SKOKOMISH
WATERSHED
ACTION TEAM

# Community Meeting

June 25, 2025
5:00 – 7:00

SKOKOMISH WATERSHED ACTION TEAM

Community Meeting

June 25, 2025, 5:00 – 7:00 pm

# European Green Crab in Hood Canal

Natalie Otto, Washington Department of Fish and Wildlife

# The European Green Crab in Washington


Natalie Otto

Salish Sea Regional Biologist

natalie.otto@dfw.wa.gov


Washington Department of FISH and WILDLIFE




Photo: Robert Plotnikoff Snohomish County

# WDFW's Aquatic Invasive Species Division

To protect Washington's environmental, economic, and human resources, the WDFW is the state lead for preventing the introduction of new, controlling the spread of existing, and eradicating locally established aquatic invasive animal species.

The AIS Unit is charged with planning, coordinating, and leading the implementation of management actions on state lands.

Collaboration ● Prevention ● Early Detection ● Rapid Response ● Control ● Research





# The “5-points” of green crab identification

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5 spines on each side

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they aren’t always green

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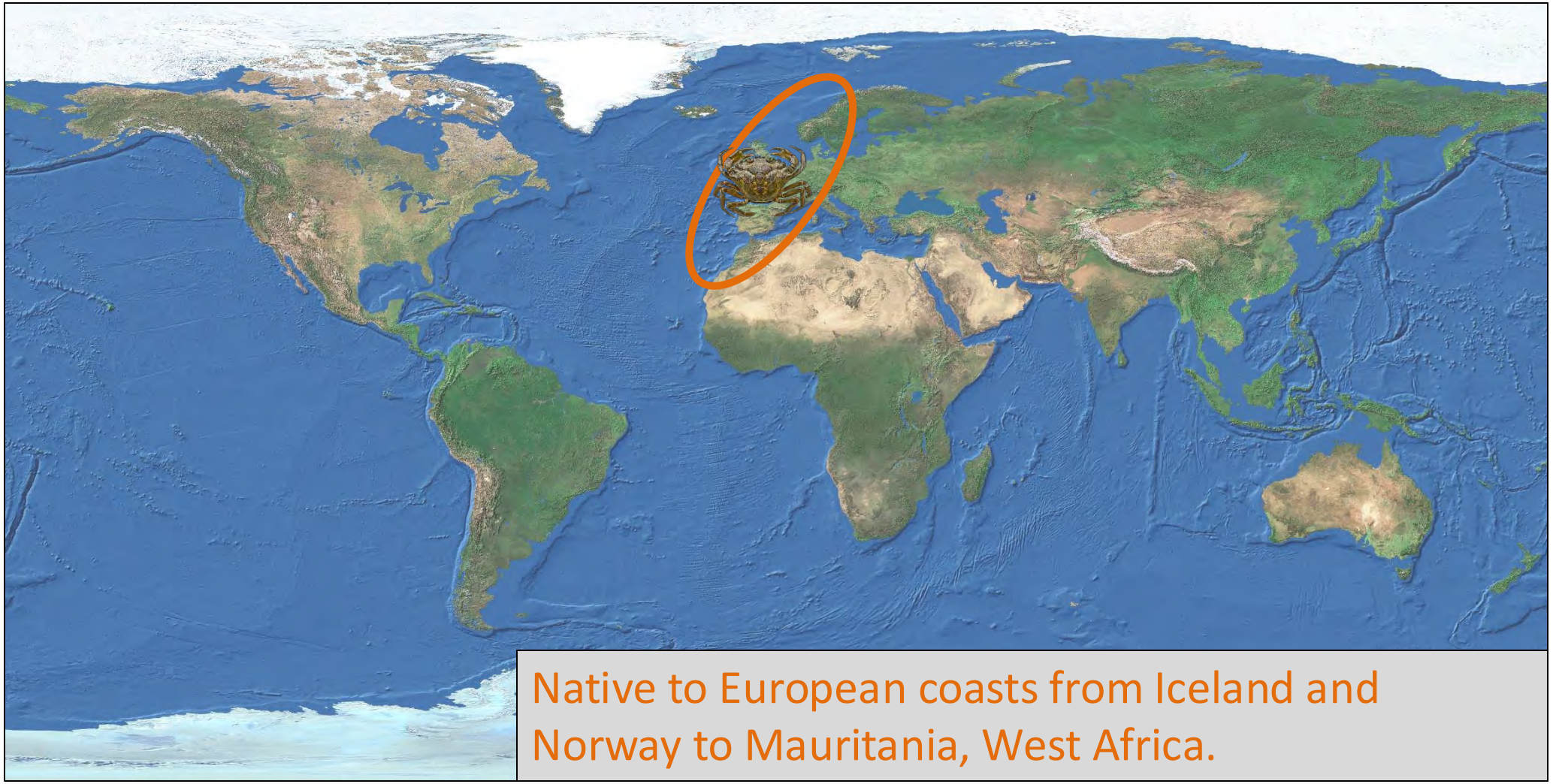
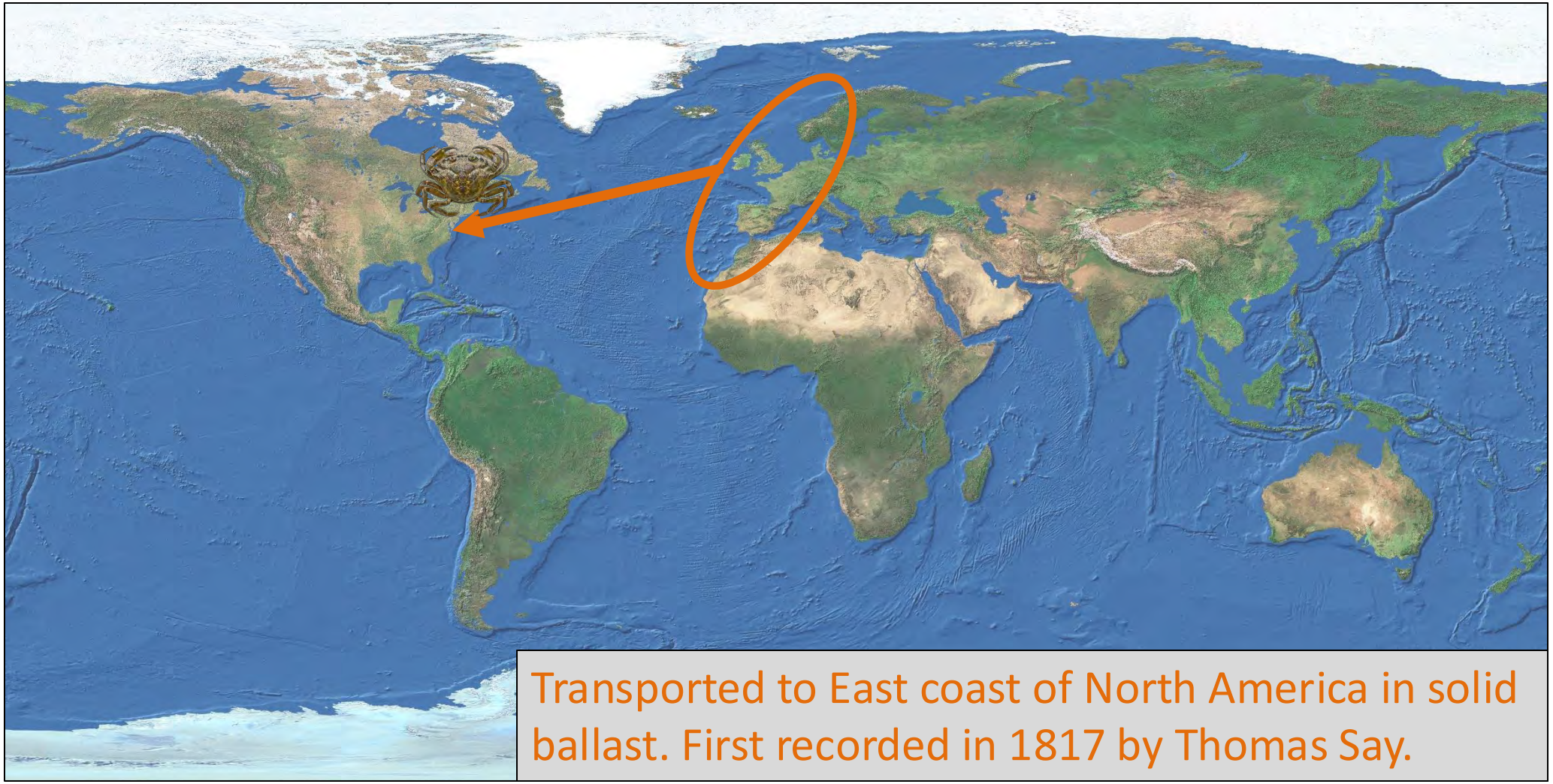
they aren’t always green

# How did green crabs get here?



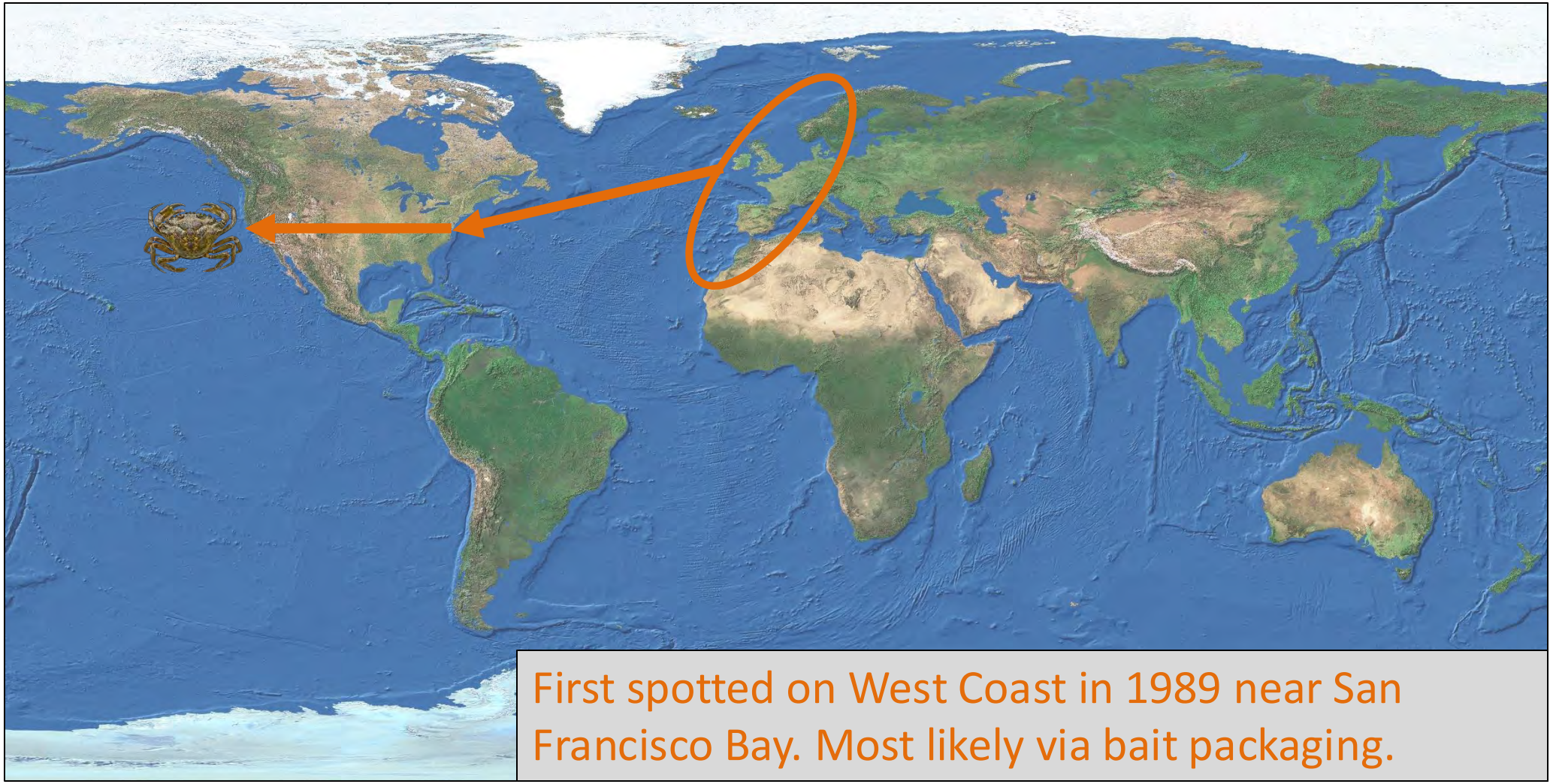
Native to European coasts from Iceland and Norway to Mauritania, West Africa.

# How did green crabs get here?



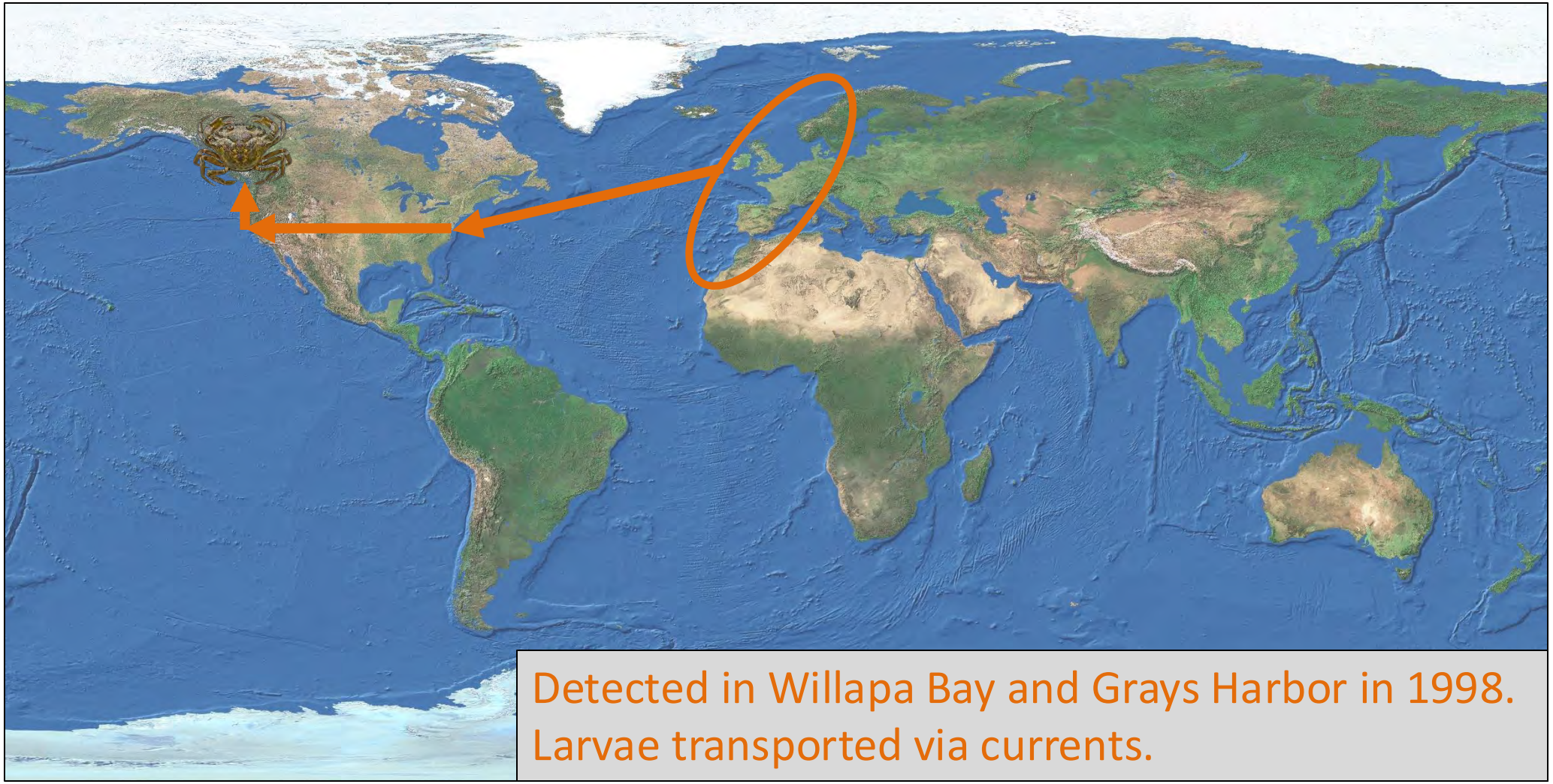
Transported to East coast of North America in solid ballast. First recorded in 1817 by Thomas Say.

# How did green crabs get here?



First spotted on West Coast in 1989 near San Francisco Bay. Most likely via bait packaging.

# How did green crabs get here?



Detected in Willapa Bay and Grays Harbor in 1998.
Larvae transported via currents.

