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May 6, 2025

MEMORANDUM

TO: Council Members

FROM: Stacy Horton, Washington Policy Analyst, Biologist

SUBJECT: Efforts of the Oregon and Washington Invasive Mussel Near-Term Action Working Group

BACKGROUND:

Presenters: Justin Bush, Aquatic Invasive Species Division Manager, Washington Department of Fish and Wildlife, and Keith DeHart, Invasive Species and Wildlife Integrity Supervisor, Oregon Department of Fish and Wildlife.

Summary: The Oregon and Washington Departments of Fish and Wildlife convened a working group tasked to identify near-term actions and to assist with the development of findings and recommendations to prevent and prepare for invasive mussels in the shared waters of the Columbia River between Washington and Oregon.

The states of Oregon and Washington face an imminent threat from invasive mussels. Zebra, quagga, and golden mussels have a history of global invasion and successful establishment outside their native range. Routine early detection is key, with recent threats emanating from pathways like the detection of quagga mussels in Idaho in the Fall of 2023, the introduction of invasive mussels through contaminated Marimo moss balls in August of 2024, and an emerging threat from golden mussels, detected for the first time in California in October 2024.

Together, the joint working group identified the highest priority actions and needs to increase prevention and preparedness, functioning as a shared vision and

action plan for both jurisdictions. Justin Bush and Keith DeHart will update the Council on the working group findings and recommendations. Key takeaways from the working group reinforce the messages that prevention is paramount; rapid response is essential, partnerships are powerful, and that research and innovation are vital.

More info: Oregon and Washington Invasive Mussel Near-Term Action Working Group Findings and Near-Term Action Recommendations
<https://wdfw.wa.gov/sites/default/files/2025-01/oregon-washington-invasive-mussel-findings-and-near-term-action-recommendations.pdf>

Efforts of the Oregon and Washington Invasive Mussel Near-Term Action Working Group



May 13, 2025



Washington Department of
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1. Purpose
2. Members
3. Process
4. Findings
5. Near-Term Actions
6. Long-Term Actions
7. Implementation
 - A. Oregon
 - B. Washington
8. Discussion



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Purpose



Purpose



Quagga Mussels discovered in Twin Falls County: Centennial Park and Wilson Lake closed until further notice

Updated: Sep. 19, 2023 at 5:53 PM PDT



More quagga mussels detected in Idaho's Snake River near Twin Falls

Invasive, nonnative species detected below popular Shoshone Falls, Idaho State Department of Agriculture announces

BY: CLARK CORBIN - SEPTEMBER 24, 2024 5:41 PM

Purpose

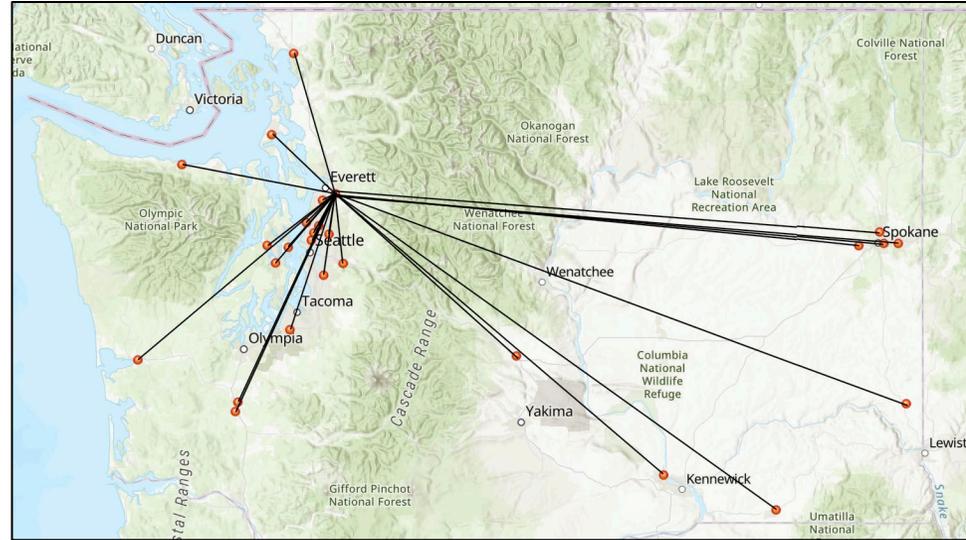
Following a March 19, 2024, joint state meeting:

The State of Oregon and Washington Departments of Fish and Wildlife requested participation from organizations to join a joint state working group tasked to **identify near-term actions** and to assist with the **development of findings and recommendations to prevent and prepare for invasive quagga and zebra mussels in the shared waters of the Columbia River Basin between Washington and Oregon**. It was the intention of this working group to complete this task prior to December 2024, including the development of a finding and recommendations report.



