



Bunker Hill Superfund Site

2024 ACTIVITIES



INTRODUCTIONS

BOX ACTIVITIES

UPPER BASIN ACTIVITIES

LOWER BASIN ACTIVITIES

WATERFOWL MONITORING

Meet Our Team



BONNIE ARTHUR
Remedial Project Manager



DON CARPENTER
Remedial Project Manager



JOCELYN CARVER
Remedial Project Manager



TYLER CHATRIAND
Remedial Project Manager



JENNIFER CRAWFORD
Remedial Project Manager



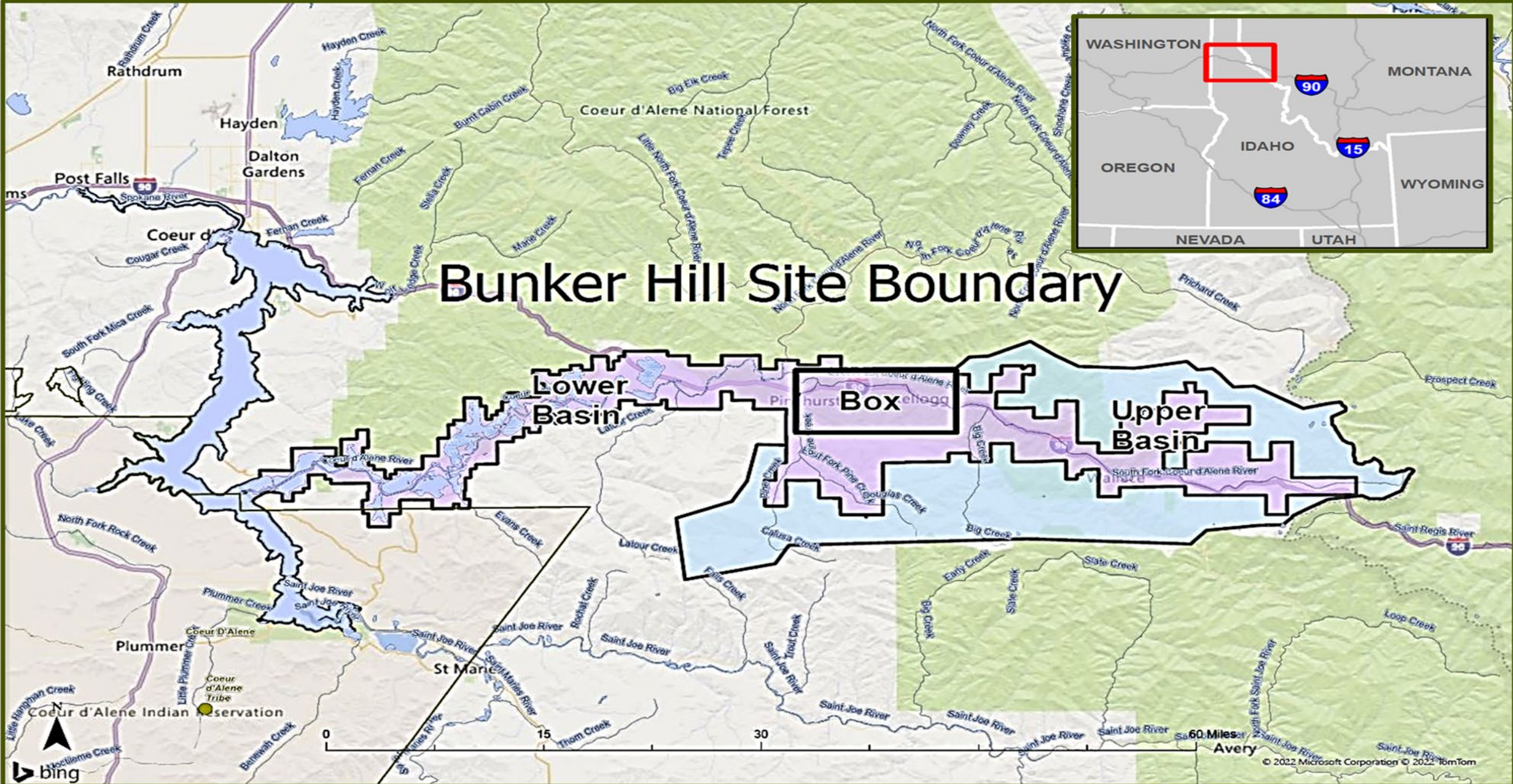
EDWARD HAGAN
