Port of Edmonds: NOAA/NFWF Grant

Posted: December 27, 2022

A view of the high water at State Route 104 and Dayton. Street. (Photo by Bob Throndsen)

Edmonds Marsh Estuary Advocates

Agenda

1. The Project: Protect Port from flooding
2. NOAA/NFWF Coastal Resiliency Grants
3. First NOAA/NFWF Grant
4. NOAA/NFWF 30% design
5. Port Strategic Plan

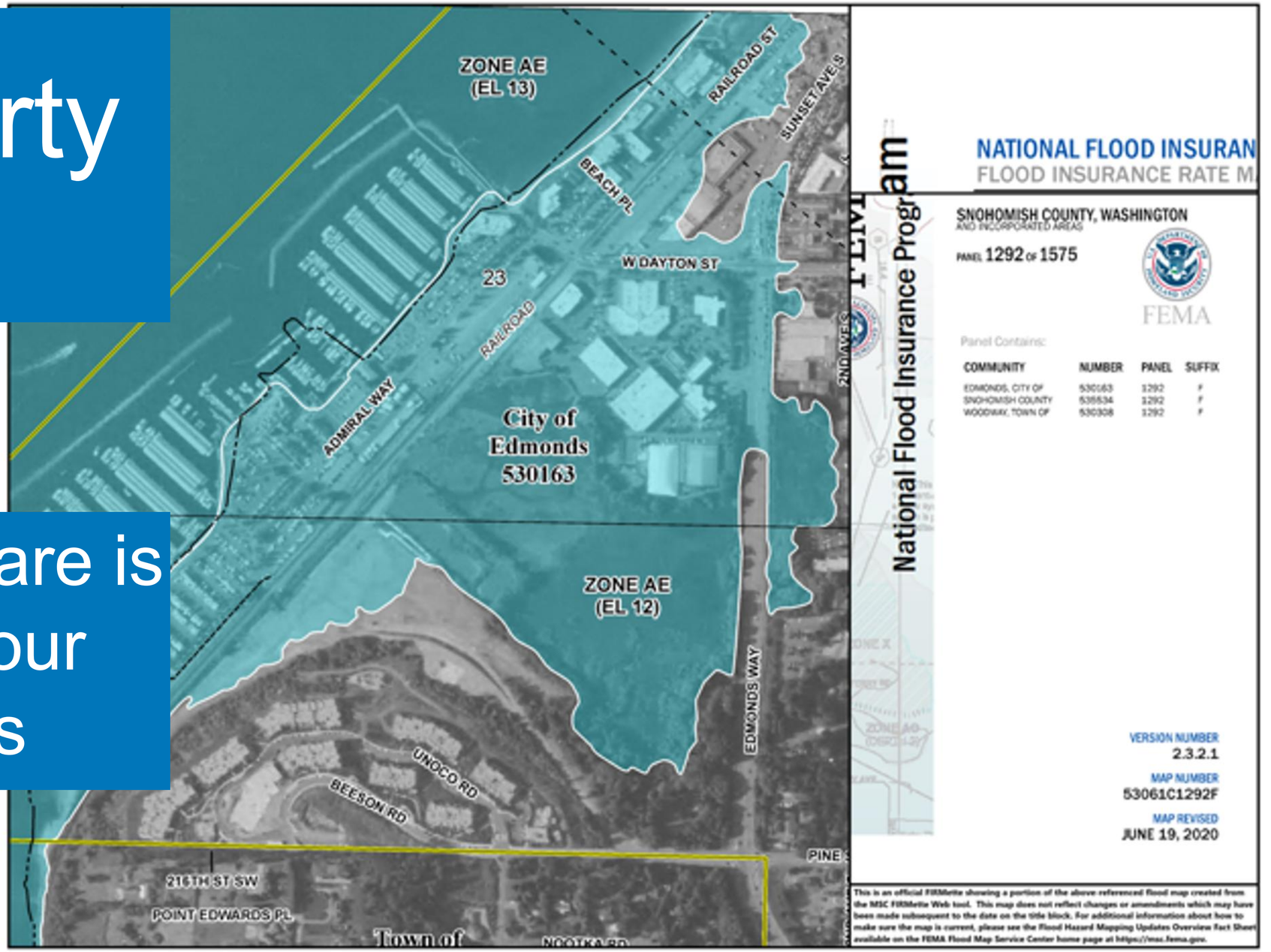
Edmonds Marsh Estuary Advocates

Restoration: Flood Vulnerability Assessment

No flood control alternative

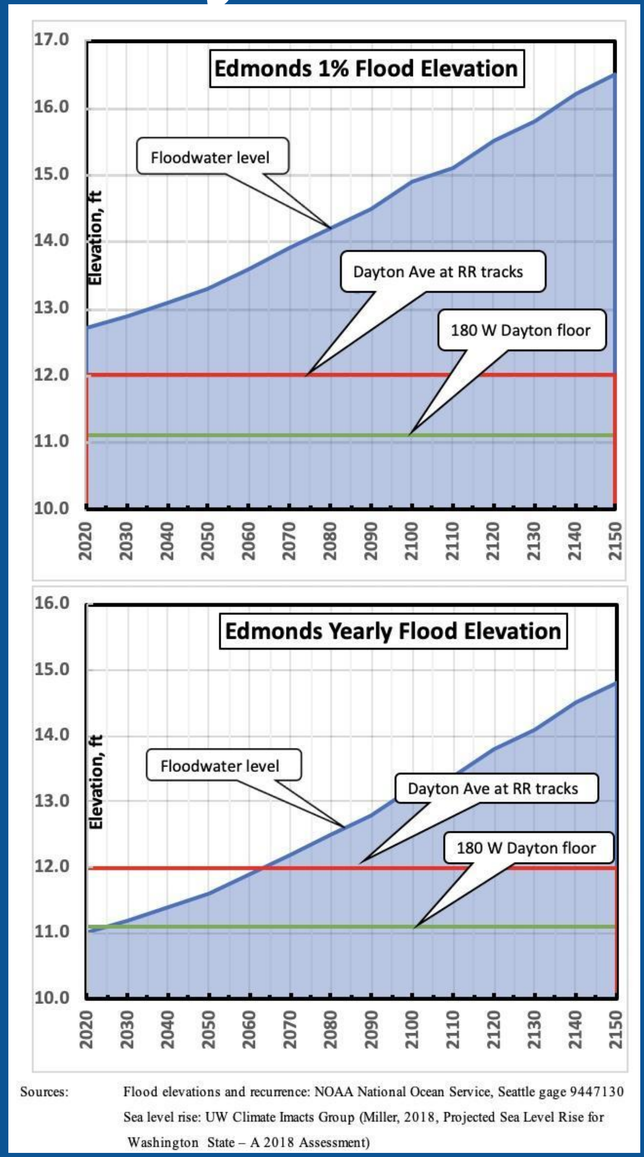
Port Property Flooding

Harbor Square is now below our highest tides



NOAA/NFWF Coastal Resiliency Grants

- enhance coastal communities' defenses against severe weather and flooding while restoring natural habitats.
- prioritize nature-based solutions and community engagement to build resilience against climate change impacts.



