

# Regional Coordination and Prevention Efforts Relating to Quagga and Zebra Mussels



Pacific States Marine Fisheries Commission  
Stephen Phillips, Program Manager  
August 30, 2016

**Authorized by Congress in 1947, the Pacific States Marine Fisheries Commission (PSMFC) is one of three interstate commissions dedicated to resolving fishery issues.**

**Member States: California, Oregon, Washington, Idaho, and Alaska**

**Aquatic Invasive Species Program Since 1999**  
**Main Species of Concern: Zebra and Quagga Mussels**

**AIS Staff:** PSMFC: Susan Anderson (Admin Asst); Van Hare (GIS); Contractors: Lisa A DeBruyckere, Debra Davis, Leah Elwell, Kelly Stockton-Fiti; Portland State University (Mark Sytsma, Steve Wells)



# Outline of Today's Presentation

## West-Wide

- Western Regional Panel
- Building Consensus in the West

## PNW - Regional

- Columbia River Basin Team
- Watercraft Inspection Decontamination (WID) Database
- Rapid Response, Monitoring, outreach etc.





- **WRP** is one of 6 regional panels that report to the national Aquatic Nuisance Species Task Force –was formed in 1997 to help limit the introduction/spread of AIS into the West; representatives include State/Provincial/Federal agencies and private water interests
- **Quagga Zebra Action Plan (QZAP)** WRP developed QZAP in 2010 to summarize current strategies to address the invasion of mussels in the West, and to identify and prioritize the specific actions that are needed.
  - Still a serviceable document, still referenced in Federal appropriations bills
  - Includes a USFWS grant program targeting lower Colorado
- **Building Consensus in the West: 2012 – Present**

# Building Consensus in the West

- In 2012 assistant attorneys general, natural resource agency attorneys, law enforcement supervisors, policy makers, and AIS staff came together to establish clear legal and regulatory approaches and opportunities for AIS abatement and reform.
- A 26 point action plan was developed to minimize the spread of dreissenid mussels through watercraft movement in the west.
- Two “teams” were formed -- Legal and AIS
- Work sessions were held in 2013 ‘14 and ‘16



# Building Consensus in the West

## **AIS TECHNICAL TEAM (Common Technical Language/Definitions/Procedures)**

- Watercraft Inspection & decontamination definitions, protocols, and standards
- Waterbody Classification – e.g. “Suspect” “Positive” ; delisting criteria
- Regional WID Data Sharing: CO (Host), UT NV NM Tahoe
- Waterbody Sampling and Lab Standards (Monitoring)

## **LEGAL TEAM**

- Model Legislative Provisions “Model Law” (2014) – Adopted by AFWA
- Model Regulations draft just released (Finalize: November 2016 )
- Model Cooperative Agreement (December 2017)

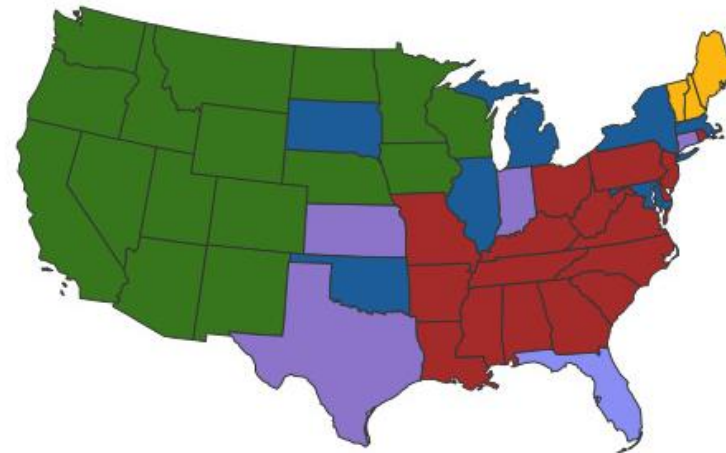


# The Model Law (2014, NSLC and AWFA)

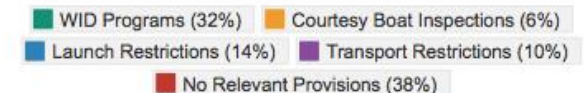
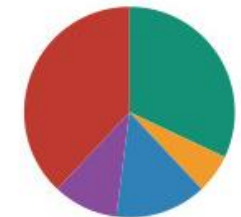
- Purposes
  - Guidance to states with WID programs for creating interstate reciprocity
  - Outline to states without WID programs for authorizing new programs
- Intended Benefits
  - Facilitates reciprocal agreements among states
    - Can accept each others programs and related documentation
  - Reduces confusing among boating public
  - Simplifies law enforcement
  - Adopted by AFWA – UT, NM CO have adopted ML language

## Quick Facts

Prepared by the National Sea Grant Law Center (October 2014)



62% of states have legal provisions addressing the trailered recreational watercraft vector.



