

Updated November 13, 2024

December 5, 2024

[Hybrid Meeting](#)

This meeting is being held in-person and virtually.

Physical Location: Room 172, Natural Resources Building, 1111 Washington Street SE, WA 98501.

[Facility information and visitor parking.](#)

Online Participation: If you wish to participate online, please click the link below to register and follow the instructions in advance of the meeting. You will be emailed specific instructions upon registering. Technical support for the meeting will be provided by the Recreation and Conservation Office (RCO) board liaison, Julia McNamara, who can be reached at Julia.McNamara@rco.wa.gov.

Online Registration Link: https://us06web.zoom.us/webinar/register/WN_y7WS4KY_TN-y-J5InrpApQ

Phone Option: You may also access the webinar using a phone only. This can be completed by calling (669) 900-6833 at or shortly before the start of meeting. You will then be prompted for a meeting ID. The meeting ID is 849 4273 4493.

Time: Opening session will begin as shown; all other times are approximate.

Public Comment: General public comment is encouraged to be submitted in advance to the meeting in written form. If you wish to comment, you may e-mail your request or written comments to Julia.McNamara@rco.wa.gov.

COVID Precautions: Masks and hand sanitizer will be made available.

Open Meeting Agreement: This open public meeting is webcasted on TVW and recorded. By attending the meeting, you agree that your image, anything you say, and any materials you submit may be posted indefinitely on RCO's and TVW's websites.

Special Accommodations: People with disabilities needing an accommodation to participate in RCO public meetings are invited to contact Leslie Frank by phone (360) 789-7889 or e-mail Leslie.Frank@rco.wa.gov. Accommodation requests should be received by June 1, 2023, to ensure availability.

Thursday, December 5

OPENING AND WELCOME

9:00 a.m.

Welcome and Call to Order

- Hybrid Meeting Ground Rules
- Roll Call and Determination of Quorum
- Review and Approval of Agenda (**Decision**)
- Approval of September 2024 Minutes (**Decision**)

*Chair Blain Reeves
Julia McNamara*

HOT TOPIC AND STAFF REPORTS

9:10 a.m.	1. Council Staff Report	Stephanie Helms
9:40 a.m.	2. Brainstorming for 2025 Washington Invasive Species Awareness Week	Stephanie Helms, All
9:50 a.m.	3. Quagga and Zebra Mussel Prevention and Readiness Update	Member Justin Bush
10:20 a.m.	4. Celebrating the Successful Eradication of Northern Giant Hornet in Whatcom County	Member Sven Spichiger
DISCUSSIONS, DECISIONS, AND UPDATES		
10:30 a.m.	Break	
10:45 a.m.	5. Protecting Washington's Sagebrush Biome - Boot Brush Project, A Year in Review	Maria Marlin
11:00 a.m.	6. Invasive Species Awards Recognition Ceremony	Past Chair Joe Maroney, Award Recipients
11:40 a.m.	7. Passing of the Gavel and Honoring Chair Blain Reeves (<i>Decision</i>)	Chair Blain Reeves, All
12:00 p.m.	Lunch	
1:00 p.m.	8. Watercraft Inspection and Decontamination Update and 2024 Accomplishments	Susan Brush
1:30 p.m.	9. Invasive Species Strategy for Puget Sound Partnership Action Agenda Update	Member Todd Hass
1:45 p.m.	Break	
2:00 p.m.	10. Strategic Plan Update for 2025-2030 – Brainstorming Kickoff	Stephanie Helms
2:30 p.m.	11. Future Meeting Planning Roundtable Discussion <ul style="list-style-type: none"> • March 20, 2025, Meeting Topics • July 2025 Travel Meeting 	All
2:50 p.m.	General Public Comment <i>Please limit comment to three minutes</i>	
3:00 p.m.	ADJOURN	

Next regular meeting: March 20, 2025, Room 172, Natural Resources Building, 1111 Washington St SE, Olympia, WA 98501.

WASHINGTON INVASIVE SPECIES COUNCIL SUMMARY MINUTES

Date: September 12, 2024

Place: Hybrid – Room 172, Natural Resources Building, 1111 Washington Street SE, Washington, 98501 and online via Zoom

Invasive Species Council Members Present:

<input checked="" type="checkbox"/> Blain Reeves	Washington State Department of Natural Resources
<input checked="" type="checkbox"/> Todd Murray	Washington State University
<input type="checkbox"/> Joe Maroney	Kalispel Tribe of Indians
<input checked="" type="checkbox"/> Ray Willard	Washington State Department of Transportation
<input checked="" type="checkbox"/> Sven-Erik Spichiger	Washington State Department of Agriculture
<input checked="" type="checkbox"/> Mary Fee	Washington State Noxious
<hr/>	
<input checked="" type="checkbox"/> Marcie Clement	Avista
<input checked="" type="checkbox"/> Adam Fyall	Benton County
<input checked="" type="checkbox"/> Steven Burke	King County
<input checked="" type="checkbox"/> Stacy Horton	Northwest Power and Conservation Council
<input checked="" type="checkbox"/> Todd Hass	Puget Sound Partnership
<input checked="" type="checkbox"/> Jason Anderson	Stillaguamish Tribe of Indians
<input checked="" type="checkbox"/> Alexei Calambokidis	Trout Unlimited
<input checked="" type="checkbox"/> Cory Sandow	United States Bureau of Reclamation
<input type="checkbox"/> Vacant	United States Coast Guard
<input checked="" type="checkbox"/> Luca Furnare	United States Customs and Border Protection
<input checked="" type="checkbox"/> Yolanda Inguanzo	United States Department of Agriculture
<input checked="" type="checkbox"/> Carrie Cook-Tabor	United States Fish and Wildlife Service
<input checked="" type="checkbox"/> Karen Ripley	United States Forest Service
<input checked="" type="checkbox"/> Wes Glisson	Washington Department of Ecology
<input checked="" type="checkbox"/> Justin Bush	Washington State Department of Fish and Wildlife
<input checked="" type="checkbox"/> Andrea Thorpe	Washington State Parks and Recreation Commission

Recreation and Conservation Office Staff:

<input checked="" type="checkbox"/> Stephanie Helms	Executive Coordinator
<input checked="" type="checkbox"/> Julia McNamara	Board Liaison
<input checked="" type="checkbox"/> Jessica La Belle	Invasive Species Program Specialist
<input checked="" type="checkbox"/> Maria Marlin	Outreach and Education Specialist
<input checked="" type="checkbox"/> Marissa Dallaire	Intern
<input checked="" type="checkbox"/> Megan Montgomery	Board and Policy Administrative Assistant

Guests & Alternates:

Skye Pelliccia	King County
Regan McNatt	United States Fish and Wildlife Service
Roy Hamblin	Washington State Department of Agriculture

Christopher Eardley
Kristin Mansfield
Zeima Kassahun

Washington State Department of Fish and Wildlife
Washington State Department of Fish and Wildlife
Washington State Department of Natural Resources

The Recreation and Conservation Office (RCO) retains a recording as the formal record of the meeting. Timestamps have been provided that correspond with a video of this recorded session, available at www.youtube.com/@WashingtonRCO. Please note, each link will open a new video tab in your browser. Timestamps can also be found in the video description.

Welcome and Call to Order ([0:00](#))

Chair Blain Reeves called the Washington Invasive Species Council (council) meeting to order at 9:00 a.m. **Julia McNamara**, Recreation and Conservation Office (RCO) Board Liaison performed roll call, determining quorum. Member Joe Maroney was absent.

Motion: Approval of **September 12, 2024, Agenda** ([5:58](#))

Moved by: Member **Carrie Cook-Tabor**

Seconded by: Member **Ray Willard**

Decision: **Approved**

Motion: Approval of **June 27, 2024, Meeting Minutes** ([6:44](#))

Moved by: Member **Steve Burke**

Seconded by: Member **Ray Willard**

Decision: **Approved**

Member Ripley provided minor clerical edits prior to the meeting, which will be updated.

Motion: Approval of **Standing Calendar Dates** ([8:18](#))

Moved by: Member **Mary Fee**

Seconded by: Member **Stacy Horton**

Decision: **Approved**

Motion: Approval of **2025 Meetings**

Moved by: Member

Seconded by: Member

Decision: **Approved**

Item 1: Recognition of New Members ([13:45](#))

Stephanie Helms introduced two new council appointments: Wes Glisson from Washington State Department of Ecology and Heidi McMaster's replacement, Cory

Sandow from the United States Bureau of Reclamation. Heidi McMaster will remain as an alternate.

Member Adam Fyall joined at 9:19 a.m.

Item 2: Council Staff Report ([17:23](#))

Stephanie Helms, Council Executive Director, shared that staff attended the 2024 Pacific Northwest Economic Region Annual Conference in British Columbia and took a field trip to the Washington State University Puyallup Research and Extension Center. **Member Justin Bush** highlighted an ongoing discussion at the Pacific Northwest Economic Region Annual Conference on increasing regional readiness and funding for zebra and quagga mussels. This fall staff will present to the Washington State University Veterinary School, attend a European Green Crab open house, present at the North American Invasive Species Management Association's 32nd annual conference, attend the Urban Forest Pest Readiness Workshop, and attend the Noxious Weed Board Conference. In July and August, the council had two news releases covering the [Clean, Drain, Dry](#) campaign and August Tree Check Month.

Staff submitted requests under Goal Five (Education and Outreach) to the United States Department of Agriculture Animal and Plant Health Inspection Service Plant Protection Quarantine Plant Protection Act 7721. Staff continue to work on the 2024-2025 Strategic Plan and updated the timeline.

Maria Marlin, Outreach Specialist, provided updates on the council's social media and website engagement. Engagement was up on Facebook and Instagram and the website had over 20,000 users with a global reach. All boot brush stations from the [Play, Clean, Go boot brush project](#) have been delivered, with five installed. Ms. Marlin reminded council members to submit volunteer award nominations by September 15.

Brock Milliern, RCO Policy and Legislative Director, noted that state revenue was down around \$500 million this year and the next projection is expected in November. RCO submitted five packages to increase archaeology staff for cultural resources protection needs; provide technical assistance for applicants; conduct a fuel use study; provide a technical fix for the Adopt a Fish Passage program; and adding a staff member to the council.