Complications

Zebra Mussel Contaminated Marimo Moss Balls



 &  Washington Department of Fish and Wildlife

Complications

Golden Mussel First-in-the-Nation Detection

Limnoperna fortunei (Dunker, 1857)

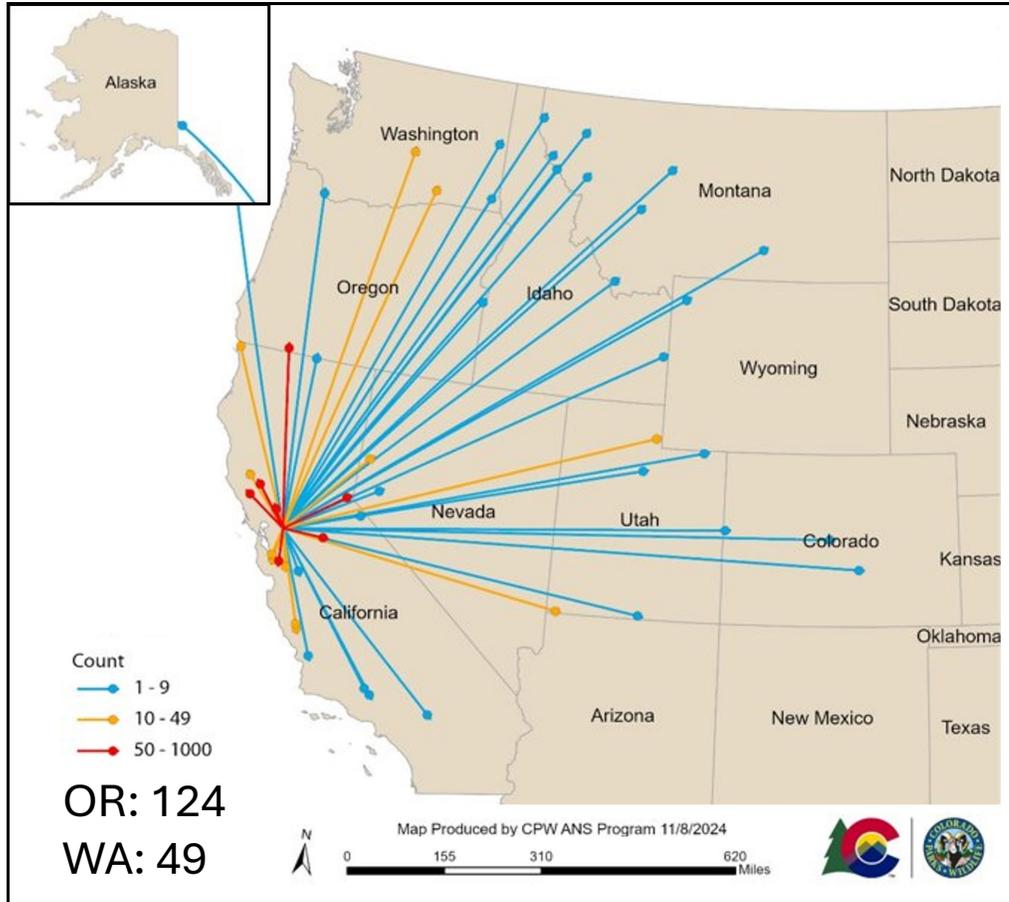
- Detected by California Department of Water Resources staff during routine operations.
- Announced by California Department of Fish and Wildlife November 6, 2024.
- First-in-the-nation detection. Suspected introduction by a ship traveling from an international port.
- Determining the infested area is ongoing, with occurrences expanding widely.
- Now found in the Governor Edmund G. Brown California Aqueduct.
- \$120 million in impacts estimated to Brazil's electricity sector were reported in 2018 (Rebelo et al. 2018).



📷 : California Department of Fish and Wildlife

Complications Golden Mussel First-in-the-Nation Detection

2024 Watercraft Inspections Where
"California Delta" was Last Water Visited



Regulated commercial vessel arrivals from Stockton area, California to Washington ports 2019-2024.

