Washington Invasive Species Council

Biennial Report to the Legislature
2019-2020

WASHINGTON STATE
RECREATION AND CONSERVATION OFFICE
Washington Invasive
Species Council

Washington Invasive Species Council

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Letter from the Chair

It has been my great honor to serve as council chair these past 3 years and to oversee some of the most critical and productive work this group has accomplished to date. In my experience and observation, the Washington Invasive Species Council is one of the best examples of functional and effective government. I would like to thank everyone for literally pulling together on one of the most important environmental issues facing us now and in the future.

Building on the solid foundation of the council's two statewide invasive species strategies directing our activities since 2006, we have pushed the limits of what the council and partners can do, such as holding the first-of-its-kind, on-the-ground exercise to practice invasive mussel response; leveraging the public and mobilizing statewide awareness and data collection; and leading the development of regional and national policy. By uniting the efforts of all organizations around shared issues, we have moved forward successfully and reached success as one united front. This unified approach and messaging is the foundation for creating a culture of environmental stewardship here in Washington State.

During the past 2 years, the composition of the council has changed in a handful of ways as council members have departed for other ventures. We said goodbye to Bill Tweit (past council chair representing the Washington Department of Fish and Wildlife), Lieutenant Commander Luke Woods (U.S. Coast Guard), John Gamon (Washington Department of Natural Resources), Anna Lyon (Okanogan County), and Pat DeHaan (U.S. Fish and Wildlife Service). The leadership of these members will be missed as the council continues in their absence and we wish them the absolute best. The council also welcomed the Honorable Ron Anderson (Yakima County commissioner), Blain Reeves (council vice chair representing Washington Department of Natural Resources), Andrea Thorpe (Washington State Parks and Recreation Commission), and Allen Pleus (Washington State Department Fish and Wildlife).

This biennium we once again were able to leverage federal funds to be able to hire additional staff to work on our behalf. Brianna Widner served as a community outreach and environmental education specialist in 2018 and 2019, leading our work to develop school curriculum, implement adult educational workshops, and help with a rapid response training exercise at Lake Roosevelt. With Brianna's departure, we were able to promote Alexis Haifley into that role and she has steadily grown our outreach portfolio. We were assisted by two interns this biennium: Sophie Love, who contributed to our new Web site and was the lead for

our first statewide prevention art contest, and Daphne Condon, who facilitated the development of our rapid response best practices and a framework that will forever benefit our operations. We thank our dedicated and wonderful staff for the immense contributions made in our name.

The council is entering a new phase as it begins implementation of its third statewide strategy. We feel that the stakes are higher than ever before. New challenges and unanticipated problems pose a higher risk to Washington's environment, economy, and way of life than ever before. The collaborative efforts of the council, our partners, and everyone in Washington and beyond are critical to saving millions, if not billions of dollars every year.

This report summarizes the council's key achievements this past biennium. It also summarizes the final year of my leadership as council chair. Filling this role has been one of the highlights of my 35-year career with the Washington State Department of Transportation. I value each and every relationship and I could not be more proud of our work.

Ray Willard, PLA
Chair

At-A-Glance

Invasive species are non-native organisms that cause economic or environmental harm and are capable of spreading to new areas of the state. Invasive species harm Washington State's landscapes, ecosystems, agriculture, commerce, recreation, and sometimes human health. The damages from invasive species translate into economic losses for communities and businesses.

VISION

The vision of the council is to sustain Washington's human, plant, and animal communities and our thriving economy by preventing the introduction and spread of harmful invasive species.

The council works to achieve this vision by providing policy-level direction, planning, and coordination that will empower those engaged in the prevention, detection, and eradication of invasive species.

Quick Facts

- Invasive species can damage both the environment and the economy. From habitat, to agriculture, to five types of infrastructure–power, water, transportation, development, and military readiness–every aspect of our world is at risk.

- More than 200 invasive species are known to be present in Washington. Focusing only on 22, we know that $1.2 billion annually is at risk if there is no prevention or management.

- Of all potentially impacted sectors, dams and irrigation are most at risk. If aquatic invasive species, such as quagga or zebra mussels, establish in Washington's waters, it will cost at least $100 million a year to keep water flowing. This does not include potentially irrevocable impacts to fishing and habitat.

