

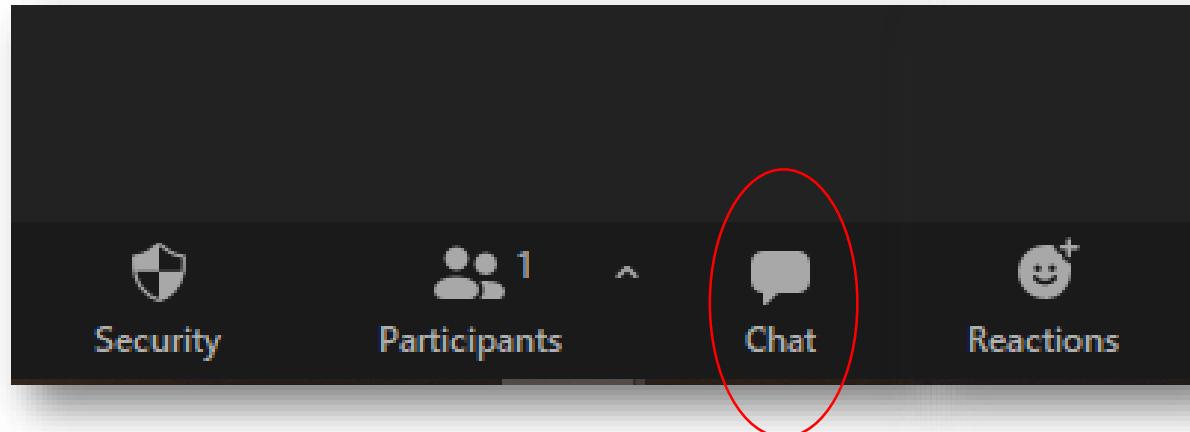
Tacoma DeMolay Sandspit Nature Preserve Shoreline Restoration Project

Public Meeting #1 – April 21, 2021



How to participate

- Post questions to the Chat feature
 - Questions will be answered between Agenda topics
- Answer Polls as they popup
- Opportunity for additional comments after tonight's meeting



Agenda

1. Introductions to Speakers
2. Project Origins and Overview
3. Intro to Coastal Processes and Healthy Shorelines
4. Gathering Public Input
5. Next Steps



Property purchased by PenMet Parks in 2011



“...to provide public shoreline access, habitat
preservation, passive recreation” WWRP 2011

Speakers



Eric Guenther

Special Projects Manager

PenMet Parks



Mary Krauszer

Shorelines Program Manager

Pierce Conservation District



Jessica Coté, PE

Principal Engineer

Blue Coast Engineering



Gisele Sassen, PLA, AICP

Principal Landscape Architect

Waterfront Environmental



Michael Behrens

Professor of Marine Ecology

Pacific Lutheran University

Tell us about you

- Practice Polls
 - Who is in attendance?
 - How often do you visit the Preserve?





Water Quality
Food Access
Urban Agriculture
Farm Planning
Habitat Improvement



Bulkhead is failing

Impacting erosion





Interrupting shoreline processes and access

Disturbing habitat



OPPORTUNITY: Restore natural shoreline to benefit habitat and human use.

Restoration Project

Project Players



**PIERCE
CONSERVATION
DISTRICT**
Over 70 Years of Conservation

Project Sponsor



PenMet Parks
Gig Harbor, Washington
Property Owner



**BLUE COAST
ENGINEERING**
Phase 1 Consultant

Letters of Support



West Sound Partners
for Ecosystem Recovery

Funders

Phase 1: Feasibility Study & Alternatives Analysis
Funding Secured (2021)



**FLOOD CONTROL
ZONE DISTRICT**

Phase 2: Preliminary Design & Permitting
Funding Pending (2022)



ESTUARY & SALMON
RESTORATION PROGRAM



Washington
Department of
**FISH and
WILDLIFE**



WASHINGTON STATE
RECREATION AND CONSERVATION OFFICE
**Salmon Recovery
Funding Board**

Project Phases

2021

Funded by the Pierce County Flood Control Zone District

Phase 1
Feasibility
Study

Alternatives
Analysis

Conceptual
Design

Public Meeting
April 2021

Public Meeting
July 2021

Public Meeting
Sept. 2021

2022

Funding Pending

Phase 2
Preliminary
Design

Phase 3
Implementation

Phase 4
Monitoring

2023/2025

In progress

*Pending PenMet Parks Board of
Commissioners design approval
and grant funding availability*

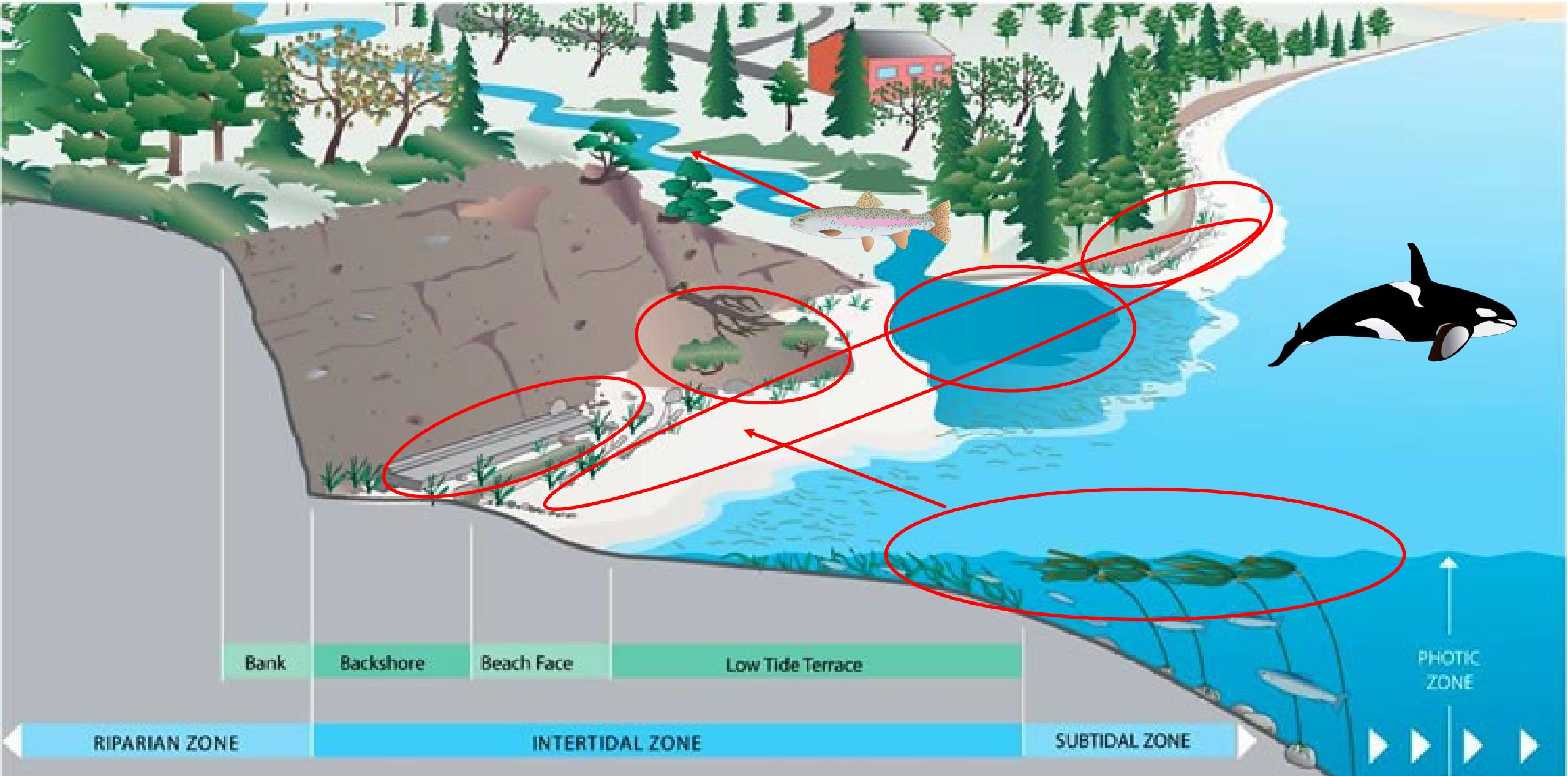


TACOMA DEMOLAY SANDSPIT NATURE PRESERVE
Coastal Processes & Healthy Shorelines
APRIL 2021