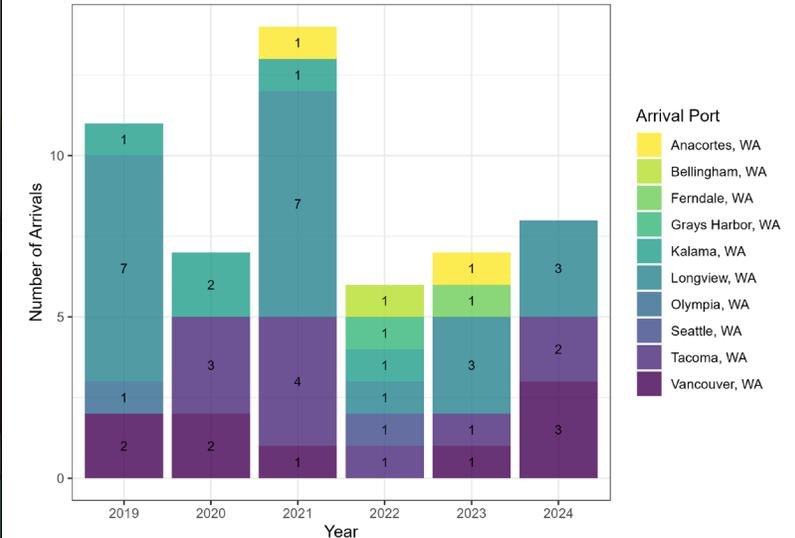
Compliance is required by law
Chapter 77.120 RCW | Chapter 220.650 WAC

**Washington state
Ballast water reporting
and inspections**

Washington Dept. of Fish and Wildlife
Ballast Water Management
P.O. Box 43150
Olympia, WA 98504-3150
360-902-2189
ballastwater@dfw.wa.gov

Scan for more information or visit: wdfw.wa.gov/ballast

Ballast Water Brochure Version 1.0 November 2023





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Members



Members and Contributing Authors

Columbia River Inter-Tribal Fish Commission	Oregon State Water Resources Congress	U.S. Geological Survey
Northwest Power and Conservation Council	Pacific NorthWest Economic Region	Washington Department of Fish and Wildlife
Oregon Department of Environmental Quality	Pacific Northwest Waterways Association	Washington Invasive Species Council
Oregon Department of Fish and Wildlife	Pacific States Marine Fisheries Commission	Washington State Legislature
Oregon Invasive Species Council	Portland State University	Washington State University
Oregon State Legislature	U.S. Fish and Wildlife Service	Washington State Water Resources Association
Oregon State Patrol	U.S. Forest Service	