<http://www.westernais.org/building-consensus>

# Regulations: Next steps to implementing the model law

- Model Regulations draft has been released (August 2016)..Finalized November '16
- The model regulations are the bridge between the model law and agency protocols and cooperative agreements.
- Model Cooperative Agreements among the states to be developed (December 2017)



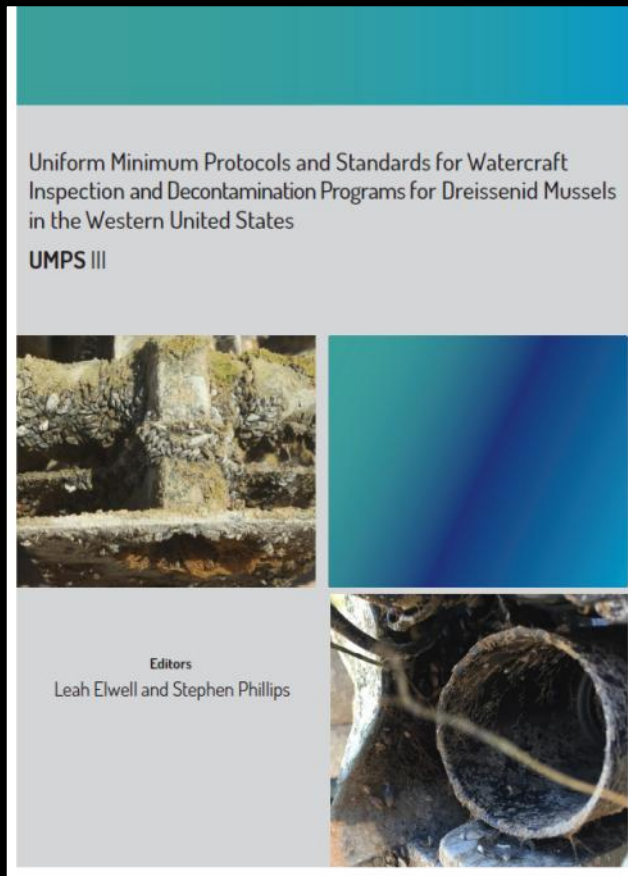
# AIS /TECHNICAL

## Watercraft Decontamination Decon/Training

### Use of Hot Pressurized Water



# Watercraft Inspection Training Decontamination Protocols and Standards (aka UMPS III)

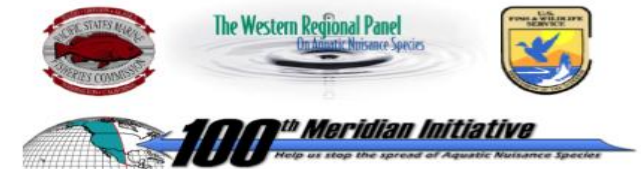


## Training Curriculum

**Student Training Curriculum for Watercraft  
Inspectors and Decontaminators  
to Prevent and Contain the Spread of  
Aquatic Invasive Species in the U.S.A.**



*Version 2 – Updated February 1, 2016*





# Since 2006 -- Watercraft Inspection Training Program for Agency Inspection Program Personnel (Lake Mead, D Davis)



## **Coordinated through Columbia River AIS Basin Team (100<sup>th</sup> Meridian Initiative)**

- Since 2004, Meets twice annually, Next meeting 12/6-7, PDX
- Missouri Basin Team – carp focus
- Watercraft Inspection and Decontamination Database
- Night Operations
- Preparing for a Rapid Response
- Dreissenid Monitoring in the CRB
- Vulnerability Assessments in the Columbia River Basin
- Boat Vector Pathway Project

# PSMFC REGIONAL WATERCRAFT INSPECTION STATION DATABASE

Since 2012, in coop w/state W.I. agencies

- Station locations and operating hours
- # of boats inspected at each WID stations
- # of boats that were considered 'high risk'
- # of adult dreissenid fouled boats intercepted
- Origin and destination of the fouled boats that were intercepted