**BLUE COAST
ENGINEERING**

Nearshore Terminology & Habitats



HEALTHY SHORELINES



FORAGE FISH



SUPPORT

SALMON



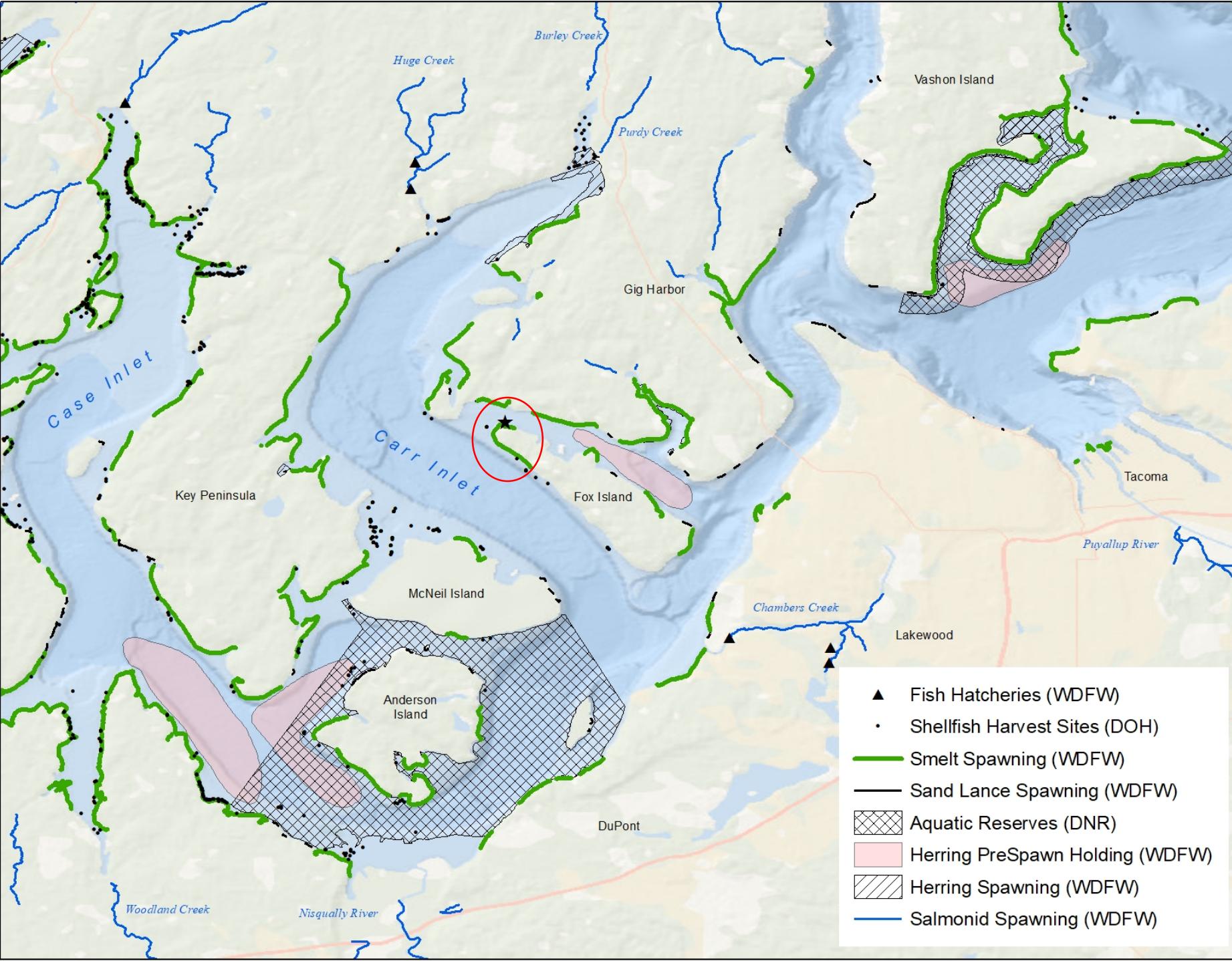
SUPPORT

ORCAS

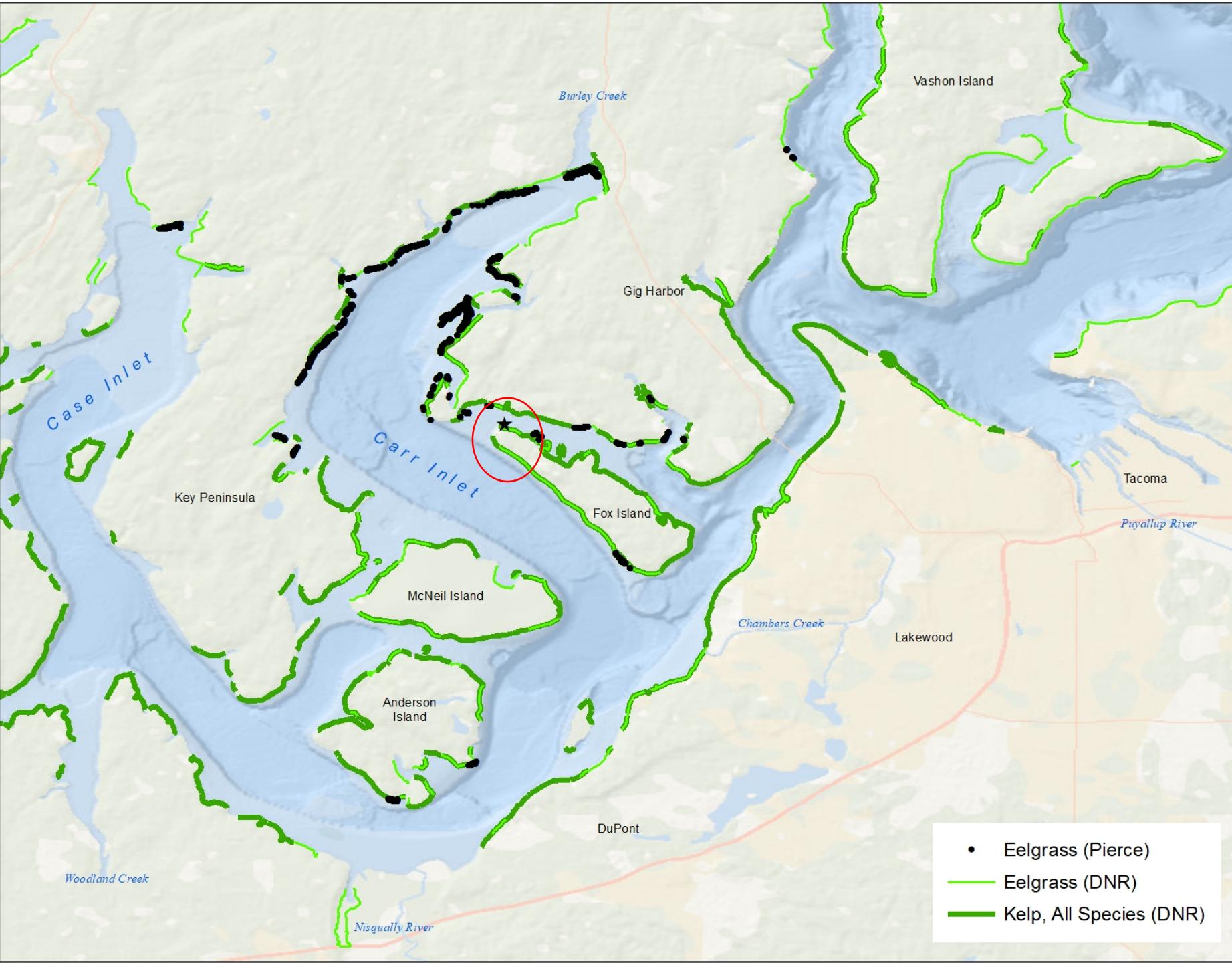


SUPPORT

Fish and Shellfish



Kelp and Eelgrass



Coastal Geomorphology

Interaction between Coastal Geology and Hydrodynamics

