



“GROWING” DOH SUPPORT FOR POLLUTION IDENTIFICATION AND CORRECTION PROGRAMS

LEVERAGING FEDERAL AND STATE RESOURCES TO REDUCE MARINE FECAL POLLUTION IN PUGET SOUND

Presenters



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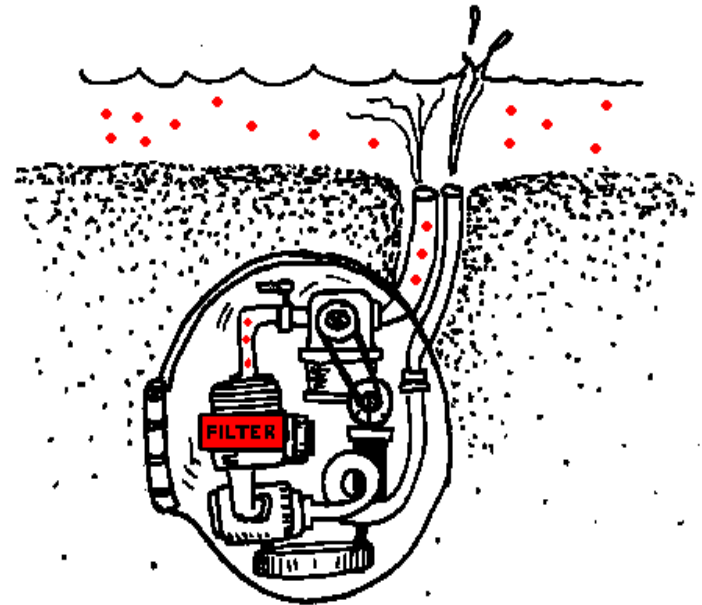
Outline

- Overview of shellfish growing area program
- Pollution Identification and Correction (PIC) programs
 - Locally led group of partners working collaboratively to reduce bacteria pollution from preventable sources
 - Partners work together to provide range of incentives, technical assistance, outreach and education opportunities, and regulatory action when necessary
- Washington State Department of Health (DOH) support for PIC work in the Puget Sound

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Why do we care about Shellfish?

- Shellfish are filter feeders
- Shellfish accumulate fecal bacteria in marine water
- People consume shellfish raw
- Too much fecal bacteria can make people sick



Where does WA's product go?

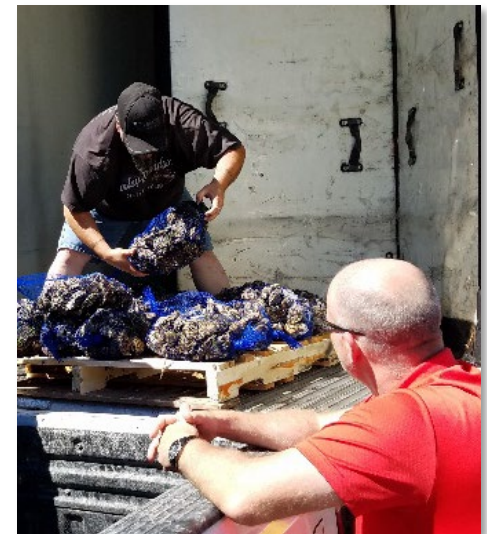
Canada, Mexico, China, Thailand, Vietnam, Hong Kong, Taiwan, South Korea, Indonesia, Japan, Malaysia, Singapore, French Polynesia, United Arab Emirates, Cambodia, Colombia, Philippines, European Union, and all over the United States

\$184 Million

Estimated direct & indirect economic contribution of WA Shellfish Growers in 2010

\$131 Million

Shellfish Exports in 2018



Shellfish Growing Area Section

- Designated shellfish authority
- Evaluate marine water quality and pollution sources on ongoing basis
- Classify commercial shellfish growing areas according to federal shellfish rules
- Program evaluated by FDA



Dedicated to assuring shellfish are a safe food.

National Shellfish Sanitation Program (NSSP)

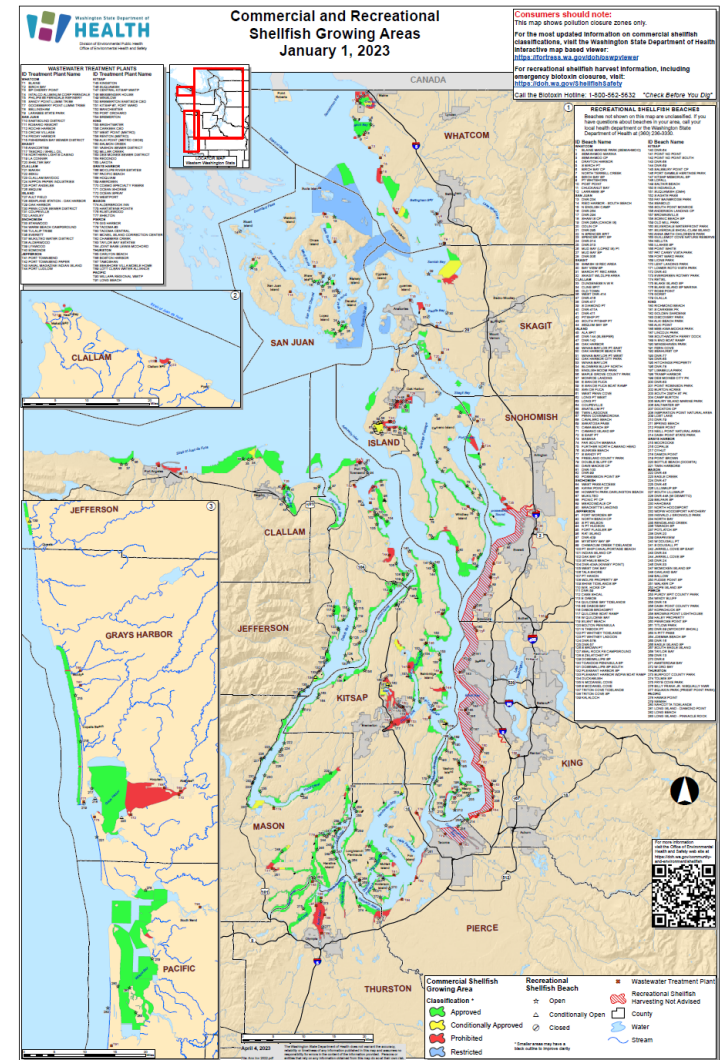
Guide for the Control of Molluscan Shellfish 2019 Revision