Remedial Project Manager



TAMARA LANGTON
Remedial Project Manager



ERIC NICOLAI
Remedial Project Manager



Box Activities

❖ Central Treatment Plant O&M

❖ East Smelterville Flats

❖ Old Sludge Pond Closure →

❖ Pinehurst Elementary



Photo credit: USACE,, 2023

The background features a light gray base with large, organic, overlapping shapes in muted olive green and a dusty rose or terracotta color. In the top left corner, there are stylized, light gray line drawings of foliage, possibly ferns or pine needles. A thin, white, wavy line curves across the bottom right portion of the image.

Upper Basin Activities

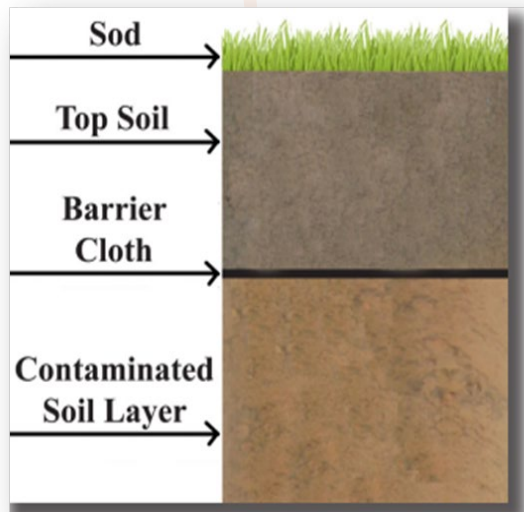
PROPERTY REMEDIATION PROGRAM

❖ 7,171 Properties Cleaned to Date

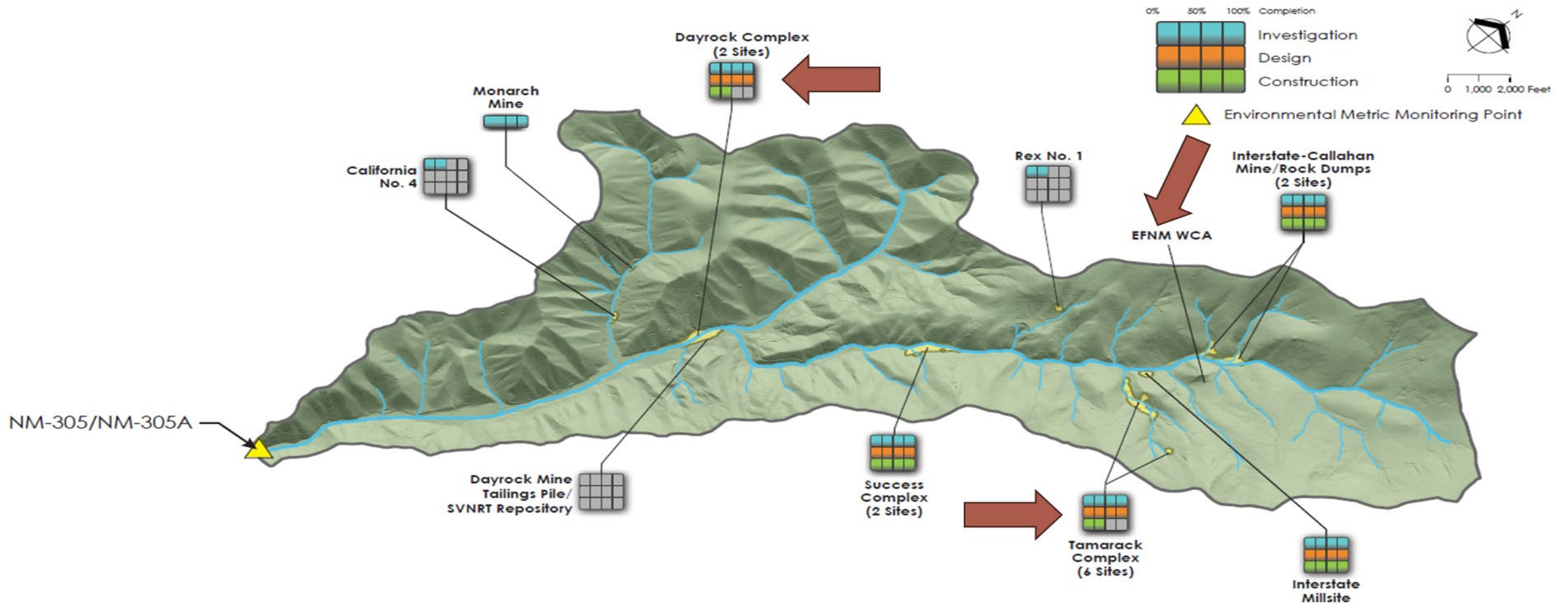
- ✓ Most Remaining Require Property Owner Access
 - 202 Left to be Sampled
 - 47 of these estimated to Require Clean Up

