

# Idaho Invasive Species Program

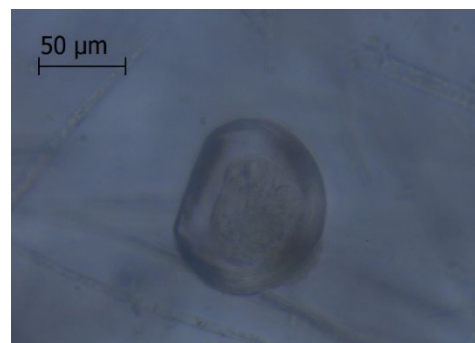
Responding to the Snake River quagga mussel infestation.



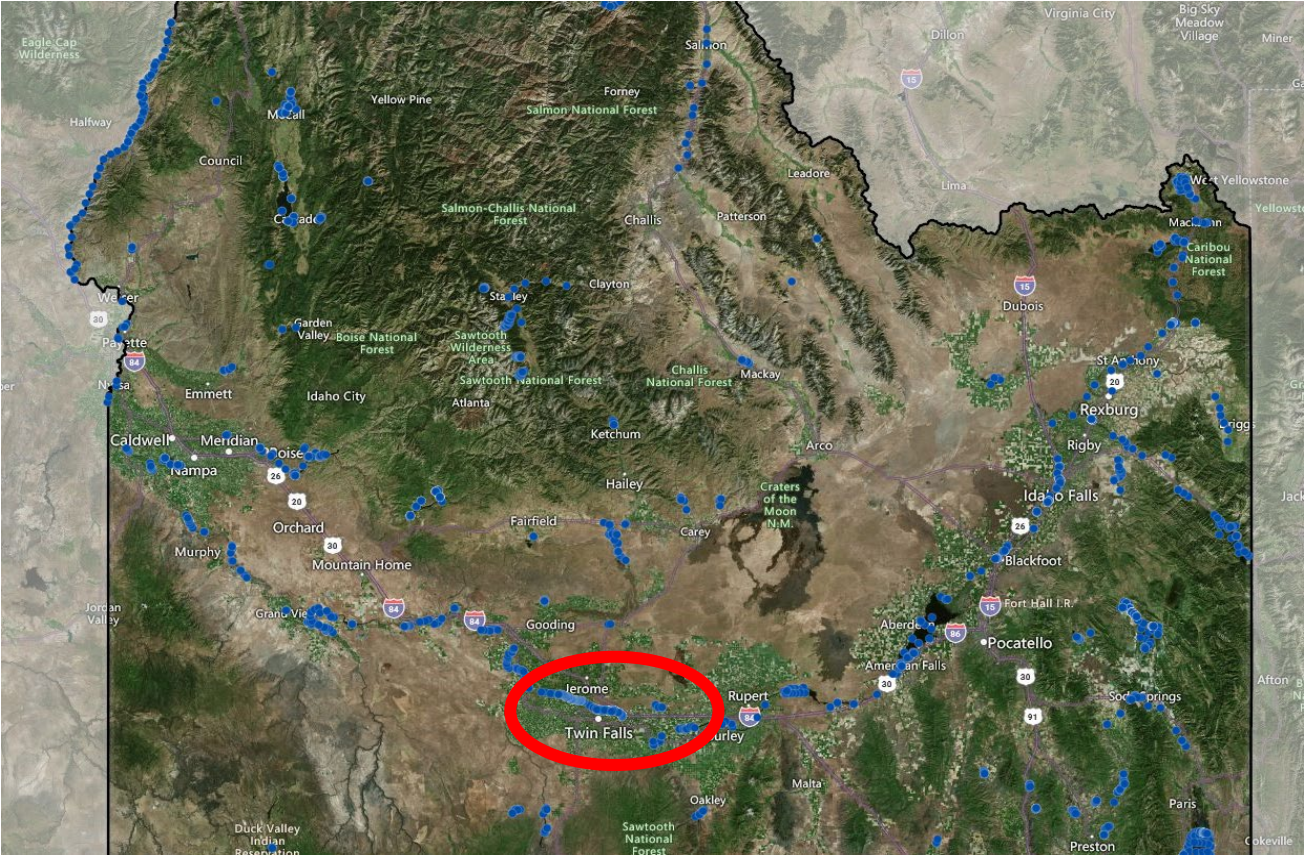
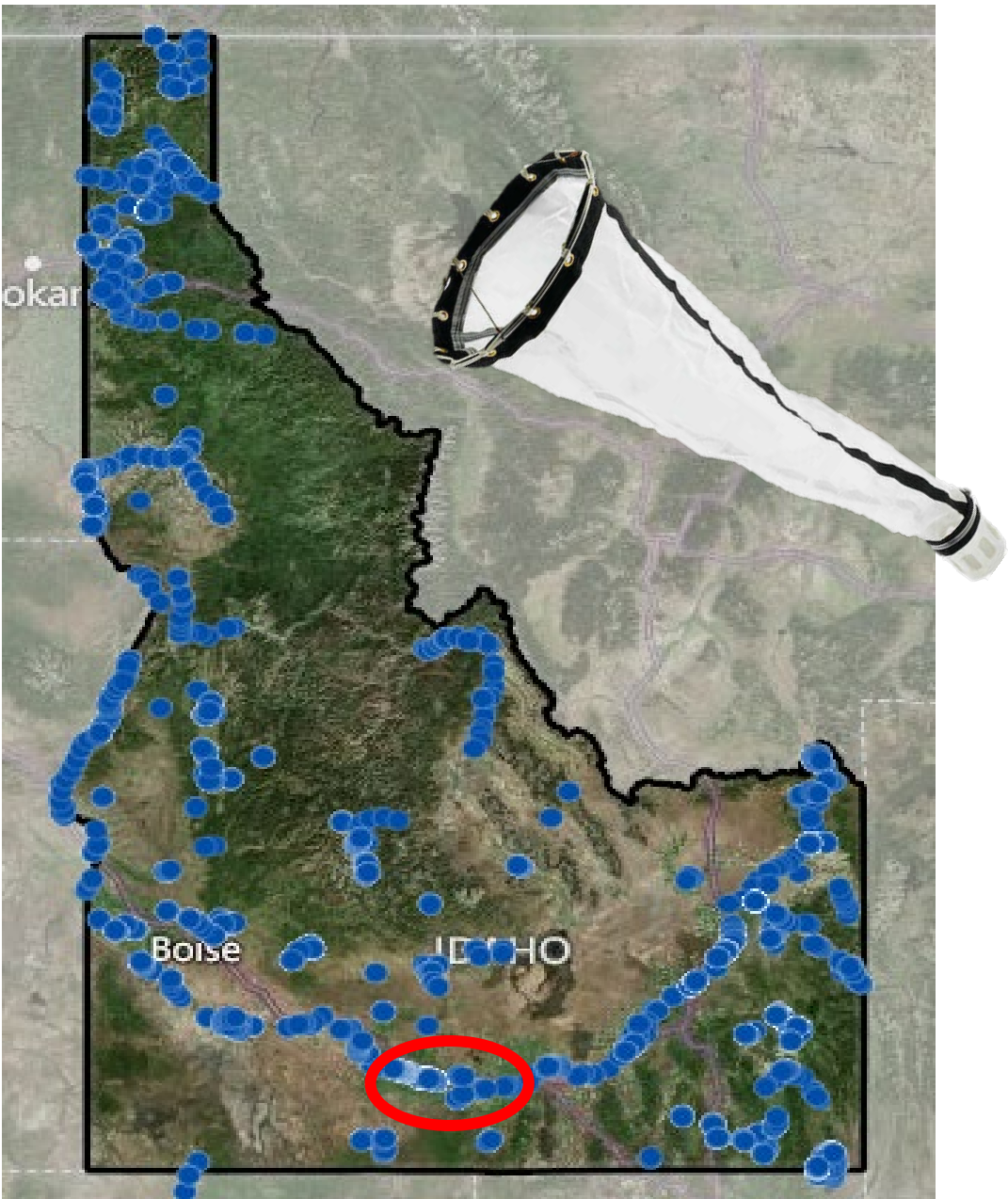