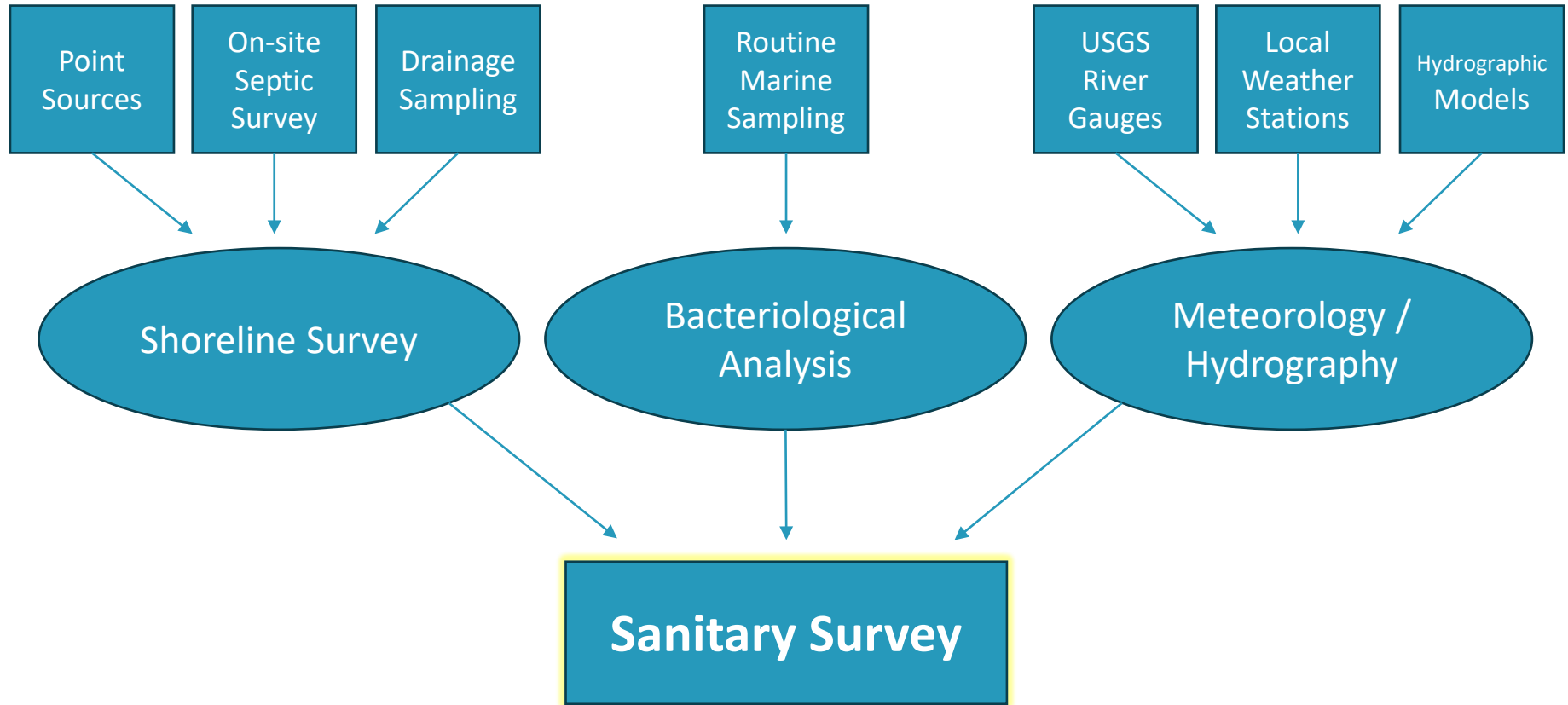
From the U.S. Food and Drug Administration website
<http://www.fda.gov/Food/GuidanceRegulation/FederalStateFoodPrograms/ucm2006754.htm>

Where Do Washington Shellfish Come From?

- 115 commercial shellfish growing areas
- Over 370,000 acres classified
- 1,700 marine water quality stations
- 35 years of water quality data
- Over 250 publicly owned shellfish beaches