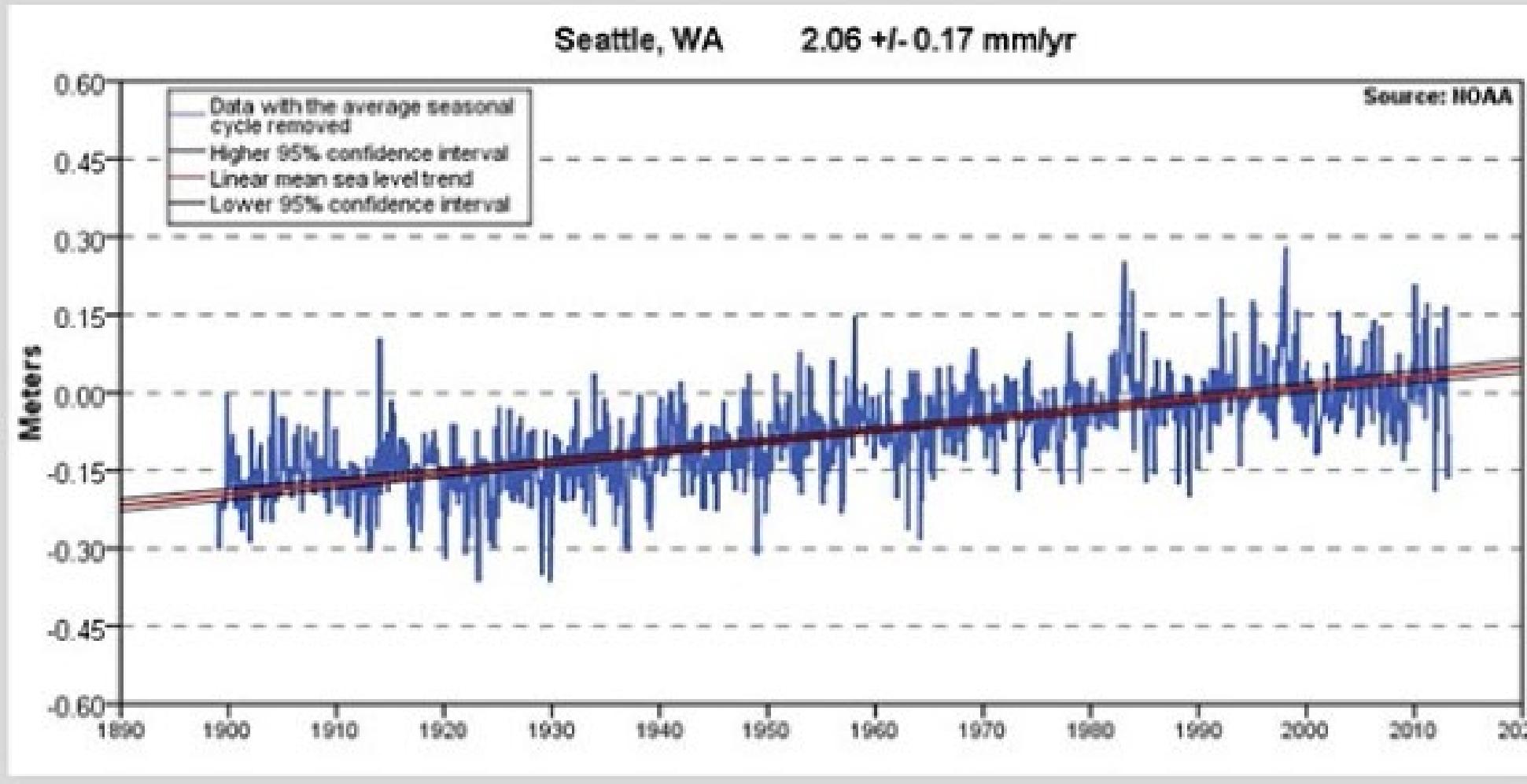


Water Levels – Natural Beach



Seattle Sea Level Trend

since 1950 ~5 inches



Pierce County Sea Level Rise



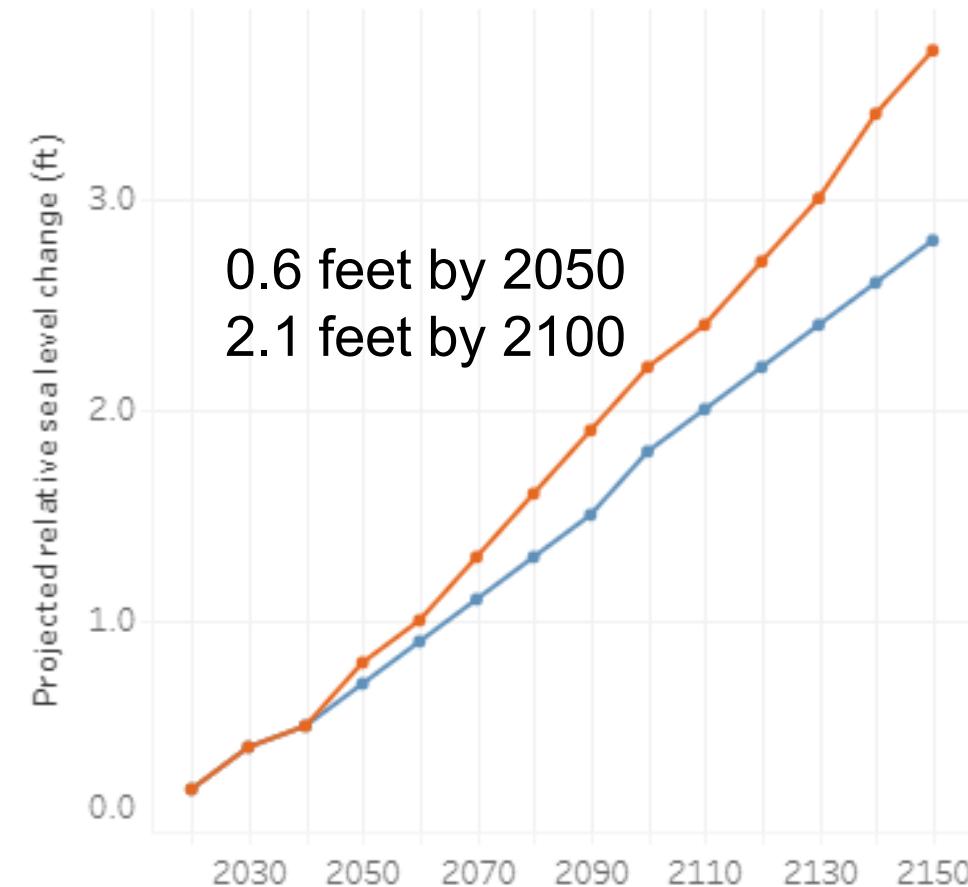
Data Estimated for 47.3° , -122.7°

County: Pierce

RSLR for Selected Location

Projected changes relative to the average sea level over 1991-2009.

Hover for details.



