

2023 Recap

- Japanese Beetle Detection and Treatment
 - 1,065 properties and 310 acres of turf underwent two rounds of treatment.
 - Traps collected 260 Japanese beetles.
 - Lessons learned from Boise eradication.
- Trade
 - Mission to Japan
 - Mission to Mexico
- Potato Inspections
 - Significant increase in loads to Mexico this fall
- Industry outreach and internal changes
 - Range, pesticides, dairy
- Brucellosis

Grasshoppers & Crickets



7.10.23

Dear Sam.

Our Oceane Community
is so thankful for
your prompt & helpful
Thank you answering
our calls and acting
swiftly to our concerns.
May God Bless your
efforts.
Once again -
Many Thanks!

July 7, 23

Dear Sam,

Thank you so much for
accommodating us with more
cricket bait!

Your department is awe-
some! Your knowledge re:
crickets is praise worthy.

Whenever you are in Oceana
you are welcome to scale the
gate ... use the "facilities" or get
a cold drink. (Amidst)

FY 2025 Line Item Requests Overview

Line Item Description	Amount	Fund Source	One-Time?
Veterinarian in Eastern Idaho	\$216,500	General Fund – \$147,000 Dedicated Fund – \$69,500	Dedicated Fund – \$69,500 for vehicle and equipment for position
Two Dairy Inspectors	\$287,600	Dedicated Funds	\$78,000 for two vehicles and equipment
Seed Lab Position	\$90,300	Dedicated Funds	\$13,000 for equipment and furniture
Idaho Preferred Marketing	\$67,500	General Fund	No
Two Storage Buildings	\$1,500,000	Dedicated Funds	\$1,500,000

Continued

FY 2025 Line Item Requests Overview

Line Item Description	Amount	Fund Source	One-Time?
International Marketing - Japan	\$60,000	General Fund	No
Resilient Food Systems Grant	\$6,184,900	Federal Fund	Yes
FFV CEC Spending Authority	\$160,000	Dedicated Fund	No
Honey Commission	\$5,700	Dedicated Fund	No

Snake River Quagga Mussel Response

Treatment Plan October 2023





Quagga Mussels

- One mussel can produce 30,000 to 1,000,000 veligers per year
 - ~82 to 2739 per day
- These veligers will move downstream with currents for up to 30 days as a veliger before it settles.
- The dissemination of the downstream veligers needs to be just as big of a concern as settled mussels.

Potential Impact

- Quickly clogs pipes that deliver water for drinking, energy, agriculture, recreation, and a variety of other uses.
- Potential to eliminate Idaho's diverse biological landscape.
- Threat to the Columbia River Basin
- Hundreds of millions of dollars in actual and indirect costs to Idaho.