Currently there are two permanent and one project staff supporting the council. The package would make the project position permanent. **Chair Reeves** noted the staffing request was initiated and supported by him, the council chair, and Vice Chair Murray.

Members discussed offering support for this package during session when the opportunity arises.

BREAK: 9:47 A.M. – 10:00 A.M.

The break occurred ahead of schedule due to technical difficulties.

Item 3: Meet the Invasive Species Council Intern! Washington Invasives App and Council Website Updates (43:27)

Marissa Dallaire, Council Intern, introduced herself and provided an overview of the council's strategic plan and public critical role in reporting invasive species. Ms. Dallaire is focused on improving the Washington Invasives Application and the [council's website](#) to increase public involvement by improving the [Clean, Drain, Dry](#); [Buy it Where you Burn it](#); and [Don't Let it Loose](#) campaigns; making grammatical edits to the website; updating fact sheets and photos, and making the application more user friendly. Additionally, Ms. Dallaire is working to spread awareness and information through social media in a catchy way to reach various audiences.

Item 4: Washington's Upcoming European Green Crab Long-Term Management Plan (1:07:30)

Dr. Brian Turner provided a brief overview and background on the European Green Crab emergency in Washington State and an overview and update on the European Green Crab long-term management plan (plan). Development of the plan began in September 2023. The final draft is under an internal review by Washington Department of Fish and Wildlife. Following this review and review from the European green crab multi-agency coordination group, the plan will be submitted to Legislature on October 1.

The plan provides background information on the emergency and guidance and information to aid the planning and execution of European green crab management actions, as well as documents actions and needs for co-managers, Tribes, and partners.

Member Justin Bush provided an overview of Washington Department of Fish and Wildlife's state and federal recommendations for supporting the European green crab emergency in Washington State.

Member Horton asked if an independent scientific review was considered for the plan. Dr. Turner noted that due to the tight timeline, an independent review had not considered it but is open to exploring a review following the submission.

Item 5: Emerald Ash Borer Preparedness Efforts ([1:35:39](#))

Member Fyall left the meeting at 11:00 a.m.

Member Karen Ripley, United States Forest Service, provided an update on emerald ash borer detections in Oregon as reported by the Oregon Emerald Ash Borer Task Force by the Oregon Department of Forestry. Since the detection of emerald ash borer in Forest Grove, Oregon, three new counties had verified detections. Washington, Marion, Yamhill, and Clackamas counties are under emerald ash borer quarantine, prohibiting the movement of ash, olive, and white fringe tree materials from those counties. Contact Member Ripley at karen.ripley@usda.gov for information on how to participate in the Oregon Emerald Ash Borer Task Force, and contact Jim Gersbach at jim.getrsbach@odf.oregon.gov to receive the monthly [Oregon Tree Health Bulletin](#).

Due to technical difficulties the online portion of the meeting was restarted.

Member Sven-Erik Spichiger, Washington State Department of Agriculture, provided an update on the agency's efforts to address the emerald ash borer. Due to detections in Oregon and British Columbia, Washington State Department of Agriculture placed a quarantine on all out of state firewood that has not been kiln dried and heat treated. This action is supported by the federal government at the border with Canada. To learn more or get involved with the rulemaking process on the firewood quarantine please visit [Washington State Department of Agriculture's website](#).

Zeima Kassahun, Washington Department of Natural Resources Urban and Community Forestry Specialist, provided an overview of Washington's Urban and Community Forestry Program and a status update of emerald ash borer in Washington State. Department of Natural Resources has attended meetings and workshops related to emerald ash borer, including the council's Emerald Ash Borer Interagency Task Force meetings.

Due to the proximity to Forest Grove, Oregon, the City of Vancouver, Washington has entered an agreement with Department of Natural Resources to increase emerald ash borer preparedness, act as a model to other municipalities in the state, and to troubleshoot methods of preservation and eradication. Additionally, Washington Department of Natural Resources is conducting trap tree creation workshops in the city.

Throughout the state, Washington Department of Natural Resources provides educational assistance, regional pest readiness workshops, technical assistance, and is coordinating with Urban Ashes to utilize wood waste.

Members discussed girdling trees over using traps as a more effective but labor-intensive effort to attracting emerald ash borers, and that all ash trees are susceptible to emerald ash borers, although some varieties can take longer to show signs of infestation.

Item 6: 2024 Chronic Wasting Disease Detection Overview (2:08:37)

Kristin Mansfield, Washington Department of Fish and Wildlife, provided an overview of Washington's first confirmed chronic wasting disease detection that occurred in game management unit 124 in Spokane County. After providing an overview of the prion disease, Ms. Mansfield explained how Washington Department of Fish and Wildlife deployed an incident management team and initiated mandatory testing of cervids in game management units 124, 130, and 127, or the initial response area. Surrounding target restriction zones have restrictions on moving cervid carcasses from those game management units. Washington Department of Fish and Wildlife have designated disposal sites, head deposit kiosks, and check stations with additional sampling opportunities through mail-in samples and appointments with staff.

For more information on chronic wasting disease see [Washington Department of Fish and Wildlife's website](#).

Member Andrea Thorpe noted that Washington State Parks and Recreation Commission has staff in the area that could be trained to assist with collecting samples. Ms. Mansfield will connect with Member Thorpe on potential sample collection training.

Responding to a question from **Member Mary Fee**, Ms. Mansfield emphasized the cervid organ disposal options for hunters, available at designated landfills and some municipalities allow for disposal in personal waste bins. Prions are not susceptible to heat, so burning waste materials is not a viable option.

Member Justin Bush offered to connect with Ms. Mansfield to collaborate on using existing aquatic check stations in Eastern Washington.

Hunters can find the results of mandatory and voluntary testing on Washington Department of Fish and Wildlife's [test results lookup webpage](#).

LUNCH: 11:55 P.M. – 12:55 P.M.

Member Fyall returned to the meeting during the lunch break.

Item 7: Poison Hemlock Control in King County ([2:41:11](#))

Member Steven Burke, King County Noxious Weed Control Program, covered King County's issue with poison hemlock, a highly toxic weed.

Member Calambokidis returned to the meeting at 12:59 p.m.

Skye Pellicia, King County Noxious Weed Outreach Specialist, provided an overview of poison hemlock, a highly toxic Class B Noxious Weed. Poison hemlock is most dangerous if eaten but can cause skin and respiratory irritation just by touching or breathing in small particles. The plant grows in a two-year cycle, the first year as a rosette of leaves, and the second year with a flowing head. It is important to note that first- and second-year growth stages can co-exist at one site. King County prioritizes treating second-year growth by preventing the spread of seeds from one site to another, manually removing the plants, and applying chemical treatment.

Poison hemlock is a regulatory anomaly as it is too widespread to be fully regulated but is a public health hazard. King County is utilizing a two-part strategy, first by requiring control on public lands and railroads and second by educating and empowering residents on how to properly identify poison hemlock and conduct control measures on private and residential lands.

For more information on poison hemlock see [King County's website](#).

Item 8: Safeguard Our Shellfish Campaign and Shellfish Unit Priorities ([3:08:42](#))

Christopher Eardley, Puget Sound Shellfish Policy Coordinator with Washington Department of Fish and Wildlife, provided an overview of shellfish health in Washington. Washington Department of Fish and Wildlife's Puget Sound Shellfish program manages commercial and recreational fisheries, restoration, and disease control. Within the program, the Shellfish and Seaweed Health and Biosecurity Unit protects wild and cultivated shellfish resources from harmful disease-causing pathogens and non-native pests through a permitting program, active surveillance and testing of imports, compliance inspections, collaborating with researchers and the aquaculture industry, and through public outreach and education.

In recent years several issues have emerged in Washington, including ostreid herpesvirus type one (OsHV-1), increasing international trade, European green crab, a growing population, and a variety of aquatic invasive species. Since 2016, Washington Department of Fish and Wildlife has taken numerous steps towards protecting

Washington's shellfish which led to the development of the [Safeguard Our Shellfish Campaign](#).

Member Fee requested a deeper look at lesser known invasive species at a future meeting.

For more information visit the [council's website](#).

Item 9: Quagga and Zebra Mussel Prevention Decision Package Overview (3:45:30)

Member Justin Bush provided a reminder of the economic and environmental risks that zebra and quagga mussels pose to Washington State, as discussed at previous meetings this year.

In August, a zebra mussel in a Marimo moss ball was reported by a Renton-based fish wholesaler. Washington Department of Fish and Wildlife initiated a response and confirmed the report through visual and genetic analysis. Washington Department of Fish and Wildlife is working with Washington Department of Agriculture, United States Fish and Wildlife Service, and United States Department of Agriculture and a federal investigation of the initial importer in Florida is underway.

Washington Department of Fish and Wildlife received a one-year Legislative proviso to increase zebra and quagga mussel preparedness and response readiness based on the 2023 quagga mussel detection in Idaho. Response efforts, monitoring, and mandatory watercraft inspections continue in Washington, downstream of this detection.

Washington Department of Fish and Wildlife developed a 2025-2027 biennium decision package, seeking \$1.81 million state and leverages \$1.8 million in federal funds to expand mussel activities and increase prevention activities, response readiness, public awareness, regulatory compliance, and preparation for extended management and mitigation.

Member Ripley noted the collaboration between United States Department of Agriculture Animal Plant Health Inspection Service and Washington Department of Fish and Wildlife on the Marimo moss ball incident. Member Bush added that Washington Department of Fish and Wildlife regulates the animal part of the incident and United States Department of Agriculture regulates the plant part. It is a great example of how invasive species managers can improve relationships with federal agencies through cooperation.

Item 10: State Agency Roundtable: Upcoming Session Updates ([4:22:37](#))

Recreation and Conservation Office

Brock Milliern provided RCO's update during Item 2.

Washington Department of Natural Resources ([4:23:13](#))

Chair Blain Reeves shared that Department of Natural Resources is seeking \$1.2 million in Fiscal Year 2025 and \$1.1 million in carry forward funding each year thereafter for a European green crab decision package. The package funds seven full time employees. Additionally, Department of Natural Resources is seeking Washington Conservation Corps resources to control noxious weed on state lands.

Washington Department of Ecology ([4:25:28](#))

Member Wes Glisson shared that Washington Department of Ecology is requesting \$540,000 biennial funds to expand and continue work to address European green crab in Padilla Bay. Questions about this request can be directed to Jude Apple at japple@padillabay.gov.

