

# Honoring Our Waters: Tribal Investment

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The Fond du Lac Band of Lake Superior Chippewa has been delegated regulatory authorities (Water Quality Standards [WQS], §401 certification) and non-regulatory authorities (monitoring, nonpoint source management) under the Clean Water Act. The tribe's considerable investment in protecting our water resources is

grounded in both a cultural worldview (*water is sacred; we human beings are in relationship with the natural world, not in dominion over it*) and a clear focus on protecting the high-quality water resources (Figure 1) of the reservation and ceded territories of the upper Great Lakes region. Our water quality monitoring program (Figures 2-4) has, since 1998,

built a comprehensive database of physical, chemical, and biological data which we have used to inform the development of new approved water quality criteria (lake-specific numeric nutrient criteria, a specific conductance aquatic life use criterion, biological thresholds for streams).



Figure 1. Protecting high quality waters in undisturbed watersheds (Lac Lake).



Figure 2. Monitoring in the headwaters of Otter Creek.



Figure 4. Restoring lake sturgeon to the upper St. Louis River.


< Figure 3. Summer intern opportunities: stream fish electroshocking surveys.

Along with refining our WQS, monitoring data also provides the scientific basis for many of the conditions we impose through §401 certification of federal permits. As the foundation for our water quality program, monitoring has directly and indirectly affected critical decision-making, including during emergency response and industrial permitting actions. For instance, in February 2019, a train loaded with coal derailed on the Fond du Lac Reservation in northeastern Minnesota, sending 40 cars off the tracks and spilling over 4,600 tons of coal across the site and onto the frozen St. Louis River. With pressure from tribal leadership and legal staff, the rail company came to recognize tribal authorities and staff capacity for shaping incident response, determining short-term cleanup objectives, and defining longer-term ecological recovery. More recently,

when petroleum pipeline construction activities caused the breach of an artesian aquifer, sending millions of gallons of groundwater into the watershed upstream of the Band's wild rice lakes, our monitoring data, standards and §401 certification authorities all came into play as the company coordinated remedial actions with the Band and state agencies.

**Nancy Schudt** has served as the Fond du Lac Band of Lake Superior Chippewa's water projects coordinator since 1997. She developed the Band's water quality standards and long-term monitoring program, including recently approved numeric nutrient criteria for lakes and biological criteria for streams on the



reservation, located in northeastern Minnesota. She has directed research into fish contaminants and sediment chemistry to characterize mercury impacts to Fond du Lac Band members, collaborated on research into wild rice ecology and toxicity, as well as watershed hydrologic modeling to inform management and restoration efforts. She participates in numerous local, regional, national, and binational working groups to ensure the tribal perspective is represented and initiated a cooperative wastewater management project with the non-tribal community to service a heavily developed lake on the Reservation. She initiated the tribe's nonpoint source management program and leads the Band's environmental review of mining and energy industry impacts to treaty-protected resources. Nancy has a degree in biology from the University of Dayton, and a master's degree in aquatic ecology from the University of Kansas. 



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