Sources: Flood elevations and recurrence: NOAA National Ocean Service, Seattle gage 9447130
Sea level rise: UW Climate Imacts Group (Miller, 2018, Projected Sea Level Rise for Washington State – A 2018 Assessment)

Marshian Vision

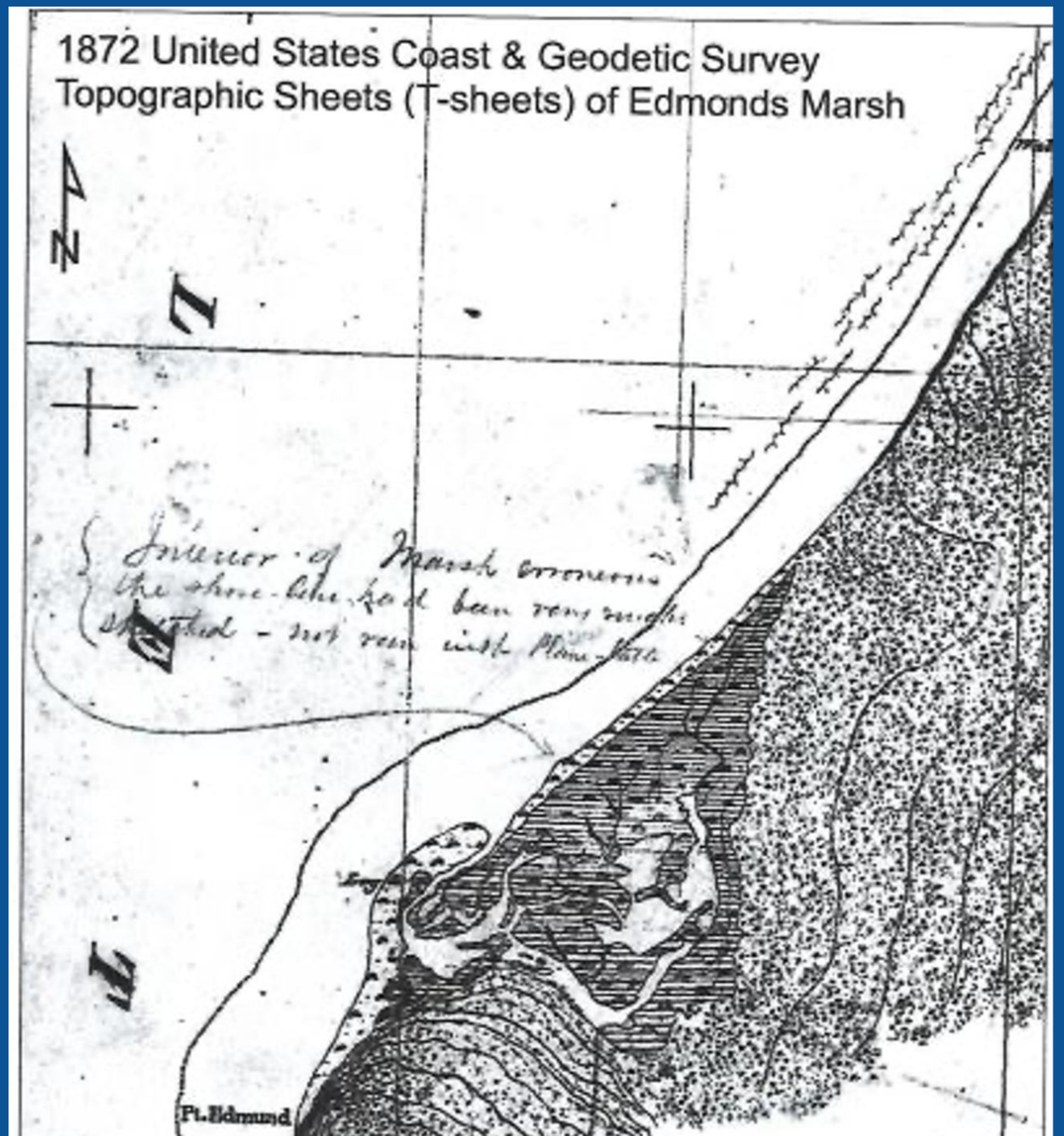
Edmonds Marsh Estuary Advocates

Edmonds Marsh Estuary Advocates

EMEA Proposal

The Past

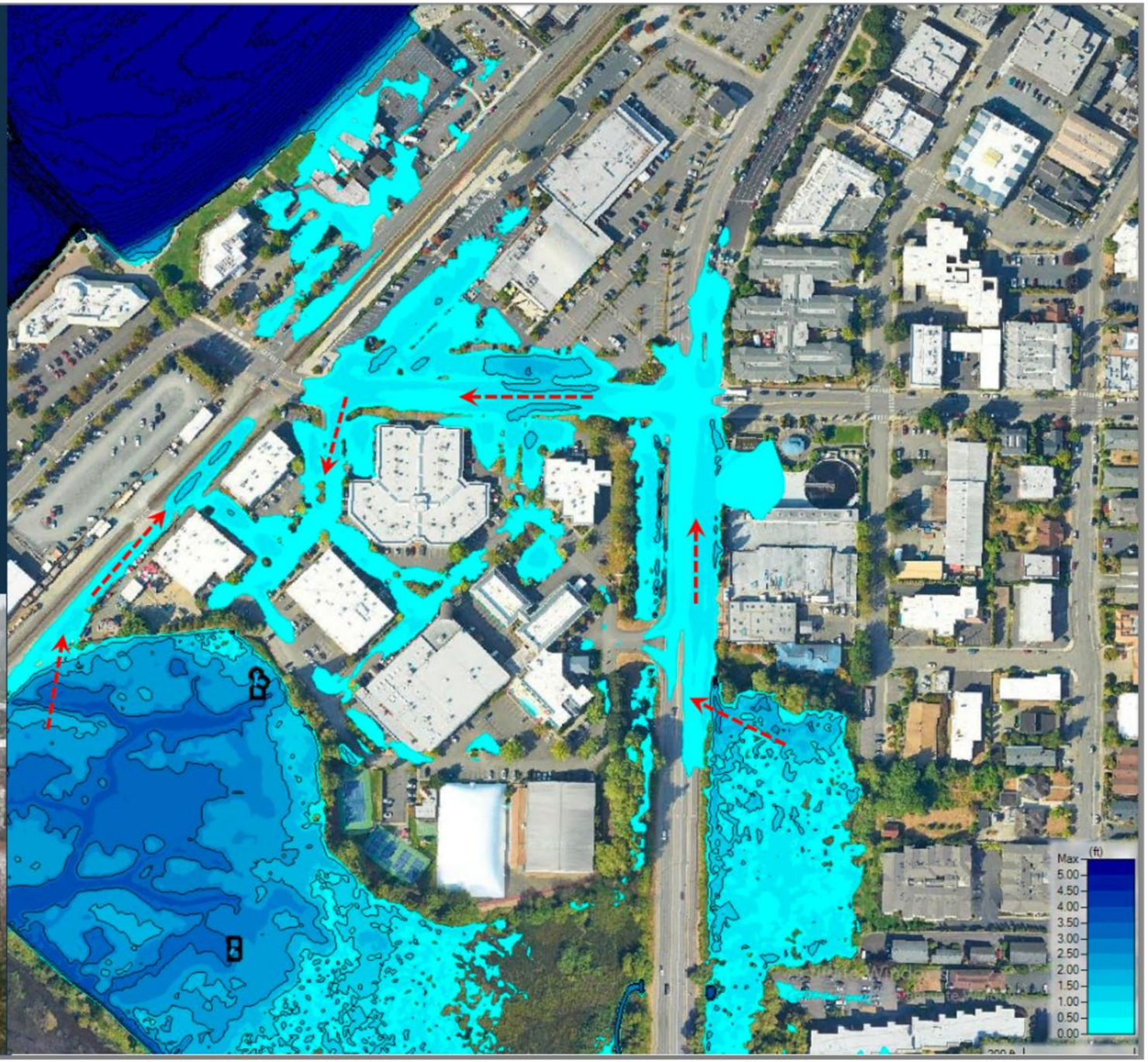

Edmonds Marsh with Historic Salt Marsh Overlay
Data Sources: USDA 2013 NAIP Imagery, Puget Sound River History scanned and rectified United States Coast & Geodetic Survey Topographic Sheets (T-sheets), Puget Sound River History Project: Digitized vector geodatabase feature dataset of edgematched United States Coast & Geodetic Survey Topographic Sheets (T-sheets) of Puget Sound and the Strait of Juan de Fuca (1852 - 1926) - Adjusted dataset.
0 250 500 1,000 1,500 2,000 Feet
N
Legend
Historic Coastal Landscape
Salt marsh