- The council's reporting and notification tools, such as its app (WA Invasives) and Web site (InvasiveSpecies.wa.gov) provide quick response to invasive species detections. These systems are efficient, effective, and provide the greatest opportunity to stop invasive species.

Introduction

The Legislature created the Washington Invasive Species Council in 2006 to reduce risks to Washington's economy and environment. The council is a partnership of tribal, local, state, and federal governments, as well as private sector and non-governmental interests. The council provides policy-level direction, planning, and coordination support to the various public and private entities managing invasive species prevention and response throughout Washington State.

In 2016, the Washington State Legislature voted to continue the council for 6 years with a sunset date of June 30, 2022. The council develops and maintains various tools critical to the management of invasive species in Washington State. The council writes and implements a statewide invasive species strategic plan, maintains the state's list of priority invasive species, manages the state's invasive species reporting system, and maintains the state's Web site: InvasiveSpecies.wa.gov.

After 7 years of implementing its original strategy, *Invaders at the Gate*, the council recognized a need to update its statewide strategic plan. In 2015, the council adopted its second strategic plan, which identified new objectives and specific actions within five areas of work. This revised plan provided new priorities and policy direction and formalized the council's commitment to working towards the common goal of preventing the introduction and spread of invasive species in Washington State.

In 2018, the council completed implementation of the 2015 strategic plan's work plan and developed a work plan for 2018-2020 that built upon the success of the prior plan. This biennial report summarizes the activities achieved during the final 2 years of the 2015 strategy. These areas of work include the following:

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

Leadership and Coordination

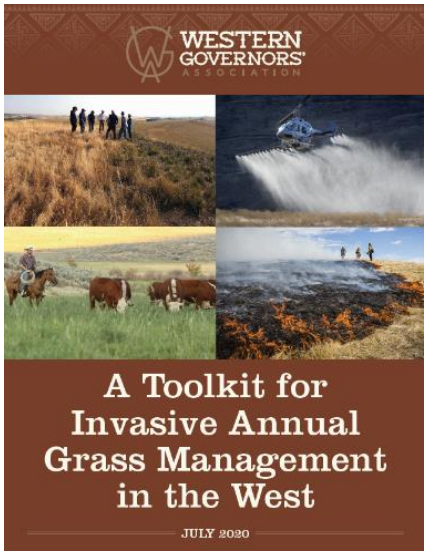
Leveraging Federal Funds and Partnering with Organizations

In the 2019-2021 biennium, the council leveraged more than $380,000 in federal funds, which would not have been otherwise directed to Washington. With federal funding, the council launched interagency initiatives to provide invasive species workshops statewide, developed a first detector network of trained citizen scientists, and prepared for detections of new invasive species such as urban forest pests or aquatic invasive species like quagga and zebra mussels.

Western Invasive Species Council

In 2019, western governors launched the Western Invasive Species Council to enhance coordination between state invasive species councils, improve communication and collaboration on regional biosecurity and invasive species control efforts, and advocate for regional needs at the federal level. Governors of 17 western states and territories appointed members to the western council, including executive coordinator Justin Bush to represent the state of Washington.

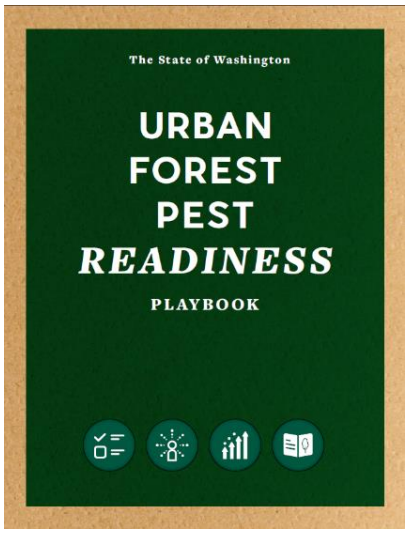
The western council initiated several projects including development of a transboundary action plan to address movement of feral swine from Canada into the United States and the development of a toolkit for successfully managing invasive grasses in the West. The spread of invasive annual grasses–such as cheatgrass, medusahead, and ventenata–is causing major damage to western working lands. To date, many control efforts have been reactive, focusing on highly infested areas where control is more expensive and less likely to succeed. The toolkit contains new best management practices for the identification, protection, and expansion of regions with relatively low or no annual grass invasion. It also contains new map information that compiles federal data to help state and local managers assess invasive grasses, while also offering opportunities to identify cross-boundary collaborative projects.