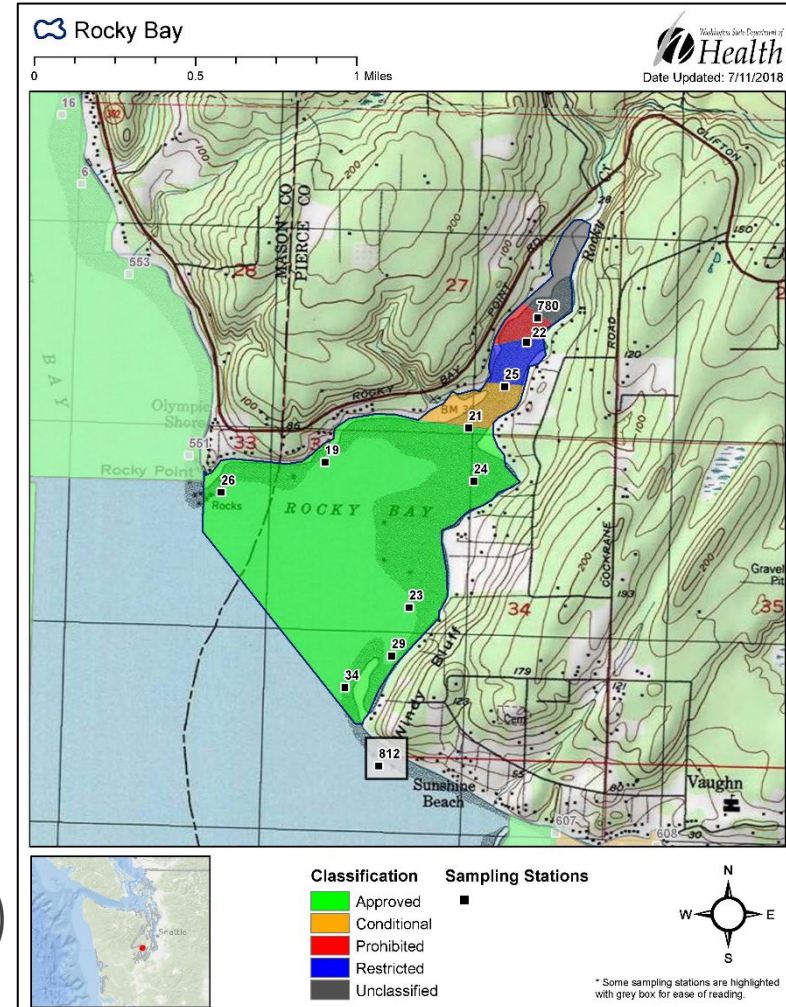


What goes into classifying Growing Areas



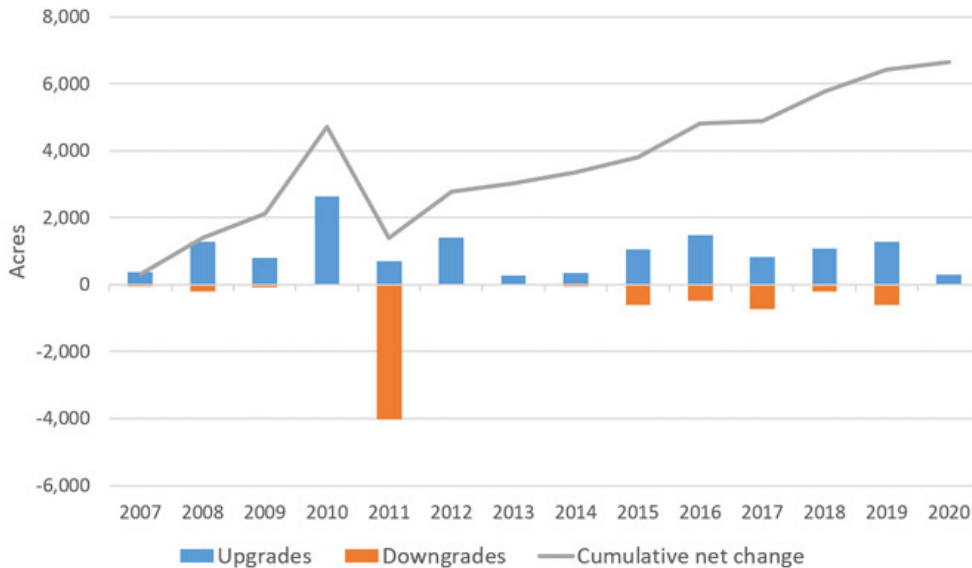
Classifications

- **Approved**: Last 30 samples meet stringent NSSP standard
- **Conditionally Approved**: Condition that predicts poor water quality
 - Last 30 Open Status Samples must meet Approved Criteria
- **Restricted**: Can be due to...
 - Poor water quality
 - Lack of sampling (but shoreline survey completed)
- **Prohibited**: Can be due to...
 - Poor water quality
 - Wastewater Treatment Plant (WWTP)
 - Marina



Performance Measure

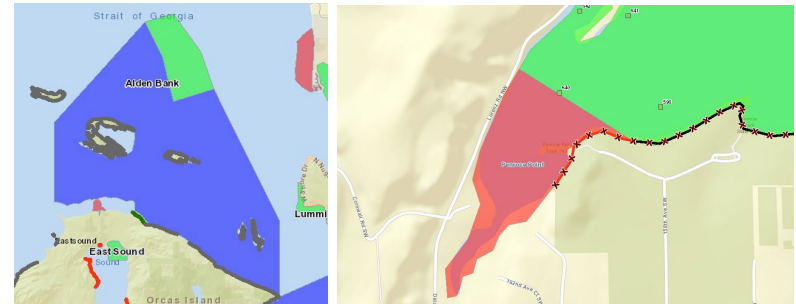
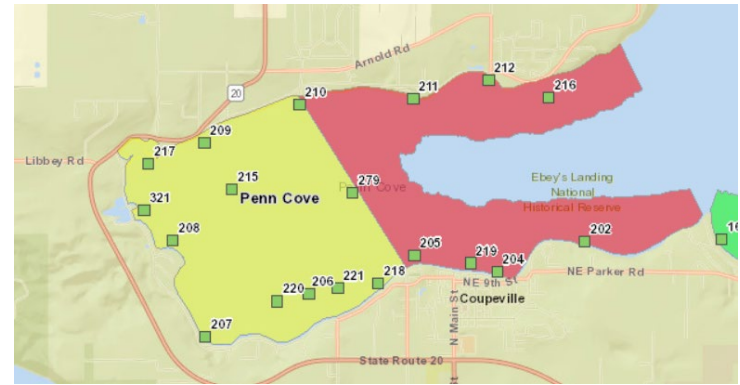
Puget Sound Shellfish Growing Area Classification Changes by Year



