



DEPARTMENT OF  
**ECOLOGY**  
State of Washington

# Western Port Angeles Harbor Public Comment Period

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

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

Abby Zabrodsky, Public Involvement Coordinator

February 5, 2025

# Western Port Angeles Harbor Public Review Consent Decree, Draft Cleanup Action Plan, SEPA Determination of Non-significance

## Schedule of Events

6:00-6:30 Open House

6:30-7:30 Presentation and Q&A

7:30-8:00 Open House

## Public Comment Period

Comments accepted until  
Tuesday, February 18th at 11:59 PM.

**Submit comments online:**

[go.ecology.wa.gov/comment11907](https://go.ecology.wa.gov/comment11907)

**Visit the site webpage:**

[go.ecology.wa.gov/11907](https://go.ecology.wa.gov/11907)



Submit comments



Visit the site webpage

# Introductions

| <b>Project Team</b> |                                 |
|---------------------|---------------------------------|
| Bobbak Talebi       | Southwest Region Director       |
| Marian Abbett       | Section Manager                 |
| Connie Groven       | Unit Supervisor/Project Manager |
| Cheryl Ann Bishop   | Communications Lead             |
| Abby Zabrodsky      | Public Involvement Coordinator  |
| Carolyn Subramaniam | Public Involvement Coordinator  |

## Documents Available for Comment

We are accepting comments on:

- **Consent Decree**
- **Draft Cleanup Action Plan (Exhibit C)**
- **State Environmental Policy Act Determination of Nonsignificance and Checklist**

**Site webpage:**

[go.ecology.wa.gov/11907](http://go.ecology.wa.gov/11907)

# How to Comment

**Comment period will close  
February 18, 11:59 PM**

**Submit comments online**

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**Or by mail or email**

**Connie Groven, Site Manager**

WA State Department of Ecology

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**Printed document review**

1. Port Angeles Main Library
2. Ecology Lacey Office by appointment
  - [PublicDisclosureSWRO@ecy.wa.gov](mailto:PublicDisclosureSWRO@ecy.wa.gov)
  - or 360-407-6365



Submit comments

# Comment Response

After the comment period, we will:

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

# Presentation Overview

- 1** Cleanup process and harbor study areas
- 2** Draft Cleanup Action Plan
- 3** Consent Decree
- 4** State Environmental Policy Act (SEPA)
- 5** Next steps

# Port Angeles Cleanup Sites

1. Western Port Angeles Harbor
2. Rayonier Mill
3. K Ply
4. Marine Trades Area
5. Terminals 5, 6 & 7
6. Unocal Bulk Plant #0601
7. Shell Oil
8. Pettit Oil Tumwater Truck Route



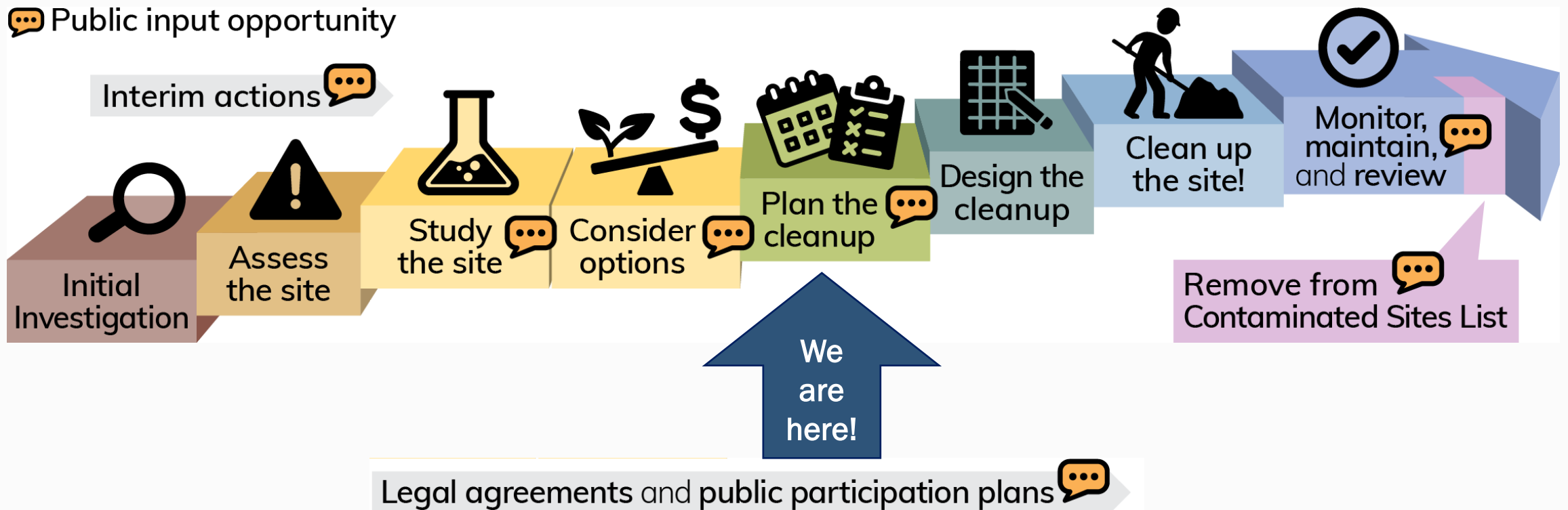


# Port Angeles Harbor Cleanup Study Areas



# Where we are in the process

Public input opportunity



# Western Port Angeles Harbor

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# Draft Cleanup Action Plan

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- Site conditions
- Cleanup requirement
- Selected cleanup actions
- Next steps and schedule



# Western Port Angeles Harbor Group



- Port of Port Angeles
- City of Port Angeles
- Georgia-Pacific
- Nippon
- Merrill and Ring
- Owens Corning

