WASHINGTON STATE
Department of Ecology

Custom Plywood Mill Site Anacortes

Interim Action Cleanup Plan

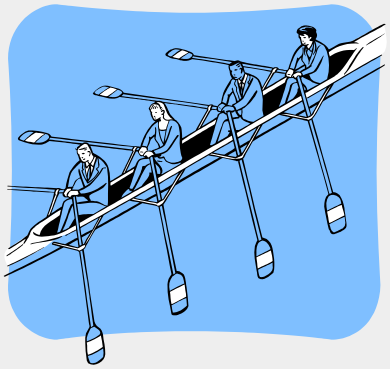
Open House and Public Meeting

February 24, 2011

Tonight's Agenda for Public Meeting

4:30pm	Open House	
5:15pm	Welcome and Introduction	
5:20pm	1. Introductory Remarks 2. Presentation: •Uplands Cleanup •In-water Cleanup 3. Next Steps	
6:00pm	Questions and Discussions	
6:30pm	Concluding Remarks	

Project Team



- Sandra Caldwell: Bay-Wide Coordinator
- Peter Adolphson: Sediment Cleanup Work
- Hun Seak Park: Site Manager/Upland Cleanup Work

Interim Action Work Plan for Public Review

- Draft Remedial Investigation Report
- Draft Feasibility Study Report – including Fidalgo Bay Background Dioxin Study (June 2010)
- Draft Cleanup Action Plan – Upland Remediation (Phase I)- including Archeological Monitoring Plan
- Draft Engineering Design Report – Upland Remediation (Phase I)
- State Environmental Policy Act (SEPA) Checklist and Notice of draft MDNS (Phase I)

The Puget Sound Initiative

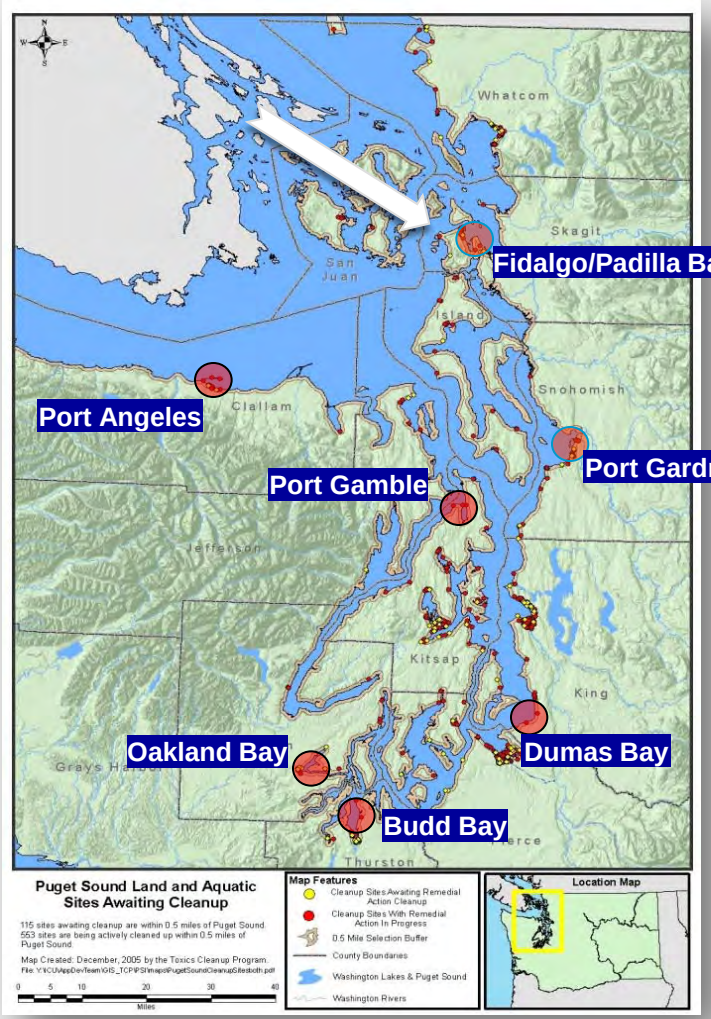
Background….

- Began in 2005 and 2006
- Includes a lot of people, organizations and governments
- Cleanup Program focuses on contaminated site cleanup
- 2020 goal to have most work done

The Puget Sound Initiative

Seven Priority Bays

- Critical habitat exists
- Active cleanups are going on
- Baywide characterizations have been conducted at six bays
- There are over 30 cleanup actions on-going in these Priority Bays



Fidalgo Bay– one of the PSI Bays

After - Scott Paper Mill Site

Custom Plywood Site – Current View

Cleanup Action Plan

- Summer of 2011: Upland Cleanup Work
- 2012 ~ 2013: In-Water Cleanup Work

History of Site Operations

1913 ~ Late 30's:
Sawmill and Box Factory

Late 1930 ~ 92:
Veneer and plywood plant

- November 1992: Largely destroyed in a fire
- No industrial activities for last 19 yrs.

Custom Plywood Aerial Photo: Site Lay-out

General Site Descriptions

- **Upland Area:** – approx. 7 acre upland area; mostly unpaved, industrial zone & ¼ acre of wetland
  - Visible structures, wood pilings; silty clay/ sand/gravel mixed with wood waste/bricks and sawdust and waste logs; dense native clay layer
- **Intertidal/Marine Area:** approx. 440 acre of Site (34 ac – property)
  - Creosote wood pilings, wood debris, sawdust, bricks; large concrete platform supported former plant building
  - Dioxins contaminated sediment
  - Sensitive ecosystem

Why Interim Action?