**I-5, Oregon**

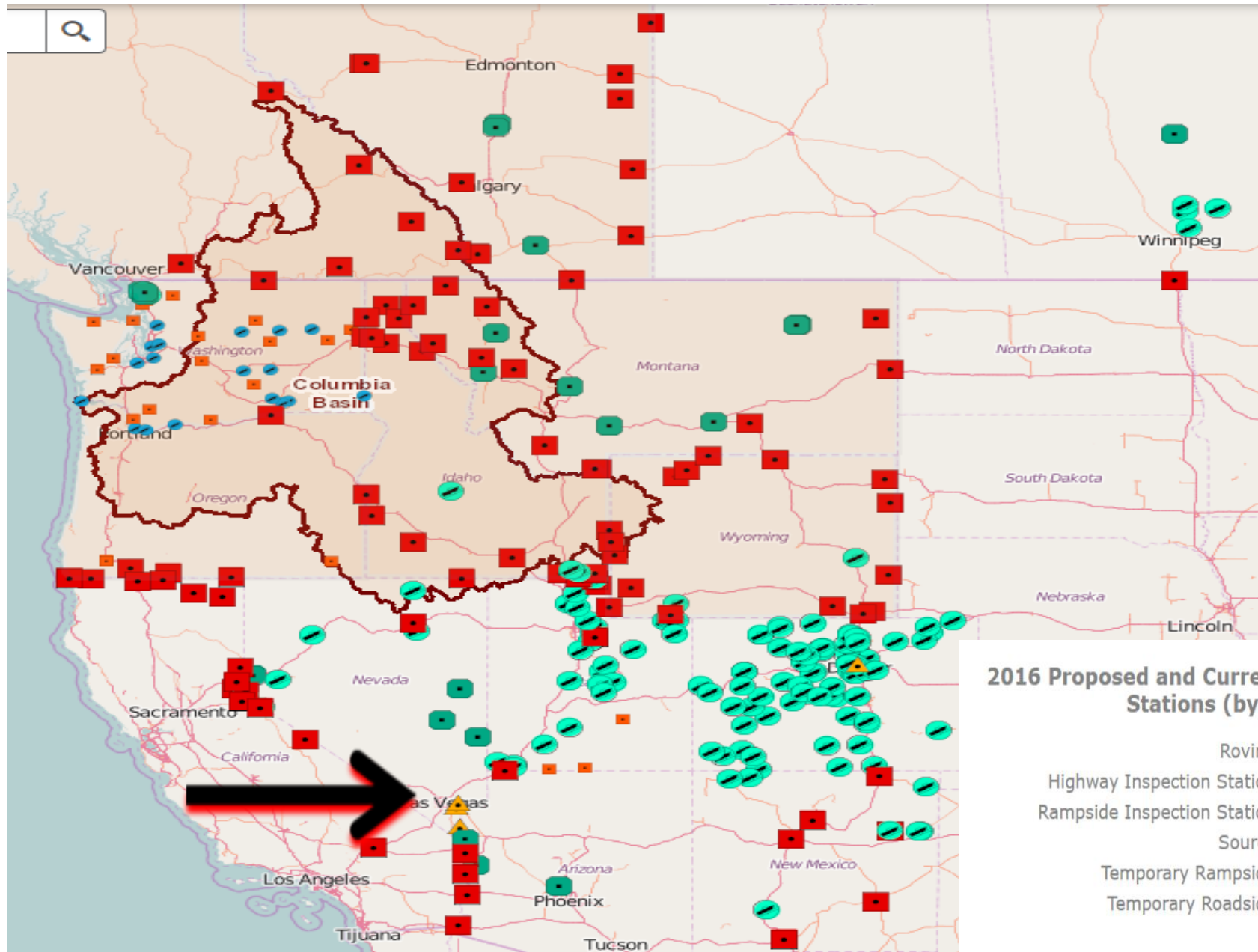


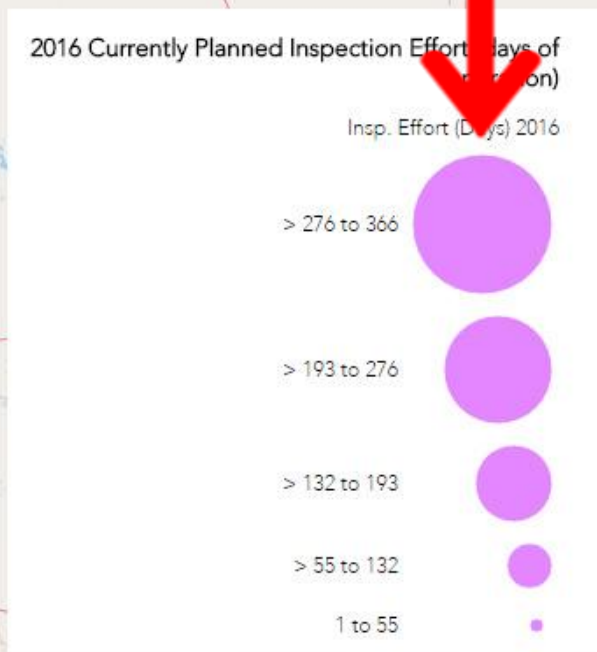
