

# Quagga and Zebra Mussel Response Readiness and Early Detection Monitoring




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Aquatic Invasive Species Policy Coordinator



Washington  
Department of  
**FISH and  
WILDLIFE**







**> \$100 MILLION ANNUAL  
COST TO MITIGATE IMPACT TO  
HYDROPOWER  
INFRASTRUCTURE (2017)**





**WASHINGTON FISHERIES  
PROVIDE 16,374 JOBS AND  
\$540 MILLION IN PERSONAL  
INCOME (2006).**





28 public utilities statewide,  
14 of which provide  
drinking water (2022)



\$5.2 billion in annual irrigated  
crop production and animal production  
and processing (2022)

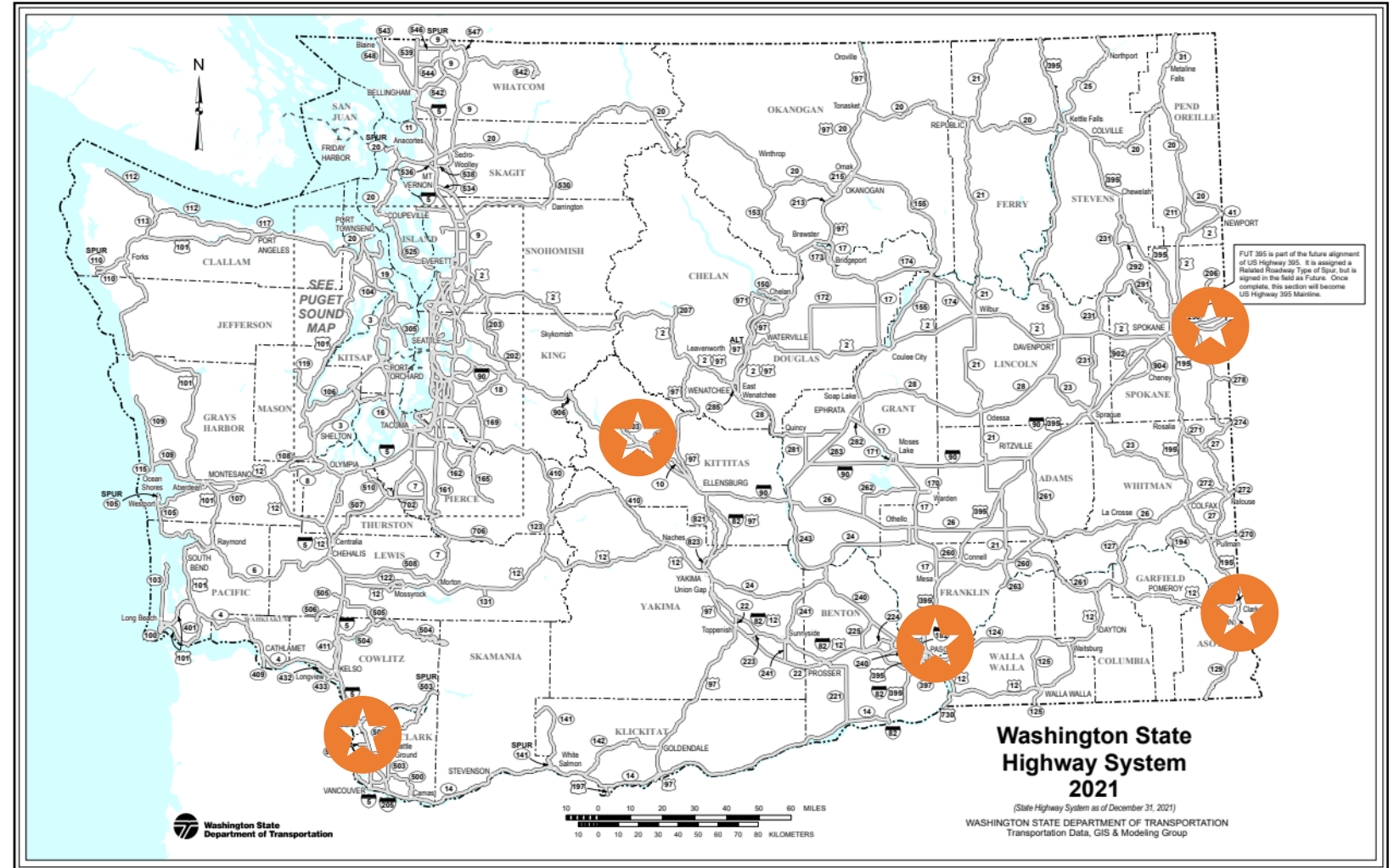


Value of recreation  
\$26.5 billion annually  
(2020)



