

Professional Development

The SWPP staff stays current on water quality technology and issues. We participate in trainings and conferences to strengthen our knowledge and skills to complete our water quality goals. Some of the trainings and conferences attended have been the Michigan Inland Lakes Convention, EPA Region 5 Tribal Water Workshop, EPA Region 5 Tribal Environmental Program Management conference, U.S. Army Corps Wetland Delineation Training, and macroinvertebrate training courses. The SWPP staff participates in Lake Charlevoix and Little Traverse Bay Watershed Committees, as well as the Michigan Tribal Environmental Group.

What can you do to protect water resources?

- Get involved! Become a member of local, state, tribal, and federal water quality groups and organizations
- Stay updated on water quality issues affecting your community
- Implement best management practices on your lawn, dispose of all wastes properly, & provide riparian zones to properties adjacent to water bodies.
- Practice control measure to prevent the spread of invasive species by:
 1. Removing or washing boats & trailers after use
 2. Reporting any indication of invasive species to appropriate agency



SWPP staff participates in a mussel ID workshop

*“Mother is our Earth,
the rivers are the veins
of our Mother, as
nibiish is the blood of
our Mother.”*



Surface Water Protection Program

LTBB Natural Resources Department
Environmental Services Program
7500 Odawa Circle
Harbor Springs, MI 49740
Phone: 231-242-1577
Fax: 231-242-1575
E-mail: ckeson@ltbbodawa-nsn.gov
www.nibiishnaagdownen.com

Little Traverse Bay Bands of
Odawa Indians

Environmental Services Program

Surface Water Protection Program

(SWPP)



Caroline Keson
Water Quality Specialist

Lauren Dey
Water Quality Technician

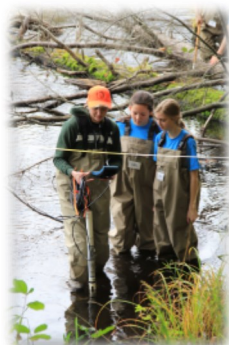


Surface Water Quality Protection Program



Water Quality Goals

- Continue monitoring surface water to ensure the quality of water resources for the next seven generations
- Continue to be a key stakeholder in making management or water resource related decisions on water bodies within or adjacent to the LTBB reservation using scientific data
- Continue efforts to create a Tribal Water Quality Workgroup and appropriate Tribal and/or EPA-approved water quality legislation
- Provide comments and participate in tribal, local, state, and federal workgroups and/or meetings pertaining to water resources
- Provide education/outreach to tribal and non-tribal Community
- Continue to research and apply for water resource funding to increase environmental capacity
- Complete draft non-point source assessment report



Caroline Keson (far left) instructs students at the Maple River on how to use the Hydro-lab, a device used for water monitoring. The students were part of the Tip of the Mitt Watershed Academy and are one of the many educational outreach activities the SWPP performs each year. Photo by: Tip of the Mitt

Surface Water Monitoring

Water is analyzed for physical and chemical quality parameters along with habitat assessments, physical characterization, and macroinvertebrate surveys. After the completion of a baseline assessment on many water bodies in 2010, the SWPP is able to monitor new sites and use additional assessments. Most sites are monitored winter, spring, summer, and fall every other year.



Caroline Keson instructs youth on how to collect macroinvertebrates. Presence and abundance of certain species are used as an additional water quality indicator because many are sensitive to pollution.

Tribal Water Uses and Standards



NIBIISH NAAGDOWEN

With help from an Administration for Native Americans (ANA) grant, the SWPP is drafting LTBB tribal water quality uses for waterbodies within the LTBB Reservation. Establishing Tribal water quality uses and standards (pending the finalization of approved Tribal Uses) asserts Tribal Sovereignty and promotes the protection of waters for Tribal needs for the next seven generations.



Speakers at a recent listening session on Spirit/Wycamp Lake included Dan Hinmon and Lee Sprague (both in canoe). As traditional manoomin (wild rice) harvesters, they showed how LTBB could protect manoomin with legislation.

Wetland Monitoring



Natural Resources Department staff had the opportunity to learn wetland plant identification and Floristic Quality Assessment (FQA) from Dr. Phyllis Higman (far right).

Wetlands are monitored and assessed using an FQA. This assessment assigns scores to plants that are used as bioindicators of wetland quality. Each wetland receives a total score based on plants found. Scores of greater than 35 are attributed to “high quality wetlands” which most LTBB wetlands are, but a few are closer to or just below the score of 35.

Wetlands perform many important ecological functions:

- Water pollution control
- Sediment and erosion control
- Flood protection
- Water filtration
- Habitat for threatened, endangered, medicinal, artisan, and utilitarian species
- Opportunities for wildlife-viewing and education