RSLR Projections (in feet) Shown Above

Wind-Waves

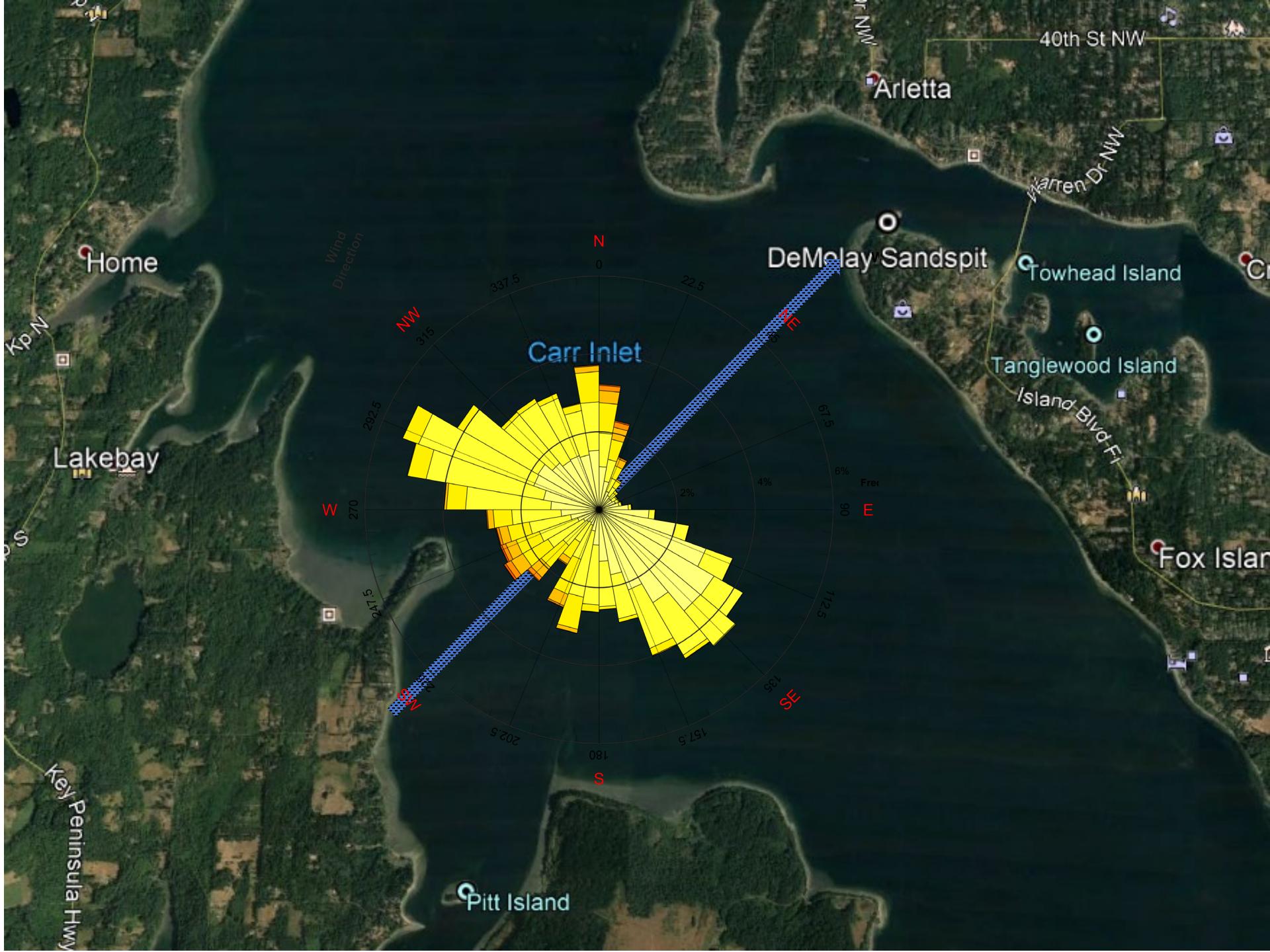


Photo: Hugh Shipman

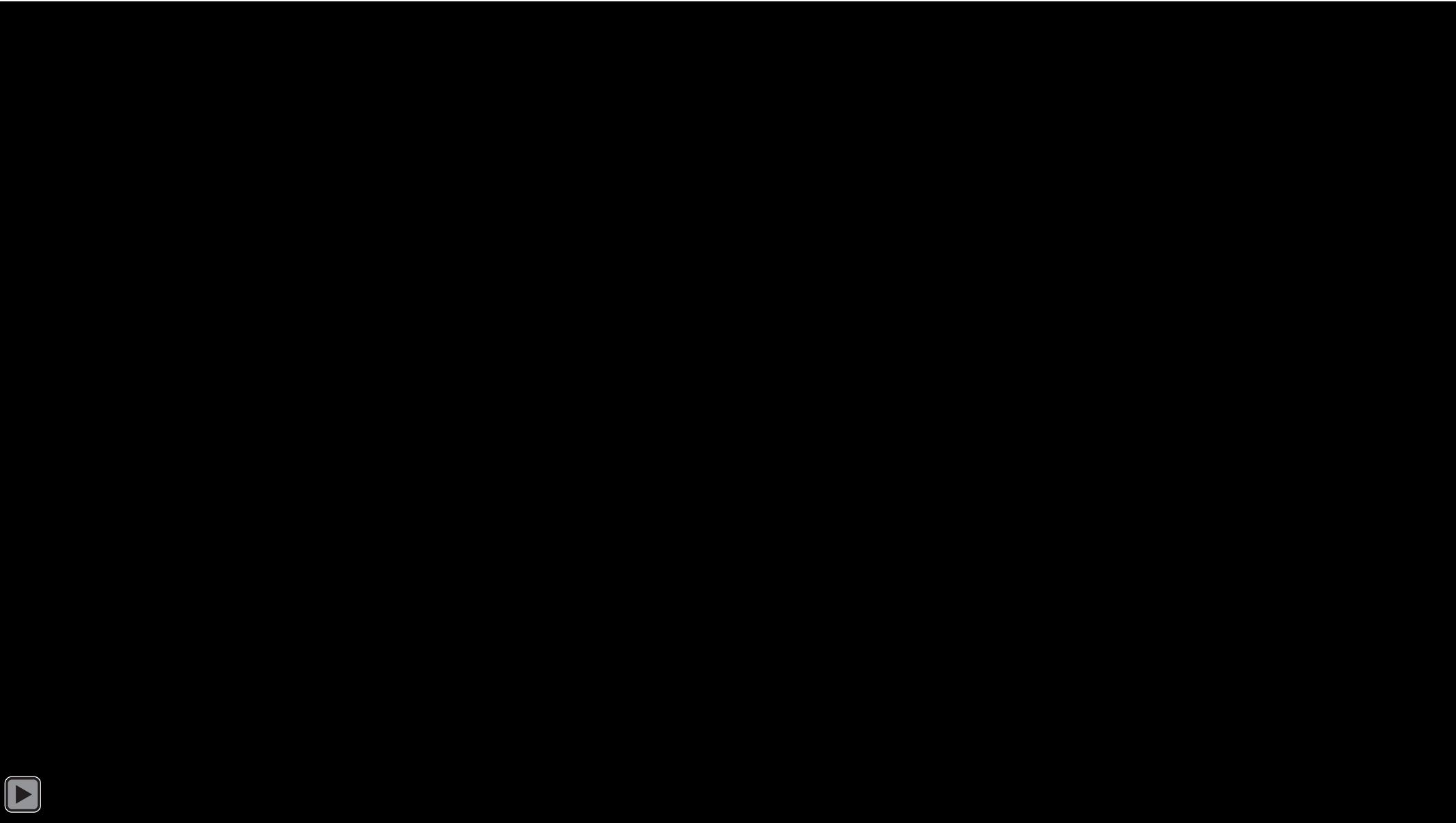
Puget Sound Wind Climate



Image: Cliff Mass,
UW Climatologist



Sediment Moves Along the Shoreline and Across the Shoreline



Legend:

Drift cells ?

