



Columbia River Basin Restoration Program Success Stories from the 2020 Grant Projects



COLUMBIA RIVER BASIN
RESTORATION PROGRAM

ABOUT THE COLUMBIA RIVER BASIN RESTORATION FUNDING ASSISTANCE PROGRAM

Congress amended the Clean Water Act in 2016, which required EPA to establish a Columbia River Basin Restoration Program. EPA was directed to develop a voluntary, competitive grant program for eligible entities to fund environmental protection and restoration programs throughout the Basin. Eligible entities include state, Tribal, and local governments; regional water pollution control organizations, nongovernmental organizations, and soil and water conservation districts. Funded work must be for the purpose of environmental protection and restoration activities within the Columbia River Basin; and may include programs, projects, and studies. EPA funded 14 projects in the 2020, inaugural round of grants that address the following four priorities:

1. Increase monitoring and access data from monitoring.
2. Reduce stormwater and agricultural runoff.
3. Reduce toxics through small scale cleanup of non-CERCLA (also known as Superfund) contaminated sites.
4. Promote citizen engagement, education, and involvement to increase pollution prevention actions.

In September of 2020, EPA was able to provide the full amount requested by successful grantees for a total of \$2,053,903 in FY19 and FY20 grant funding. These are their stories of progress made to date.

USING CROWDSOURCED CRAYFISH IN EDUCATION, ENGAGEMENT, AND BIO-MONITORING FOR MERCURY POLLUTION IN THE SPOKANE AND BOISE RIVER BASINS (ID, WA)



EPA awarded \$198,957 to the **University of Idaho's Water Resources Research Institute** to encourage people to participate in a program to monitor mercury concentrations in the tissues of crayfish captured

by community members in two watersheds—the Spokane River Basin (ID, WA) and the Boise River Basin (ID). Key partners involved in this project include **Spokane Riverkeeper, IDAH20, The River Mile Network's Columbia River Watershed Crayfish Study, the Boise River Enhancement Network, the Northwest Knowledge Network, the Analytic Sciences Laboratory at the University of Idaho, and the College of Natural Resources.**

This project focuses on two of the grant program priorities: 1—Increased monitoring and access to data from monitoring in the Columbia River Basin with a focus on toxics with an impact on human health and fish and wildlife; and 3—Promoting citizen engagement or education to promote pollution prevention. The project monitors mercury, a priority pollutant in the Columbia River Basin, in the tissues of crayfish captured in two sub-watersheds. Crayfish are captured by volunteer community members who are part of a citizen engagement and education campaign. The overall aim is to use these charismatic invertebrates to engage with the communities regarding a serious environmental health concern.

ACCOMPLISHMENTS TO DATE

- There have been seven official sampling events, and five informal outings that yielded a total of 350 crayfish, all of which are in the process of being analyzed for mercury.



- The first two collection events took place in June and July with the Spokane River Keepers and the Salish School of Spokane. Other collection events on the Spokane River included members of IDAH20 and University of Idaho graduate students and additional collection by the Spokane River Keepers and members of the community.

In total, over 80 crayfish were collected along the Spokane River by more than 70 community members. Two collection events at eight sites along the Boise River with the Boise River Enhancement Network included over 80 community scientists from the Boise region who helped collect 70 crayfish from the Boise River.

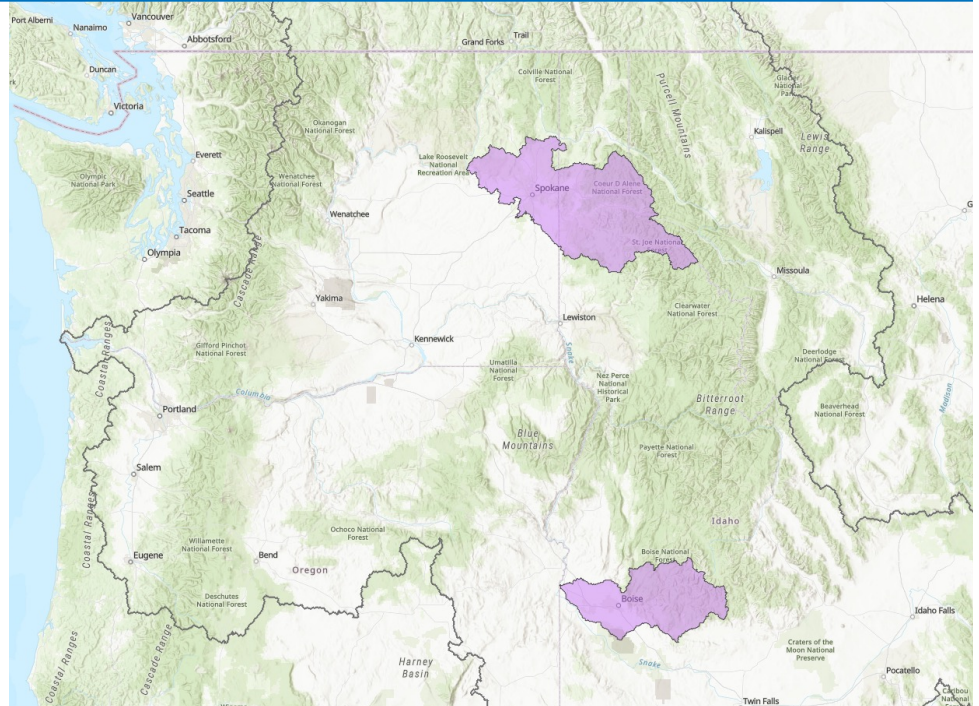


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“Well we can take the tail out of this animal to look for chemicals. And if there are chemicals that are toxic or poisonous in this animal’s tail, it tells us something about that environment. It tells us something about what the water and what the sediment looks like from the perspective of water pollution.”

*– Alan Kolok, Director
Idaho Water Resources
Research Institute*



Idaho Project Area

- Increasing partners’ interest allowed us to benefit from multiple sampling opportunities with Montana Fish and Game and the Columbia River Inter-Tribal Fish Commission in Oregon. We received 181 samples from 30 different sites in Montana and 19 crayfish samples from the John Day River.
- The success from the first season has led other community members to reach out to project organizers and request to participate in future outings.
- Presentations at six events to a wide range of audiences included: Association of Idaho Cities Virtual Water Summit, River Mile Community Gathering, Columbia River Inter-Tribal Fish Commission, Coeur d’Alene Idaho Chamber of Commerce, EPA Region 10, and a **Idaho Public TV Special on Crayfish** to K-12 children.
- Engaging the virtual public on social media and a new citizen science **Crayfish and Mercury website**.

WHAT’S NEXT? WHERE DO THEY GO FROM HERE?

- Additional crayfish data collection outings and citizen scientist outings are planned for the coming year.
- Based on the results of the concentrations of mercury found in the captured crayfish, the project team will develop maps showing the mercury levels found in crayfish at locations along the Boise and Spokane rivers.

To learn more or get involved, visit the Idaho Water Resources Research Institute’s Crayfish Mercury Project website: <https://crayfish.nkn.uidaho.edu/>