1977

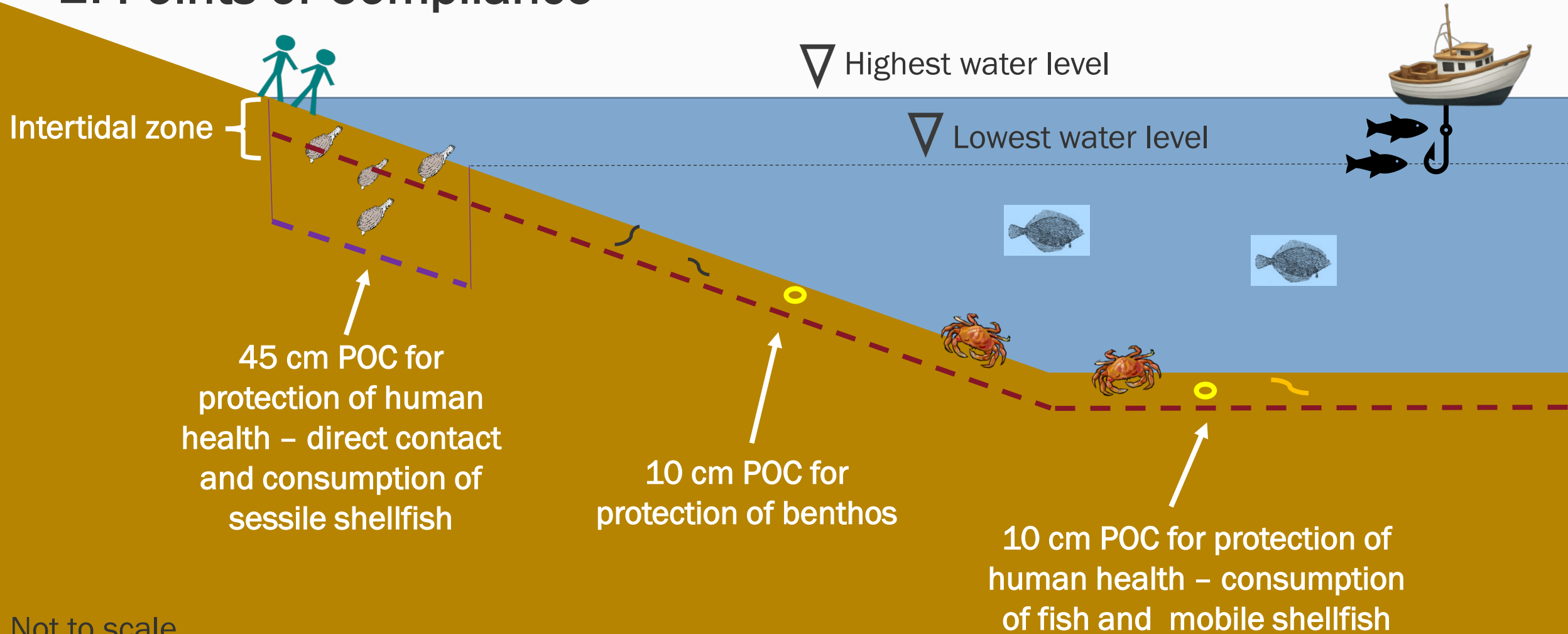
# Sediment Cleanup Standards

## 1. Cleanup Levels

- Protective concentrations
    - Protection of human health
    - Protection of fish, birds and mammals
    - Protection of benthic organisms
    - Other applicable laws
  - Background concentration
    - Natural background
    - Regional background
  - Lowest concentration labs can measure
- 
- Lowest
- Highest

# Sediment Cleanup Standards

## 2. Points of Compliance

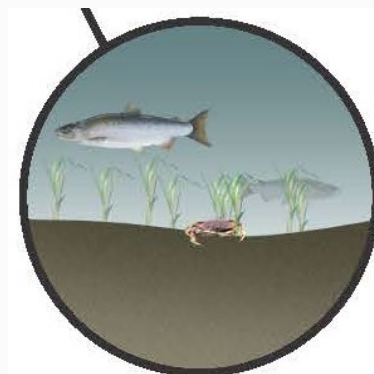


Not to scale

# Site-wide Sediment Cleanup Standards

- 10 cm Point of Compliance, Area-weighted Average

| Contaminant                | Preliminary Cleanup Level |
|----------------------------|---------------------------|
| Mercury                    | 0.13 mg/kg                |
| Total TEQ (Dioxins & PCBs) | 5.2 ng/kg                 |
| cPAH TEQ                   | 64 µg/kg                  |



Consumption of Fish and  
Mobile Shellfish



# Site-wide Sediment Cleanup Standards

- 10 cm Point of Compliance, All points

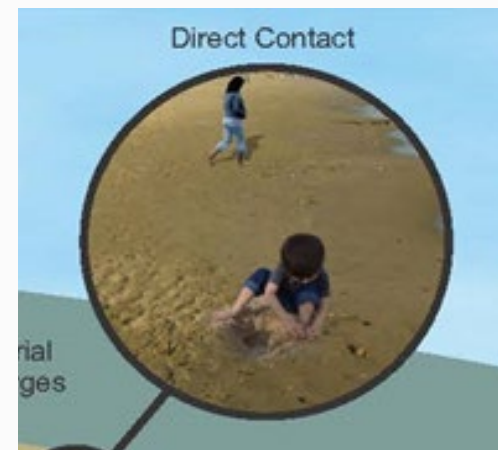
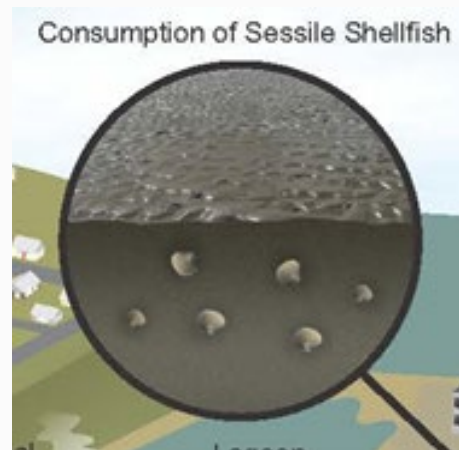
| Contaminant | Preliminary Cleanup Level |
|-------------|---------------------------|
| Cadmium     | 5.1 mg/kg                 |
| Mercury     | 0.41 mg/kg                |
| Zinc        | 410 mg/kg                 |



