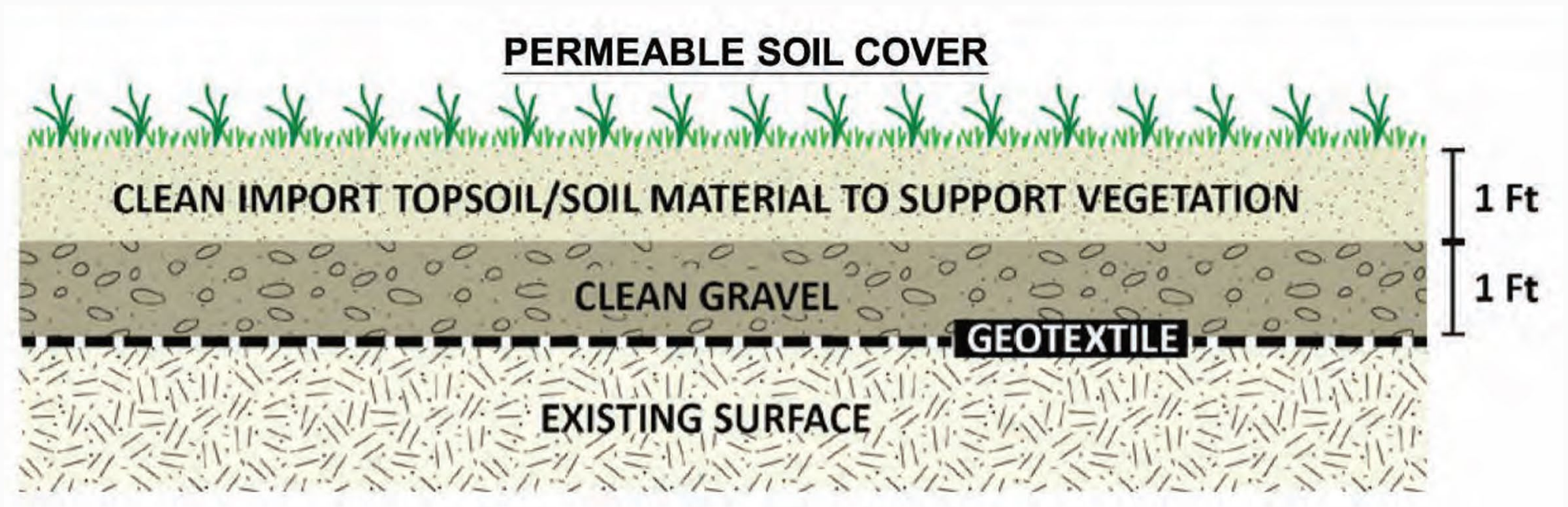


- Upland study area
- - - Potential restoration area
- Shallow Excavation Area
- Deep Excavation Area
- Cap Area

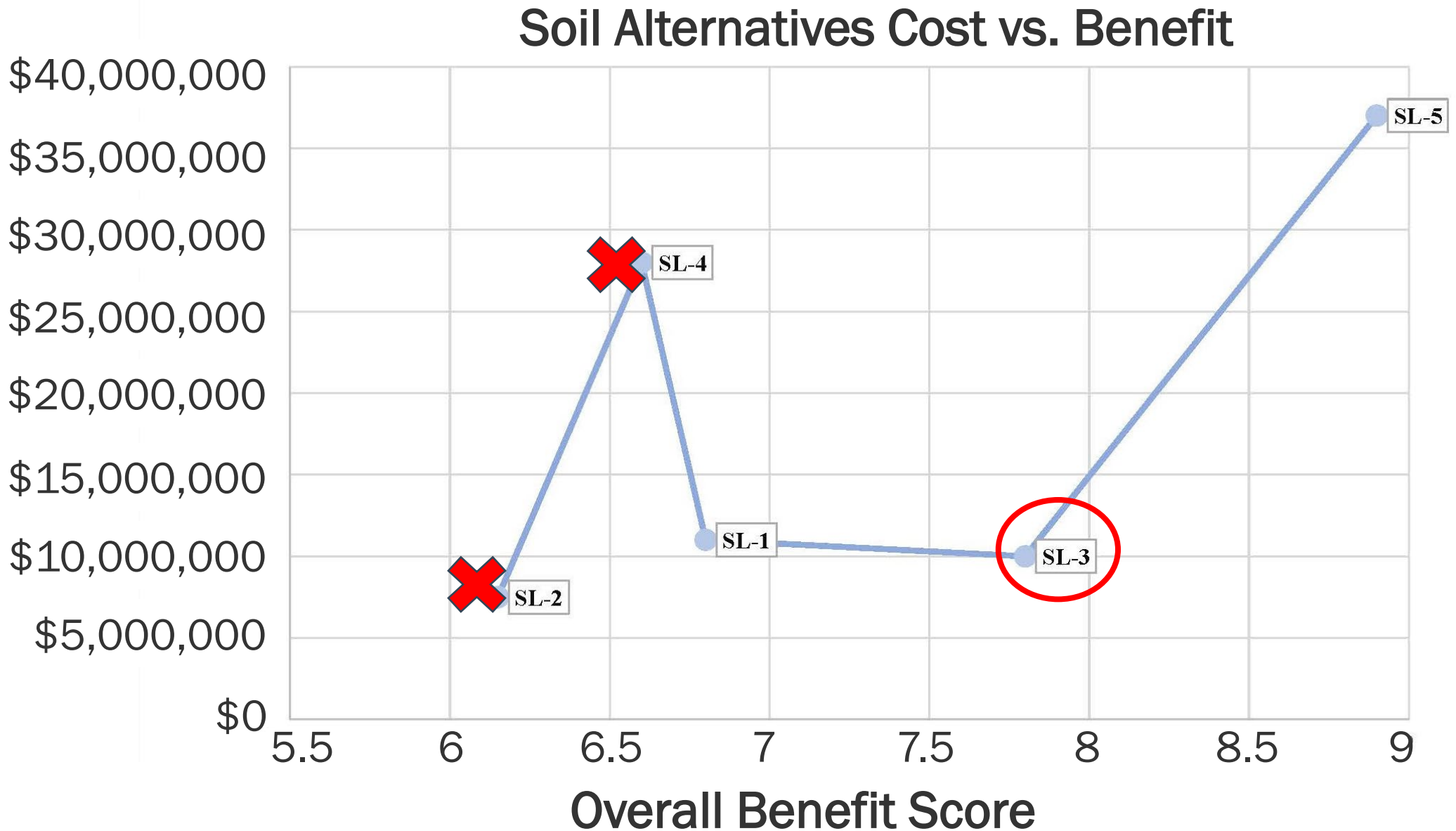
**Consolidate/Cap -  
Unrestricted Use  
Cleanup Levels**