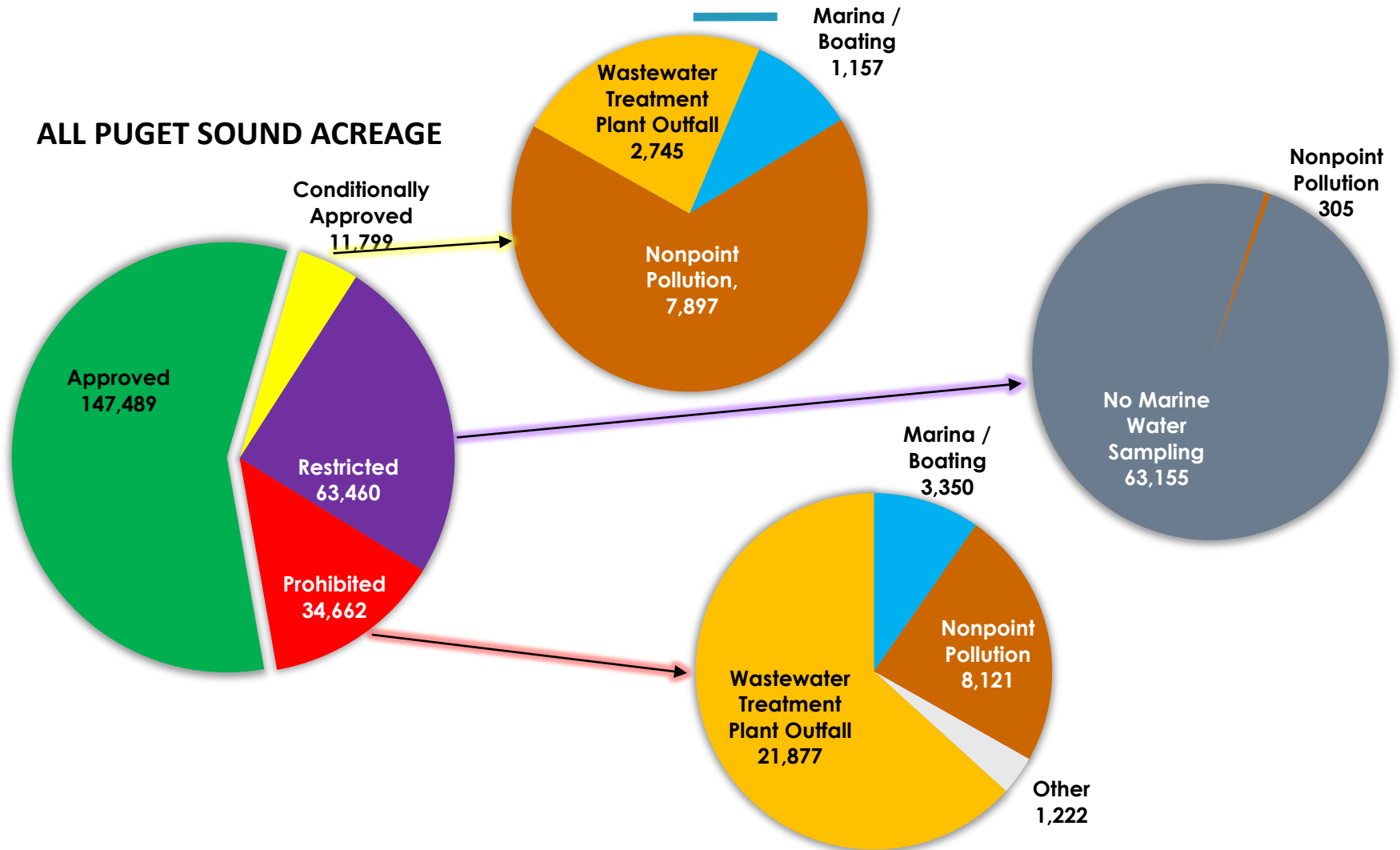
The indicator target for the Shellfish Bed Vital Sign is an annual net increase of at least 500 harvestable shellfish acres, based on a three-year rolling average, with no single year with negative net acreage. **Since 2007, there has been a net gain of 6,659 harvestable shellfish bed acres in Puget Sound.**

Reasons for Restrictive Classifications

- Poor Water Quality
 - Failure of NSSP Standard
 - Shoreline Pollution Sources
- WWTP Outfall
 - Not based off ambient water quality
 - Loss of Disinfection Scenario
- Marina
 - Not based off ambient water quality
 - Sewage Discharge Scenario
- Lack of Sampling
 - Too remote/expansive to feasibly sample regularly
 - Shoreline Survey still completed

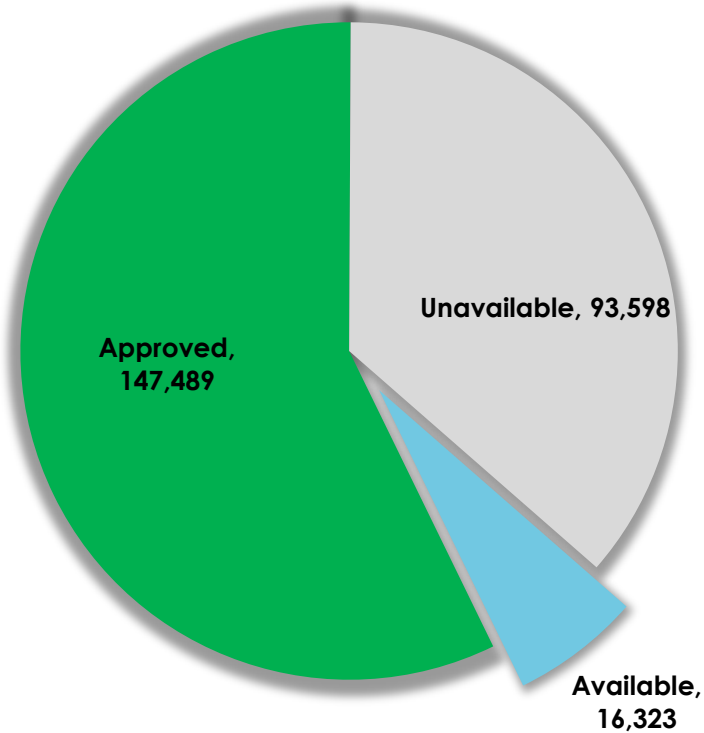


Impacts to Classified Areas



What Can Be Upgraded?

APPROVED vs AVAILABLE vs UNAVAILABLE ACREAGE



- We are always looking to see how we can attain the “Unavailable”
- WWTP Outfalls are difficult and expensive to address
- Marinas would need to reduce slips
- Takes time to see improvements based on nonpoint sources

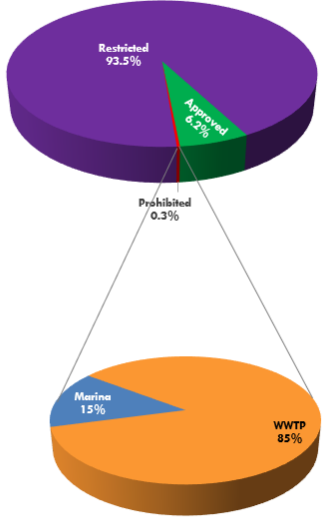
Early Warning System / State of Classification Reports

Alert Partners following Annual Reports of stations in danger of failing

2024 State of Classification Report | San Juan County

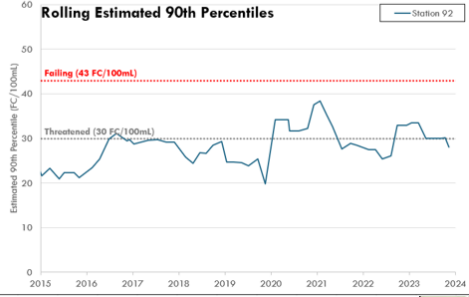
Shellfish Classification Information

| | |
|---|----------------------|
| Total Classified Acres | 49,166 acres |
| Approved | 3,062 acres |
| Conditionally Approved | 0 acres |
| Restricted | 45,973 acres |
| Prohibited | 131 acres |
| Marine Water Stations Monitored | 73 Stations |
| Classified Commercial Shellfish Growing Areas | 11 Areas |
| Threatened/Failing Stations | 92 (Upright Channel) |