Washington Department of Fish and Wildlife ([4:28:09](#))

Member Justin Bush provided zebra and quagga mussel decision package details during Item 9.

Puget Sound Partnership ([4:29:16](#))

Member Todd Hass had no decision package proposals related to invasive species to share; however, over the next month, Puget Sound Partnership will be conducting its annual ranking of agency budget proposals related to Puget Sound recovery.

Washington State Department of Agriculture ([4:31:36](#))

Member Sven-Erik Spichiger, as a state plant regulatory official, is a member of the National Plant Board which receives updates from federal counterparts. There have been significant funding reductions to numerous projects that impact invasive species work in Washington and across the country. Washington State Department of Agriculture relies on several of these projects to fund personnel, including spongy moth. CAPs has also had a delay in receiving funding. Washington State Department of Agriculture is submitting decision packages for Japanese beetle, spongy moth, spotted lanternfly, a maintenance package to support positions that are traditionally federally funded. Additionally, Washington State Department of Agriculture is ready to withdraw the northern giant hornet package.

Washington State Noxious Weed Control Board ([3:35:15](#))

Member Mary Fee shared that the Washington State Noxious Weed Control Board requested a decision package for the 2025-2027 biennium for \$200,000 to support publications and outreach materials. Additionally, the Washington State Noxious Weed Control Board went through a strategic planning exercise for fiscal year 2025-2027 that focuses on education and coordination with other agencies. Class A Eradication projects were voted on in July. Next week, the 2025 Noxious Weed List proposals will be voted on and selected weeds will be moved forward to a hearing in November to decide whether they will be added to the noxious weed list.

Washington State Parks and Recreation Commission ([4:40:29](#))

Member Andrea Thorpe shared Washington State Parks and Recreation Commission's two main budget requests related to invasive species: an ongoing capital request for forest health work and an operations request to strengthen natural and cultural resources management.

Washington State Department of Transportation ([4:42:37](#))

Member Ray Willard noted roadside maintenance for invasive species control gets lumped in with all maintenance funding for Washington State Department of Transportation, and surveys show more weeds in rights-of-way each year. Typically, vegetation management receives around \$15 million from the total maintenance budget. Member Willard requested support from the Washington State Noxious Weed Control Board and the council during the upcoming legislative session and highlight this gap in funding to protect roadsides from terrestrial weeds and wildfire.

Chair Reeves will work with council staff on promoting this message.

Member Fee asked Member Willard to provide a template for a letter of support, and **Member Bush** suggested the council emphasize economic studies as a state.

Item 11: Future Meeting Planning Roundtable Discussion ([4:46:19](#))

Chair Blain Reeves requested members send their ideas for future meeting topics to Stephanie Helms.

General Public Comment

None.

ADJOURNED: 3:02 P.M. ([4:48:43](#))

The next council meeting will be held on December 5, Room 172, Natural Resources Building, 1111 Washington Street SE, Olympia, Washington 98501

Quagga and Zebra Mussel Prevention



2025-2027 Funding Request

\$7.2 million, ongoing



Quagga and zebra mussels pose an imminent threat to Washington's health, economy, and environment. Long-term mitigation and management costs of infestation are expected to exceed \$100+ million annually, disrupting hydropower production, agriculture, tourism, water supply, and fisheries including billions in investments in salmon recovery in the Columbia River Basin, freshwater ecosystems, and fish and wildlife resources. Recent discovery of quagga mussels in the Snake River underscores the urgent need to enhance our prevention measures and increase response planning and readiness activities. Swift and decisive action is crucial to prevent invasive mussels from establishing in Washington.



Prevention and readiness actions requested by the Legislature in Fiscal Year 2025 require ongoing funding. This request builds on the state's initial investment by supporting continual prevention, monitoring, and response planning efforts in partnership with tribal, state, and local agencies and the public. Additionally, state

investment will leverage funding from the U.S. Army Corps of Engineer's Aquatic Plant Control (APC) Watercraft Inspection and Decontamination (WID) cost-share program, which requires a 50% cost-share of non-federal funds.

Idaho's recent detection of quagga mussels in the Snake River, despite implementation of a treatment plan after initial detection in 2023, demonstrates the importance of continual monitoring efforts. Free-floating mussel larvae can travel downstream from the detection site and into Washington within one week. Invasive mussels can also spread through human activity such as movement of aquatic construction equipment or recreational boats. The Snake River is a popular destination for Washington boaters, increasing the possibility of invasive mussel transportation. Since 2020, more than 248,000 watercraft have been inspected at Washington's borders, intercepting 121 invasive mussel fouled vessels.

Contact information:

Justin Bush

Aquatic Invasive Species

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Melena Thompson

Legislative Director

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Quagga and Zebra Mussel Prevention



2025-2027 Fiscal Summary

Prevention
\$4,841,600

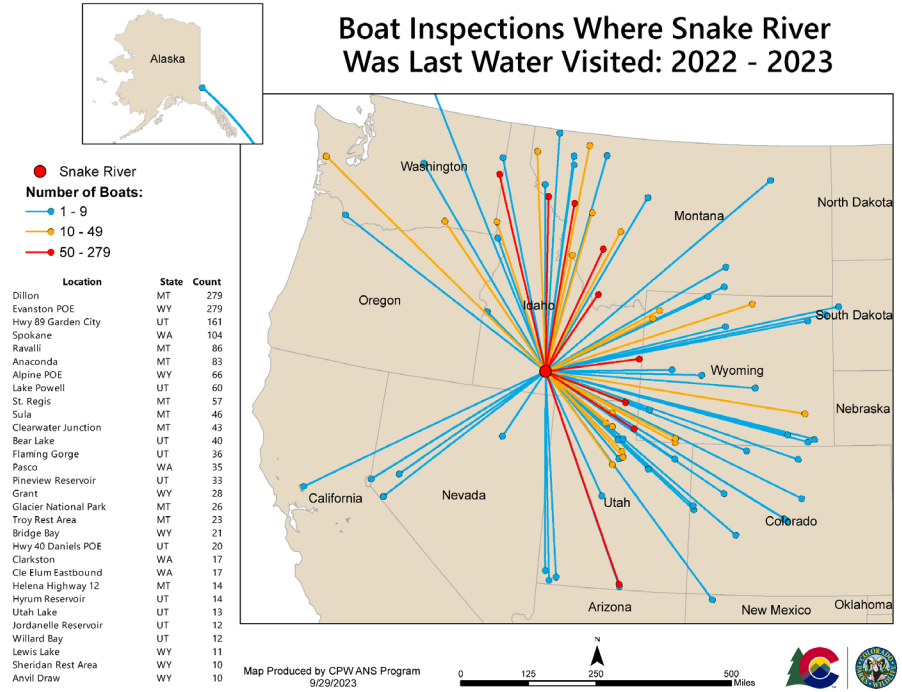
Readiness
\$1,210,400

Outreach, Education, and
Public Engagement
\$764,000

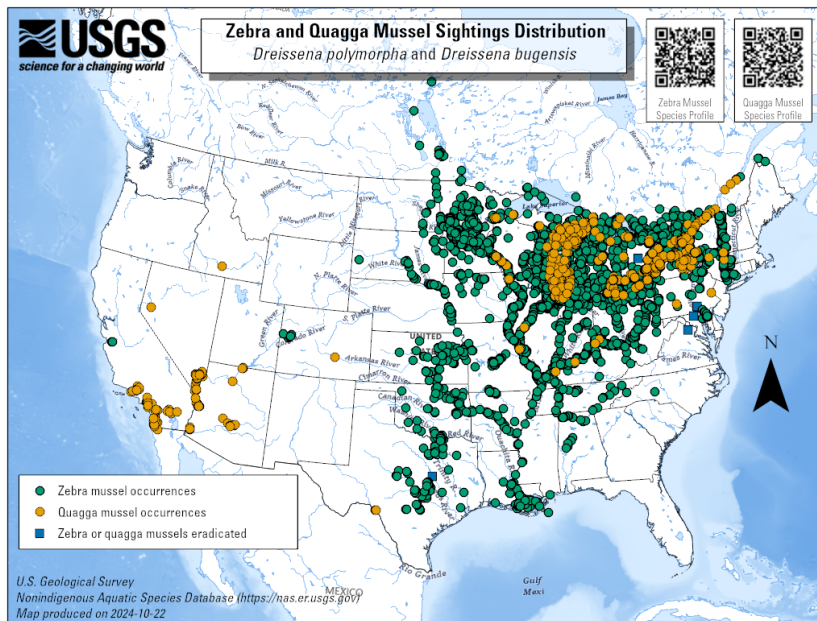
Local Government and Tribal
Capacity Building
\$424,000

**Total 2025-2027
and Ongoing
\$7,240,000**

Boat Inspections Where Snake River Was Last Water Visited: 2022 - 2023



Quagga and zebra mussel prevention is vital to protecting Washington’s human health, economy, culture, and environment. If unsuccessful or not feasible, the Department must have ample early detection monitoring practices in place to detect the first case of establishment and take swift action to eradicate them. This package provides ongoing investment to maintain and increase prevention and response readiness efforts necessary to address this imminent threat.



Golden mussel (*Limnoperna fortunei*)
Aquatic Invasive Species
Risk Screening Summary
Washington Department of Fish and Wildlife



Golden mussel (*Limnoperna fortunei*) – Aquatic Invasive Species Risk Screening Summary

Author

Brian Christopher Turner

Suggested citation

Turner BC. 2024. Golden mussel (*Limnoperna fortunei*) – Aquatic Invasive Species Risk Screening Summary. Olympia, WA: Washington Department of Fish and Wildlife.

Cover photo golden mussel shells collected in October 2024 at a water quality station at Rough and Ready Island near Stockton in San Joaquin County, California, USA. Photo: Elizabeth Wells, Ph. D. (California Department of Water Resources).

Request this information in an alternative format or language at wdfw.wa.gov/accessibility/requests-accommodation, 833-855-1012, TTY (711), or CivilRightsTeam@dfw.wa.gov.

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Acknowledgement

The United States Fish and Wildlife Service’s (USFWS) Ecological Risk Screening procedure was adapted for use in the development of the Aquatic Invasive Species Risk Screening Summary. The Washington Department of Fish and Wildlife is grateful for this collaboration and support.