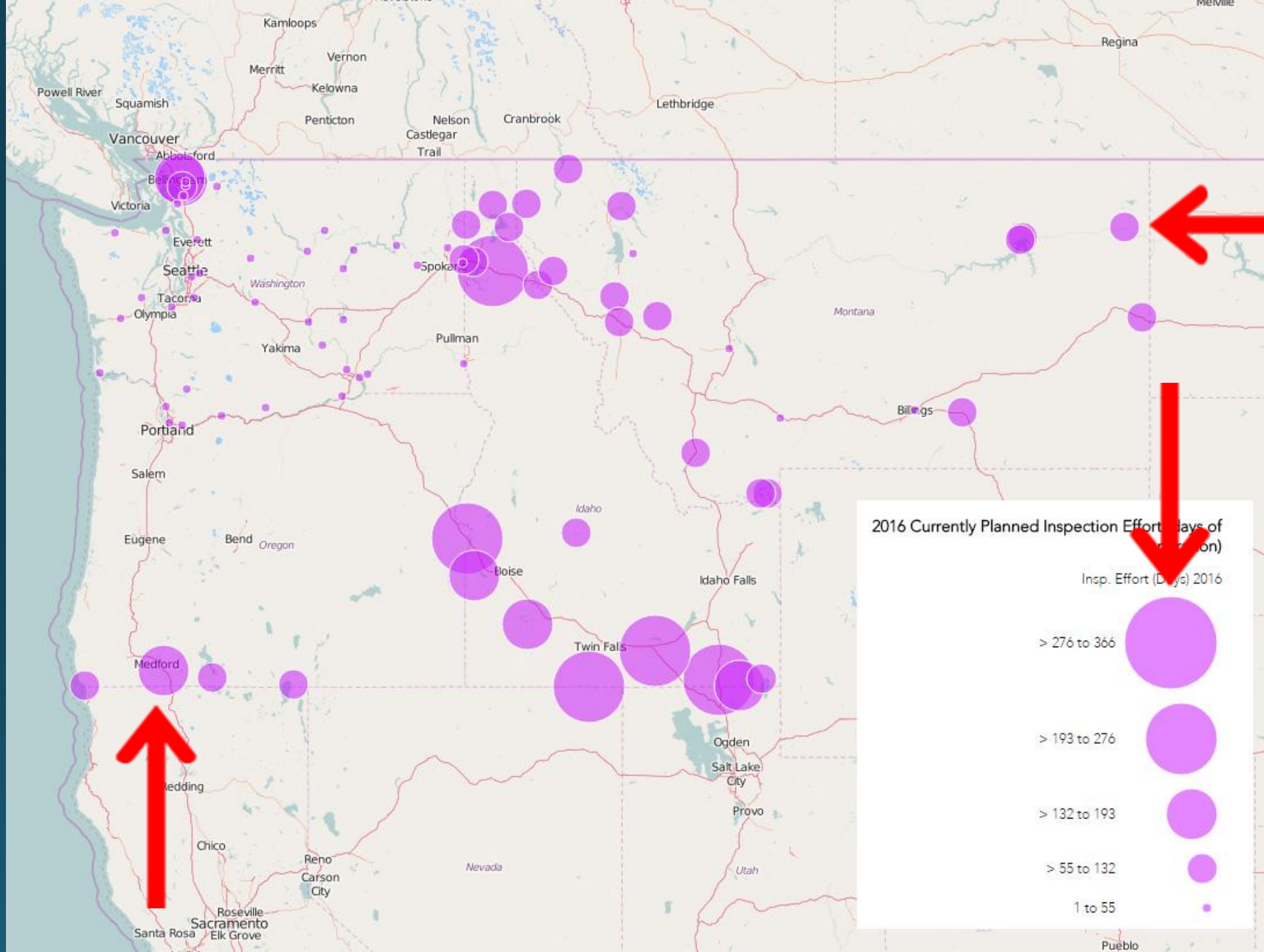
**Cedars Station, Idaho**