# Where are green crabs now?

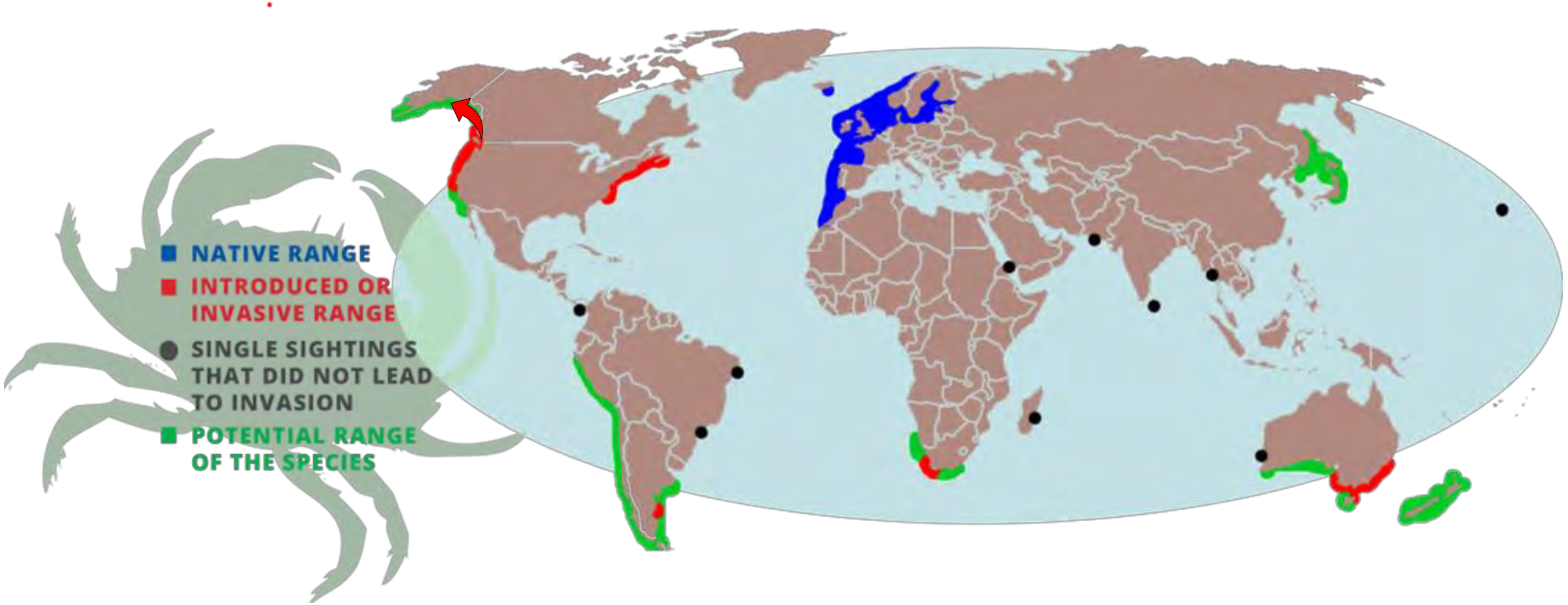



Image by NOAA Alaska Region Fisheries

# Preferred "Crabitat"?

Relatively fresh and warm

Intertidal, low flow

Protected structures

- vertical banks
- vegetation
- hard debris

Pocket estuaries

- lagoons
- salt marshes

Keep in mind: green crabs have wide tolerances and can be found in areas you wouldn't expect to see them!

# Why do we care?

Wide range of tolerances

- Salinity: 1.4-54 ppt (Dungeness are 11-35)
- Thermal: 32-95 °F (Dungeness are 37-64°F)

Highly diverse diet

Outcompete native species

Eelgrass impacts

Lots and lots of babies

- ~180,000 per clutch
- More than one clutch a year if warm enough

# EGC in Washington

**1998** – Coastal detection – Willapa Bay/Grays Harbor

**2012** – Sooke Basin detection in British Columbia

**2015** – WDFW designates Washington Sea Grant to lead early detection monitoring

**2016** – Salish Sea detection – San Juan/Padilla Bay

**2017** – Makah Bay/Dungeness Spit detections

**2018** – Increasing Salish Sea and coastal EGC detections

**2020** – Legislature approves $783,000 proviso

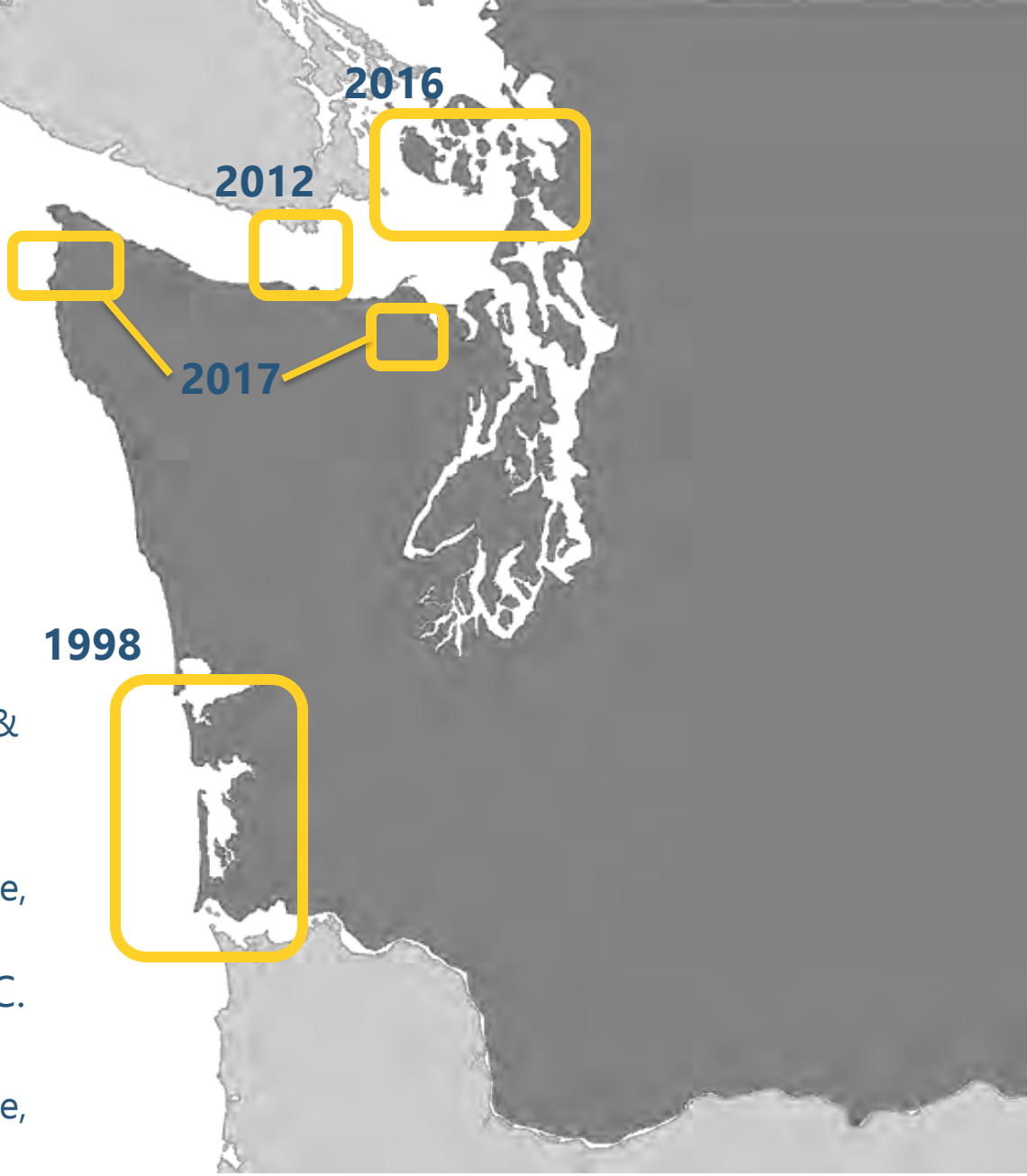
- $411,000 passthrough funding to Lummi Nation, Makah Tribe & WSG

**2021** – Legislature approves $2.3 million ongoing funding

- $1.2 million passthrough funding to Lummi Nation, Makah Tribe, WSG & NW Straits Commission

**2022** – Gov. Inslee released an emergency proclamation for EGC.

- Legislature approves $8.6 million ongoing funding
- $3.2 million passthrough funding to Lummi Nation, Makah Tribe, WSG + $1.5 million available in grants



# Areas of Operation

## Management Branches

- Coastal Branch
- Salish Sea Branch

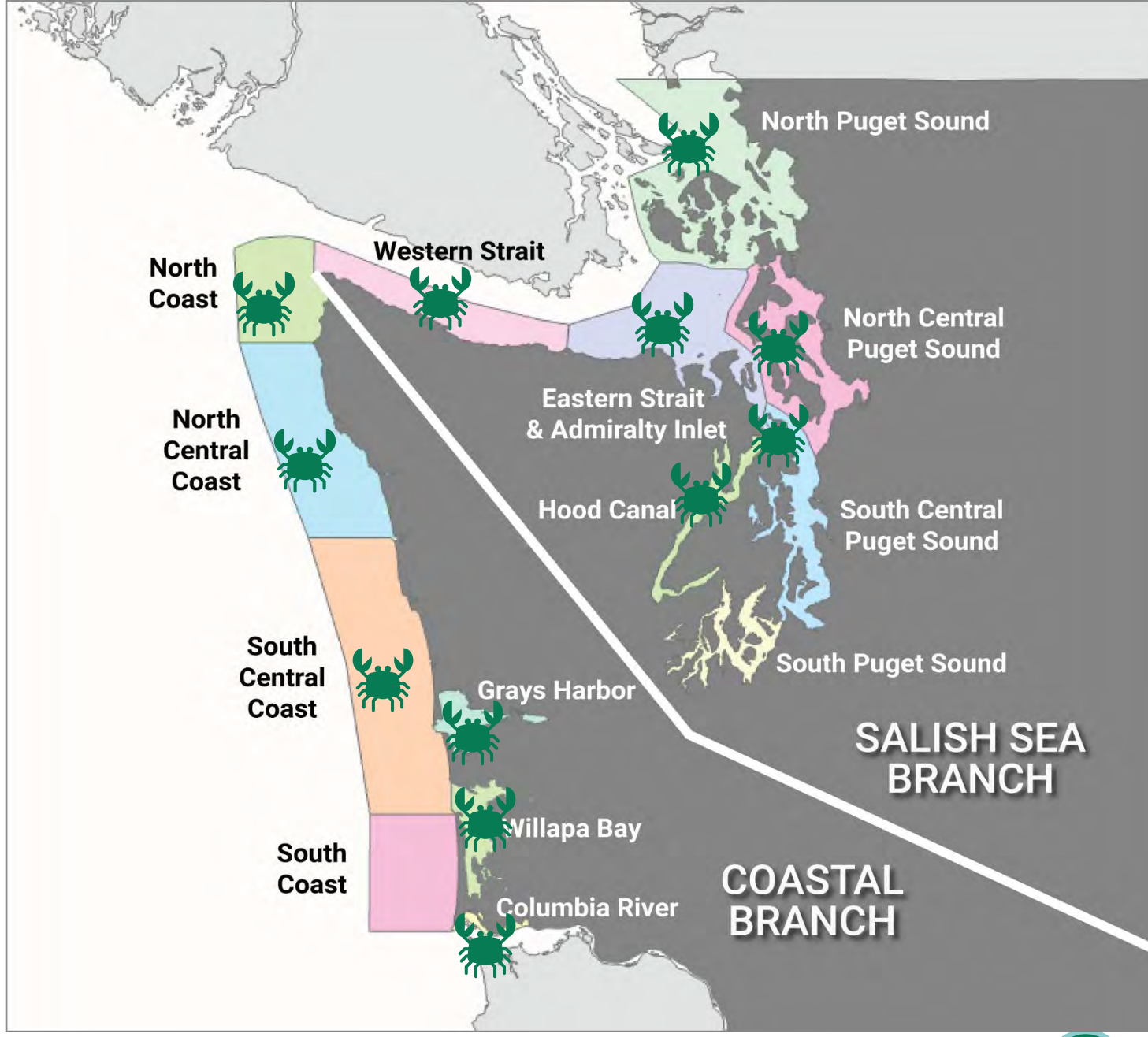
14 Management Areas

Further subdivided into Coordination Areas, Sites and Sub-Sites.

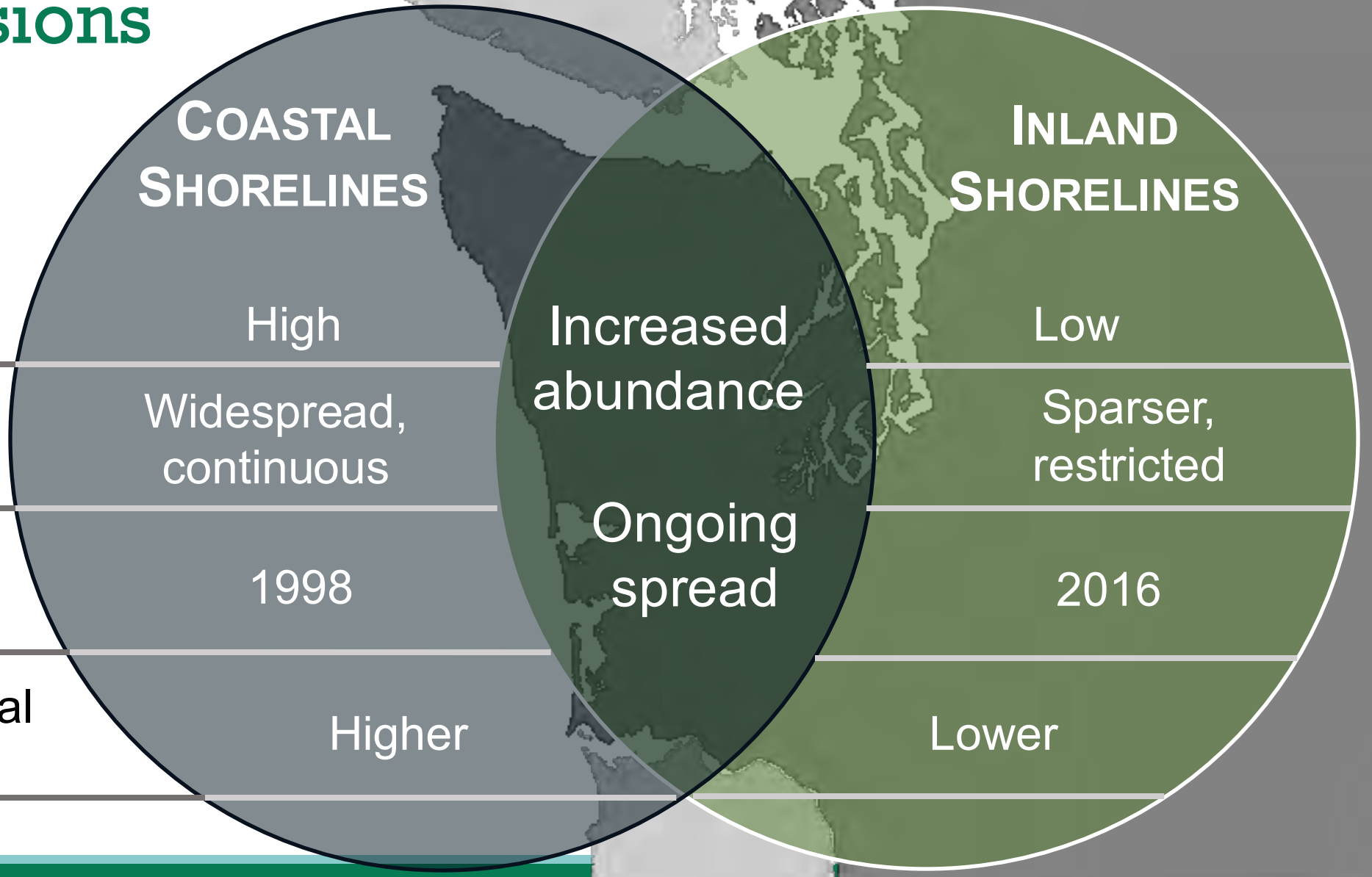
# Crab numbers

## Detected in 12 of 14 Management Areas

| Year | Salish Sea | Pacific Coast | Total |
|---|---|---|---|
| 2015 | 0 | 8 | 8 |
| 2016 | 5 | 19 | 24 |
| 2017 | 101 | 64 | 165 |
| 2018 | 77 | 1,115 | 1,192 |
| 2019 | 177 | 1,766 | 1,943 |
| 2020 | 2,858 | 3,971 | 6,829 |
| 2021 | 86,340 | 16,825 | 103,165 |
| **2022** | **81,006** | **204,274** | **285,280** |
| **2023** | **6,452** | **354,966** | **361,418** |
| **2024** | **4,568** | **1,044,794** | **1,049,362** |