New Emphasis on Cities and Readiness for Forest Pests

In 2019, the council explored the unique challenges faced by cities as they try to prevent and stop invasive species. The council held a forum in March 2019, with panelists from the cities of Bellingham, Seattle, and Portland (Oregon) to discuss challenges and identify opportunities for the council to help fill gaps and improve cities' abilities to address invasive species.

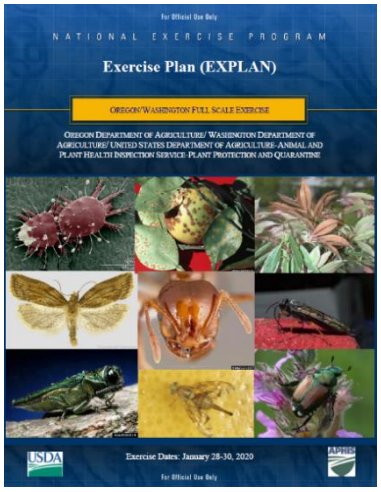
To respond to this feedback, and aided by funding from the U.S. Department of Agriculture Animal and Plant Health Inspection Service Plant Protection and Quarantine, the council initiated and finished a new collaborative project in 2019 to improve response readiness for detections of new urban forest pests. The resulting playbook is a tool to prepare communities for potential pest outbreaks through self-assessments and recommended actions. The purpose is to close the gap in readiness and response capabilities between community leaders managing urban forests and state and federal responders.



This work will continue with funding provided by the U.S. Forest Service's Urban and Community Forestry Program, administered through the Washington State Department of Natural Resources Urban and Community Forestry Program. For the next 3 years, a series of seminars, workshops, new planning and response resources, and a statewide summit will be made available to further increase municipal readiness to new invasive species.

Pest Response Exercises and Port Interception Preparedness

In 2019, the council participated in a bi-state functional and full-scale response exercise organized by the U.S. Department of Agriculture that simulated the detection and response to spotted lanternfly in northern Oregon and southern Washington. In these exercises, the U.S. Department of Agriculture, Washington State Department of Agriculture, and Oregon Department of Agriculture exercised response plans to limit, stop the spread, and begin management activities. The exercise involved a bi-state incident command structure and was critical to ensuring efficient and effective response to a new cross-jurisdictional pest.



Building upon this successful work, in 2020, the council initiated a bi-state work group to develop an incident action plan and other template resources for use when an invasive species is intercepted at ports in Washington and Oregon. With assistance from the U.S. Department of Agriculture and Washington State Department of Agriculture, a working group consisting of U.S. Customs and Border Protection, U.S. Fish and Wildlife Service, Oregon Department of Agriculture, Oregon Department of Fish and Wildlife, and Washington State Department of Fish and Wildlife are working together to improve readiness with a goal of exercising the incident action plan in future years.

Capacity and Capabilities Surveys

Through the work with cities and tribes to increase preparedness and readiness for new invasive species introductions, the council launched a specific initiative to reinforce existing partnerships with tribes and municipalities as well as create new partnerships. The council worked collaboratively with Washington State University to develop and launch a needs assessment for tribes and cities across Washington. In early 2021, the council will analyze responses and hold workshops with both cities and tribes to further discuss responses. These activities will inform both short- and long-term actions of the council to assist these jurisdictions to better prevent and stop invasive species.

Prevention

Mandatory Watercraft Inspection Stations

In 2015, the Legislature requested that the council lead an advisory committee process to develop recommendations on long-term funding for aquatic invasive species management and prevention in Washington. The committee included members from industries including recreational boating, commercial shipping, and aquaculture, as well as local government, tribal government, power producers, irrigators, and environmental groups. These recommendations were the basis for Engrossed Substitute Senate Bill 5303 in the 2017 legislative session, which was signed into law effective October 19, 2017.