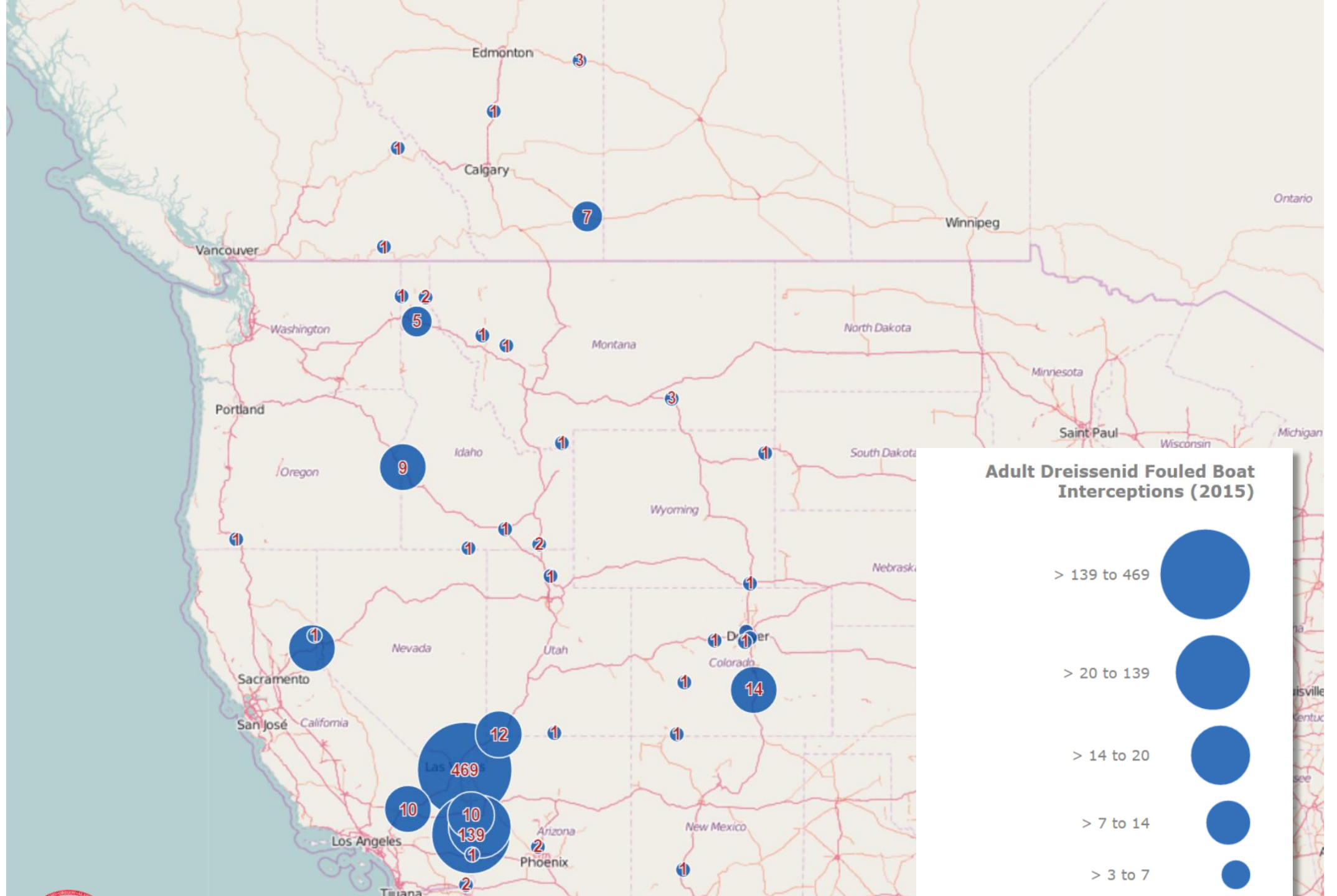


# Map of Watercraft Inspection Stations in Western N. A.

**NOT SHOWN:** Interior California;









# Washington 2015 and 2016: Night Inspection



Roadside WI Stations are open during the day

Yes, we are missing boats at night, but how many?

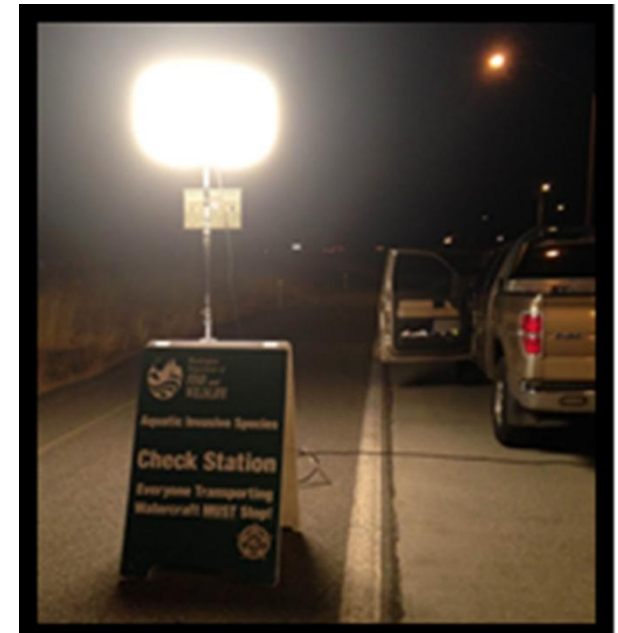
Concern from ALL states on running night stations: **safety, \$\$, law enforcement needed**

In Response Operation – “Dark Crossing” - Wash Dept. Fish & Wildlife Enforcement, LT. Eric Anderson, lead