1872 United States Coast & Geodetic Survey
Topographic Sheets (T-sheets) of Edmonds Marsh
N
Pt. Edmund

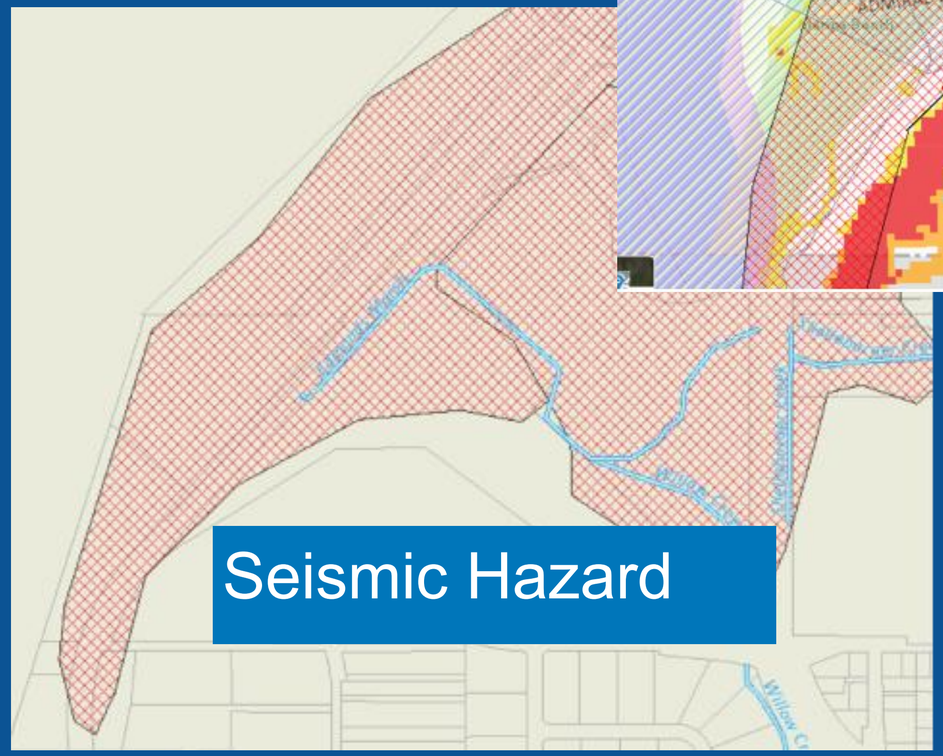
Scenario 1 – 12/27/22 King Tide Event

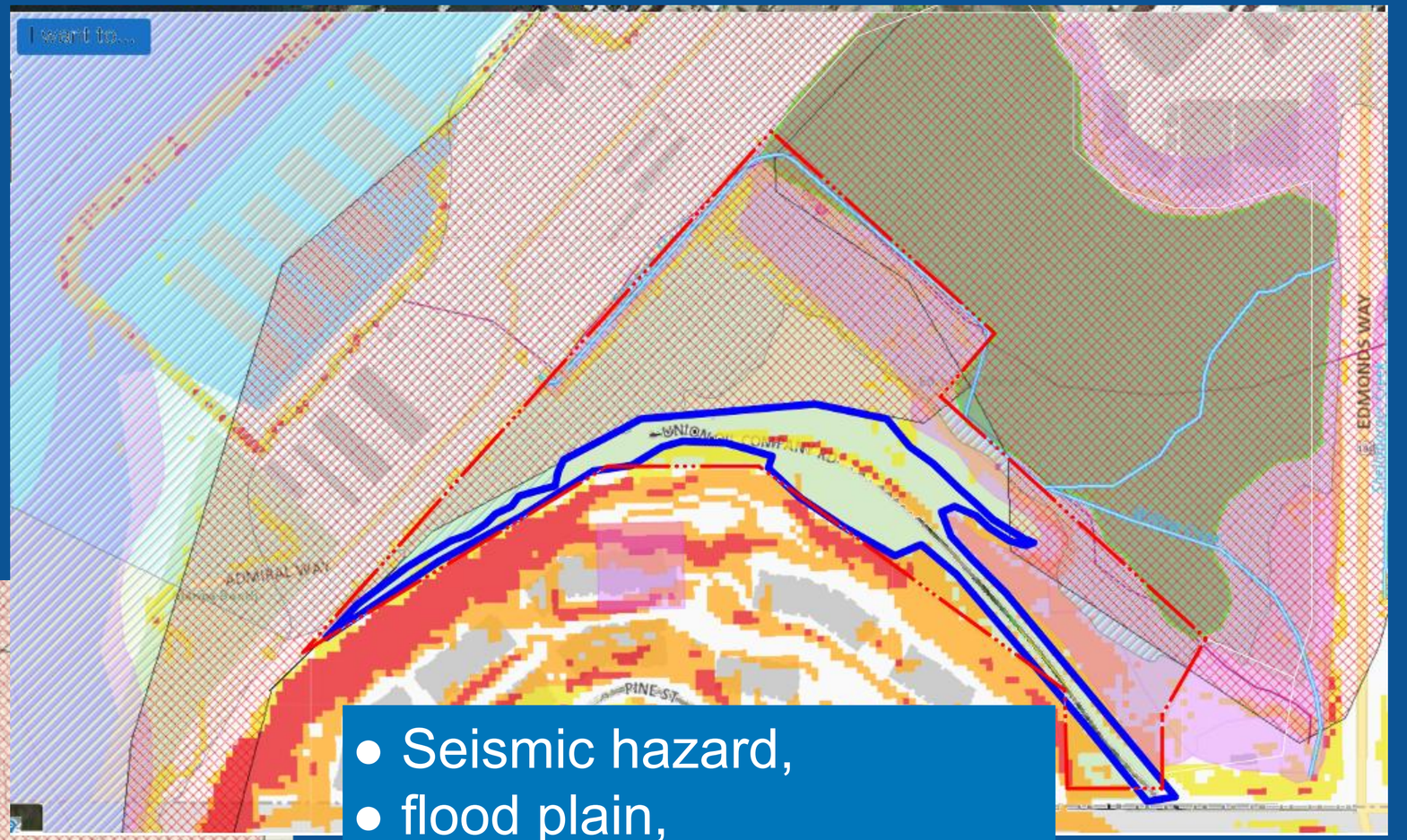
- Overtopping of the Edmonds Marsh spills into Railroad Ditch and flows into Harbor Square
- Shellabarger marsh floods into Dayton Street and Harbor Square

Draft, work in progress



Critical Area Designations





- Seismic hazard,
- flood plain,
- sensitive habitat,
- SMP,
- stream and wetland setbacks,
- sea level rise hazard zone (new State requirement)

Edmonds “First Right of Purchase”

Unocal Site:

- MOU with WSDOT
- State legislation:

“For the purpose of restoration”

The Last NOAA/NFWF Grant

- Total Project Cost: $226,000
- Local Match: $91,000
- Staff time in-kind match: $21,500
- Citizen Cash donation: $35,000
- Volunteer hours: $22,00
- Consultant Contract: $175,000

Completed November, 2025

The Last Grant

- Modelled water levels and velocities
- identified flood pathways
- identified contamination risks and steps to address risk
- public involvement and
- path forward

The New NOAA/NFWF National Coastal Resilience Fund

Preliminary Design (30%) to Reduce Flooding and Create Estuary Habitat in Edmonds Marsh (WA)
Grantee: City of Edmonds
Grant Amount:
$677,400
Matching Funds:
$388,700
Total Project Amount: $1,066,100

