Wisconsin Department of Natural Resources



Lake Superior Action Plan

July 2017 — June 2019



Wisconsin DNR is one of many partners charged with implementation of the Lake Superior Binational Program's Lakewide Action and Management Plan (LAMP). This plan works to protect and restore Lake Superior. DNR staff working within the Lake Superior Basin and associated Ecological Landscapes identified the following integrated priorities and actions for 2017-2019. Actions are presented by priority consistent with the LAMP in no particular order.



Howards Bay Slip: WDNR

Piping Plover: USFWS

Carp Exclusion for Wild Rice: WDNR

Priority: Restore Environmental Health to the <u>St. Louis River Area of Concern (AOC)</u> with implementation of the Remedial Action Plan to remove beneficial use impairments (BUIs).

- A. Pursue removal of fish deformities beneficial use impairment.
- B. Work with EPA partners to compare mercury concentrations in fish tissue between AOC and Bad River populations.
- C. Work with federal, state and local partners to evaluate and implement a beach nourishment project at Wisconsin Point Bird Sanctuary.
- D. Work with partners to restore habitat and remediate contaminated sediments at Pickle Pond.
- E. Design and construct contaminated sediment remediation in Howards Bay and in Hughitt and Cummings Slips.
- F. Pursue contaminated sediment remediation at Superior Light & Power MGP Site/Coal Slip.
- G. Complete sediment characterization for the Wisconsin portion of the St. Louis River estuary/harbor to identify any other contaminated sites in need of remediation.
- H. Conduct water quality, sediment and biota monitoring in Pokegama, Allouez, and Kimball's Bays.
- I. Pursue habitat restoration and contaminated sediment remediation at Crawford Creek.
- J. Complete barrier assessment in the Wisconsin portion of the AOC and prioritize barrier removal at two sites.
- K. Work with partners to restore 170 acres of wild rice in Wisconsin portions of the estuary.

Priority: Reduce the Impact of Existing Aquatic Invasive Species (AIS) and Prevent New Introductions.

- A. Implement WDNR's Ballast Water Program.
- B. Work with USFWS to assess invasive plants species in nearshore habitats.
- C. Inventory 10 coastal wetlands for invasive species.
- D. Continue AIS early detection monitoring on 25 inland lakes and rivers per year.
- E. Provide funding for Clean Boats Clean Waters Program inspections at Loonsfoot, 2nd Landing, Bayfield, and Washburn marinas.
- F. Contribute to the eradication of phragmites by working with Washburn and Bayfield facilities to replace the invasive phragmities strain in their wastewater ponds.



City of Bayfield WWTP: WDNR

Priority: Restore and Protect a System of Representative, High-quality Habitats.

- A. Work with partners in the Lake Superior Landscape Restoration Partnership to promote cross boundary habitat restoration projects for priority species/issues.
 - 1. Participate on the Brook Trout team to guide habitat restoration in priority watersheds.
 - 2. Develop a slow the flow white paper and action plan with partners.
 - 3. Work with the Young Forest Initiative to conduct outreach in priority breeding, nesting and migratory habitat for goldenwing warblers.
 - 4. Work with partners to support translocation of sharptails from Minnesota to the Moquah Barrens of the Chequamegon-Nicolet National Forest.
 - 5. Work with Brule River State Forest to coordinate cut schedules to benefit Kirtlands warblers.
- B. Conduct habitat, fisheries and water quality surveys in Bull Gus, 18 Mile, Pre-emption, Krause, Whittlesey Creeks and the Tyler Forks and Montreal Rivers.
- C. Complete a wetland functional assessment in the Marengo River Watershed.
- D. Initiate and conduct master planning for state owned properties including Big Bay State Park, S. Shore Fish & Wildlife Area, N. Sugar Bush SNA, Bark Bay, Lost Creek Bog, Pokegema, Port Wing Boreal Forest.
- E. Pursue land acquisitions of state properties in areas identified as a priority for protection within approved project boundaries.
- F. Promote natural shorelines through the <u>Healthy Lakes Initiative</u>, including Lake Nebagamon, Lake Minnesuing and Iron County inland lakes.
- G. Continue boreal forest restoration in area 5 of the Brule River State Forest.