# Soil Cap Example

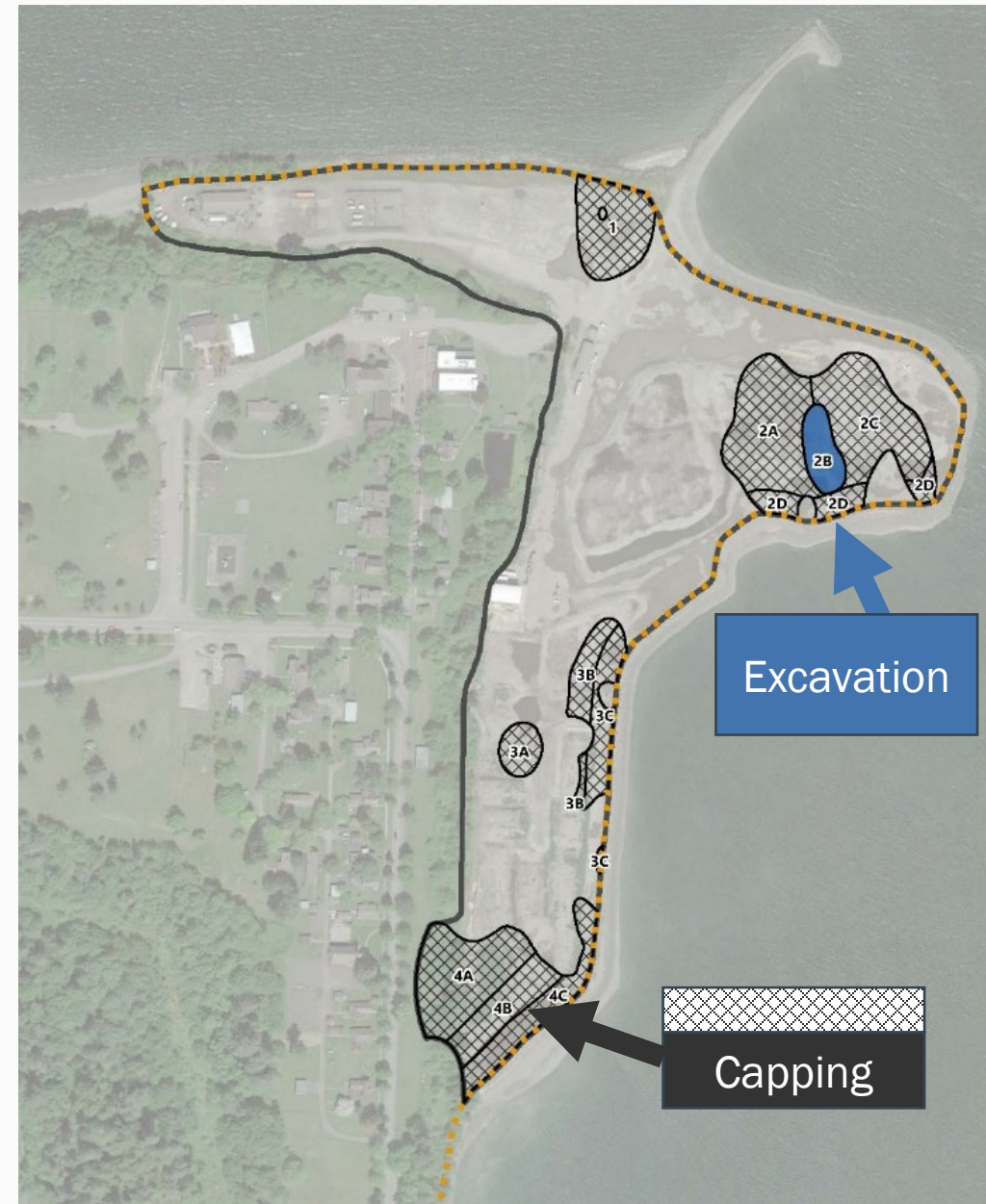


# Soil – Disproportionate Cost Analysis



# Port Gamble Bay and Mill Site

- Former Pope & Talbot sawmill
- 26,000 tons of contaminated soil previously removed as part of interim actions
- Elevated dioxins remain in soil
- Cap ~6 acres of property with elevated dioxins