# Washington's Two Invasions




| | Coastal Shorelines | Inland Shorelines |
|---|---|---|
| Relative Abundance: | High | Low |
| Geographic range: | Widespread, continuous | Sparser, restricted |
| First Detection: | 1998 | 2016 |
| Exposure to larval input: | Higher | Lower |

# Management Actions

Early Detection:

- Detect green crabs as soon as possible

Assessment:

- Periodically assess the presence & geographic scope of a green crab population

Control:

- Reduce abundance green crabs

Long-Term Monitoring:

- Assess community over time

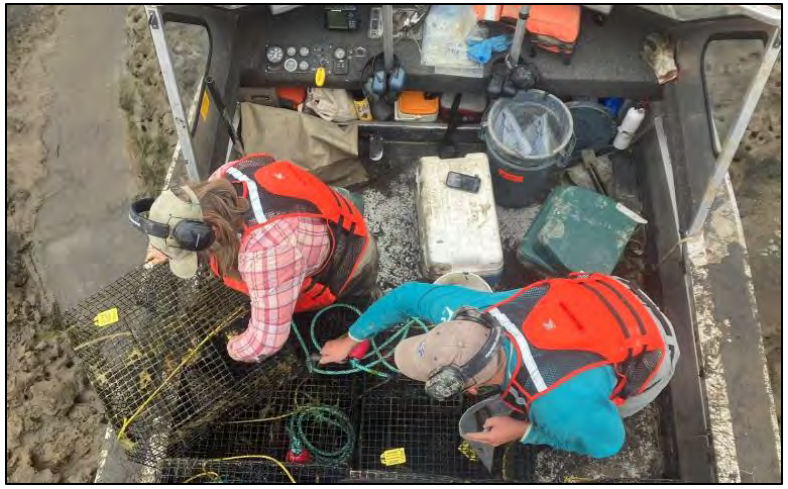
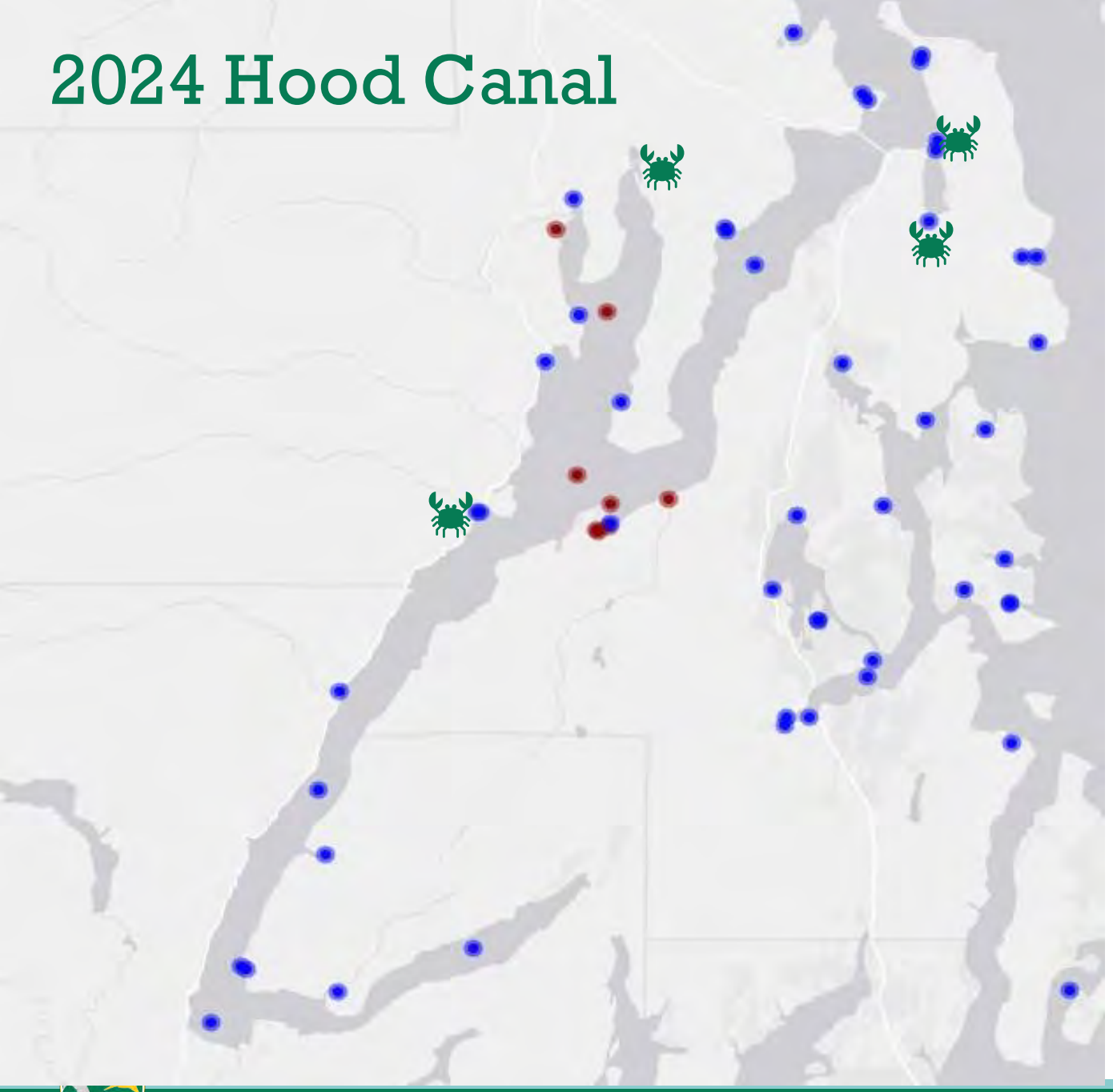


Photo by Washington State Department of Natural Resources

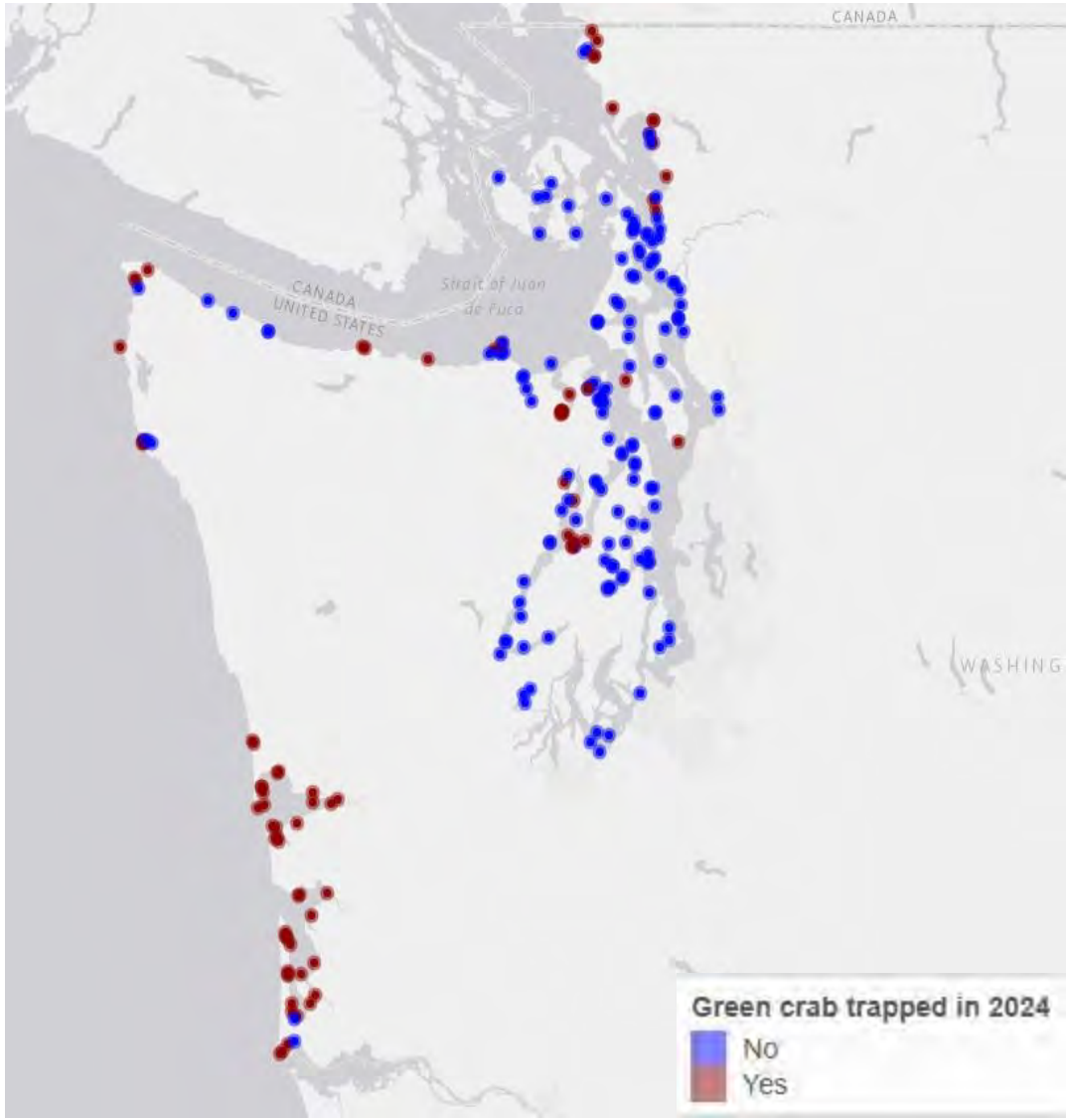
## Port Townsend Team

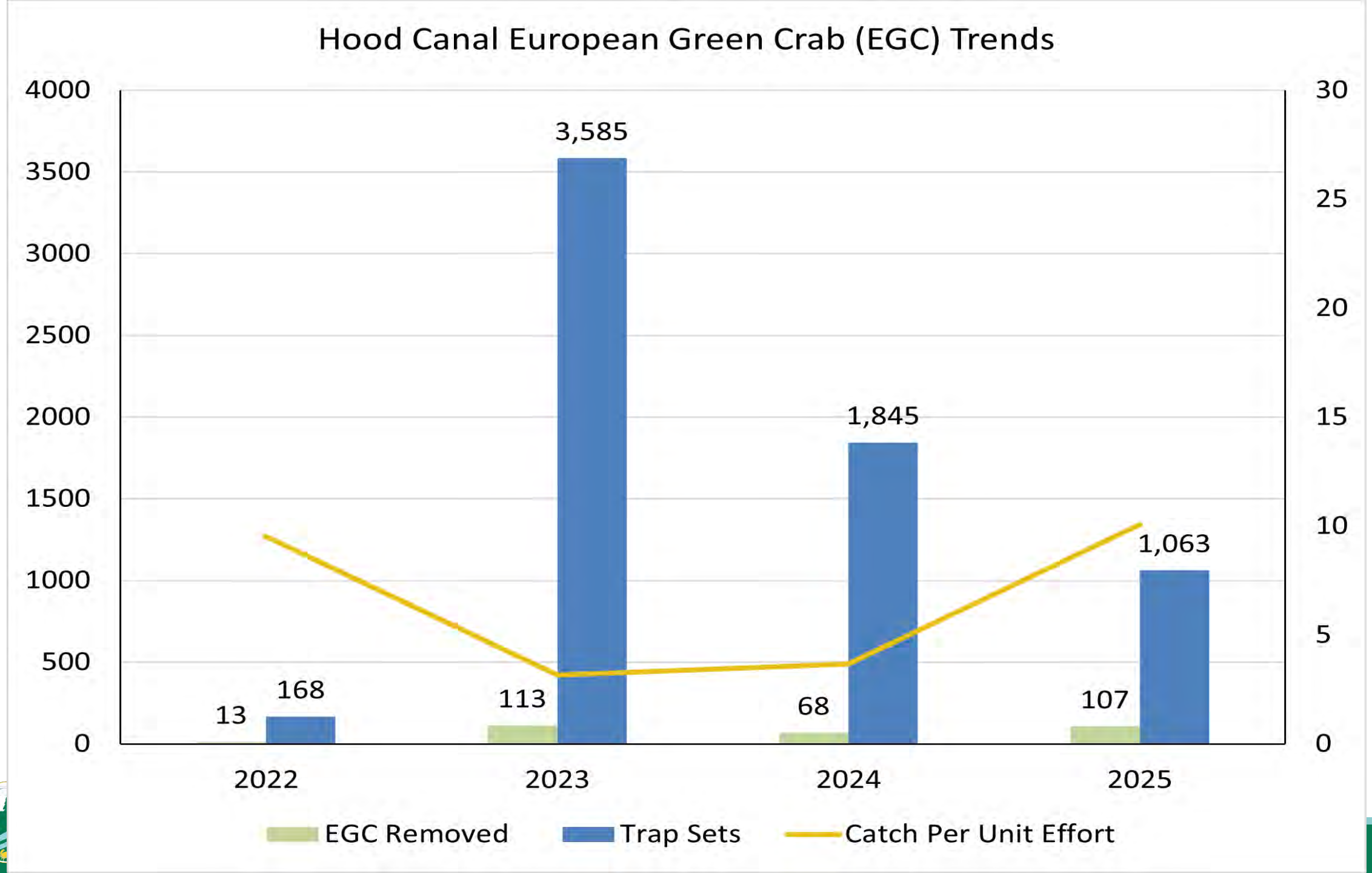

## Olympia Team

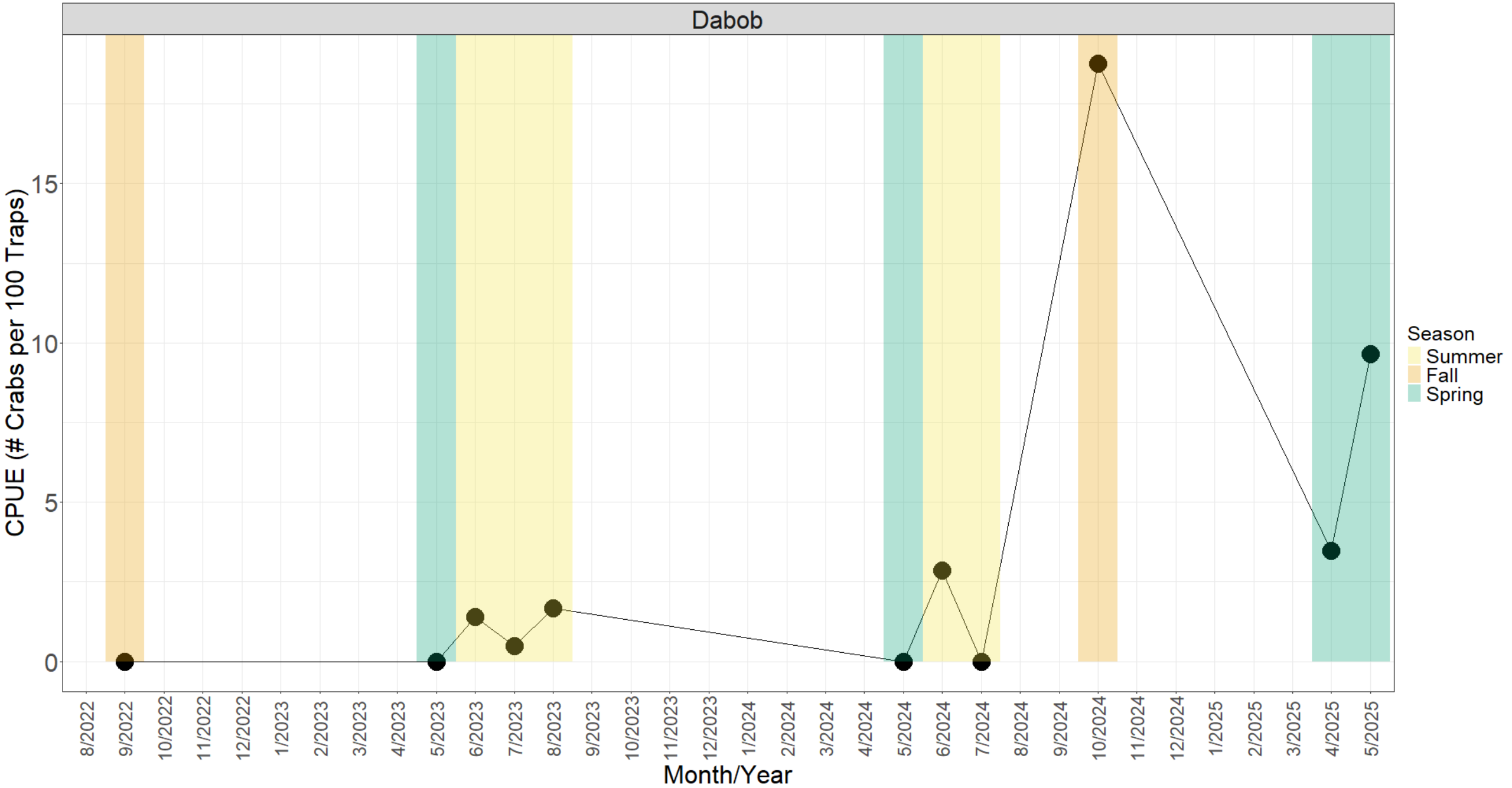
# 2024 Hood Canal



# 2024 Statewide Trapping




Hood Canal European Green Crab (EGC) Trends
4000
3500
3000
2500
2000
1500
1000
500
0
30
25
20
15
10
5
0
3,585
1,845
1,063
168
13
113
68
107
2022
2023
2024
2025
EGC Removed
Trap Sets
Catch Per Unit Effort