Photograph 3 Final grade before geotextile is laid down.


Photograph 4 Rolling out geotextile.

- On-going shoreline erosion leading to contaminant pathway into bay
- Significant environmental damage during January 2010 storm surge
- Urgent need to prevent further environmental damage through erosion and transport of contaminated materials to the Bay

Proposed Cleanup Summary

- A. Upland Cleanup:
  - Physical hazard removal: creosote pilings and debris
  - Soil removal and off-site disposal
  - Wetland mitigation

- B. Aquatic Cleanup:
  - Physical hazard removal: creosote pilings and debris
  - Marine sediment remediation and disposal
  - Shoreline protection and habitat restoration
- C. Public Access & City's Stormwater Conveyance

Remedial Investigation Effort (2008 through 2010)

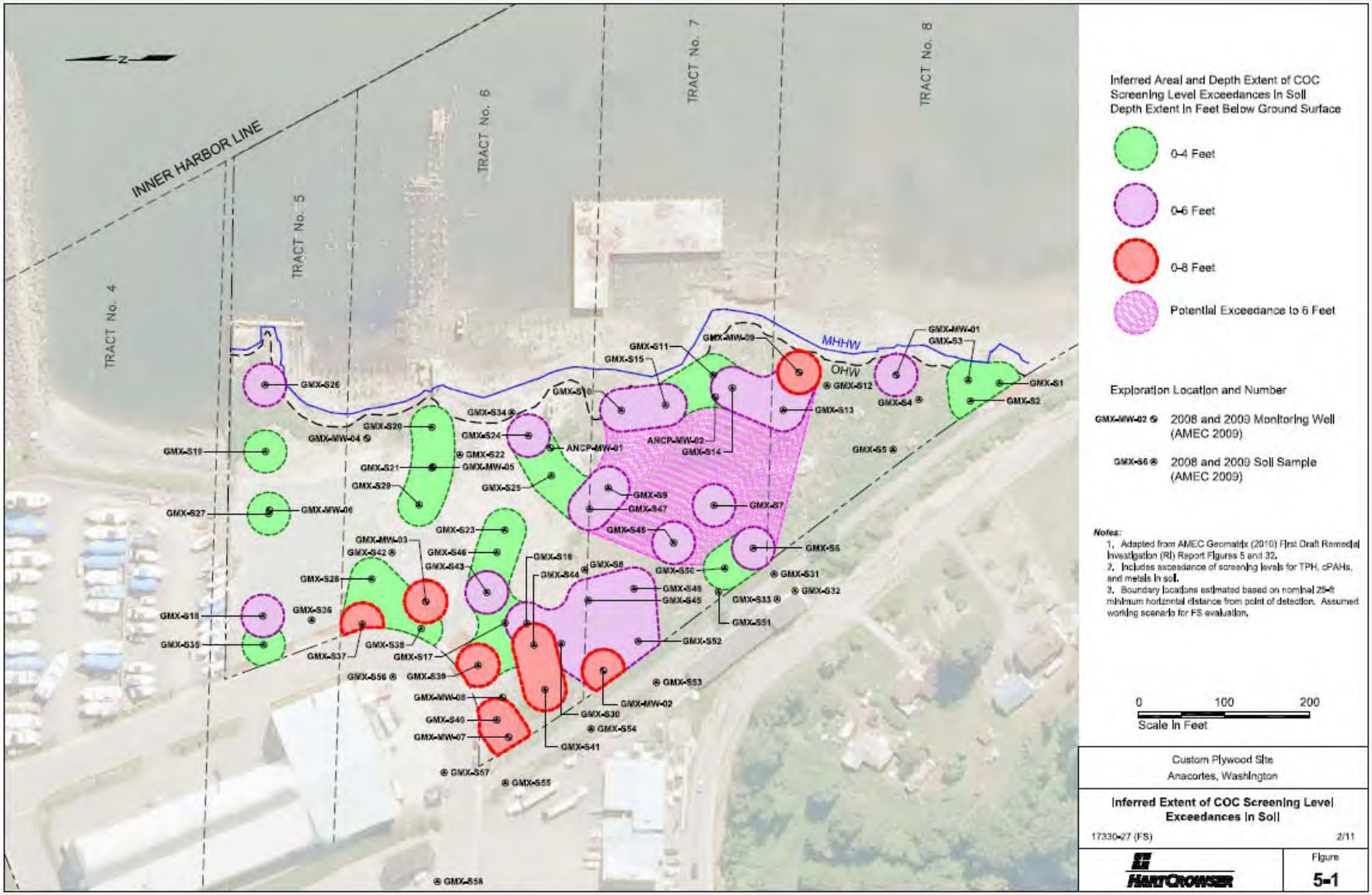
Comprehensive RI Study on Uplands & Sediment

- Uplands Study:
  - Numerous soil and groundwater samples; test pits samples in intertidal zone;
  - Assessment of archeological survey;
  - Supplemental tideland debris investigation & archeological monitoring;
- Sediment Studies –total 99 locations
  - July 2008: Tiered approach- bioassay and chemical analyses
  - June 2010: Fidalgo Bay Dioxin Background Study
  - December 2010: Dioxin Study at intertidal area included vibracore sampling method

