



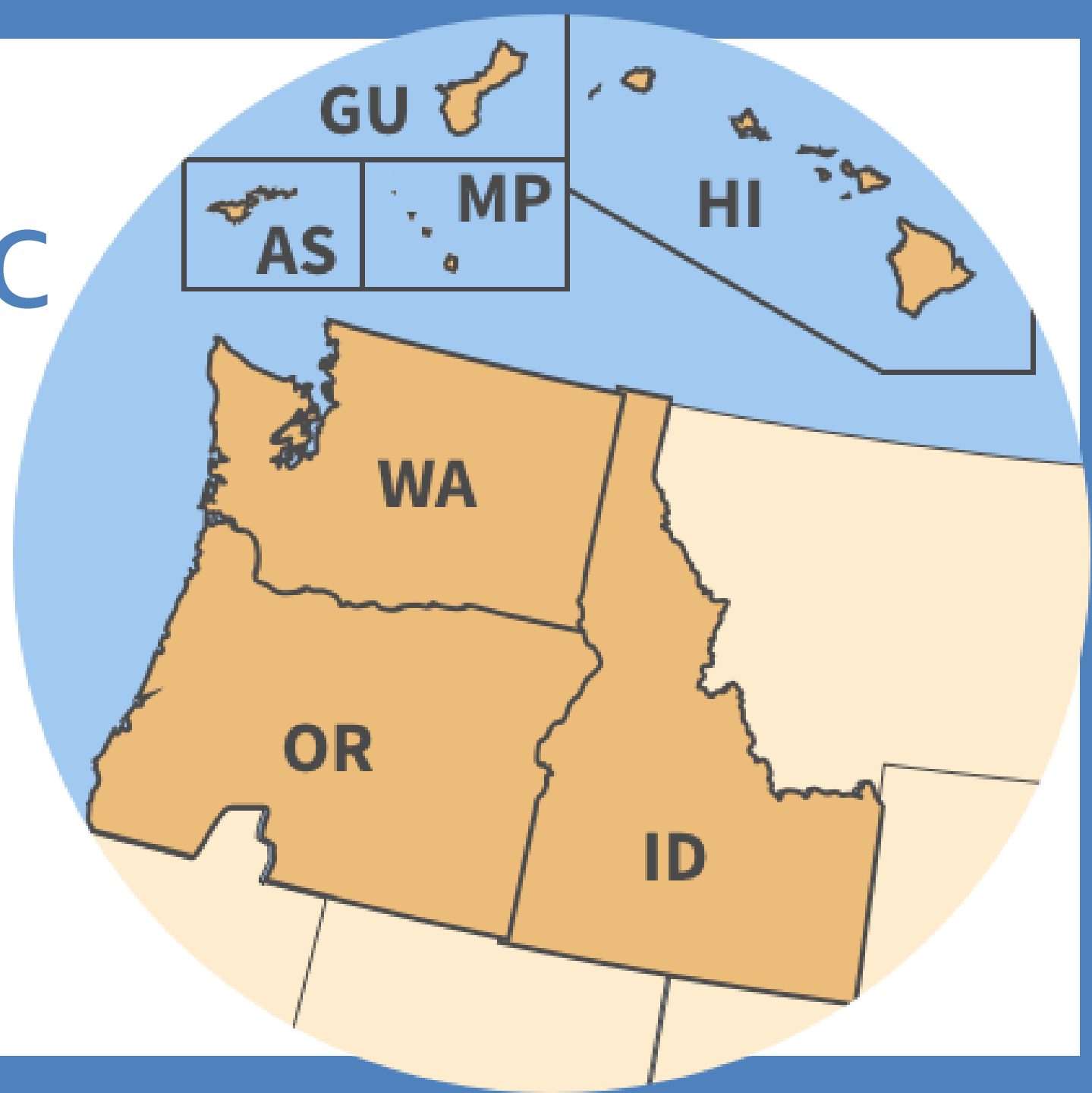
FISH AND AQUATIC CONSERVATION

AQUATIC INVASIVE SPECIES PROGRAM

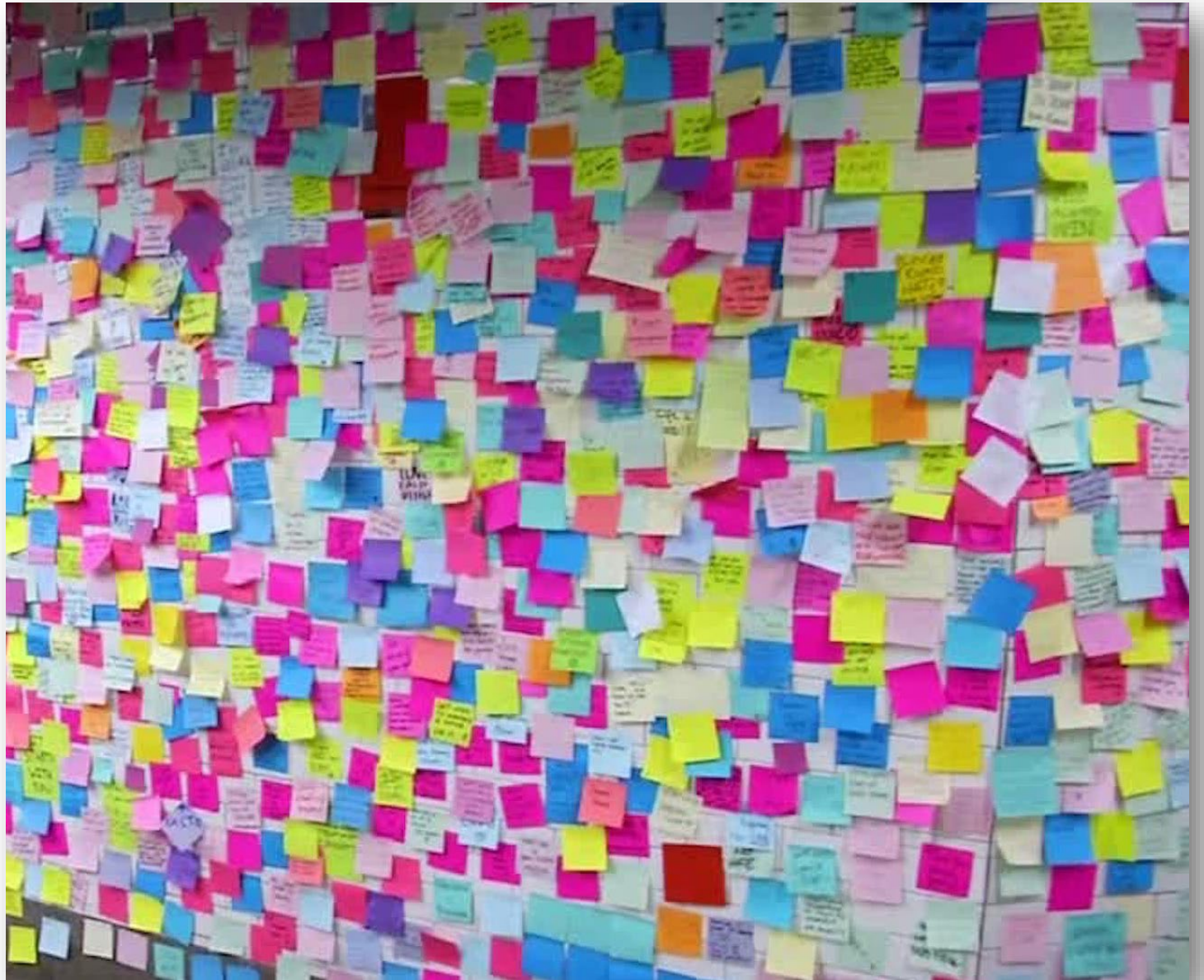
2026 Update



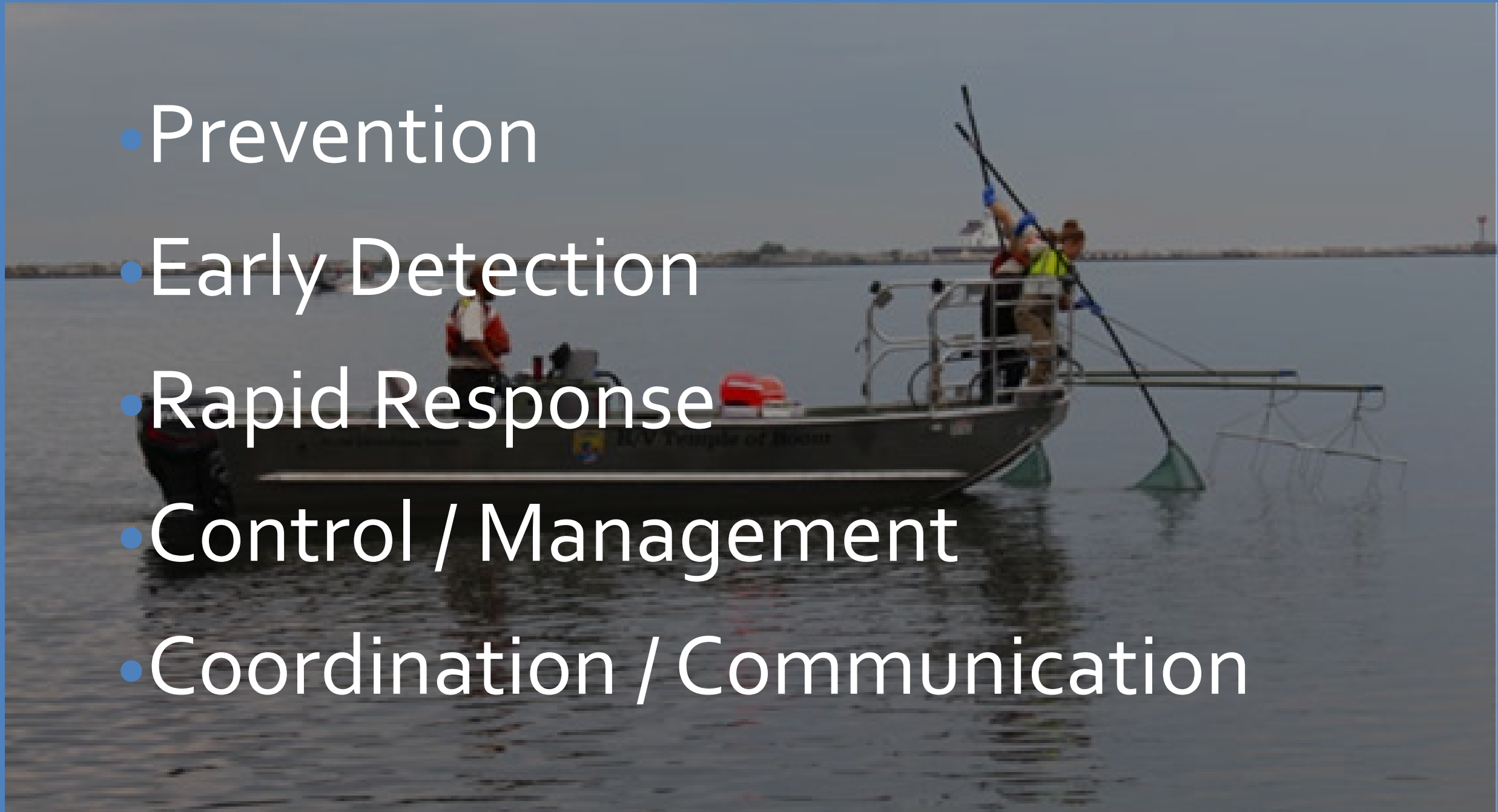
Geographic Scope



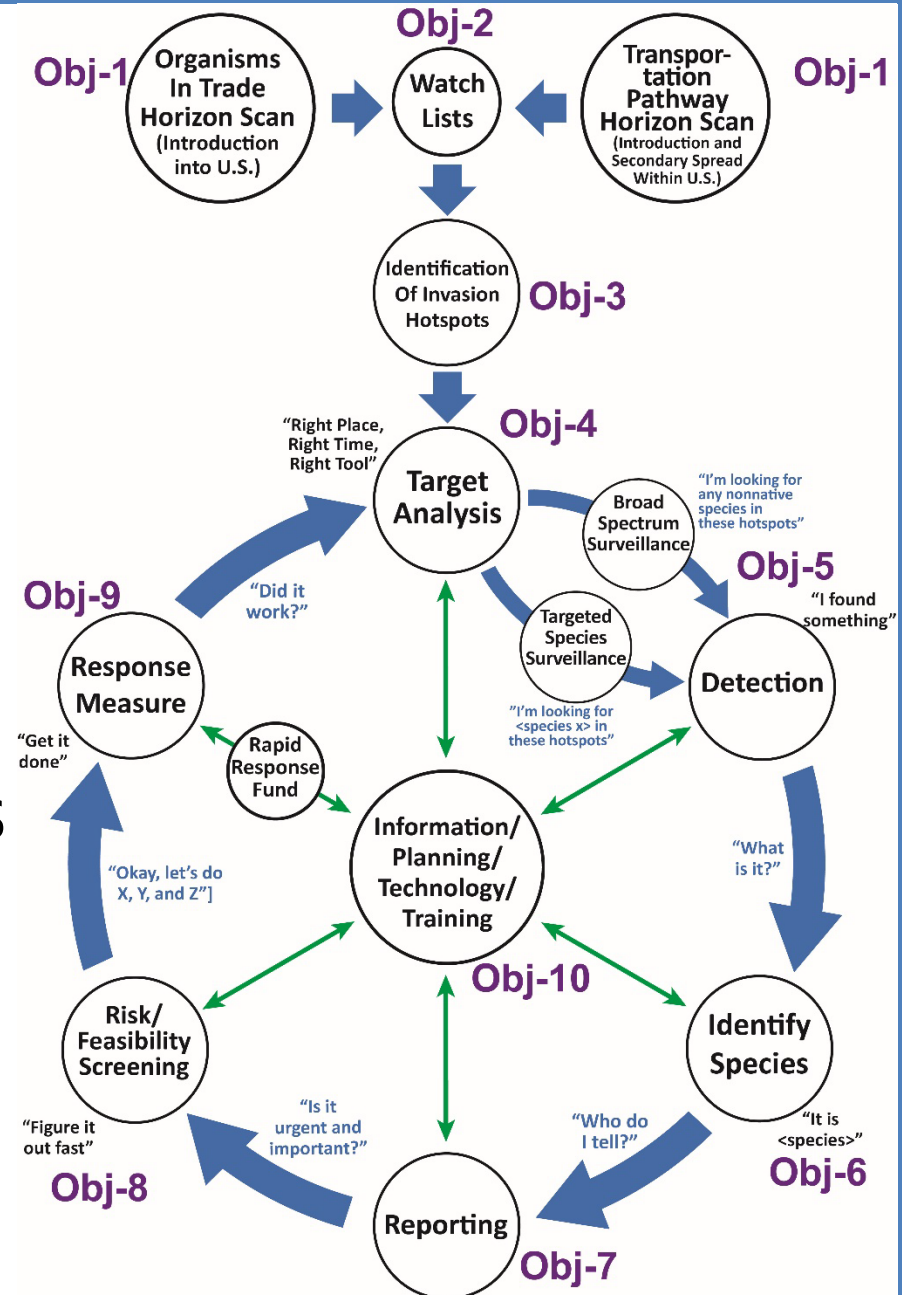
Program Priorities



- Prevention
- Early Detection
- Rapid Response
- Control / Management
- Coordination / Communication



- DOI Invasive Species Strategic Plan
- Aquatic Nuisance Species Task Force Strategic Plan (2020-2025)