Aquatic Invasive Species Risk Screening Summary

The Aquatic Invasive Species Risk Screening Summary is a rapid evaluation of a species’ potential invasiveness in Washington. Invasiveness is determined by their history of invasive impacts, potential to be transported into and within Washington, and similar local climate conditions as where the species is already established. These summaries provide an initial process to determine which species are more likely (**high risk**) and which are less likely (**low risk**) to arrive, survive, and have a detrimental impact in Washington. Species for which there is insufficient information to make such a determination are classified as **uncertain risk**.

This summary does not identify locations in Washington where an aquatic invasive species is most likely to become established, it also does not address monitoring or mitigation strategies.

This summary is not a complete review of the species summarized. If high risk, Washington Department of Fish and Wildlife will develop a comprehensive risk assessment. The following resources may provide additional information:

- Centre for Agriculture and Biosciences International (CABI) Compendium: <https://www.cabidigitalibrary.org/journal/cabicompendium>
- Global Biodiversity Information Facility (GBIF): <https://www.gbif.org/>
- National Estuarine and Marine Exotic Species Information System (NEMESIS): <https://invasions.si.edu/nemesis/>
- United States Geological Survey (USGS) Nonindigenous Aquatic Species List: <https://nas.er.usgs.gov/queries/SpSimpleSearch.aspx>
- USFWS Ecological Risk Screening Summaries [https://www.fws.gov/library/categories/ecological-risk-screening?\\$keywords=%22Corbicula%20fluminea%22&\\$skip=10](https://www.fws.gov/library/categories/ecological-risk-screening?$keywords=%22Corbicula%20fluminea%22&$skip=10)

Taxonomy

Information from Bánki et al. (2024).

Taxonomic tree

Domain: Eukaryota

Kingdom: Metazoa

Phylum: Mollusca

Class: Bivalvia

Subclass: Pteriomorpha

Order: Mytiloidea

Family: Mytilidae

Genus: *Limnoperna*

Species: *Limnoperna fortunei* (Dunker, 1857)

Synonyms and Other Names

Volsella fortunei (Dunker, 1857)

Limnoperna coreana (Park & Choi, 2008)

Limnoperna lacustris (E. von Martens, 1875)

Modiola lacustris (E. von Martens, 1875)

Mytilus martensi (Neumayer, 1898)

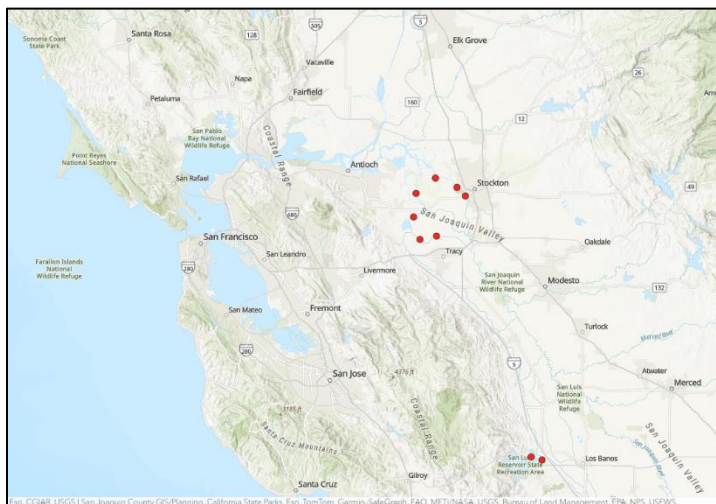
Modiola cambodjensis (Clessin, 1889)

Common Names:

Golden mussel

Context

On November 6, 2024, California Department of Fish and Wildlife announced the discovery of golden mussels (*Limnoperna fortunei*) in the Port of Stockton by California Department of Water resources staff



while conducting routine operations. This is a rapidly developing situation, and reports continue to come in and are being followed up on. These mussels were likely introduced to California by a ship traveling from an international port. This discovery is the first known occurrence of golden mussels in North America. Delineation is ongoing, with 8 known locations as of November 13, 2024. Additional validated sightings will be made available on a map at the following website: [Golden Mussel Sightings in California](https://cdfw.maps.arcgis.com/apps/mapviewer/index.html?webmap=c3912a3866054beeb4d782c93aac007e).

Figure 1. Sightings of golden mussels in California as of November 19, 2024.
<https://cdfw.maps.arcgis.com/apps/mapviewer/index.html?webmap=c3912a3866054beeb4d782c93aac007e>

Status in Washington

Classification under Washington Administrative Code (WAC) Chapter 220-640

L. fortunei is not listed as a Prohibited or Regulated type A or B aquatic invasive species under [Chapter 220-640 WAC](#). Therefore, *L. fortunei* is classified as a Regulated Type C species under [WAC 220-640-080](#). Per Revised [Code of Washington \(RCW\) 77.135](#), Regulated Type C species may not be introduced on or into a water body or property without department authorization, a permit, or as otherwise provided by rule.

Distribution in Washington

As of 11/7/2024, there have been no recorded detections of *L. fortunei* in Washington.

Existing Risk Screening Summary and Assessments

Golden Mussel (*Limnoperna fortunei*) Ecological Risk Screening Summary. (USFWS, 2020)

A risk assessment of the golden mussel, *Limnoperna fortunei* (Dunker, 1857) for Ontario, Canada. (Mackie and Brinsmead, 2017)

Distribution

Native Range

L. fortunei is native to Southeast Asia, specifically lakes and rivers of China. This species also occurs naturally in Laos, Cambodia, Vietnam, Korea, Indonesia and Thailand (Ricciardi, 1998).

Introduced Range

Invasive populations of *L. fortunei* have been found in Japan, Hong Kong, Taiwan, Brazil, Argentina, Bolivia, Uruguay, Paraguay (GBIF Secretariat, 2023), and the United States (USGS, 2024).

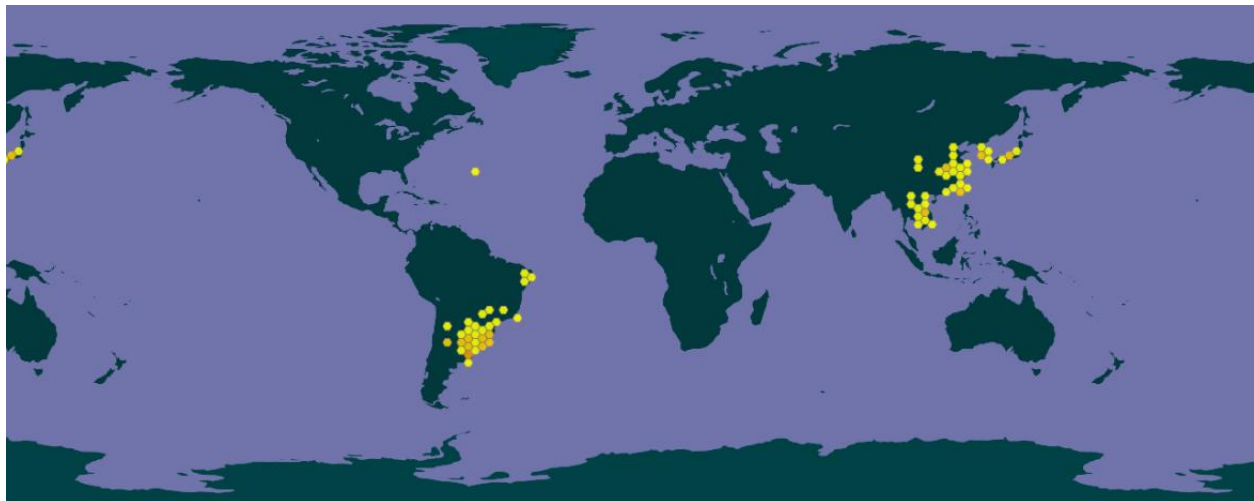


Figure 2 Global distribution (native and non-native detections) of golden mussel (*Limnoperna fortunei*) as of Nov. 7, 2024
Please note this map has not been updated to include recent detections in California. <https://www.gbif.org/species/5855350>

Presence in United States

Specimens of *L. fortunei* were found in Merced and San Joaquin counties in California in October 2024 (USGS, 2024).



Figure 3 Distribution of the golden mussel (*Limnoperna fortunei*) in the United States as of Nov.7, 2024. <https://nas.er.usgs.gov/viewer/omap.aspx?id=07de5959-edf7-47b6-9aaa-862b41878a0a>

Ecology

Mackie and Brinsmead (2017)

“The golden mussel, *Limnoperna fortunei* (Dunker, 1857) (Figure 1) is a mytilid mussel related to the marine Blue Mussel (*Mytilus edulis*; Linnaeus, 1758) and has the same invasive characteristics as freshwater dreissenids. Like zebra (*Dreissena polymorpha*; Pallas, 1771) and quagga mussels (*Dreissena bugensis*; Andrusov, 1897) they secrete byssal threads and attach to solid substrates and foul any suitable natural or man-made surface causing macrofouling problems in industrial installations (Mackie and Claudi, 2010).”

CABI (2024)

“*L. fortunei* inhabits rivers, streams, lakes, dams and estuaries. In Asia, it is found between 8-32°C, with confirmed occurrences up to 35°C. In South America, in a temperate area, *Limnoperna* populations can develop between 11 and 28°C (approximately) (Darrigran et al., 2003). In a subtropical area, the reported temperatures are 17-29°C (Mansur et al., 2004). It is intolerant to extended anaerobic conditions. Mansur et al. (2004) reported the pH tolerance range of 5.8-9.3.”

“*L. fortunei* is a freshwater species that can inhabit brackish waters and maintain substantial populations in estuarine habitats. It is tolerant to polluted and contaminated waters with low calcium and pH levels.”

“*L. fortunei* filters a wide range of particles, such as algae, zooplankton and organic matter. The larval stages feed on bacteria.”

Means of Introduction and Spread

Darrigran and Pastorino (1995)

“As the country with the steepest increment in imports is Hong Kong (more than fivefold times) and the presence of *Limnoperna fortunei* is confirmed (Morton, 1987), it seems to be the source of the Argentinian population of this species. Although it is not used as food, it may have been transported in tanks containing untreated fresh water.”

Magara et al. (2001)

“The aquatic nuisance mussel, *Limnoperna fortunei*, arrived in Japan before 1987 possibly with the Asian clam imported as food from mainland China. Now the mussel's distribution has spread to two river systems in central Japan.”