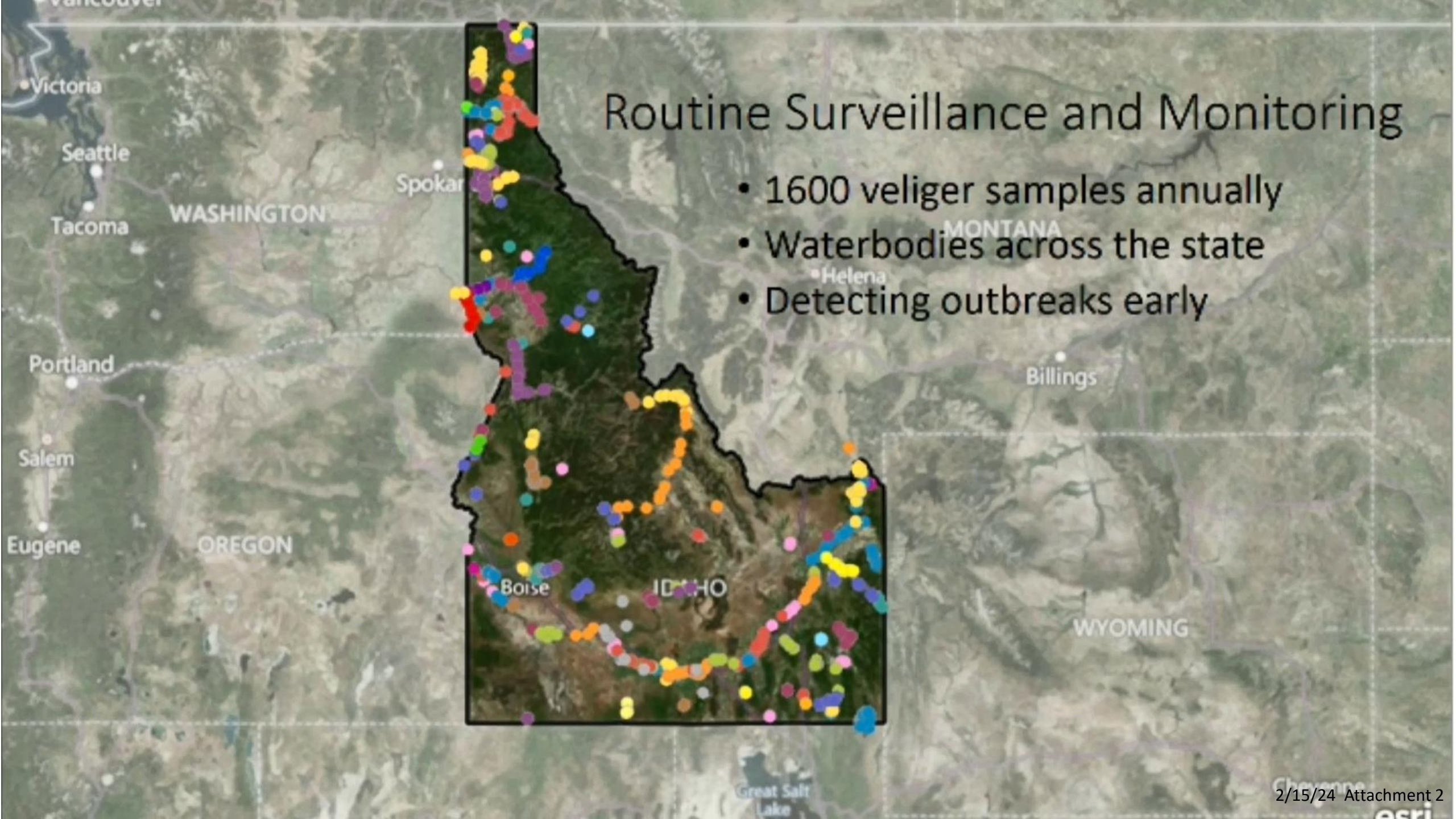




Photo credits: U.S. Army Corps of Engineers

Routine Surveillance and Monitoring

- 1600 veliger samples annually
- Waterbodies across the state
- Detecting outbreaks early



Finding and Action Timeline





Quagga Mussel Veliger presence September 27, 2023



Centennial Park

Pillar Falls

Shoshone Falls


Twin Falls

Legend
Number of Veligers

Considerations for treatment plan

- Water depth, flow, turbidity, and PH
- Access for equipment and materials
- Public drinking water systems
- Aquaculture facilities
- ESA listed species
- Irrigation
- Permitting and regulations
- Article review on previous quagga mussel treatments

Molluscicide choices, for in water application



Chelated
Copper

Best option that is available and registered for use with a target rate of 1 ppm for a contact time of 96 hours.

Niclosamide

This product is not currently available in the U.S.

Potassium
Chloride

High amounts of algae and macrophyte in the treatment area as well as a target rate of 100ppm.

Pseudomonas
bacterium bio
molluscicide.

Biological control type products is not the choice for eradication type control.