Stations on I-5; I-395; I-90

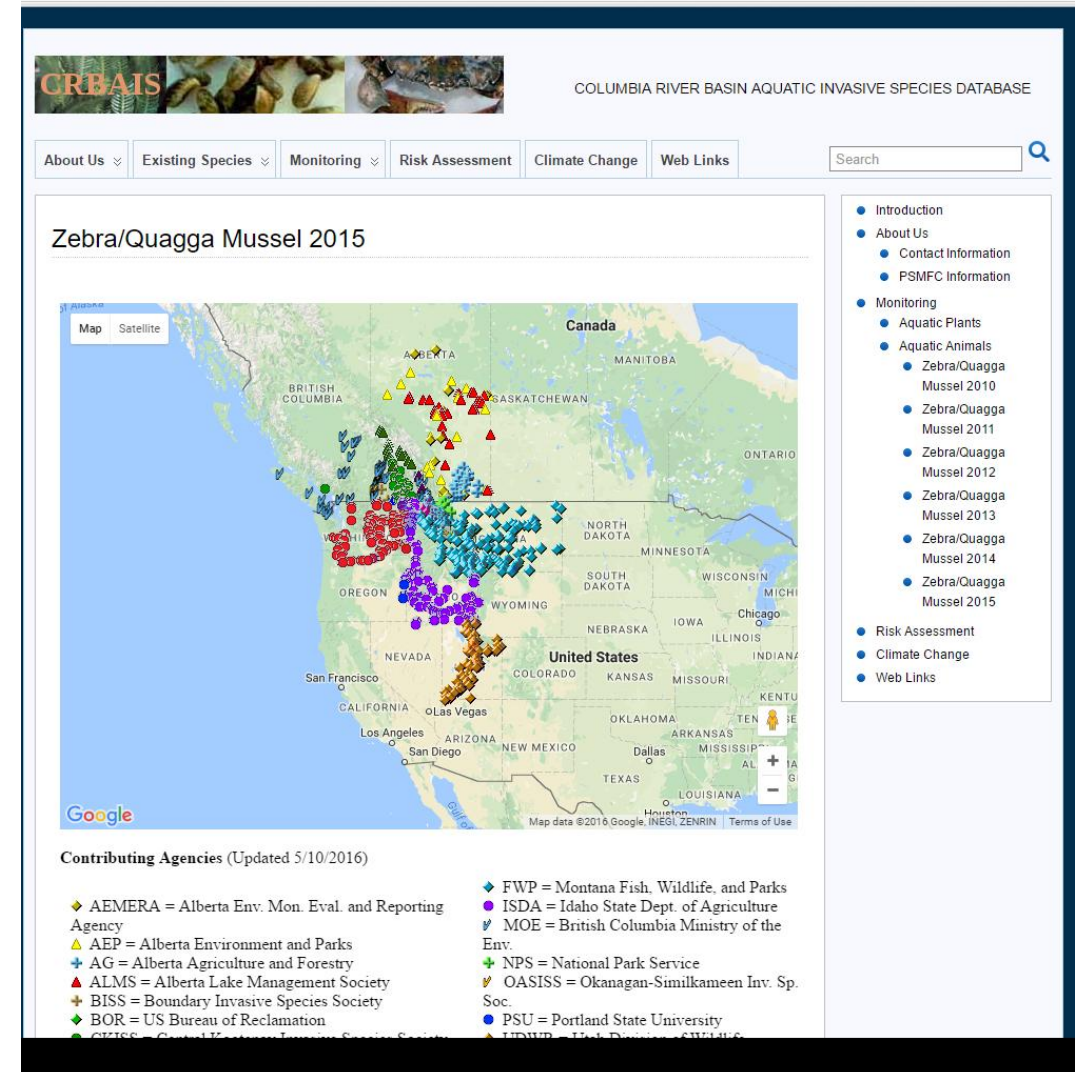
2015: Caught 2 boats for Mead/Powell’ (I- 395)

2016: Now through early Sept



# Dreissenid Monitoring in the CRB (Since 2010)

- <http://crbais.psmfc.org/zebraquagga-mussel-2015> is moving to [www.westernais.org](http://www.westernais.org) with new maps and easier to read legends.
- PSMFC will be collecting the information annually and posting it online.
- CRB Monitoring is underfunded -- FY 2017 Energy and Water approps (S.2804) has \$ 1 million for monitoring under authorized by section 1039(e) of WRRDA.

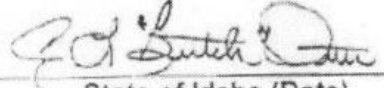


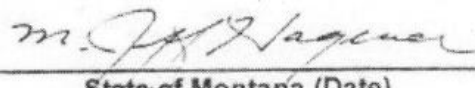
# Rapid Response Plan for Q/Z Mussels in the CRB


Columbia River Basin Interagency  
Invasive Species Response Plan:  
Zebra Mussels and Other Dreissenid Species

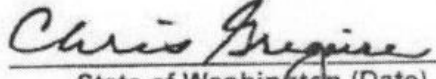
Signature Page




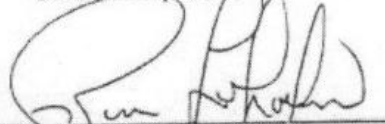
  
State of Idaho (Date)  
October 3, 2008

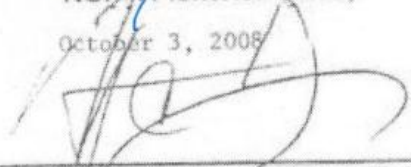
  
State of Montana (Date)  
October 3, 2008

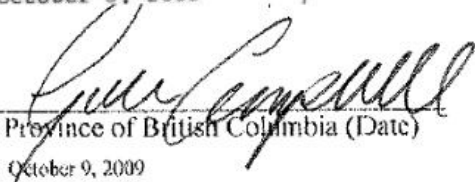
  
State of Oregon (Date)  
October 3, 2008

  
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.