Darrigran (2002)

“Darrigran and Pastorino (1995) described the transport and release of this species into South America as a non-intentional introduction through ballast waters of ocean vessels.”

“*Limnoperna fortunei* has an epifaunal mode of life, attaching to a wide variety of hard substrates, both natural (from trunks and aquatic plants to compact silt, sand) and artificial (docks, tubes, walls, etc.).”

Boltovskoy et al. (2006)

“Along the Paraná-Paraguay waterway, which hosts intense boat traffic, *L. fortunei* has moved upstream at an average rate of 250 km per year. In contrast, along the Uruguay river, where boat traffic is restricted to the lowermost 200 km section, upstream colonization is almost 10-times slower. This suggests that attachment to vessels is by far the most important dispersion mechanism.”

Mackie and Brinsmead (2017)

“The arrival of golden mussel by overland transport is considered low because either the distance traveled overland (i.e. from west coast to Great Lakes) is too great for survival of propagules, or because there are few ballast water discharge events from ships arriving at Atlantic Ocean ports. However, some caution is warranted because the probability of dispersal of zebra mussels into western United States was assessed as a low probability event, but we now know this prediction was incorrect.”

CABI (2024)

“The natural dispersal of *L. fortunei* is passive, and occurs as veliger larvae that are passively transported from colonized areas through connected streams. The natural dispersal is downstream and dependent on water currents.”

“In Guaíba Basin, it was also probably introduced via ballast water (Mansur et al., 1999) and in the Itaipu reservoir (Zanella and Marenza, 2002) probably via boats used for sport.”

“In South America, the identified vectors are commercial and sport ships and boats, live bait, nets, and buoys that spread the species through the basin. Other vectors are the trucks that transport sand from an invaded beach to other areas (Darrigran, 2002; Belz, 2006). Magara et al. (2001) proposed that *L. fortunei* arrived in Japan before 1987 possibly with the Asian clam imported as food from mainland China.”

Record of Invasiveness

Ecological Impacts

CABI (2024)

“The impact caused by *L. fortunei* it is not restricted to the economic aspect. Darrigran et al. (1998) showed that since the introduction of *L. fortunei* at Bagliardi Beach, two gastropods commonly found have been displaced: one of them, *Chilina fluminea*, is no longer found; whereas the other, *Gundlachia concentrica*, is becoming rare. In contrast, several benthic species, uncommon or absent before the occurrence of *L. fortunei* in this microenvironment, are now present, including the Annelids: Oligochaeta (eight species), Aphanoneura (one species) and Hirudinea (eight species). In addition, several species of crustaceans and insects never cited at the invaded areas are now present (Darrigran et al., 1998).”

“The most direct and severe ecological impact has been the epizotic colonization of native naiads (Hyriidae and Mycetopodidae) by *L. fortunei*, similar to the impact of *D. polymorpha* on native bivalves in North America (Ricciardi et al., 1997). The displacement of the native naiads resulted from their inability to open and shut their valves because of the byssally-attached mussels on their shells. The quantitative impact of *L. fortunei* on native naiads in South America is unknown. *L. fortunei* also settles on other native fauna, such as *Pomacea canaliculata* (Gastropoda, Ampullariidae) and *Aegla platensis* (Anomura, Aeglidae), as well as on the introduced *Corbicula fluminea* (Bivalvia, Corbiculidae) (Darrigran et al., 2000; Darrigran, 2002).”

“However, many other aspects of the biology of *L. fortunei* are poorly understood (Sylvester et al., 2005), including its filtering capacity. Because of its high density in the Plata basin, *L. fortunei* could increase water clarity in a manner similar to that caused by *Dreissena polymorpha* in North America (Darrigran and Damborenea, 2005).”

“The large biomass associated with high densities of *L. fortunei* impacts on aquatic food chains. Several species of native fish consume *L. fortunei* (López Armengol and Casciotta, 1998; Montalto et al., 1999) and it has become the main food source for *Leporinus obtusidens* (Anostomidea) in the Río de la Plata (Penchaszadeh et al., 2000).”

Economic Impacts

Darrigran and Damborenea (2005)

“Freshwater macrofouling, caused by *L. fortunei*, is a novel economic problem in South America. Previously, macrofouling was only a problem in coastal and estuarine localities. Now, however, major industries in Argentina, Brazil, Uruguay, and Paraguay are faced with problems including reduction of water-pipe diameter, blockage of pipelines, decrease of water velocity, accumulation of empty shells, contamination of water by dead mussels, and blockage of filters by larvae and juveniles and their settlement in different parts of the processing plants (Darrigran, 2000). These problems have been

recorded in numerous installations, including water purifying plants, hydroelectric plants, thermal plants, freezing plants, and oil factories. As a consequence, costs rise because of shutdowns caused by pipeline obstructions and the need for periodic mechanical or chemical cleaning as well as the replacement of pipes and filters. Most information on this issue is contained in technical reports that are not widely available.”

CABI (2024)

“This kind of problem (freshwater macrofouling) is caused by the appearance of larvae or juveniles of *L. fortunei*. It impacts the sources of water supply of many water-treatment plants, industrial refrigeration systems, and power stations. Among the usual problems involved, the following are the most significant: pipe obstruction; reduction in flow velocity in pipes due to friction loss (turbulent flows); accumulation of empty valves and pollution of water ways by massive mortality; filter occlusion; and increase in the corrosion of surfaces due to mussel infestation. This new economic and environmental problem for the neotropical regions produces unexpected expenses, for example, due to system shutdowns, the need for chemical or mechanical cleaning, and pipe and filter replacement.”

Summary

The potential ecological and economic impacts of *L. fortunei* are similar to those from zebra (*Dreissena polymorpha*) and quagga mussels (*Dreissena bugensis*). Ecological impacts include competition with and displacement of native species and alteration of food webs. Economic impacts result primarily from mussels attaching to hard substrates, which fouls boats and docks, clogs water intake pipes, and requires a significant allocation of resources for maintenance efforts.

Climate Matching

USFWS (2020)

“The climate match for *Limnoperna fortunei* was high throughout the east, southeast, and central area of the contiguous United States. The west and most of the northern area of the country was low. The overall Climate 6 score (Sanders et al. 2018; 16 climate variables; Euclidean distance) for the contiguous United States was 0.184, high (scores of 0.103 and greater are classified as high). The following States had high individual Climate 6 scores: Alabama, Arkansas, Delaware, Florida, Georgia, Illinois, Indiana, Louisiana, Maryland, Missouri, Mississippi, North Carolina, New Jersey, New Mexico, Ohio, Oklahoma, Pennsylvania, South Carolina, Texas, Virginia, and West Virginia. States with medium individual climate scores included Arizona, Kentucky, Michigan, New York, and Tennessee. All other States had low individual climate scores.”

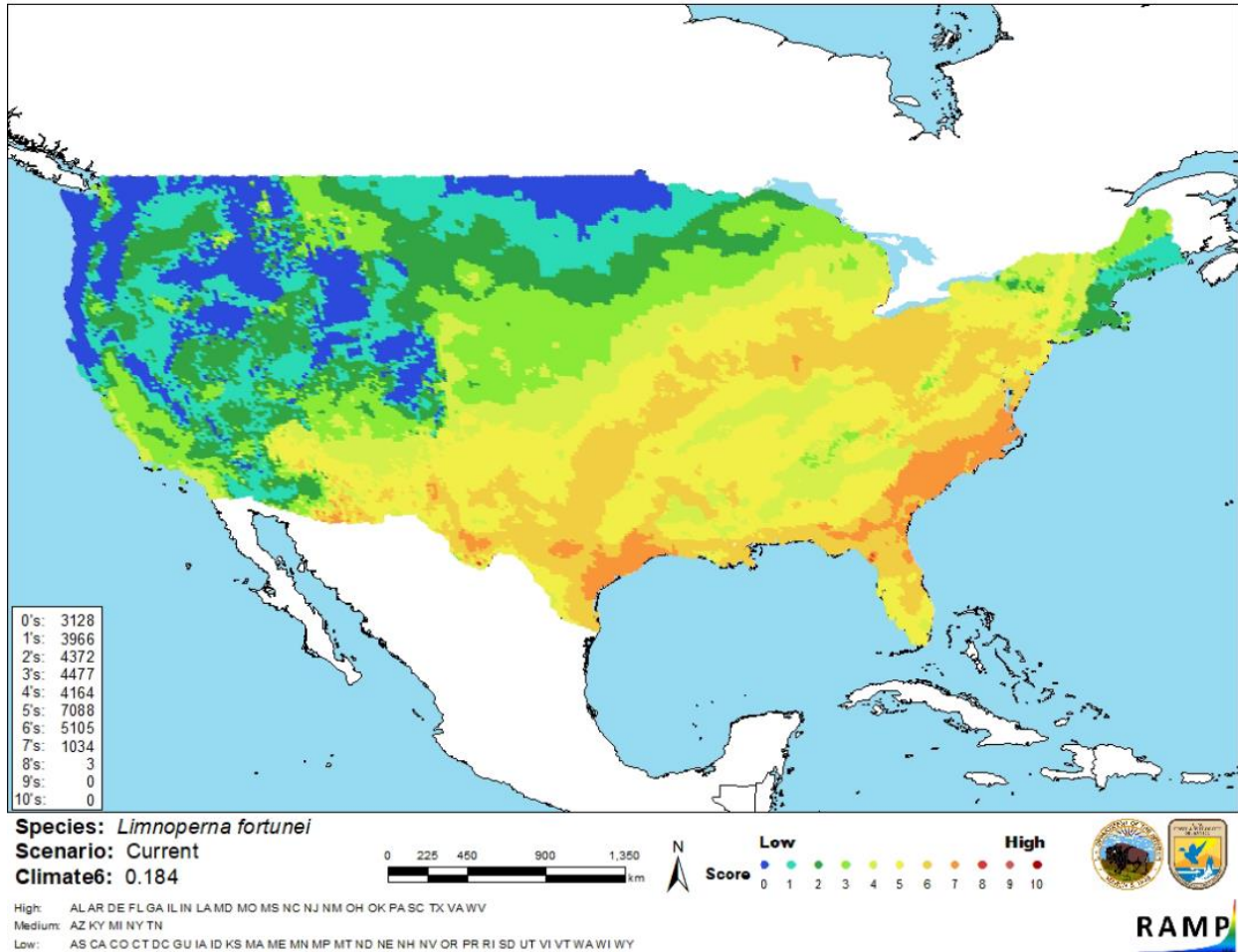


Figure 4 Map of RAMP (Sanders et al. 2018) climate matches for *Limnoperna fortunei* in the contiguous United States. Based on source locations reported by GBIF Secretariat (2020). Counts of climate match scores are tabulated on the left. 0/Blue = Lowest match, 10/Red = Highest match. Image taken from USFWS (2020). Washington is listed as a Low climate match for *L. fortunei*.