Treatment Comparison

- Chelated Copper
 - Formulation allows copper to stay in solution - longer extended-release time.
 - Needed for the required 96-hour contact time to be effective on quagga mussel.
- Copper Sulfate
 - Formulation breaks down rapidly and only those organisms contacted with direct application will be affected.
 - Great for algae or macrophyte control but not for long contact time type applications.



Matrix[®]

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 and 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 control systems.

Active Ingredient

Copper Ethanolamine Complex[†] (Mixed CAS#'s 82027-59-6 & 14215-52-2).....28.2%

Other Ingredients.....71.8%

TOTAL.....100.0%

[†]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. (If you do not understand the label, find someone to explain it to you in detail.)

Collaborative Treatment Plan

- Governor's Office
- Idaho Department of Fish and Game
- Idaho Office of Species Conservation
- Idaho Department of Environmental Quality
- Idaho Department of Water Resources
- Idaho Department of Parks and Recreation
- Idaho Department of Lands
- Idaho Power
- Canal companies
- Idaho Water Users Association
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- U.S. Geological Survey
- U.S. Army Corps of Engineers
- U.S. Bureau of Land Management
- U.S. Bureau of Reclamation

Planning with Partners

- 2 weeks vs. 6 months
- Review at many levels
- All natural resource agencies provided assistance
- Pre-meeting at Pillar Falls
- Townhall
- Treatment launch

Treatment Notifications

- Worker Protection Standard bilingual warning signage is posted along the river in the impacted treatment area.
-
- State and federal land managers with property along the river assisted with notifications
 - Reader boards
 - Paid advertisements (radio, Facebook, Instagram and Nextdoor)
 - Coordination with HOAs with private docks.
 - Door-knocking to stakeholders with water-front access.
 - Public Treatment Town Hall Briefing





Shoshone
to Pillar



Shoshone to Pillar Falls

- No access to boat ramp
- Ability to get chemical to potential mix site
- Potential to get small tender boat
- CFS will be remeasured 48 hours prior to treatment
- Suspect area of adult mussels