# Rapid response exercises

- Goals:
  - Improve communication, coordination response, among managing partners
  - Determine local resource availability for use in a rapid response
  - 2009 – Idaho (Boise/Lucky Peak)
  - 2016 – Wyoming
  - ~Fall 2017 - Washington

Jackson Lake Rapid Response Exercise  
After Action Report

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May 10-12, 2016



# Eradication– preparing for a response

- Informal ESA consultation with federal agencies (NOAA, USFWS, states)
- Preparing Action Document (L. DeBruyckere, lead)
  - BMPs
  - Effects Analysis
  - Potential Action
- Potential chemicals
  - Potash, not registered, FIFRA Section 18 Emergency Exemption ...Copper products likely not due to ESA salmonid concerns
  - Funding Potash Research; U of I Moffitt/Stockton-Fiti
- Must be Isolated/manageable!!!



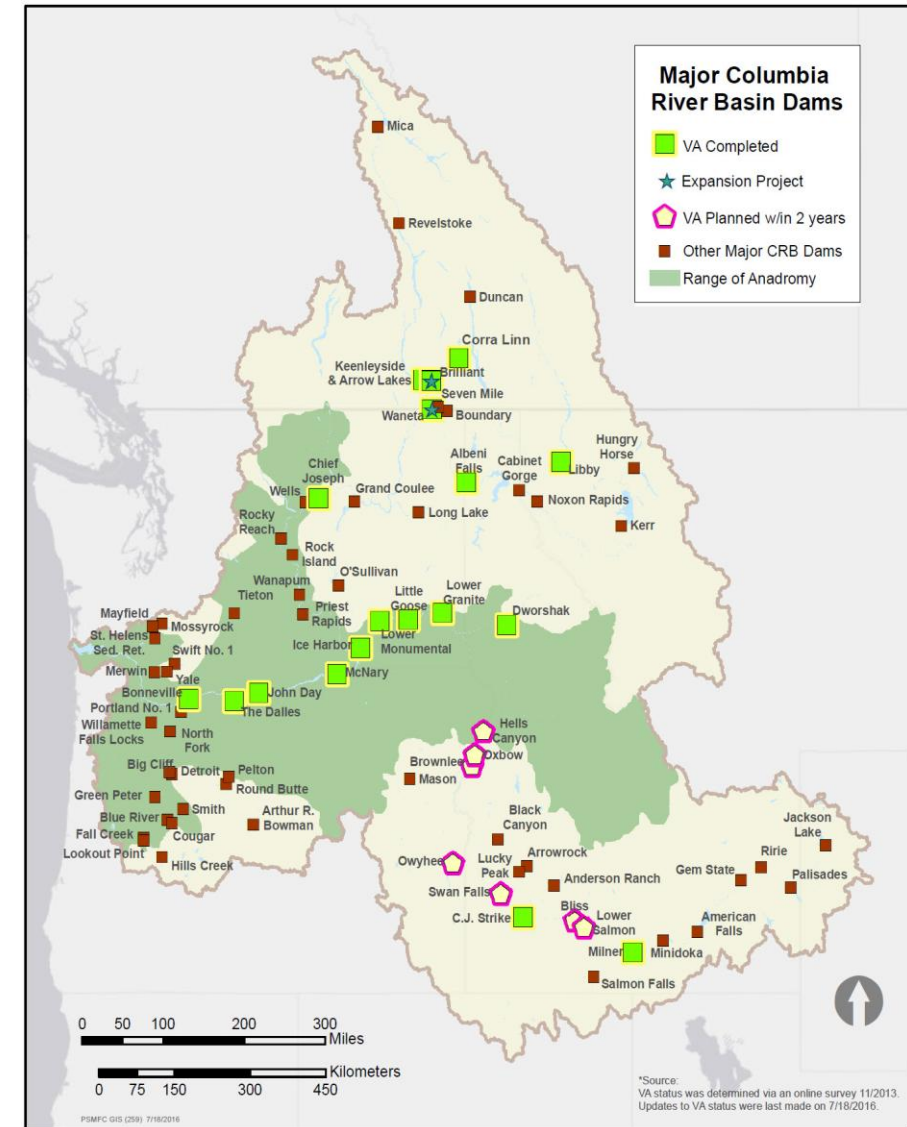
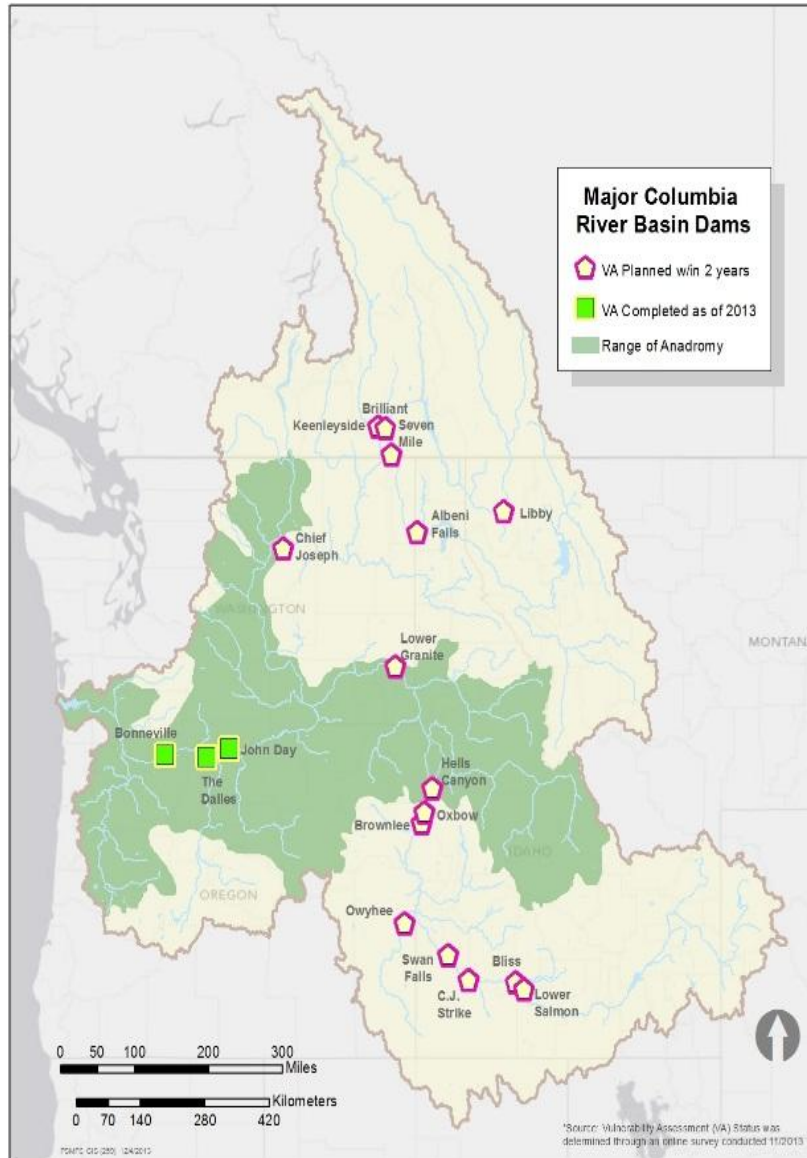
# Vulnerability Assessment Team