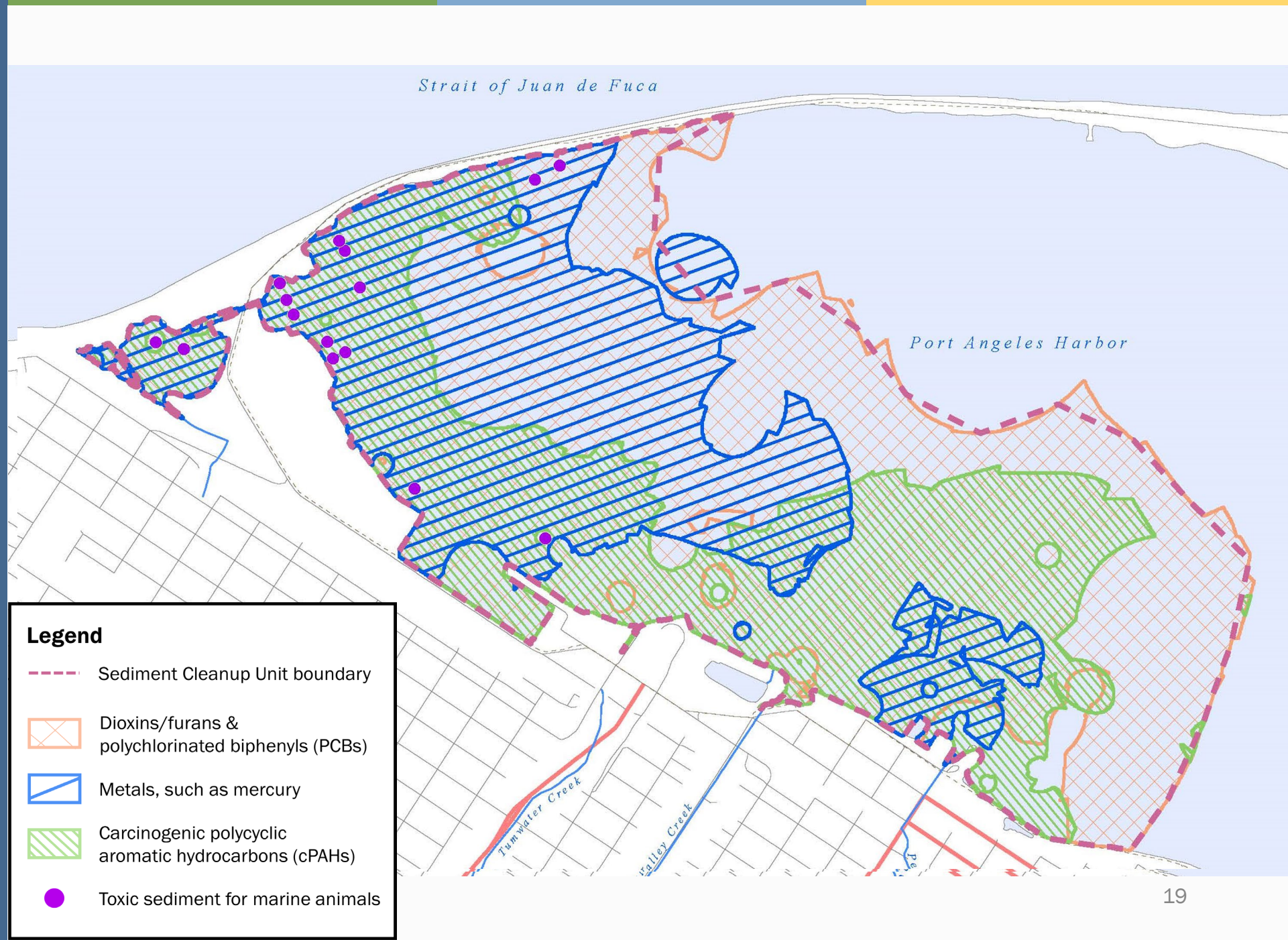
# Intertidal Sediment Cleanup Standards

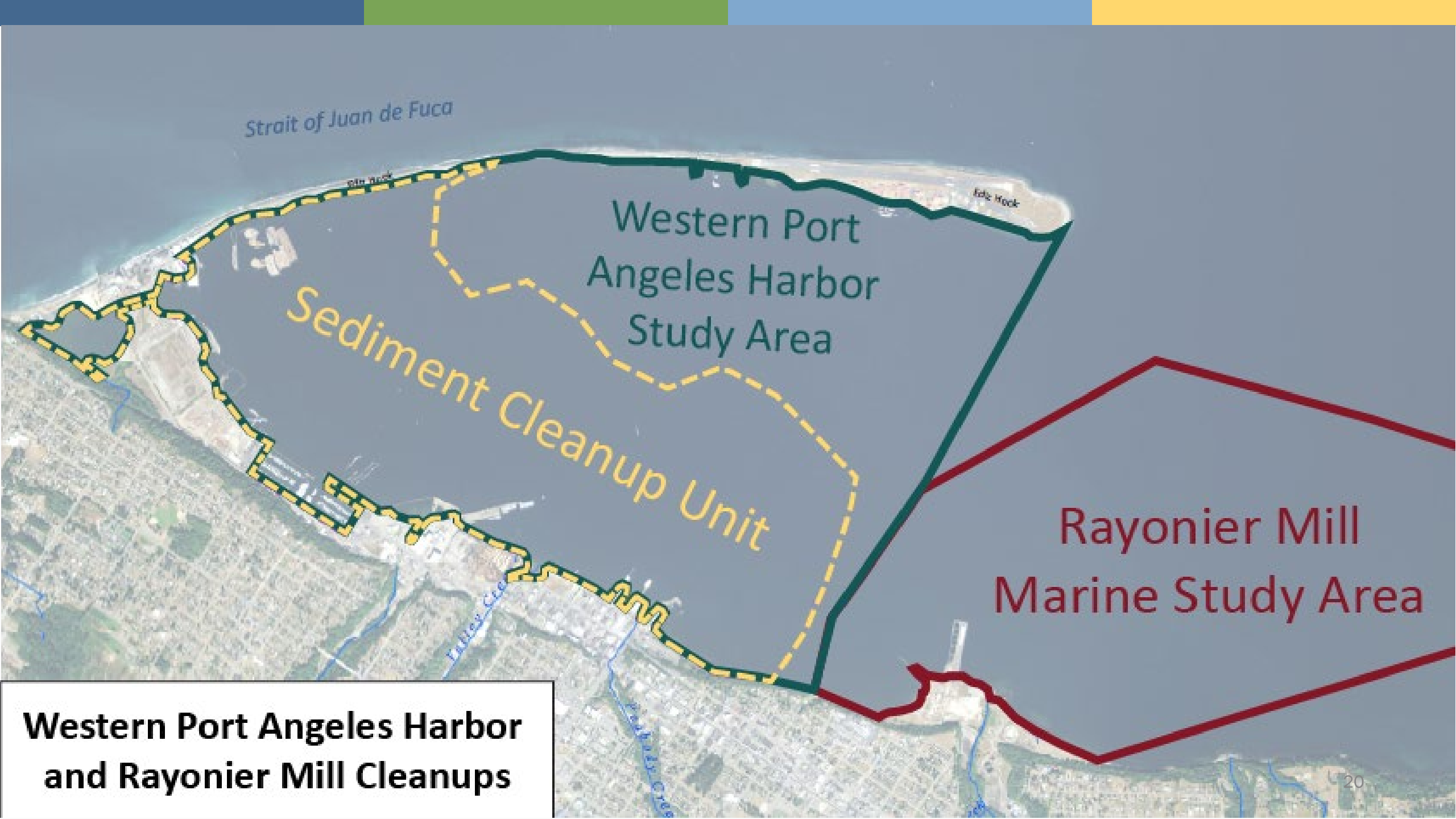
- 45 cm Point of Compliance, Area-weighted Average

| Contaminant | Preliminary Cleanup Level  |
|-------------|----------------------------|
| Cadmium     | 2.4 mg/kg                  |
| Mercury     | 0.13 mg/kg                 |
| cPAH TEQ    | 64 $\mu\text{g}/\text{kg}$ |



# Areas exceeding cleanup levels





Strait of Juan de Fuca

6th Street

Isle Hook

Western Port Angeles Harbor Study Area

Sediment Cleanup Unit

Rayonier Mill Marine Study Area

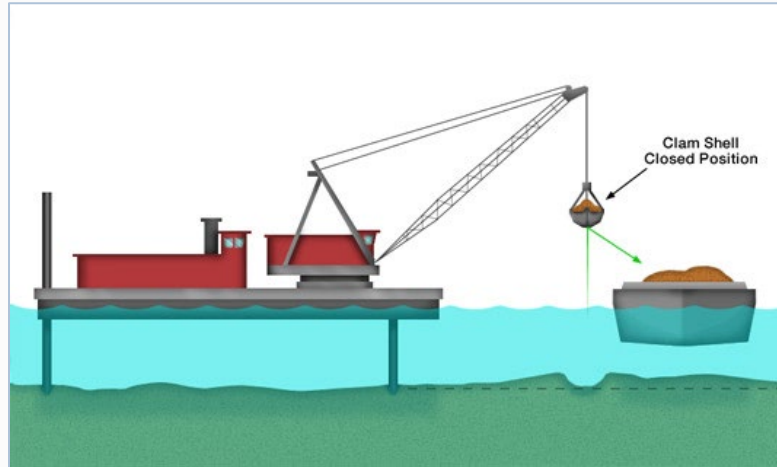
**Western Port Angeles Harbor and Rayonier Mill Cleanups**