- FAC Strategic Plan (FY2016-2020)
- National Invasive Species Act of 1996
- Nonindigenous Aquatic Nuisance Species Prevention and Control Act of 1990
- Early Detection and Rapid Response Framework



Prevention

- Injurious Wildlife Listings
 - Asian pond mussel (*Sinanodonta* spp.)
 - Golden mussels (*Limnoperla* spp.)
 - Marbled crayfish (*Procambarus virginalis*)(**proposed rule** – 2024-31202 (90FR1922))
- Injurious Wildlife Listings
 - 20 genera of salamanders
 - **Final rule** from 81 FR 1534 Interim rule (2016)

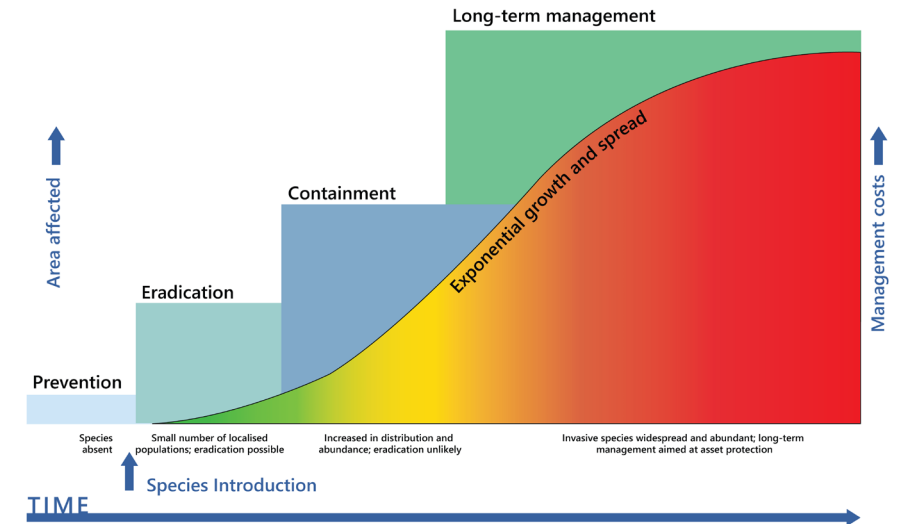


Prevention

- Horizon Scanning

[Northwest Science, 97\(1-2\):26-36](#)

(2024). <https://doi.org/10.3955/046.097.0104>



- Risk Assessment Screening (1700+ species)

<https://www.fws.gov/story/ecological-risk-screening-summaries>

- Hazard Analysis Critical Control Point (HACCP)

- 3-day Train-the-Trainer workshop (Jan. 2026);
- Multiple classes held and scheduled in 2026

Prevention

- FWS/Army Biosecurity Pilot Projects
 - R1 Hawaii Army Garrison (Hawaii)
 - R5 Fort Drum (New York)
 - R6 Fort Carson (Colorado)
 - R7 Fort Wainwright (Alaska)



Early Detection

- Monitoring (targeted species & multi-species)
- Expanding laboratory capacity
 - Molecular Laboratory Expansion
 - Validated genetic marker development
- Classroom learning
 - eDNA: study design, implementation & application
 - Class FWS-CSP2010
 - Offerings in 2026 (at NCTC in West Virginia)

