

# LAKE SUPERIOR FISHERIES MANAGEMENT PLAN 2020-2029

## 5-Year Progress Report

### Background

The [Lake Superior Fisheries Management Plan](#) (plan) was developed from 2017-2020 by the Wisconsin Department of Natural Resources (department) to guide management of sport and commercial fisheries in Wisconsin's Lake Superior waters for ten years (2020-2029). The plan presents an ambitious agenda of work for the Lake Superior Fisheries Team (team) to fulfill the plan's vision:

*A diverse fishery and ecosystem that balances the ecological, cultural, social, and economic needs of Wisconsin's Lake Superior basin region.*

The public participated extensively in the making of the plan to ensure that it would reflect a balanced approach to the type of management desired by all stakeholders for Lake Superior and its tributaries. The goals and objectives established in the plan have guided and will continue to guide practical management of Wisconsin's Lake Superior fisheries to benefit the state's citizens within the productive capacity of the resources.

This progress report provides the department an opportunity to 1) review the work accomplished from 2020-2025 as it relates to the goals and objectives of the plan and 2) identify and plan future work to meet the plan's goals and objectives over the next five years. As is clear in the original plan and tables below, partnerships and collaboration are essential to the achievement of our management goals, objectives and tactics. For optimal use of staff time and resources, our team regularly corresponds with partners carrying out this work and aims not to duplicate efforts.

### Summary of Progress

Each plan goal is listed below, along with annual routine work and special projects that have been completed under each goal. It should be mentioned that listing accomplishments within a specific objective or tactic does not mean we consider the work finished and we will continue making progress toward each objective.

**Goal 1:** *Protect, restore and rehabilitate diversity and connectivity of tributary, coastal, and main lake habitats to maximize productive capacity of Lake Superior's fish community.*

As shown in Tables 1 and 2, the team has made progress through annual work or special projects within all 5 objectives and 12 of the 13 tactics identified within Goal 1 of the plan.

Table 1. Progress made on the annual or routine work addressing the Objectives and Tactics under the first Goal within the LSFMP.

<b>Annual/Routine Work</b>		
<b>PROJECT</b>	<b>OBJECTIVE-TACTIC</b>	<b>STATUS/NOTES</b>
1. St. Louis River NRRI projects	2-2	Work carried out by UMN to monitor sediment and nutrients*
2. Permit reviews	2-3, 5-1	Provide comments on biological impacts to proposed projects
3. St. Louis Area of Concern (AOC)	2-4	WI and MN AOC consultation for fisheries and habitat projects
4. Great Lakes Fishery Commission Lake Committees and Technical Committees	2-5	Contribute to GLFC projects and reports on Lake Superior
5. Public/private site visits on BMPs	3-1	Site visits with DNR Forestry staff; aligns with Table 3, Item 19
6. Property Management	3-2	South Shore Lake Superior Fishery Area, St. Louis River Streambank Protection Area
7. Advisement and letters of support	3-2	Support to Landmark Conservancy on land acquisitions
8. Bois Brule Barrier	4-1, 5-1	Assess run strength, communicate to public
9. DNR road-stream data made available to partners	4-2	As necessary/requested. Future assessments and inventories also planned by partners
10. Work with DNR Road Liaison to DOT on projects	4-3	Culvert removal, bridge installation/replacement
11. Advised DNR Waterway Permitting program for DOT, County, and Municipal culvert and bridge replacement projects	5-1	Includes Blatnik interstate bridge, pipeline right-of-way projects in the Bois Brule River, Fish Creek, and St. Louis River watersheds

\*Partner work, not carried out by DNR

Table 2. Progress made on special projects addressing the Objectives and Tactics under the first Goal within the LSFMP.