# Sediment Management Areas

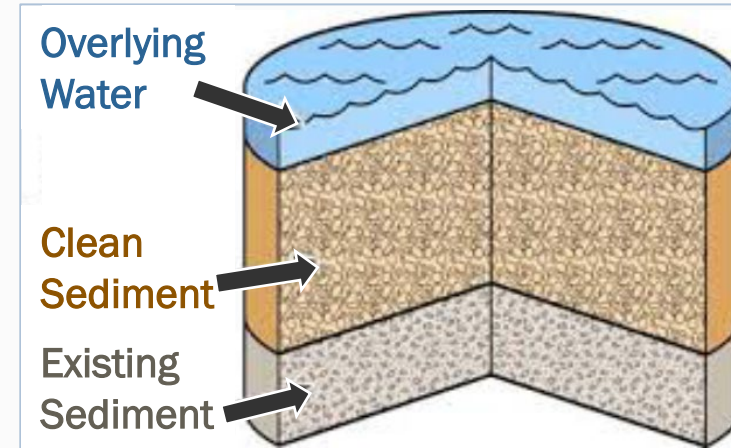


# Sediment Cleanup Methods

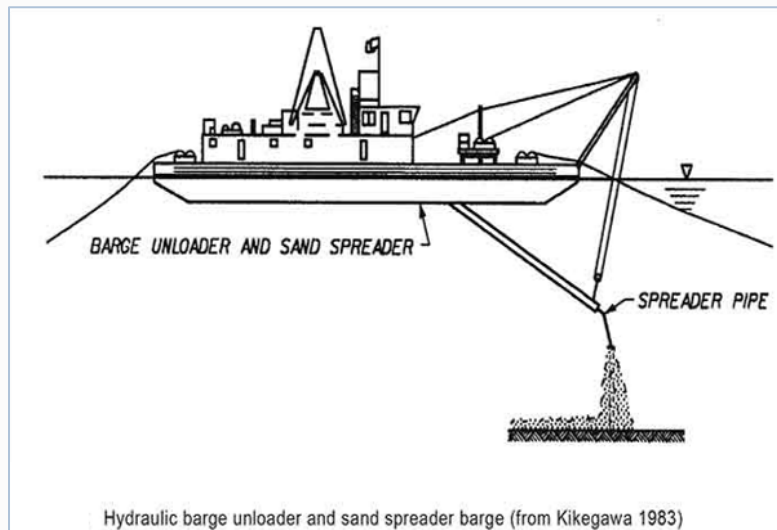
## Dredging or Excavation



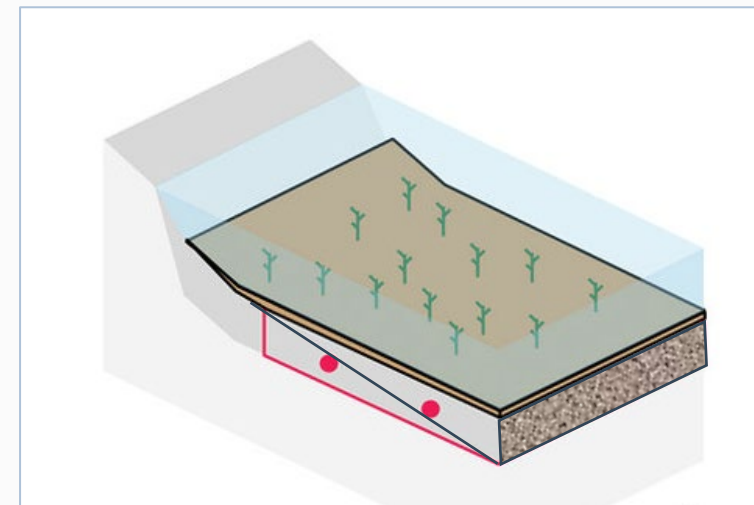
## Capping



## Enhanced Monitored Natural Recovery



## Monitored Natural Recovery



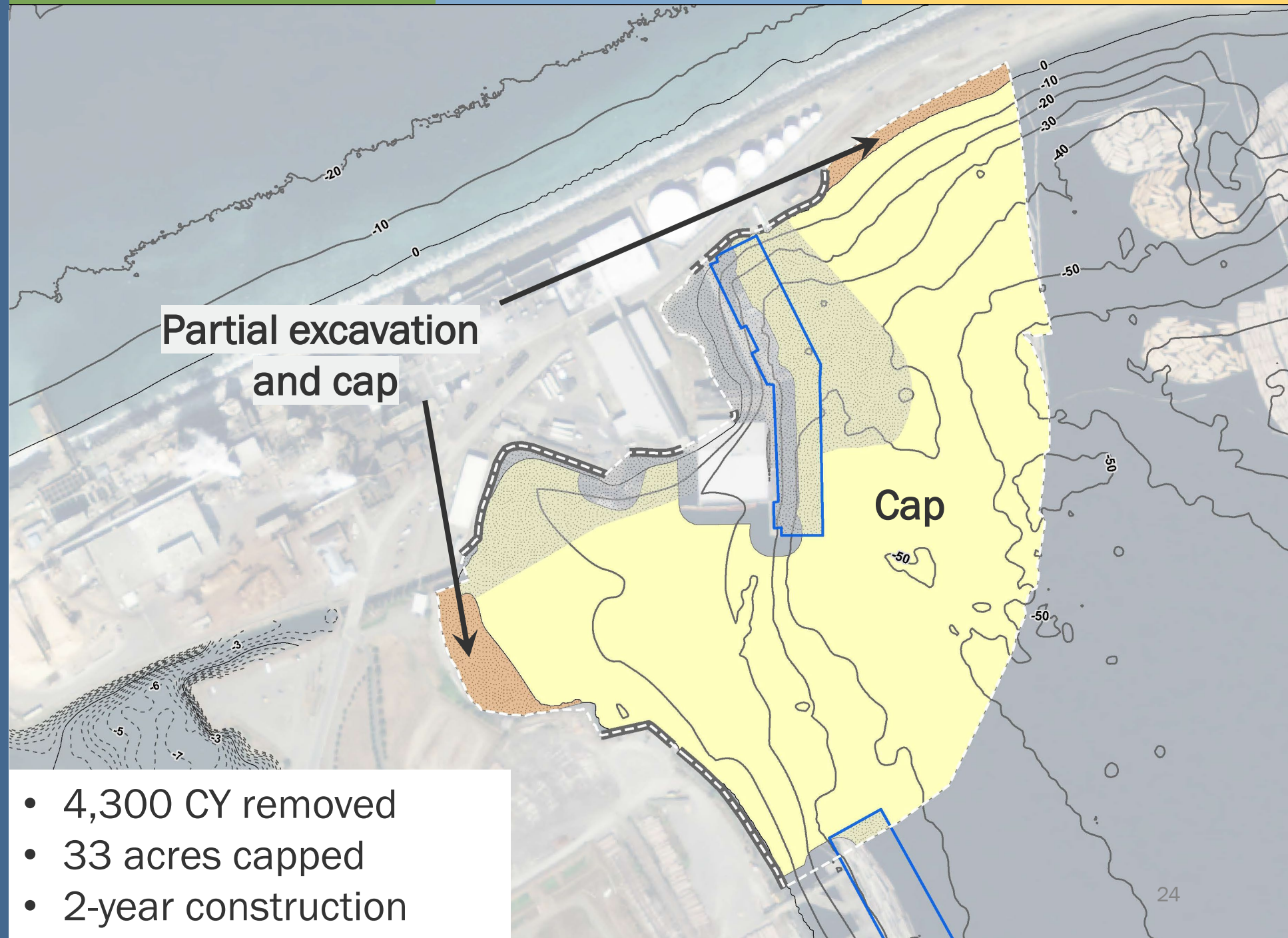
# Ecology's Cleanup Action Plan

| Areas                  | Description  |
|------------------------|--|
| SMA 1<br>Inner harbor  | <ul style="list-style-type: none"> <li>• Partial intertidal excavation with fill or capping</li> <li>• Subtidal capping</li> </ul>   |
