



Western Washington University
Western CEDAR

Salish Sea Ecosystem Conference

2022 Salish Sea Ecosystem Conference
(Online)

Apr 26th, 1:30 PM - 3:00 PM

Hood Canal Shellfish Initiative: A collaborative multi-benefit approach to shellfish aquaculture, ecosystem protection, and cultural opportunities

Haley Harguth

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Hood Canal Shellfish Initiative

Haley Harguth, Watershed Program Manager





SKOKOMISH INDIAN TRIBE

SqWuqWu'b3sh "People of the River"



Our Opportunity

Hood Canal is characterized by its iconic shellfish, which are **ecologically, culturally, and economically critical** to local communities.

The opportunity to promote resilience of Hood Canal shellfish to environmental and human pressures is **uniquely served by a collaborative, diverse network of stakeholders invested in Hood Canal's long-term vitality and identity.**



**Shellfish
Growers**

NOAA

**Skokomish
Tribe**

**Kitsap
County**

WA
Sea Grant

WA Dept. of
Health

WDFW

NWIFC

Salmon Restoration
Groups

Jefferson
MRC

Land Trusts

HCCC

Pacific Shellfish
Institute

**Pacific Coast
Shellfish Growers
Assoc.**

**Port Gamble
S’Klallam Tribe**

WA
State Parks

**Mason
County**

OR State Univ.
Human Dimensions
Lab

Hood Canal
Environmental
Council

Puget Sound
Restoration Fund

WA Dept. of
Agriculture

Jefferson County

Action Plan Development



Support and expand Hood Canal's
**THRIVING SHELLFISH
RESOURCES,**
honor tribal **TREATY RIGHTS,**
build **RESILIENCE,**
pursue
**ECOSYSTEM PROTECTION
AND RESTORATION,**
and support
CAREFUL STEWARDSHIP
of commercial and recreational
shellfish harvest
now and into the future.



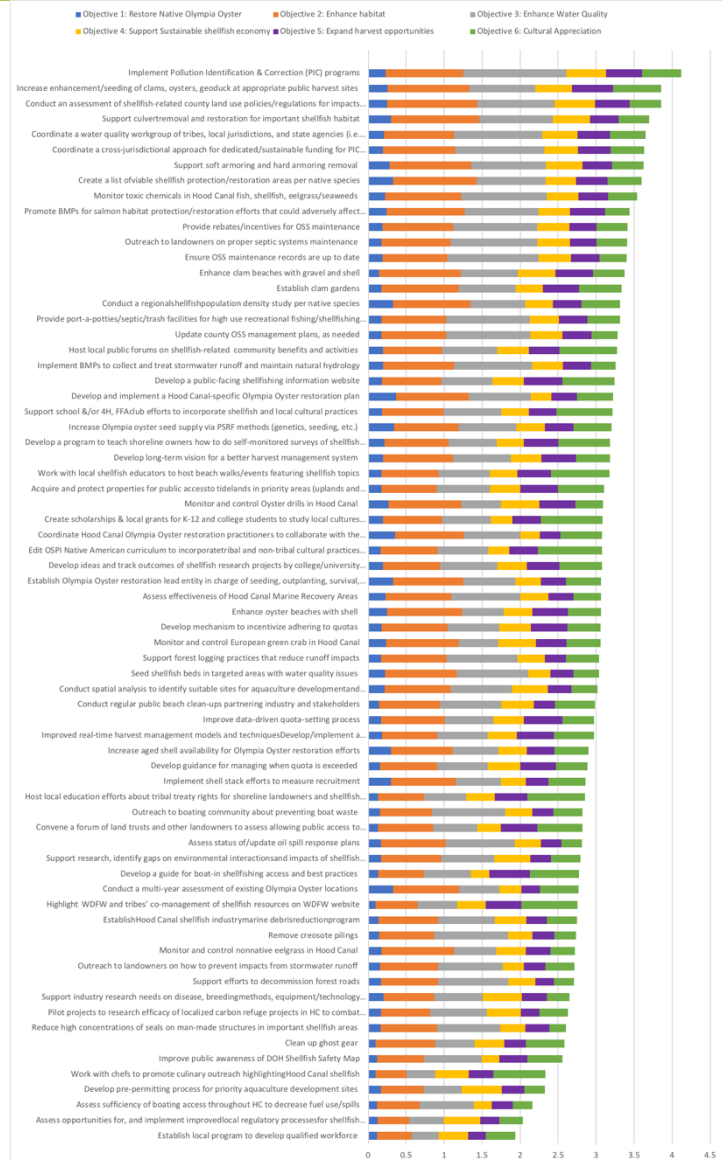


Objectives

1	Protect and improve Hood Canal's water quality
2	Protect and improve Hood Canal shellfish habitat
3	Promote cultural appreciation of Hood Canal shellfish
4	Support a sustainable Hood Canal commercial shellfish industry
5	Expand harvest opportunities for Hood Canal treaty Tribes, local communities, and visitors
6	Restore native Olympia oyster populations in Hood Canal