Dabob
CPUE (# Crabs per 100 Traps)
0
5
10
15
8/2022
9/2022
10/2022
11/2022
12/2022
1/2023
2/2023
3/2023
4/2023
5/2023
6/2023
7/2023
8/2023
9/2023
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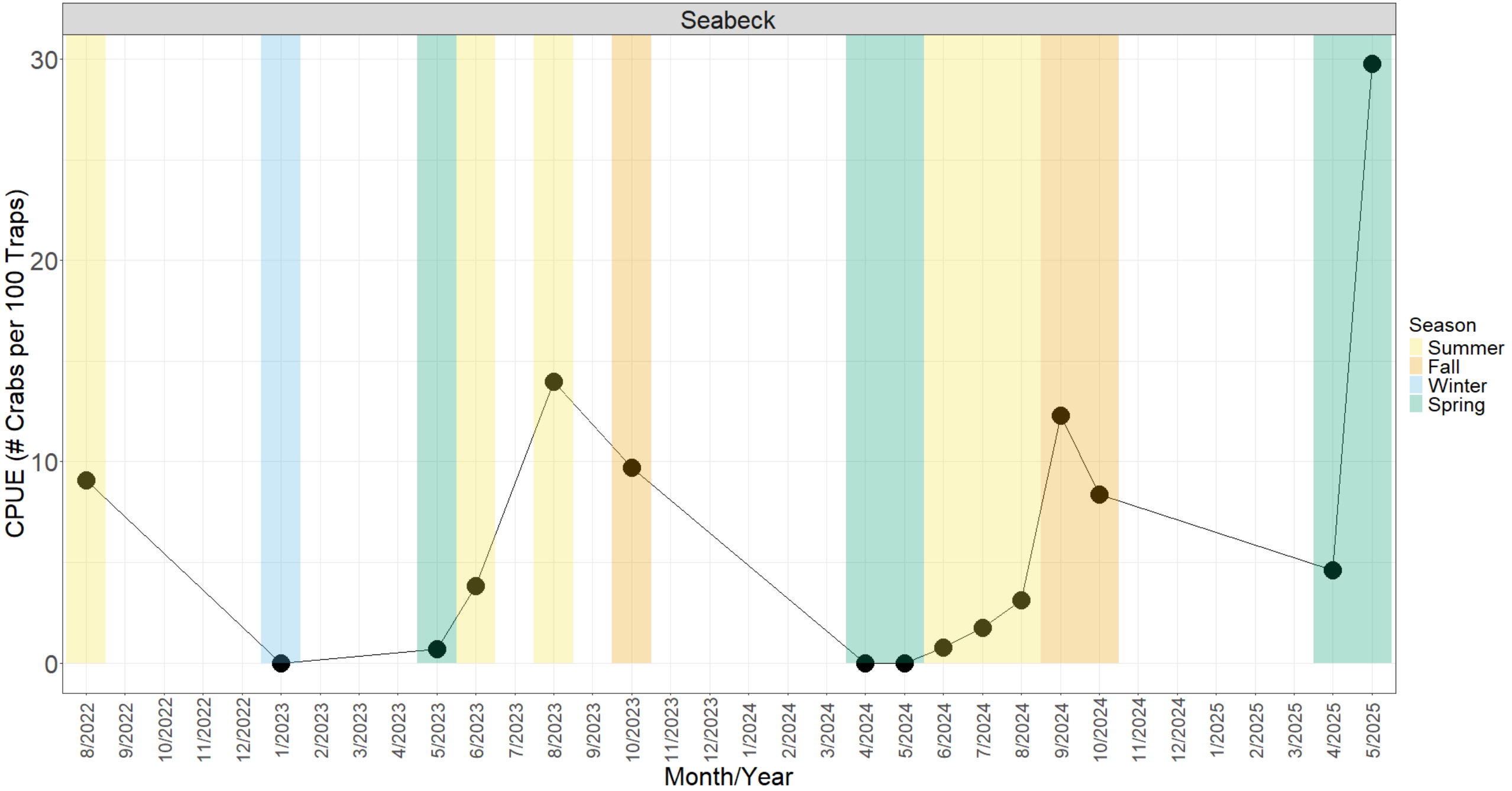
1/2025
2/2025
3/2025
4/2025
5/2025
Month/Year
Season
Summer
Fall
Spring


Seabeck
CPUE (# Crabs per 100 Traps)
30
20
10
0
8/2022
9/2022
10/2022
11/2022
12/2022
1/2023
2/2023
3/2023
4/2023
5/2023
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4/2025
5/2025
Month/Year
Season
Summer
Fall
Winter
Spring

# If you remember one thing…

Green crabs remain an emergency in Washington and beyond.

Much of Washington remains uninvaded.

If you think you find one, please report it

- Online at wdfw.wa.gov/greencrab
- Via email at ais@dfw.wa.gov
- Via phone at 1-888-WDFW-AIS
- Washington Invasive Species App

# Questions?

Natalie Otto
Salish Sea Regional Biologist
Natalie.otto@dfw.wa.gov

# Resources

## WDFW EGC Webpage

https://wdfw.wa.gov/species-habitats/invasive/Carcinus-maenas

*Includes detailed information about EGC, public updates, outreach materials and other resources, and the emergency response coordination.*

## EGC Hub

https://wdfw-egc-hub-wdfw.hub.arcgis.com/

*Includes the most recent information about catch numbers around the state and participating co-managers, tribes, and partners*

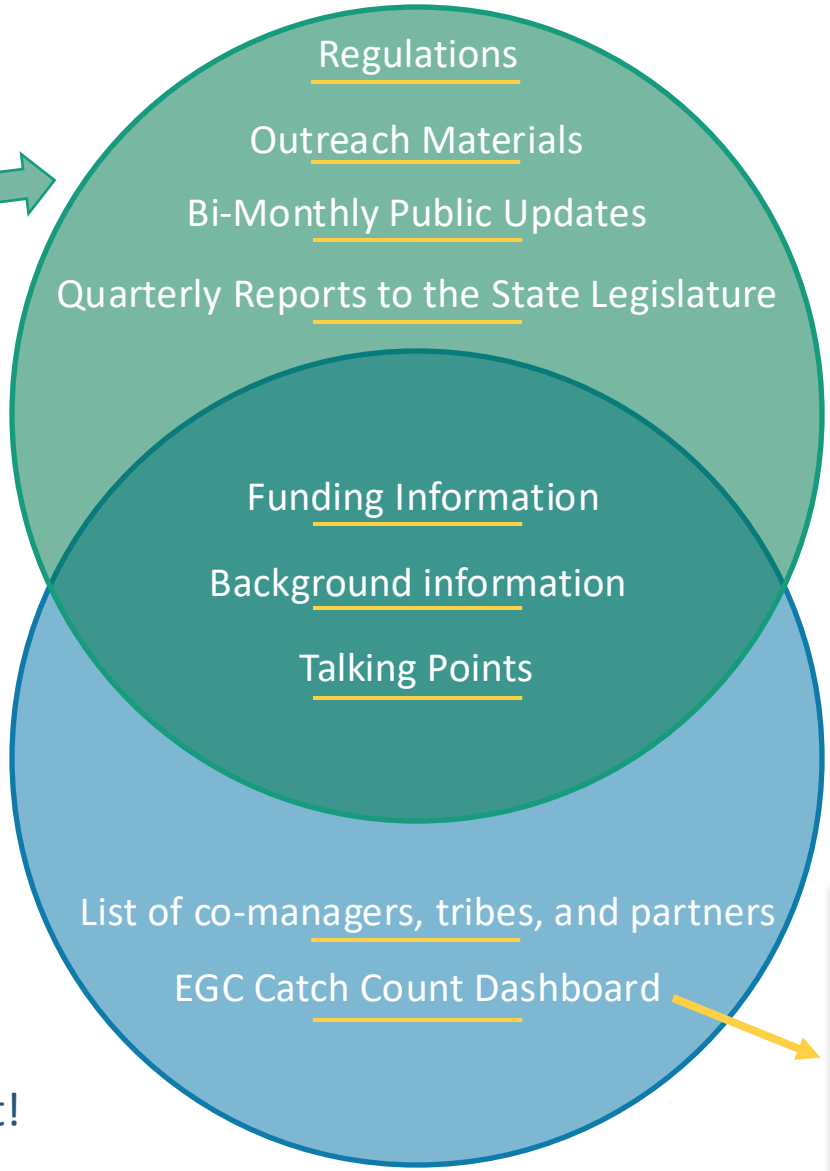
## EGC Reporting Form

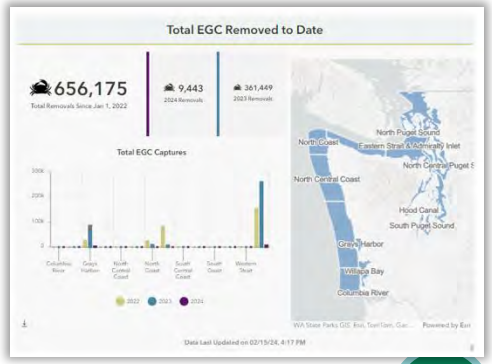
https://wdfw.wa.gov/greencrab

*Webpage intended for the public including EGC reporting and identification*

## Sign up for the WDFW EGC Management Updates email list!

*https://wdfw.wa.gov/about/lists*





**Contact**

**Lindsey Parker**

**Chase Gunnell**

*Communications Manager*

*EGC Public Information Officer*

*chase.gunnell@dfw.wa.gov*

**WDFW AIS Unit**

1.888.WDFW.AIS

(1.888.933.9247)

*ais@dfw.wa.gov*

SKOKOMISH WATERSHED ACTION TEAM

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# Innovations in Livestock Management: Virtual Fencing

Rebecca Anderson Bellanca, USDA Natural Resource Conservation Service

USDA Natural Resources Conservation Service
U.S. DEPARTMENT OF AGRICULTURE

# USDA - NRCS Fence Opportunities 2025

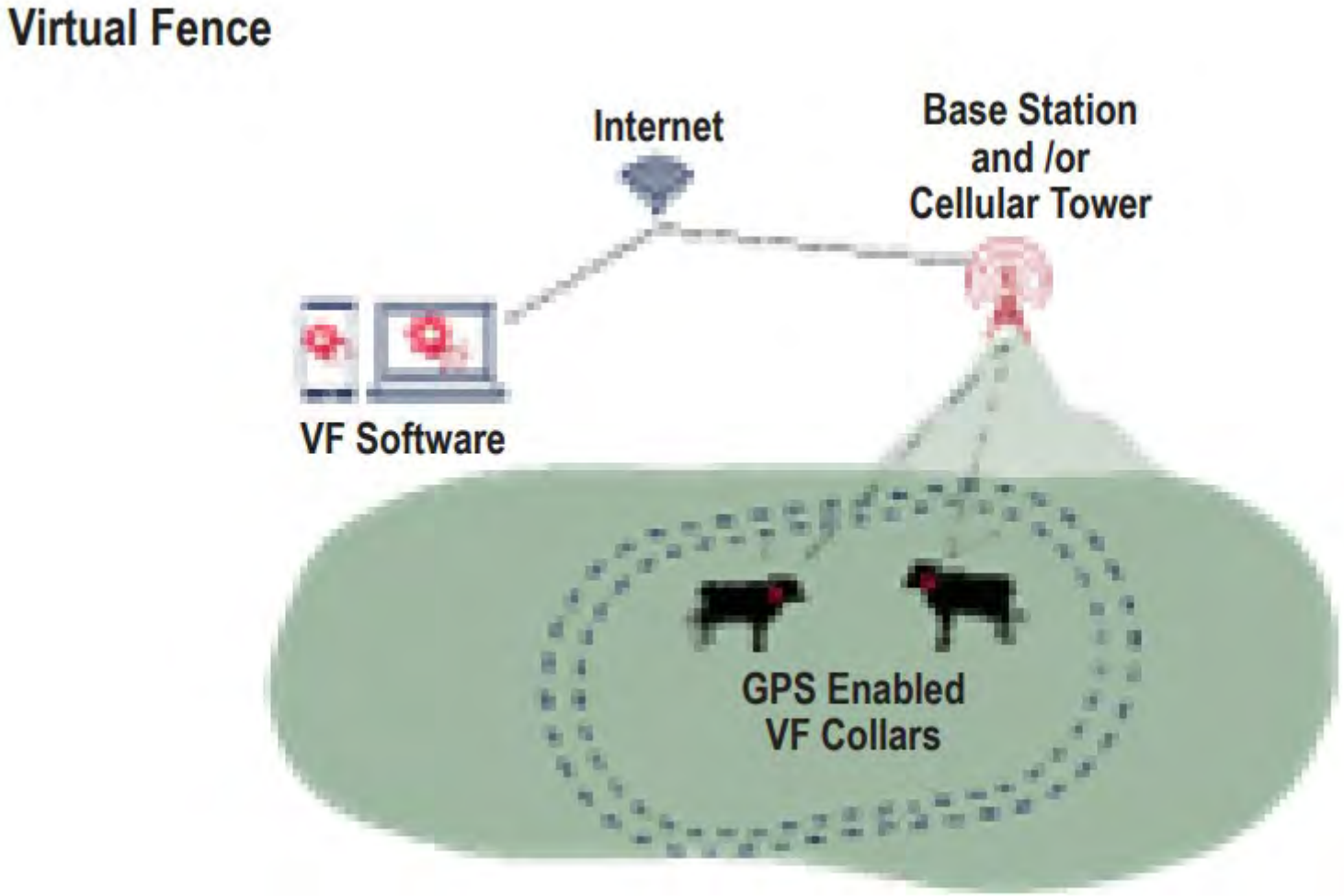
*Rebecca Anderson Bellanca*

**FARM PRODUCTION AND CONSERVATION**
**FSA | NRCS | RMA | Business Center**

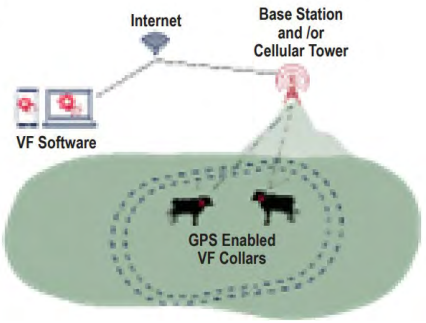
# Topics

- Fence - Portable Electric Fence (scenario)
- Fence - Virtual Fence (scenario)