Port Wing Boreal Forest: WDNR

Sharptail grouse: Todd Naas



Brule River valley: Cathy Khalar

Priority: Manage Plants and Animals to Ensure Diverse, Healthy and Self-sustaining Populations.

- A. Develop and update stock assessment models to improve management of self-sustaining commercial and sport fisheries:
 - 1. Conduct annual lake trout and whitefish gill net surveys.
 - 2. Conduct a siskowet assessment in 2018.
 - 3. Conduct hydroaccoustic cisco monitoring.
- B. Develop a Lake Superior Fisheries Management Plan.
- C. Conduct fisheries survey to determine population trends:
 - Conduct cool water fishery surveys in Chequamegon Bay.
 - 2. Conduct 20-40 surveys per year for annual statewide trend and rotation surveys for all coldwater species, including brook trout, in the Bark, Brule, Sioux, Onion, Cranberry, White and Iron River watersheds.
 - 3. Continue lake sturgeon, walleye and muskellunge population monitoring in the St. Louis River estuary.
 - 4. Continue walleye, muskellunge and general fisheries population monitoring on Minnesuing, Nebagamon and Amnicon Lakes.
- D. Conduct a mussel survey on the St. Louis River.
- E. Track fish harvest through creel surveys and commercial fishery monitoring.



Fisheries survey: WDNR



Mussel survey: Jason Brabant

F. Implement the <u>Wisconsin Turtle Conservation Program</u> and <u>Wisconsin Frog and Toad Survey</u> to identify the locations and conservation needs of herpitiles. Conduct targeted citizen monitoring for mink frogs.

Priority: Reduce the Negative Impacts of Dams and Barriers.

- A. Identify structures on tributaries that obstruct fish passage and develop a plan to restore fish passage on trout streams.
- B. Utilize the barrier assessment conducted in the Wisconsin portion of the St Louis River AOC to identify additional priority sites for restoration.





Culvert Assessment: Amy Eliot

Priority: Restore and Protect Coastal Health.

- A. Restore high quality coastal wetlands at Big Bay State Park by concentrating recreational use access.
- B. Work with partners to develop a functional definition of the nearshore.
- C. Develop a nearshore monitoring plan for Lake Superior.
- D. Coordinate implementation of the Beach Act.
- E. Restore sedge meadow coastal wetlands at Port Wing's abandoned wastewater lagoons.
- F. Seek funding to restore Tern Island in Chequamegon Bay.
- G. Conduct nutrient limitation monitoring in 11 coastal wetlands around the Bayfield peninsula and in the St. Louis River estuary.



Port Wing wastewater lagoon restoration site

Priority: Reduce and Eliminate Sources of Persistent Bioaccumulative Toxic Substances into the Lake Superior Basin as Outlined in the Zero Discharge Demonstration Program (ZDDP).

- A. Continue mercury monitoring and posting fish consumption advisories in the Lake Superior Basin.
- B. Continue remediation and restoration the Northern States Power lakefront Superfund site in the City of Ashland.

A Vision for Lake Superior

As citizens of Lake Superior, we believe... that water is life and the quality of water determines the quality of life.

We seek a Lake Superior watershed...

- that is a clean, safe environment where diverse life forms exist in harmony; where the environment can support and sustain economic development and where the citizens are committed to regional cooperation and a personal philosophy of stewardship;
- that is free of toxic substances that threaten fish, wildlife and human health; where people can drink the water or eat the fish anywhere in the lake without restrictions;
- where wild shorelines and islands are maintained and where development is well planned, visually pleasing, biologically sound, and conducted in an environmentally benign manner;
- which recognizes that environmental integrity provides the foundation for a healthy economy and that the ingenuity which results from clean, innovative and preventive management and technology can provide for economic transformation of the region;
- where citizens accept the personal responsibility and challenge of pollution prevention in their own lives and lifestyles and are committed to moving from a consumer society to a conserver society; and
- where there is greater cooperation, leadership and responsibility among citizens of the basin for defining long term policies and procedures which will protect the quality and supply of water in Lake Superior for future generations.

For more information, contact: Michele Wheeler, WDNR Lake Superior Partnership Coordinator Phone: 715-685-2912 or Email: michele.wheeler@wisconsin.gov

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