Rapid Response

- Quagga mussels in the Snake River
- Unknown carp in Oregon and Idaho
- European green crab
- Fire response
- Preparedness Exercises * Lake Owyhee *



Section 7 Consultation Toolkit

- Moved online
<https://www.westerninvasivemussel.org/>
- For the Columbia River Basin, lists T&E species, potential treatments, literature search for impacts
- Bureau of Reclamation funded similar work for other watersheds – R1, R8, R6, R2



Specific to invasive
mussel response

Rapid Response funding and capacity



U.S. Fish & Wildlife Service

About Us Laws & Regulations Library

SERVICES SPECIES VISIT US GET INVOLVED NEWSROOM INITIATIVES I WANT TO

A Rapid Response Fund for Aquatic Invasive Species

Image Details

A Rapid Response Fund for Aquatic Invasive Species

Financial resources available for quick containment or eradication of newly detected species



Established in 2023; grant through PSMFC



DOI Interjurisdictional Invasive Species
Rapid Response Team (IInSRRT)
Underway !

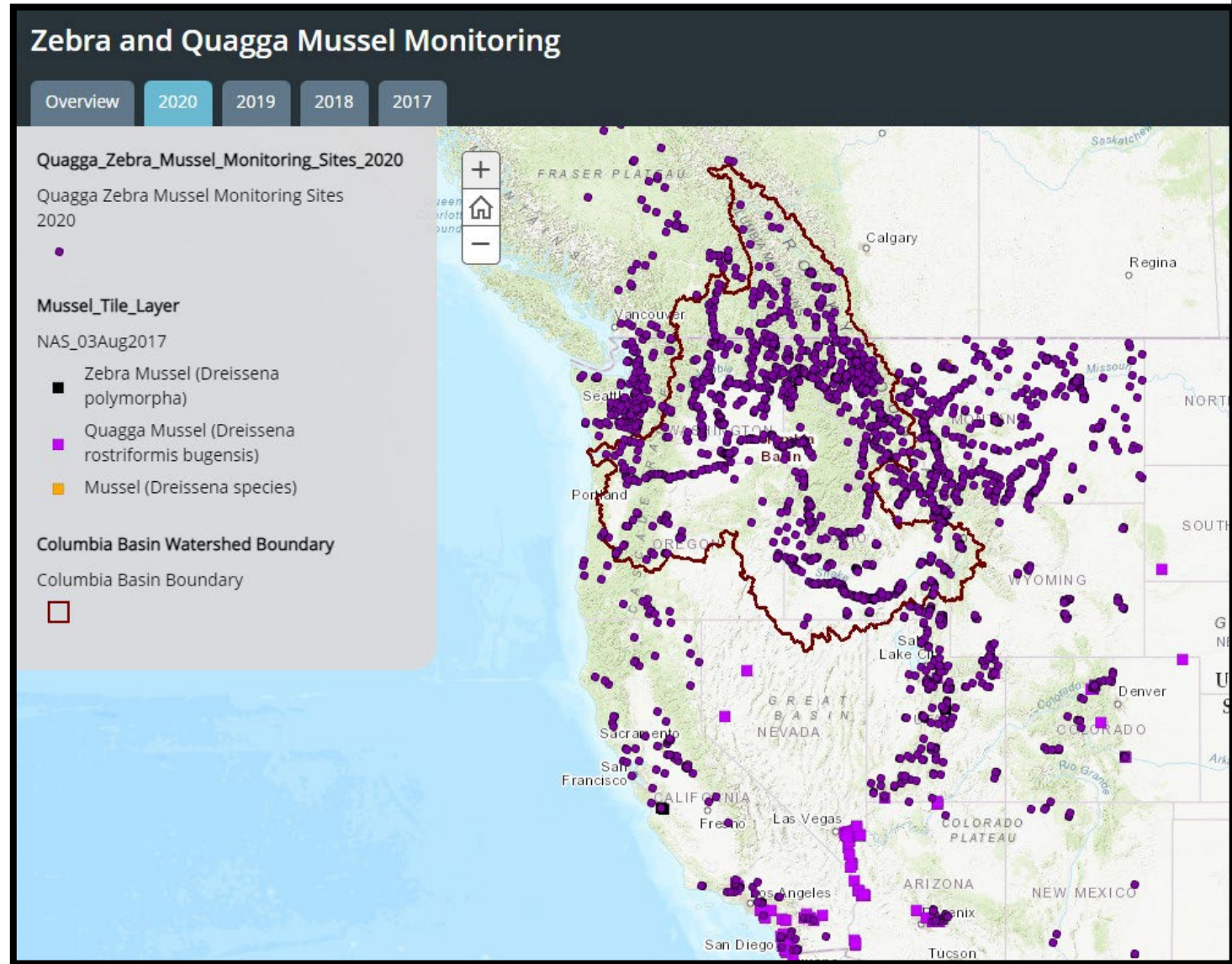
Control

- Tyee Springs / Wind River
- Stocking YY Brook Trout
- Annual Brook Trout removal
- PIT array to monitor movement and survival of YY brook trout