Since then, state funds from the Legislature and federal funds from the U.S. Army Corps of Engineers and U.S. Bureau of Reclamation were used by the Washington Department of Fish and Wildlife to open two mandatory boat inspection stations at the Spokane and Plymouth Ports of Entry. With this additional funding, the department has steadily built up operations, which led to the best year on record in 2019. In 2019, the aquatic invasive species staff inspected more than 32,000 watercrafts, a 31 percent increase from 2018. About one-third of the watercraft came from known infested waters in other states, 18 were carrying invasive mussels, and 1,200 vessels failed to meet clean–drain–dry requirements. In 2020, there were significant challenges due to COVID-19 issues, but the department adapted and overcame. In 2020, the aquatic invasive species staff once again inspected more than 32,000 boats with almost one-third coming from waters in other states known to have infestations. In total, 25 vessels with invasive mussels, 632 with aquatic plants, and 168 with standing water in some part of the boat were intercepted and decontaminated.

Mussel-sniffing Dog "Puddles" Joins Fight Against Invasive Species

In 2017, the U.S. Department of Interior launched initiatives to collaborate with western governors, and federal, state, and tribal agencies to protect the West from the economic and ecological threats posed by quagga and zebra mussels. This initiative culminated in a national strategy titled *Safeguarding the West from Invasive Species: Actions to Strengthen Federal, State, and Tribal Coordination to Address Invasive Mussels,* which outlined actions and funding for federal agencies. The council and Washington Department of Fish and Wildlife collaborated with the Governor's Office to develop a set of projects to seek funding from the U.S. Department of Interior's Bureau of Reclamation.

With federal funding, the Washington Department of Fish and Wildlife trained and deployed Puddles, a 2-year-old Jack Russell terrier mix that uses her keen sense of smell to help detect quagga and zebra mussel larvae on boats traveling through mandatory watercraft inspection stations. Puddles was a rescue dog surrendered to a shelter in Fresno, California where she caught the attention of the Green Dog Project's "Rescued for a Reason" program.

Empowering Boaters to Decontaminate Watercraft

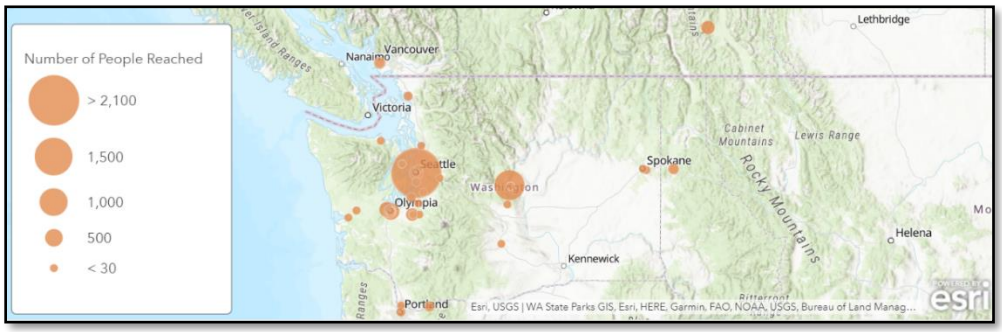
With funding provided by the Washington Recreation and Conservation Office's Boating Facilities Program, commercial-grade watercraft decontamination units have been installed in Ephrata and Spokane. With these important facilities, if invasive mussel-fouled boats are found at inspection stations, there is equipment that will kill the mussels and decontaminate the vessel.

In addition to these key decontamination units, the council and Washington Department of Fish and Wildlife received funding in 2020 from the U.S. Bureau of Reclamation to purchase four clean–drain–dry decontaminate devices, which are a new type of decontamination system that allows boaters and recreationists to prevent the transport and movement of aquatic invasive species such as noxious weeds and other types of organisms that may hitch a ride on watercraft and equipment. The council facilitated an interagency process to determine locations for these pilot systems and how to collect data on their use, which will inform a statewide strategy to deploy additional units statewide.

Education and Outreach

In the past 2 years, the council issued 12 news releases, led or participated in 53 events statewide or regionally, and reached 1,365,251 people via social media, 316,802 people via Web site visits, and 10,041 people via events.