# Fence – Virtual Fence

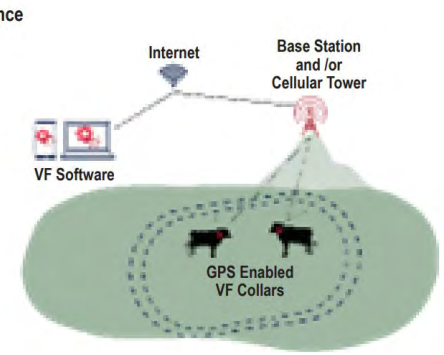


# Fence – Virtual Fence



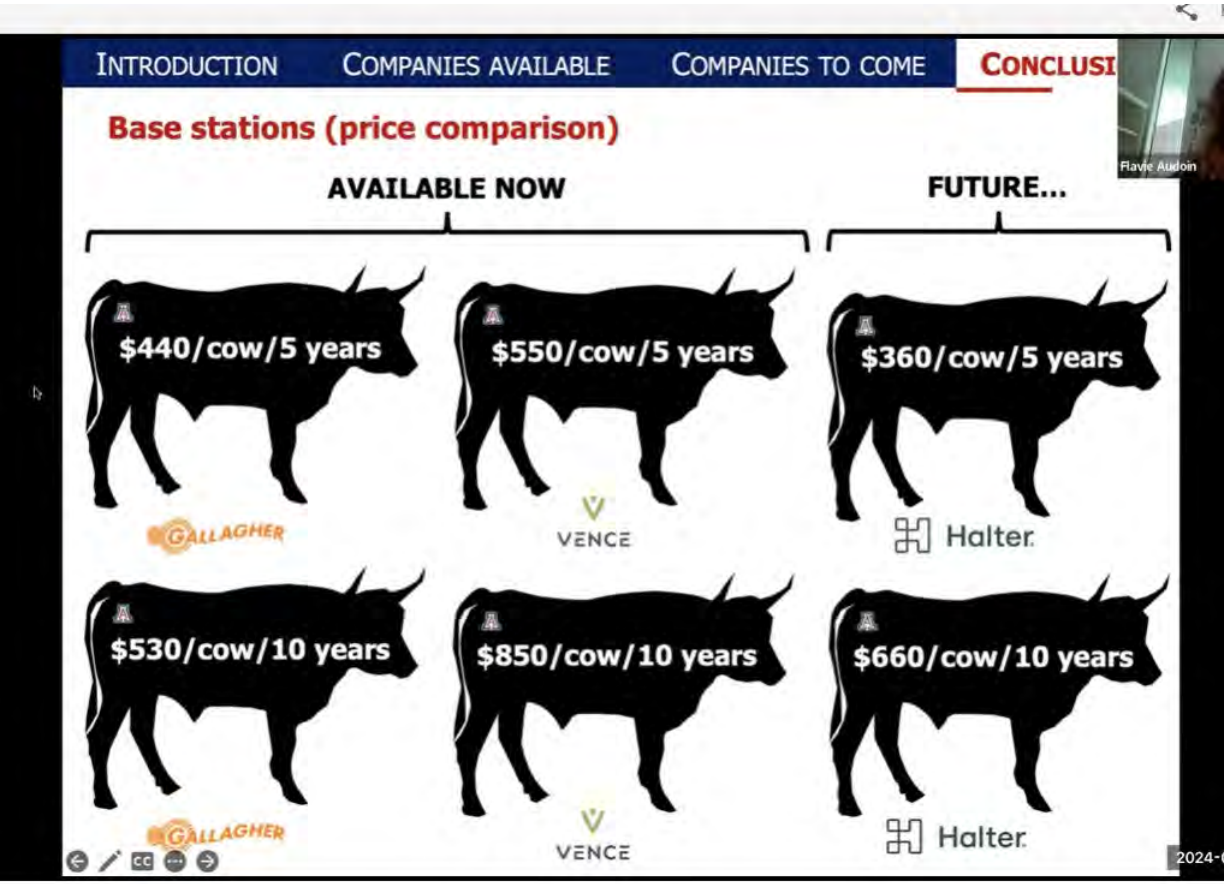

- 3 components
  - GPS
  - Collar
  - Device
- Batteries
- Cell network, internet, base stations
- Boundaries

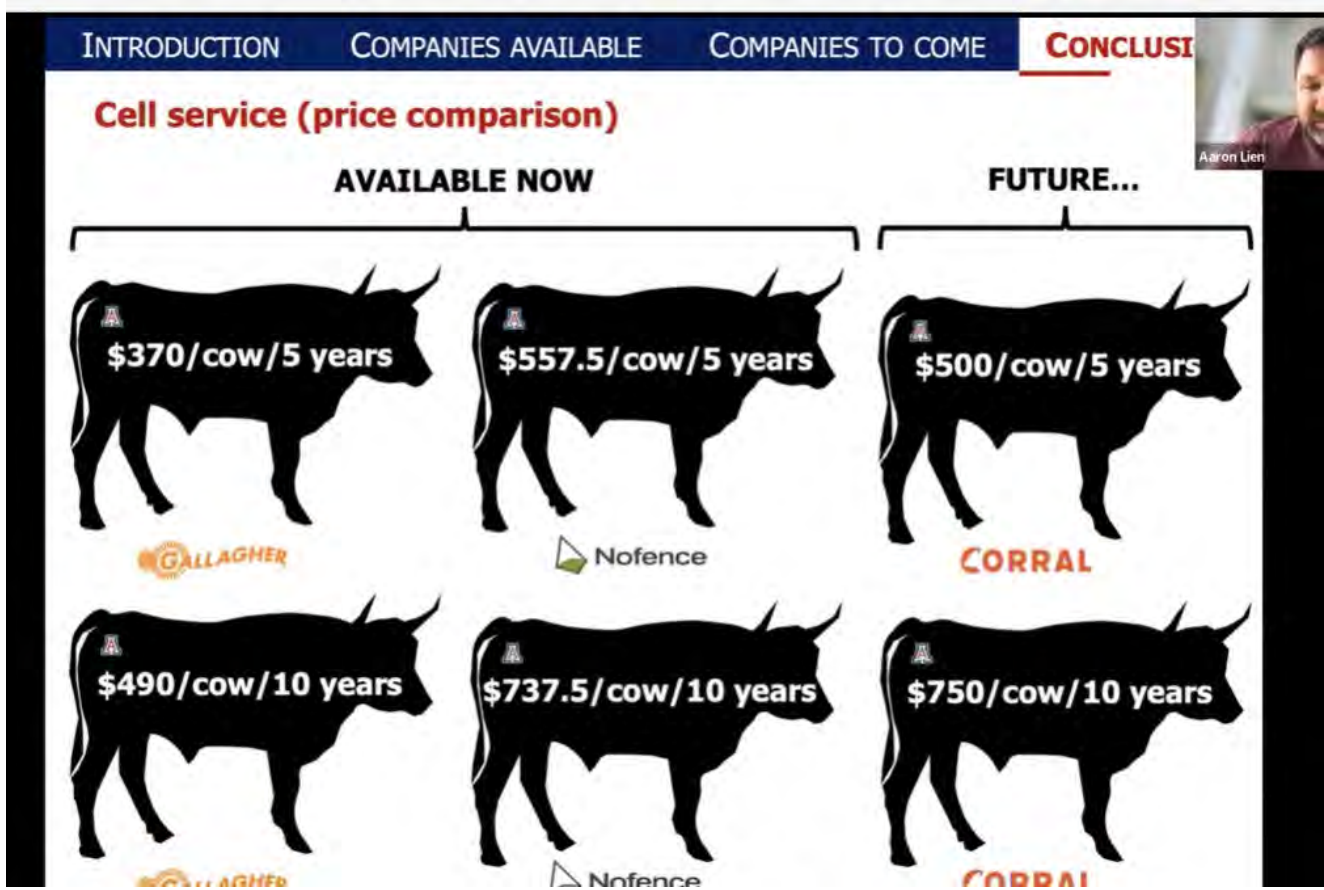
# Fence – Virtual Fence




| Pros | Cons |
| --- | --- |
| • Increased control<br>• Timing, intensity, duration, frequency<br>• Implement grazing systems: Rotational, targeted, cover crop/aftermath, sensitive areas<br>• Easy to modify<br>• Changing ecological conditions<br>• Decrease labor, time, financial investments | • Technology<br>• Costs<br>• Train livestock<br>• Handle livestock<br>• Still need some physical fences<br>• Not 100% containment |

# Fence – Virtual Fence



| | | | | | | |
|---|---|---|---|---|---|---|
| Washington | Mason WA EQIP-1 | 382 | Fence | Virtual Fence, Startup Year One, 51 to 199 Animals | No | 163.11 |
| Washington | Mason WA EQIP-1 | 382 | Fence | Virtual Fence, Startup Year One, Greater Than or Equal to 200 Animals | No | 105.87 |
| Washington | Mason WA EQIP-1 | 382 | Fence | Virtual Fence, Startup Year One, Less Than or Equal to 50 Animals | No | 306.48 |
| Washington | Mason WA EQIP-1 | 382 | Fence | Virtual Fence, Startup Year One, Sheep or Goat | No | 259.38 |
| Washington | Mason WA EQIP-1 | 382 | Fence | HU-Virtual Fence, Startup Year One, 51 to 199 Animals | No | 195.72 |
| Washington | Mason WA EQIP-1 | 382 | Fence | HU-Virtual Fence, Startup Year One, Greater Than or Equal to 200 Animals | No | 127.04 |
| Washington | Mason WA EQIP-1 | 382 | Fence | HU-Virtual Fence, Startup Year One, Less Than or Equal to 50 Animals | No | 367.78 |
| Washington | Mason WA EQIP-1 | 382 | Fence | HU-Virtual Fence, Startup Year One, Sheep or Goat | No | 311.26 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Washington | Mason WA EQIP-1 | 528 | Prescribed Grazing | HU-Virtual Fence Adaptive Management, Years 2-5 | No | 92.06 |
| Washington | Mason WA EQIP-1 | 528 | Prescribed Grazing | Virtual Fence Adaptive Management, Years 2-5 | No | 76.72 |

# What's the Process?

*Approximate Timeline*

| | |
|---|---|
| • Contact NRCS<br>• Field Visit<br>• Applications year round<br>• Contact FSA (Farm Service Agency)<br>• Create Conservation Plan | • Anytime during the year |
| • Application Deadline and Batching | • October 2025 |
| • NRCS Ranks Applications | • February 2026 |
| • Notification of Funding | • March/April 2026 |
| • Sign Contract | • June 2026 |
| • Complete practices, get reimbursed | • As completed |

# Fence – Portable Electric

- Grazing and vegetation management
- Need grazing plan
- Manufacturer recommendations
- Electronet, polywire
- Lifespan: 10 years
- Type of system: Based on livestock, length of run, power availability
- All requirements / changes must be approved by NRCS

# Fence – Portable Electric

| Inventory / Plan | |
|---|---|
| Livestock type, number, herds | Bracing |
| Ground system (rods, rod wire, rod clamps) | Accessories (handles, guides, stands, warning signs) |
| Fence height | Gates |
| Insulators | Wire (number strands, spacing, type, splicing, tension) |
| Energizer | Reels (type, number, length) |
| Posts & spacing | Net (horizontal & vertical wires) |
| Tumblewheels | Conductivity description |
| Offsets | Number of net rolls needed, length |
| Wildlife structures & flagging | Grazing Plan |

# Fence – Portable Electric

- Reimbursement Rates – FY 2025

| | | | | | | |
|---|---|---|---|---|---|---|
| Washington | Mason WA EQIP-1 | 382 | Fence | Electric, Portable | Ft | 0.79 |
| Washington | Mason WA EQIP-1 | 382 | Fence | HU-Electric, Portable | Ft | 0.95 |

# Conclusion

- Fence – Portable Electric Fence (scenario)
- Fence – Virtual Fence (scenario)

Thank you!

Rebecca.Anderson@usda.gov

Sean.McDonagh@usda.gov

SKOKOMISH WATERSHED ACTION TEAM

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# Hood Canal Tourism

Rachel Hansen, Explore Hood Canal/Mason County Tourism Coordinator

EXPLORE HOOD CANAL & THE IMPACT OF VISITORS

# DO WE NEED TOURISM?

Presented by:
Rachel Hansen, NW Event Org.
Tourism Coordinator for Mason County

June 25, 2025

# TO PROMOTE COMMUNITY confidence & growth.

economic drivers

storytellers

credible crisis managers

keepers of brand & image

# PURPOSE

## Meet the evolving needs of tourism

"Today's consumers crave authentic experiences, venturing into pastimes that feel more meaningful."

# TOURISM ASSETS

Festivals and Events  10 major and multiple regional throughout the year
Olympic National Park 2,947,503 (2023)  | Olympic National Forest
Washington State Parks (7) 1648764 visitors /year  | Mason County Parks (20)
Public Golf Courses (5) | Disc Golf
Extensive Trail System land and water – for biking, hiking, walking, riding, and paddling
Agritourism land and sea, including Shellfish Trail with public harvesting regularly stocked
Sports Recreation | fishing & hunting  | Bird Watching
Boating and Water-based Activities
Ridge Motorsports  400+ events annually; 100K+ participants and spectators
Skydive Kapowsin  30,000+ jumps annually
Scuba Diving unique underwater biomes on Hood Canal.

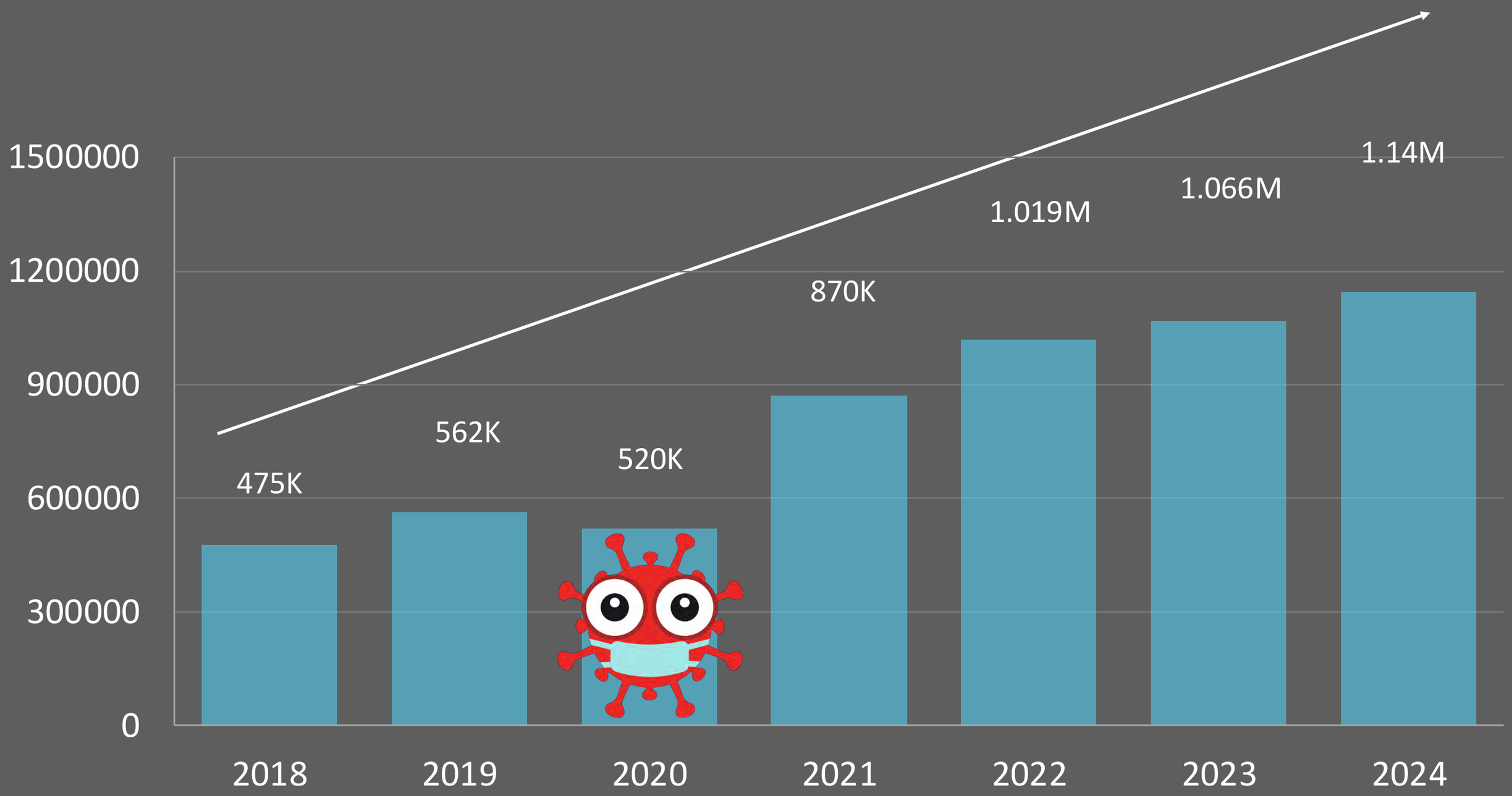
**1** **DESTINATION MARKETING:**
Improve, expand and diversify targeted seasonal promotions to elevate awareness of the Olympic Peninsula and the incredible variety of reasons to visit during every month of the year.

**2** **DESTINATION & COMMUNITY DEVELOPMENT:**
Create and/or enhance tourism infrastructure, visitor experiences, amenities and services to increase overall industry capacity to attract higher visitor spending during spring, fall and winter.

**3** **PUBLIC-PRIVATE SECTOR ALIGNMENT:**
Enhance how the tourism industry and local/regional governments work together to identify opportunities for local small business development and responsible growth around a shared vision for the future.