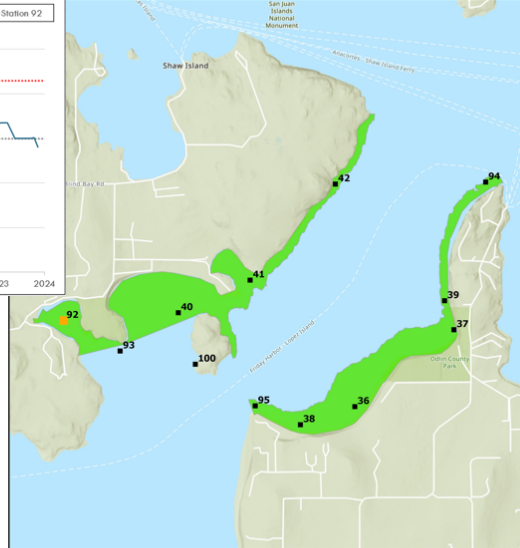


Reasons for Prohibited Classifications

2024 State of Classification Report | San Juan County



Upright Channel
Station 92 - Approved - Threatened

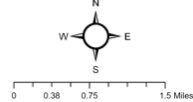


Shellfish Classification

- Approved
- Conditional
- Prohibited
- Restricted
- Unclassified

Threatened Stations

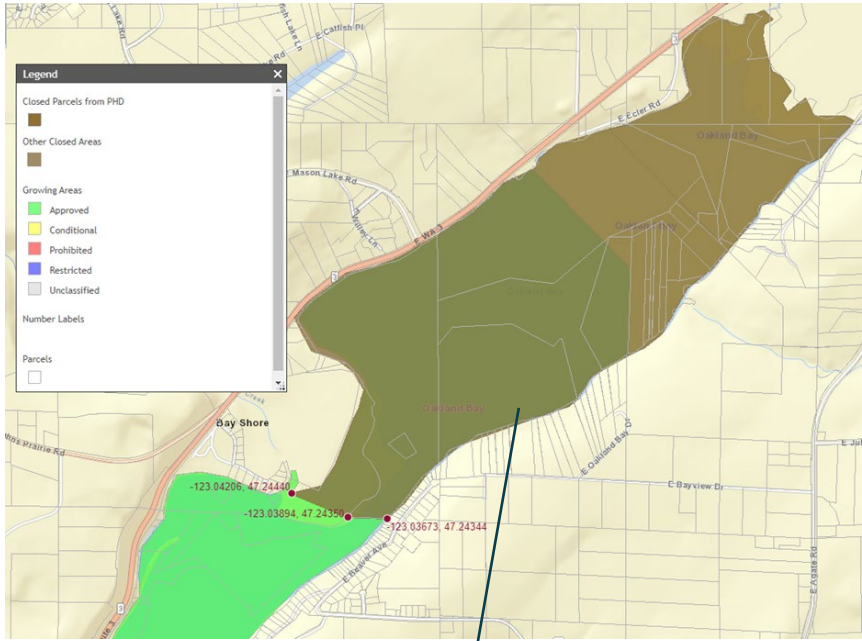
- Marine Stations



Oakland Bay Livestock Farm (2021)



- March 2021: Mason County Environmental Health alerted to high FC counts off drainage along Oakland Bay
- Poor animal-keeping practices were the culprit
- **October 2021: DOH issues Emergency Closure**
- Workgroup Partners:
 - WA Department of Health
 - WA Department of Ecology
 - Mason County Environmental Health
 - Mason Conservation District
 - Shellfish Growers
- **November 2021: Closure Lifted**