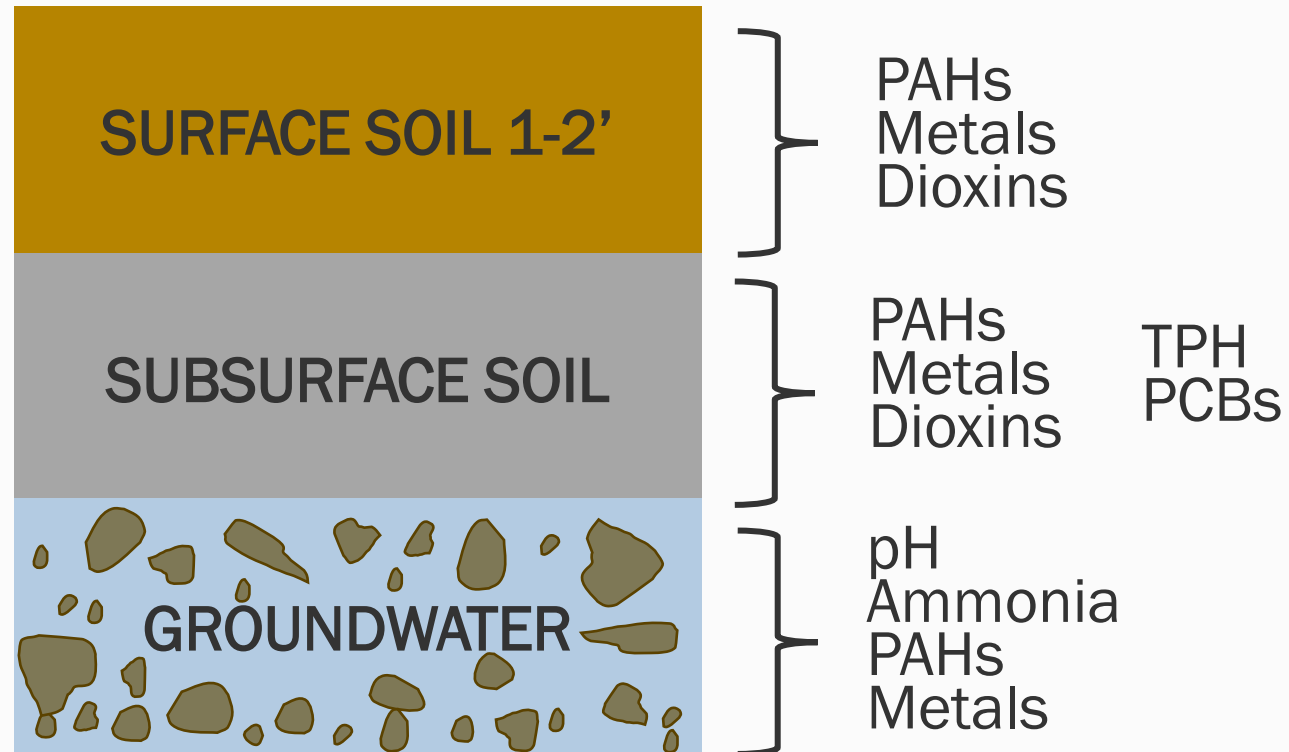


# Groundwater



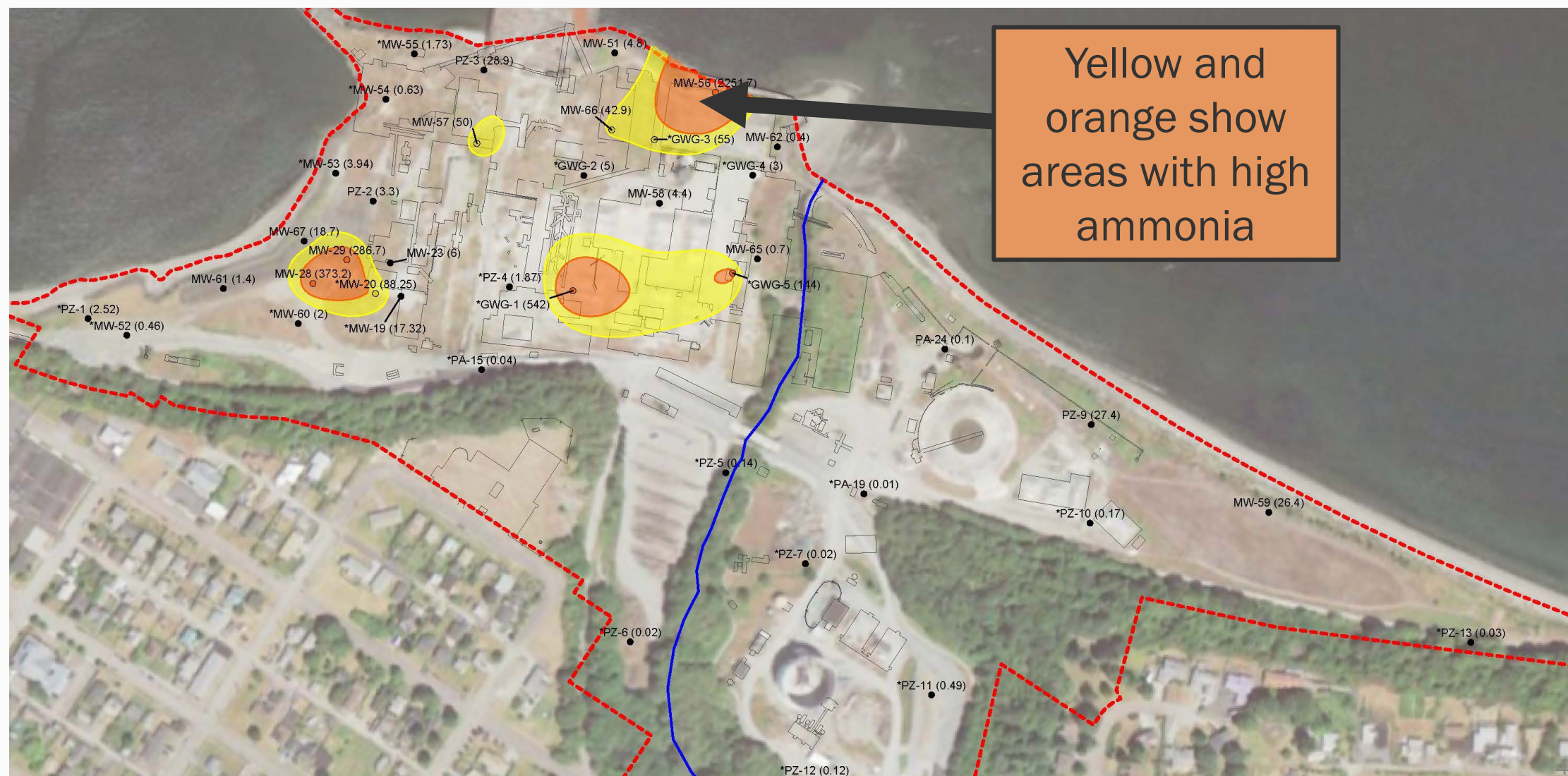
Drill Rig at Rayonier Mill