<b>Special Projects</b>		
<b>PROJECT</b>	<b>OBJECTIVE-TACTIC</b>	<b>STATUS/NOTES</b>
1. Population comparisons: refuges and restricted areas	1-1	Peer reviewed publication, <a href="#">Carl et al. 2025</a>
2. Advised internal and external partners on culvert and other habitat projects	2-1, 2-4, 5-1	Trout Unlimited, Parks and Recreation, Northland College, NGO, and other collaborators
3. Lake Superior Coastal Wetlands Climate Resiliency Study	2-2, 2-3	Collaboration with WI Sea Grant covering vegetation, fish and birds
4. A Vision for the Head of Chequamegon Bay & Fish Creek Slough	2-2, 2-3	Collaborative meeting in December 2022 and <a href="#">corresponding notes</a>
5. Lake Superior Technical Committee – Prioritization of Bayfield Peninsula streams	2-5	Staff worked to get high priority on the LSTC Environmental Priorities list enabling increased funding
6. Nebagamom Creek culvert removal	3-3, 4-3	<a href="#">DNR-led project</a> with planning and funding assistance from federal, state, municipal, NGO, sport club and public partners
7. Campbells Creek Culvert Replacement	4-3	Worked with GLRI and Bayfield County in 2025
8. Little Balsam Culvert Replacements	4-3	Joint-funded through FEMA, GLRI, DNR Facilities & Lands; Project oversight by DOA; <a href="#">Completed in early-fall 2024</a>
9. Road-Stream Crossing Inventory	4-2	Inventory conducted throughout watershed over several years, completed in 2020
10. Selective fish passage project at Bois Brule Barrier: sea lamprey and white sucker	4-3	Partner project/DNR co-authored, Lewandoski et al. 2020

**Goal 2:** Identify and implement strategies that protect, support, and enhance the diversity, sustainability, and viability of state and tribal sport, commercial, and subsistence fishing.

As shown in Tables 3 and 4, ongoing work and special projects have addressed all 5 objectives and all 25 tactics within Goal 2 of the plan.

*Table 3. Progress made on the annual or routine work addressing the Objectives and Tactics under the second Goal within the LSFMP.*

<b>Annual/Routine Work</b>		
<b>PROJECT</b>	<b>OBJECTIVE-TACTIC</b>	<b>STATUS/NOTES</b>
1. WI-2 statistical catch at age model	1-1	Continued updating and refining, used output to update lake trout quotas for 2021-2023 and 2024-2026 seasons
2. R/V Hack Noyes Fishery-independent surveys	1-1, 2-1, 3-1	Annual spring lake trout survey, community survey (WI-1 in odd years; WI-2 in even years), Chequamegon Bay index, lake trout spawning survey, cisco hydroacoustics, spawning cisco gill net survey, siscowet survey (every 3 years)
3. Creel surveys	1-1, 2-1, 3-1, 4b-2	Annual Superior, Cornucopia/Port Wing, Apostle Islands, Ashland, Washburn, Saxon routes
4. Commercial monitoring	1-1, 2-1, 3-1	Onboard joint monitoring of state and tribal gill net and trap net fisheries
5. WI-1 statistical catch at age model	1-1	Began collecting extra samples/data needed to build WI-1 model, model construction beginning in 2026
6. Cisco stock assessment model	3-1	Initiated model using hydroacoustic sampling of adult cisco
7. St. Louis River spring muskellunge survey	4a-1	Survey conducted in 2023
8. St. Louis River spawning walleye survey and population estimate	4b-2	Surveyed in 2021 and 2025, report on 2021 results <a href="#">published</a>
9. Sampling for panfish in the St. Louis River and Estuary	4c-2	Developed and implemented new standardized sampling plan, inaugural survey in summer 2025
10. Chequamegon Bay lake sturgeon survey	4d-3	Annual survey and NRF field trips
11. Brown trout and splake stocking	5-1	Brown trout stocked annually from Superior to Saxon and splake were

<b>Annual/Routine Work</b>		
<b>PROJECT</b>	<b>OBJECTIVE-TACTIC</b>	<b>STATUS/NOTES</b>
		stocked in/near Chequamegon Bay until 2025
12. Brook trout reserves (DNR) and focal areas (USFWS)	5-3	Accounted for these designations within the Lake Superior Basin while planning and conducting work
13. Great Lakes Fishery Commission Lake Committees and Technical Committees	5-4	See Project 4 in Table 1
14. No-kill brook trout fishing regulations	5-4	Maintained these regulations on Bark River and Whittlesey Creek
15. Stream habitat renovation projects	5-5	Designed and implemented stream habitat restoration projects
16. Statewide beaver-trout study	5-5	Worked with OAS on south shore tributaries that are a part of the statewide study
17. Brule River State Forest Integrated Property Management meetings	5-5	Provided fisheries accomplishments and future projects for inclusion in property management plan update
18. Advised on timber sales and forest management activities	5-5	Ensured consistency with the Superior Coastal Plain Regional Master Plan and their potential effects on aquatic resources

Table 4. Progress made on special projects addressing the Objectives and Tactics under the second Goal within the LSFMP.