Perceived impact of ALL ACTIONS for ALL OBJECTIVES





Priority Actions

Rank	Action
1	1.A.1: Implement Pollution Identification and Correction programs
2	5.B.4: Coordinate and increase enhancement and seeding of clams, oysters, and geoduck at appropriate public harvest sites
3	2.E.2: Conduct an assessment of shellfish-related county land use policies/regulations for impacts to shellfish habitat
4	2.D.4: Support culvert removal and restoration for important shellfish habitat
5	1.A.2: Coordinate a water quality workgroup of tribes, local jurisdictions, and state agencies (e.g. HC Reg. PIC Program)
6	1.A.3: Coordinate a cross-jurisdictional approach for dedicated and sustainable funding for PIC and OSS management programs
7	2.D.5: Support soft armoring and hard armoring removal
8	2.A.1: Create a list of viable shellfish protection/restoration areas per native species
9	1.A.7: Monitor toxic chemicals in Hood Canal fish, shellfish, eelgrass/seaweeds
10	2.E.1: Promote best management practices for salmon habitat protection/restoration efforts that could adversely affect shellfish habitat



Hood Canal Shellfish Initiative: Implementation

- Initial implementation projects
- Leveraging other funding sources
- Partner commitments
- Public-private partnerships

Hood Canal Shellfish Initiative Projects

Mason County 2021 PIC Support – PIC equipment purchases

| Mason County Public Health

>>> See presentation on Hood Canal Regional PIC Program in Green Infrastructure session

Advancing a Custom-fit Strategy for Restoration of Olympia Oysters in Hood Canal

| Puget Sound Restoration Fund

Hood Canal Marine Spatial Planning – Phase 1: Pre-Planning

| Hood Canal Coordinating Council

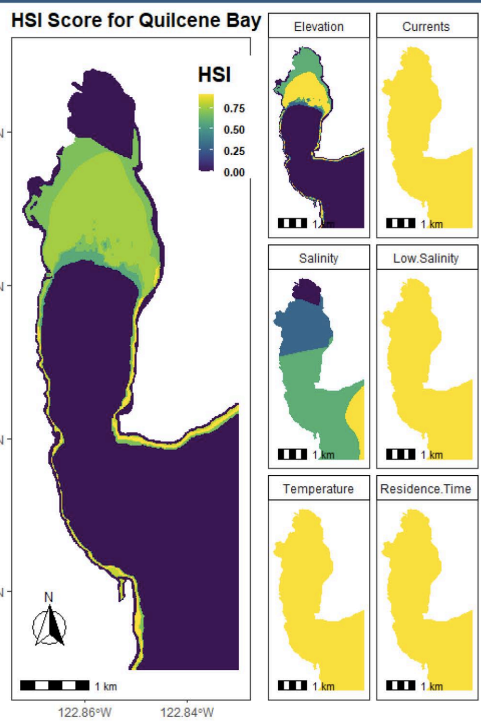
Advancing a Custom-fit Strategy for Olympia Oyster Restoration in Hood Canal