Remedial Investigation Results - Uplands

- Indicator Hazardous Substances
  - Soil:
    - ✓ Metals (As, Cd, Cu, Pb, Ni, Zn, Hg, etc.)
    - ✓ sVOCs: cPAHs, PCBs
    - ✓ TPH-Dx & lube oil range
  - Groundwater/Surface water (seep):
    - ✓ Metals (As, Cu, Ni, Zn, etc.)
    - ✓ sVOCs: cPAHs
    - ✓ TPH-Dx & lube oil range
- Magnitude of soil Impacted (estimated):
  - Area: 3.2 acre
  - Volume: 25,000 ~ 40,000 cy

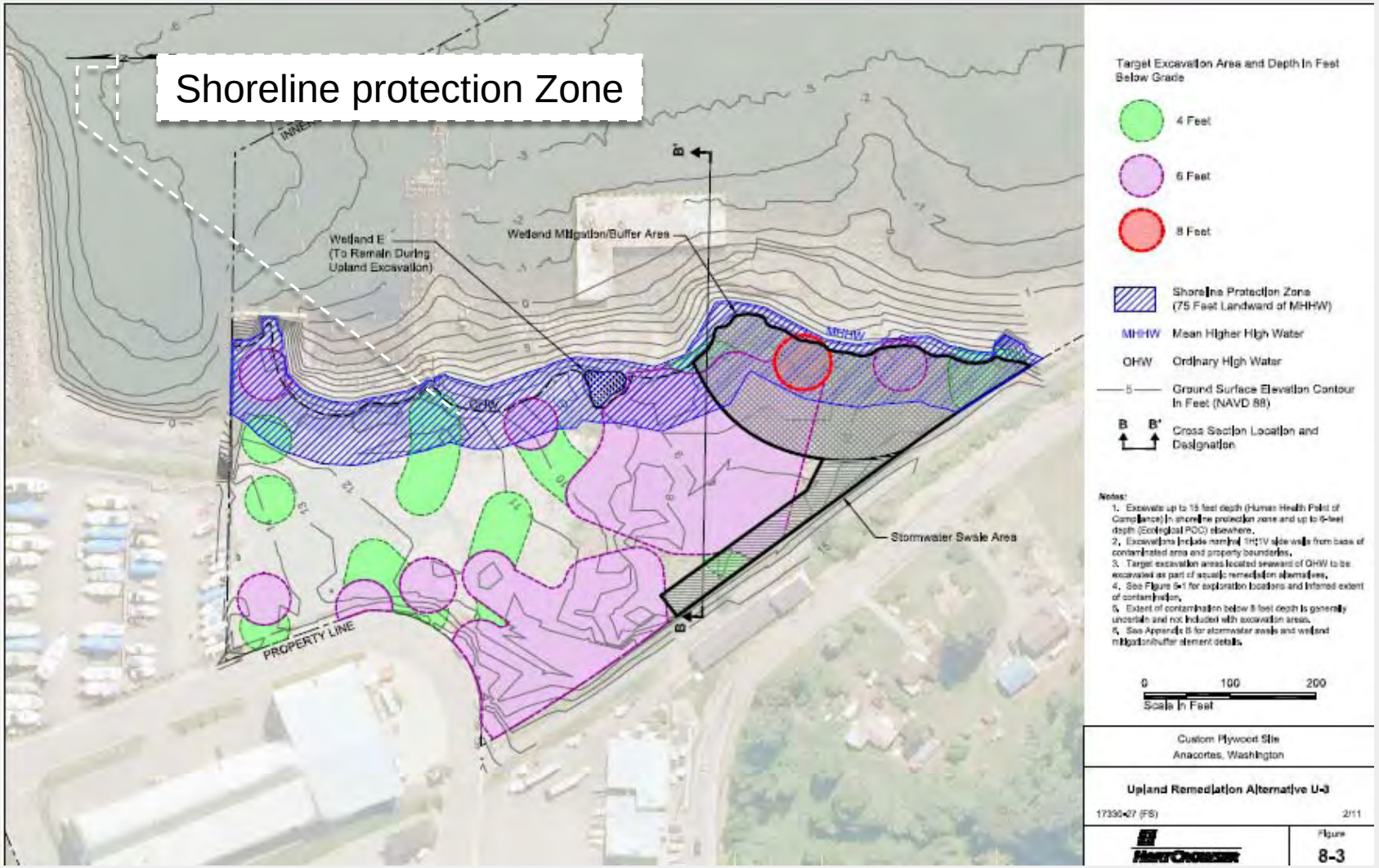
Aerial Extent of Impacted Soil



Upland Cleanup Action

- Physical hazard removal: near surface debris and subsurface foundations and pilings
- Soil removal and off-site disposal:
  - Soil excavation: 26,000 cy; backfill with clean imported soil
  - Excavate up to 15 feet deep in shoreline protection zone and press pits areas.
- Construction of new estuarine wetland and stormwater conveyance system
- Long-term groundwater monitoring