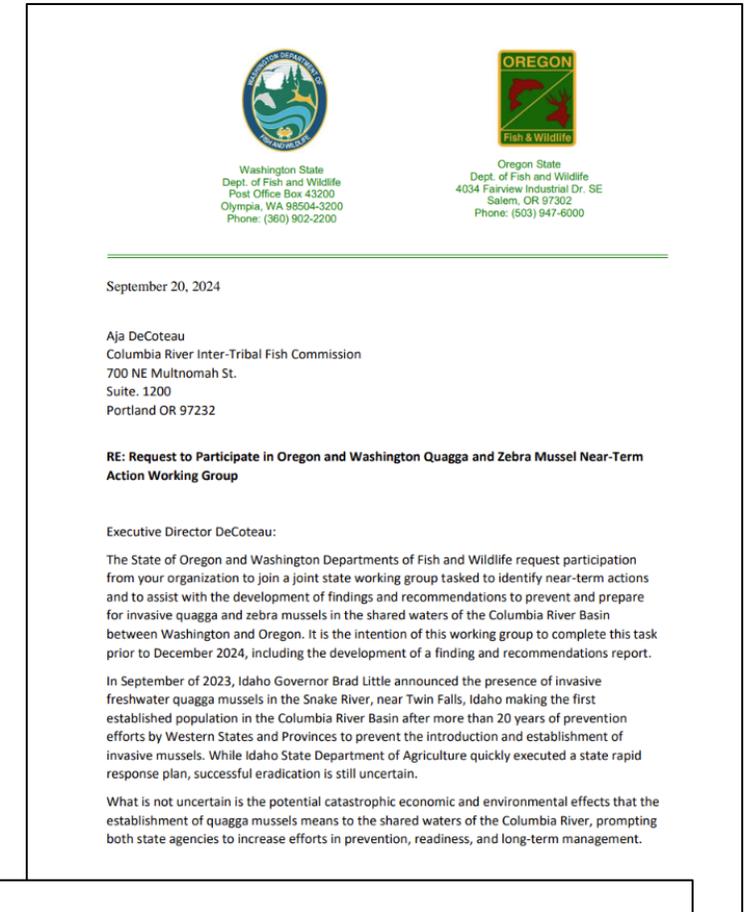


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Process



Process and Timeline



Sincerely,

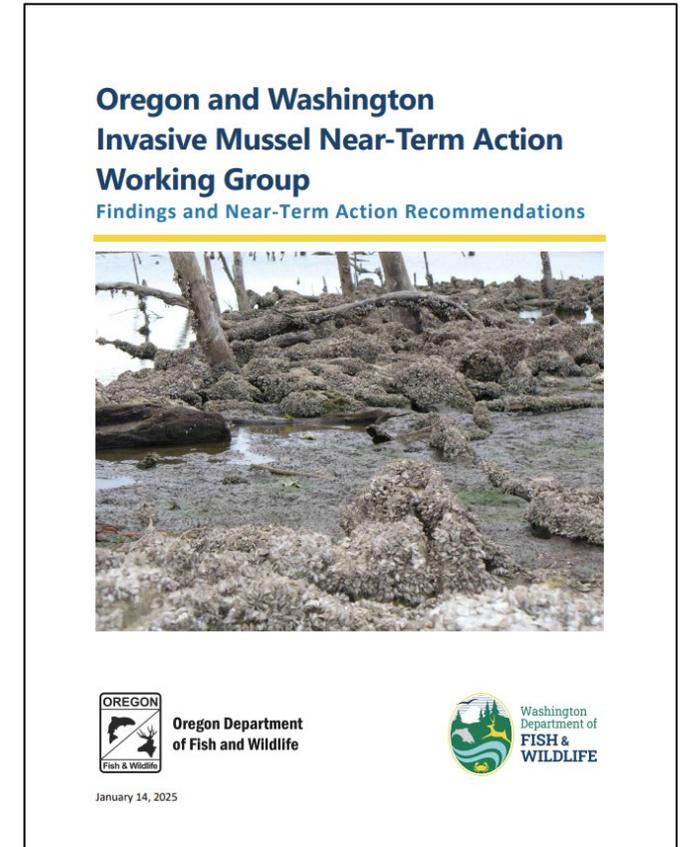
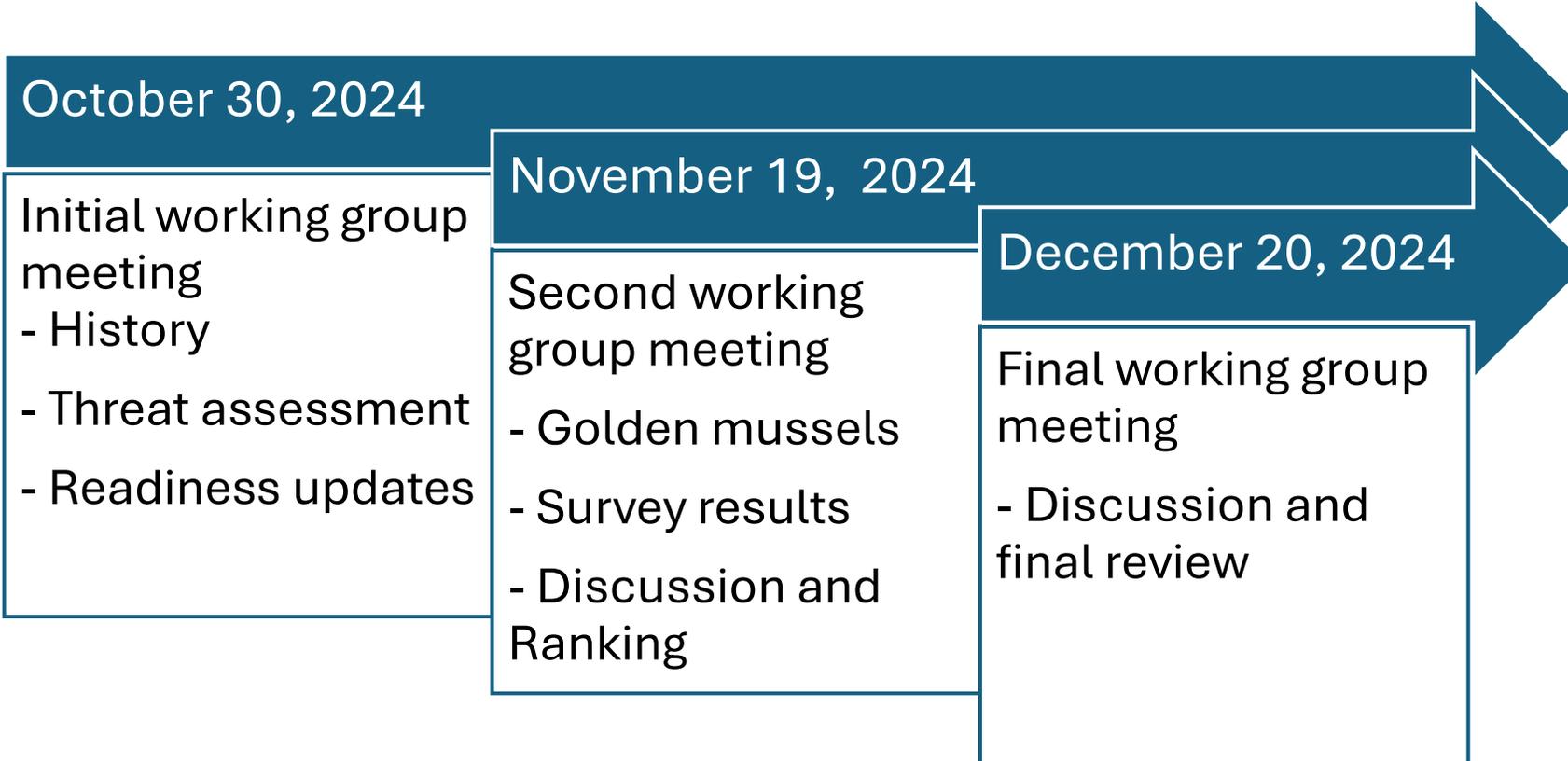