# TOURISM

LODGING TAX
REVENUES

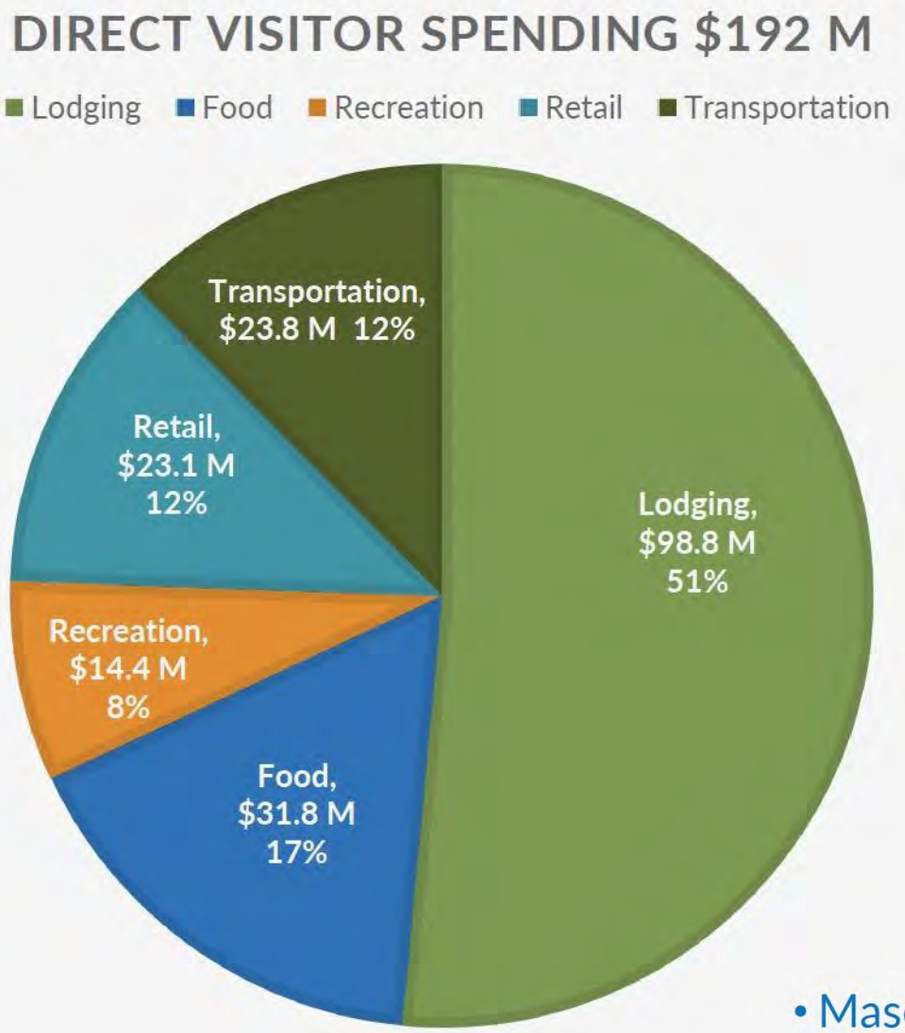


# TOURISM

ECONOMIC IMPACT
LOCALLY

## VALUE OF TOURISM TO MASON COUNTY

### Visitors Save Locals Money




- Direct Visitor Spending: **$192 M** (+3.9%)
  - Lodging $98.8 M
  - Food / Beverage: $31.8 M
  - Recreation: $14.4 M
  - Retail: $23.1 M
  - Transportation: $23.8 M
- Direct State/Local Taxes Generated: **$12.5 M**
- Visits: **1,195,000** (+1.3%)
- Direct Employment: **693**
  - Represents 3.3% of all county employment
- Direct Labor Income: **$36.5 M**

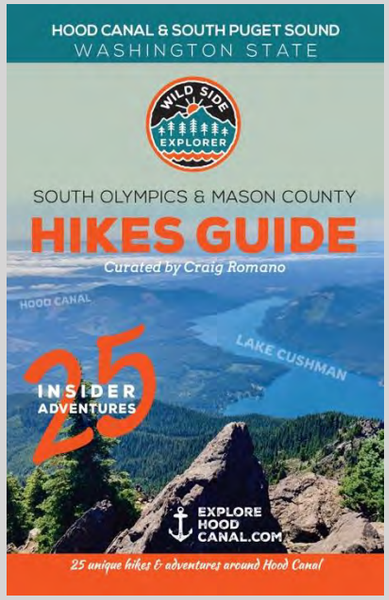
*Source: Tourism Economics for SWT*

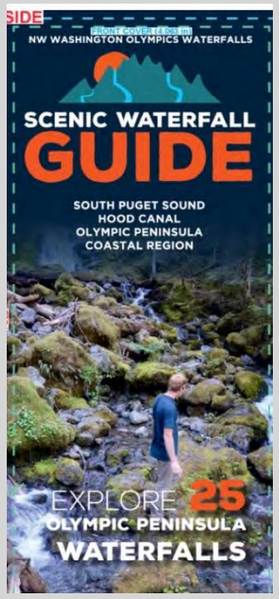
- Mason: $492

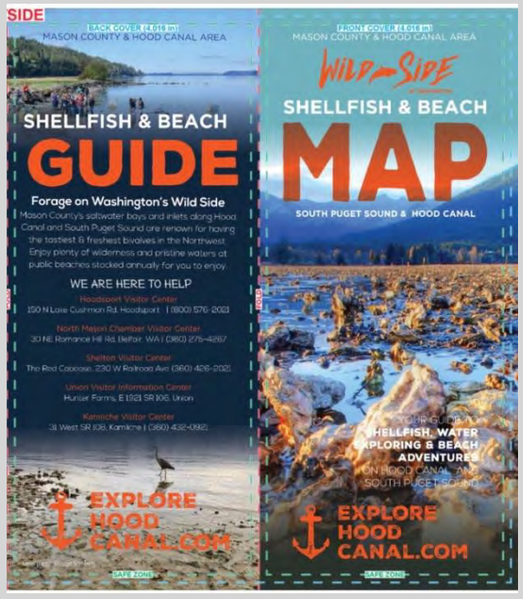
Tax savings per county household:

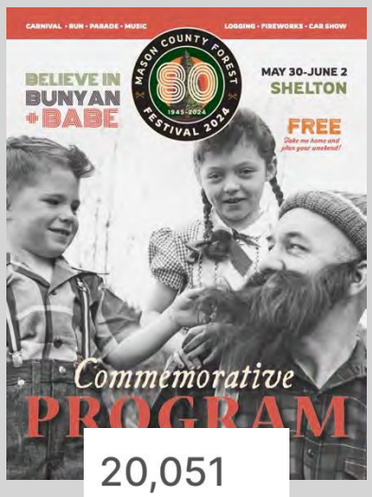


"sustaining the things we love and need."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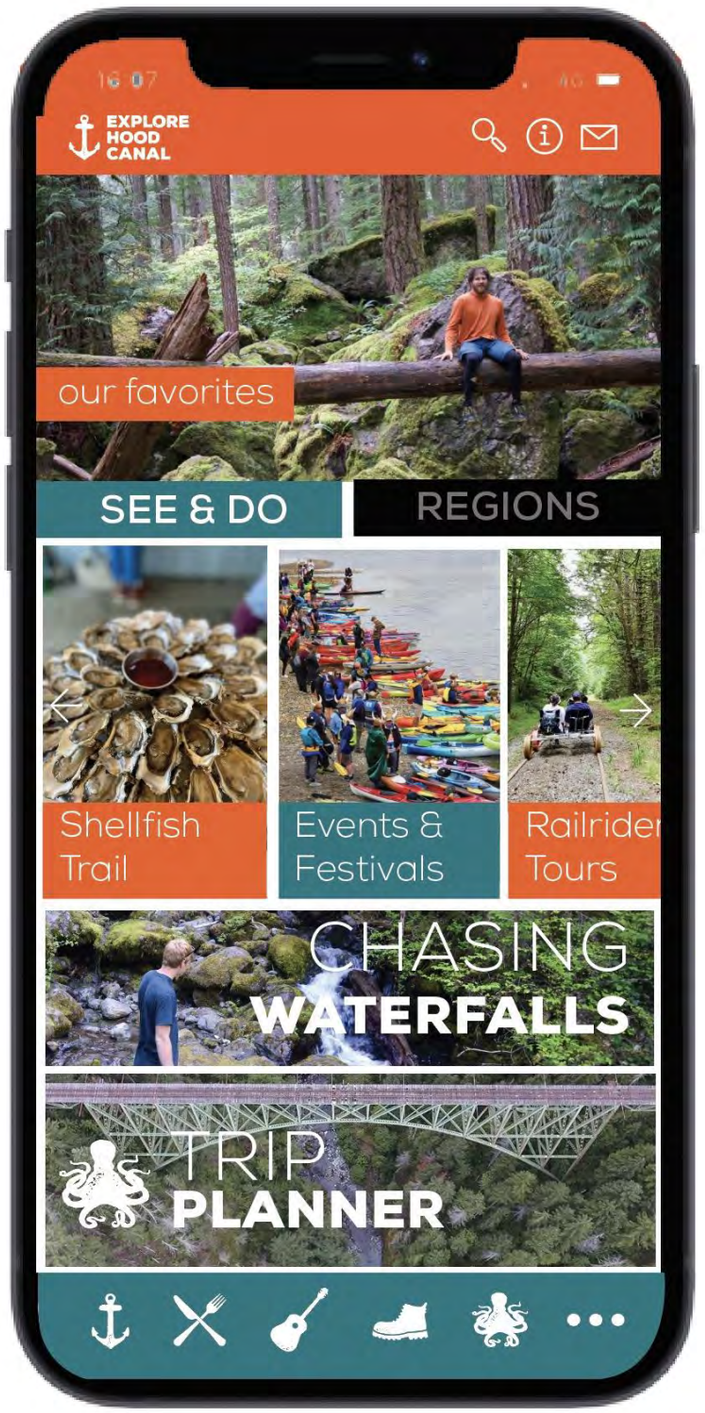




WILD SIDE
OF WASHINGTON

OCRE SEA STAR

Learn more

Mason County's Marine Creatures

# SEA STARS

STORY & PICTURE BY THOM ROBBINS

Starfish have no brains or blood. They digest food outside their bodies and can regrow lost arms—even a whole new starfish from one arm. There are about 2,000 sea star species worldwide, with over 30 found nearby. Starfish are echinoderms, along with sea urchins, sand dollars, and sea cucumbers. These animals have five arms (sometimes more) arranged in a radial pattern. They have an internal skeleton made of calcium carbonate plates.

Instead of blood, stars use seawater in their vascular system. This system helps them move by extending and pulling back tiny tube feet on their arms, which act like suction cups. This lets them crawl, stick to rocks, and climb. They also eat in a unique way. After opening a shell a little, they push their stomach out of their body and into the shell, turning the prey into liquid so they can suck it in. Starfish can regrow lost arms. Sometimes, a part of an arm with part of the central body can even grow into a whole new starfish.

The life of a starfish starts with spawning. During breeding, species like the Giant Pink Starfish release many sperm and eggs into the water, where fertilization happens. The fertilized eggs drift with ocean currents as plankton. When they hatch, starfish are tiny, free-swimming larvae. These larvae are small and see-through, moving with tiny hairs called cilia. After weeks or months, they change through metamorphosis, settling on the sea floor and becoming juvenile starfish. They grow their star shape and tube feet to move and find food. Some, like the Red Sea Star, can live up to 20 years.

### STARFISH OR SEA STARS?

Although "STARFISH" remains the more popular term in everyday language, without scales, fins, and gills, "SEA STARS" are not actually fish. Scientists prefer to use "sea star" to reflect their nature.



Sea stars are important in coastal areas, where they keep different species in check. They can survive strong waves, heat, and dryness during low tides, but during the 2014-2016 heatwave, warmer water weakened them and made them vulnerable to sea star wasting disease. Researchers are working to fight this by breeding disease-resistant sea stars. Some places raise young sea stars in captivity and release them to boost wild populations and add stronger individuals. This disease caused a 90% drop in Sunflower Star numbers on the Pacific Coast by 2021. This shows how important it is to protect these key sea animals. Breeding resistant starfish and watching their health are vital to help them survive.

## Meet *just* a few *(of the 30)* local STARS



BASKET STAR · BLOOD STAR · BRITTLE STAR · BURROWING SEA STAR · GIANT PINK SEA STAR · GIANT SEA STAR

LEATHER STAR · SHORT SPINED SEA STAR · PINCUSHION SEA STAR · ROSE STAR · SUN STAR · VERMILION STAR

WILD SIDE OF WASHINGTON

EXPLORE HOOD CANAL.COM

Mason County's Timber Heritage

## The Crosscut Saw

The **crosscut saw,** a key tool for felling trees and settling the Pacific coast, appeared in Europe in the mid-15th century and was made in America by the mid-1800s. It was used by two workers, known as "fellers," who each held one end of the saw. This tool had a thin blade with teeth designed to cut against the tree's grain. The fellers would carve notches into the tree and place supports called spring-boards to help them saw. Double-headed axes created an undercut, ensuring the tree fell in a chosen direction. Sawing the tree could take up to a week, followed by the difficult job of cutting the log into movable sections.

From the 1880s to the 1930s, the two-person saws ranging from 4 to 18 feet long "ruled the woods," helping loggers topple countless firs and cedars before being replaced by chain saws by World War II and nearly became obsolete. However, the passage of the Wilderness Act in 1964 has helped restore the dying art of crosscut sawing by effectively requiring their use in wilderness trail maintenance.

EXPLORE HOOD CANAL.COM

Mason County's Timber Heritage

## 'Dinky' Display – Forest Festival 1946

Shelton-Mason County Journal, June 6, 1946 - "Among the interesting features of the recent Forest Festival was the display of Simpson Company locomotives, from the first and original No. 1, 15 tons, to several of the newer and larger engines weighing up to 110 tons."

Engine No. 1, built by H. K. Porter Company, arrived in Shelton in 1885 for the Satsop Railroad, later the Simpson Logging Co. It was officially named "C. F. White" but was affectionately called Dinky.

Dinky was Mason County's first steam locomotive, used for hauling logs and switching duties. It also served longer stints as a supply train and worked in logging camps to handle extra tasks without disrupting regular engines and crews. To prepare for a timeless display at the second Forest Festival, Simpson Logging Co. restored Dinky. Old No. 1, the famous C. F. White, was rebuilt by Simpson Logging Company under George Dunkle's direction. The Simpson Timber Company records for plans and new parts."

After the festival, Dinky was moved to Camp Grisdale, a new logging community, where it was displayed for around 40 years.

In 1985, Camp Grisdale was demolished, leaving Dinky without a place. Dave Skagen, a locomotive engineer, and Bill Parsons decided to restore the locomotive. The restored black and red Dinky was displayed in downtown Shelton during the 1989 Forest Festival.

In 1995, at 110 years old, Dinky was moved to Auburn, where it was displayed with a caboose and ballast car outside the Supermall of the Northwest. Dinky stored at the mall until around 2013, when it was transported by truck to the Mount Rainier Scenic Railroad in Elbe.

Adapted from an article in Shelton-Mason County Journal, Author: Jean Pratsch

WILD SIDE EXPLORER

EXPLORE HOOD CANAL

BENEATH THE SURFACE

Mason County's Marine Creatures

## Meet the Giant Pacific Octopus (GPO)

STORY & PICTURE BY THOM ROBBINS

The GPO (*Enteroctopus dofleini*), at depths of up to 8,600', is a large and mysterious octopus species. Though they live only 3-5 years, they are among the longest living octopuses, at up to 16' and over 100 pounds.

Giant Pacifics possess cognitive skills akin to a two-year-old child, with the dexterity of opening jars. Their central brain and arm neural hubs allow for complex behaviors and independent movement.

Their diet includes crabs, shrimp, clams, fish, and mussels, even sharks, consuming 2-3% of their body weight daily. The Giant Pacific Octopus (GPO), changes color like seahorses and lizards. This ability allows it to be a master of camouflage. Facilitated by pigment cells beneath the skin that connect to the nervous system for precise control, muscular contractions adjust shade - expanding for darker colors or contracting for lighter.

Blue blooded, they have eight arms, three hearts, and a complex nervous system. Two hearts pump blood through the gills and the third circulates it. The octopus's mouth is a beak that acts like scissors, capturing and cutting prey. Saliva secretes corrosive liquid that softens shells for easier access.

GPOs move primarily by walking and swimming. On the seafloor, they walk using their arms. They swim by drawing water into their mantle and expelling it through a siphon, a process called jet propulsion. Their suckers are capable of holding up to 35 pounds each. With about 280 suckers per arm and eight arms, they can lift around 78,400 pounds.

The lifecycle of the Giant Pacific Octopus features intricate mating rituals where the male performs a dance and transfers sperm. The female stores the sperm, allowing her to choose the time based on conditions and health. After mating, she retreats to her den to lay up to 74,000 eggs. Eggs incubate for up to a year. As eggs mature, the female's health declines, until she dies. Once hatched, larvae drift in the ocean currents during the planktonic stage. They grow and avoid predators before settling on the ocean floor, where they begin their solitary lives.

Giant Pacific Octopus are key species of the Pacific Northwest and faces significant environmental threats to its survival. As a symbol of marine life, the Giant Pacific reflects intelligence, adaptability, as well as ecological importance.