# 2023 Response

- Detection Sept. 18
  - 1st live detection in Columbia River Basin (~ 15 years of sampling)
- Multi-Agency Coordination
- Quarantine and delimit
- Notifications
- Treatment Oct. 3-13
  - Two-96 hours; 1ppm
  - Chelated Copper
  - 1st treatment of this type and scale ever attempted in North America



# 2024 Monitoring Locations



# Idaho's Response 2024

Sept. 24  
Positive Detection

Sept. 24 – Oct.  
Delimit Sampling

Oct. 8- October 19  
Copper Treatment

February 24-March 10  
Potash Treatment



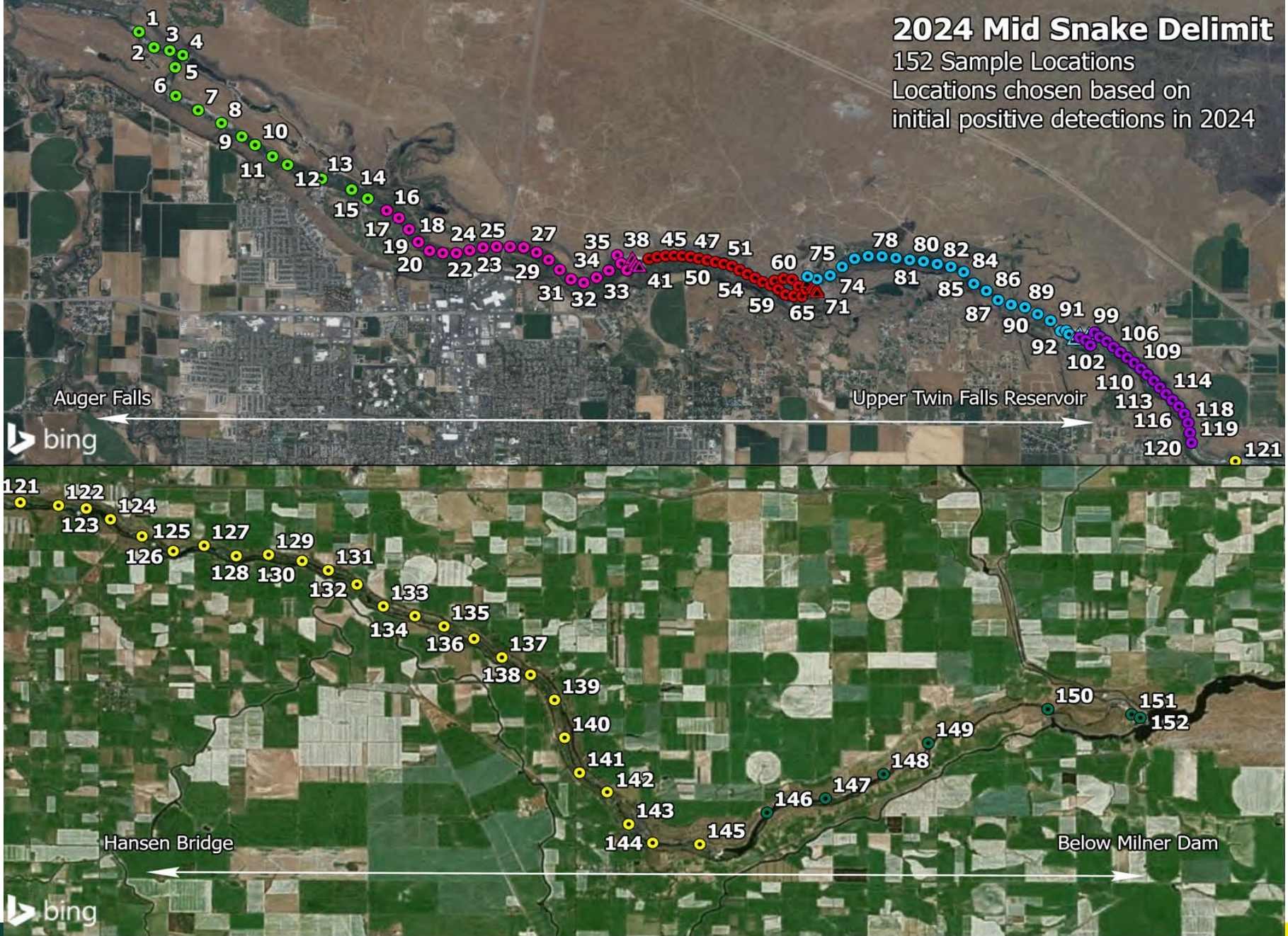
# Delimiting Surveys

- Initial veliger plankton tow delimit from Twin Falls Reservoir to Centennial Park
  - Start upstream, new net, tow across flow
- Extended delimit upstream to American Falls
  - Is there anything upstream?
- Extended delimit downstream to CJ Strike
  - Downstream movement?