Dr. Debbie Colbert, Director
Oregon Department of Fish and Wildlife



Kelly Susewind, Director
Washington Department of Fish and Wildlife

Process and Timeline





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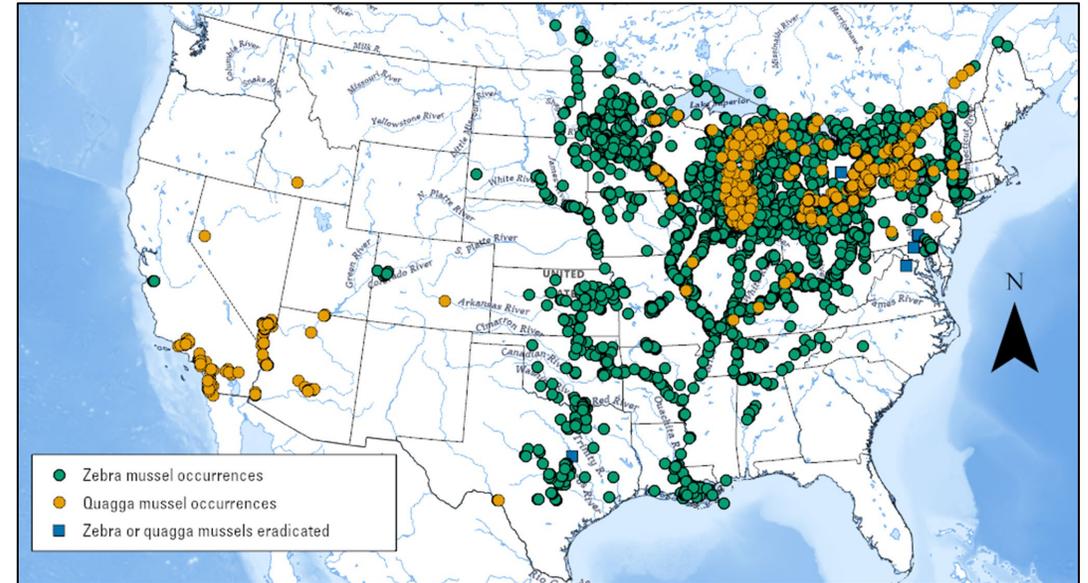
Findings



Findings

1. Background
2. Risk
3. Imminent Threat and Readiness
4. Oregon and Washington Working Group
5. Recommendations

“Together, the joint state working group identified highest priority actions and needs to increase prevention and preparedness, functioning as a shared vision and action plan for both jurisdictions.”



“The states of Oregon and Washington face a shared imminent threat.”



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Near-Term Actions



Near-Term Actions

Goals

1. Enhance prevention efforts
2. Coordinated public awareness
3. Ensure rapid response preparedness
4. Build partnerships and facilitate coordination
5. Invest in Research

Example:

The states of Oregon and Washington should expand early detection monitoring efforts to identify new infestations of invasive mussels as early as possible for the purpose of initiating response actions.



Near-Term Actions

Goals

1. Enhance prevention efforts
2. Coordinated public awareness
3. Ensure rapid response preparedness
4. Build partnerships and facilitate coordination
5. Invest in Research

Example:

The states of Oregon and Washington should develop a communications plan identifying key stakeholders, partners, policy makers and audiences; objectives and measurements for success; challenges; themes and messaging; and products and deliverables.