<b>Special Projects</b>		
<b>PROJECT</b>	<b>OBJECTIVE-TACTIC</b>	<b>STATUS/NOTES</b>
1. Lake trout model webpage	1-2	New outreach <a href="#">webpage</a> to house explanation of WI-2 quota and model report
2. Public meeting: presentation on WI-2 model results	1-2	Hosted the meeting in November 2022, updated model results and future quota changes

<b>Special Projects</b>		
<b>PROJECT</b>	<b>OBJECTIVE-TACTIC</b>	<b>STATUS/NOTES</b>
3. Standardized input data procedures	1-3	Developed databases that enabled standardized data pull methods across data types
4. Statistical catch at age model for WI-2 lake whitefish	2-1	Initial model developed in collaboration with USFWS, Red Cliff and Bad River Bands
5. Network of nearshore protected areas provides important benefits to lake whitefish in the Apostle Islands region of Lake Superior	2-3	Peer reviewed publication, Carl et al. 2025
6. Vertical distribution of Lake Superior cisco spawning aggregations and implications for population monitoring	3-1	Peer-reviewed publication, Shrovnal et al. 2025
7. Hydroacoustic data post-processing	3-1	Red Cliff led review and standardization of joint data
8. Cisco and lake whitefish recruitment project	3-1, 3-2, 3-4	Collaboration with Cornell University, contributed data and helped with manuscripts, Brown et al. 2024a and 2024b
9. Niche Partitioning among native ciscoes and nonnative rainbow smelt in Lake Superior	3-2	Led by USGS, Rosinski et al. 2020*
10. Food web structure of the Lake Superior fish community in 2021-2022	3-3	Collaboration across universities, tribal, state, federal and provincial agencies. Contributed samples, data and co-authored manuscript, Edwards et al. 2025

<b>Special Projects</b>		
<b>PROJECT</b>	<b>OBJECTIVE-TACTIC</b>	<b>STATUS/NOTES</b>
11. Cisco Recruitment in Lake Superior	3-4	Collaborative MN/WI Sea Grant project in progress led by UMN, DNR contributed data and input, manuscript in progress
12. Muskellunge acoustic telemetry in the St. Louis River	4a-1	Collaboration with UMN, peer-reviewed publication Schaeffer et al. 2020
13. Stocking success and population dynamics of Ashland spawning walleye	4b-1	Targeted sampling and evaluation resulting in a comprehensive survey report, Dobosenski and Carl 2020a
14. St. Louis River creel survey	4b-2	Conducted every 10 years. In 2025, working with MN to do a whole river creel
15. Evaluation of St. Louis River and WI-1 walleye regulations and new regulation proposal	4b-2	Public meetings and outreach in 2024, WCC question in 2025, new regulation to be in effect in 2027.
16. Developed annual Chequamegon Bay walleye and yellow perch gill net index	4b-2	Chequamegon Bay Fall Survey Report 2024
17. Walleye genetic stock structure and mixed stock analysis in Lake Superior	4b-3	Collaborated with UWSP, DNR contributed samples, data, and co-authoring manuscripts
18. Chequamegon Bay Smallmouth Bass Survey Report	4c-1	Dobosenski and Carl 2020b
19. Lake sturgeon regulation change on Lake Superior	4d-1	Increased the minimum size limit to 60" in 2020
20. Lake sturgeon acoustic telemetry	4d-2	MN DNR maintains several acoustic receivers in lower St. Louis River and other locations*
21. St. Louis River spawning lake sturgeon survey	4d-3	Annually surveyed the spawning area downstream from Fond du Lac Dam, compiled, stored, and reported data*. WI