| SMA 2<br>Lagoon        | <ul style="list-style-type: none"> <li>• Intertidal capping</li> <li>• Intertidal excavation with fill or capping</li> <li>• Excavation or dredging with Enhanced Monitored Natural Recovery (EMNR)</li> <li>• EMNR</li> </ul> |
| SMA 3<br>Remaining SCU | <ul style="list-style-type: none"> <li>• EMNR</li> <li>• Monitored Natural Recovery (MNR)</li> </ul>   |

# SMA 1

## Alternative 1D

### Partial Intertidal Excavation and Cap with Subtidal Cap



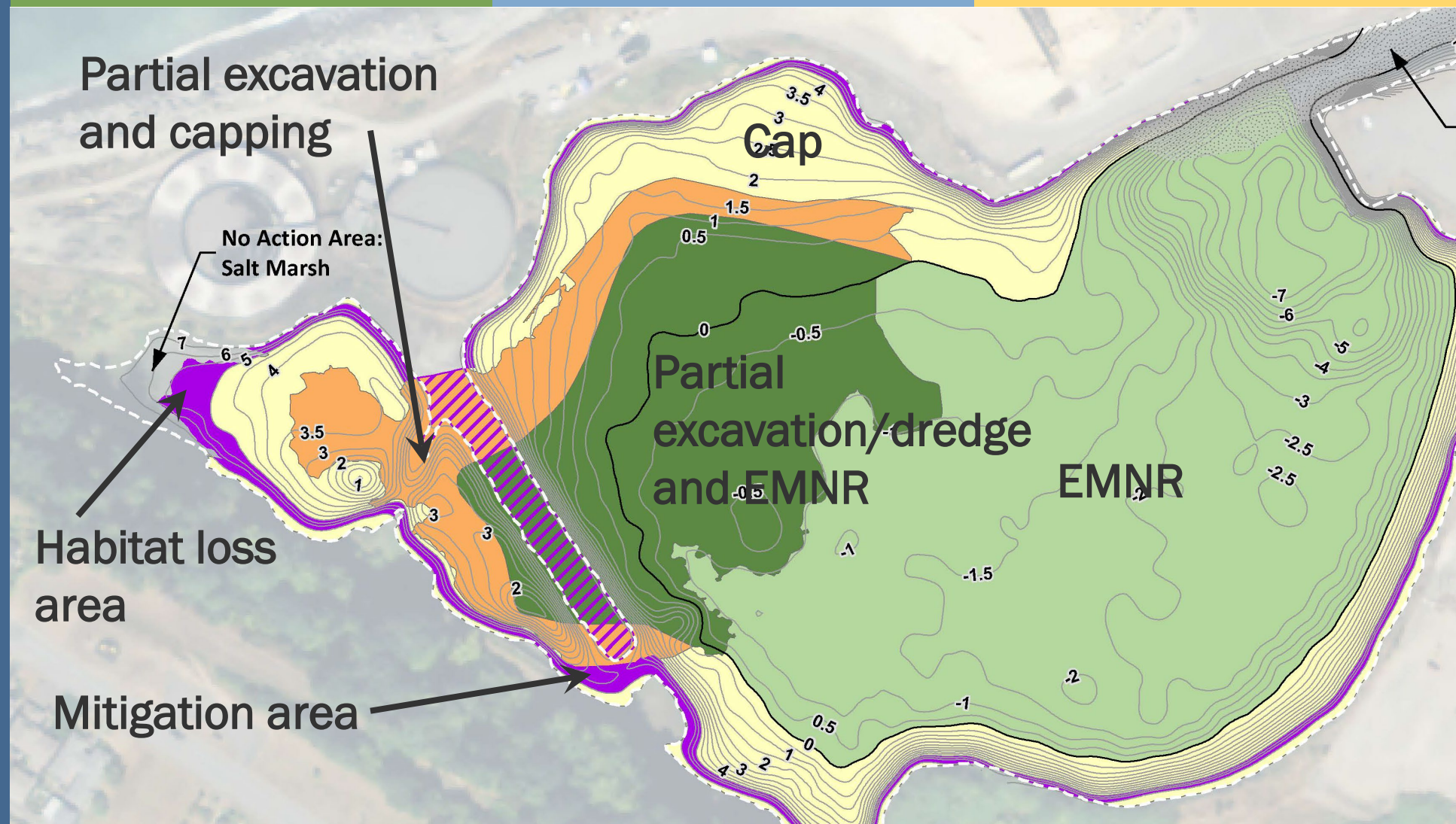
- 4,300 CY removed
- 33 acres capped
- 2-year construction