Work Elements

- Conceptual design
- Technical studies
  a. H&H modeling and stormwater analysis
  b. Geotechnical
  c. Cultural, historical
  d. Risk and vulnerability
  e. Plant and animal surveys
- 30% design
- Construction cost estimate
- Appraisal
- Financial plan
- Community engagement

NFWF Funding Categories

1. Community Capacity Building & Planning
2. Site Assessment & Preliminary Design
3. Final Design & Permitting
4. Restoration Implementation

Why Edmonds got the grant

Community involvement and support

Importance of flood resiliency to Edmonds

Timeline (optimistic)

Completed

RR bridges constructed, H&H modeling, risk assessment, public involvement

2026

2029: Complete 30% Design

engineering studies, cost estimate, financial plan

2029

2032: Complete final design and acquisition

Identify and obtain grants, purchase property, (acquisition date dependent on Unocal clean up)

2031

2032: Complete construction, maintenance, monitoring

Restoration of Willow and Shellabarger Creeks

2032

Beyond 2032: maintenance, monitoring

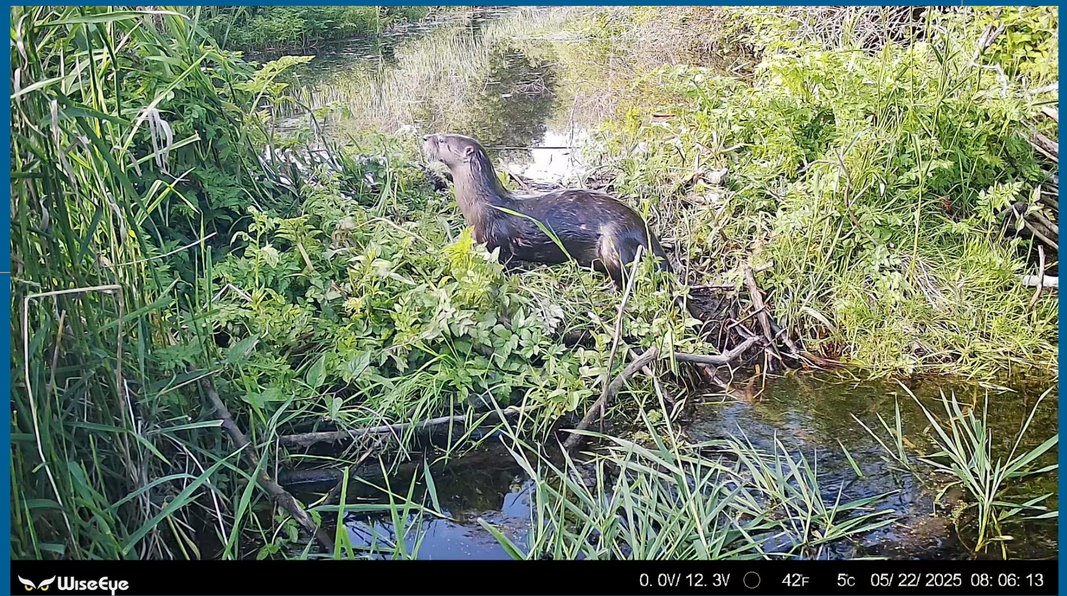
Restoration of Willow and Shellabarger Creeks

Edmonds Marsh Estuary Advocates

The Value of Restoration and Estuary Expansion

- Carbon sequestration
- Mitigation banking
- Pollution filtration
- Flood protection
- Value of fill
- Recreation, tourism
- Education

- Salmon restoration
- Wildlife value
- Home and business value
- Jobs and economic benefits



Port Strategic Plan

- Partner with the City
- Engage in the Process
- Help with local match
  - $25,000 in 2027
  - $25,000 in 2028

EXTRA SLIDES

Why we got the grant

The value of restored estuary habitat

“The $60.9 million in public benefits anticipated from the project over the next 100 years far outweigh the $14 million in estimated construction costs”


Marshian Vision
Public Access
Key:
Property lines
Proposed walking path
Port of Edmonds
Harbor Square
Edmonds Marina
Edmonds Marsh
Unocal
Walking Path
Picnic Area
Observation Platforms
Marina Beach Park
Overpass
Point Edwards
Visitor/Cultural/ Educational Center
Parking
City Park
0 100 200 FT
N
Vertical Datum NAVD88
9/27/25

"**Sea Level Rise Hazard Area**" means a mapped regulatory overlay zone that a local government designates to manage development in areas likely to be impacted by sea level rise. The area is determined based on a planning exercise that includes reviewing information from a sea level rise vulnerability assessment. The Sea Level Rise Hazard Area must encompass the land that modeling indicates is reasonably likely to be exposed to hazards such as flooding, erosion, and groundwater rise over a long-term planning horizon and include the area of future tidal inundation.

Technical Studies

a. H&H modeling and stormwater analysis
b. Geotechnical
c. Cultural, historical
d. Risk and vulnerability assessment
e. Plant and animal surveys

Work Elements:
(See handout)

Implementation Matrix and Milestones

B. Implementation Timeline

	Task Title/Milestone	2026							2027												2028					
		J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J
1	Conceptual Design																									
	Draft Report																									
	Final Report																									
2	Hydraulic Engineering & Assess.																									
	Draft Report																									
	Final Report																									
3	Stormwater Analysis																									
	Draft Report																									
	Final Report																									
4	Community Engagement*																									
	Public meetings																									
5	Support Studies																									
5.1	Land purchase appraisal																									
	Draft Report																									
	Final Report																									
5.2	Cultural/Historical Review																									
	Draft Report																									
	Final Report																									
5.3	Geotechnical Review																									
	Draft Report																									
	Final Report																									
6	Preliminary Design																									
	Draft Report																									
	Final Report																									
7	Cost Estimates																									
	Draft Report																									
	Final Report																									
8	Draft Financial Plan																									
	Draft Report																									
	Final Report																									
9	Risk and Vulnerability Assess.																									
	Draft Report																									
	Final Report																									
10	Audubon Marsh bird survey																									
	Quartery Report																									
11	Wetland Science																									
	Practicum reports																									
12	Grant admininstration (10%)																									
	Continuous (monthly payments)																									

Port Strategic Plan and the Grant

- Partner with the City
- Engage in the Grant Process
- Help with local match

Why we got the grant

The value of restored estuary habitat

“The $60.9 million in public benefits anticipated from the project over the next 100 years far outweigh the $14 million in estimated construction costs”