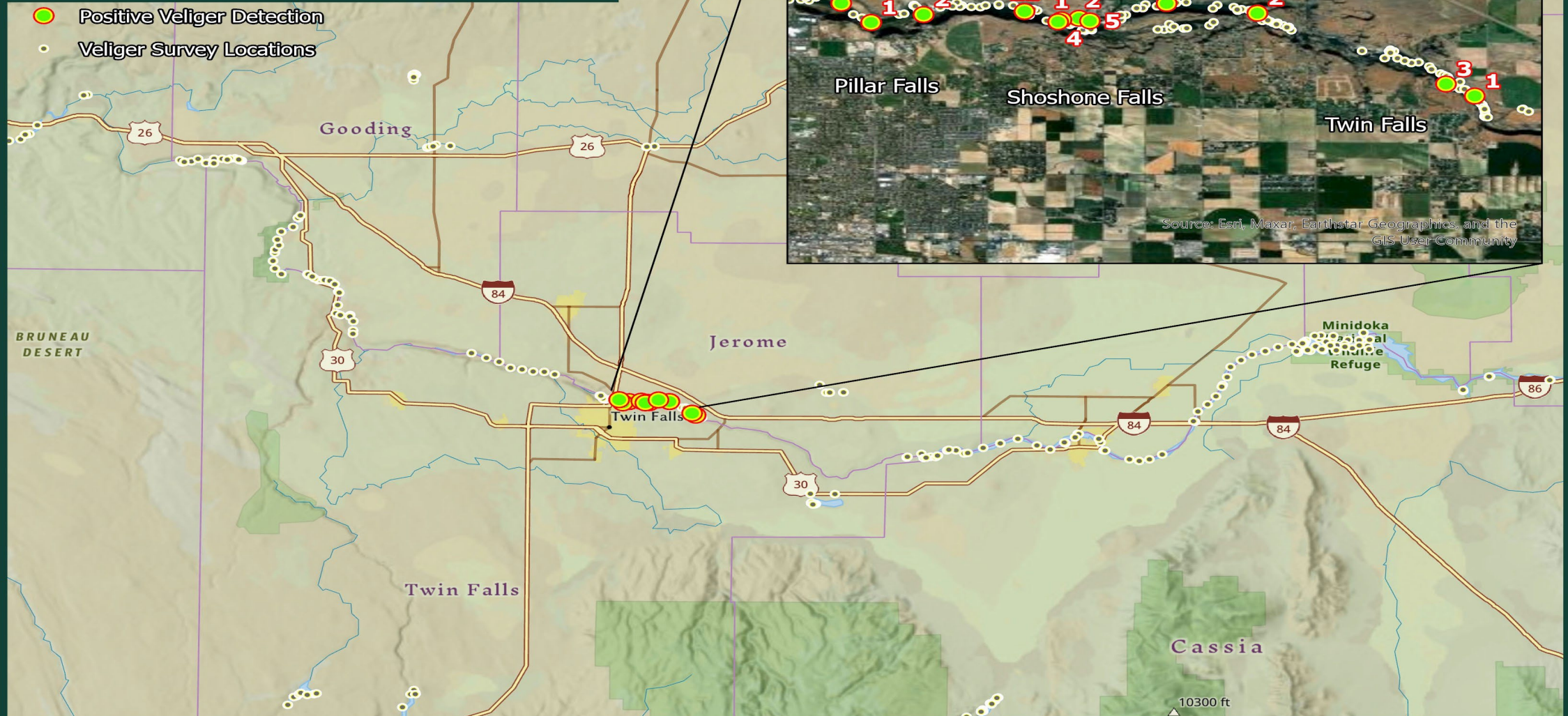


2024 Mid Snake Delimit

152 Sample Locations  
Locations chosen based on  
initial positive detections in 2024



# SNAKE RIVER VELIGER SURVEY





Pillar to Centennial

Shoshone to Pillar

Twin Falls to Shoshone

TWIN FALLS

Sage View to Twin Falls

PILLAR FALLS

SHOSHONE FALLS

# SNAKE RIVER TREATMENT AREA



# 2024 Treatment

- Extended Treatment Area
  - Twin Falls Reservoir
  - 8.6 miles (less than one-percent of the Snake River)
  - Additional tools and partners
- Chelated Copper, Natrix
- Target rate 1ppm for 200 hr treatment
- Labeled for use site
- Registered for use in Idaho
- Product manufacturing was available for the quantity needed



SePRO®  
Specimen Label

## Natrix®

For the control of mollusks in still or flowing aquatic sites including: golf course ponds, ornamental ponds, fish ponds, irrigation and fire ponds and aquaculture including fish, shrimp; fresh water lakes, ponds, and fish hatcheries; potable water reservoirs; and cropland non-crop irrigation and drainage systems (canals, laterals and ditches) and chemical systems.

### Active Ingredient

Copper Ethanolamine Complex<sup>†</sup> (Mixed CAS#s 82027-59-6 & 14215-52-2).....28.2%