## SMA 2

## Alternative 2D

Cap, Partial excavation or dredge and cap or EMNR, EMNR

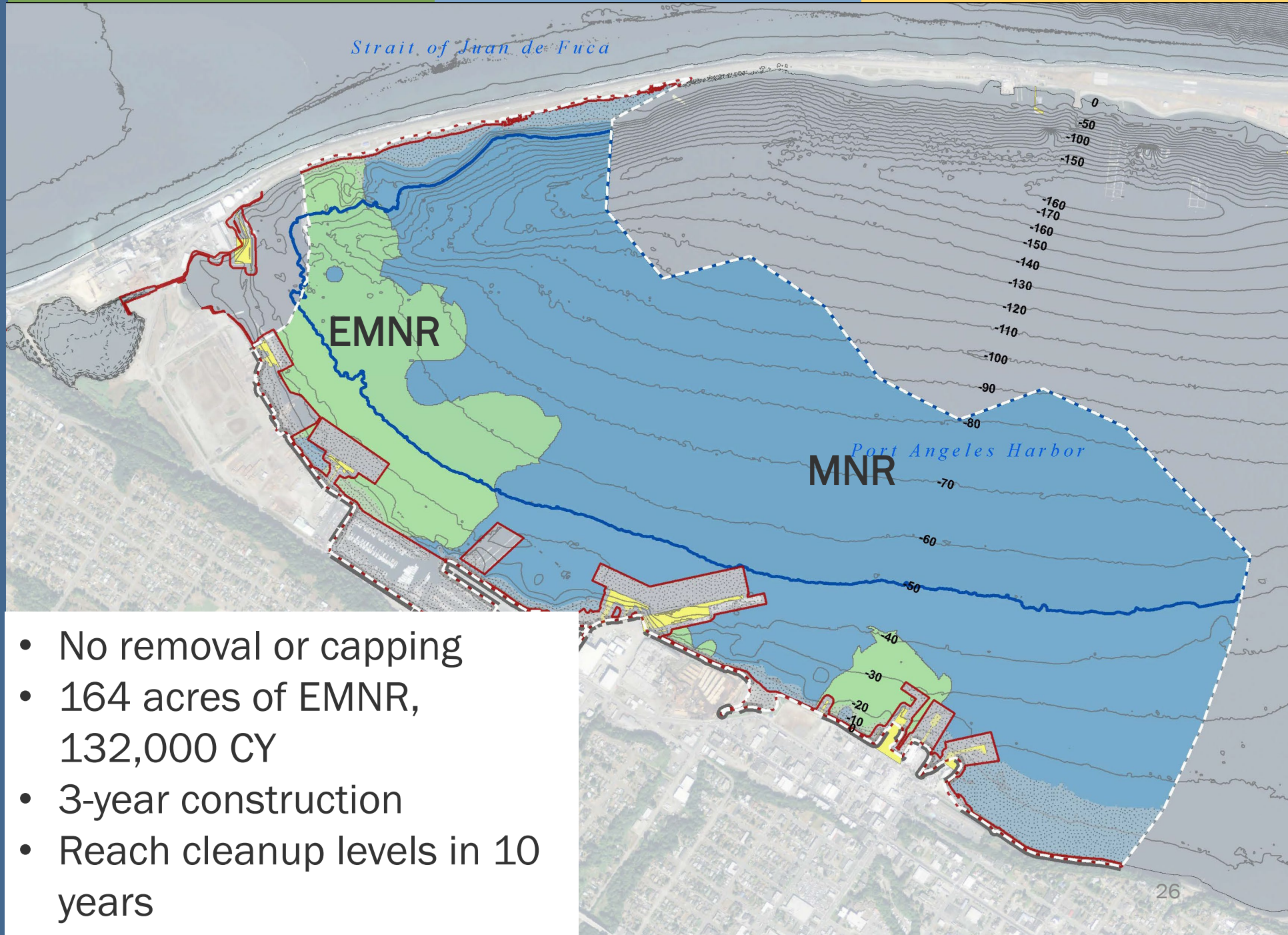


- 2 acres partial excavation and cap
- 4.3 acres partial excavation/dredge and EMNR
- 6.4 acres of cap and 11 acres of EMNR
- 2-year construction. Mitigation required

# SMA 3

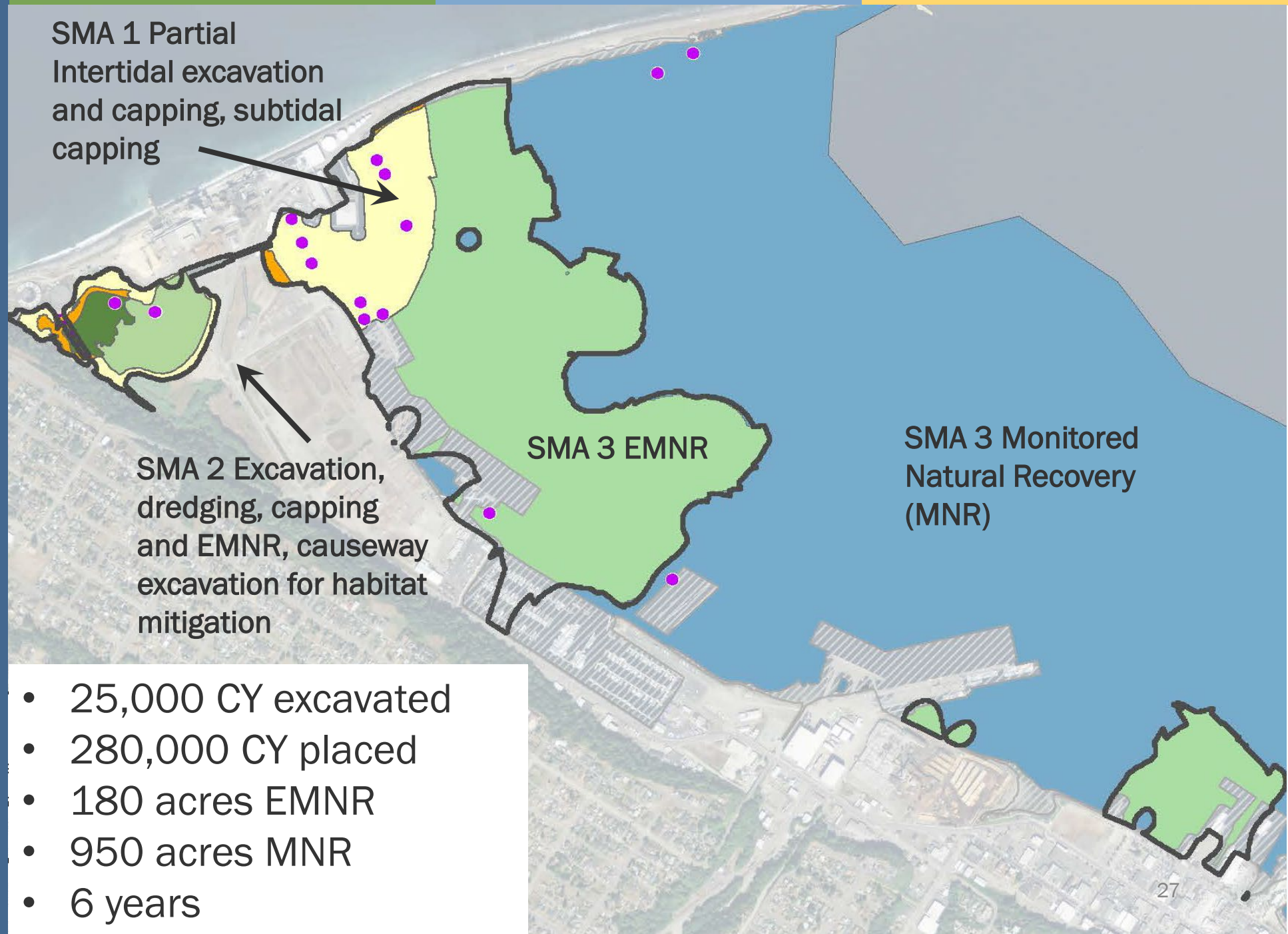
## Alternative 3B

### EMNR & MNR



- No removal or capping
- 164 acres of EMNR, 132,000 CY
- 3-year construction
- Reach cleanup levels in 10 years