<b>Special Projects</b>		
<b>PROJECT</b>	<b>OBJECTIVE-TACTIC</b>	<b>STATUS/NOTES</b>
		DNR Fisheries assisted MN when requested
22. Lake sturgeon stocking	4d-3	Exclusively fingerlings stocked in 2023 (n=375), 2024 (n=2097) and 2025 (n=2241)*
23. Status of lake trout	4d-3	Collaborated on report on the status of lake trout rehabilitation and the development of a lake wide recruitment index, Sitar et al. 2024
24. Lower Bois Brule River Creel Survey	5-1	Fall 2016 through spring 2018, documented angler pressure, harvest and catch rates of lake-run salmonids, Piszczek et al. 2021
25. Nebagamom Creek culvert removal	5-2	See project 6 in Table 2
26. Work with DNR Road Liaison to DOT on projects	5-2	See project 10 in Table 1
27. Advised DNR Waterway Permitting program for DOT, County, and Municipal culvert and bridge replacement projects	5-2	See project 11 in Table 1
28. Cooperative Science and Monitoring Initiative (CSMI) proposal	5-3, 5-4	Partnered with MI DNR, TU, and academia on multi-year proposal to conduct fish surveys to better understand in-river brook trout distribution and genetic relations to coaster brook trout
29. Volunteer angler program	5-3, 5-4	Partnered with TU and MI DNR to develop program to better understand nearshore brook trout distribution and stream sourcing

\* Partner work, not carried out by DNR

### **Future projects under Goal 2:**

- 1-1, Evaluation of lake trout daily bag limit reduction in WI-2
- 1-3, Provide estimates of lake trout catch-and-release mortality to adjust model inputs



- 2-2, Continue refining lake whitefish model and evaluate current harvest management
- 2-3, 2-4, DNR Management Report planned for close look at Chequamegon Bay lake whitefish population dynamics and fishery
- 3-1, Refine cisco model and evaluate additional inputs (e.g., recruitment index, survey timing, etc.)
- 5-2, Exploring floodplain grading and channel renovation project on Bark River and other south shore tributaries
- 5-2, Exploring check-dam installation projects in various south shore tributaries gullies to reduce sediment loads
- 5-2, Exploring channel narrowing projects in various south shore tributaries to increase sediment transport and expose spawning substrate
- 5-2, Exploring tree planting projects to encourage riparian soil stability and channel shading

**Goal 3:** *Enhance research and monitoring to better understand ecology of Lake Superior fish populations and communities.*

As shown in Tables 5 and 6, ongoing work and special projects have addressed all 4 objectives and 15 out of 18 of the tactics within Goal 3 of the plan. The majority of the work towards Goal 3 was achieved through special projects, rather than annual/routine work.

*Table 5. Progress made on the annual or routine work addressing the Objectives and Tactics under the third Goal within the LSFMP.*

<b>Annual/Routine Work</b>		
<b>PROJECT</b>	<b>OBJECTIVE-TACTIC</b>	<b>STATUS/NOTES</b>
1. St. Louis River spring Muskellunge survey	2-1	See project 7 in Table 3
2. St. Louis River spawning walleye survey and population estimate	2-1	See project 8 in Table 3
3. R/V Hack Noyes Fishery-independent surveys	2-1	See project 2 in Table 3
4. Sampling for panfish in the St. Louis River and Estuary	2-1	See project 9 in Table 3
5. Walleye stocking program	2-3	Used Chequamegon walleye surveys to inform walleye stocking program

<b>Annual/Routine Work</b>		
<b>PROJECT</b>	<b>OBJECTIVE-TACTIC</b>	<b>STATUS/NOTES</b>
6. Predator diet collections	3-1	Expanded DNR predator diet collections to include lake trout, siscowet, walleye, and burbot

*Table 6. Progress made on special projects addressing the Objectives and Tactics under the third Goal within the LSFMP.*

<b>Special Projects</b>		
<b>PROJECT</b>	<b>OBJECTIVE-TACTIC</b>	<b>STATUS/NOTES</b>
1. Brule River steelhead statistical catch-at-age model	1-1	Model is currently under development – assistance from OAS
2. Inventory of salmonid spawning redd locations and habitat partitioning	1-1	UM-D led project on the Brule River with DNR collaboration
3. Conditions influencing steelhead returns	1-2	UM-D led Brule River study, DNR provided data and co-authored publication, Hrabik et al. 2023
4. Standardized sampling plan for Chequamegon Bay coolwater species	2-1	DNR Lake Superior Nearshore Comprehensive Survey Report, Dobosenski and Carl 2020a
5. Food web structure of the Lake Superior fish community	3-1, 3-2, 3-3, 3-4	Contributed samples, data, and co-authored publication, Edwards et al. 2025
6. Trophic ecology of juvenile lean and siscowet lake charr in Lake Superior	3-2, 3-4	Study assessed for potential competition between lake trout morphotypes, contributed samples and co-authored publication, Gerig et al. 2024
7. Stable isotope analysis of western Lake Superior predatory fishes	3-2	Part one of this project addresses trophic niche overlap, Hanson et al. 2024*
8. Diet and trophic ecology of introduced salmonines at two south shore ports of Lake Superior	3-2	Study conducted by NMU and Michigan DNR, Vasquez et al. 2021*