Mackie and Brinsmead (2017)

“However, a good surrogate of survey effort is demonstrated in determining the distribution of the Asian clam, *Corbicula fluminea* (O. F. Müller, 1774), which is often associated with the golden mussel (Morton, 1996; Darrigran and Pastorino, 1995, 2004; Magara et al., 2001; Darrigran and Damborenea, 2006; Darrigran et al., 2012). Figure 4 shows the global distribution of the Asian clam up to 2015 (Gama et al., 2016). Its isolated occurrence in Ontario is probably due to its broader tolerance of low temperatures than golden mussel, and despite this, Asian clam has not become widespread in Ontario.”

Summary

Washington is a low climate match for *L. fortunei* based on the analysis performed by USFW (2020), though the lack of geospatial data for *L. fortunei* populations in several countries (Democratic People’s Republic of Korea, Republic of Korea, Indonesia, Taiwan, Indonesia, Bolivia, and Paraguay) may reduce certainty of this conclusion. If the analysis by USFWS (2020) is accurate, environmental conditions may at least serve as a partial barrier to the establishment of *L. fortunei*. Mackie & Brinsmead (2017) highlight the common association of *L. fortunei* with the Asian clam, *Corbicula fluminea*, an established

invasive species in Washington. While the presence of *C. fluminea* does not guarantee environmental conditions are suitable for *L. fortunei*, it may suggest locations of increased establishment risk.

Certainty of Assessment

Information regarding *L. fortunei*'s distribution, ecology, and invasiveness is readily available from a variety of peer-reviewed sources. Overall, the certainty about this assessment is high.

Risk Summary

Risk Levels

High risk: Species that are considered high risk have a well-documented history of invasiveness in at least one location globally and are an establishment concern for Washington.

Low risk: Species that are considered low risk present a minimal risk of invasiveness because their establishment is doubtful within Washington AND there is no evidence of invasiveness globally.

Uncertain risk: Species that are considered uncertain risk need a more in-depth assessment beyond the Risk Summary to better define the species' risk to Washington environments.

Summary

The golden mussel, *Limnoperna fortunei*, is a well-documented aquatic invasive species throughout Eastern Asia and South America. The establishment of *L. fortunei* in these regions has resulted in ecological and economic impacts like those caused by zebra (*Dreissena polymorpha*) and quagga mussels (*Dreissena bugensis*). Given the recent detections in California, populations of *L. fortunei* are far closer to Washington, increasing the risk of introduction. Climatic conditions in Washington are a low match with regions where *L. fortunei* is established and may serve as at least a partial buffer to establishment. However, *L. fortunei* is commonly associated with the Asian clam, *Corbicula fluminea*, an established invasive species in Washington. While the presence of *C. fluminea* does not guarantee environmental conditions are suitable for *L. fortunei*, it may suggest locations of increased establishment risk. **Based on the available literature, we conclude that there is a high risk of *L. fortunei* establishment and impact should it be introduced to the waters of Washington.**

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Washington Invasive Species Council Briefing Memo

Meeting Date: December 5, 2024

Title: Invasive Species Strategy for Puget Sound Partnership Action Agenda update

Prepared By: Stephanie Helms, Washington Invasive Species Council Executive Coordinator

Todd Hass, Justin Bush, Washington Invasive Species Council Members

Summary

This memo summarizes Item 9 on the agenda, which provides an overview of invasive species related updates in the Puget Sound Partnership Action Agenda, calls for participation in a subject matter expert working group, and outlines timelines and expectations.

Board Action Requested

This item will be a:

<input type="checkbox"/>	Request for Decision
<input type="checkbox"/>	Request for Direction
<input checked="" type="checkbox"/>	Briefing

Background

Puget Sound Partnership, a member agency of the Washington Invasive Species Council, is updating their Action Agenda for 2026-2030, with one task dedicated to invasive species.

Objective

The partnership is seeking subject matter experts to meet and review the Invasive Species Task in the last Action Agenda, as well as provide and compile feedback on key opportunities and priorities for the Invasive Species Task in the upcoming Action Agenda update. Feedback will be compiled into a recommendations document to be shared at the March 2025 council meeting and submitted to Puget Sound Partnership. Considerations will include:

- What work has been achieved?
- What key opportunities need to be refocused?

- How does this align with the current statewide strategy?

Timeline

Two meetings will be scheduled in spring of 2025. An optional third meeting will be offered if participants desire to review the compiled recommendations together.

Timeline is as follows:

- February 2025, 1.5-hour meeting
- March 2025, 1.5-hour meeting
- Update at March 20, 2025 meeting of the Washington Invasive Species Council
- April 2025, optional meeting

Documents to be Provided to Participants

1. Guidance Document to be developed by Stephanie Helms, Member Todd Hass, and Member Justin Bush
2. A copy of the current 2020-2026 Puget Sound Partnership Action Agenda
3. A copy of the current 2020-2025 Invasive Species Council Strategic Plan
4. Past meeting documents from the last update for reference

Attachment

- A. Invasive Species in current Action Agenda: [Action Agenda 2022 \(2\).pdf](#) – Page 79-81



STRATEGY 14

Invasive Species

Monitor and rapidly respond to the introduction and spread of terrestrial and aquatic invasive species.

STRATEGY DESCRIPTION

Invasive species have the potential to negatively impact biodiversity in various terrestrial and aquatic habitats and food webs. Many nonnative predatory fish species outcompete native fish species which can lead to the decimation of native fish communities such as steelhead and salmon species, including Chinook. Over the past several decades, intentional and illegal introductions of nonnative fish have been observed.

This strategy focuses on the need to protect and restore the native diversity and abundance of Puget Sound species and prevent and respond to the introduction of terrestrial and aquatic invasive species. To be effective at protecting and enhancing biodiversity in the ecosystem, species recovery plans must be implemented in an integrated and coordinated way, across geographies and jurisdictions. This includes supporting ongoing programs and efforts across state agencies to monitor, assess and rapidly respond to the introduction and spread of terrestrial and aquatic invasive species. Monitoring invasive species will allow agencies to establish targeted approaches to ultimately reduce invasive populations and limit their spread to other locations.



WHAT DOES SUCCESS LOOK LIKE?

We achieve our recovery goal of thriving species and food webs by increasing the ability to respond to emerging outbreaks and ongoing impacts of invasive species.

ACTIONS

Prevent and rapidly respond to the introduction and spread of terrestrial and aquatic invasive species, including green crab, predatory fish, and invasive plants. (ID #46)

Key opportunities for 2022-2026 include:

- ▶ Use surveillance to detect invasive species and better understand pathways of introduction;
- ▶ Establish response networks for coordinated rapid response to invasive species;
- ▶ Support and encourage voluntary groups working to reduce and control invasive species.

Develop, fund, and implement coordinated outreach and incentive programs that educate and raise awareness and motivate action for Puget Sound residents (including boaters) to reduce the spread of invasive species. (ID #202)

Key opportunities for 2022-2026 include:

- ▶ Use surveillance to detect invasive species and better understand pathways of introduction;
- ▶ Educate communities including residents and visitors including boaters and preK-16 students;
- ▶ Increase education and signage at all public boat launches, large and, perhaps small (cleaning, disinfection, enforcement) for both marine and freshwater bodies;
- ▶ Include education (flyers) when registering boat licenses and purchasing fish and shellfish harvest licensing;
- ▶ Increase more boat inspection stations along highways (like Zebra mussels), like along trucker way stations.

Create an integrated planning approach to protect and enhance biodiversity in the Puget Sound ecosystem by mitigating the threat of invasive species. (ID #203)

Key opportunities for 2022-2026 include:

- ▶ Address key invasive species research questions;
- ▶ Collaborate on monitoring and mitigation across state and local agencies and tribal co-managers;
- ▶ Support pilot studies to test invasive removal and management approaches;
- ▶ Establish regulations for inter and intrastate boat inspections.

IMPLEMENTATION CONSIDERATIONS

Key opportunities for 2022-2026 to integrate human wellbeing considerations in efforts to Monitor and rapidly respond to the introduction and spread of terrestrial and aquatic invasive species include:

- ▶ Better articulate connections between invasive species and their impacts on the Puget Sound ecosystem, including human health and communities.
- ▶ Expand local programs (for example, Green Cities) that offer volunteer stewardship opportunities and learning to promote native plant care, planting, invasive species removal, and eradication.
- ▶ Expand training and financial support for community science to monitor invasive species.
- ▶ Leverage existing preK-16 curricula to include invasive species identification and prevention created and awareness of invasive species.
- ▶ Develop guidance that provides specific examples for how to hold accessible meetings (time, locations, incentives, compensation, etc.). This includes asking communities how they want to be involved.
- ▶ Collaborate with communities to determine engagement and outreach opportunities as well as the best opportunities to take action (for example, incentives, community-based events, and preK-16 curricula), identify, remove, eradicate, and prevent invasive species at the local level.
- ▶ Engage residents in frequented community spaces (for example, garden stores, social media, grocery stores, and restaurants).
- ▶ Develop (or leverage existing) guidance on plain language material development and how to create accessible materials in multiple languages and formats for meetings.
- ▶ Ensure field staff from all jurisdictions are trained in recognizing and preventing invasive species.
- ▶ Collaborate with nurseries, native plant and gardening groups, and schools in education on native plant benefits and impacts of non-native plants.
- ▶ Include information on invasive species identification, removal, and prevention in navigational maps.
- ▶ Develop communication materials articulating connections between the natural resource industry and Puget Sound recovery; enhance messaging around sustainable and non-sustainable products (for example, sustainable fish consumption).
- ▶ Create a coordinating body or hub to provide education, training, communication, and technical support to local groups around oil spills, invasive species, and boater best practices.