Other Ingredients.....71.8%

**TOTAL**.....100.0%

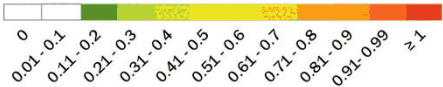
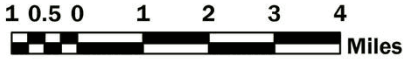
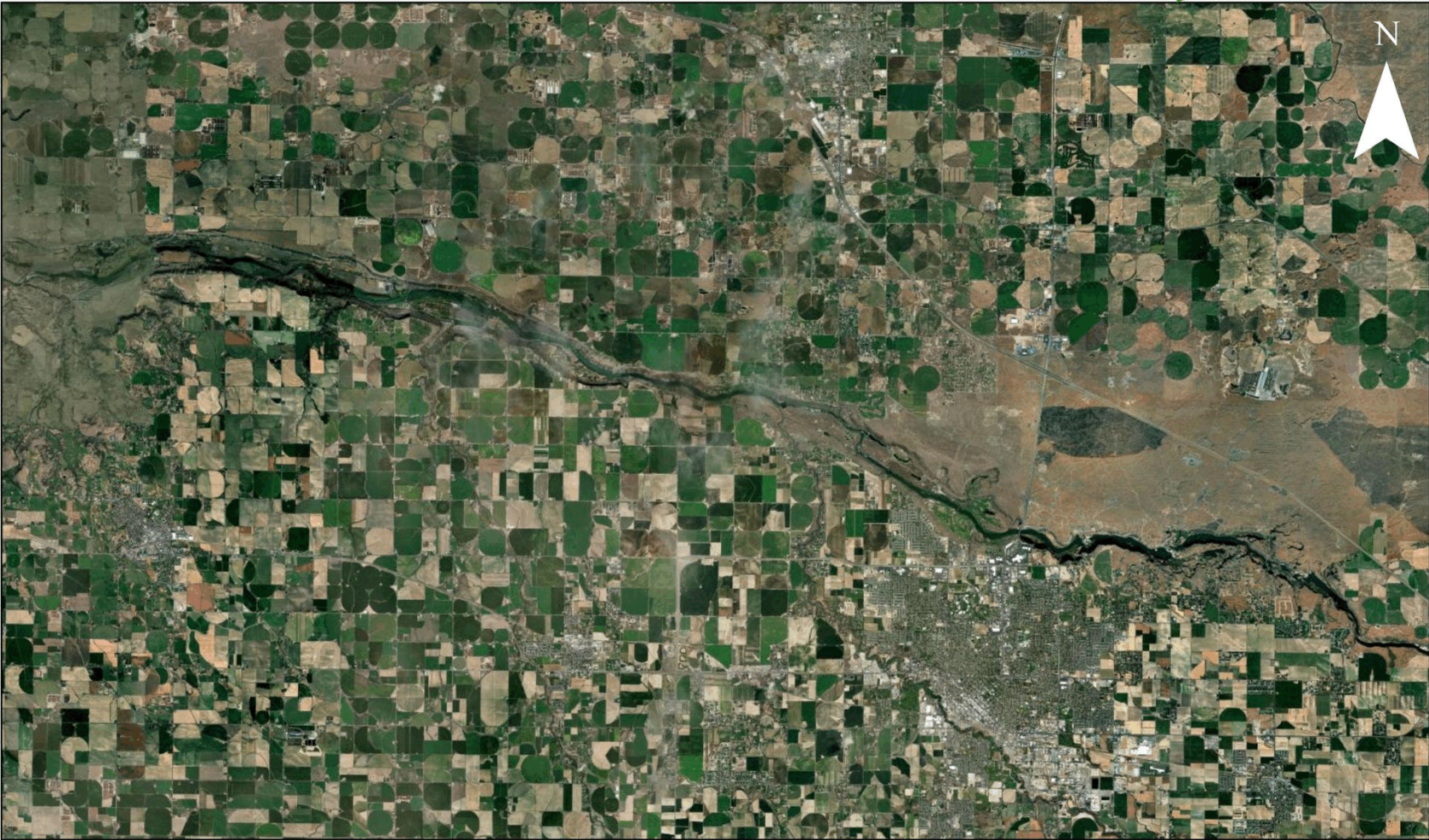
<sup>†</sup>Metallic copper equivalent = 9.1%

**KEEP OUT OF REACH OF CHILDREN**

### WARNING / AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
do not understand the label, find someone to explain it to you in detail.)

# Copper (ppm) Concentration at Treatment and Dissipation Sites: Mid-Snake River 2024



Pre-Treatment

# Potash Treatment

- Ephemeral isolated ponds
  - Pilar Falls
  - Shoshone Falls
  - Twin Falls
- Muriate of Potash, Potassium Chloride, MOP
- Target rate 100ppm for 15 days treatment
- Section 18 Approval- EPA



OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION  
WASHINGTON, D.C. 20460

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**Date Issued:** February 13, 2025  
**Effective Date:** February 13, 2025  
**Expiration Date:** February 13, 2028  
**Interim Reports Due:** February 13, 2026  
February 13, 2027  
**Final Report Due Date:** February 13, 2028  
**File Symbol:** 25ID01