# Watercraft Inspections

- Static Stations
  - 1) Spokane
  - 2) Clarkston
  - 3) Pasco
  - 4) Cle Ellum
  - 5) Ridgefield
- Roving
  - Various
- Canines
  - Fin
  - Puddles (retired)





# Watercraft Inspections



	2020	2021	2022
Operational Days	532	940	1,412
Watercraft Inspected	31,651	55,812	51,942
Mussel Fouled Watercraft	23	39	25

	2021-2023	2023-2025
State Funding		
General Fund	622,607	200,000*
Boater License Fees	335,000	382,000*
Federal Grants	976,500~	1,257,000^
Total Funding	\$1,934,107	1,839,000

\*Biennial control numbers not final. ^ Funds requested, awaiting awards.  
 ~ Combined U.S. Army Corps of Engineers and U.S. Bureau of Reclamation.



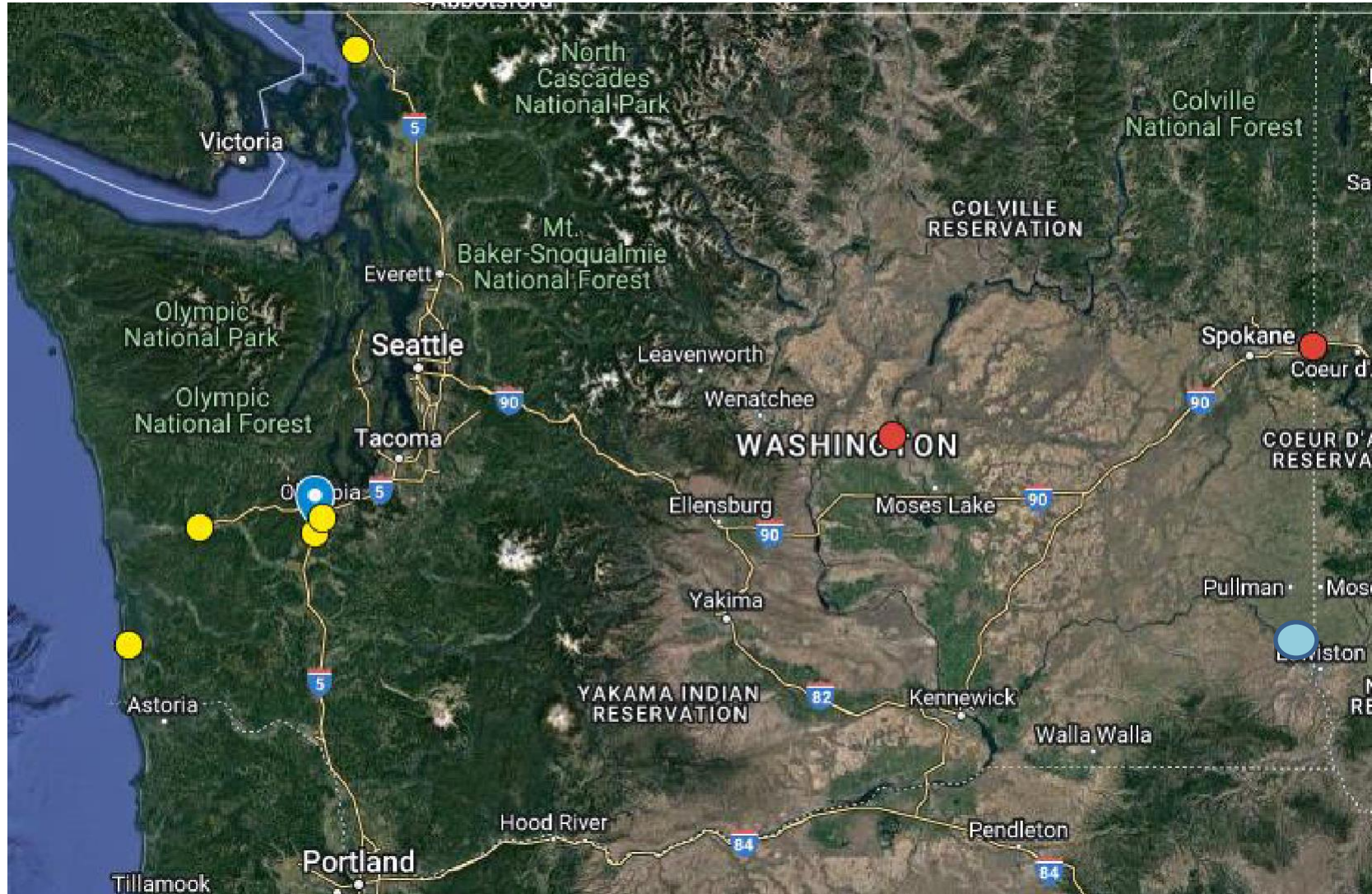


# Decontamination

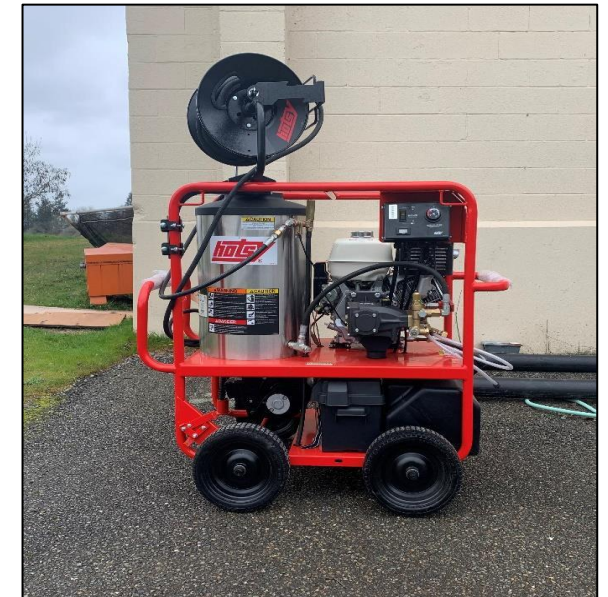




# Decontamination

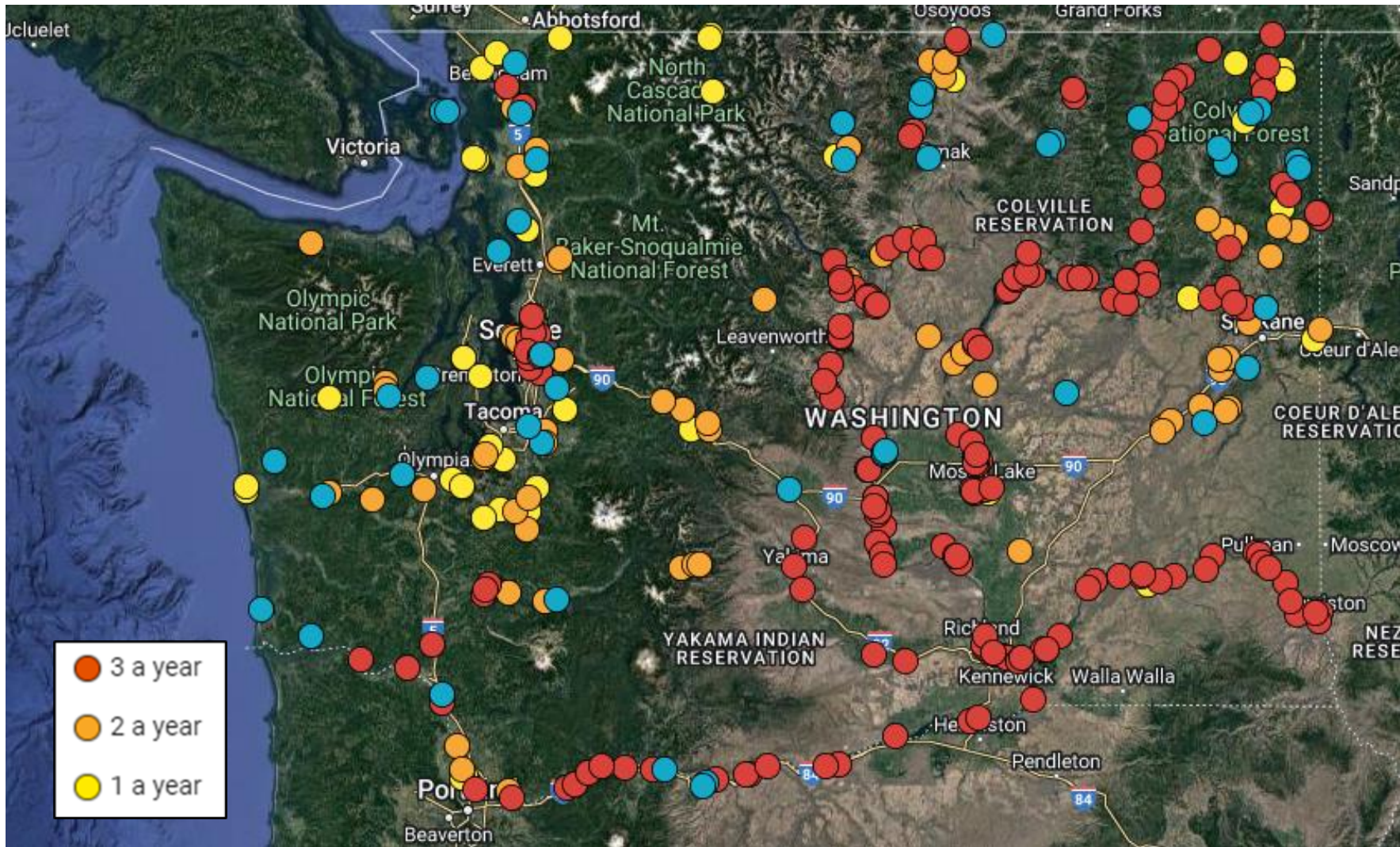


- Hand Pushed
- Station