# Upland Contamination



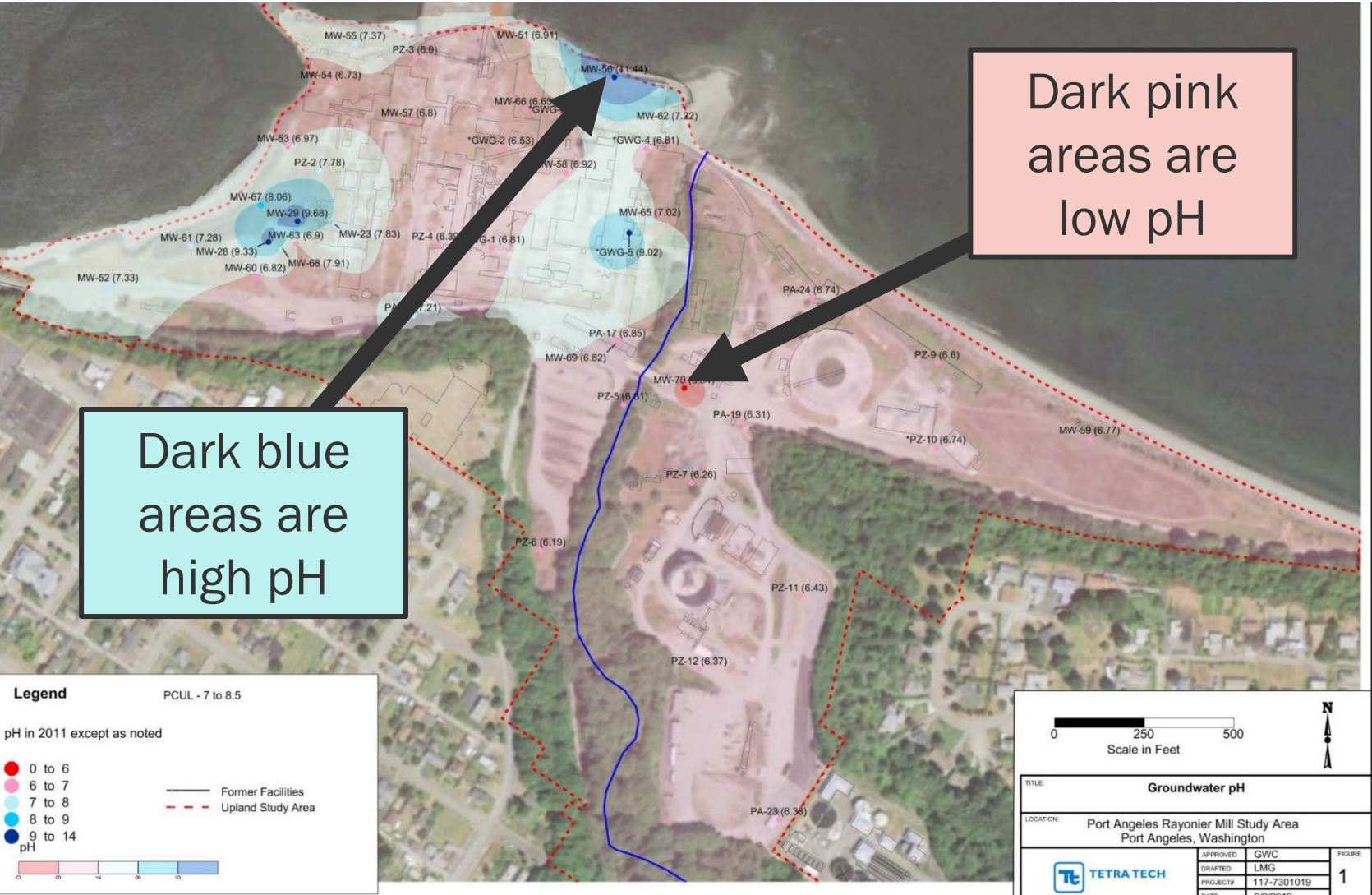
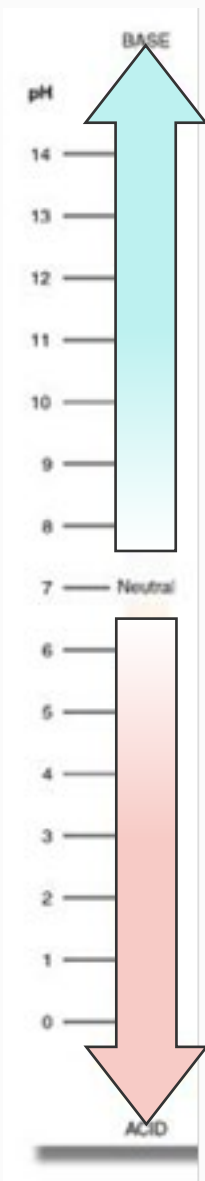


