Testimony of Stephanie Criswell
On behalf of the
Western Invasive Species Council
and
Montana Department of Natural Resources and Conservation

Before the
Senate Committee on Energy and Natural Resources

Subcommittee on Water and Power

Hearing to Examine the Impact of Invasive Species on Bureau of Reclamation Facilities and Management of Water Resources in the West

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Introduction

Good morning, Madam Chairwoman McSally, Ranking Member Cortez Masto and Members of the Subcommittee. I am Stephanie Criswell, Vice Chair of the Western Invasive Species Council. As well, I work for the Montana Department of Natural Resources and Conservation as the coordinator of the Montana Invasive Species Council. I thank you for the opportunity to testify before you today on the critically important topic of the threat of invasive species to water resources in the West.

Water Resources and Invasive Species in the West

The spread of invasive species affects many aspects of western ecosystems and economies, including western water resources. Invasive species can harm native aquatic ecosystems, as well as the economic sectors the depend upon them, including recreation, agriculture, and hydropower. Three species of particular concern are tamarisk, also known as salt cedar and two species of invasive mussels called quagga and zebra mussels.

Salt cedar forms dense stands in riparian areas, blocking access and limiting human use of the waterways for recreation and agriculture. It is poor habitat for many types of wildlife, has minimal forage value for livestock, and can increase soil salinity and the frequency and severity of wildfires. The extensive root system of salt cedar increases sediment deposition, which narrows the water channel and increases water velocity during flooding. This species also consumes large amounts of water, which is of concern since so much of the West is impacted by drought.

Invasive quagga and zebra mussels arrived in North America in the 1980s, and have since spread to nearly every major waterway in the U.S. They have caused substantial damage to water delivery systems, hydroelectric facilities, agriculture, recreational boating and fishing, and native wildlife. Once established in a waterbody the mussels are expensive to control and virtually impossible to eradicate. The damage to North American power plants and municipal drinking water systems can reach as high as $1 billion per year. If the mussels spread to the Columbia River Basin — the last major uninfested water system in the continental U.S. — the control and mitigation costs to hydropower facilities in the Basin alone could reach $500 million annually.

Western Invasive Species Council/Western Governors' Association

To help address the threat of aquatic invasive species to western water resources, the Western Governors' Association (WGA) comprised of the Governors of the 22 westernmost states and territories, recently created the Western Invasive Species Council. The Council's purpose is to enhance coordination between existing state invasive species councils, to improve communication and collaboration on regional biosecurity and invasive species control efforts, and to advocate for regional needs at the federal level.

The Council is an outgrowth of the WGA's Biosecurity and Invasive Species initiative led by Hawaii Governor, and previous-WGA Chair, David Ige. This year-long Initiative focused on the impacts that nuisance species, pests and pathogens have on ecosystems, forests, rangelands, watersheds and infrastructure in the West, and examined the role that biosecurity plays in addressing these risks.

The outcomes of the Initiative are captured in the Initiative Special Report, which was released in June 2019, and Western Governors' policies on the issue are articulated in WGA Policy Resolution 2019-06, Biosecurity and Invasive Species Management. In these documents, Western Governors identify next steps to improve invasive species management in the West, including:

- New efforts to encourage cross-boundary projects to control invasive annual grasses;
- The launching of a new Invasive Species Data Mobilization Campaign;
- An Invasive Mussel Leadership Forum which was hosted by WGA in Las Vegas, Nevada in August 2019; and
- The creation of the Western Invasive Species Council.

Prior to the establishment of the Western Invasive Species Council, state-level invasive species council coordinators in the West had already been meeting monthly to share information about emerging threats, best practices regarding detections and managing established invasive species, and to develop and implement education and outreach campaigns to inform the public about these threats in a consistent manner across the West. Examples of campaigns that have been adopted across the West include "Clean.Drain.Dry" to prevent aquatic invasive species introductions, "Don't Let it Loose" regarding the release of aquarium pets, "Don't Move

Firewood" regarding forest pests and disease, and "Squeal on Pigs" a campaign to encourage the public to report feral swine sightings, an emerging threat in the West.