Project lead: Hilary Hayford, PSRF Habitat Research Director

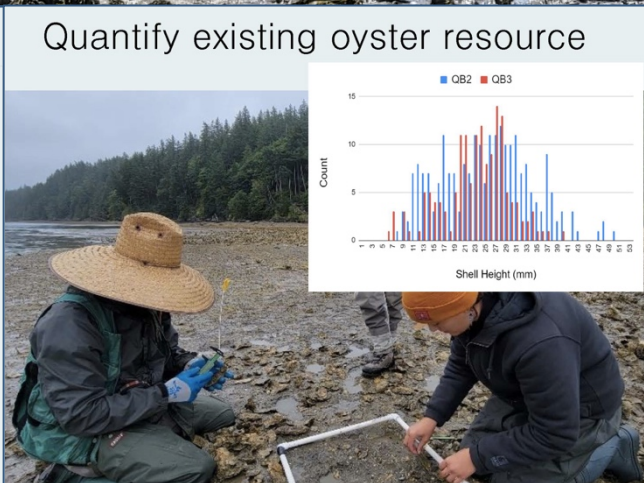
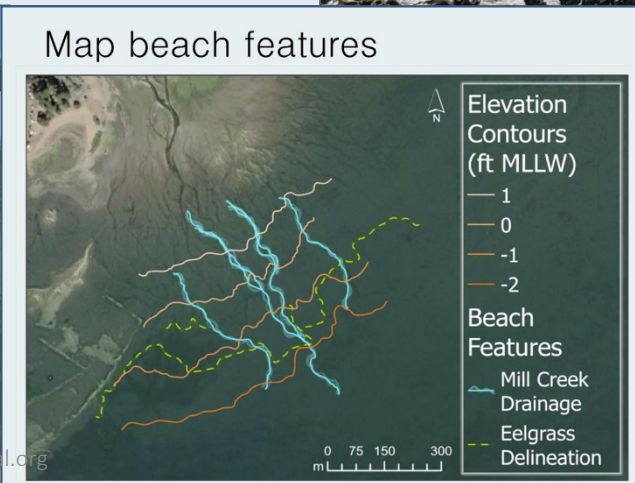
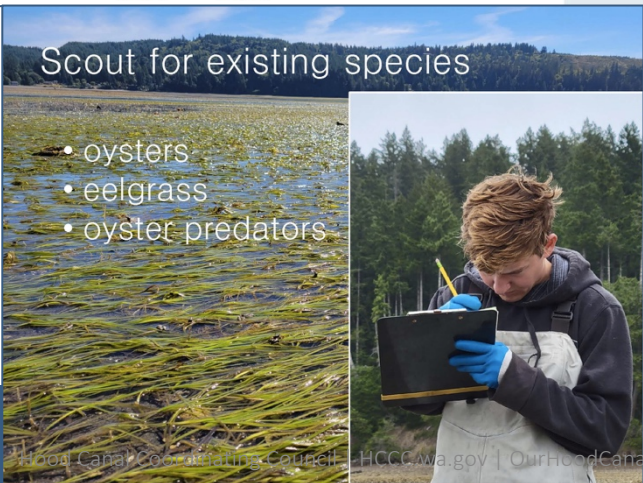
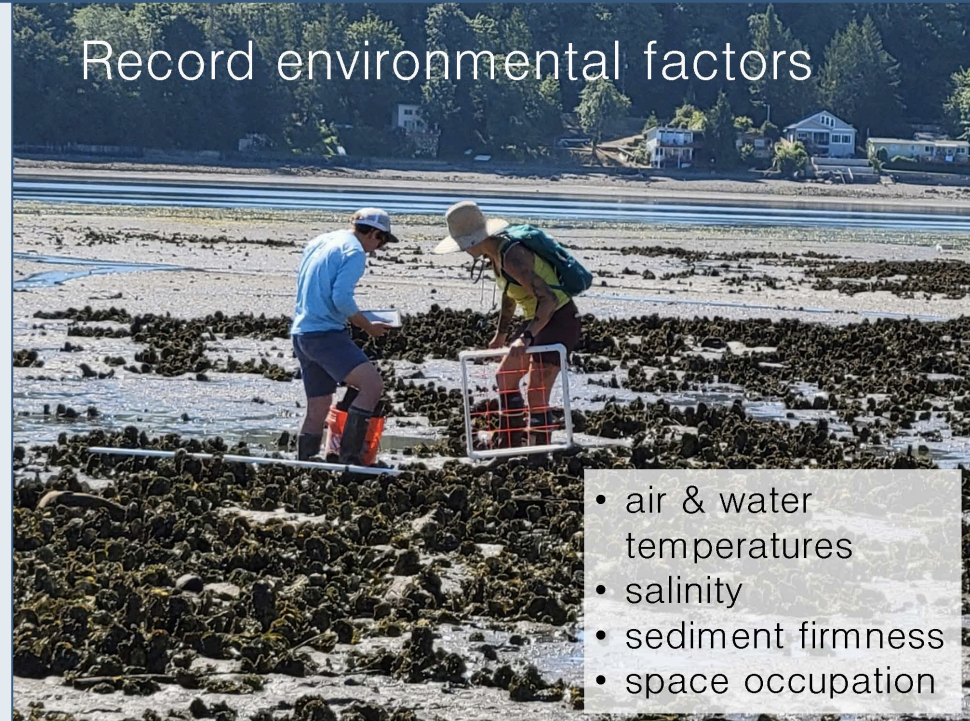
>>> Learn more from PSRF about this broader work and its application in Hood Canal at their presentation on **Thursday, the 28th, 10:30am** in the **“Bivalves, Biodiversity, & Wastewater”** session.