Upland Cleanup Action Proposed: Plan View

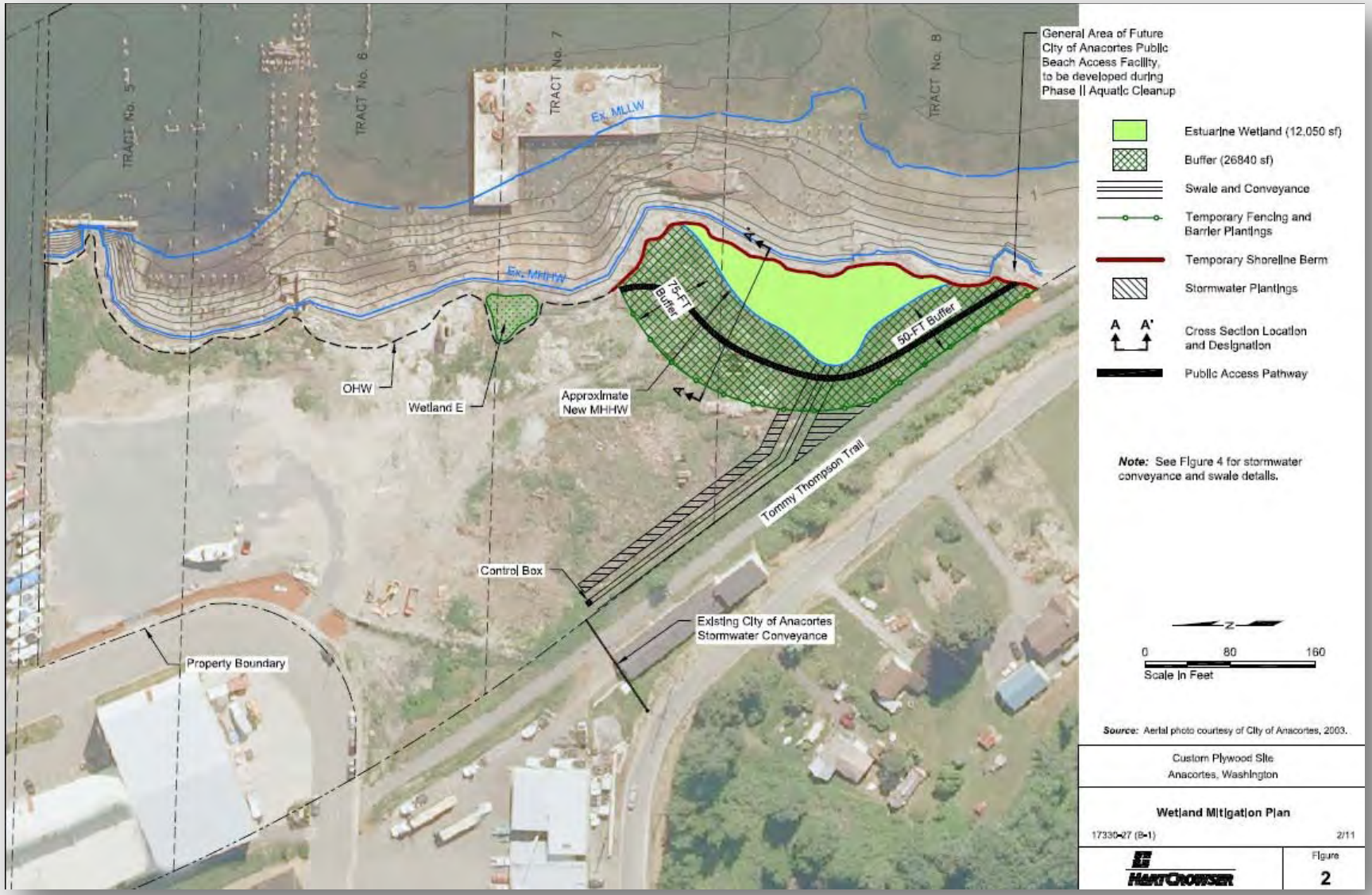


Wetland Mitigation Plan & Stormwater Swale

- Restore one consolidated on-site 12,000 sf Estuarine-type wetland
- Upland buffer (50 ~ 75 feet) in width – native vegetation

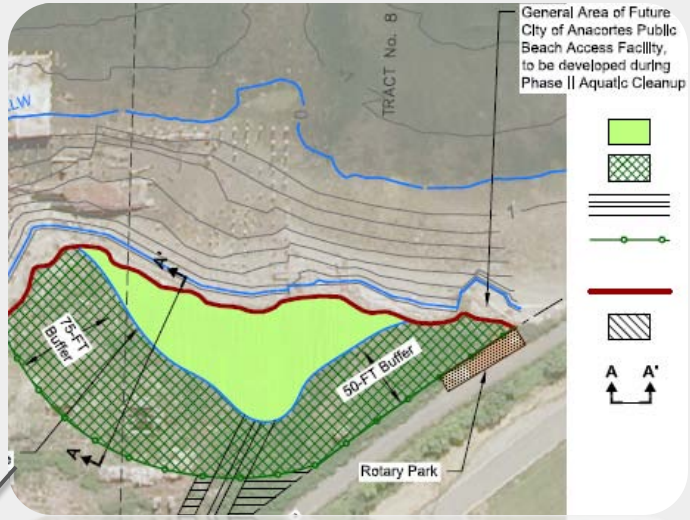
- Temporary berm along the opening at OHW line during upland construction
- Installation of stormwater swale
- Post-construction stormwater & confirmational monitoring & maintenance required

Wetland Mitigation Plan - Plan view



Public Access to Shoreline Areas

Breakwater Extension Area



Wetland Mitigation Area

In-Water Cleanup Work

- Removal of Marine Construction Debris and Pilings
- Sediment Remediation – Dioxin and Wood Waste
- Shoreline Protection & Habitat Restoration Work