# Groundwater Ammonia





# Groundwater pH

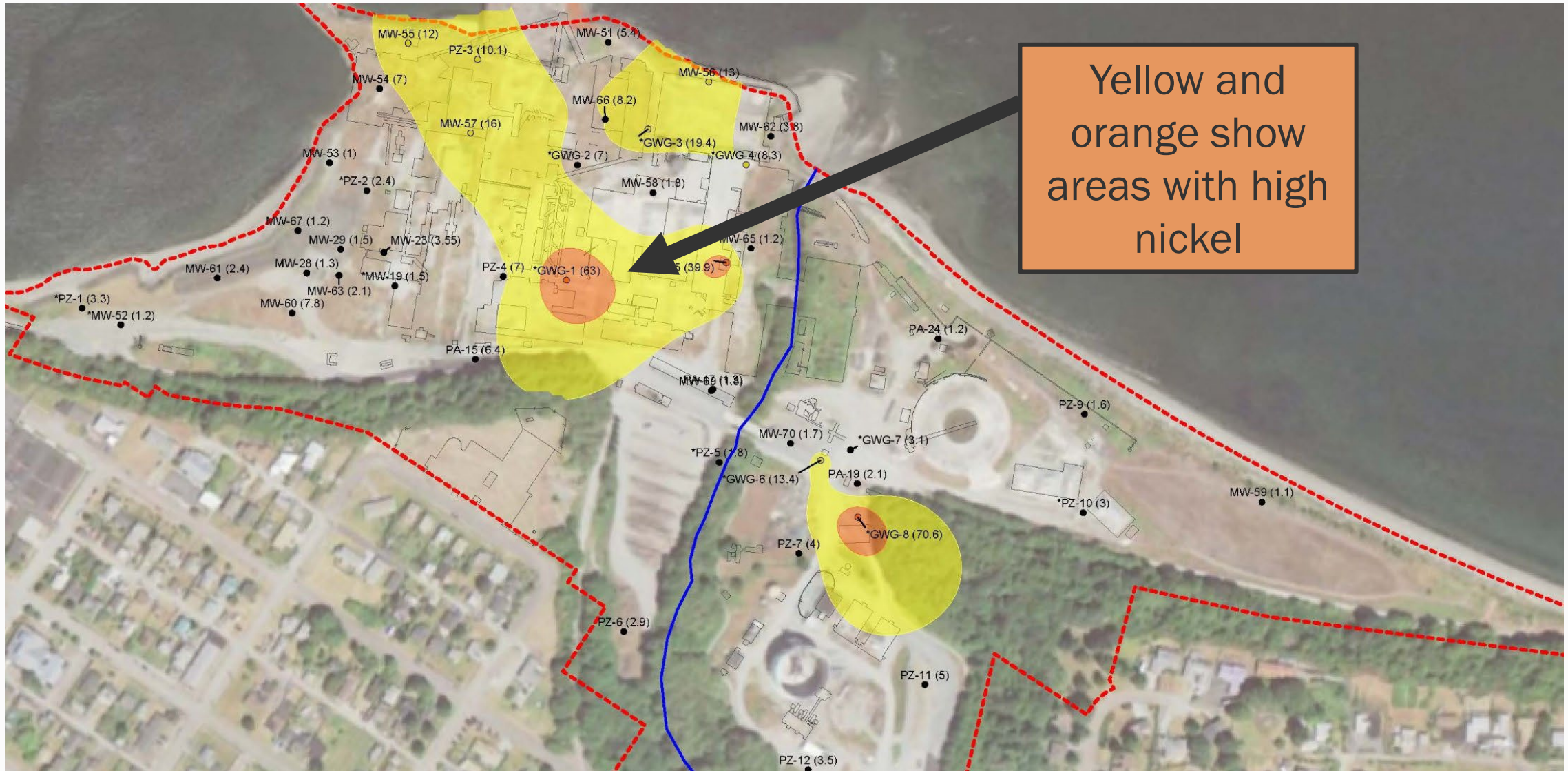


Dark pink areas are low pH

Dark blue areas are high pH



# Groundwater Nickel

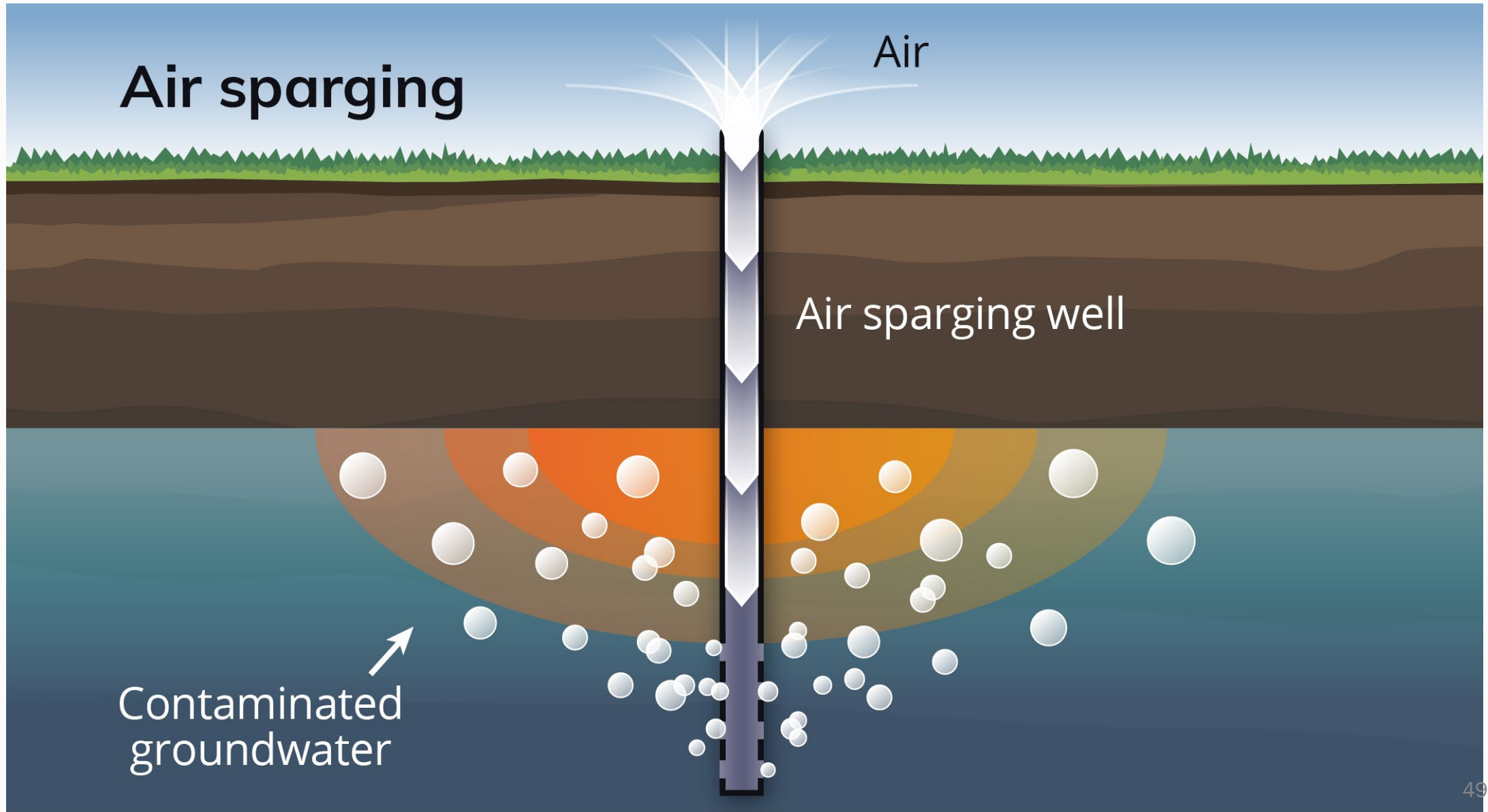




# Groundwater Contamination

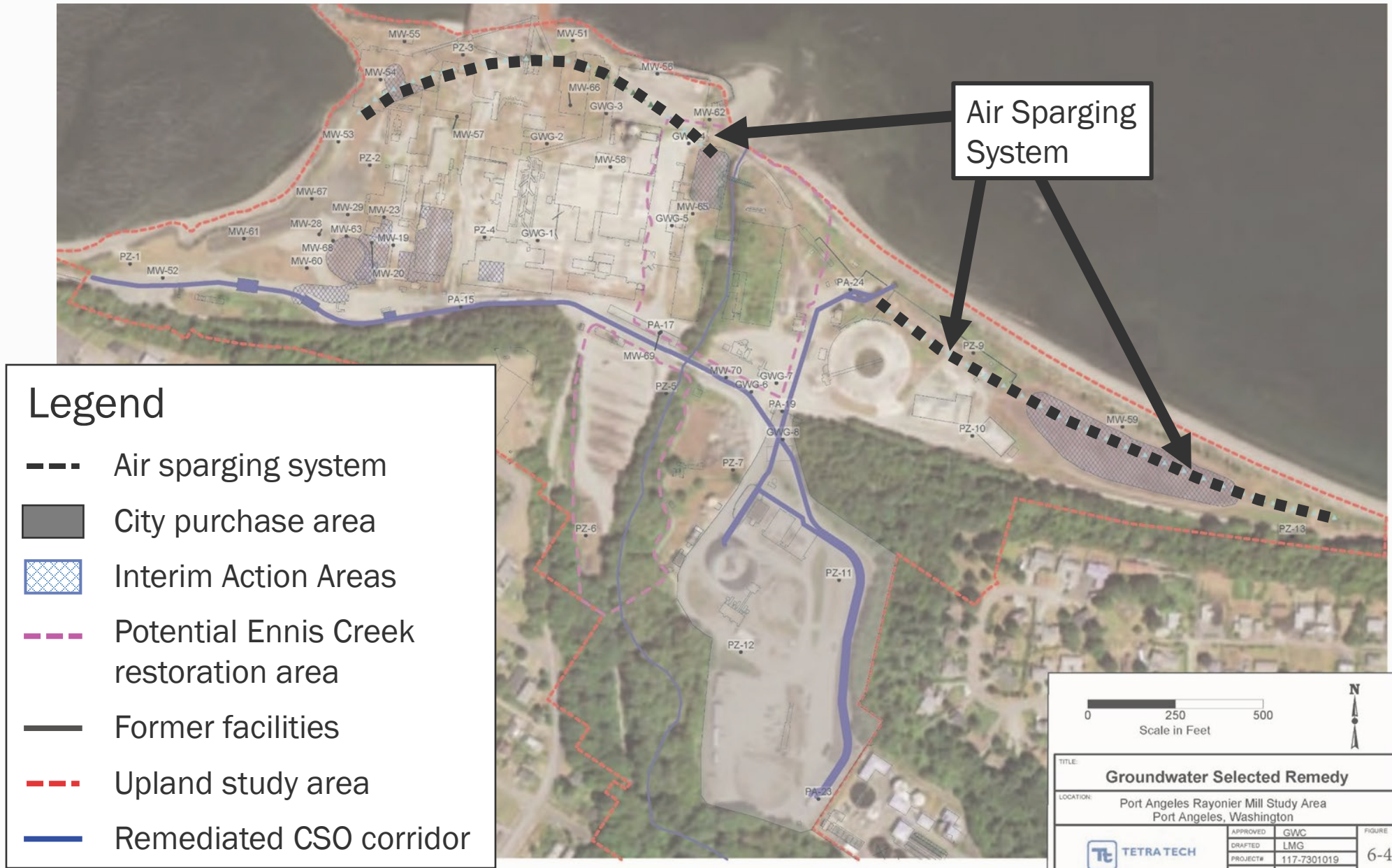


# Groundwater Remedy – Air Sparging





# Groundwater – Air Sparging





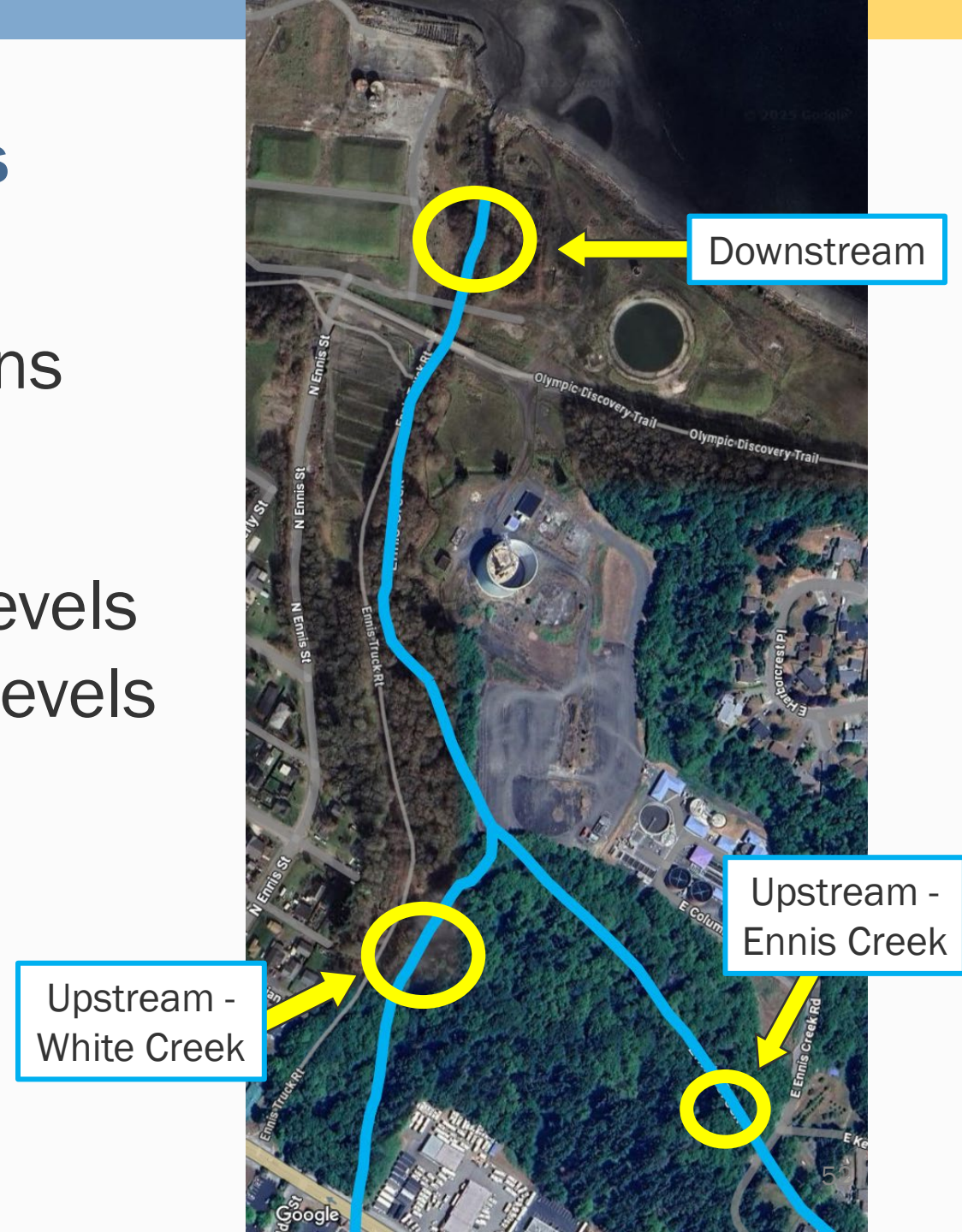


# Surface Water



# Surface Water Sampling Locations

- 5 surface water sampling locations
  - 2 upstream (White and Ennis Creeks)
  - 3 downstream
- Metals detected below cleanup levels
- Dioxins detected above cleanup levels
- Dioxin levels were the same both upstream and downstream



# Selected Remedy

Cleanup Media	Cleanup Actions	Cost (in 2019 \$)
Sediment	SMA1 – fill berth, EMNR SMA2 – dredge intertidal; EMNR subtidal SMA3 – contingent (EMNR or thin-layer cap or dredge) SMA4 – contingent (EMNR or thin-layer cap or dredge)	\$10.9M - ~\$13M
Soil	<b>Consolidate and cap</b> where soil exceeds unrestricted use cleanup levels	\$10M
Groundwater	Air sparging in phased approach	\$5.7M
	Total	<b>\$26.6M - \$28.7M</b>