Event Map



Educating People Though the Web Site

The council launched an all new Web site InvasiveSpecies.wa.gov in November 2019, achieving the goal of making its public face more modern, more accessible, and more compatible with different-sized electronic devices. The council last updated the look and functionality of its Web site about 10 years ago. In moving to the new site, the council combined two invasive species Web sites (InvasiveSpecies.wa.gov and Wise.wa.gov) into one, switched platforms to WordPress, and changed the way the new sites are maintained.

Engaging People Through Social Media

Social Media Platform	Name	Reach	% Change this Biennium
Facebook	@WAInvasiveSpeciesCouncil	586,863	+ 81% (323,369)
Twitter	@WAInvasives	651,949	+ 525% (104,260)
Instagram	@WA_invasivespeciescouncil	101,828	-4% (106,335)

Educating Through News Releases

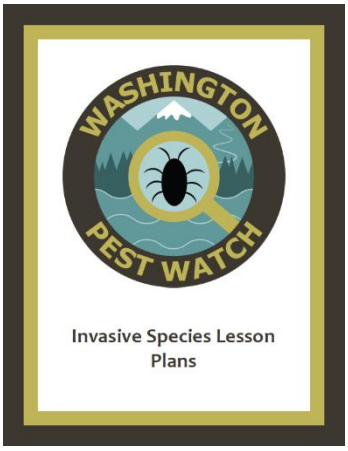
The news releases below resulted in more than 80 articles, radio broadcasts, and TV news features on invasive species.

- 70th Annual Statewide Weed and Invasive Species Conference Set for Nov. 3-6 (October 10, 2020)
- Public Asked to Check Trees for Invasive Species in August (July 31, 2020)
- Public Asked to Protect Honey Bees by Reporting Sightings of the Invasive Asian Giant Hornet (July 1, 2020)
- Scotch Broom Census Set for May (April 28, 2020)

- Governor Inslee Highlights Need to Prevent and Stop Invasive Species (February 19, 2020)
- State Bolsters its Defense Against Urban Forest Pests with New Guidelines (November 19, 2019)
- Federal, State, and Tribal Governments Join Forces to Practice Emergency Response Should Invasive Mussels Infest Washington Waters (October 10, 2019)
- State Asks Residents to Check Trees for Invasive Pests in August (August 7, 2019)
- Public Invited to Submit Art to Highlight the Dangers of Releasing Pets and Plants into the Wild (July 17, 2019)
- Mussel-sniffing Dog "Puddles" Joins Fight Against Invasive Species (May 16, 2019)
- Tribal, State and Local Governments Join Forces at Lake Roosevelt to Combat Northern Pike, Save Salmon (May 6, 2019)
- Gov. Inslee Highlights Need to Stop Invasive Species with Awareness Week (February 21, 2019)

First Detector Network Expands to Youth

After working closely with stakeholders, the council identified a gap in invasive species outreach and education–messaging was focused almost exclusively toward adults. Once the council identified the need, it awarded funding from the U.S. Department of Agriculture Plant Protection Act, to create and implement an invasive species school curriculum geared toward middle school students. With the expertise and assistance of the Pacific Education Institute, the council developed an invasive species-based curriculum that follows Next Generation Science Standards. This curriculum not only introduces the topic and importance of invasive species, but also walks students through different ecological concepts such as competition, ecosystem disturbance, human impacts on the environment, and more, in six different lessons.



Once the curriculum was completed, focus shifted to training teachers around the state to use the materials. Starting in 2019 and continuing through 2020, the council hosted several teacher workshops. In August 2020 alone, more than 60 educators attended virtual workshop. Feedback was overwhelmingly positive, with many educators identifying the need for STEM-based (Science, Technology, Engineering, and Math) curriculums that students can do at home as the virtual learning environment has continued into the 2020 school year.

The council hopes to continue this great work by revising the curriculum to make it appropriate for elementary students, while continuing the middle school educator workshops that have been such a success in spreading awareness about the program.