Remedial Investigation Results – In-water

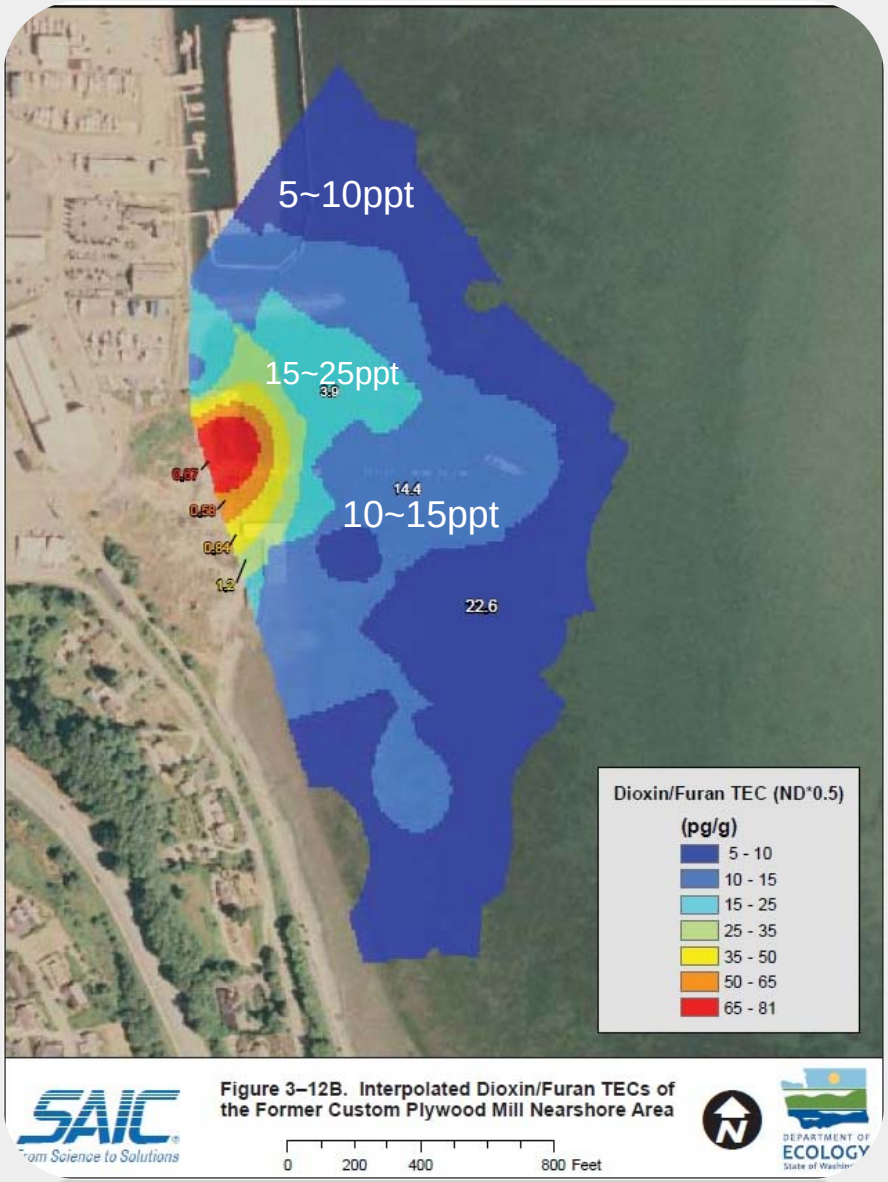
- **Indicator Hazardous Substances:**
  - **Bioassay Failure**
  - **Wood waste/debris @ nearshore area (deleterious impact)**
  - **Dioxins/Furans**
- **Sediment Area Impacted by Dioxin:**
  - **Approx. 440 Acre @> Fidalgo Bay Background Level (1.4 ppt)**
    - ✓ **22 Acre - greater than 10 ppt**
    - ✓ **3.2 Acre – greater than 25 ppt**
- **Sediment volume impacted by Dioxin:**
  - **19,000 cy: 10 ~ 24 ppt**
  - **1,400 cy: >25 ppt –**
- **Total wood waste volume: 50,000 cy**