Left to right

No appreciable drift

Right to left



Hale Passage

Basemap ▾





Source: Hugh Shipman

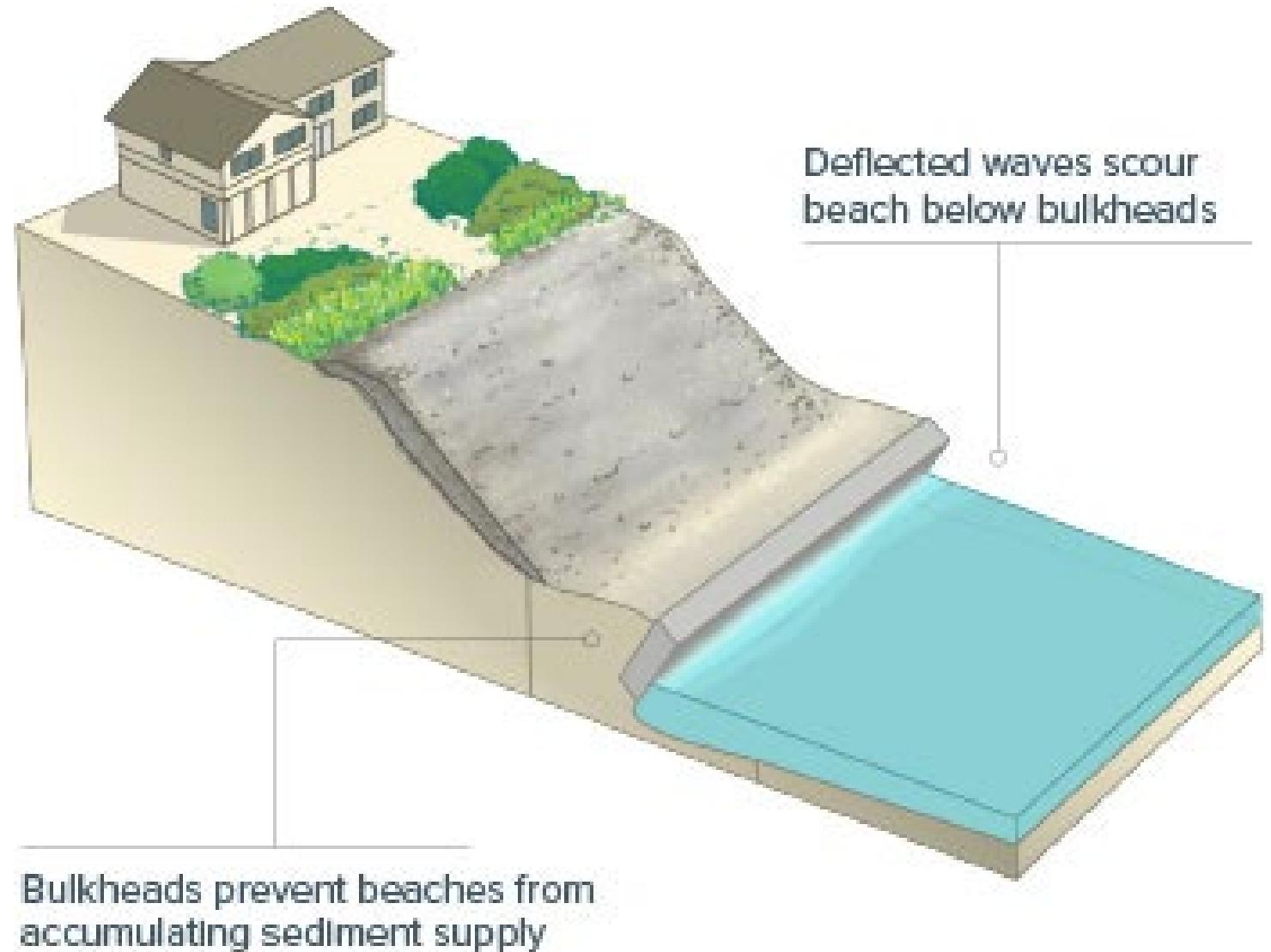


Natural Beach



Bulkheaded Beach

Installing hard shoreline armor stops sediment deposition and can increase beach scour.