Advancing a Custom-fit Strategy for Olympia Oyster Restoration in Hood Canal



Habitat Suitability Index (HSI) – Quilcene Bay

Charlotte Dorhn



Advancing a Custom-fit Strategy for Olympia Oyster Restoration in Hood Canal

Outreach – middle school program



Puget Sound Shoreline Module

Olympia Oysters

Description: Great Peninsula Conservancy's Klingel-Bryan-Beard Wildlife Refuge is a coastal wetland near Belfair State Park, which serves as a site designated for priority Olympia oyster (*Ostrea lurida*) restoration. Comparing these two sites is highly valuable to assess how Puget Sound's shoreline can return to former Olympia oyster habitat. Since Olympia oysters are



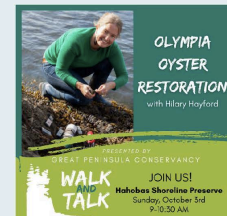
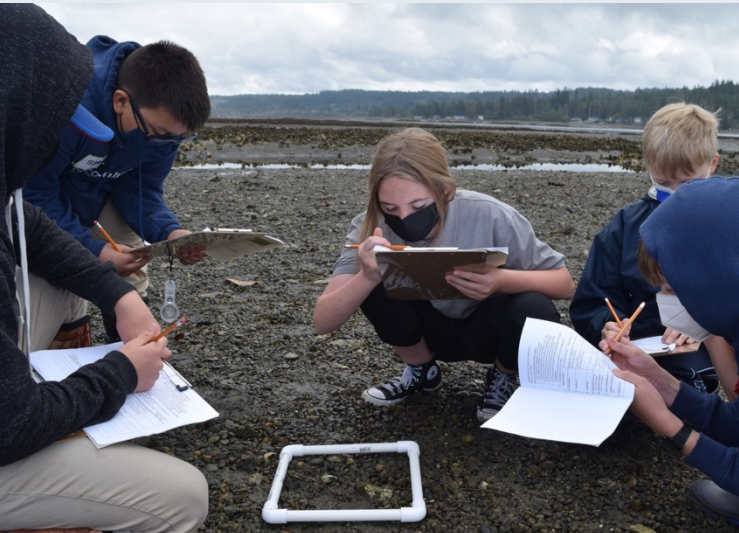
Outreach – KPTZ radio show



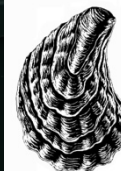
Coastal Café / Aaron Barnett and MaryAnn Wagner