Clean

plants, animals, and mud
from boat and gear



Drain

all water from boat
and gear onto land



Dry

all parts of your boat
and gear completely

The Clean/Drain/Dry method applies to all watercraft and gear including paddles, waders, shoes, life vests, nets, buckets, and trailers. If transporting your watercraft, pull the bilge plug during transit.

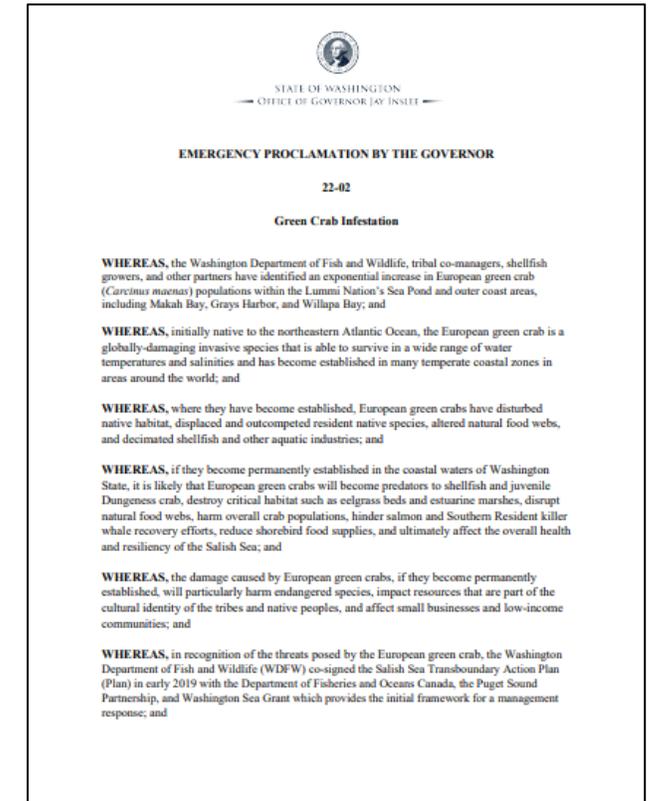
Near-Term Actions

Goals

1. Enhance prevention efforts
2. Coordinated public awareness
3. Ensure rapid response preparedness
4. Build partnerships and facilitate coordination
5. Invest in Research

Example:

The states of Oregon and Washington should work with State Legislatures and Governor's Offices to develop a mutually agreeable process for declaring emergencies in shared waters of Washington and Oregon, that include decision support tools with criteria that need to be met for an invasive species emergency to be declared.



[European] Green Crab Emergency Proclamation by the Governor
<https://governor.wa.gov/>

Near-Term Actions

Goals

1. Enhance prevention efforts
2. Coordinated public awareness
3. Ensure rapid response preparedness
4. Build partnerships and facilitate coordination
5. Invest in Research

Example:

The states of Oregon and Washington should reaffirm a regional commitment to addressing invasive mussels through participation in updating of the *100th Meridian Initiative Columbia River Basin Interagency Invasive Species Response Plan: Dreissenid Mussels*, signed by state governors in 2008, updated in 2018.



<https://www.westernais.org/rapid-response>

Near-Term Actions

Goals

1. Enhance prevention efforts
2. Coordinated public awareness
3. Ensure rapid response preparedness
4. Build partnerships and facilitate coordination
5. Invest in Research

Example:

The states of Oregon and Washington should develop a model funding pathway, such as a grant program, to cost-share funding for installation and management of mitigation systems for consideration by state legislatures and federal funding agencies.



Invasive mussels fouling a penstock gate at Davis Dam.
📷 : U.S. Bureau of Reclamation



Dense colonies of zebra mussels can clog intake pipes.
📷 : Marrone Bio Innovations



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Long-Term Actions



Long-Term Actions

Goals

1. Enhance regulatory effort
2. Ensure rapid response readiness
3. Support long-term management
4. Invest in research

Example:

The states of Oregon and Washington should increase law enforcement action at mandatory watercraft inspection stations, improving compliance with state laws and creating new partnerships with state and local law enforcement agencies as force multipliers.



Long-Term Actions

Goals

1. Enhance regulatory effort
2. Ensure rapid response readiness
3. Support long-term management
4. Invest in research



2019 Lake Roosevelt
Rapid Response Exercise

Example:

The states of Oregon and Washington should emphasize the need for and hold regular response exercises, of region, state, and site-specific response plans, in addition to holding training workshops and drills for functions and roles, such as Multi-Agency Coordination (MAC) Groups, containment systems, or mock treatments.