Source: Makers

Restoring Natural Condition





Armor does
NOT
prevent
landslides

Summer 2020

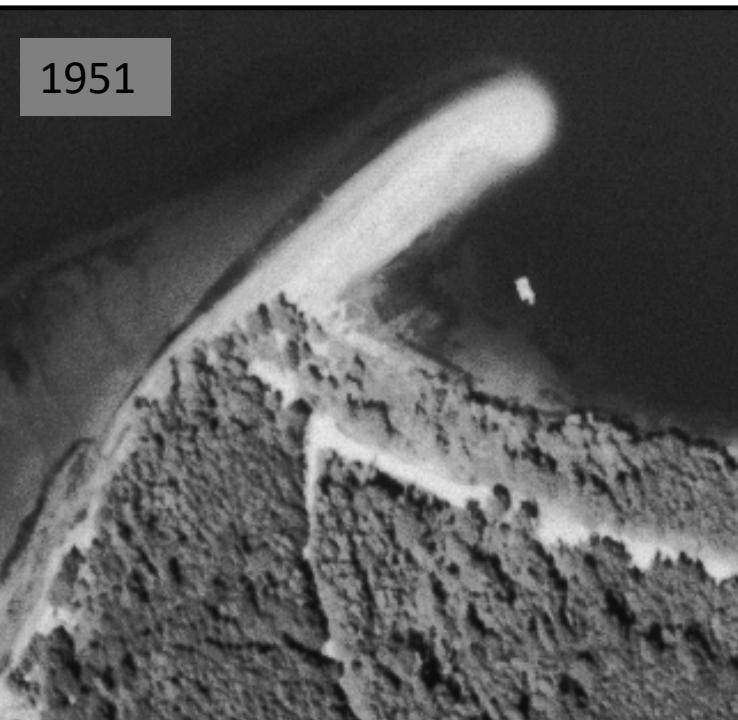


Spring 2021



1951

1957



1968

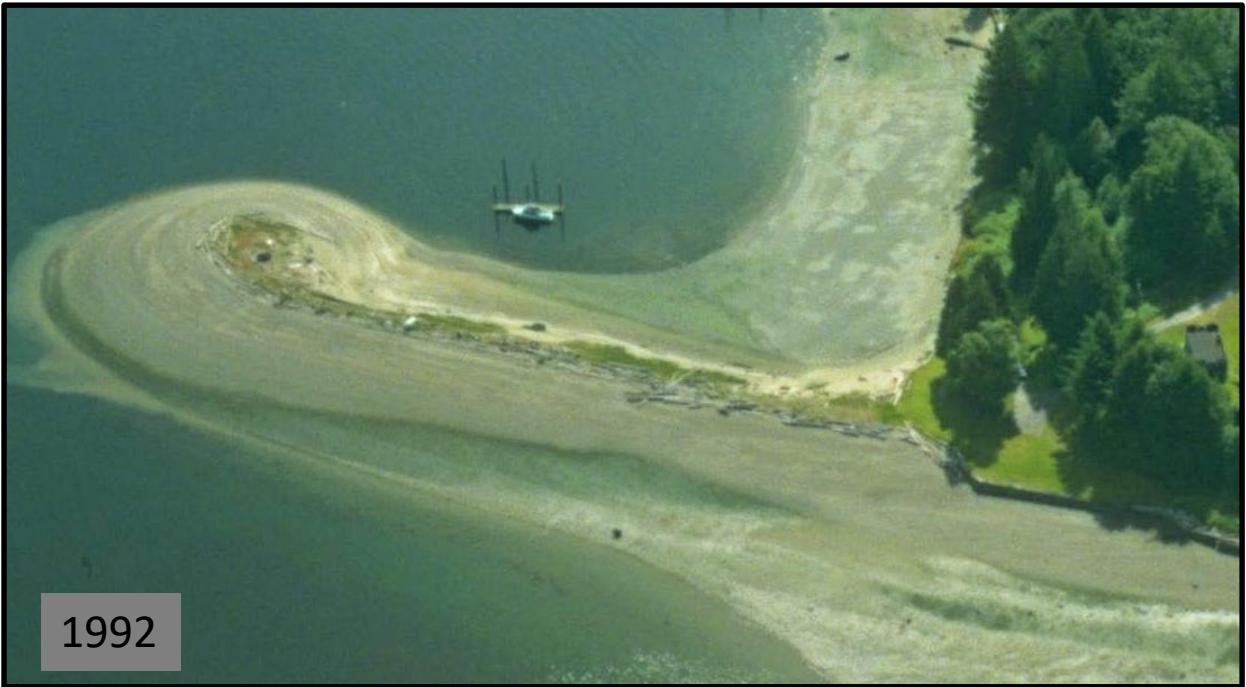


Recent Site History

THE DEMOLAY. In 1954, the Masonic youth organization, DeMolay, purchased the Sandspit property at the west end of Fox Island. A cinder block building was constructed, and the former potlatch and picnic place was closed to the public. (Courtesy of the FIHS.)



June 1977



1992



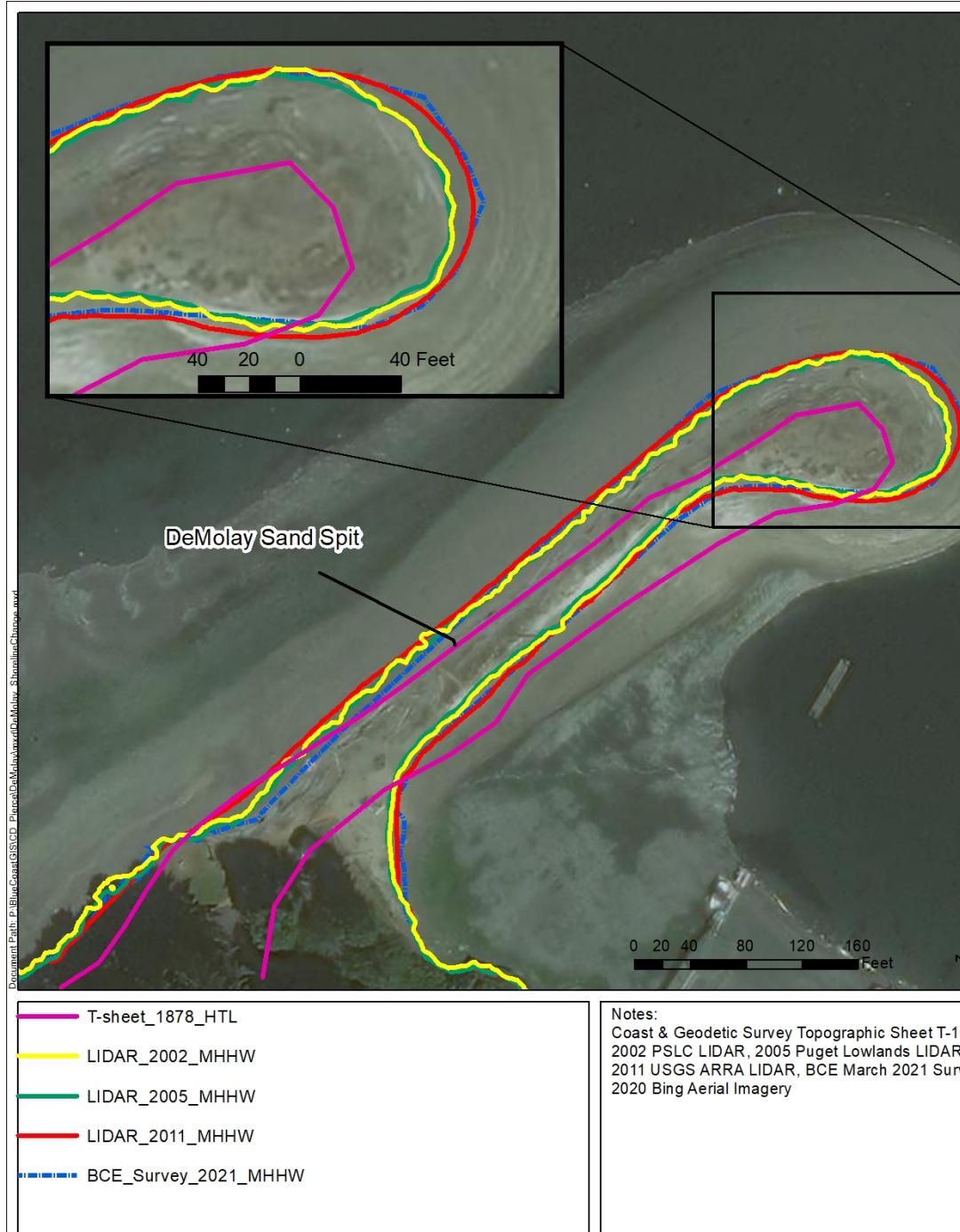
Sept 2000



August 2006



July 2016





Feasibility Study Process

1. Physical and biological studies of the site
2. Cultural resource review
3. Document existing conditions and define site constraints
4. Conceptual design alternatives of restoration and public elements
5. Evaluate and select preferred alternative
6. Feasibility study report