- ▶ Identify vulnerable populations and underserved communities to the impacts of invasive species across Puget Sound.

Key opportunities for 2022-2026 to integrate climate change responses in efforts to monitor and rapidly respond to the introduction and spread of terrestrial and aquatic invasive species include:

- ▶ Incorporate climate change information into integrated planning for protecting and enhancing biodiversity.
- ▶ Include climate change in research and monitoring of invasive species.
- ▶ Use volunteer invasive removal and tree planting events to educate the public about climate.

COLLABORATING PARTNERS

- ▶ Federal agencies (for example, National Oceanic and Atmospheric Administration, U.S. Fish and Wildlife Service, U.S. Geological Survey, and U.S. Environmental Protection Agency)
- ▶ Tribal governments, representatives, and consortia
- ▶ State agencies (for example, Washington Department of Fish & Wildlife, Washington Department of Transportation, Governor's Salmon Recovery Office, and Recreation and Conservation Office)
- ▶ Nongovernmental organizations (for example, PreK-12 education programs, Pacific Northwest Invasive Species Council)

- ▶ Businesses and private sector
- ▶ Local governments (for example, city and county)
- ▶ Local Integrating Organizations
- ▶ Salmon recovery and watershed groups
- ▶ Academic and research institutions (for example, University of Washington Sea Grant)
- ▶ Vulnerable populations and underserved communities
- ▶ Community-based organizations

ONGOING PROGRAMS

Ongoing programs provide regulatory oversight, technical support, implementation resources, funding, or guidance and serve as the critical foundation for Puget Sound recovery. The following is a list of example state and federal ongoing programs that help to implement this strategy. Many more local, tribal nations, and nongovernmental programs exist that support this strategy. See [Puget Sound Info](#) for a broader list of relevant programs.

- ▶ [2015 Washington Invasive Species Council Strategic Plan](#) (RCO)
- ▶ [Aquatic Invasive Species Prevention and Enforcement](#) (WDFW)
- ▶ [Invasive Species Management](#) (DNR)
- ▶ [Puget Sound Corps](#) (DNR)
- ▶ [USGS Science and Research Programs](#) (U.S. GS)

Washington Invasive Species Council Briefing Memo

Meeting Date: December 5, 2024

Title: Strategic Plan Update for 2025-2030 Brainstorming Kick-Off

Prepared By: Stephanie Helms, Washington Invasive Species Executive Coordinator

Summary

This memo summarizes Item 10 on the agenda, which kicks off the Strategic Plan update process by highlighting achievements over the span of the current Strategic Plan, calls for participation in a working group, and outlines timelines and expectations.

Board Action Requested

This item will be a:

- Request for Decision
- Request for Direction
- Briefing

Background

The Washington Invasive Species Council will update their Strategic Plan for 2026-2030. The executive coordinator will kick off the process with a presentation on successes over the past five years, as outlined in the current strategy, before opening for discussion and next steps. Next steps will include the formation and convening of a Strategic Plan Working Group to meet monthly between January and July 2025. The updated strategic plan will be adopted by the council prior to submission to the legislature.

Objective

The agenda item objective is to present on council achievements over the last five years as outlined in the current Strategic Plan and serve as a call-to-participate in the Strategic Plan Working Group.

Participation Expectations

Participants in the Working Group will attend monthly meetings between January 2025 and July 2025. All other council members will be expected to take two anonymous surveys, one in the beginning of the process and one to review proposed actions, regardless of status on the working group. The following is a rough estimate of time commitments:

- Six to seven monthly meetings, two hours each (Working Group participants)
- Fifteen hours of meeting time over seven months (Working Group participants)
- Three hours of solo work for review and anonymous surveys (All council members)
- Two hours of council meeting time for review and adoption in March and July, respectively (All council members)

Two anonymous surveys will be distributed:

1. The first will ask council members to rate the elements of the current Strategic Plan (key priorities, key objectives, and proposed achievements) based on their relevance to the upcoming strategy, importance, and whether those elements were addressed over the last five years.
2. The second will ask council members to rate the proposed elements for the new strategic plan to ensure buy-in from all members and stakeholders.

Meeting topics:

Please note: the proposed schedule is subject to change.

1. January Topic – **Current State**: review first survey, complete SWOT (strengths, weaknesses, opportunities, threats) and PESTLE (political, economic, social, technological, environmental, legal) analysis and connect back to survey results
2. February – **Future State**: Review and confirm current Vision and Mission. What does success look like? Examine three-year vision and long-term vision. Review and average results for key priorities.
3. March – **Prioritization**: Look at survey results for key objectives and achievements. What key objectives did the council meet, based on what the council achieved? What areas need further examination?

Update at March council meeting with working group results thus far

4. April – **Risk Analysis**: What can and will get in the way? How does the council mitigate those risks and how does it translate into action?
5. May – **Actions**: What actions do we take? Fill in recommendations as a group. Send out recommendations to council via a survey.
6. June – Review council feedback in survey. Finalize proposals as a group and package for council review.

7. July – Optional meeting for extra review and/or office hours before sending out final plan draft to council for review before July meeting. This meeting can be cancelled if Working Group feels that the plan draft is ready to present.

Share final draft of working group proposals and motion to adopt

Attachment

- A. [Washington Invasive Species Council 2020-2025 Strategic Plan](#)



**AFRICAN
CLAWED FROG**
(*XENOPUS LAEVIS*)

**RIGHT: OSHV-1
SHELLFISH VIRUS**
(*OSTREID HERPESVIRUS
TYPE 1*)



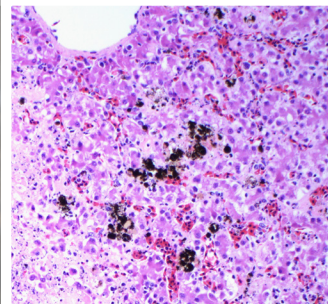
**ASIAN
GIANT HORNET**
(*VESPA MANDARINIA*)



**WHITE-NOSE
SYNDROME DISEASE**
(*PSEUDOGYMNOSCUS
DESTRUCTANS*)



**GARLIC
MUSTARD**
(*ALLIARIA
PETIOLATA*)



Washington Invasive Species Council 2020-2025 Strategic Plan



WASHINGTON STATE
RECREATION AND CONSERVATION OFFICE
Washington Invasive
Species Council

Council Organizations

The council is comprised of members from state, federal, local, regional, and tribal government agencies; non-governmental organizations; and industry groups. The council meets quarterly and provides a venue for regular communication among its members, partners, and the public. This ongoing coordination results in consistent statewide priorities, efficient management approaches, and common messaging to prevent the introduction and spread of invasive species in Washington State.

Chelan Public Utility District | Shaun Seaman

Columbia Land Trust | Ian Sinks

Kalispel Tribe of Indians | Joe Maroney, Chair

King County | Steve Burke

Northwest Power and Conservation Council | Kendall Farley

Puget Sound Partnership | Todd Hass

Stillaguamish Tribe of Indians | Pat Stevenson

U.S. Coast Guard | Vacant

U.S. Customs and Border Protection |

Trade Supervisor and Operations Manager

U.S. Department of Agriculture | Clinton Campbell

U.S. Department of the Interior | Heidi McMaster

U.S. Fish and Wildlife Service | Pat DeHaan

U.S. Forest Service | Karen Ripley

Washington State Department of Agriculture | Brad White

Washington State Department of Ecology | Lizbeth Seebacher

Washington State Department of Fish and Wildlife | Allen Pleus

Washington State Department of Natural Resources |

Blain Reeves, Vice Chair

Washington State Department of Transportation |

Ray Willard, Immediate Past Chair

Washington State Noxious Weed Control Board | Mary Fee

Washington State Parks and Recreation Commission |

Andrea Thorpe

Washington State University | Todd Murray

Yakima County | Ron Anderson

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YouTube

[youtube.com/channel/
UCXoDMajDN-kbUoqdbACV9jA](https://youtube.com/channel/UCXoDMajDN-kbUoqdbACV9jA)

Twitter

twitter.com/WAinvasives

Instagram

[instagram.com/
wa_invasivespeciescouncil/](https://instagram.com/wa_invasivespeciescouncil/)

Administrative services are provided by the Recreation and Conservation Office (rco.wa.gov).

If you need this information in an alternative format, please call 360-902-3000 or TDD 800-833-6388.



Washington Invasive Species Council 2020-2025 Strategic Plan

“**Invasive species**” include non-native organisms (terrestrial and aquatic plants, animals, wildlife diseases, and insects) that cause economic or environmental harm and are capable of spreading to new areas of the state. “Invasive species” does not include domestic livestock, intentionally planted agronomic crops, or non-harmful exotic organisms.

Mission

The council provides policy level direction, planning, and coordination that will:

- Empower those engaged in the prevention, detection, and eradication of invasive species.
- Include a strategic plan designed to build upon local, state, and regional efforts, while serving as a forum for invasive species education and communication.

Vision

Sustaining Washington’s human, plant, and animal communities and our thriving economy by preventing the introduction and spread of harmful invasive species.

Purpose

Established by the Legislature in 2006, the council is tasked with providing policy level direction, planning, and coordination for combating harmful invasive species throughout the state and preventing the introduction of others that may be harmful. The council is tasked with improving coordination of state invasive species activities to ensure the investments made today are the right investments for the future.

Key Strategic Areas

- Leadership and Coordination
- Innovation and Research
- Education and Outreach
- Prevention
- Early Detection and Rapid Response
- Containment, Control, and Eradication



Leadership and Coordination

Key Priorities

1

Statewide leadership and information sharing

2

Coordination and partnerships

3

Coordination and response structures and processes

4

State and federal polices and programming

5

Sovereign nations and municipalities

6

Unified industry and government

▼ Key Objectives

- **Function as a regional hub** for leadership and information sharing across all jurisdictions.
- **Continue statewide and regional coordination and develop new partnerships** with industry, governments, and non-governmental organizations.
- **Reinforce existing collaboration** with organizations, in addition to creating new processes for tribal, municipal governments, regional invasive species organizations and others.
- **Ensure adequate resources, polices, and programs** at the federal, state, and local levels.

Before the Invasive Species Council, there was no organized forum for tackling many emerging issues. The council has helped bring the right people to the table to find balanced solutions to these important issues.