<https://kptz.org/2021/10/27/hood-canal-oyster-initiative/>

Outreach – Walk & Talk



Hood Canal Marine Spatial Planning Phase 1 - Pre-Planning

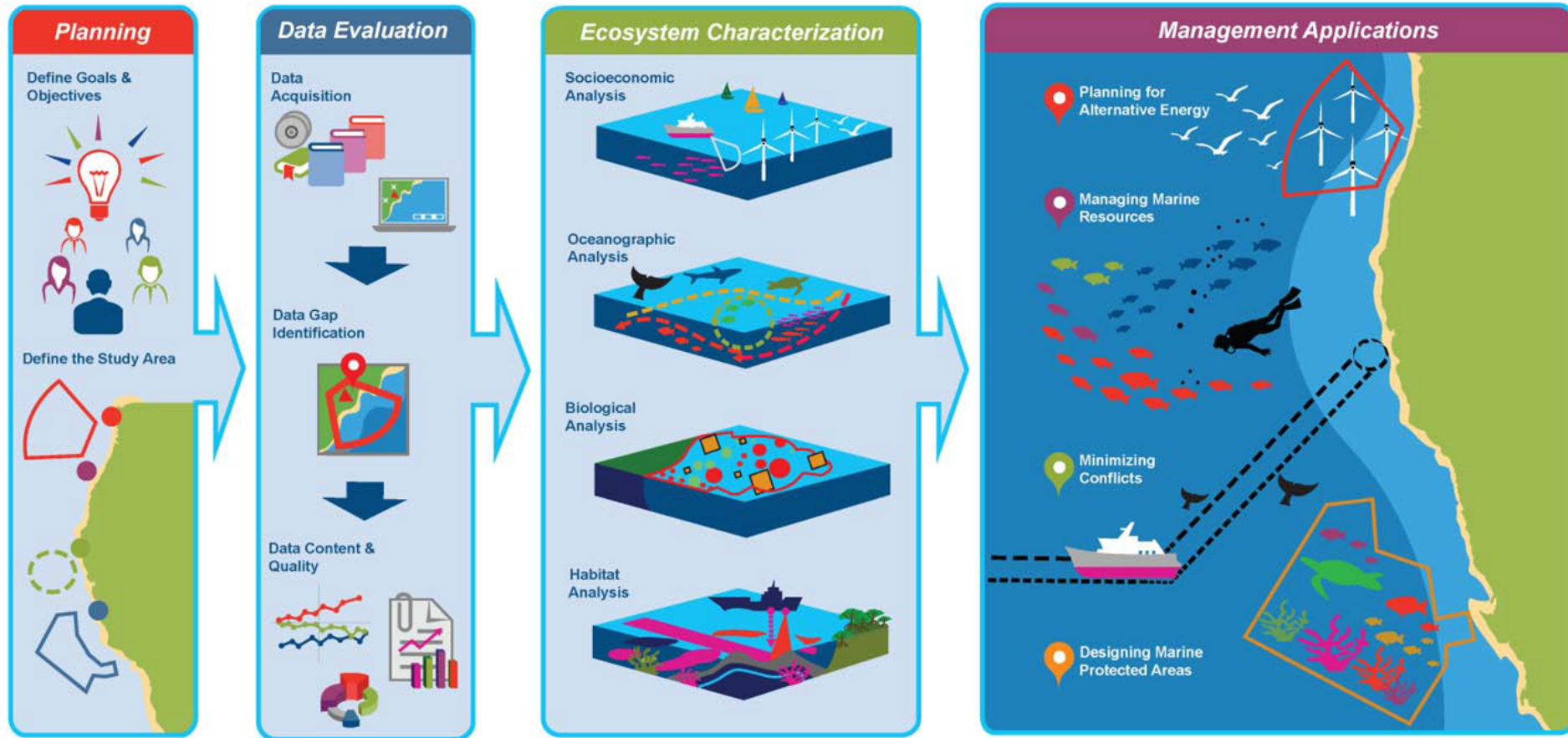


Pacific
Shellfish
Institute




CONFLUENCE
ENVIRONMENTAL COMPANY

What is Marine Spatial Planning?



NOAA NCCOS Biographic Assessment Framework: to support marine spatial planning
<https://coastalscience.noaa.gov/news/innovative-management-approach-aids-marine-spatial-planning/> PC: mark.monaco@noaa.gov



Our purpose is to consider how a marine spatial planning tool can be used to **evaluate sustainable aquaculture sites and anticipate tradeoffs** between those activities, ecosystem protection needs, and other Hood Canal shorelines uses.

A wide-angle photograph of a rocky shoreline. The foreground is dominated by a dense field of oyster shells, some whole and some broken, scattered across the rocks. In the middle ground, a shallow stream of water flows between the rocks. The background shows a line of trees and a range of mountains under a cloudy sky. The text is overlaid on the image.

Who would use an MSP tool?

How would they use it?



Shellfish Growers:

To identify better locations to seek appropriate activities, and inform project siting considerations

An aerial photograph of a watershed area, overlaid with a cyan-colored outline that delineates the boundaries of the 'Ecosystem Recovery Community'. A prominent canal runs diagonally through the center of the area. The surrounding landscape includes green fields, wooded areas, and some residential or commercial buildings. The text 'Ecosystem Recovery Community:' is superimposed in large, bold, black font on the right side of the map.

Ecosystem Recovery Community:

To inform restoration and protection priorities, and project development considerations