- 📍 Trailer





# Early Detection Monitoring



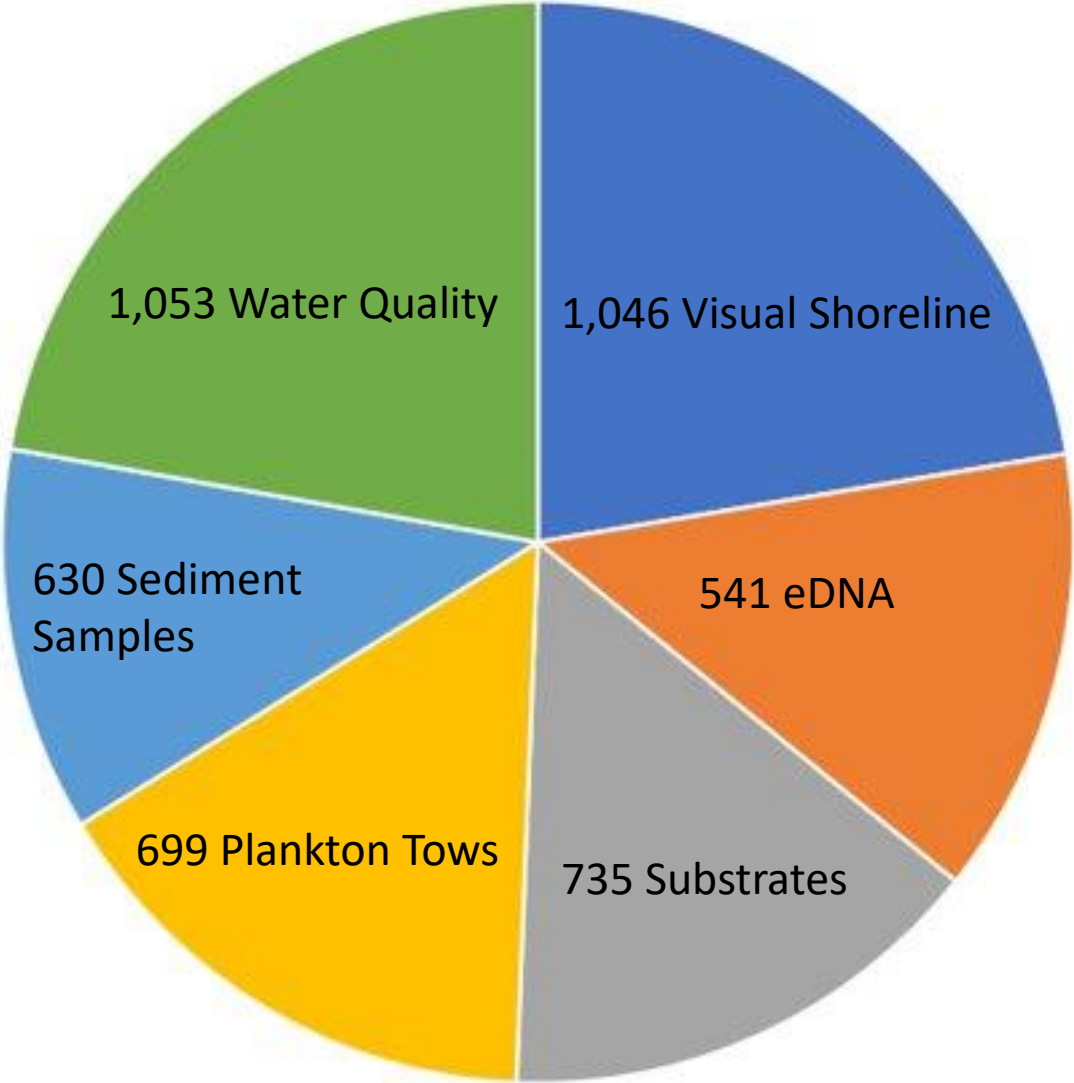
**2023-2024 U.S. Army Corps of Engineers Cost-Share Program and U.S. Bureau of Reclamation Grant**

State	\$ 345,268
Federal-USACE	\$345,268
Federal-USBR	\$ 33,395
<b>Total</b>	<b>\$ 723,931</b>