Bioassay failures

Wood debris, Pilings and construction debris


P7200117.JPG - Windows Picture and Fax Viewer

Impacted Sediment Area for Dioxin: Nearshore

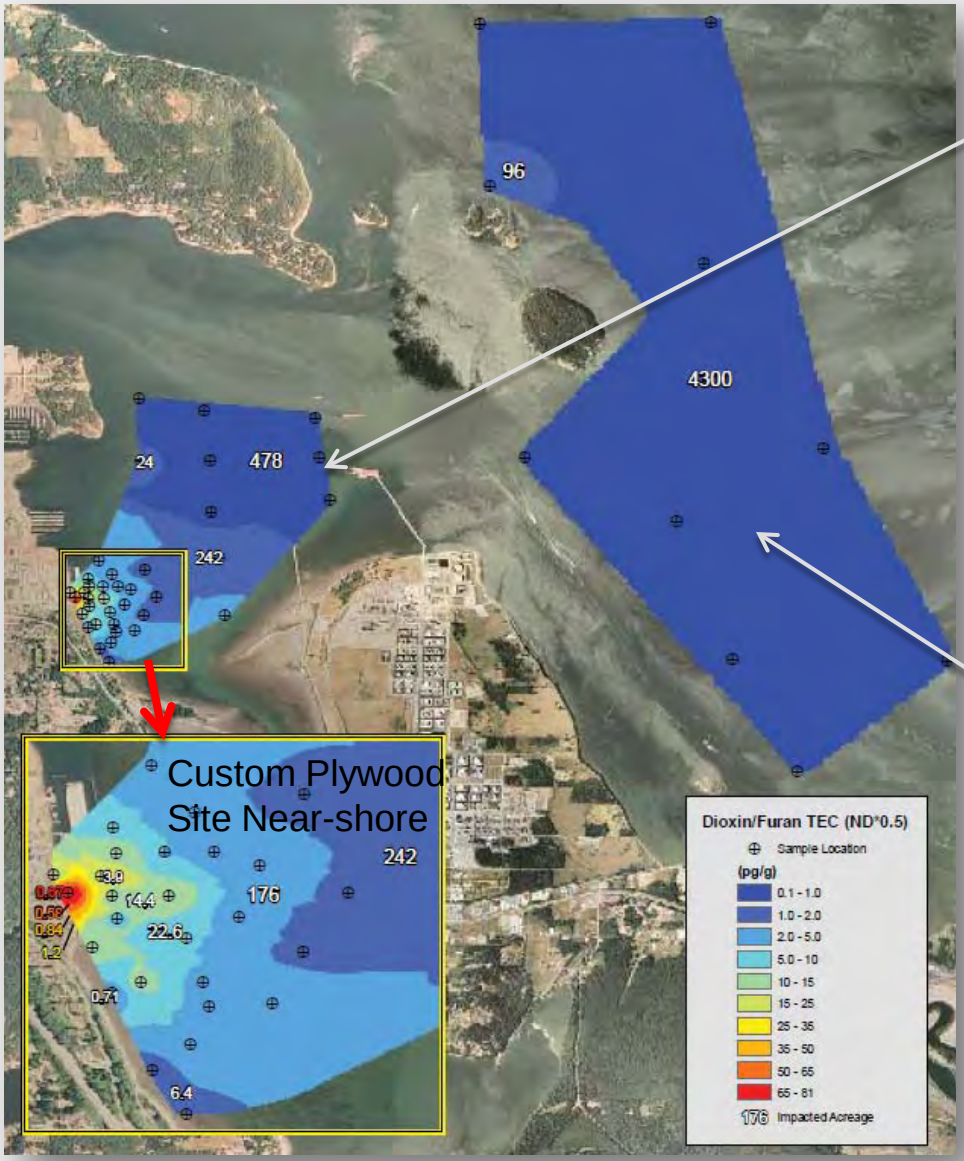


Approximate acreage of sediment impacted

TEC Interval (pg/g dw)	Impacted Area (acres)*
0.1 - 1.0	4780
1.0 - 2.0	368
2.0 - 5.0	177
5.0 - 10	22.6
10 -15	14.4
15 - 25	3.9
25 - 35	1.2
35 - 50	0.84
50 - 65	0.58
65 - 81	0.67
Total	5370

Note: Based on data collected till June 2010.

Fidalgo/Padilla Bay Study Area:Dioxin/Furan



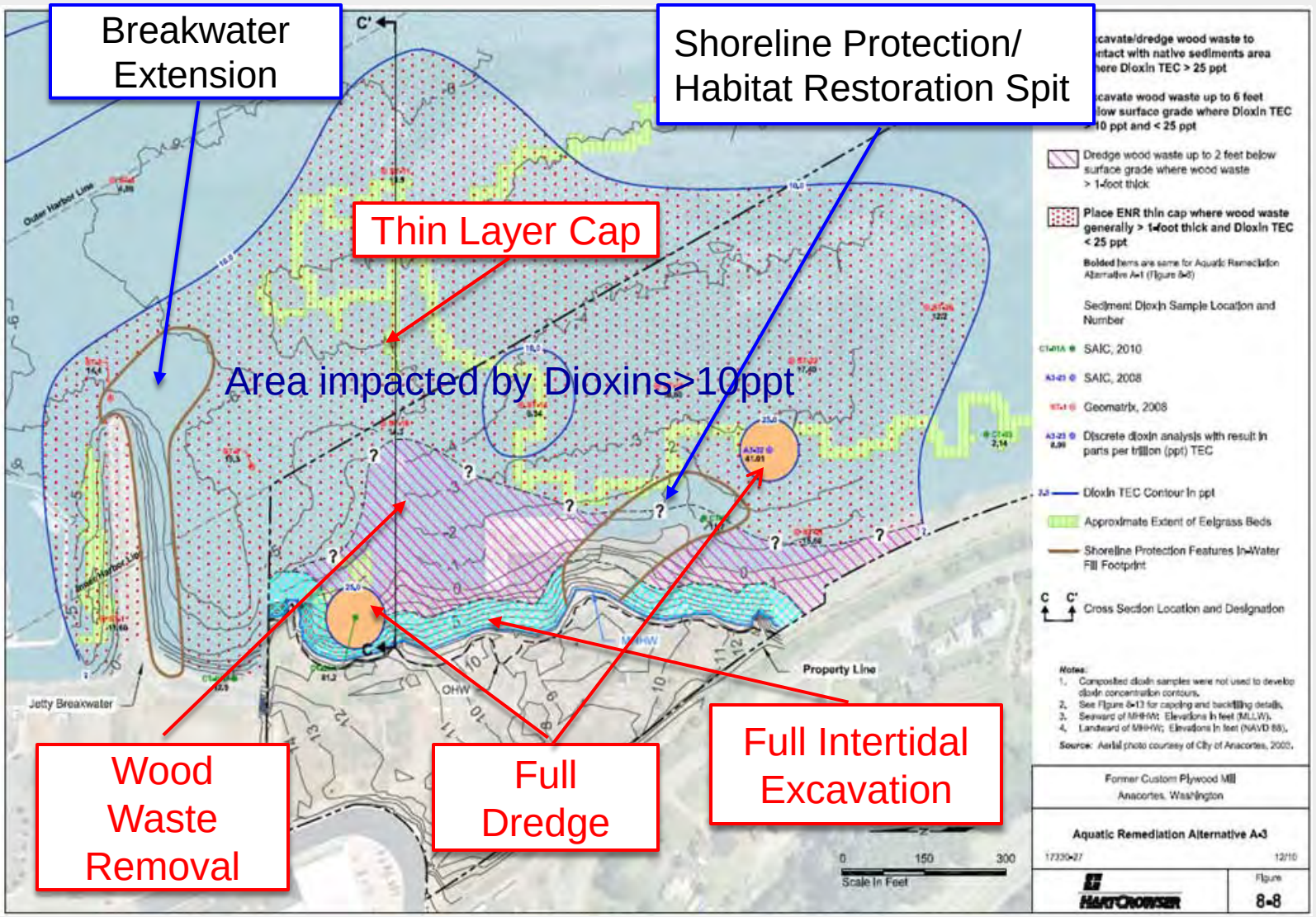
Natural Dioxin Background of Fidalgo Bay is 1.4 ppt *(part per trillion)* TEC (toxicity equivalent concentrations)