"ENCOUNTERING A GIANT PACIFIC OCTOPUS CURLED AMONG THE ROCKS IS AN UNFORGETTABLE EXPERIENCE. THIS **INTIMATE GLIMPSE OF ONE OF THE OCEAN'S MOST INTELLIGENT CREATURES** LEAVES A PROFOUND SENSE OF AWE AND A DEEP APPRECIATION FOR THE MYSTERIES OF THE MARINE WORLD."


YES. WE DO.

SKOKOMISH WATERSHED ACTION TEAM

Community Meeting

June 25, 2025, 5:00 – 7:00 pm

# Mason County Water Quality Update

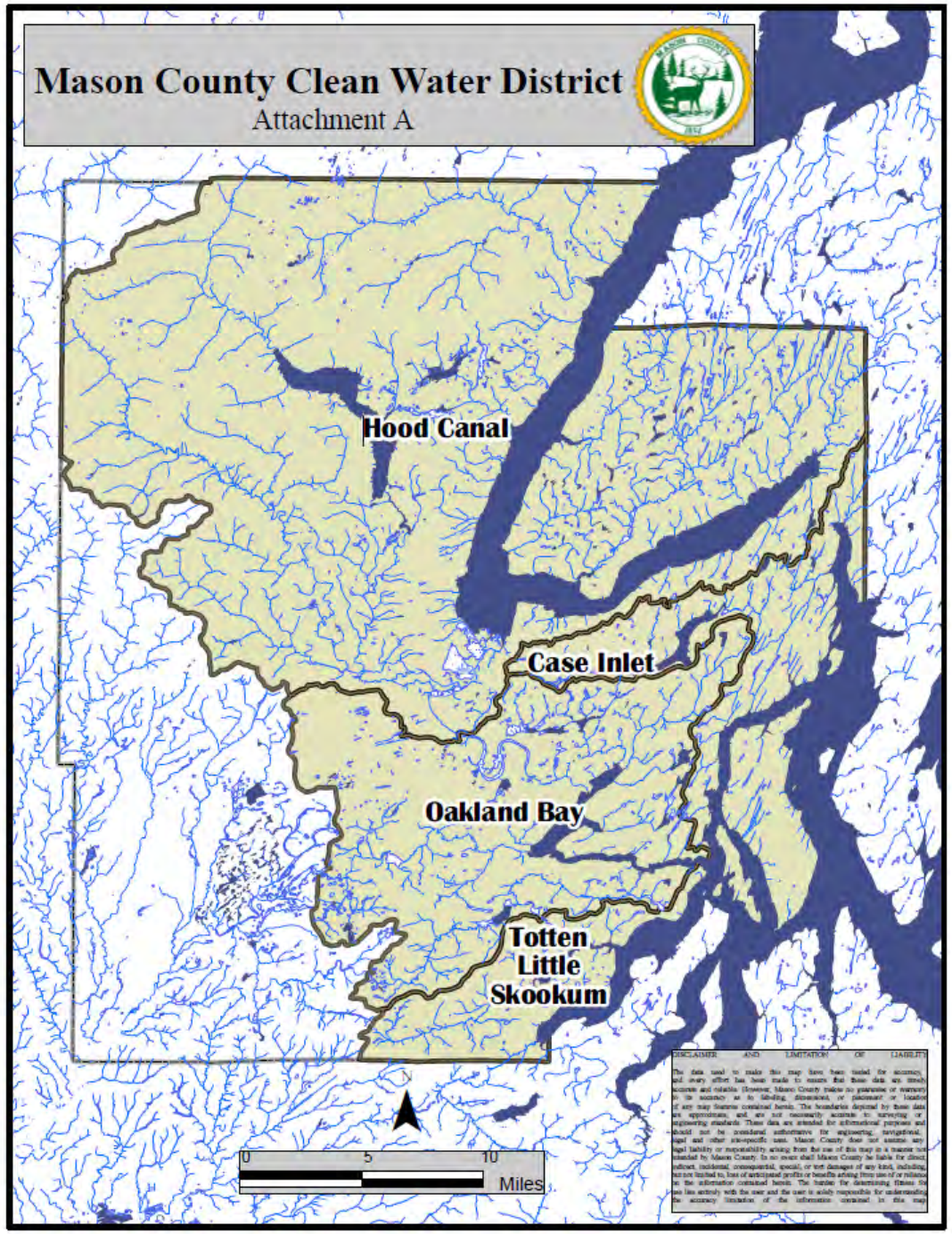
Noah Roland, Mason County Public Health

Michael Marrs, Mason County Public Health

MASON COUNTY
Public Health & Human Services

# Mason County Clean Water District

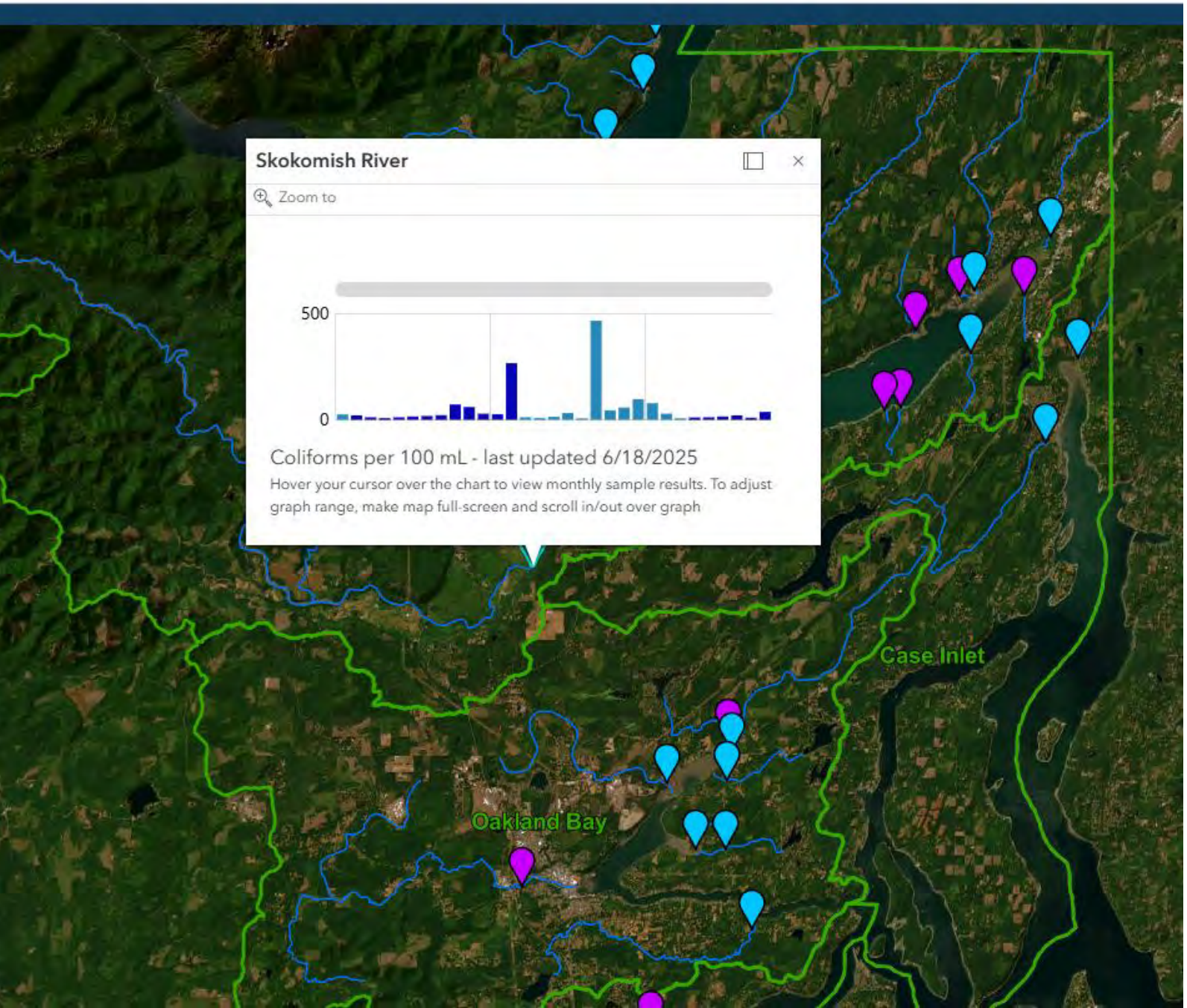
Michael Marrs & Noah Roland



# What We DO:

- Collect monthly ambient water samples from 33 streams throughout the Clean Water District
- Conduct Water Quality Surveys
- Conduct shoreline surveys twice a year
- Follow up with Septic Deficiencies within proximity to surface water
- Conduct Voluntary Dye Tests for suspect failing septic systems
- Collaboration with DOH, Ecology, WDFW, Local Tribes and others

Ambient Monitoring Map

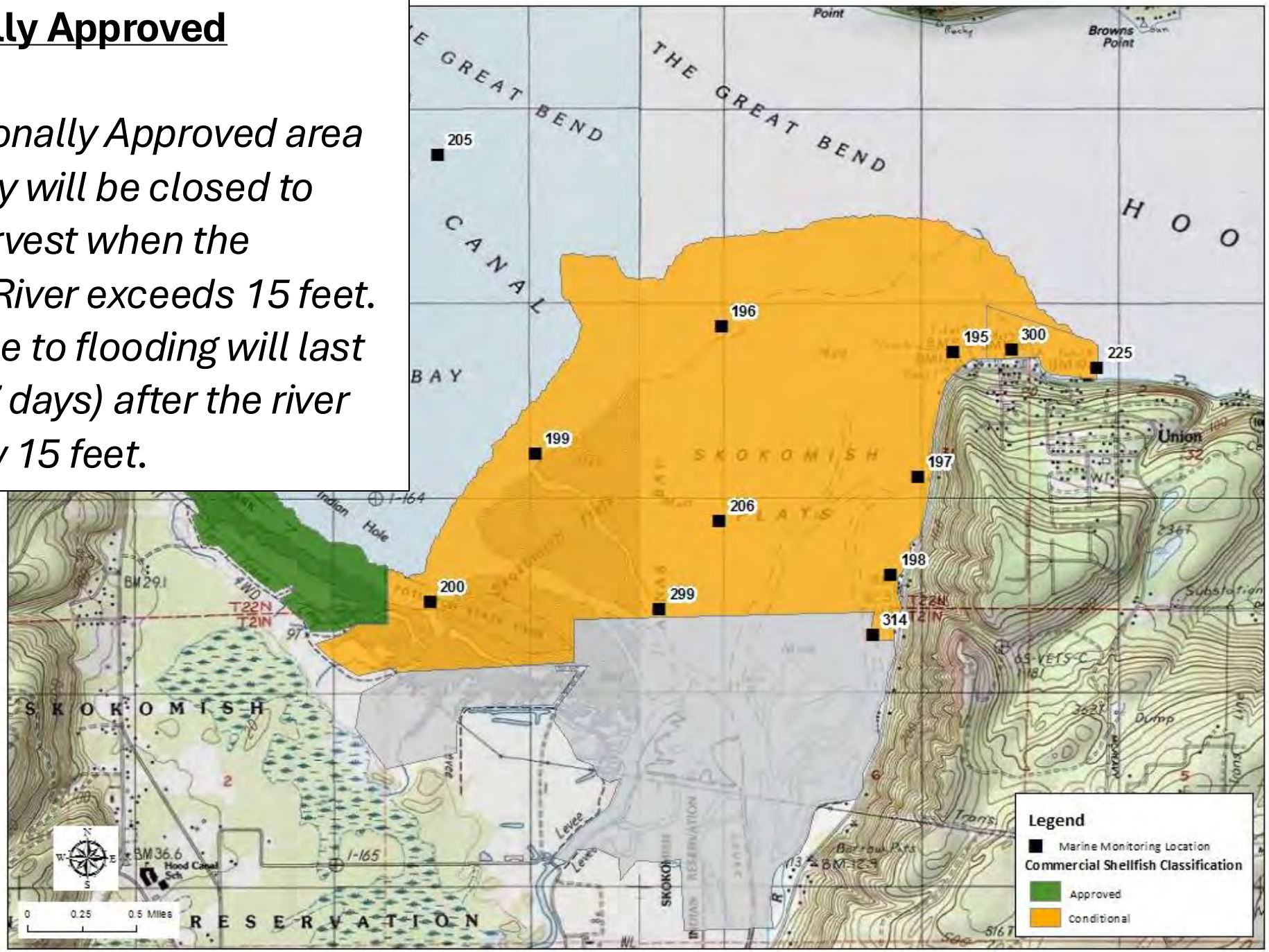



# Ambient Monitoring Web Map

# Mason County, WA

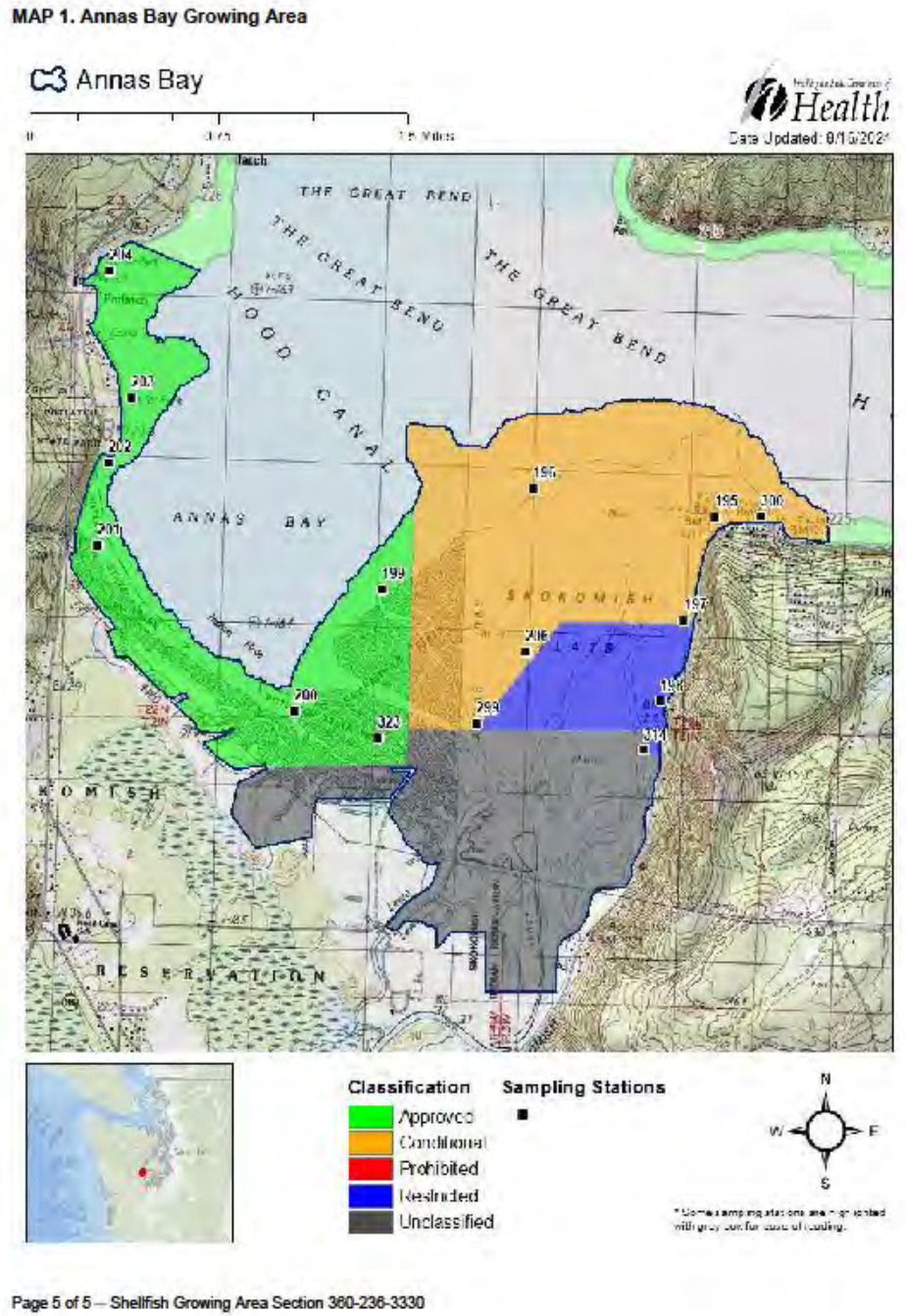
**Conditionally Approved Condition:**

*The Conditionally Approved area of Annas Bay will be closed to shellfish harvest when the Skokomish River exceeds 15 feet. Closures due to flooding will last one week (7 days) after the river drops below 15 feet.*