- Vulnerability Assessments
  - Itemize and inspect all hydropower facility structures and components that come into contact with raw water
  - Judge the degree to which dreissenids will impair performance
- Risks and problems facilities face depend on:
  - The extent of the introduction
  - How raw water gets into facility
  - Processes to treat or transform the water
  - Routing of piping and location of equipment
  - Maximum and minimum flow rates, temperature ranges, frequency of operation



The Chief Joseph Dam on the Columbia River is the largest hydropower producing dam operated by the USACE.  
Photo credit: USACE

# Vulnerability Assessments in the CRB





# Summer 2016: Boat Vector Pathway Project

**Goal:** Address boat vector pathways to prevent the movement and introduction of dreissenids and other AIS to the Pacific Northwest

- Targets
  - Moored boats from the Lower Colorado and Great Lakes
  - Non-oversize boats transported by commercial haulers
  - Boat Brokers
  - Boat Auctions
  - Online Sales
- Methodology
  - Compilation of information on mooring facilities, commercial haulers, boat brokers, and boat auction companies in North America – focus on Great Lakes and Lower Colorado
  - Prepare, distribute, and make available online resources to these entities to prevent the movement of AIS.





# Miscellaneous /Advocacy/ Policy

- **USACE/WRDA/Regional Defense –PNWER, NWPCC** been huge help; Rep. Mike S.
- **PNWER's** document “Advancing a regional defense against dreissenids in the Pacific Northwest”
- **WRDA Reauthorization (S. 2848)** –Contains language to allow the use of federal funds (USACE) to support watercraft inspection stations outside of the CRB; **FY 217 Energy and Water approps (S.2804)** has \$ 1 million for monitoring
- **Containment at the Source:** The NPS was advised it does not have regulatory authority to require the inspection and / or cleaning of boats that are leaving NPS areas.”
- **Quagga Mussel Listing as an injurious species under the Lacey Act– Still seeking a path**

<http://www.westernais.org/>

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