Natural Dioxin Background of Padilla Bay is 1.0 ppt *(part per trillion)* TEC

Proposed In-water Cleanup Action

- Nearshore surface debris and marine structures/creosote piling removal
- Excavation/dredging or capping areas with greatest accumulations of wood waste and the highest Dioxin concentrations;
  - Dredging/excavation: total 28,000 cy
  - Thin Layer Cap (19,000 cy), monitoring
  - Dewatering and off-site upland disposal
  - Backfilling
- ***Construction of aquatic spit and breakwater extension for the protection of shoreline and improve the Habitat.***

In-water Cleanup Action Proposed: Plan View

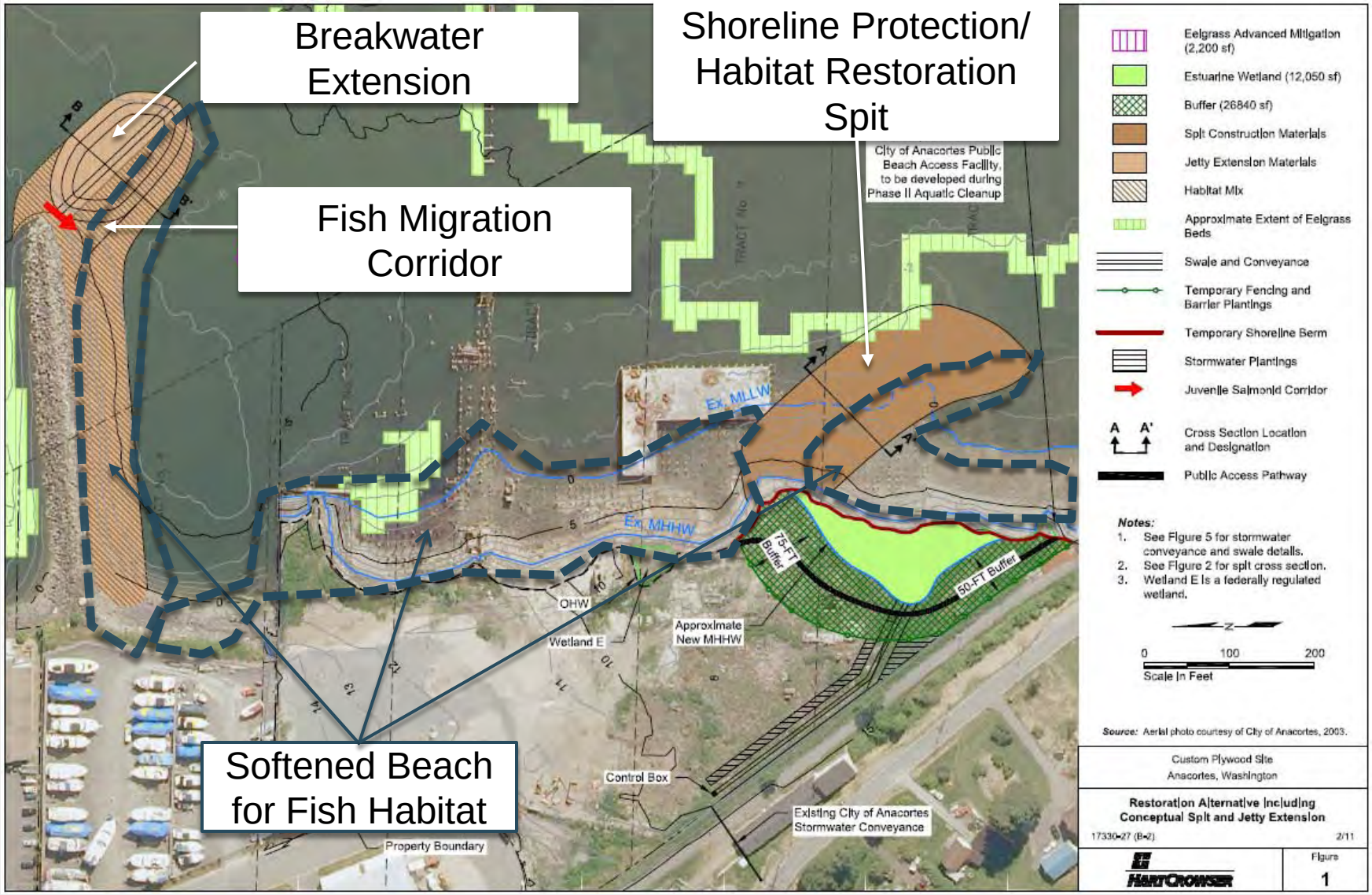


Goals: Shoreline Protection and Habitat Restoration

Wave Erosion and Habitat Restoration Consideration:

