



## 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

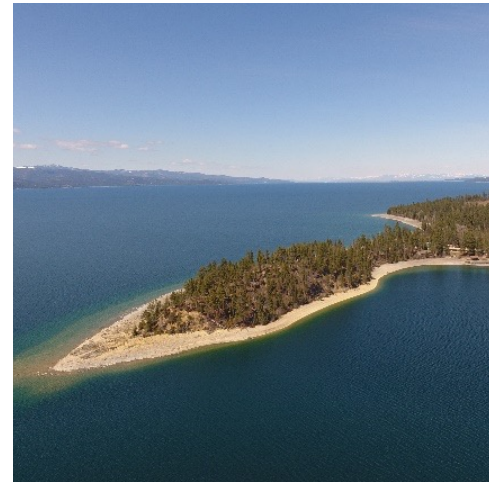
Congress amended the Clean Water Act in 2016, which required EPA to establish a Columbia River Basin Restoration Program. EPA was directed to develop a voluntary, competitive grant program for eligible entities to fund environmental protection and restoration programs throughout the Basin. Eligible entities 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.

### FISH CONSUMPTION AND ADVISORY AWARENESS AMONG FOOD PANTRY PATRONS RECEIVING PRODUCTS FROM LAKE TROUT SUPPRESSION ON FLATHEAD LAKE (MT)

EPA awarded \$128,992 for this project; a partnership between the **University of Montana's Flathead Lake Bio Station** and the **Confederated Salish and Kootenai Tribes**. The project involves monitoring levels of methylmercury in the Flathead Lake food web and outreach to Tribal communities about fish consumption advisories. Methylmercury is toxic to people and animals and causes a number of adverse health effects.



Flathead Lake

In an effort to restore native fish populations like the bull trout and westslope cutthroat trout, the Confederated Salish and Kootenai Tribes have initiated a concerted effort to suppress the invasive lake trout population on Flathead Lake. The hope is return native fish species to harvestable populations. This project will establish a baseline of methylmercury concentrations in the fish and other organisms that make up the food web of Flathead Lake. Daphnia, a type of zooplankton, represent the base of the food web. Lake trout, which feed on other fish, represent the top of the food web, whereas lake whitefish occupy a lower place in the food web. Mysis shrimp complete the linkage in the food web between Daphnia and the top predator in the lake. Researchers designed the study to be able to track changes in methylmercury in the food web resulting from lake trout suppression as opposed to changes from atmospheric inputs (air pollution). The researchers expect that if changes are to occur, these changes will not be seen for some time.

A portion of the culled lake trout that are 26 inches in length or smaller are donated to food pantries on the Flathead Reservation. The research team is interested in evaluating the potential for beneficial health outcomes from the provision of lake trout to tribal women of childbearing age. This population, along with nursing mothers and children, are advised to eat no more than one meal of lake trout per month. A social science survey is being deployed to assess how much donated lake trout is consumed and to understand the level of awareness of fish consumption advisories among Tribal women receiving assistance from local food pantries. The project team is planning and providing data for a conference with Tribal natural resource managers, public health officials, and



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***I was very pleased that the local press gave us such tremendous coverage. To have the media take such an interest in this work is gratifying and I'm hopeful that the public found the information engaging."***

*– Nanette Nelson,  
University of Montana*



Flathead Lake Project Area

other decision-makers to develop a plan on how to use this new data to benefit both human and ecosystem health.

## ACCOMPLISHMENTS

- Over a two-month period, six field staff collected invasive lake trout and native lake whitefish from all parts of Flathead Lake. Around 100 fish samples were collected, and two staff are processing the fish to analyze for methylmercury levels.
- Two field staff used the Jessie B Research Vessel for 1–2-day sampling trips to collect Daphnia (zooplankton) and Mysis shrimp as part of the Flathead Lake Biological Station's Flathead Monitoring Program. Researchers conducted five trips to sample zooplankton and collected 15 samples. Researchers conducted 12 trips to collect 36 Mysis shrimp.

## WHAT'S NEXT? WHERE DO THEY GO FROM HERE?

- The next step is to analyze the results of fish, zooplankton, and shrimp sampling and estimate the relationship between the concentration of methylmercury in each species and its position in Flathead Lake's food web.
- One more Mysis sampling trip and three more zooplankton sampling events are scheduled.
- The grantee will survey Tribal women served by food pantries to understand their levels of fish consumption and potential health implications.
- A Community Engagement Plan will be developed and there will be a half-day workshop with Tribal environmental managers, health professionals, and decision-makers to discuss and plan for the best uses of the resulting data. This will help inform Tribal members of the risks and benefits of eating fish caught from Flathead Lake.

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