❖ Plans for 2024

- ✓ Soil sampling at 10 properties.
- ✓ Vacuum dust sampling from at least 1 personal vacuum.
- ✓ Drinking water sampling from at least 4 residential properties with private drinking water sources.
- ✓ Clean up of 5 properties.



Ninemile Basin



Dayrock Complex / Lower EFNM Creek

- ❖ Remove and haul ~60,000 cubic yards (cy) of mine waste to the East Fork Ninemile (EFNM) Waste Consolidation Area (WCA).
- ❖ Reconstruct ~3,000 feet of stream channel and riparian area in the lower EFNM Creek.
- ❖ Project Stabilization and Completion



Photo credit: Pioneer Technical Services (CDA Trust). 2023

Tamarack Complex

- ❖ Remove and haul ~80,000 cy of mine waste to the EFNM WCA.
- ❖ Reconstruct ~700 feet tributary through rock dumps.
- ❖ Project Stabilization and Completion

Basin Commission Meeting - March 6, 2024



9
Photo Courtesy of the Coeur d'Alene Trust

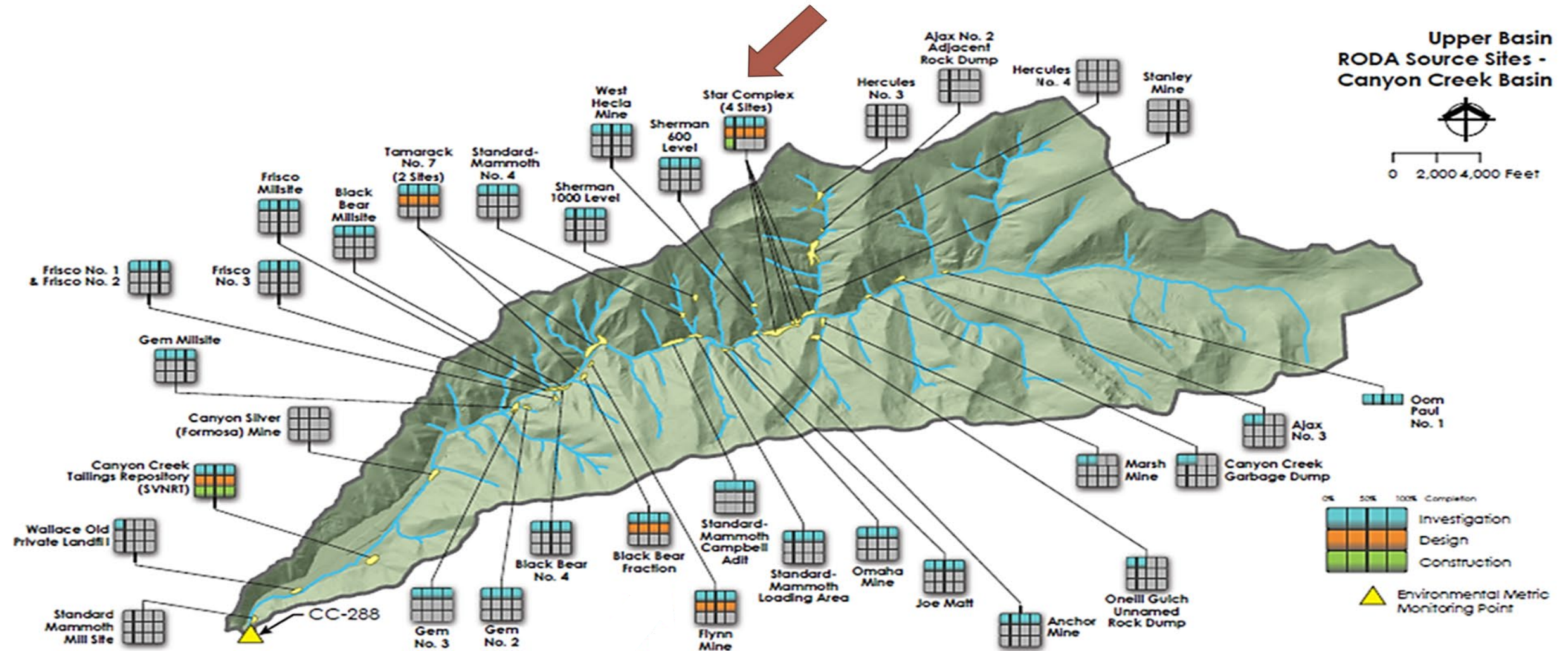
East Fork Ninemile Waste Consolidation Area

- *Waste placement from Tamarack Complex, Lower EFNM Creek riparian area and Dayrock Complex*
- *Continued groundwater and surface water performance monitoring*
- *Complete construction of expansion started in 2023*
- *Design final cover*