<b>Special Projects</b>		
<b>PROJECT</b>	<b>OBJECTIVE-TACTIC</b>	<b>STATUS/NOTES</b>
9. Lake Superior Splake and Brown Trout Stocking Evaluation	4-1, 4-4, 4-5	DNR management report evaluating stocking practices and next steps, Carl 2025
10. Targeted sampling of Ashland spawning walleye	4-2	Sampling to evaluate stocking success and population dynamics, Dobosenski and Carl 2020a
11. Walleye genetic structure and mixed stock analysis in Lake Superior	4-2, 4-5	Pilot project and subsequent fully funded project in collaboration with UW-SP. Provided samples, data and co-authoring manuscripts
12. How many ciscoes are needed for stocking in the Laurentian Great Lakes?	4-7	Contributed data to study by Rook et al. 2021 and concluded cisco stocking not feasible

*\*Partner work, not carried out by DNR*

### **Future projects under Goal 3:**

- 4-3, 4-5, Lake trout stocking evaluation underway: DNR Management Report in progress
- 4-6, Brook trout strain evaluation with the Lake Superior Technical Committee

**Goal 4:** *Develop, evaluate, and implement strategies to maximize the resiliency of Lake Superior fisheries by controlling, managing, or mitigating existing problems and future threats.*

As shown in Tables 7 and 8, ongoing work and special projects have addressed all 3 objectives and all 12 tactics within Goal 4 of the plan. For Goal 4, there was a significant amount of partner work accomplished, particularly under Objective 2, Tactic 1: work with partners to evaluate impacts of flooding and erosion events on nearshore environmental conditions and fish populations (Table 8). These studies are important to understanding environmental impacts to fish populations and thus fisheries management in Lake Superior, however, they are generally outside of the scope of our program's fisheries research.

Table 7. Progress made on the annual or routine work addressing the Objectives and Tactics under the fourth Goal within the LSFMP.

<b>Annual/Routine Work</b>		
<b>PROJECT</b>	<b>OBJECTIVE-TACTIC</b>	<b>STATUS/NOTES</b>
1. Monitor sea lamprey scarring and document trends	1-1	Lake trout wounding examined in all surveys and included in Spring Report
2. DNR Invasive Species Team	1-2	Team spanning several programs to address invasive species issues in the state, meets monthly
3. Clean Boats Clean Waters Program	1-3	DNR, Sea Grant and other collaborators, boat and trailer checks, outreach materials
4. Monitoring climate trends with standardized surveys	2-2	e.g., spring, summer, Chequamegon Bay index, SLR walleye, trout stream electrofishing
5. Work with OGW on LAMP and standard algae and sediment sampling in Lake Superior	3-1	Provided information for the 2020-2024 LAMP as well as information for the Annual Reports
6. Choose Wisely booklet, signage, online query tool and Wisconsin Fishing Finder	3-3	Booklet is produced in 3 languages, English, Spanish, and Hmong. DHS does community outreach in partnership with DNR on advisories, signs are posted, and consumption advisories are being incorporated into new Wisconsin Fishing Finder

Table 8. Progress made on special projects addressing the Objectives and Tactics under the fourth Goal within the LSFMP.