Gathering Your Input

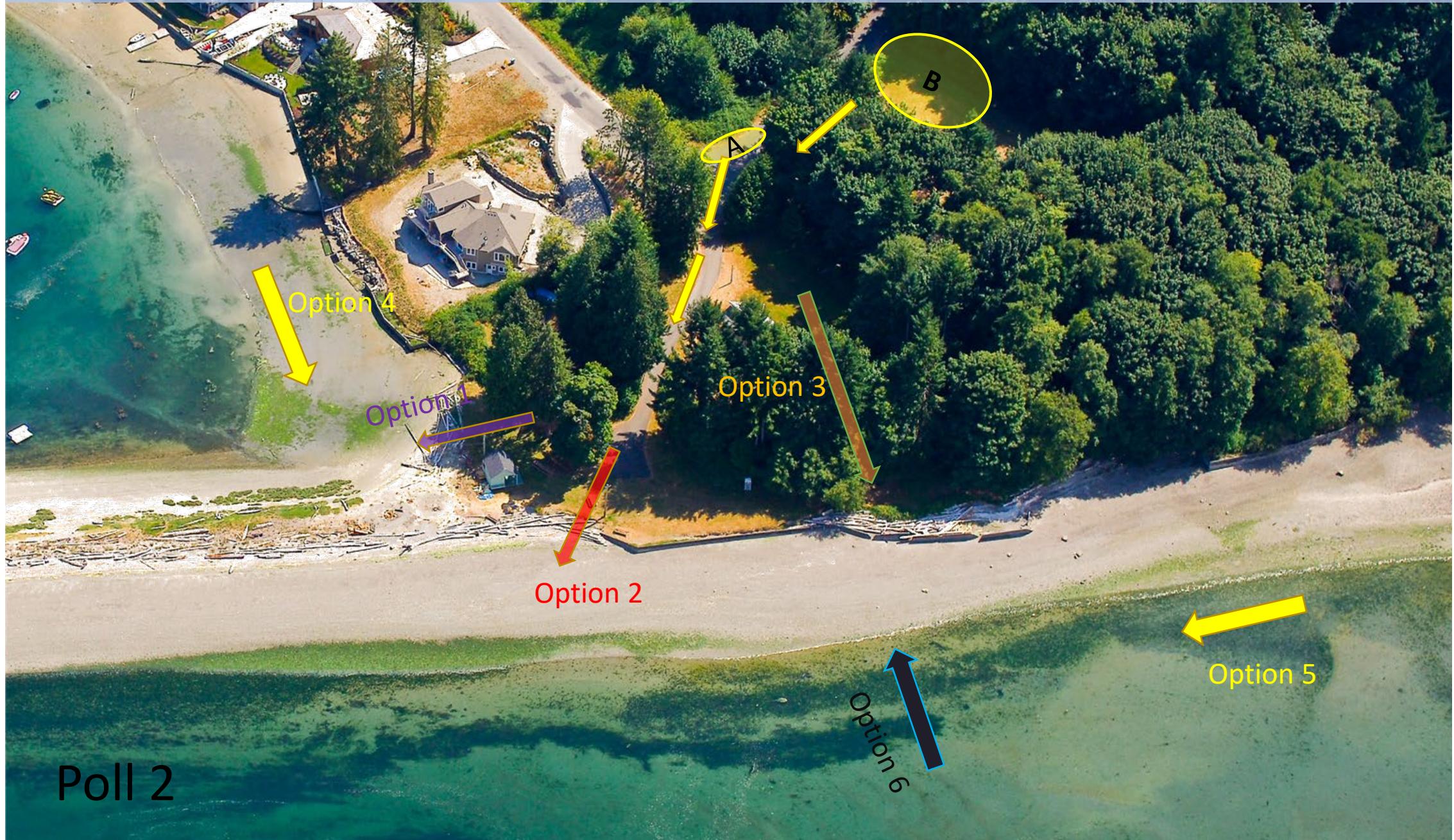


Poll 1: Visitation of the preserve



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What routes or trails do you take through the preserve?



Where in the preserve do you spend the most time?



Poll 3



Poll 4: Preserve Activities



BLUE COAST
ENGINEERING



Poll 5: Preserve Access and Amenities



BLUE COAST
ENGINEERING



Question: What do you think is lacking or what improvements would you like to see?



Poll 6: Feasibility of Bulkhead Removal



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ENGINEERING

Question: Have you observed changes on the beach over time when you have been visiting and can you describe in 3 to 5 words (enter into chat)?





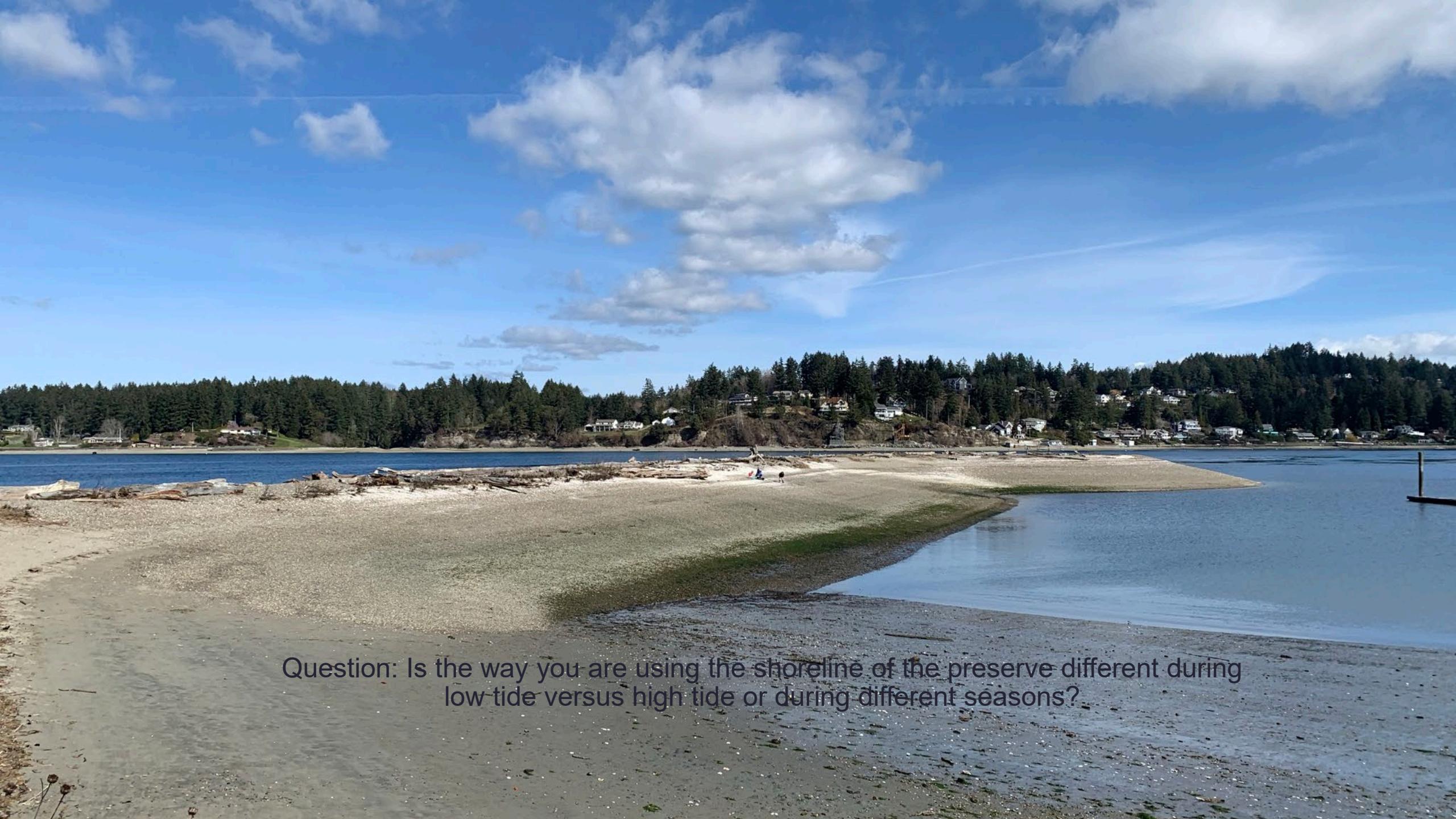
Poll 7: Beach and Nearshore Habitat



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Question: During which times of the year and the week are you mostly visiting the preserve and why?



Question: Is the way you are using the shoreline of the preserve different during low tide versus high tide or during different seasons?

