# IDAHO RAPID RESPONSE PLAN FOR EARLY DETECTION OF DREISSENID MUSSELS

*(A supplement to the Columbia River Basin Rapid Response Plan)*
Initially drafted 11/06/09
Updated 10/21/2015

## Objective 1: Verify

**Purpose:** Confirm suspected identification of the Dreissenid species.

**Lead entity**: ISDA.

A waterbody will be identified as "Suspect" for Dreissenid mussels if:

1) Settled adult Dreissenid mussels are found and verified by two qualified experts **OR**
2) Dreissenid mussel veligers are found and confirmed utilizing **BOTH** of the following methods:
   - Microscopy identification of a sample from a qualified expert and concurrence from a second qualified expert: (EcoAnalysts, Bureau of Reclamation ("BOR"), Portland State University ("PSU") **AND**
   - PCR (genetic) identification of a sample by a qualified expert and concurrence from a second qualified expert: (Pieces Labs, BOR)

A waterbody will be considered "Positive" for Dreissenid mussels if specimens are verified through the above protocol during two separate sampling events.

## Objective 2: Make Initial Notifications

**Purpose:** Ensure that all parties that have jurisdiction in response decisions are informed of a suspect or infested identification within 48 hours.

**Lead entity:** ISDA
Following a "Suspect" or "Positive" identification of Dreissenid mussels in the waters of Idaho, ISDA will conduct the following notifications. All communications outside the agency will be at the direction of the Directors Office:

1) Tier 1 Contacts:
   - ISDA Director
   - Governor's Office
   - ISDA Invasive Species Program and Management Staff
   - ISDA legal counsel/Office of the Attorney General

2) Tier 2 Contacts:
   - Directly impacted entities (State agencies, Federal agencies, power companies, irrigation districts, etc)

3) Tier 3 Contacts:
   - Legislators (House and Senate Leadership, Agriculture Committee Leadership, Resource Committee Leadership)
   - Idaho Fish and Game ("IDFG")
   - Idaho Department of Water Resources ("IDWR")
   - Idaho Water Resource Board ("IWRB")
   - Bureau of Homeland Security ("BHS")
   - Office of Species Conservation ("OSC")
   - Department of Environmental Quality ("DEQ")
   - Idaho Department of Lands ("IDL")
   - Idaho Department of Parks and Recreation ("IDPR")
   - Columbia River Basin Rapid Response Team
   - Relevant water delivery agency (irrigation districts and canal companies)
   - Idaho Power Co., Avista, or other relevant utilities
   - Idaho Water Users Association ("IWUA")
   - United States Fish and Wildlife Service ("USFWS")
   - National Oceanic and Atmospheric Administration Fisheries ("NOAA Fisheries")
   - Environmental Protection Agency ("EPA")
   - Bureau of Reclamation ("BOR")
   - United States Army Corps of Engineers ("Corps of Engineers")
   - Idaho Aquaculture Association ("IAA")
   - Northwest Power and Conservation Council ("NWPCC")
   - Impacted counties, local county government and sheriff's office

Develop cooperative agreements, if needed, with cooperating agencies and entities.

**Objective 3: Activate Appropriate Organizational Elements of the Columbia River Basin Interagency Response Plan**

**Purpose:** Activate a response that promotes information sharing, ensures efficient resource management, and supports on-scene management.

**Lead entity:** ISDA, Idaho MAC Group and CRB MAC Group

**Objective 4: Define Extent of Infestation**

**Purpose:** Establish physical range of infestation.

**Lead entity:** ISDA

1) Intensive plankton tow sampling for microscopy analysis for Dreissenid veliger identification.
   - Sampling in suspected mussel infested area.
   - Sampling downstream of suspected mussel infested area.

- Sampling upstream of suspected mussel infested area.

2) Obtain necessary permission from property owners.

3) Check existing substrate samplers for mussel adults region-wide.
   - DEQ
   - Water delivery agencies and companies
   - Utility companies with hydro power infrastructure

4) Check exposed infrastructure for adults, utilizing divers and ROV, or other appropriate methods.
   - BOR / Corps of Engineers
   - USFWS
   - Idaho Power Company, Avista, and other hydropower generators
   - Relevant water delivery companies and agencies (irrigation districts, canal companies, etc.)
   - IWUA
   - Local/regional law enforcement agencies

5) Explore removing existing infrastructure from the water for enhanced adult mussel survey (moored boats, docks, buoys).

**Objective 5: Establish External Communications System**

**Purpose:** Ensure consistent and effective communication to external stakeholders, including the media and public.

**Lead Entity:** ISDA (Chief of Staff)

1) Develop a press release.

2) Coordinate with interagency public information officers ("PIOs").

3) Establish point of contact ("POC") for media.

4) Prepare for ongoing media alerts (mandatory decontamination areas, closures, etc.).

**Objective 6: Prevent Further Spread**

**Purpose:** Minimize all pathways.

**Lead Entity:** ISDA (Program Staff)

1) Inventory boat launches in affected area (including those upstream and downstream, regardless of state boundaries).

2) Identify government or private entities with management authority over potential pathways.

3) Contact management authorities and advise of potential mandatory inspections or closures.

4) Initiate mandatory inspections, decontaminations or closures.

**Objective 7: Initiate Available/Relevant Control Measures**

**Purpose:** Proceed with either Early Detection / Rapid Response (EDRR) eradication efforts or containment / mitigation activities.

**Lead Entity:** ISDA (Management and Program Staff)

1) Convene an expert panel for consultation on treatment / containment options.

2) Evaluate management options given the nature of the population (veligers only, adults and veligers, isolated population vs. widespread population, etc.).

3) Evaluate complicating factors involved with treatment in the infested waterbody (water movement, subsurface flow, water volume, ESA species, water use).

4) Evaluate available eradication methods for the infested location.
- Waterbody drawdown.
- Chemical treatment. (option examples)
    - Chem One (copper sulfate crystals)
    - EarthTec (copper sulfate pentahydrate)
    - Hydrothol 191 (endothall-amine)
    - Natrix (copper carbonate)
    - Potassium chloride (potash)
    - Other effective products

5) Engage regulatory authorities to obtain permitting and regulatory approval for eradication action. (EPA, USFWS, NOAA, DEQ, IDFG, IDWR)

6) Evaluate availability of control tools
- Capacity / timing for drawdown.
- Evaluate and assess water movement and subsurface flow in the treatment area.
- Calculate area for chemical treatment (acre feet) to determine the amount of chemical required.
- Determine availability and lead time required to obtain the amount of chemical needed for treatment.
- Determine availability and lead time for silt curtains to contain / restrict water movement in treatment areas.
    - Construction contractors, USACE, etc.

7) Engage stakeholders on details and impacts of eradication action.

8) Identify and contract with a pesticide applicator to conduct treatment, following applicable purchasing and contracting laws. Determine the lead time needed to mobilize the contractor in order to conduct the application.

9) Initiate eradication action.

10) Evaluate in-water target concentration rates following treatment.

11) Evaluate treatment efficacy and continue monitoring for evidence of surviving mussels.

If needed, draft MOUs or cooperative agreements with entities participating in eradication.

**Classification Change**.

A “Suspect” or “Positive” classification can be removed if no mussel detections are found following seven consecutive years of extensive sampling in that waterbody.