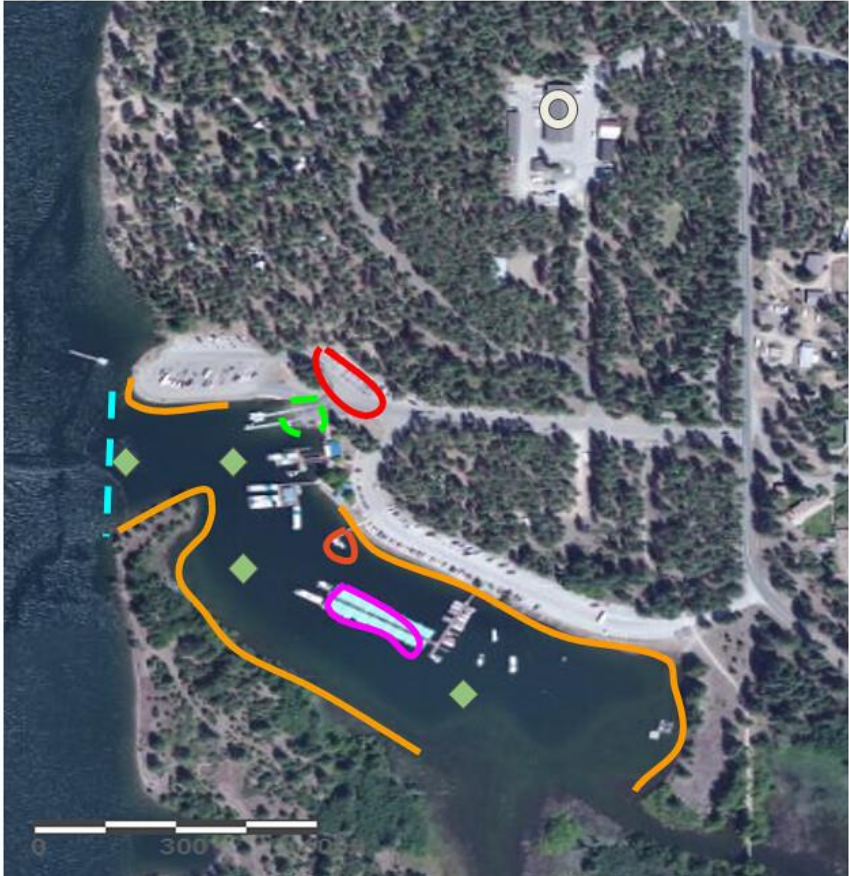










# Monitoring Methods and Results





# Response Readiness



-  US Coast Guard Safety Zone
-  K-9 Surveys
-  Monitoring Sites
-  SCUBA Dive Team Survey
-  Watercraft and equipment decontamination
-  Containment boom curtain and mock treatment area
-  Mandatory Boat Inspections
-  Incident Command Post and Joint Information Center





# Response Readiness





# Response Readiness





# Snake River Quagga Mussel Response



1) Enhanced “roving” watercraft inspection stations in Snake River watershed.

2) Enhanced Early Detection Monitoring

- 66 horizontal and 66 vertical plankton tows for a total of 132
  - No mussels detected
- 69 Petite Ponar Grab sampler samples
  - No mussels detected
- 69 eDNA samples
  - No mussels detected
- 69 Visual shoreline surveys
  - No mussels detected
- 69 Artificial substrates
  - No mussels detected





# Snake River Quagga Mussel Response



- Twin Falls, Idaho quagga mussels found approximately 375 river miles from Washington, and approximately 185 river miles from Oregon waters.
- Washington and Oregon share approximately 300 shared river miles from the Snake River to the Mouth of the Columbia River in Astoria.
- \$259,057 request to the U.S. Fish and Wildlife Service’s new Rapid Response to Aquatic Invasive Species funding opportunity.
  - 1) Development of a site-specific rapid response plan for Oregon and Washington shared waters.
  - 2) Intensive delineation monitoring on the Snake River in Washington and Mainstem Columbia for 6.5 months in 2024.





# Questions

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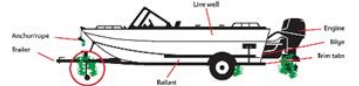
We know how to handle this.



### Protect Your Waters From Aquatic Invasive Species

BEFORE and AFTER launching boat

- |  |   |   |
|--|---|---|
| <b>CLEAN</b><br>Clean interior/exterior of boat, trailer, & vehicle of any organic matter such as aquatic plants & mud. Dispose organic matter & unused bait in trash. | <b>DRAIN</b><br>Drain bilge, ballast, wells, & buckets before you leave area. Keep bilge plug out during transport. | <b>DRY</b><br>Dry equipment before launching watercraft into another body of water. |
|--|---|---|



For information on FREE boat inspections, call 1-888-WDFW-AIS (933-9247) or visit [wdfw.wa.gov/ais](http://wdfw.wa.gov/ais).

Before you launch a boat that is not registered in Washington, you **MUST** purchase an Aquatic Invasive Species Prevention Permit.

How to buy:

- Online at [fishhunt.dfw.wa.gov](http://fishhunt.dfw.wa.gov)
- Find a license dealer near you at [wdfw.wa.gov/licenses/dealers](http://wdfw.wa.gov/licenses/dealers)

Funds from permit sales supports efforts to keep Washington's waters free of aquatic invasive species and manage infestations when prevention fails.

#### Avoid Citations or Fines

Follow the instructions on the Aquatic Invasive Species Prevention Permit. • Information — WDFW 7125 560 • Department of Aquatic Resources and Wildlife • Washington Department of Fish and Wildlife • 10000 NE 1st Street, Shoreline, WA 98148 • 206.771.3100 • Website: [www.wdfw.wa.gov](http://www.wdfw.wa.gov)