Statewide Conference

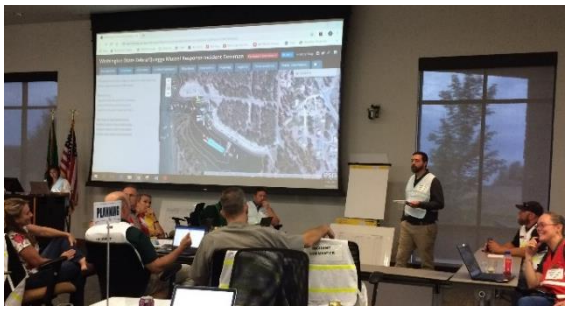
Since 2016, the council has held various regional workshops bringing together managers of invasive species to share new information and best practices. Building upon the initial successful model piloted in the Columbia River Gorge National Scenic Area, uniting managers from Washington and Oregon, the council also has held workshops bringing together managers from northwest Washington and southern British Columbia, as well as southeast Washington and western Idaho.

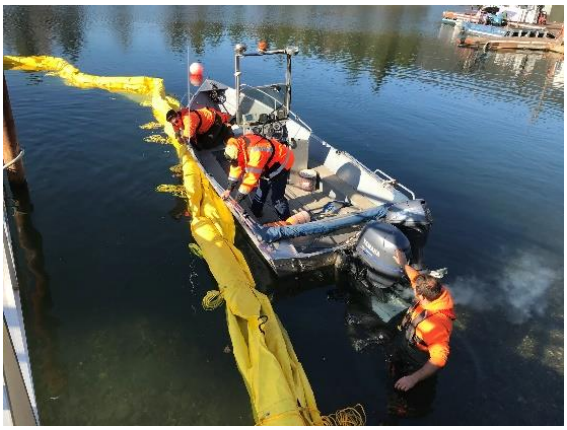
In 2020, coinciding with the launch of the 2020-2025 statewide strategy, the council partnered with the Washington Vegetation Management Association to hold the first-ever statewide invasive species conference. The partnership ensured that the Washington Weed Conference continued for its 70th year but expanded in scope to include invasive species for the first time. Over 4 days, more than 1,100 individuals participated in the statewide conference.

Early Detection and Rapid Response

Lake Roosevelt Invasive Mussel Response Exercise

Invasive quagga and zebra mussels are small, nonnative, freshwater mollusks that, if established, could cost more than $100 million each year in Washington just to keep the state's power and water infrastructure running.



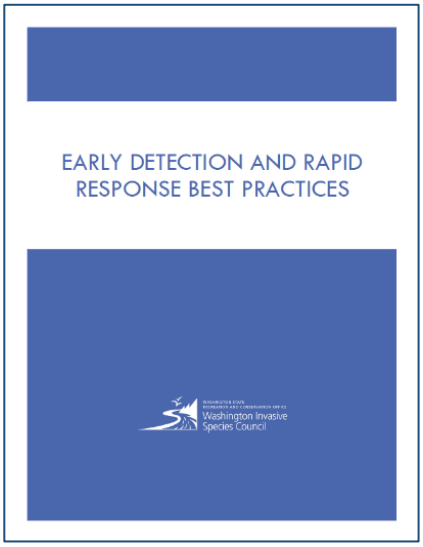


The council facilitated the first, on-the-ground exercise in the Columbia River basin to prepare for an infestation of quagga and zebra mussels. The practice scenario brought together 59 responders from 15 organizations and two counties to test containment and perform a mock treatment, inspect and decontaminate boats, and perform monitoring by skilled divers, dogs, and scientists.

Agencies involved in the practice response effort included the Washington Department of Fish and Wildlife, U.S. Bureau of Reclamation, National Park Service, U.S. Army Corps of Engineers, U.S. Coast Guard Auxiliary, and other state environmental and natural resource agencies through the council. In total, the exercise brought together 15 organizations, including the Alberta government, a regional emergency management district from British Columbia, the Spokane Tribe of Indians, and the Confederated Tribes of the Colville Reservation.

TVW produced a video summarizing the exercise, in addition to a council-produced interactive story map, photo album, and after-action report.