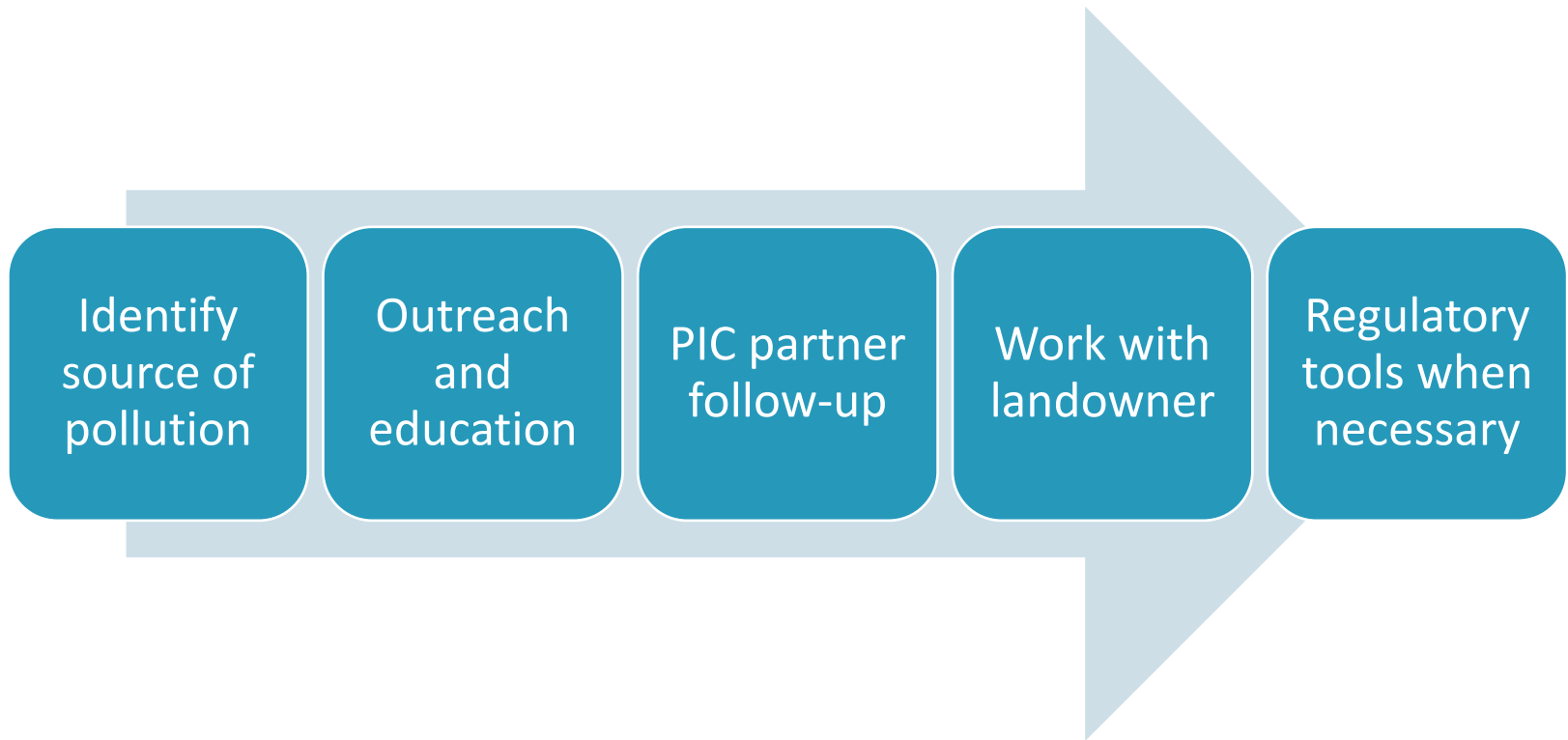
Closed 10/4/2021 to 11/23/2021

Pollution Identification and Correction (PIC)



- Tribal partners
- Small cities
- Non-profits/special interest groups

PIC process

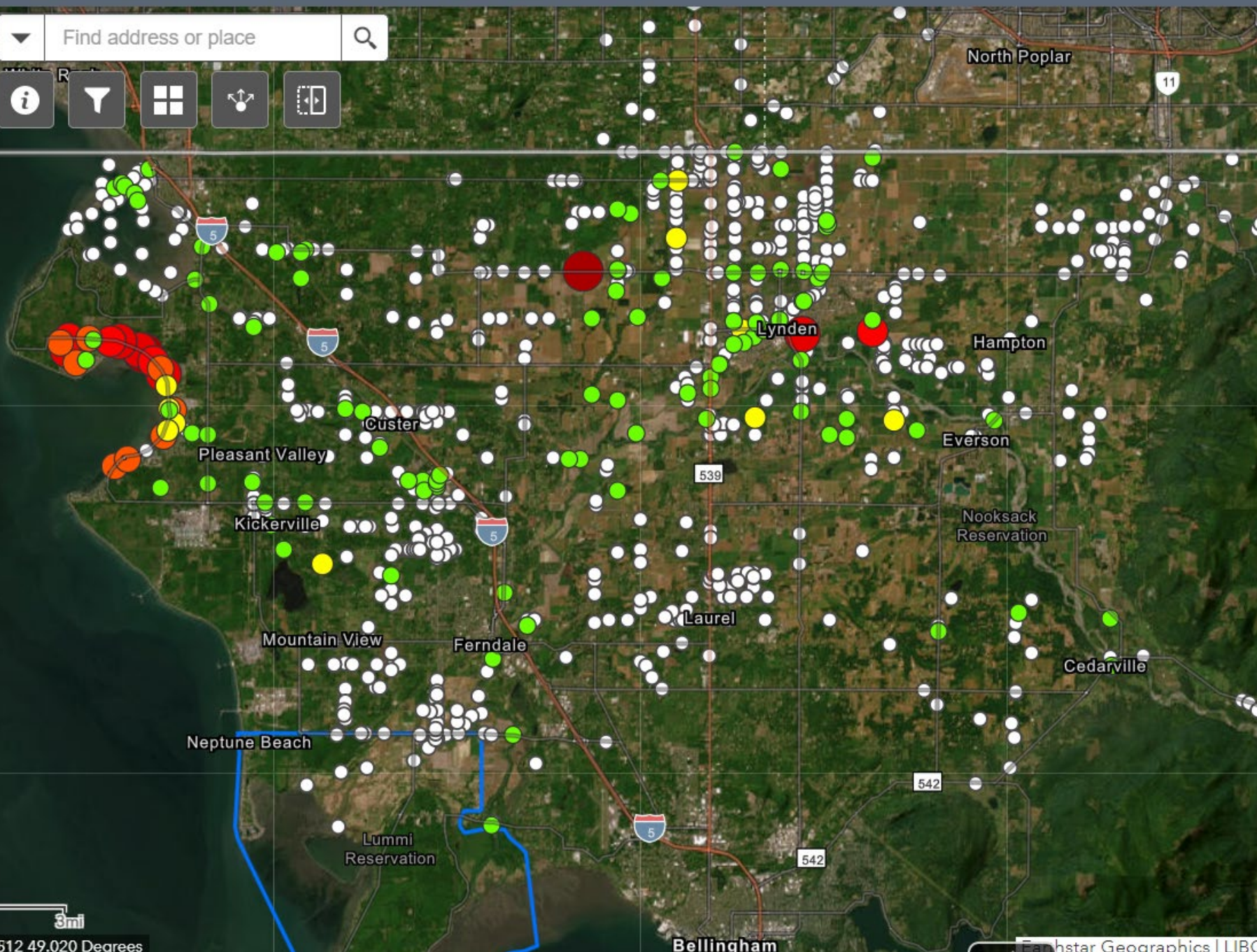


SURFACE WATER MONITORING FOR FECAL BACTERIA

Map navigation controls: + (Zoom In), - (Zoom Out), Home, Refresh, and other utility icons.

Find address or place

Map interaction icons: Information, Filter, Full Screen, Share, and Print.



3mi
122.512 49.020 Degrees

PIC outreach

Snohomish Conservation District
September 10 at 8:21 AM

Boy did rainy season ever make an entrance! Now is the time to check your manure tarps and repair or replace them to keep your manure covered well. Covering manure helps it continue to compost and keeps it from running off into waterways. Call us if you need advice on how to effectively contain and compost manure!
#TipTuesday #manuremanagement

Tip TUESDAY

Contain and cover manure to keep it cooking (and prevent runoff)!

-50,000 DOGS in Whatcom County

= 37,500 pounds of poop every day!

> 300 TRILLION fecal bacteria

On walks, scoop every time and make sure the bag makes it to the trash.

Be prepared. Always carry extra bags and keep

정화조 관리는 당신에게서부터 시작합니다

을 보호할 수 있습니다.
강을 보호할 수 있습니다.
역사지를 보호할 수 있습니다.

poop at ly daily, and t rains.

you can't see rs on paws, flies!

Scoop the Poop Tip:

Keeping our water clean.

MAKE A POSITIVE IMPACT!