Why we got the new grant

Performance on the last National Fish and Wildlife Foundation grant

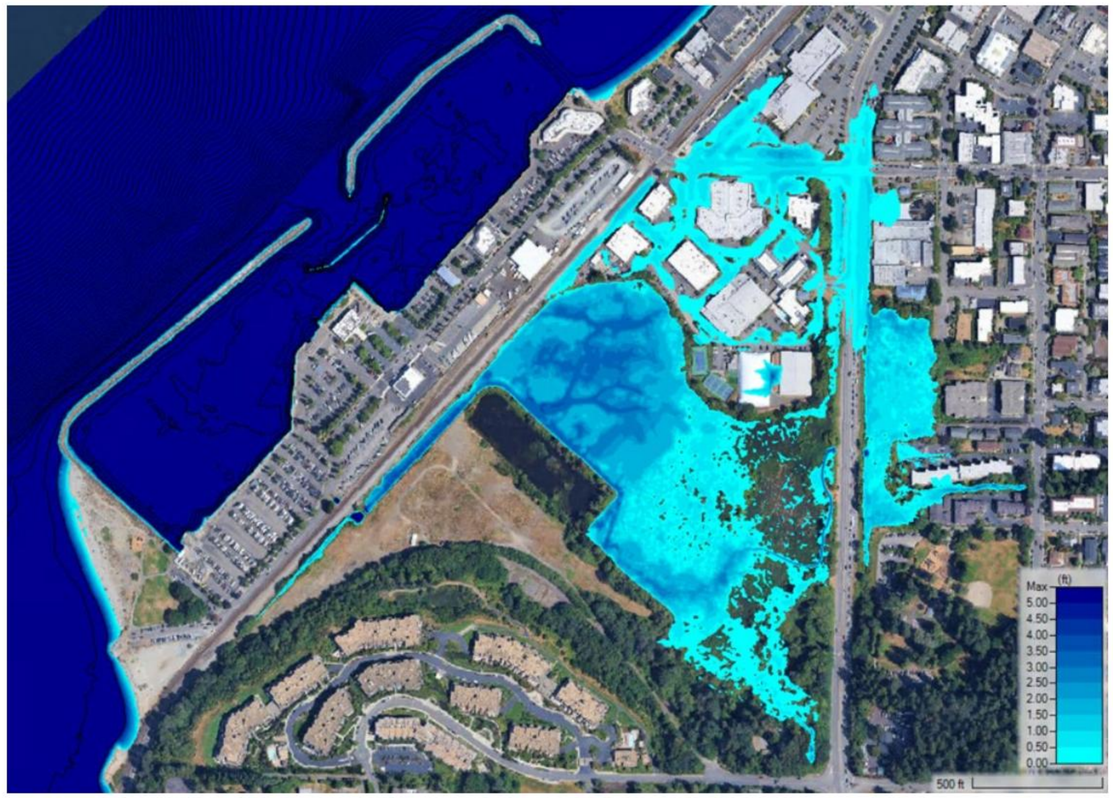
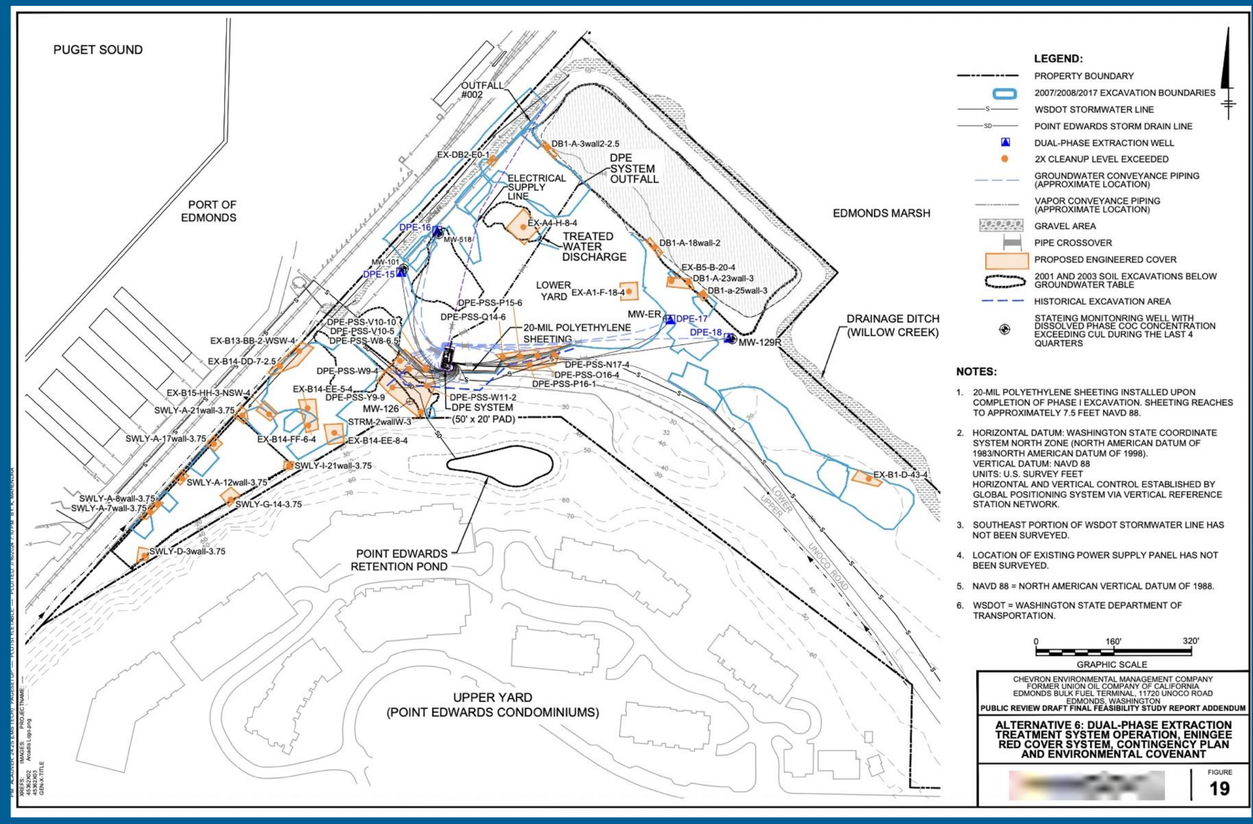


Figure 7: Existing Conditions Predicted Flooding - Simulation 2

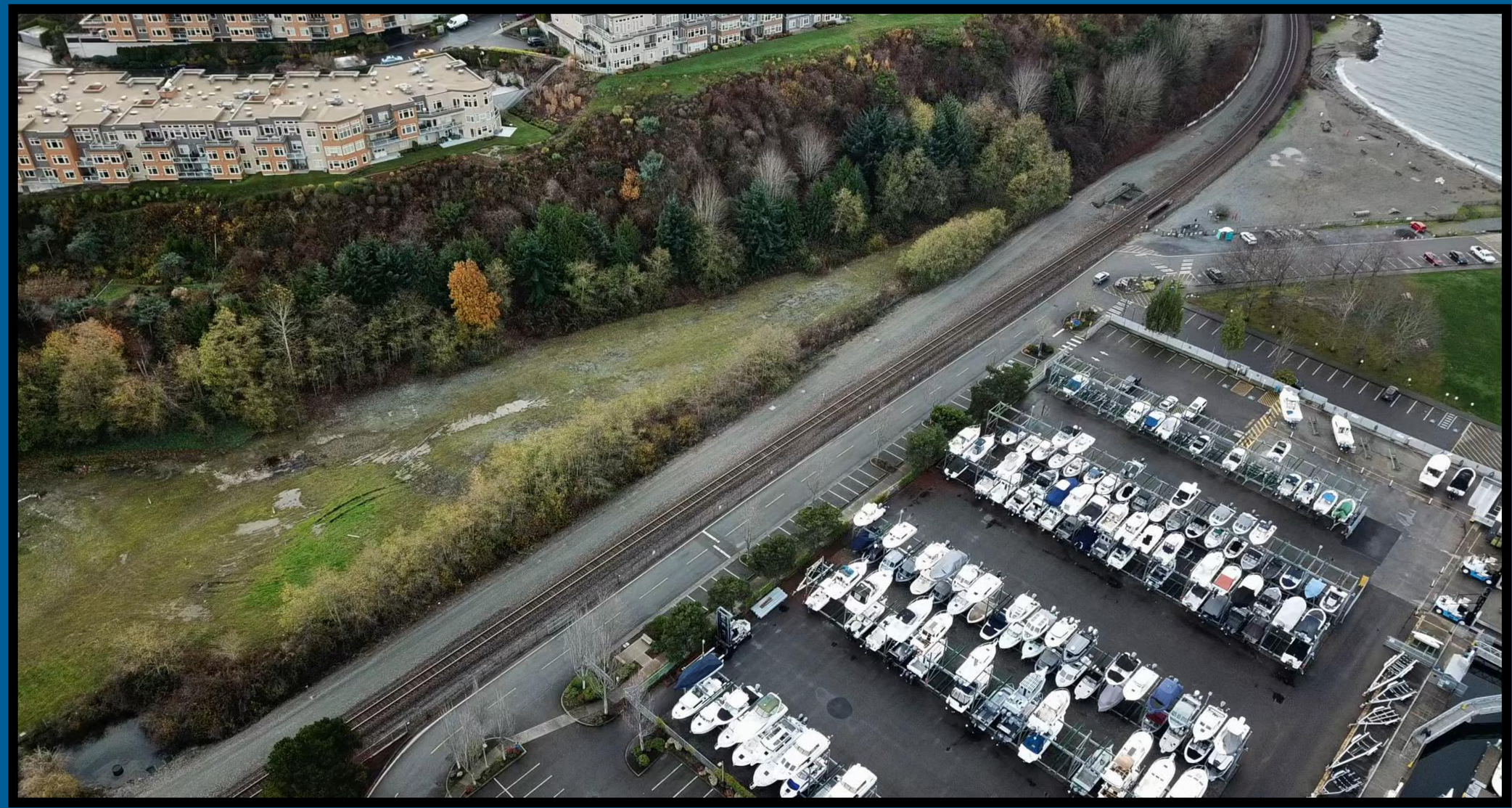
Hydraulic Analysis Report
Edmonds Marsh Estuary Planning Study