Pillar Falls to Centennial

- 118.23 Surface Acres
- Staging sites
 - Centennial Park



Twin Falls Deep Pool

- 3.78 Surface Acres
- Staging site at Twin Falls Power Plant



Copper
Dissemination Area

Natural Downstream movement 16-miles

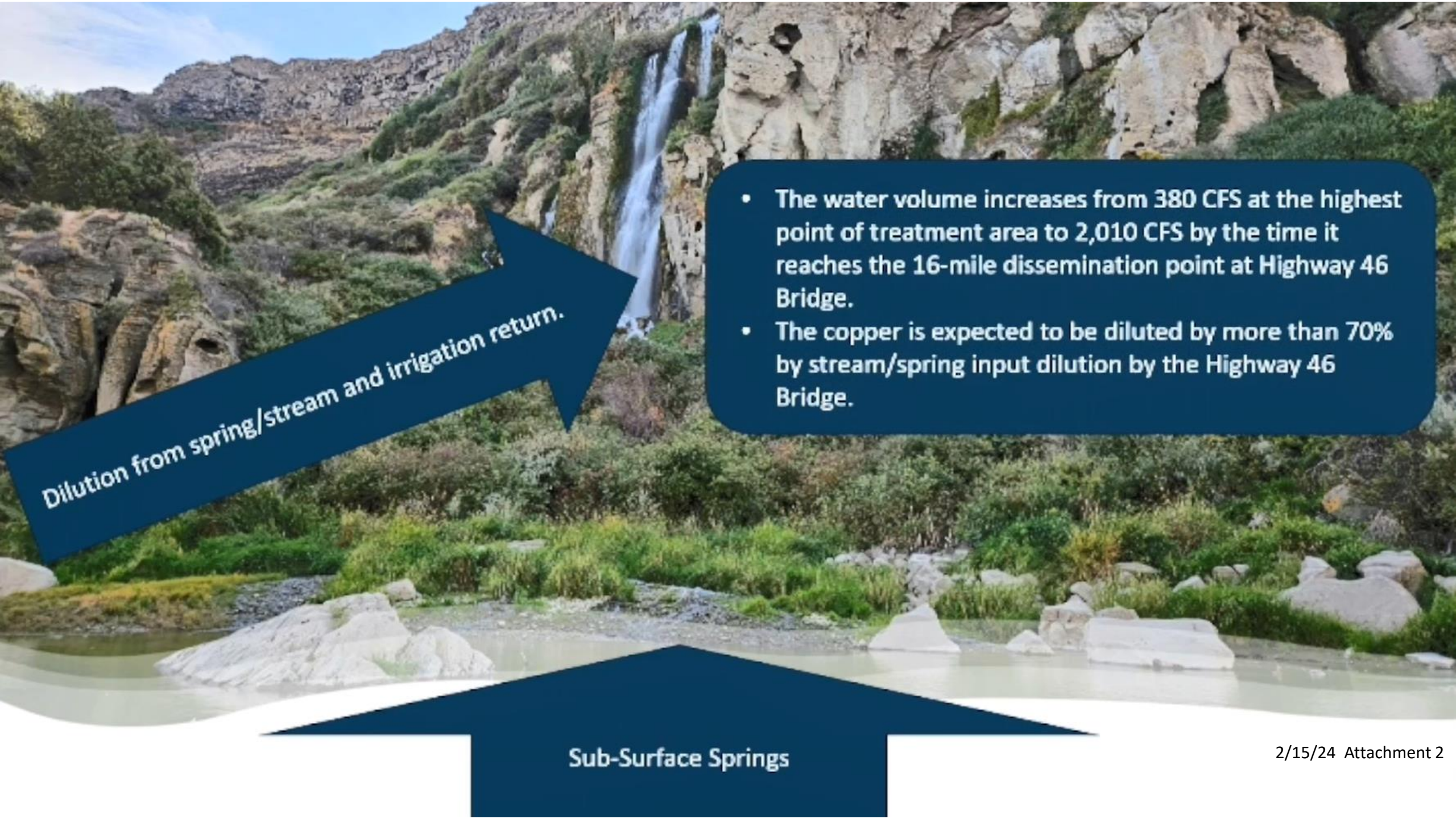
Targeted downstream copper downstream treatment area.

No additional introduction of copper, however letting it free flow to dissipate gradually with the intent of providing a lethal dose for any present free-floating veligers.



Pre-surveying for points of concern

- Livestock access points.
- Direct water exchange at downstream aquaculture sites, stock water, or irrigation intakes.



Dilution from spring/stream and irrigation return.

- The water volume increases from 380 CFS at the highest point of treatment area to 2,010 CFS by the time it reaches the 16-mile dissemination point at Highway 46 Bridge.
- The copper is expected to be diluted by more than 70% by stream/spring input dilution by the Highway 46 Bridge.

Sub-Surface Springs



Plants and Algae

- As copper moves downstream through heavy algae or macrophyte populations it is expected that by 9.5 miles (Pigeon Cove) that an additional 5-15% will be broken down through sorption into organic matter.

Post-Treatment Veliger Sampling

- Treatment did impact the adult mussel and sentinel species.
- Preliminary sample results indicating that treatment has impacted veliger populations.
- Veliger sampling until water gets below 14 degrees Celsius.



Future Efforts

- Continued efforts with the early detection monitoring program
- Decontamination station locations
 - Centennial Park
 - Other
- Program changes or enhancements
 - More stations, longer hours, longer seasons
 - Communication efforts
 - Renew attention on infested waterbodies – federal agencies too
- Assess the fall treatment
 - Additionally planning if necessary





IDAHO



STATE DEPARTMENT OF AGRICULTURE



US Army Corps of Engineers



BUREAU OF RECLAMATION