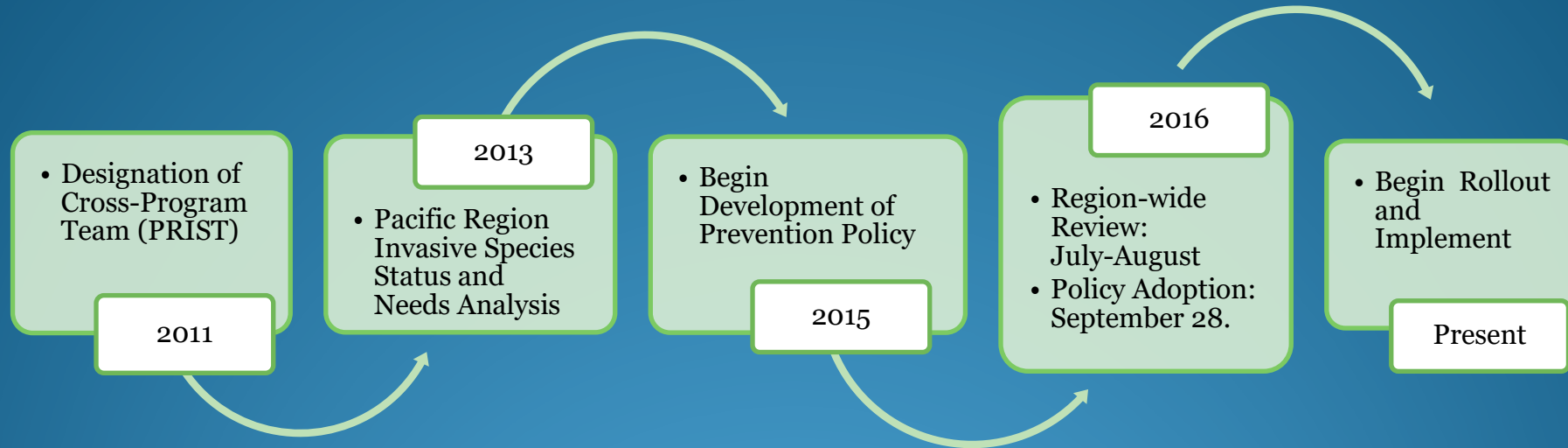
Coordination

- Early Detection
- Multi-agency coordination
- eDNA sampling
- Plankton sampling /veligers
- Artificial substrates
- Snorkel / SCUBA surveys
- Opportunistic sampling



<https://www.westernais.org/monitoring>

FWS Pacific Region – Invasive Species Policy



Current Status of Policy

- Effective October 3, 2016
- FWS Program-specific guidance completed (2017 – 2019)
- FWS training and implementation

HACCP Implementation

- 750 FW 1 (FWS Manual):
Policy since 3/2009
- NCTC HACCP
Course/Manual: 2011
updated frequently
- 2-day certification course
options and Train-the-Trainer



DISINFECTION KITS INCLUDE:

- Orange bucket
- 1 gallon sprayer
- 1 gallon H₂O
- Scrub brush
- Gloves
- Premeasured bag of Virkon Aquatic
 - Available in labeled plastic tub