The Environmental Protection Agency hereby issues a quarantine exemption under the provisions of Section 18 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended, to the Idaho State Department of Agriculture personnel and their designees, for the use of Potassium Chloride (KCl) (7447-40-7), in 51 designated ephemeral ponds for the control of quagga mussels. This specific exemption is issued under the provisions of the Act, as amended, and is subject to the terms and conditions of the labels, dated January 13, 2025, as well as

including enforcement of this quarantine information listed in 40 CFR 166.32(b), for any commodity or other unit treated, and all report including the information in 40 CFR 166.32(c) under this program must be submitted within 30 months following the expiration of this exemption for this use. In accordance with 40 CFR 166.32(d), the user is advised of any adverse effects resulting



## MOP (Muriate of Potash)

For control of quagga mussels in the ephemeral ponds of the Snake River only, with anticipated runoff returning to the Snake River in Idaho. For use only by Idaho Department of Agriculture personnel and their designees.

Section 18 Emergency Exemption  
EPA File Symbol: 25-ID-01  
EPA Est. No. 69759-OR-004

THIS IS AN UNREGISTERED PRODUCT AND MAY BE DISTRIBUTED AND USED ONLY IN IDAHO.  
EFFECTIVE PERIOD: This exemption becomes effective on 02/13/2025 and expires on 02/13/2028.

ACTIVE INGREDIENTS:	
Potassium Chloride	99%
OTHER INGREDIENTS:	1%
TOTAL:	100%

NET WEIGHT: 50 lb (22.68 kg)  
KEEP OUT OF REACH OF CHILDREN  
CAUTION

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION. Harmful if swallowed. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Harmful if inhaled. Avoid breathing dust or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Wear long-sleeved shirt, long pants, socks, and shoes. Wear waterproof gloves. Wear protective eyewear. Wear a NIOSH approved respirator with a type 95 (R or P) particulate filter.

# Pillar Falls Ephemeral Ponds



## Treatment Type

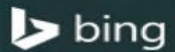
- Large Tote
- Mix Treatment
- Small Tank