BLUE COAST ENGINEERING



Work Elements:

5. Support studies (land purchase appraisal, cultural/historical survey, geotechnical review)



Work Elements:

2. Hydraulic assessment

3. Stormwater analysis

4. Community engagement

Unocal, December 2023

Work Elements:

6. 30% Preliminary design and permit matrix

7. Construction cost estimate

8. Financial plan

9. 10. 11. Other technical studies

12. Grant administration

Approvals
Federal
Section 10/404 Individual Permit
Endangered Species Act (ESA) Concurrence
National Historic Preservation Act Section 106 Compliance
Clean Water Act Section 401 Water Quality Certification (WQC)
CZMA Consistency Determination
State
Hydraulic Project Approval (HPA)
Aquatic Use Authorization
Local
SEPA Determination
Shoreline Conditional Use Permit (SSDP)
Critical Areas compliance
Grading Permit
Development Permit

The Next NFWF Grant

NFWF

CONSERVATION PRIORITIES PARTNERSHIPS STRATEGY & RESULTS ABOUT NFWF

IDEA Accounts Donate Subscribe Careers

National Coastal Resilience Fund 2025 Request for Proposals

Programs / National Coastal Resilience Fund / ...

Increasing The Nation's Natural Defenses

Roadmap to Full Implementation

Past Planning and Implementation (completed): RR bridge construction, Marsh walkways, plant restoration, stormwater studies, plant and animal surveys.

Community Capacity Building and Planning (completed): Hydraulic/hydrodynamic models, contamination impacts analysis, planning process development, community engagement

Site Assessment & Preliminary Design (2028): Conceptual design, engineering studies, land purchase appraisal, 30% preliminary design, cost estimate, and financial plan

Project Funding (2030): Purchase or transfer the Unocal site, receive construction funding commitments

Final Design and Permitting (2030)

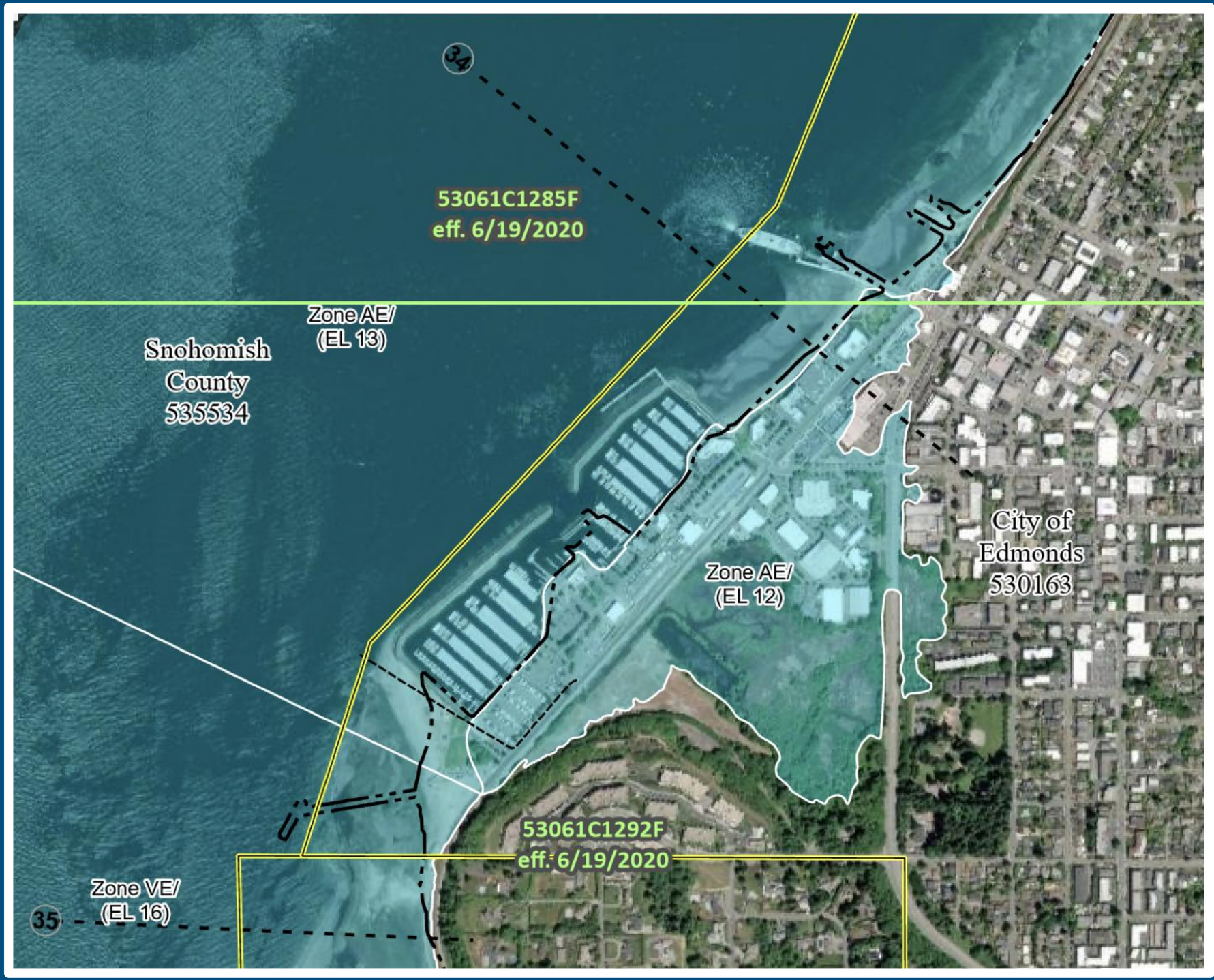
Implementation (2032): Puget Sound reconnection channel, estuary expansion, flood control, visitor/education/cultural center, walkways

Project Monitoring and Maintenance

Marsh Watershed Planning and Management: SR104 stormwater management, Willow and Shellabarger creek improvements