Photo Courtesy of the Coeur d'Alene Trust

Canyon Creek Basin



Hecla Star Complex

May-October: 2nd of 4-year Cleanup

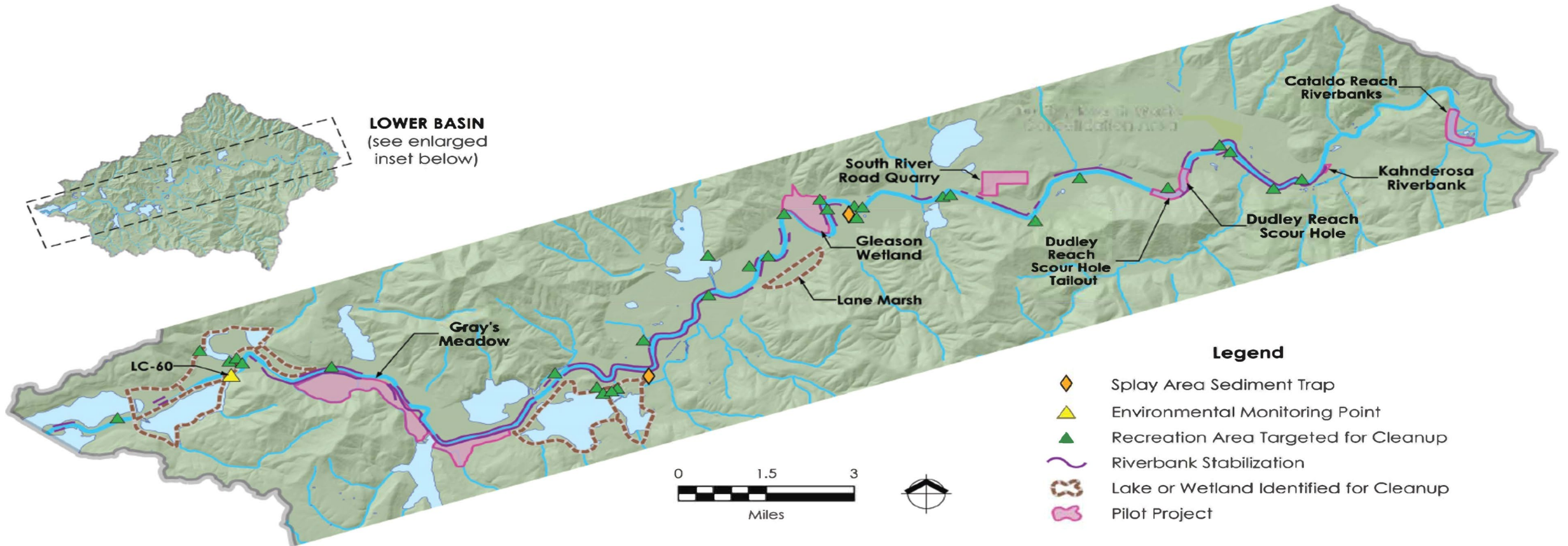
- ❖ Remove & haul approximately 26,000 cubic yards of mine wastes to Canyon Complex Repository/Waste Consolidation Area.
- ❖ Install approx. 1,100 feet of new concrete box culvert under Burke Road. This may result in traffic delays.
- ❖ Haul uncontaminated rock, gravel fill, and soil to the site and revegetate excavated areas.



The background features a light gray base with large, organic, overlapping shapes in muted olive green and dusty rose. In the top left corner, there are stylized, layered illustrations of foliage, including what appears to be a pine branch and some feathery leaves, rendered in shades of gray and rose. A thin, white, wavy line curves across the bottom right portion of the image.

Lower Basin Activities

Lower Basin Overview Map



Gray's Meadow Remedial Action and Restoration

- ❖ Four-Year Construction Project
- ❖ Remediate and restore 700 acres of contaminated ag-land to wetland habitat
- ❖ Project to be completed in 2024



Photo Courtesy of Pioneer Technical Services, Inc.

Lamb Peak Wetland



Cave Lake Wetland



Photos Courtesy of Pioneer Technical Services, Inc.