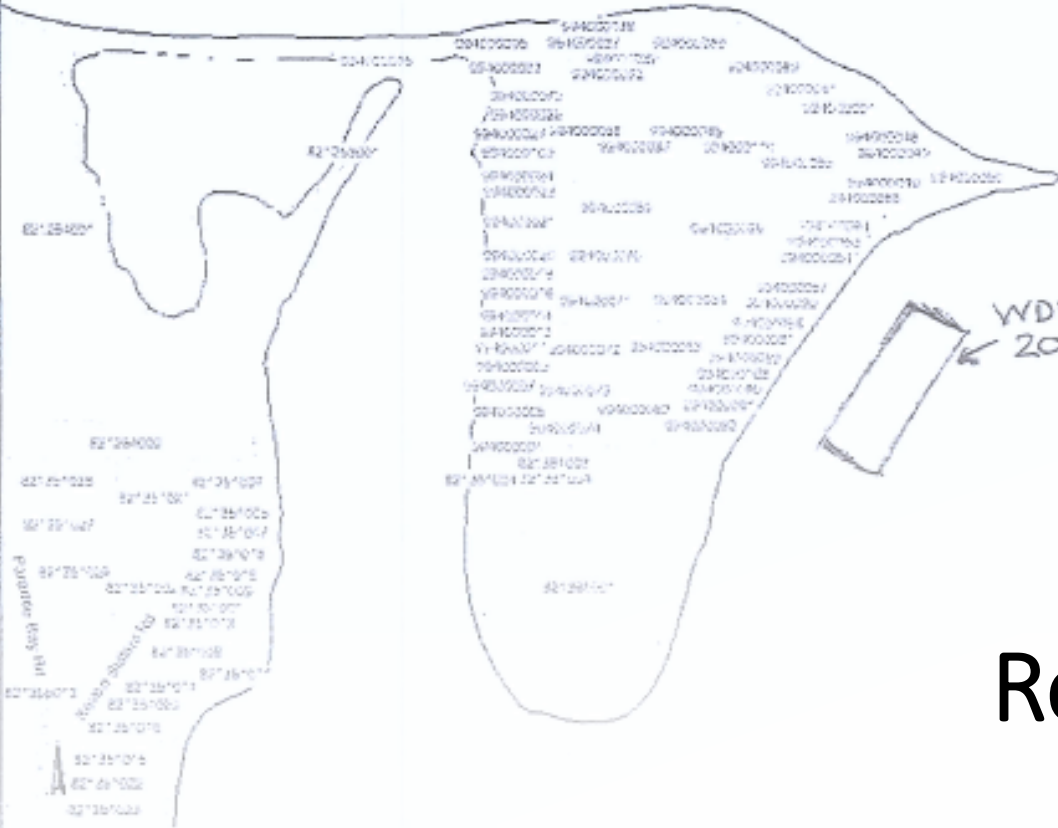
Lat/Long Corners of Project Area:
NW: 47.885389, -122.613139
SW: 47.882972, -122.615
NE: 47.885083, -122.61225
SE: 47.882667, -122.614



Project Area: 5.74 acres
Culture Area: 2.64 acres

Legend

- Towns
- County Seat
- Rail Centers
- JC_Roads
- Parcels-41



Reference Number: NWS-2008-502
 Applicant Name: Hood Canal Mariculture, Inc.
 Proposed Project: 2015 PAFF Ocean Acidification
 Location: WDR Aquatic Lands Lease 20-B12535
 Hood Head, Jefferson County, WA

Regulatory Entities:

Map provided by Jefferson County GIS. © 2015
 FOR INFORMATIONAL PURPOSES ONLY.
 Jefferson County does not attest to the accuracy of the data or the accuracy of its collection. Mon Aug 10 2015 19:15:12

To inform efficient review of permitting applications



Hood Canal MSP:

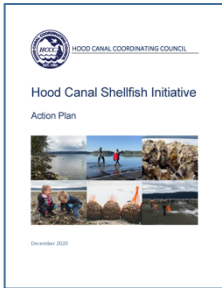
Phase 1 Outcomes

Overall, the pre-planning process indicated that **support is high to continue the effort**

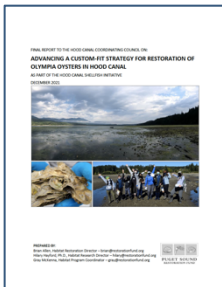
Hood Canal Shellfish Initiative: Looking Forward

- Adaptive management
- Hood Canal Shellfish Summit
- Partner commitments
- Public-private partnerships
- Leveraging HCSI for future project funding

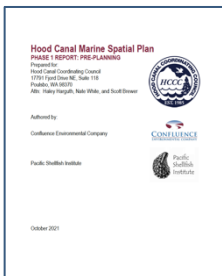
Links to Resources



[Hood Canal Shellfish Initiative Action Plan](#)



[Advancing a Custom-fit Strategy for Restoration of Olympia Oysters in Hood Canal](#)



[Hood Canal Marine Spatial Planning Phase 1-Pre-Planning Report](#)



Thank you!

Haley Harguth
hharguth@hccc.wa.gov

Funding Acknowledgements

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