Pillar 4

Pillar 2

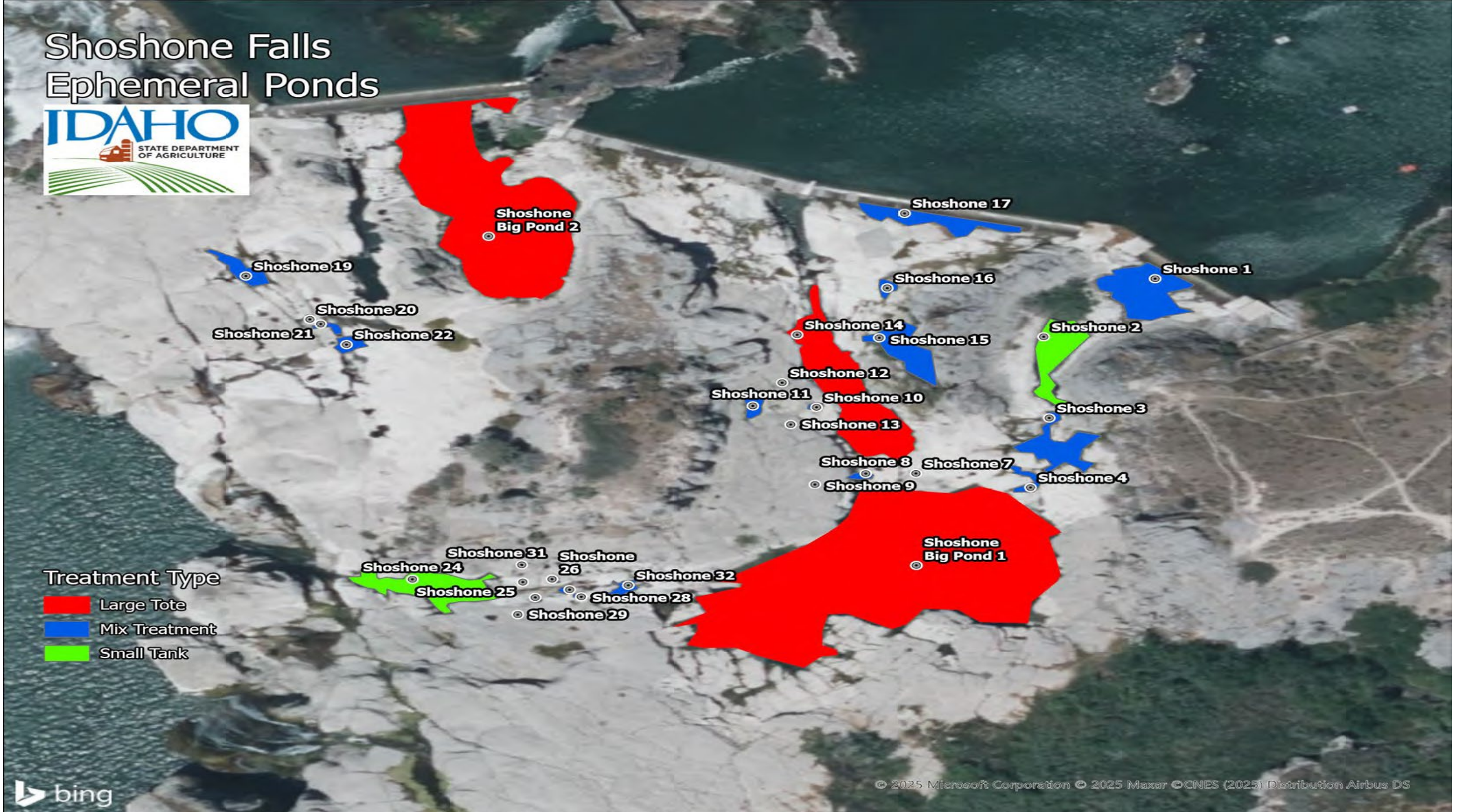
Pillar 1

Pillar 3



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# Shoshone Falls Ephemeral Ponds



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# Twin Falls Ephemeral Ponds



# Potash Application



# 2025 Expanded Lab Capacity

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- Cross Polarized Light Microscopy (CPLM)
  - Aquaticus (Chiefland, Florida)
  - Eco Analyst (Moscow, Idaho)
  - **ISDA Bureau of Labs (Boise, Idaho)**
- Visual confirmation
  - Multiple subject matter experts
- Molecular confirmation
  - Pisces Molecular (Boulder, Colorado)
- eDNA
  - Pisces Molecular (Boulder, Colorado)
  - University of Idaho Aquatic Research Institute (Hagerman, Idaho)

# 2025 Containment

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- Program shift from prevention state to prevention/containment state
- Mandatory inspection and decontamination for the Mid-Snake between Broken Bridge (Yingst Grade) to Hanson Bridge
- Centennial Park (Twin Falls County)
  - Site improvements complete
  - Decontamination open when park is open
- Shoshone Falls (City of Twin Falls)
  - Site improvements underway
  - Decontamination open when park is open
- Twin Falls Reservoir (Idaho Power)
  - Site Improvements underway
  - Decontamination open when park is open
- Mandatory Inspection for Out of State Watercraft
- “Pull the Plug” law

# 2025 Monitoring

[Google earth link](#)

[ISDA Monitoring Map](#)

Image © 2025 Airbus  
Image © 2025 Maxar Technologies

Google Earth

Imagery Date: 4/30/2025 lat 42.681634° lon -114.490458° elev 0 ft eye alt 50.00 mi



US Army Corps  
of Engineers



BUREAU OF  
RECLAMATION



# IDAHO



STATE DEPARTMENT  
OF AGRICULTURE



CLEAN LAKES INC.  
Aquatic Ecosystem Restoration & Maintenance