Long-Term Actions

Goals

1. Enhance regulatory effort
2. Ensure rapid response readiness
3. Support long-term management
4. Invest in research

Example:

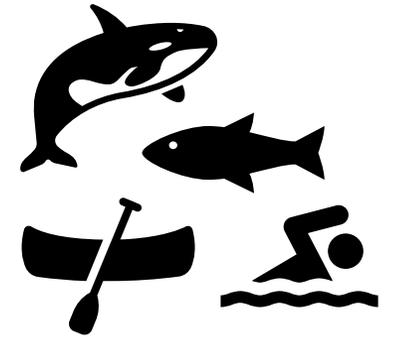
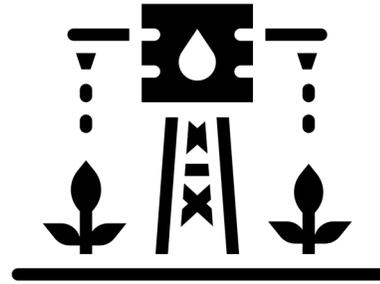
The states of Oregon and Washington should continue to support and/or develop new local funding programs to build and maintain capacity of key response partners, including tribal nations, local governments, or industry.



Long-Term Actions

Goals

1. Enhance regulatory effort
2. Ensure rapid response readiness
3. Support long-term management
4. Invest in research



Example:

Economic impacts: An economic study would help emphasize the impacts of invasive mussels on shipping, recreation, agricultural production, food security, irrigation, navigational locks, fish passage, fish hatcheries and salmon recovery investments in the Columbia River. It would also help to understand the long-term costs of mitigation systems and ongoing maintenance and operations costs.



Implementation

Implementation in Oregon

1. House Bill (HB) 2170

Allows Oregon Department of Fish and Wildlife (ODFW), Oregon State Marine Board, or Oregon Department of Agriculture (ODA) to enter into an intergovernmental agreement with a local government, tribes, or a local service district to perform aquatic invasive species inspections at check stations.



2. HB 2982

Increases boating fees and deposits moneys into the Aquatic Invasive Species (AIS) Prevention Fund.



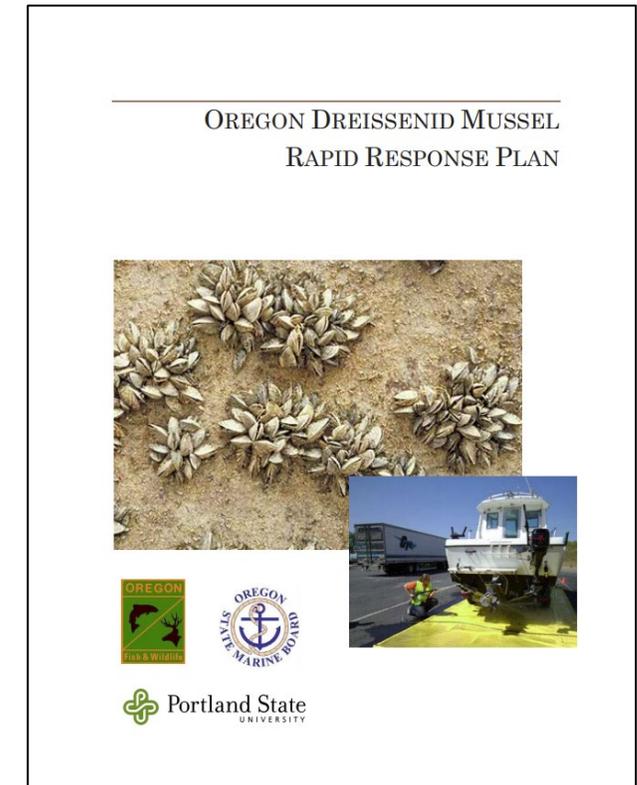
Implementation in Oregon

3. HB 2981

- Proposal for general fund appropriation to four agencies to pay for steps that concern AIS (\$1,345,000):
 - \$175,000 to Oregon Department of Environmental Quality for ballast water vessel inspections.
 - \$800,000 to Portland State University Center for Lakes and Reservoirs to monitor for invasive mussels and other AIS.
 - \$200,000 to ODFW to update Oregon's waterbody vulnerability assessment for invasive mussels and other AIS.
 - \$150,000 to the Oregon Invasive Species Council (OISC) via ODA to facilitate rapid response exercises to increase states preparedness for invasive mussels.
 - \$20,000 to OISC via ODA to develop a framework for declaring emergencies in Oregon related to invasive mussels.