You can help keep our local water clean by preventing fecal coliform bacteria from reaching streams, rivers, lakes, and the Puget Sound. Your actions can make a positive impact on your family, pets, livestock, and neighbors, and help keep them healthy.

What's Wrong with the Water in the Lower

Areas of the Lower Stillaguamish Watershed have too much fecal bacteria in the water, which can make people and animals sick. When there is too much fecal bacteria in the adjacent marine waters, the shellfish are unsafe to eat and harvesting is closed. If septic systems are not maintained or animal waste is not adequately contained, the bacteria in the waste can run off the property during storms and drain into local waterways.

Healthy Livestock, Healthy Kids, Healthy Land

Fecal matters! A good farm plan can lead to healthier animals and more productive acreage.

Poop Smart

www.poopsmart.org

When you own a small farm, it can feel like you never have enough hours in the day or money in the bank. So, no lectures – just good advice.

We'll point you to free and confidential resources to help you raise healthier animals, improve the quality of your pastures, and find the support you need, when you need it. Every livestock owner and pasture matters, whether or not your property is next to a waterway.

So, check out the options, and help your livestock #PoopSmart. Help us prevent a Revenge of the Turds situation in Skagit County.

Sponsored by

정화조 점검에 관심이 있으시다면 이곳에서 공인 정화조 점검기사 리스트를 확인하고 연락하십시오: www.kingcounty.gov/oss

Public Health
Seattle & King County

Eastgate Environmental Health Services
14350 SE Eastgate Way, Bellevue, WA 98007
206-477-8050

대체 형식을 사용할 수 있습니다.
206-477-4800 또는 TTY:711로 연락하십시오.

USDA 지방 주택 서비스 프로그램
360-428-4322 ext. 4 | rd.usda.gov



PIC in action



Community Solutions for Clean Water

Secure
Pet Food and
Garbage from
Wildlife

Pick up
Pet
Waste

Inspect
your Septic
System

Follow
a Farm
Plan

Use
Marina
Pump Out
Stations

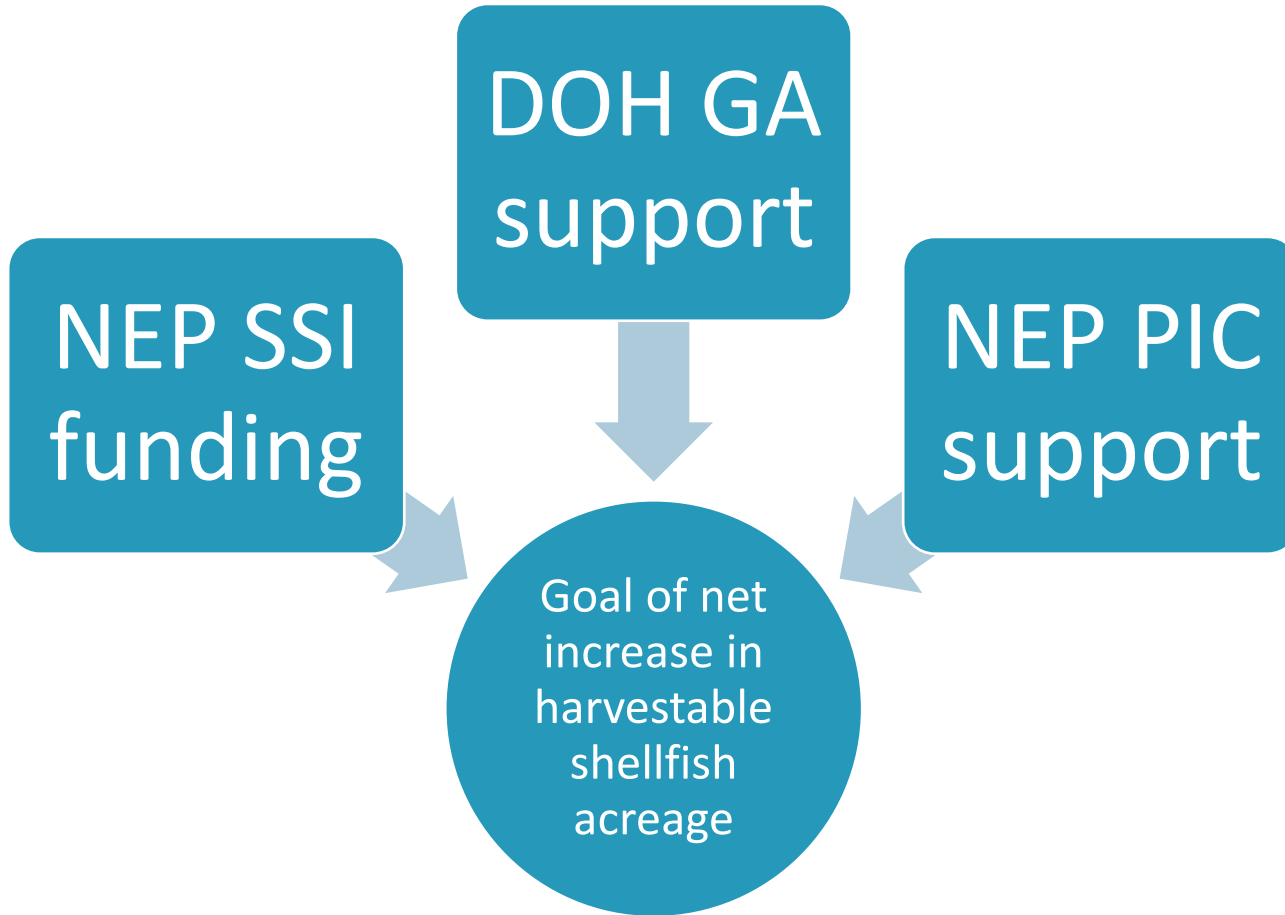
Manage
Storm
Water

Plant
Streamside
Vegetation

Use Public
Restrooms



Supporting PIC programs at



Recovery Approaches

- Pollution Identification and Correction programs
- Livestock manure management
- On-site sewage system management
- Boaters' waste
- Wastewater treatment plant outfalls



Recovery Approaches

- **Pollution Identification and Correction programs**
- Livestock manure management
- On-site sewage system management
- Boaters' waste
- Wastewater treatment plant outfalls