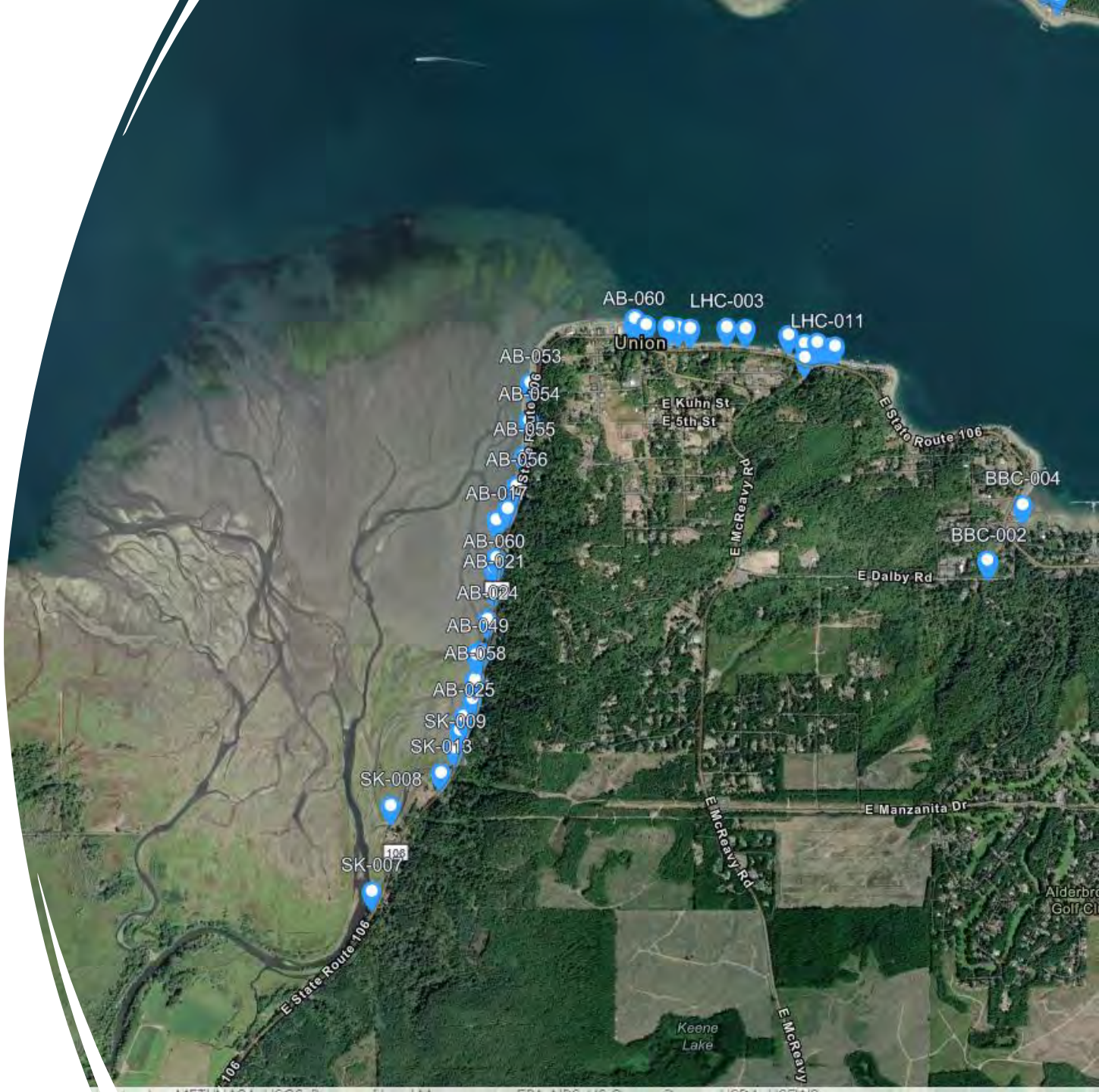
# Current Shellfish Conditions

- State Department of Health was able to open a significant portion on the West side.
- There are still deficient systems on the shoreline that need to be resolved.
- With more Data and decreased pollution Annas Bay will continue to improve.



# Recent Data

- Sampled 25 outflows in April.
- 1 came back above limits in initial sampling.
- Well below limit in confirmation sampling.
- Next shoreline survey planned for July or Early August.



# STRATEGY FOR ANNAS BAY

Monitor Marine & Fresh Water Quality

Control OSS Pollution Sources

Control Agricultural Pollution

Education & Outreach

# Onsite Sewage Maintenance Schedule and Approved Service Providers

| ***Septic System Type*** | | | | |
|---|---|---|---|---|
| Conventional Gravity | Conventional Pressure & Open Bottom Sandfilter | Mound & Sandfilter | ATU, Glendon, Recirculating Gravel Filter, Sub-Surf. Drip & Community Drainfield | Non-Residential Commercial |
| ***Inspection Frequency*** | | | | |
| Every 3 years | Annually | Annually | Annually | Annually, Testing may be required. |
| ***Approved Service Providers*** | | | | |
| Homeowner, Pumper, O/M Specialist | Homeowner, Pumper, O/M Specialist | Homeowner, O/M Specialist | O/M Specialist, Proprietary Device Licensee | O/M Specialist |

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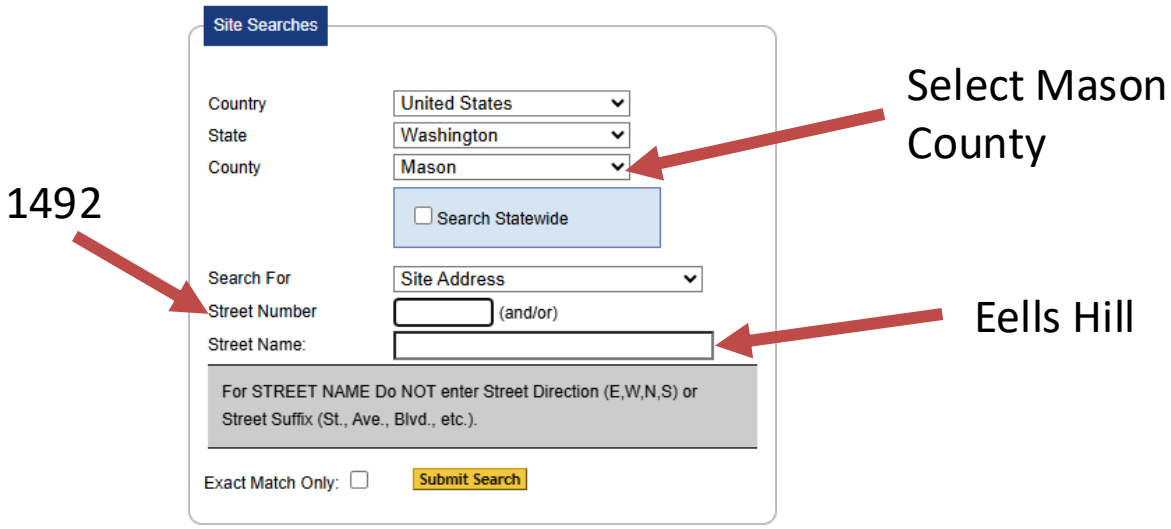
RESPONSIBLE MANAGEMENT ENTITY

Site Search




If your address was 1492 W Eells Hill Rd, you enter: 1492 Eells Hill

# OnlineRME.com

# Service History

Service History

To receive an email when a report is submitted click here 

1

| Date | Report Type | Type | Status | Company | Report | Email Report |
|---|---|---|---|---|---|---|
| 04/16/21 | PUMPING | PUMP | Deficient | B-LINE CONSTRUCTION & EXCAVATION | | |
| 10/15/19 | OSS Inspection | PROPERTY SALE | Deficient | AAA Septic LLC | | |
| 09/05/19 | OSS Inspection | PROPERTY SALE | Deficient | Bamford Septic Repair, LLC | | |
| 02/13/17 | Pumping | Historic: Pumping | OK | AAA Septic Pumpers | | |
| 07/25/11 | Pumping | Historic: Pumping | OK | Northwest Cascade, Inc./dba Flohawks | | |
| 03/26/07 | Pumping | Historic: Pumping | OK | Joes Septic Tank Service | | |

1

SKOKOMISH WATERSHED ACTION TEAM

Community Meeting

June 25, 2025, 5:00 – 7:00 pm

# Skokomish River Restoration Update and Looking Forward for SWAT

Evan Bauder, Mason Conservation District

# Skokomish Confluence Reach Restoration

SWAT

06/25/2025

# Evolution of the Confluence Reach

# Evolution of the Confluence Reach

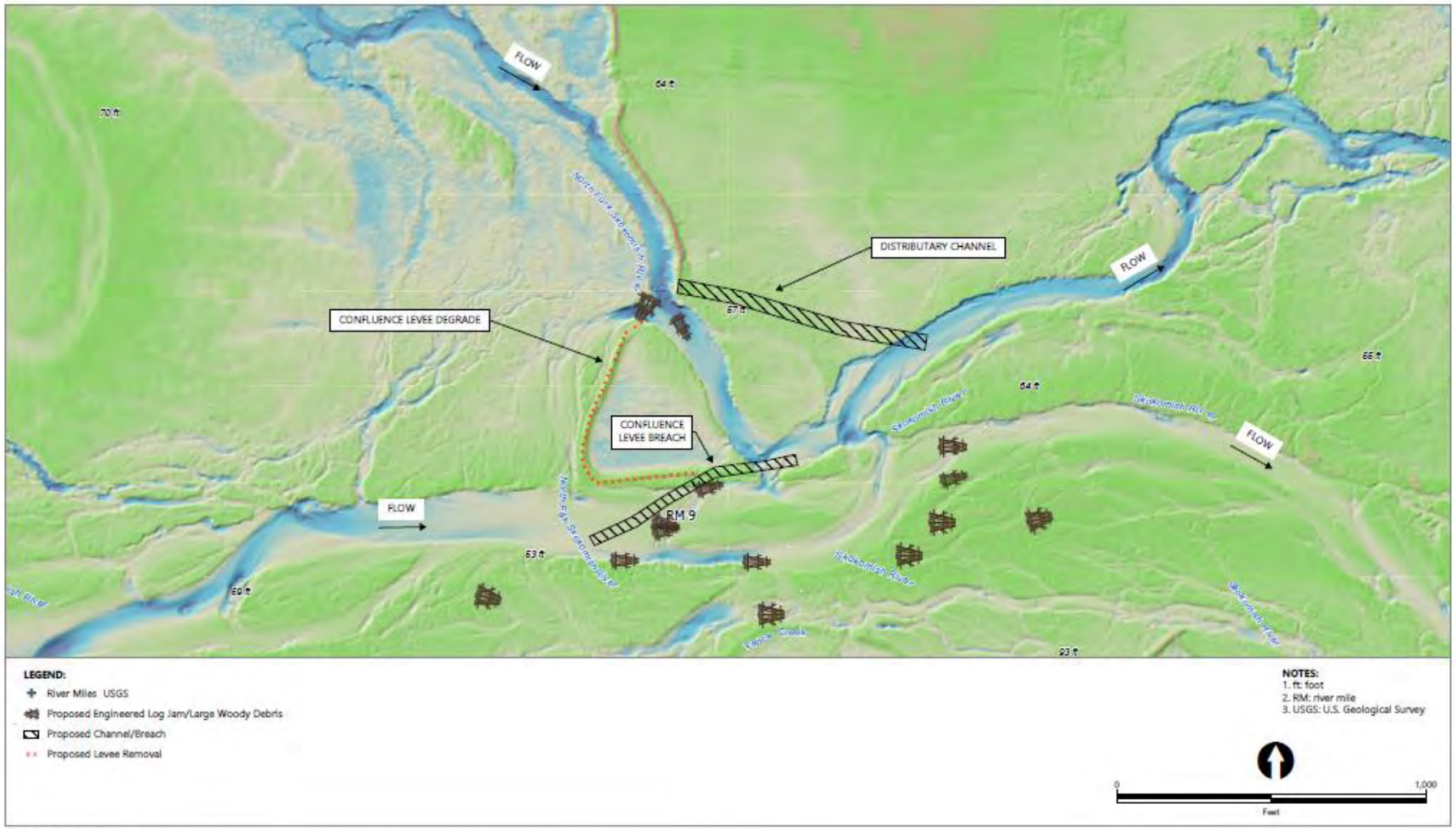
# Evolution of the Confluence Reach

# Evolution of the Confluence Reach

# Existing Conditions


- Unnatural Level of Flooding!!!
- Rising Ground Water
- South Fork Fish Passage Barrier
- Swift Creek Fish Passage Barrier
- Sedimentation in North Fork = Channel Simplification
- Aggradation in Lower Vance Creek
- Fish Stranding

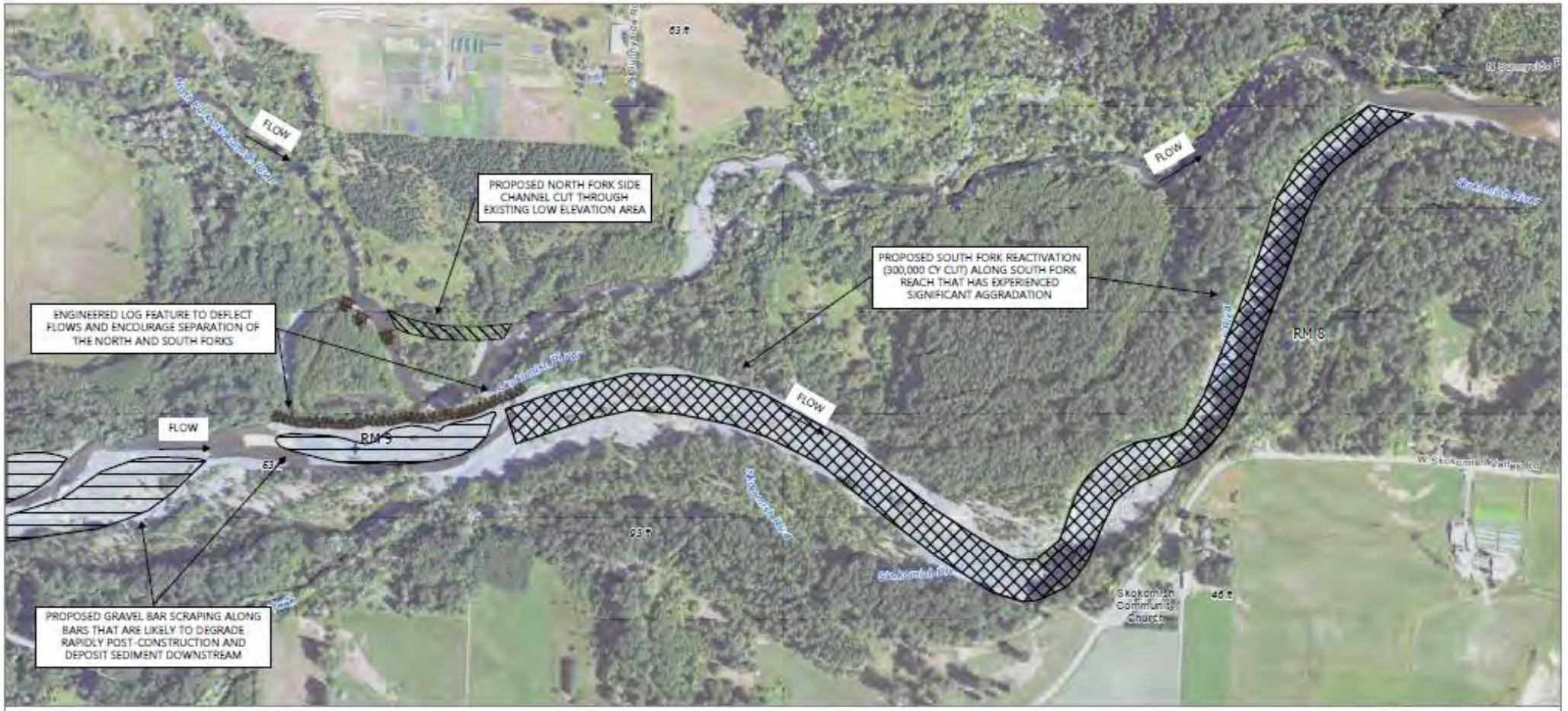
# Army Corps Design




ANCHOR QEA

**Alternative 1**
Skokomish River Alternatives Analysis

# Updated Project Concept



# Confluence Video

# Headcut Migration

# Future Conditions


- Improved channel capacity
- Year-round flow
- North Fork recovery
- Fish Passage to Vance Creek, South Fork, and Swift Creek

# Next Steps

- Community Meetings
  - Individual meetings
  - Group meetings
- Meet with regulators/permitting agencies
- Design/Planning Continues
  - Other projects
    - Phase II
    - RM5 Side Channel

# Questions and Comments

# The Future of the Skokomish Watershed Action Team

- What should be the primary purpose of SWAT meetings?
- What natural resource issues should we focus on?
- Who should be attending that isn’t here?
- Other questions/ideas?

# The Future of the Skokomish Watershed Action Team

- How often should SWAT meet?  Historically, we have met two times per year.  Is that enough?
- Should we do more field trips?
- What time of year works best for meetings?