

Environmental Support for Indigenous Peoples

The Biodiversity Research Institute (BRI) has a strong record of successfully supporting Tribes on a wide range of environmental issues across North America in the Northeast, Great Lakes, Columbia River Basin, Puget Sound, Alaska, Oklahoma, and the Desert Southwest, as well as First Nations in Canada.

BRI staff have provided Tribes with technical support for conducting Natural Resource Damage Assessments (NRDA), engaging in Superfund related activities and assessments, carrying out NEPA analyses, planning and implementing environmental sampling and monitoring, and developing restoration activities.

Our approach to successful projects with Tribes includes:

- Developing collaborative relationships
- Building and maintaining trust in decision-making processes
- Respecting Tribal data sovereignty, and
- Maintaining confidentiality with respect to sensitive Tribal data and information

We tailor our support to the unique issues faced by each Tribe we work with and understand that each community has distinct values and uses of natural resources.

Our Technical Expertise

BRI brings **more than 35 years of experience in environmental technical support** and offers access to a **team of over 50 experts** in:

- environmental chemistry
- hydrology/hydrogeology
- ecosystem ecology
- avian and aquatic biology
- avian and aquatic ecotoxicology
- field sampling
- human health and ecological risk assessment
- restoration planning
- wildlife conservation
- remediation and revegetation
- monitoring and evaluation
- geographic information systems
- geostatistics and spatial analysis
- advanced quantitative analysis
- climate change impacts, adaptation, and mitigation
- communications and outreach

BRI also has access to an extensive network of academic and subject matter experts to bolster our in-house expertise, including those specializing in natural resource economics, restoration design and implementation, and engineering.

Tribal Environmental Support

- All phases of NRDA
- Technical Support at Superfund Sites
- Tribal Risk Assessment
- Field Sampling
- Restoration and Conservation Planning
- Grant Writing and Implementation

For more information on BRI's expertise with these types of projects specific to Tribes, see the call-out box below.

To learn more about our other areas of expertise, visit www.briwildlife.org

NRDA:

- ✓ Identifying sources, pathways, and exposure
- ✓ Quantifying injuries
- ✓ Determining damages
- ✓ Restoration planning and management

Technical Support at Superfund Sites:

- ✓ Reviewing, synthesizing, and commenting on technical documents
- ✓ Preparing technical documents on behalf of the Tribe
- ✓ Estimating potential ecological and human health risks from a Tribal perspective
- ✓ Supporting meetings with Federal Agencies, Tribal leadership, Potentially Responsible Parties and other stakeholders

Tribal Risk Assessment:

- ✓ Working with Tribal experts and reviewing literature
- ✓ Developing Tribal Lifeways exposure scenarios, including dietary consumption rates
- ✓ Presenting risk results to various audiences while maintaining confidentiality
- ✓ Integrating results into clean-up and remediation decision-making

Field Sampling & Laboratory Analysis:

- ✓ Designing and implementing sampling studies
- ✓ Collecting and analyzing abiotic samples and biota
- ✓ Toxicity testing
- ✓ Integrating results into the NRDA or Superfund process when applicable

Restoration and Conservation Planning:

- ✓ Assessing impacts to habitats and species
- ✓ Identifying and prioritizing projects to improve habitats
- ✓ Monitoring and quantifying restoration or conservation benefits
- ✓ Supporting adaptive management

Grant Writing and Implementation:

- ✓ Understanding funding needs
- ✓ Identifying opportunities and grants of interest
- ✓ Assisting with drafting and implementation of proposals
- ✓ Implementation and management of project

Featured Environmental Support Projects



Our team has experience directly contracting with Tribal governments, working on projects that involve coordination among several Tribes, and supporting projects that involve coordination with Tribes and other stakeholders (e.g., State agencies, Federal agencies, regional groups).

We also work regularly with Tribal members, Elders, and other members in the community to develop solutions that incorporate Tribal knowledge and are most useful to the community.

Read more about some of our highlighted work with Tribes below.

Technical Support for the Spokane Tribe

For the past decade, BRI staff have supported the Spokane Tribe of Indians on a variety of environmental projects including providing technical support at two Superfund sites (Upper Columbia River and Midnite Mine), providing technical support on the Midnite Mine NRDA, writing and implementing several grants, characterizing contaminant releases and exposure, and developing approaches to mitigate contaminant releases.



Our staff developed a sediment trap to capture potentially contaminated suspended sediments entering tribal waters in the Upper Columbia River.

We have reviewed and analyzed large fish tissue, sediment, porewater, groundwater and surface water data sets from the sites to better understand the ecological and human health risks associated with contamination.

We have also helped with field sampling programs, including the development of SAPs and QAPPs; compiled and interpreted data; and drafted reports to present analyses and interpretation to a wide variety of audiences. We also review and comment on technical documents and perform independent analyses to ensure that Tribal perspectives are incorporated into Superfund site characterization and cleanup processes; and provide support drafting proposals and implementing grants.



Field sampling provides critical data that can be used to assess how the environment has changed over time.

Tar Creek Apprenticeship Program Implementation Support

BRI staff helped develop, implement, and manage the pilot Tar Creek Apprenticeship Program (TCAP), a restoration and culturally focused apprenticeship program for Tribal youth. The program is a cooperative effort led by the seven Tar Creek Tribes in Oklahoma in collaboration with the State of Oklahoma, and the U.S. Department of the Interior.



Graphic from TCAP Facebook page.

Our team hired four project coordinators, including three local staff, and worked with them to engage more than 100 local experts from across the region, including Tribal Cultural and Environmental Department staff, State and Federal staff, restoration experts, ecologists, local artisans, and others to share their expertise and train students.

To create the curriculum, our team successfully navigated incorporating cultural and other perspectives from all Tribes (e.g., which topics to teach, how to teach them) while maintaining federal and state support for a Tribal and culturally-focused project. The pilot year was evaluated very favorably and approved for two additional years of funding. See a [video about the program here](#).

Fish Toxicology and Exposure Risks to Tribal Communities

BRI works with Tribes to provide analytical testing of fish and wildlife samples for mercury and other contaminants in wild game harvested and consumed by Tribal members. In Maine, we actively support the Passamaquoddy Tribe and are collaborating with a Tribal wildlife biologist to develop a guide to safe food consumption practices. BRI's in-house Toxicology Lab prepares and analyzes samples for contaminant testing.

Similarly, BRI staff are investigating copper toxicity to sockeye salmon in the Bristol Bay watershed (Alaska), and working with the Igiugig Native Village to support effective salmon conservation.



BRI staff and collaborators conducting in-situ salmon monitoring in Alaska.

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