# Map of Ecology's Cleanup Action Plan



- 25,000 CY excavated
- 280,000 CY placed
- 180 acres EMNR
- 950 acres MNR
- 6 years

# Ecology's Cleanup Action Plan Overview

| Areas                  | Description  | Cost*        |
|------------------------|--|--------------|
| SMA 1<br>Inner harbor  | <ul style="list-style-type: none"> <li>• 1-acre partial intertidal excavation &amp;</li> <li>• 33-acres subtidal capping</li> </ul>  | \$12M        |
| SMA 2<br>Lagoon        | <ul style="list-style-type: none"> <li>• 6.5-acres intertidal capping,</li> <li>• 2-acres intertidal excavation and capping,</li> <li>• 4.3-acres excavation or dredging with EMNR,</li> <li>• 11-acres EMNR &amp; habitat mitigation</li> </ul> | \$10M        |
| SMA 3<br>Remaining SCU | <ul style="list-style-type: none"> <li>• 164-acres EMNR &amp;</li> <li>• 936-acres MNR</li> </ul>  | \$15M        |
| <b>Total</b>           | <b>6 construction seasons</b>  | <b>\$37M</b> |

\*Costs in 2019 dollars

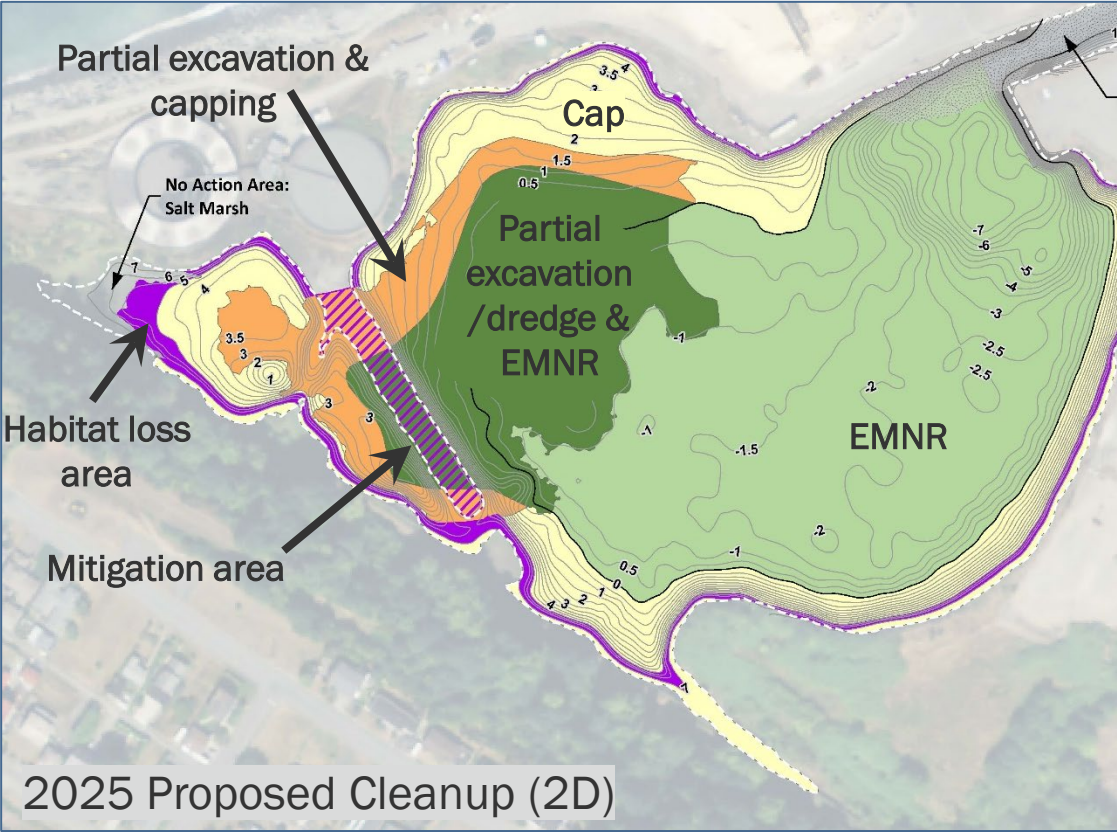
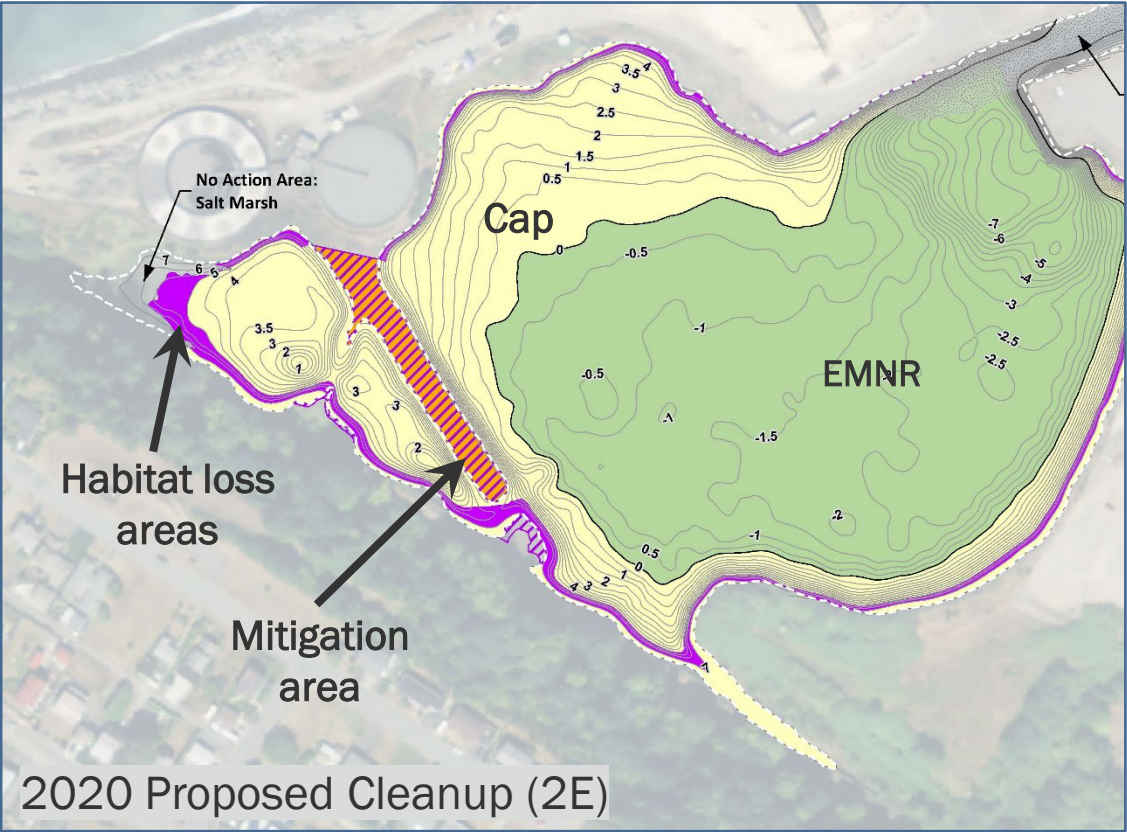
# SMA 2