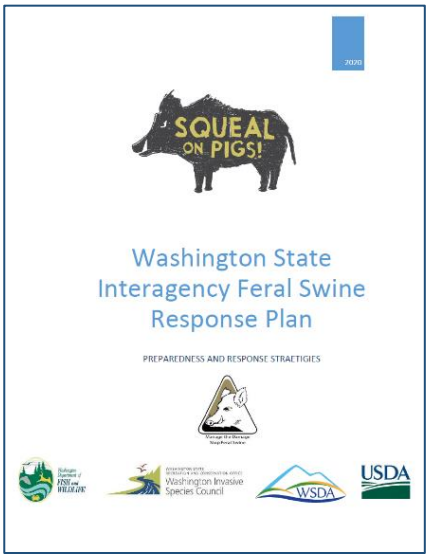
Response Best Practices Report



In 2019 and 2020, Daphne Condon, a student at the Huxley College of the Environment at Western Washington University, performed a global review of peer-reviewed publications and government-produced response plans related to invasive species response and management. Through this research and analysis, best practices for invasive species emergency response were develop and validated with an interagency team of subject matter experts. Furthermore, Daphne Condon and the council developed a framework for any type of invasive species response, which will function as a baseline for responding to unanticipated invasive species or for the development of new species-specific response plans. The report is available at InvasiveSpecies.wa.gov and recorded Webinar has been published online.

Interagency Federal Swine Response Plan and Transboundary Plan

Feral swine are descendants of escaped or released pigs and are highly destructive and potentially dangerous animals. Their spread is blamed for an estimated $1.5 billion in damage to crops, wildlife, and the environment nationwide. These swine can carry more than 30 diseases and parasites that pose a threat to livestock and humans, including swine brucellosis and pseudorabies. Feral swine tend to forage in areas around streams, and their trampling and destructive rooting behavior–often compared to rototilling–causes erosion, spread of noxious weeds, loss of crops, and harm to fish habitat.

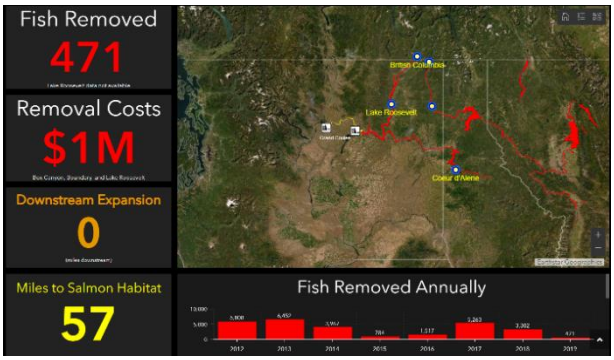


In September 2020, the council completed a process to update and improve the *Washington State Interagency Feral Swine Response Plan*. Since 2015, the U.S. Department of Agriculture Wildlife Services, the Washington State Department of Agriculture, Washington Department of Fish and Wildlife, and council have worked together to eradicate feral swine and successfully ensure that there are no known populations of feral swine in our state.

Containment, Control, and Eradication

Northern Pike Outreach and Policy Tool

Northern pike is an aggressive, invasive fish that threatens salmon and steelhead populations in the Columbia River. The spread of this top-level predator into salmon habitat has the potential for catastrophic consequences and could undo years of salmon recovery efforts. The council partnered with the Northwest Power and Conservation Council to develop and launch a Web tool to raise awareness and track the spread of northern pike.



To further prepare for incursion into the anadromous zone, the Washington Department of Fish and Wildlife has developed a rapid response plan. The plan outlines a process for requesting emergency measures and protocols for collaboration in responding to any northern pike detected.

Scotch Broom Census

Throughout May 2020, the council, state agencies, and researchers called for a census to help determine the location of Scotch broom throughout Washington and Oregon. While relatively widespread, specific information was not well documented in either state. Throughout the course of the census, more than 780 Scotch broom reports were made through the Washington Invasives app and more than 320 reports were received via iNaturalist. The information from the census will help set short- and long-term action plans. The census culminated with the council and a consortium of partnering organizations holding a 3-day Scotch broom ecology and management symposium attended by 680 people.

Looking Forward

We Can Do This. We Will Do This.

The council has developed and released an ambitious 5-year strategy to prevent and stop invasive species. Achievements during the next 5 years will build on the prior accomplishments of the council. The council has made much progress since 2006, but more is needed. We know how to stop invasive species and we will stop invasive species. We invite you to join us next biennium as we continue this important work.