- Prevent shoreline erosion that could expose residual contaminants to aquatic environment
- Minimize use of rock amoring
- Preservation of mitigated estuarine wetland
- Habitat enhancement for forage fish spawning & juvenile salmonid foraging

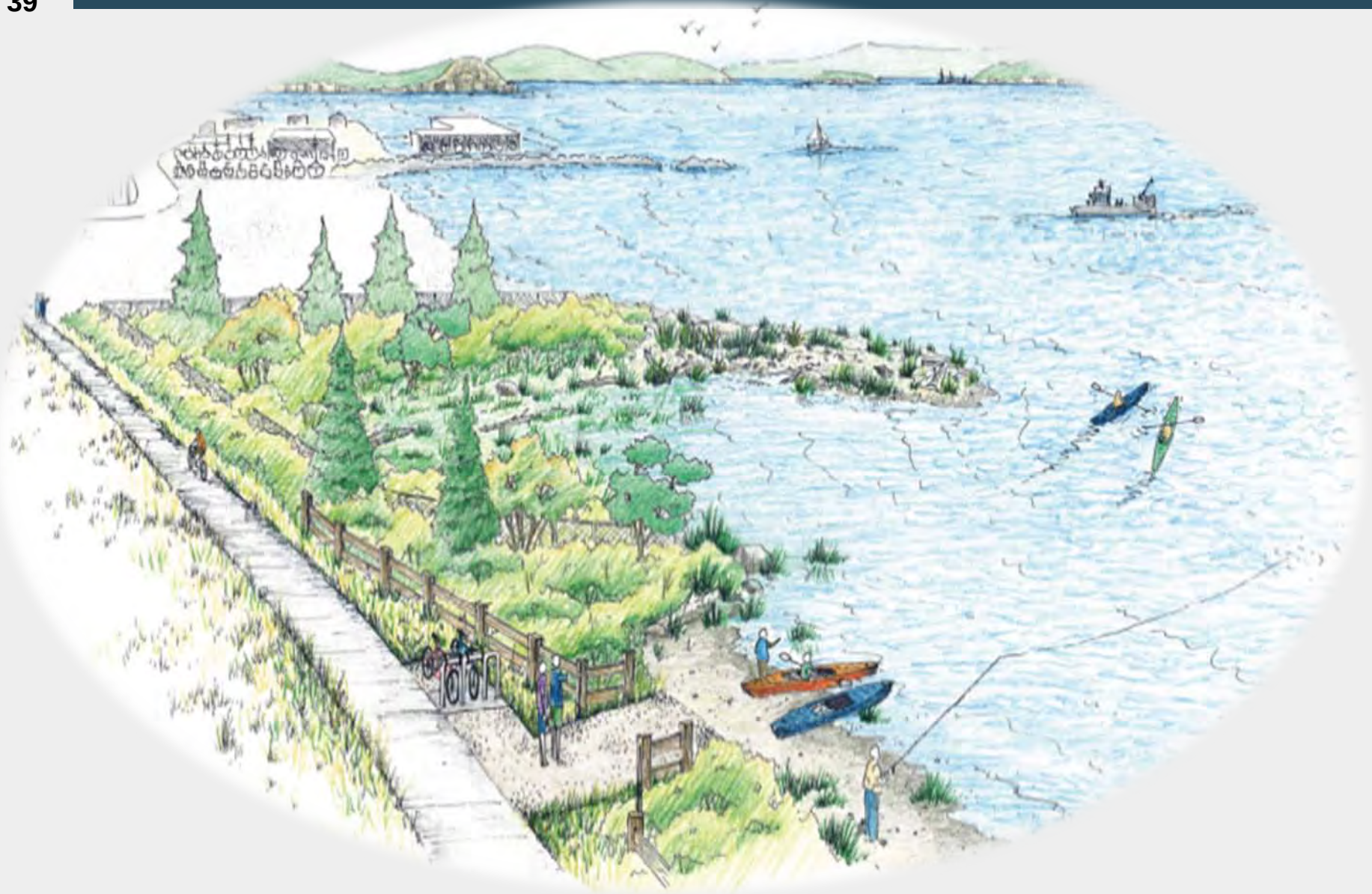
Proposed Spit/Breakwater–Extension Structure



Example of softened beach for fish habitat

Public Outreach: Custom Plywood Mill Site

Future View from the Southernmost Portion of the Site



What's Next under Interim Action?

Custom Plywood Mill Site		Date
Public Comment: Ecology-lead Interim Action- Draft RI/FS Report and CAP and EDR (for Upland Remediation)		Feb ~ March 2011
Design Specification/Bidding for Upland Construction	Phase I	Feb ~ May 2011
Upland Field Construction		June ~ October 2011
JARPA Application for In-Water Work	Phase II	May 2011 ~ Feb 2012
Public Comment: Ecology-lead Interim Action: RI/FS Addendum (?) and CAP and EDR (for In-Water Remediation)		Feb ~ May 2012
In-water Field Construction		June 2012 ~ October 2013

YOUR INPUT IS VALUABLE

- ✓ ***Fill out a comment form tonight***
- ✓ ***Visit Ecology's Toxics Cleanup Website at:***
- ✓ ***http://www.ecy.wa.gov/programs/tcp/sites/custom_ply/custom_ply_hp.htm***
  Review the Custom Plywood Site documents at the Anacortes Public Library
- ✓ ***Send your comments to:***

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Future of Custom Plywood Mill Site