# Lagoon

## Selection of a different remedy

| Factor                          | Impact  |
|---------------------------------|---|
| Public Feedback                 | Favor removal of contamination  |
| Tribal Significance             | Recognized cultural and historical value                              |
| Lower Elwha Klallam Tribe Input | Focus on restoration over disturbance avoidance                       |
| Unique Ecosystem                | More understanding of rare barrier beach system                       |
| Lagoon Value                    | Recognized as a potentially high-value ecosystem                      |
| Regulatory Push                 | National Marine Fisheries Service seeks to minimize fish habitat loss |
| Environmental Impact            | Capping may increase aquatic land loss                                |
| Restoration Potential           | Key opportunity for ecosystem recovery                                |

# Previous plans vs. Current plans



# Remedial design and construction process



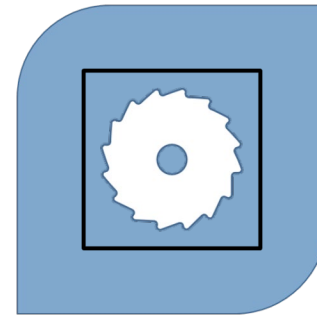
## Data Collection and Engineering Evaluations

- Remedial Design Work Plan
- Data submittals



## Remedial Design and Permitting

- Lagoon Design Memo
- Engineering Design Report
- Construction Plans and Specs
- Permits



## Construction

- Monthly Progress Reports
- Annual Progress Reports
- Cleanup Action Report



## Long-term monitoring

- Monitoring
- Periodic Reviews

# Draft Cleanup Action Plan Attachment A

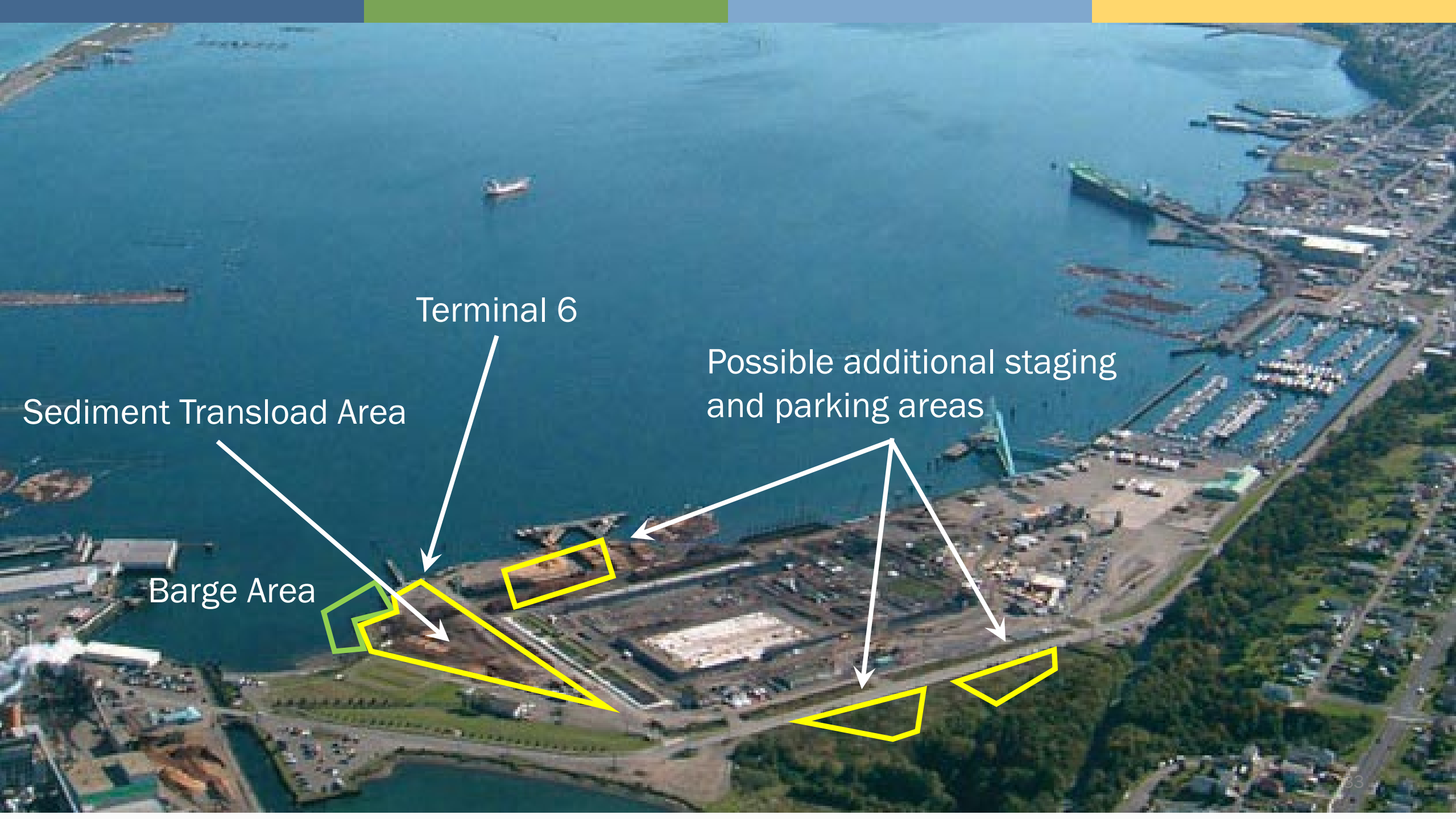


A-1: Construction Quality Assurance and Adaptive Management Plan (CQAAMP)



A-2: Operations, Maintenance, and Monitoring Plan (OMMP)





Terminal 6

Possible additional staging  
and parking areas

Sediment Transload Area

Barge Area

# How will the cleanup affect me?



# Consent Decree



# Consent Decree Overview

- 28 sections (1 – 28)
  - 4 – Definitions
  - 6 – Work to be performed
- 3 Exhibits
  - Vicinity Map
  - Site, Study Area and Sediment Cleanup Boundaries
  - Cleanup Action Plan

# State Environmental Policy Act (SEPA)





# SEPA Checklist Elements

- Earth
- Air
- Water
- Plants
- Animals
- Energy and Natural Resources
- Environmental Health
- Land and Shoreline Use
- Housing Aesthetics
- Light and Glare
- Recreation
- Historic and Cultural Preservation
- Transportation
- Public Services
- Utilities

# Next Steps





# Western Harbor Cleanup Steps

| Cleanup Steps  | Estimated Timeline |
|--|--------------------|
| Public Comment Period for CD/DCAP/SEPA closes              | February 18, 2025  |
| Finalize CD and CAP. Prepare responsiveness summary        | Spring 2025        |
| Design sampling plan, sampling, and engineering evaluation | 2025 - 2027        |
| Engineering design, permitting, and contracting            | 2027 - 2029        |
| Construction (6+ years of construction with fish windows)  | 2029 - 2035        |

# Q&A Session

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