Lower Basin Waterfowl Research



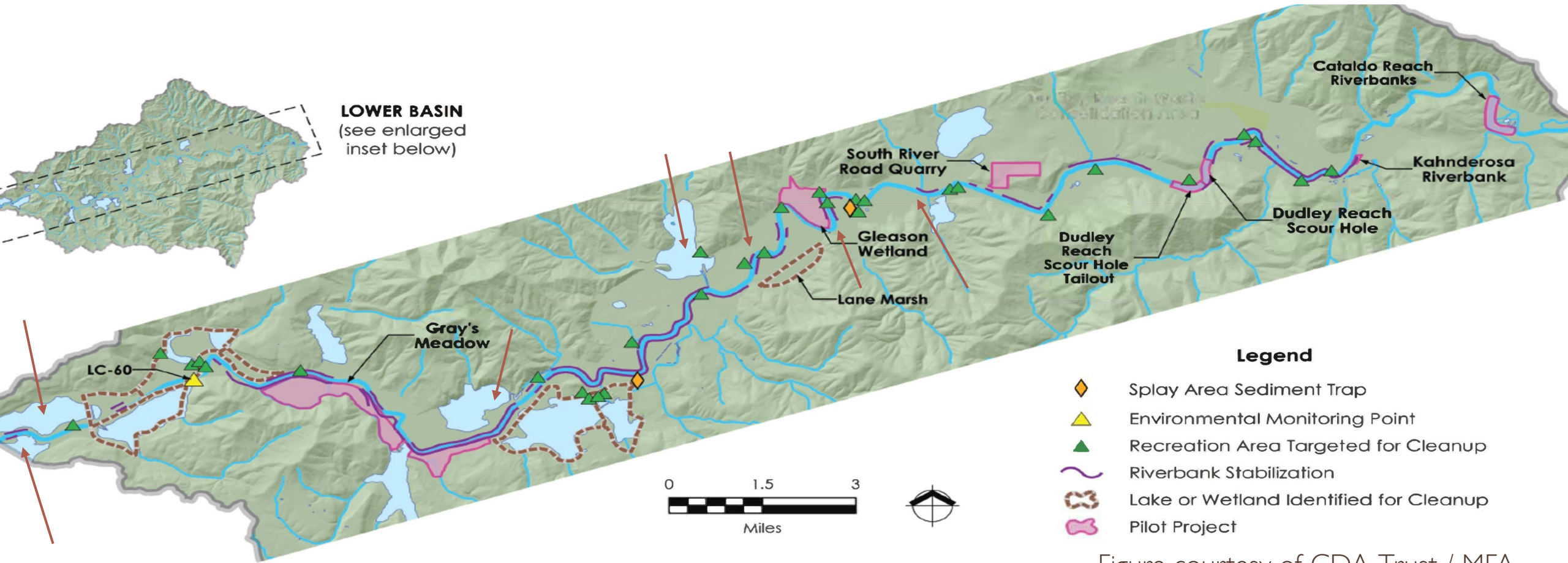
Photo courtesy of Sarah Emeterio, USFWS

Waterfowl Challenges

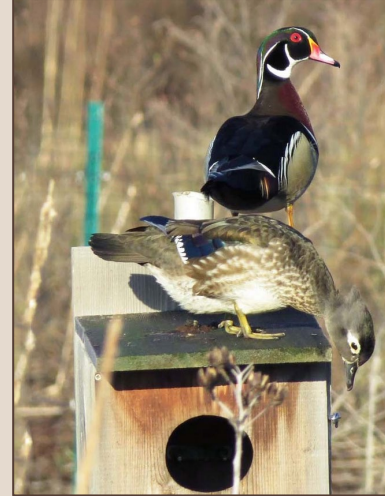
- ❖ Benchmark cleanup criterion of 530 mg/kg for Operable Unit 3 (OU3) was based on protection of waterfowl.
- ❖ Risk of lead exposure and potential mortality.
- ❖ Large scale of contamination: 18,000 acres (95%) above 530 mg/kg in Lower Basin.
- ❖ 2002 Interim Record of Decision (iROD) identified the need to prioritize waterfowl areas to reduce mortality.
- ❖ How do we design attractive cleanups for waterfowl and determine remedy effectiveness?



Lower Basin Cleanup Areas (revisited)



Lead exposure in waterfowl: Investigating impacts and monitoring strategies in the Lower Basin



New!

- Tundra Swans: Year 3 of research studying feces as surrogate for blood lead
- Wood Ducks: Year 1 of research studying eggshells as surrogate for blood lead
- Species have different ranges, diet, exposure, migration time in basin.
- Spring Sampling 2024: tundra swans (start 3/11), wood ducks (start 4/1)
 - telemetry, eggshells, feces, sediment, plants, water

Targeted End Products



Photo courtesy of
Cam Heusser, CDA Tribe

- Simple tools to track remedy progress in a way that is meaningful, efficient, and inexpensive.
- Decision tree for managers to plan activities related to the Basin Environmental Monitoring Program (BEMP).
- Waterfowl model for scenario planning to aid design of cleanup (plant type, water level, etc.).
- Strong partnership with the CDA Tribe, IDFG, USGS, USFWS.

The background features a light gray base with large, organic, overlapping shapes in muted red and olive green. A thin white line outlines a shape on the right. In the top left, there is a faint, stylized illustration of a leafy branch.

Thank You