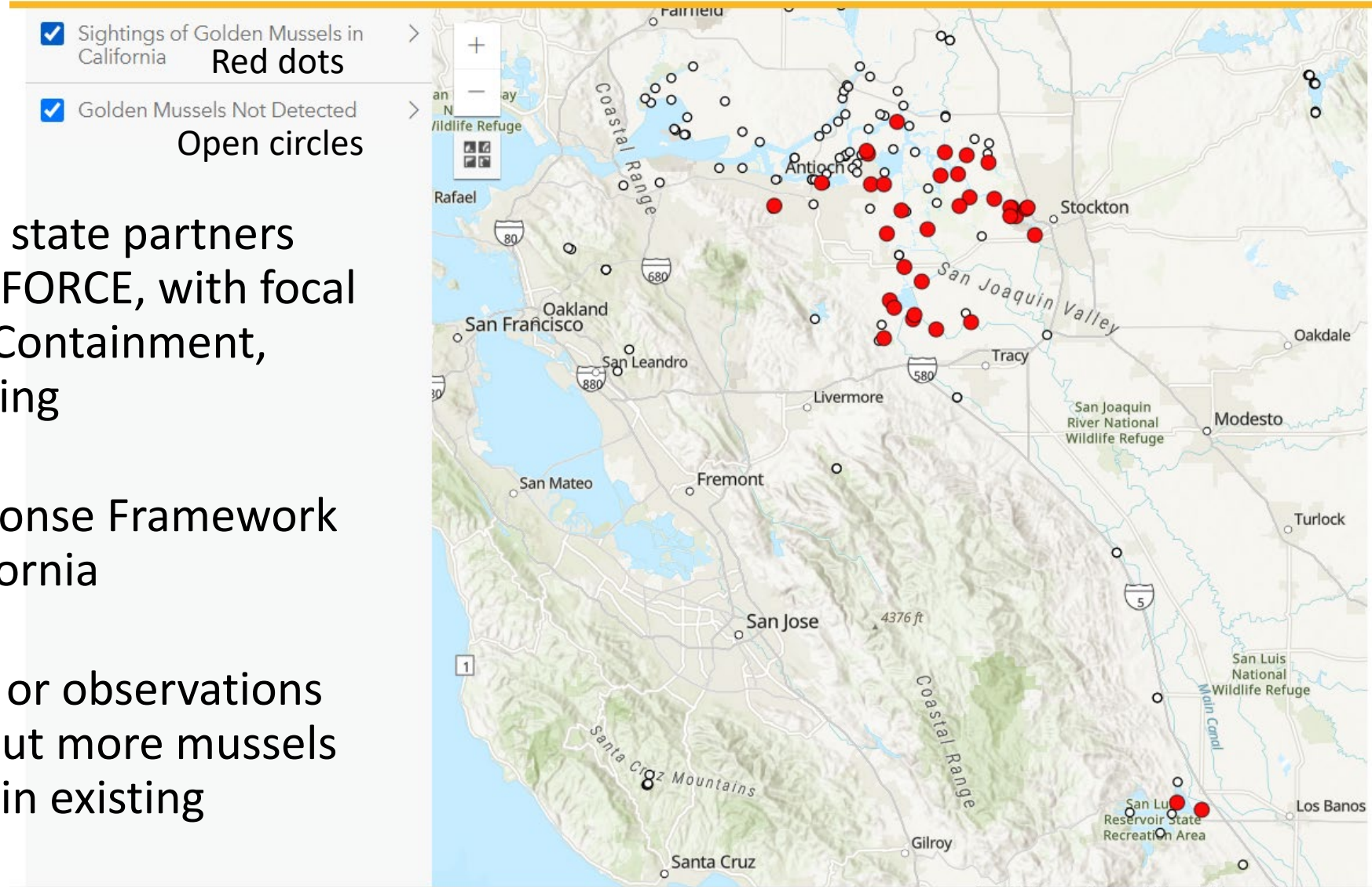
Golden Mussel

- First known introduction in North America
- First detections in the Sacramento-San Joaquin Delta October 2024
- CA California Department of Fish and Wildlife (CDFW) Leading
- Interactive map available with additional information:
- <https://wildlife.ca.gov/Conservation/Invasives/Species/Golden-Mussel>



Actions

- Multiple federal and state partners have formed a TASK FORCE, with focal areas for Outreach, Containment, Prevention, Monitoring
- Golden Mussel Response Framework (April 2025) for California
- No new populations or observations in new waterways, but more mussels have been detected in existing waterways



Map from <https://wildlife.ca.gov/Conservation/Invasives/Species/Golden-Mussel>

Twin Falls
to Shoshone

Snake River

Dierkes
Lake

Dierkes Rd

River Flow Direction

Snake River

Sage View to
Twin Falls

Snake River

2025 Quagga Treatment

- Sage View to Twin Falls – 83.32 Acres
- Twin Falls to Shoshone Falls – 113.74 Acres

Carp





European Green Crab

Ongoing Emergency in WA

National Management Plan

Research Task Force

Inter-agency Rapid Response Plan

Signature Page

 State of Idaho (Date) October 3, 2008	 State of Montana (Date) October 3, 2008
 State of Oregon (Date) October 3, 2008	 State of Washington (Date) October 3, 2008
 NOAA Fisheries (Date) October 3, 2008	 USDOI Fish and Wildlife Service (Date) October 3, 2008
 Columbia River Inter-Tribal Fish Commission (Date) October 3, 2008	 Province of British Columbia (Date) October 9, 2009

As signatories, the above parties agree to implement this plan as appropriate consistent with each signatory's laws, policies, and authorities in the event that zebra mussels or other dreissenid species are detected in Columbia River Basin waters.

- ▶ Focused on Columbia River Basin
- ▶ Rapid response to Dreissenid spp.
- ▶ Multiple agencies signed
- ▶ Originally signed – Sept. 2008
- ▶ Updated in 2011; 2014
- ▶ <https://www.westernais.org/rr-plans-exercises-groups>
- ▶ Considering how to update ...