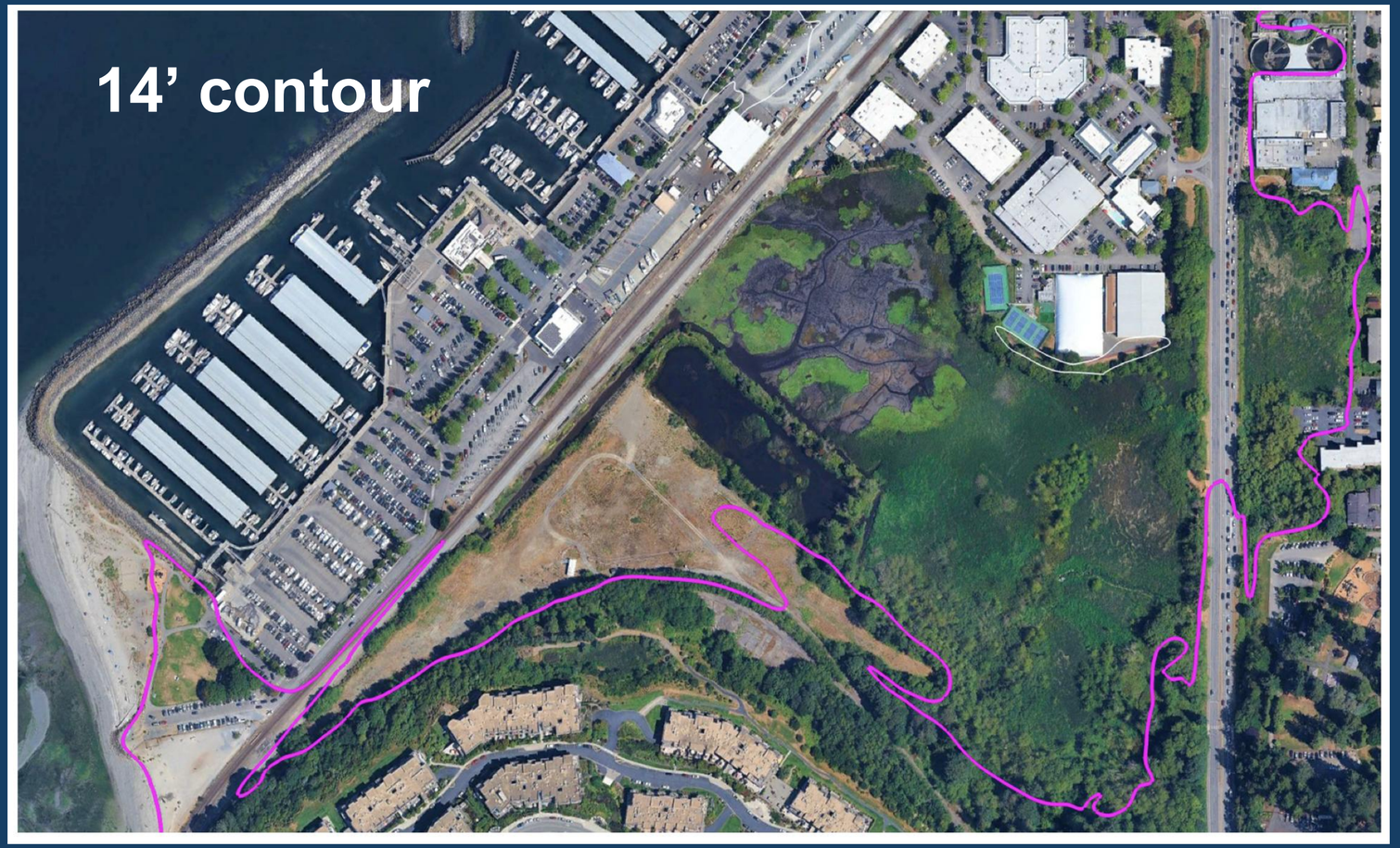
Flood Risk Now

- Flood risk is from high tides and stormwater
- FEMA maps do not include sea level rise



Sea Level Rise

- **Increasing flood risk in the coming decades**



Year	*Flood risk*	*Sea level rise*	*1% flood ele.*
Now	1% (once every hundred years)	0′	12.0′
2050	25% (every 4 years)	0.7′	12.7′
2100	>100% (>every year)	2.1′	14.1′
2125	Daily	3.3′	15.3′

Sources: Sea level rise data from UW Climate Impacts Group, 50% likelihood (2018 NOAA data)

Recurrence data from NOAA Seattle tide gage (1983-2001 tidal epoch)

Funding

Federal

Source	Title
Federal Emergency Management Admin FEMA	a. BRIC: Building Resilient Infrastructure and Communities
Federal Emergency Management Admin FEMA	b. Hazard Mitigation Grant Program (HMGP)
USDA	National Resources Conservation Service Emergency Watershed Protection program
USDA	Watershed and Flood Prevention Ops
Environmental Protection Agency (EPA)	NEP (National Estuary Program) Geographic Funds
EPA	NEP (National Estuary Program) Coastal Watersheds Grant Program
EPA	NEP (National Estuary Program) Watersheds Grant Program
Army Corps of Engrs/ACOE COE	Army Corps of Engineers (ACOE) Estuary Restoration Program
NOAA, NWF, NCRF	National Coastal Resilience Fund
NOAA	Transformational Habitat Restoration and Coastal Resilience
NOAA	Coastal and Marine Habitat Restoration Grants for Underserved Communities
NOAA	Pacific Coastal Salmon Recovery Fund (PCSRF)
NOAA	Community-Based Restoration Program
NOAA	Restoring Fish Passage through Barrier Removal grants
US Fish and Wildlife	Coastal Grants
US Fish and Wildlife/USFW Standard Grants	North American Wetlands Conservation Grants
US Fish and Wildlife/USFW Small Grants	North American Wetlands Conservation Grants
US Fish and Wildlife	Partners for Fish and Wildlife FY25
US Fish and Wildlife/USFW	National Coastal Wetlands Conservation Grants
US Fish and Wildlife/USFW	National Fish Passage Program
US Fish and Wildlife	Pacific Marine & Estuarine Fish Habitat Partnership PMEP
Federal Rail Administration (FRA)	FRA Consolidated Rail Infrastructure Safety Improvement (FRA/CRISI)
US Dept of Interior	Land and Water Conservation Funds
US Dept of Interior	Bureau of Reclamation WATERSmart Aquatic Ecosystem Restoration Projects
NOAA	Restoring Fish Passage by Removing Barriers grants
Dept of Agriculture	Watershed and Flood Prevention Ops

State/County

Source	Title
Puget Sound Partnership	Strategic Funding Team working to optimize funding for ecosystem and salmon
Governor's Salmon Recovery Office GSRO	Policy and strategy
WRIA 8 Salmon Recovery Council	See also PSAR and PSP collaboration
PMEP Partnership of WA/CA/OR and fed agencies USFW, NOAA	Pacific Marine & Estuarine Fish Habitat Partnership (PMEP)
Recreation and Conservation Office (RCO) with	Brian Abbott Fish Barrier Removal BAFBRB
RCO	Habitat Conservation Projects-Washington Wildlife and Recreation Program WWRP
RCO	SRFB – Salmon Recovery Funding Board
RCO	ALEA - Aquatic Lands Enhancement Account
RCO	Puget Sound Acquisition and Restoration (PSAR) Fund
RCO and US Dept of Interior	Outdoor Recreation Account (code 070) Land and Water Conservation Fund
RCO and Washington Dept of Fish and Wildlife See also WDFW/USACE	Estuary and Salmon Restoration Program (ESRP)
WDFW/USACE	Puget Sound Nearshore Ecosystem Restoration Project (ESRP)
WDFW	PSNERP – Puget Sound Nearshore Ecosystem Restoration Project
Washington Department of Ecology WDOE	Coastal Protection Fund - Terry Husseman Account
WDOE/Private	Floodplains by Design
WDOE	Watershed Plan Implementation and Flow Achievement Grants
WDOE	Water Quality Grants And Loans
WDOE and NOAA	Coastal and Marine Habitat Restoration Grants
WDOE and EPA	Puget Sound Climate Resilient Riparian Systems
PSP and EPA	Stormwater Strategic Initiative Lead
WDOE	SSIL - Stormwater education and assistance
Snohomish Parks and Recreation	Parks and Recreation (REET) Capital Improvement Project Bonds
Snohomish County Council	Snohomish County Conservation Futures (SCC 4.14)