Harbor WildWatch Beach Monitoring

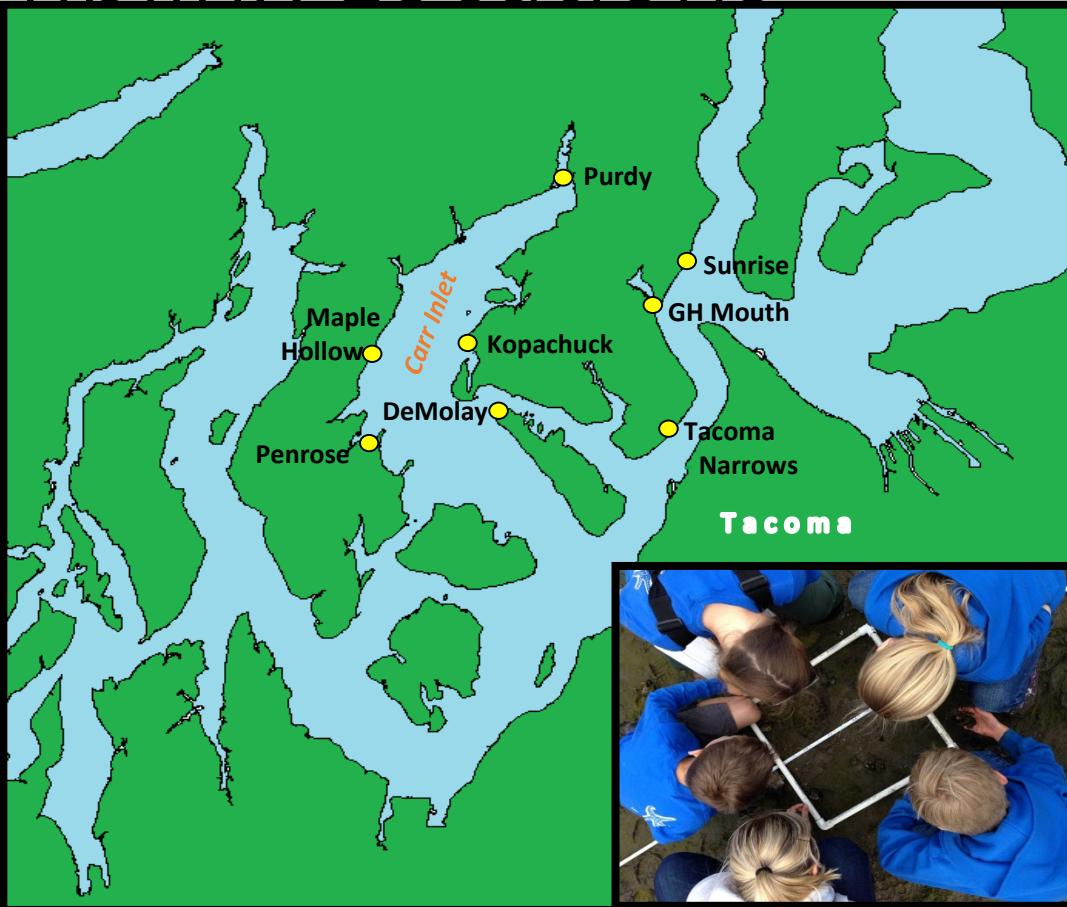
Established in 2013



Goals

- Develop baseline understanding of the patterns of diversity and abundance on local rocky/sandy beaches
- Serve as a mechanism to investigate local/regional changes
- Engage and educate the public

Sampling Locations

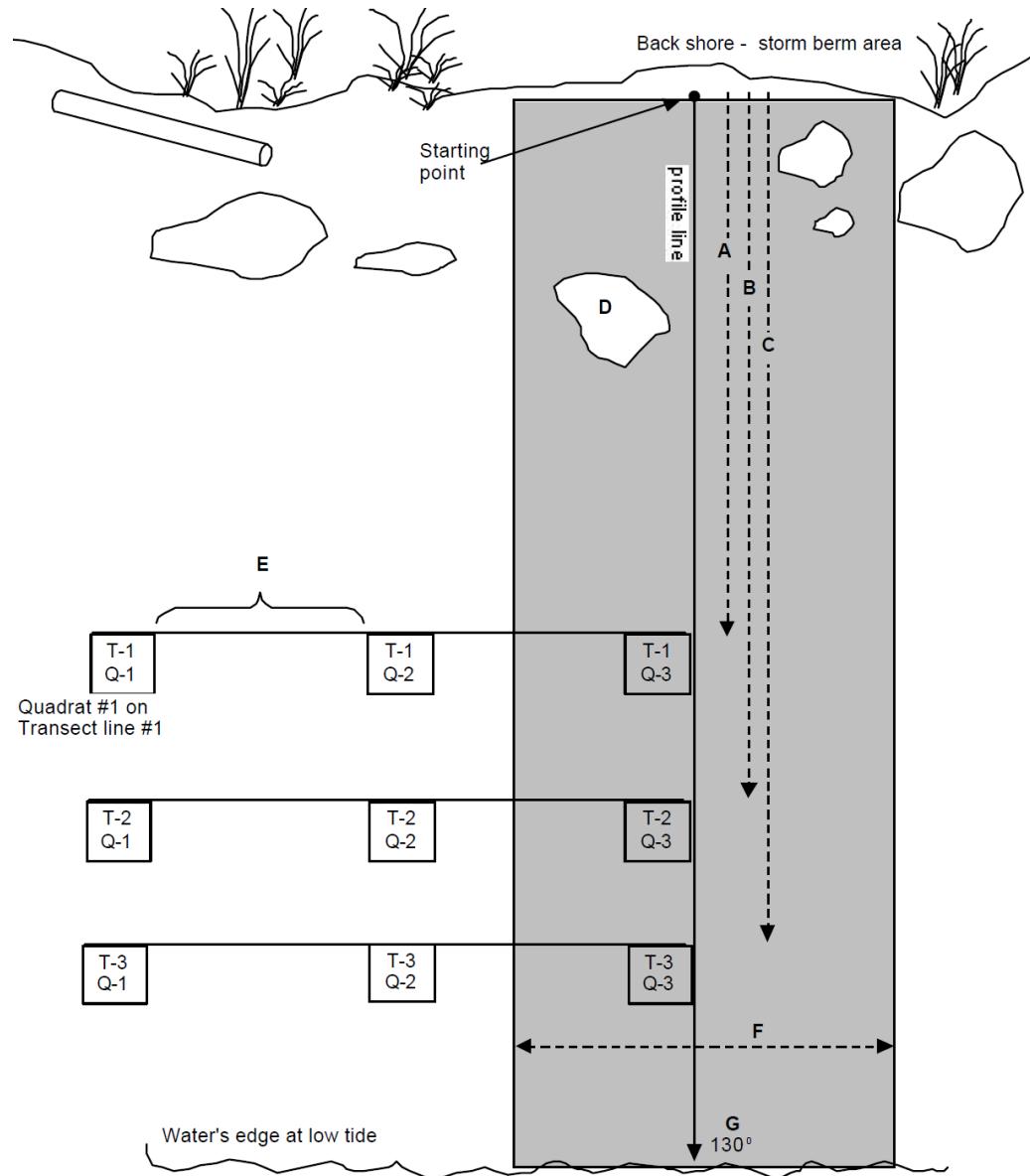


- Access
- Habitat
- Previous HWW experience



Sampling Protocol

- Based on Island County/WSU Beach Watchers
- Profile line – top of beach to -1ft MLLW
 - Presence/Absence
 - Elevation/Gradient
- Transects (+5, +1, 0, -1ft MLLW)
 - % cover and counts (0.25m² quadrats)





www.harborwildwatch.org

@HarborWildWatch
(facebook)



Next Steps

- Attend upcoming Public Meetings:
 - Public Meeting #2 – Conceptual design alternatives, July 2021
 - Public Meeting #3 – Selected conceptual design, Sept. 2021
- Watch for project updates:
 - Signup to receive email updates in the Google Form (link in chat)
 - PenMet Parks “Current Projects” page



Help us be good stewards and neighbors

Follow posted signs

- Comply with PenMet Parks rules and State Regulations

Respect Preserve boundaries

Leash and scoop

Leave no trace; take only photos

Please STOP and READ

Tacoma DeMolay Sandspit is a
NATURE PRESERVE.

1. Removal or disturbing of vegetation, driftwood, clay babies, and other natural debris or features is strictly prohibited. Do not move or stack driftwood.
2. Dogs must be kept on leash unless in a designated off-leash area.
3. Dog handlers must be in possession of doggy cleanup bag at all times and pick up after dog. Dog handlers are encouraged to remove any dog waste found.
4. Stay on trails, beach, or designated grass areas. Do not walk on natural vegetation. No dogs or people above driftwood line on sandspit vegetation.
5. Digging of shellfish is allowed per state regulations.
6. Fishing is allowed per state regulations. All fishing-related items (tackle, entrails, carcasses) must be cleaned up.
7. Fires and Fireworks are prohibited.
8. All PenMet Parks are smoke-free facilities.
9. Do not trespass on neighboring property; obey signs.

Questions



Project Contacts

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