# Cleanup, Structure Removal, and Restoration



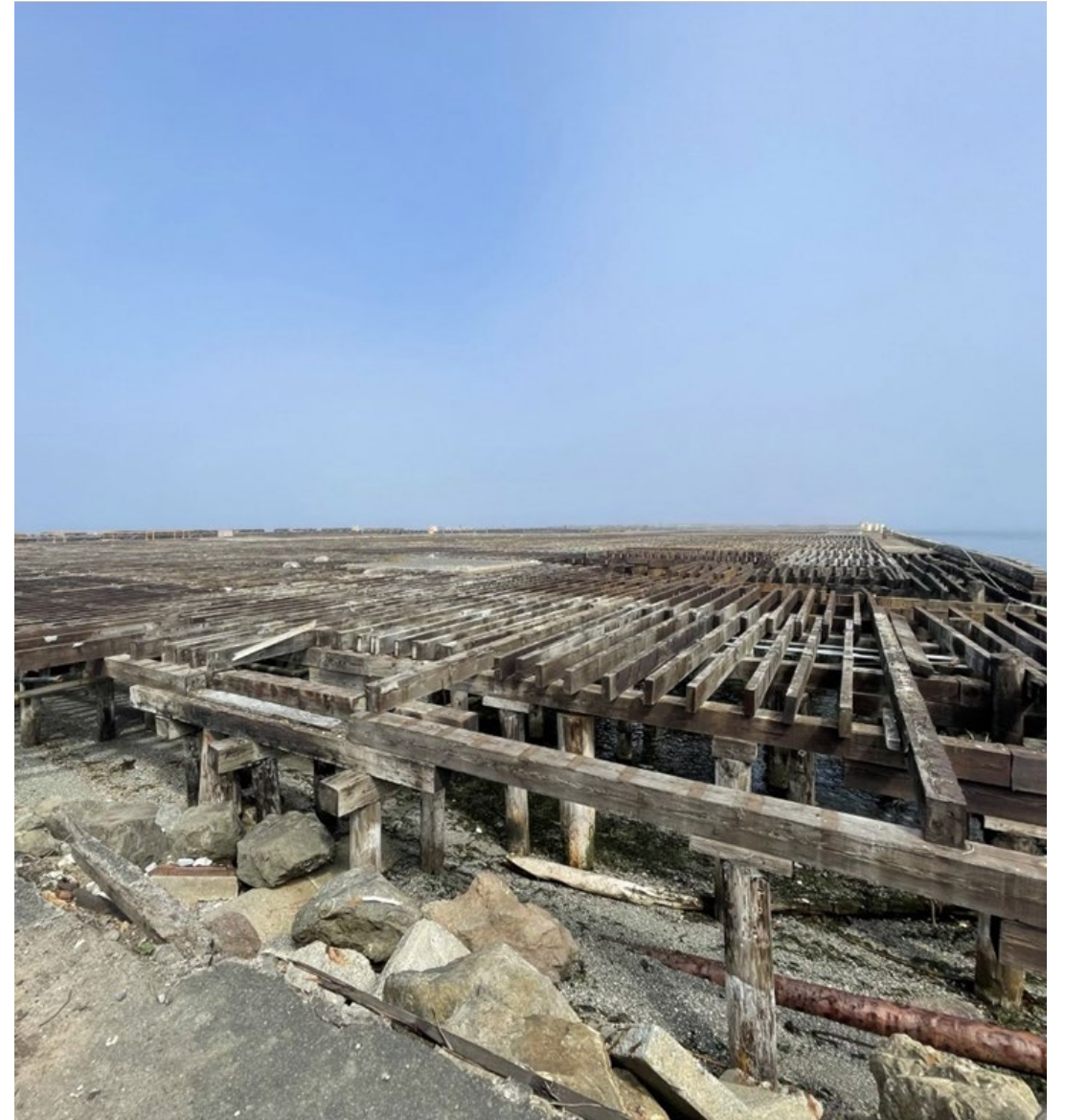


# Dock, Jetty and Shoreline











# Ennis Creek Restoration







# Rayonier Mill Consent Decree

**STATE OF WASHINGTON  
CLALLAM COUNTY SUPERIOR COURT**

STATE OF WASHINGTON,  
DEPARTMENT OF ECOLOGY,

Plaintiff,

v.

RAYONIER A.M. PROPERTIES LLC  
and RAYONIER ADVANCED  
MATERIALS INC.

Defendants.

NO. \_\_\_\_\_

CONSENT DECREE

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# Consent Decree

- 29 sections (I – XXIX)
  - 4 (IV) – Definitions
  - 6 (VI) – Work to be performed
- 3 Exhibits
  - Rayonier Mill Study Area Diagram
  - Interim Action Plan
  - Western Port Angeles Harbor Study Area Diagram











# Next Steps



Soil excavation at Rayonier Mill during 2012/13 Interim Action

# Remedial Design and Construction Steps

Hydrodynamic Modeling and sediment sampling		<ul style="list-style-type: none"> <li>• Pre-Remedial Design Work Plan</li> <li>• Data submittals</li> <li>• Sediment &amp; Hydrodynamic Modeling Results Report</li> </ul>
Master Plan		<ul style="list-style-type: none"> <li>• Master plan and Schedule</li> <li>• Phases of design and construction</li> </ul>
Data collection and engineering evaluations		<ul style="list-style-type: none"> <li>• Remedial Design Work Plan</li> <li>• Data submittals</li> </ul>
Remedial design and permitting		<ul style="list-style-type: none"> <li>• Engineering Design Report</li> <li>• Construction Plans and Specs</li> <li>• Permits</li> </ul>
Construction		<ul style="list-style-type: none"> <li>• Monthly Progress Reports</li> <li>• Annual Progress Reports</li> <li>• Cleanup Action Report</li> </ul>
Long-term monitoring		<ul style="list-style-type: none"> <li>• Monitoring</li> <li>• Periodic Reviews</li> </ul>



Thank you!

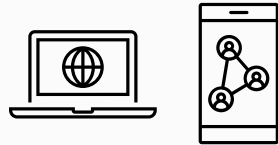
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Q&A Session





Comment period will close  
**Tuesday, August 12 at 11:59 PM**



**Submit comments online**

[go.ecology.wa.gov/comment2270](https://go.ecology.wa.gov/comment2270)



**Or by mail or email**

**Marian Abbett, Site Manager**

WA State Department of Ecology

PO Box 47775

Olympia, WA 98504-7775

[Marian.Abbett@ecy.wa.gov](mailto:Marian.Abbett@ecy.wa.gov)

## How to Comment