Inter-agency Rapid Response Exercises



- ▶ Multiple agencies involved
- ▶ Held throughout the basin
- ▶ Annual exercises since 2007
- ▶ Rapid response to Dreissenid spp.
- ▶ <https://www.westernais.org/rapid-response>
- ▶ “Lessons Learned” summary

Priority Aquatic Invasive Species

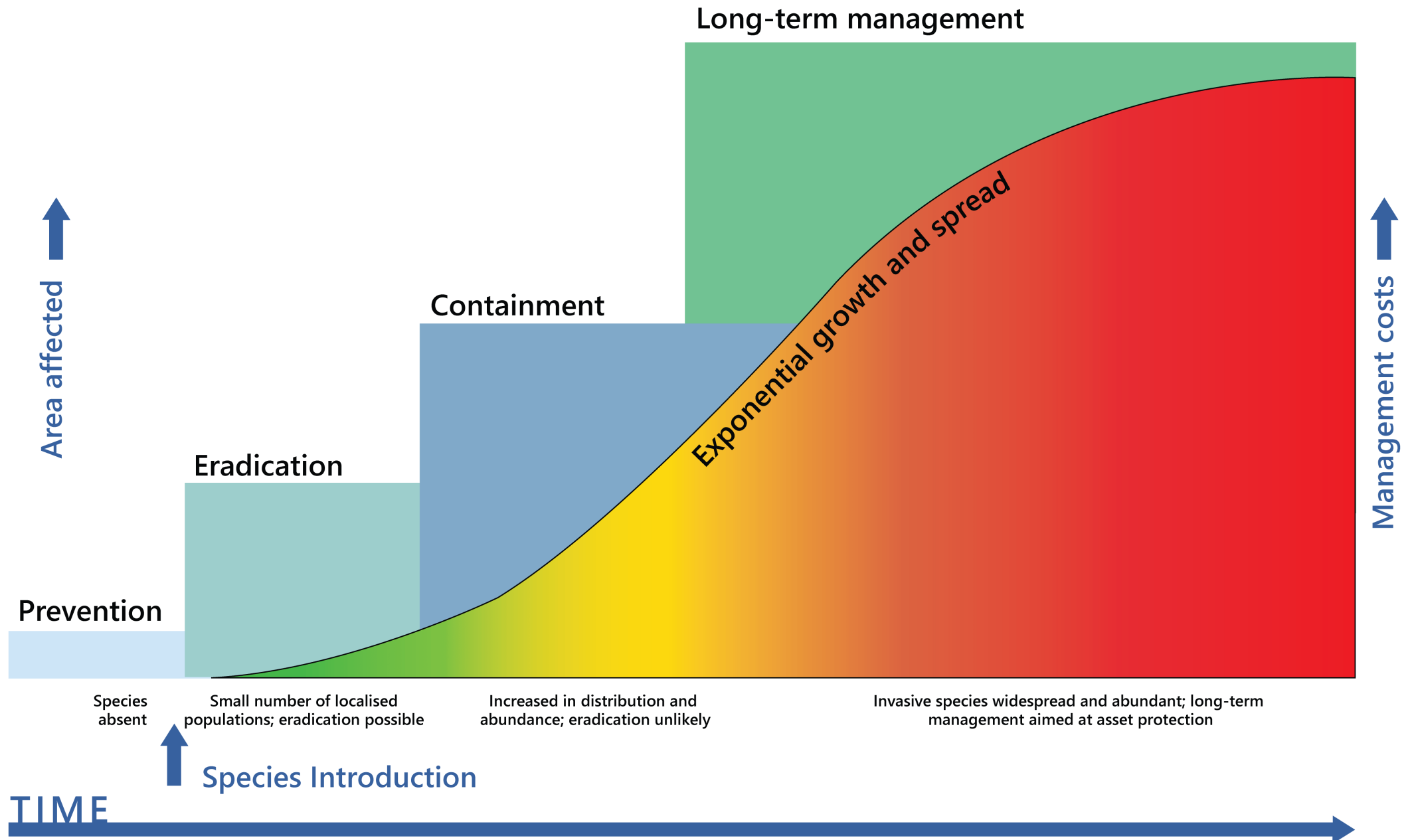
- New Zealand Mudsnail
- Zebra & Quagga mussels
- Golden mussels
- Mystery snail(s)
- Rusty crayfish
- Marbled crayfish
- Eurasian watermilfoil
- Hydrilla
- American bullfrog
- Spiny waterflea
- Northern pike
- Largemouth bass
- Smallmouth bass
- Walleye
- Brook trout
- Invasive carp species
- Large scale loach
- Round goby

Priority Pathways of Invasion

- Flooding
- Inter-basin Water Transfer
- Inter-basin Fish Transfers
- Hatchery Operations
- Contract Work including facilities maintenance
- Water-based Recreation (boating, fishing, etc.)
- Restoration Activities
- Pet Industry
- Shipping



Aspects of the Invasion Management Process





Your Regional AIS Coordinator

Theresa Thom

971-278-8029

theresa_thom@fws.gov