<b>Special Projects</b>		
<b>PROJECT</b>	<b>OBJECTIVE-TACTIC</b>	<b>STATUS/NOTES</b>
1. Invasive species rule update	1-1, 1-2, 1-5	Recommended addition of parasite that causes salmonid whirling disease (detected in one WI inland stream) and mitigation measures, target effective date 2027
2. Early detection and monitoring program	1-4	USFWS led program sampling Lake Superior including eDNA and traditional sampling methods. DNR provides

<b>Special Projects</b>		
<b>PROJECT</b>	<b>OBJECTIVE-TACTIC</b>	<b>STATUS/NOTES</b>
		feedback on sampling locations and comms. protocols
3. Conditions influencing returns of Brule River steelhead	2-1	Led by UMN, DNR provided data and co-authored publication, Hrabik et al. 2023
4. Coastal wetland plant community responses to record-high Lake Superior water levels: An Allouez Bay case study	2-1	UW-Superior led study, Hartsock et al. 2022*
5. Effects of river floods and sedimentation on a naturally dynamic Great Lakes estuary	2-1	USGS led study, Fitzpatrick et al. 2025*
6. LiDAR-derived measurements of rapid coastal change along Wisconsin's Lake Superior coast	2-1	UW-Madison led study, Roland and Zoet, 2025*
7. Watershed inputs of suspended sediment drive patterns of total phosphorus in Chequamegon Bay, Lake Superior	2-1	Burke Center, Northland College led study, Hudson et al. 2025*
8. Spatiotemporal dynamics of cyanobacterium ( <i>Dolichospermum lemmermannii</i> ) populations in a bloom-prone region of Lake Superior	2-1	UM-Duluth led study, Wood et al. 2025*
9. Role of tributary cyanobacterial and	2-1	USGS led study, Kreiling et al. 2025*

<b>Special Projects</b>		
<b>PROJECT</b>	<b>OBJECTIVE-TACTIC</b>	<b>STATUS/NOTES</b>
nutrient transport and sediment processes on cyanobacterial bloom initiation in Lake Superior nearshore		
10. Lake Superior Coastal Wetlands Climate Resiliency Study	2-3	See project 3 in Table 2
11. EPA's National Coastal Condition Assessment	3-1	Contributed fish samples towards collaborative effort to evaluate indices such as water quality, sediment quality, benthic community condition, and fish tissue contaminants
12. PFAS/PFOS research into rainbow smelt	3-2, 3-4	Most recent samples collected 2022-2023 with refined laboratory methods, results and new guidelines upcoming in collaboration with other Great Lakes partner states and provinces
13. Preliminary PFAS/PFOS sampling of other Lake Superior fish species	3-2, 3-4	Added PFAS/PFOS to regular contaminant monitoring in 2019. A 2023 multistate project is underway funded by GLRI looking at contaminants in LS ecosystem

*\*Partner work, not carried out by DNR*

**Goal 5:** *Develop, evaluate, and implement strategies to maintain the social value of Lake Superior.*

As shown in Tables 9 and 10, ongoing work and special projects have addressed all four of the objectives and all 14 of the tactics within Goal 5 of the plan.

Table 9. Progress made on the annual or routine work addressing the Objectives and Tactics under the fifth Goal within the LSFMP.

<b>Annual/Routine Work</b>		
<b>PROJECT</b>	<b>OBJECTIVE-TACTIC</b>	<b>STATUS/NOTES</b>
1. Consistent informational public meetings	1-1, 1-3, 1-5	Two meetings annually to present relevant information to stakeholders
2. Creel survey engagement	1-2	Important opportunity where clerks have conversations with anglers about their fishery preferences and experiences on the lake
3. Individual staff/stakeholder dialogue	1-2	Remain responsive to calls and emails from stakeholders to discuss experiences on the lake
4. Present at and attend meetings and conferences	1-4	Regularly present findings from baseline monitoring and new projects (e.g., LSTC, GLFC Meetings, Wisconsin AFS)
5. Management Reports webpage	1-5	Provided reports and summaries of fisheries surveys from the R/V Hack Noyes, St. Louis River walleye, creel surveys, commercial harvest, and Brule River fishway counts on an annual basis
6. Attend community events	4-3	Staff regularly attend fishing clinics, tournaments, angler club meetings, sporting shows and other events
7. Host events for community	4-3	Hosted NRF field trips and WI Master Naturalist trainings for interested members of the public; participated in Brule River Rearing station and Les Voigt State Fish Hatchery open houses

Table 10. Progress made on special projects addressing the Objectives and Tactics under the fifth Goal within the LSFMP.