While this group has been effective in coordinating on invasive species issues and particularly messaging, there was a general sentiment that states could do more to address invasive species issues in the West if the group formalized and was able to increase capacity. This idea was expressed through panel discussions at the Pacific Northwest Economic Region Summit, the Western Plant Board 100th Annual Conference, and through other informal discussions and venues. Through the Western Governors' Association Invasive Species and Biosecurity Initiative, Governors and state invasive species coordinators saw an opportunity to formalize the group under the auspices of WGA.

That opportunity became a reality in 2019 and the Western Invasive Species Council was established. To date, the Council includes 17 governor-appointed members. Since officially launching in late December, the Council has met twice and has adopted four projects that address specific species and improved data management on a regional level.

The Council will meet in Denver, Colorado, in April 2020 and plans to discuss ways this group can work together to protect our waters from aquatic invasive species.

Montana and Invasive Species

Western states are economically reliant on water for many sectors including agriculture, tourism, and hydropower. As such, western states have coordinated on preventing and managing aquatic and terrestrial invasive species for years. These partnerships have been key to working to prevent aquatic invasive species introductions into our waters and were important to Montana's response to invasive quagga and zebra mussel detections in two waterbodies in the fall of 2016.

At the state level, Montana has been working diligently to prevent and manage invasive species. The Montana Invasive Species Council was established in 2014 to serve as a statewide coordinating body to combat invasive species. The Council's first undertaking was to develop a framework for how Montana manages invasive species. In 2016 that guiding document was critical in Montana's response to invasive mussel detections.

An objective of the framework was to respond to invasive species using the Incident Command System. The response team dealt with the immediate threat and developed a long-term plan that resulted in an increase in the program's legislative budget appropriation from $1 million/year to $6 million/year. That funding was used to add watercraft inspection stations and increase hours of operation and the operating season, increase early detection monitoring three-fold, and increase overall capacity of the program. I am happy to report that more than three years later, we have not had another detection, and one of the waterbodies impacted has been delisted for containment.

The Montana Invasive Species Council commissioned a study to estimate economic damages if invasive mussels were to become established in the state. That study estimated damages for direct mitigation and revenue lost to affected stakeholders at $234 million per year. A full accounting of the direct and indirect costs would far exceed that number. The current level of Montana's AIS funding, approximately $6.5 million annually, is roughly 3 percent of the estimated $234 million annual mitigation and lost-revenue costs.

In addition to state funding, Montana has relied on federal funding from the Bureau of Reclamation for education and outreach prevention efforts and from the Water Resource and Development Act to enhance Montana's watercraft inspection program.

Salt cedar is a serious threat to Montana because of its impacts on water resources in semi-arid conditions. It is a ferocious consumer of water and can lower the water levels in reservoirs and is often found by springs on old homesteads. It is difficult and expensive to manage on rivers, in part, because access is difficult reaching steep banks requiring a boat or aerial services. The extent of Montana's salt cedar infestation is not known but may be contained with consistent eradication.

Montana formed a Salt Cedar Team in 2014 to promote strategic, cooperative management of salt cedar. The team consists of more than 50 public and private partners. The team's treatment plan is a cooperative effort between the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, the Natural Resources Conservation Service, the Bureau of Land Management, the Missouri River Conservation Districts Council, the Garfield County Conservation District, and private landowners. The team began coordinated treatments in 2015 and is working to manage known infestations on the Bighorn, Yellowstone, Missouri, Musselshell, Judith and Marias rivers.

Conclusion

Thank you for the opportunity to testify. Preventing the spread and introduction of all aquatic invasive species is a priority for western states, and it will take coordination and actions at the local, state, regional, and federal level to continue minimizing and preventing the threat.

Madam Chairwoman McSally, this concludes my prepared remarks. I am happy to respond to any questions you or the other Subcommittee members may have.