Private

Source	Program
Horizons Foundation+RC:R[29]C[11]+RC:R[29]C[10] of Washington	Environment
Hazel Miller Foundation	Environment
Rose Foundation	Puget Sound Stewardship and Mitigation Fund
Patagonia Foundation	Environment
Paul G. Allen Family Philanthropies	Environment and community based solutions
Amazon Foundation	Environment

Partial list of restoration funding sources

Regional Benefits

- Salmon restoration
- Wildlife habitat
- Carbon sequestration

Work Elements: 1. Conceptual design

Example :

Local Benefits

- Mitigation Banking
- Recreation, tourism
- Education
- Pollution filtration
- Flood protection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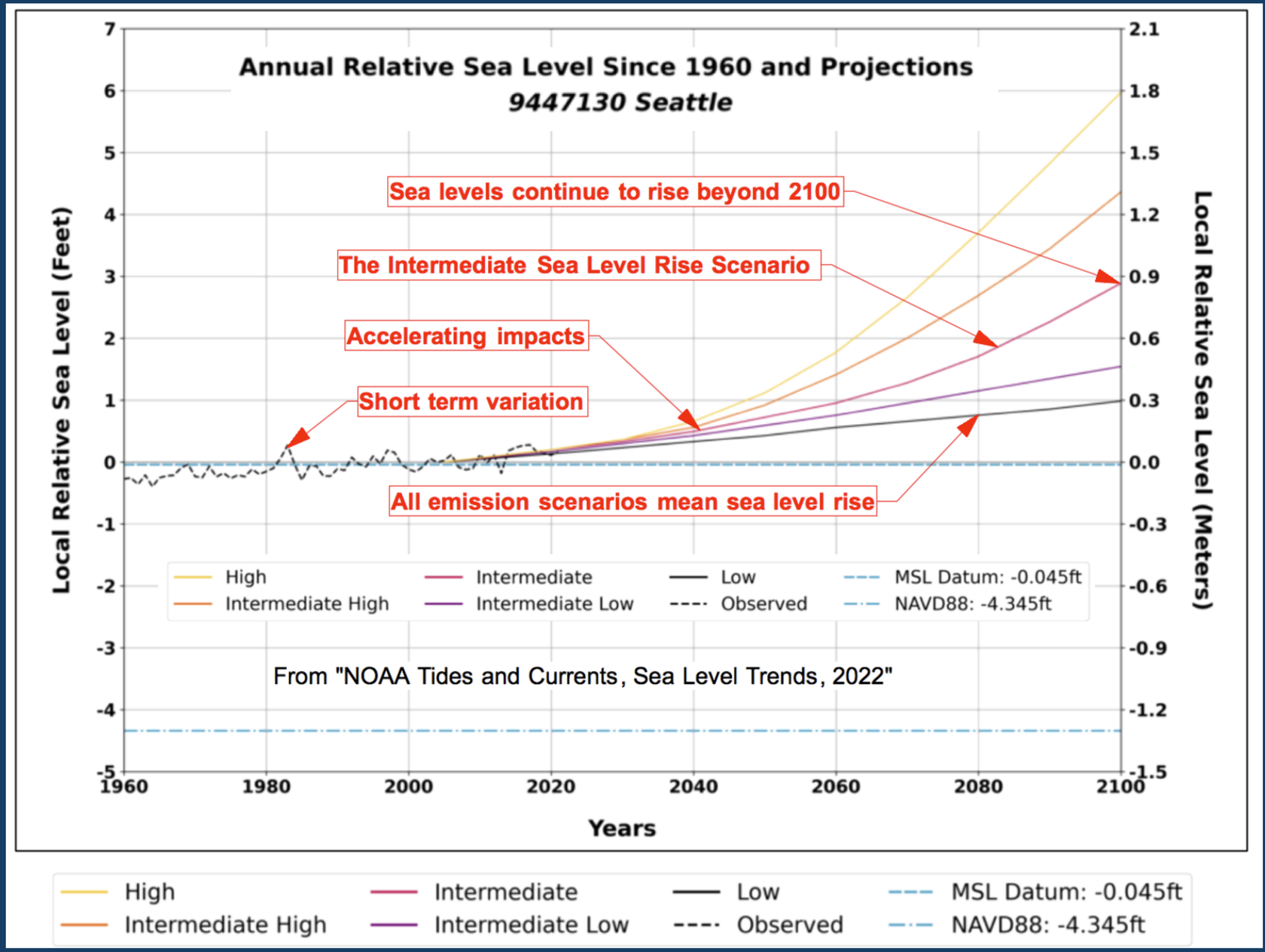
Sea Level Rise

- Flood risk exists now
- Will grow in the future



Unocal Cleanup

- Nature of the contaminants
- Contamination handling:
  - Excavation
  - Dual Phase Extraction
  - Environmental covenants for remaining contamination

What can we do about it?

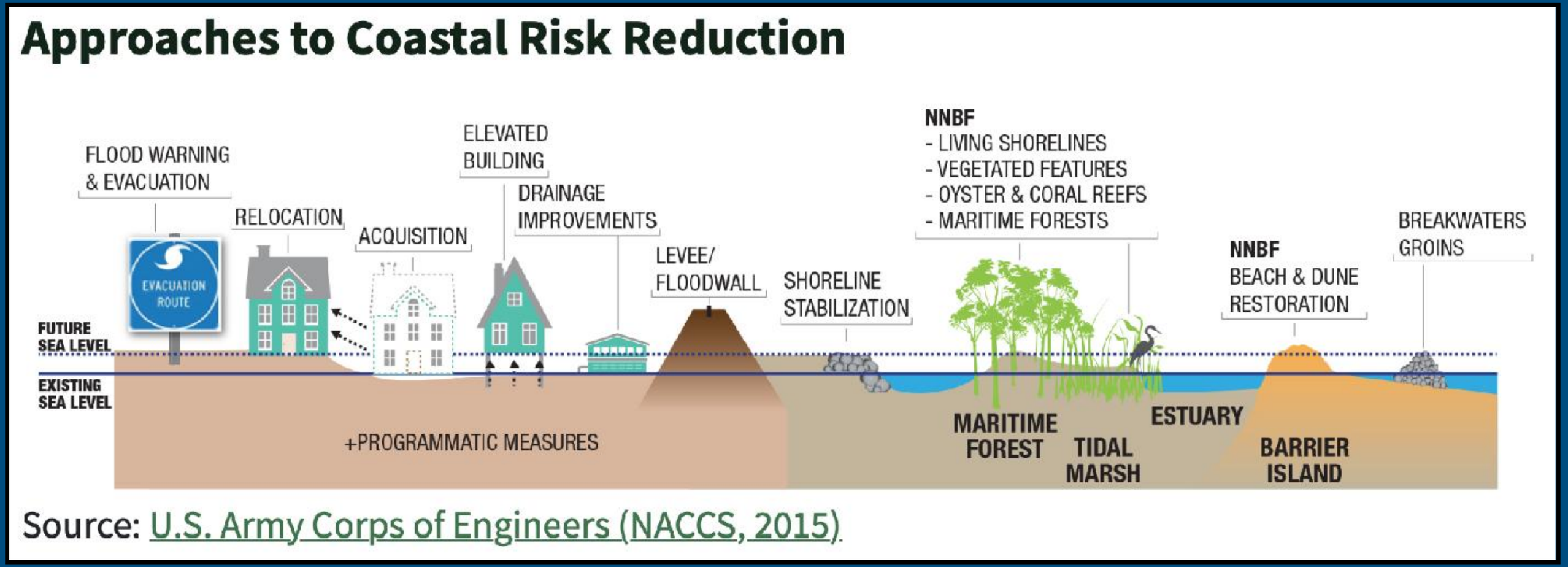
Options:

Do nothing

Accommodation

Protection: artificial and/or natural

Relocation



Source: U.S. Army Corps of Engineers (NACCS, 2015)