<b>Special Projects</b>		
<b>PROJECT</b>	<b>OBJECTIVE-TACTIC</b>	<b>STATUS/NOTES</b>
1. GovDelivery list for Lake Superior fisheries	1-1, 1-3	Established and promoted this mailing list, used to notify stakeholders of updated annual reports, project results, and public meetings

<b>Special Projects</b>		
<b>PROJECT</b>	<b>OBJECTIVE-TACTIC</b>	<b>STATUS/NOTES</b>
2. Established online Lake Superior State of the Lake	1-1	Worked extensively with LSTC and LSC to improve outreach of the status of fisheries and FCO's to stakeholders - <a href="https://www.glfc.org/state-of-the-lake.php?lake=1">https://www.glfc.org/state-of-the-lake.php?lake=1</a>
3. Lake Superior Outreach <a href="#">webpage</a>	1-4	Developed new DNR webpage to share recently completed projects in a variety of formats including videos and reports (since 2024)
4. Lake Superior fish community and fisheries, 2001-2022	1-4	Compilation of the status of populations, fisheries, and research of the past 2 decades, Goldsworthy et al. 2025
5. Choose Great Lakes Fish <a href="#">webpage</a>	1-6	Webpage that highlights the benefits of eating locally caught seafood and provides links and information on where to find it
6. Lake Superior fast facts <a href="#">brochure</a>	1-6	Brochure providing a quick overview of recreational fishing opportunities by season on Lake Superior
7. Lake Superior Lakewide Action and Management Plan, 2020-2024	1-7	Coordinated with Environment and Climate Change Canada and the U.S. Environmental Protection Agency in 2022
8. Bayview Park Fishing Pier	2-1	City of Ashland was awarded grant through DNR Sportfish Restoration Fund to improve access
9. Wisconsin Fishing Finder tool	2-1	Interactive tool mapping fishing access areas throughout Wisconsin (launched in 2025)
10. 100% Great Lakes Fish Initiative	2-2	Commitment from fishing businesses and agencies to work towards full utilization of harvested fish including protein, oil, and byproducts, group regularly meets
11. GLFC Great Lakes Valuation Report	3-1, 3-2	Study conducted by Southwick Associates to determine use and non-use value of the Great Lakes through human dimensions surveys and economic information*



<b>Special Projects</b>		
<b>PROJECT</b>	<b>OBJECTIVE-TACTIC</b>	<b>STATUS/NOTES</b>
12. Bi-weekly fishing report	4-1	Delivered via GovDelivery list and posted online, includes information from creel clerks

*\*Partner work, not carried out by DNR*

### **Future projects under Goal 5:**

- 4-2, utilize public meetings that have now been established (project 1 in Table 9) to address contentious issues in the future and bring in collaborators. Topics could include beaver-trout interactions, beaver control, and preferred non-native salmonid management vs. coaster/brook trout management.

## **Conclusions**

### *Looking back*

Through a combination of routine work such as core monitoring and surveys, extra projects, and diverse collaborations, staff have been able to complete work under every goal and every objective within the plan. As illustrated in the second table under each goal, staff have taken on many special projects at a time when staff resources are limited.

In addition, the many collaborations and established relationships throughout the region have been critical to the team's ability to fully address the objectives within the plan. Maintaining those relationships remains a crucial part of the successful sustainable management of Lake Superior fisheries in Wisconsin.

### *Highlights*

During the process of developing the plan, stakeholders identified several themes for future work and consideration. The team made considerable progress on many of these, and we highlight one theme from each goal here.

In Goal 1, preservation and restoration of important habitats, especially coldwater tributary and spawning habitats, were identified as an important theme. In the first five years of the plan, the team led and assisted with large projects to improve connectivity in important tributaries, including Nebagamon Creek (Brule River tributary), Campbells Creek, and Little Balsam Creek. The team also assisted partners with prioritizing road-stream crossing modifications and ensured a high priority ranking of Bayfield County streams in the LSTC Environmental Priorities list.

Restoration and maintenance of important fisheries was a major priority in Goal 2, and the team's continued implementation of long-term, standardized monitoring surveys was at the root of most of these accomplishments. These surveys (including

fishery-independent, creel, and commercial monitoring) continue to be critical for identifying trends in fisheries, building population models to assess stock status and sustainability, and evaluating long-term effects of regulations. For example, a 50-year time series provided information necessary for the team to chronicle the benefits provided by refuges and restricted-use areas for the lake whitefish fishery.