Overcoming Barriers

- Insufficient farm waste management
 - NEP funding
 - Partnerships to implement BMPs
- Lack of sustainable local nonpoint pollution programs
 - NEP funding
 - Sustaining programs developed in multiple counties
- Limited control of boaters' waste
 - NEP funding
 - No Discharge Zone
 - Prohibited classification removed from 660 acres
- Wastewater treatment plant outfalls to Puget Sound
 - Outfall strategy developed
 - 3 projects funded from NEP totaling \$1 million

Difficulty implementing onsite sewage system (OSS) management and repair programs

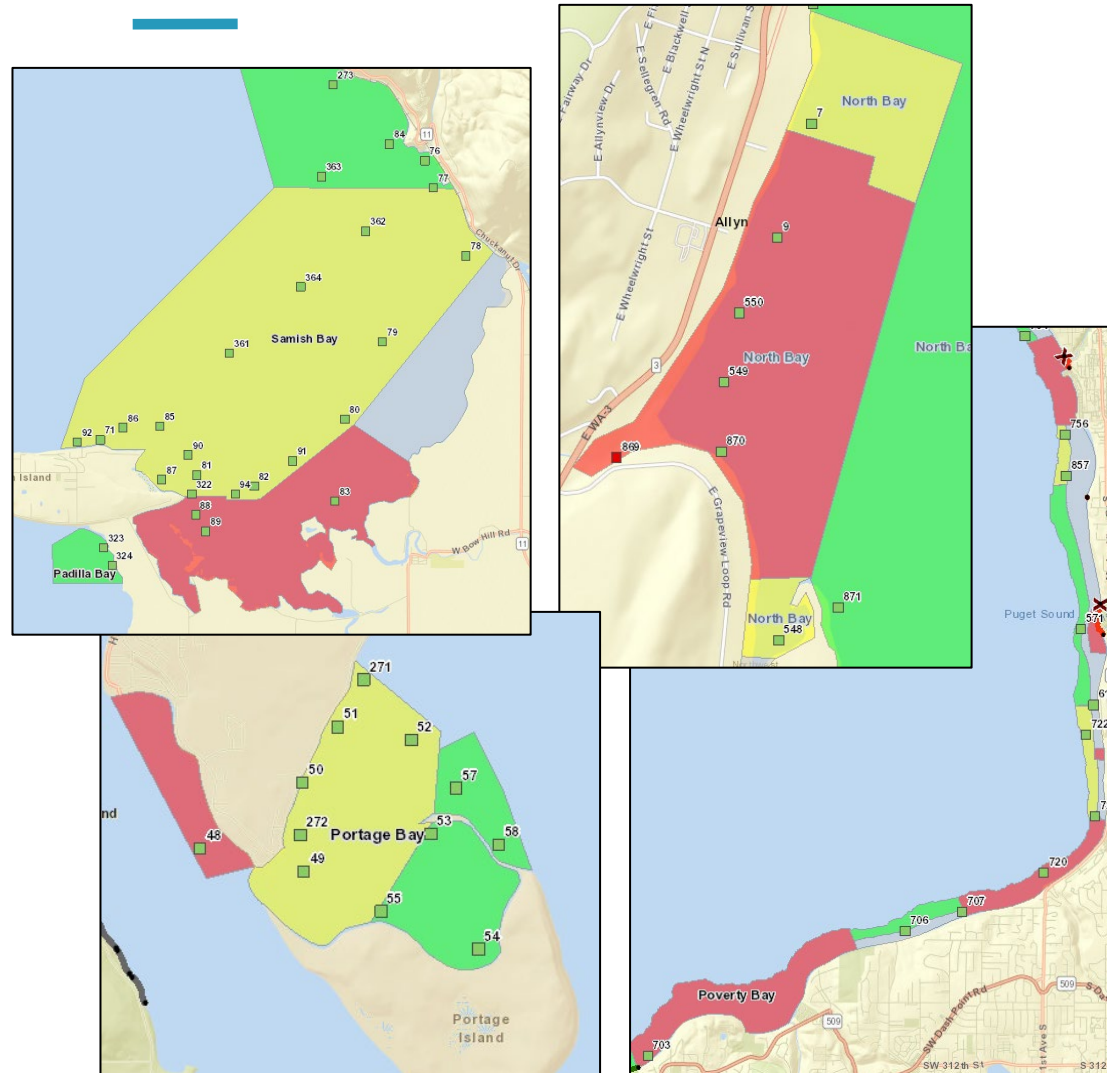
- Reliable funding for local OSS O&M programs



- Prioritizing PIC for funding
 - RFPs
 - Identifying and addressing barriers to program success
- Regional PIC coordinator role
 - Identifying shared challenges and successes
 - Elevating concerns
 - Providing space for connection
- Elevating priorities for EPA investments
 - Whatcom manure transport
 - MST studies
 - Salish Sea circulation modelling

Supporting Partners Restoration Efforts

- Early Warning System Reports
- Coordinated/Special Sampling
 - Portage Bay Conditional Area
 - Samish Bay / Samish River
 - North Bay / Allyn
 - Poverty Bay / Cold, Redondo, Massey, McSorley, Woodmont creeks
- Workgroups as necessary
 - Oakland Bay livestock Farm
 - Salish Sea Model Enhancement
 - Drayton Harbor & Portage Bay
 - Samish Bay
 - Skagit Bay (upcoming)



Leveraging joint GA and NEP support



The Big Picture

Net **gain** of
harvestable
shellfish
acres

Identify higher level
needs to elevate
and address

Grow PIC program support
through DOH NEP and
Growing Area restoration

Support PIC work through RFPs

SIAT and IS identify PIC as priority

Twofold Approach to PIC Support

DOH GA helping PIC programs:

- 1) identify where to direct their efforts to prevent downgrades
- 2) provide guidance to obtain data that supports upgrades

DOH NEP helping PIC programs:

- 1) Fund PIC work
- 2) Identify and address barriers and challenges to PIC program success

- Working jointly to improve communication
- Future opportunities to build support for PIC programs

Questions?

Commercial Shellfish Map:

<https://fortress.wa.gov/doh/oswpviewer/index.html>

Recreational Shellfish Safety Map:

<https://fortress.wa.gov/doh/biotoxin/biotoxin.html>

Puget Sound National Estuary Program Shellfish Strategic Initiative:

[Shellfish Strategic Initiative - Strategic Initiatives of the Puget Sound National Estuary Program \(wa.gov\)](#)

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@WADeptHealth

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Whatcom Conservation District



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