5. Policy Option Package (POP) – Proposed staffing increase of 4.77 FTE across 8 positions.

- Proposed prior to current legislative proposals as a net zero fund shift package.





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Implementation

Implementation in Washington

Quagga and Zebra Mussel Prevention

Fiscal Summary

Total 2025-2027:

- \$3.62 state legislative investment
- \$3.62 federal cost-share

Budget Estimate:

- Prevention: \$4,841,600
- Readiness: \$1,210,400
- Outreach, education, and public engagement: \$764,000
- Local government and tribal capacity building: \$424,000

2025-2027 Funding Request

State investment: \$1.81 million annually [ongoing]

State dependent federal investment: \$1.81 million annually [ongoing]

Contact information:

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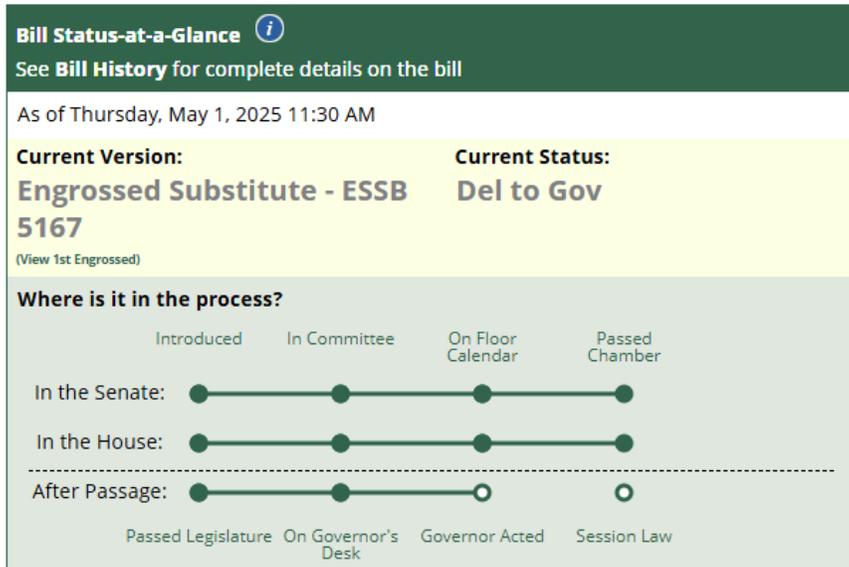
Melena Thompson
Legislative Director
Melena.Thompson@dfw.wa.gov

Request this information in an alternative format or language at wdfw.wa.gov/accessibility/requests-accommodation, 833-885-1012, TTY (711), or CivilRightsTeam@d fw.wa.gov. Feb. 3, 2025

Building on a Fiscal Year 2025 quagga mussel proviso of \$1.81 million in state general funds and leveraging \$1.81 million in federal funds, Washington Department of Fish and Wildlife (WDFW) will expand mussel activities including detection monitoring, implementing protections for habitat and infrastructure, and reducing mussel impacts to our economy, environment, and species, including salmon and steelhead.

<https://wdfw.wa.gov/about/administration/budget/update#2025-27-operating>

Implementation in Washington



Senate Bill 5167, 2025-2027 Biennium
Conference Committee Operating
Budget: Delivered to Governor
Ferguson April 28, 2025

\$1,810,000 of the general fund—state appropriation for fiscal year 2026, \$1,810,000 of the general fund—state appropriation for fiscal year 2027, and \$3,620,000 of the general fund—private/local appropriation are provided solely for monitoring and response efforts for invasive quagga mussels.

Possible activities include coordination with tribal, federal, regional, state, and local entities, watercraft inspections and decontamination, equipment and training, monitoring of potential residential and commercial pathways, and public outreach.



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Discussion



Discussion

- Regional implementation mechanisms.
 - Connection to the Fish and Wildlife Program?
 - Connection to the Pacific NorthWest Economic Region Invasive Species Working Group, and others?
- A large shared problem, but not the only aquatic invasive species problem.
 - How to address other shared problems, including risks of new introductions through discharge of ballast water?
- Interstate Aquatic Nuisance [Invasive] Species Management Plan.
 - A potential solution?



<https://www.fws.gov/program/aquatic-nuisance-species-task-force/documents>



Oregon and Washington
Invasive Mussel Near-Term Action Working Group
Findings and Near-Term Action Recommendations Report



Washington Department of
FISH & WILDLIFE

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