▼ What We Will Achieve

- **Extension of the council** from 2022 to 2032.
- **An understanding of the capacity, capabilities, and needs** of tribal governments and municipalities through a survey.
- **Advocacy for invasive species programs** and activities at the state and federal levels.
- **Collaboratively developed model coordination** and information sharing structures and processes for tribal and municipal governments and others.
- **Adequate resources, policies, and programs** at the federal, state, and local levels through collaboration with organizations such as the Pacific Northwest Economic Region, Western Governors' Association, and Pacific States Marine Fisheries Commission.





Innovation and Research

Key Priorities

1
Understanding and
evaluating impacts
and invasion
pathways

2
Resilient
landscapes and
climate change

3
Vulnerable species,
resources, and
infrastructure

4
Diversity,
inclusion, equity,
and social
justice

▼ Key Objectives

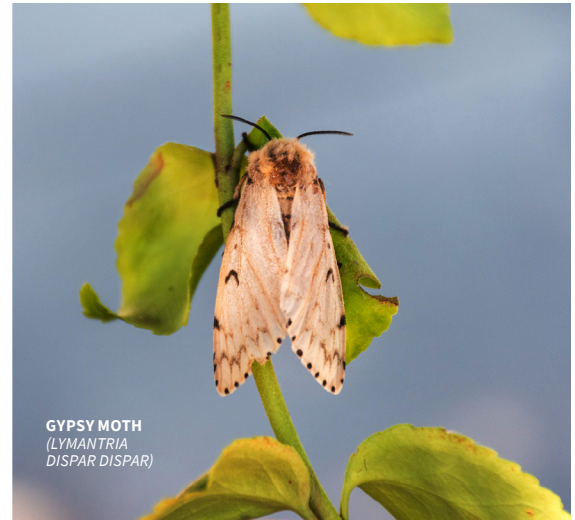
- **Advocate for integration of invasive species prevention** and management processes, policies, and planning into ecosystem and climate change adaptation plans.
- **Advocate for prioritizing invasive species prevention** and management activities that protect vulnerable species, resources, and infrastructure.
- **Collaboratively leverage federal funds for state, local, and tribal programs** where there is a cross-cutting need beyond the charge of one individual organization.
- **Build and reinforce connections** among researchers, managers, and policy makers.
- **Unite industry, researchers, and managers** to address shared challenges.
- **Understand the issues and the nexus** between invasive species and diversity, inclusion, equity, and social justice.

**Today we face
new and complex
problems. We need
to be innovative and
increase research to
be successful.**



▼ What We Will Achieve

- **Integration of invasive species prevention, management, and strategic actions** into federal, regional, state, and regional climate change, forest health, and landscape resiliency plans.
- **Improved coordination by managers, researchers, and industry** in project development and planning. When appropriate, we will lead cross-cutting projects on behalf of multiple organizations.
- **Increased sharing of invasive species best practices and information**, statewide and regionally, especially those whose effects are damaging to Washington's economy and environment.
- **Continuation of the industry advisory panel and increased collaboration** and information sharing between panel members and the council.
- **Convening of a science advisory panel** when new cross-cutting issues or questions arise to provide the council with recommendations based upon best available science.
- **Convening of a work group to investigate the nexus between invasive species** and diversity, inclusion, equity, and social justice. Recommendations will be presented to the council and integrated into the council's work and membership.
- **Analysis of gaps in understanding invasive species impacts**, with an emphasis on non-traditional sectors such as recreation and social values or specific areas of concern, such as impacts to salmonids or vineyards.





Education and Outreach

Key Priorities

1
Public awareness
and mobilization

2
Policy maker
awareness

3
Youth and adult
citizen science

4
Professional
development and
cross-training

5
Formal
and informal
education

▼ Key Objectives

- **Raise awareness and mobilize the public** and whole community.
- **Develop messaging and campaigns** to address emerging problems.
- **Harmonize messaging across organizations** to better address existing problems.
- **Improve statewide first detector capabilities** by cross-training professionals.
- **Engage both youth and adults** through formal and informal education.
- **Continue and expand our online presence** and public awareness.
- **Continue and expand education** to key policy makers to raise their awareness of the threats of invasive species.

We need to maintain a high level of awareness about invasive species issues, and we need to inspire the next generation to mobilize and lead these efforts.



▼ What We Will Achieve

- **Statewide promotion of Invasive Species Awareness Week** in Washington State in collaboration with the Governor's Office and state agencies.
- **Statewide promotion of events** such as Tree Check Month, amplifying regional and national messages, while tailoring the content to state and local needs.
- **Development and implementation of new campaigns** and messages with national and regional partners.
- **Continuation of formal youth education** and development of informal adult education.
- **Continuation of formal adult education** through existing and new curriculum and programming.
- **Maintenance of the InvasiveSpecies.wa.gov Web site** as the central information hub, including the Washington Invasives mobile app.
- **Identification of the professional development needs** of invasive species managers and in collaboration with partners address of identified gaps.
- **Continuation of the development of an annual outreach plan** and year-end report to improve and optimize outreach operations.
- **Improvement of our online presence and public awareness** through Webinars, events, and workshops.
- **Continuation of the existing first detector** programming and investigation of opportunities to expand the network.
- **Partnerships with established groups and avenues** for information sharing to improve the reach of our messages and to leverage these resources to achieve our objectives.
- **Informed policy makers that understand the threats** of invasive species and the benefits of actions to prevent, detect, respond, and control, contain, or eradicate.





Prevention

Key Priorities

- 1 Understand and address invasion pathways
- 2 Response readiness
- 3 Prevention protocols and public adoption
- 4 Understand and address risk

▼ Key Objectives

- **Better understanding of the risks of expanding** invasive species and potential impacts.
- **Quickly analyze risks of newly introduced invasive species** and determine priority.
- **Understand pathways for introduction** and spread of invasive species.
- **Work collaboratively with industry and organizations** to address risks and pathways.
- **Advocate for response preparedness and readiness** to industry and management organizations.
- **Harmonize agency prevention protocols** and encourage public participation in prevention.
- **Advocate for, and assist with, national, regional, state, and local prevention programs** such as nursery and watercraft inspections and awareness programs for the public and business sectors.



▼ What We Will Achieve

- **Improved analytical tools that assess risk and impact** for use in council prioritization. We will promote these tools to partners and organizations to help them prioritize their own work.
- **Advocacy for international and domestic pathway analyses** and readiness activities.
- **Prevention protocols and best practices** actively implemented and used by both agencies and the public.
- **Advocacy for and assistance to existing prevention programs** and explored opportunities for additional protection at the local level.
- **Outreach, trainings, tools, and equipment** that empower the public and watercraft users to implement the prevention protocols in collaboration with partners.

If we prevent the introduction of new invasive species, we avoid thousands, if not millions in management costs and economic losses. An ounce of prevention is worth a pound of cure.





Early Detection and Rapid Response

Key Priorities

- 1 Early detection capabilities
- 2 Emergency funding
- 3 Diagnosis and notification
- 4 Response plans and exercises
- 5 Optimizing and sharing response resources

▼ Key Objectives

- **Support increasing the capacity and capabilities** of state, tribal, and local governments for early detection.
- **Support diagnostic centers and technologies.**
- **Streamline incident notification systems** and processes.
- **Ensure that emergency funding** is available for rapid response.
- **Pre-identify processes and procedures**, and promote early detection and rapid response resource sharing.
- **Improve and develop response plans.**
- **Practice and enhance response plans** through workshops, drills, and exercises.
- **Leverage federal assistance** to address invasive species emergencies.
- **Provide input to improve response plans** based on best practices, experience, industry perspective, site specific knowledge, or other expertise.

When prevention isn't possible, early detection and rapid response are the next best strategies to ensuring the invasion causes the least amount of damage.

▼ What We Will Achieve

- **Expanded use of the Incident Command System (ICS)** and facilitation of its adoption by council organizations and partners.
- **Early detection monitoring improvements** to address known gaps in monitoring and surveillance.
- **Advocacy of invasive species diagnostic centers** and new technologies.
- **Streamlined notification systems** with an emphasis on improving the notification process among organizations that have jurisdiction, partners, and the public.
- **Improved response planning** through coordination and involvement of the council.
- **Increased focus on practicing response.** We will promote, facilitate, and participate in workshops, drills, and exercises.
- **A consultation to agencies** that have jurisdiction in an invasive species emergency and advocacy for federal support.
- **Participation in Multiagency Coordination Groups (MAC Groups)** and aided command and operations sectors as requested.
- **Outreach to local organizations that can help** with early detection and response efforts.





Eradication, Control, and Containment

Key Priorities

1

Adequate and sustainable funding

2

Data collection, sharing, and mobilization

3

Optimization of response operations

4

Asset-based management for protection and natural or economic assets

5

Evaluation and reevaluation

▼ Key Objectives

- **Ensure that adequate and sustainable funding** is available for meeting the management goals for established species.
- **Analyze and document current funding** and operations, determining gaps and needs.
- **Evaluate and advocate for management goals** for established species that are reasonable and feasible.
- **Advocate for reevaluation of operations and management goals** using adaptive management principles that are based upon new science, best practices, changing population dynamics, and efficacy.
- **Advocate for and assist with operational optimization** through resource sharing, cross-training, and public engagement.
- **Promote and assist with data collection, sharing, and mobilization** among organizations at the local, state, regional, and national levels to establish a common situational awareness.
- **Analyze regulatory invasive species classifications,** management goals, and operations, and propose reevaluation when appropriate.
- **Promote and assist with response strategies** that protect the most at-risk species and resources from both economic and environmental damages.



▼ What We Will Achieve

- **Funding that meets the management goals** of lead organizations.
- **Advocacy for lead organizations** to set data-driven management goals.
- **Cross-organizational work groups to analyze regulatory classifications** at the state and federal level. Advocacy for changes when appropriate.
- **Collection of data and mobilization campaigns** to address data gaps.
- **Workshops and symposia offering current research** and best practices that address established and potential invasive species.
- **Advocacy for adaptive management principles** when managing established invasive species.

Once we know an invasive species is present, aggressive eradication, containment, and control give us a fighting chance to stop the spread and make sure we won't be spending millions of dollars to battle this species for years to come.



PLANT
TREATMENT:
BOHEMIAN KNOTWEED

InvasiveSpecies.wa.gov