Similarly, a highlight of Goal 3 was to explore coolwater fisheries (e.g., yellow perch, northern pike, panfish, etc.) that historically had received less management attention due to resource constraints. The team developed standardized monitoring surveys for important coolwater species in Chequamegon Bay and the St. Louis River to quantify population demographics and, ultimately, track population trends of these important fisheries into the future.

Environmental change and emerging contaminants provided the overarching theme in Goal 4, and the team recognized a great deal of work led by partners revolving around big issues identified by stakeholders including: water level and erosional changes to plant communities and coastlines, sedimentation and phosphorus in Chequamegon Bay, and cyanobacteria blooms. DNR also added PFAS/PFOS to its standard contaminant monitoring program for Lake Superior.

Lastly, Goal 5 identified the importance of the team's communication plan with stakeholders, and the team made large strides in improving this plan by creating public-friendly survey reports and regularly updating them on the webpage, adding an Outreach Webpage to provide updates on special projects, adding a WI-2 Lake Trout Model webpage, establishing a GovDelivery email list of interested stakeholders, and initiating a biweekly fishing report.

### *Looking forward*

At the halfway point in this 10-year plan, this report has provided important insight into areas where more work needs to be done towards various objectives and tactics. Work has been completed for every goal and objective, however there are still relevant tactics throughout the plan that can inform projects in the next five years.

Although work has been achieved towards all the goals and objectives, and most of the tactics in the plan, many of these topics require ongoing work. Given their importance in fulfilling several goals and objectives simultaneously, the team will continue their dedication to consistent surveys and monitoring for target management species. In addition, the team did not identify any topics within the plan that had become obsolete, and the plan still represents an accurate guide for the next five years. The plan as written also remains adaptable to new challenges such as emerging invasive species, contaminants, climate related issues, and changing stakeholder needs.

## References

- Brown, T., Rudstam, L., Sethi, S., Ripple, Paul, Smith, Jason, Treska, Ted, Hessel, Christopher, Olsen, Erik, He, Ji, Jonas, Jory, Rook, Benjamin, Brown, Erin, Berglund, Eric, Cook, H., Dunlop, Erin, James, Stephen, Pothoven, Steven, Amidon, Zachary, Sweka, John, Honsey, Andrew. (2024a). Reconstructing half a century of coregonine recruitment reveals species-specific dynamics and synchrony across the Laurentian Great Lakes. ICES Journal of Marine Science. 82. fsae160. 10.1093/icesjms/fsae160.
- Brown, Taylor, Rudstam, Lars, Sethi, Suresh, Hessel, Christopher, Olsen, Erik, Jonas, Jory, Rook, Benjamin, Pothoven, Steven, Beech, Sarah, Dunlop, Erin, James, Stephen, Smith, Jason, Amidon, Zachary, Carl, Dray, Bunnell, David, Tingley, Ralph, Weidel, Brian, Honsey, Andrew. (2024b). Synthesizing Professional Opinion of Lake Whitefish and Cisco Recruitment Drivers across the Great Lakes. 2024. 10.70227/glfc-laur20240101.
- Carl, D. D. (2025). Lake Superior splake and brown trout stocking evaluation. DNR Fisheries Management Report No. 164.  
<https://widnr.widen.net/s/2ldf5xxvxl/fmmanagementreportno164>.
- Carl, D. D., Sapper, S. A., Seider, M. J. (2025). Network of nearshore protected areas provides important benefits to lake whitefish in the Apostle Islands region of Lake Superior. Journal of Great Lakes Research. 51. 102338.  
[10.1016/j.jglr.2024.102338](https://doi.org/10.1016/j.jglr.2024.102338).
- Dobosenski J., and Carl, D. (2020a). WDNR Lake Superior Nearshore Comprehensive Report 2019. WI DNR Survey Report. [comprehensive\\_report\\_markdown.utf8](#)
- Dobosenski J., and Carl, D. (2020b). WDNR Chequamegon Bay Smallmouth Bass Report 2019. WI DNR Survey Report.  
[https://dnr.wisconsin.gov/sites/default/files/topic/Fishing/LS\\_ChequamegonBaySmallmouthBassReport2019.pdf](https://dnr.wisconsin.gov/sites/default/files/topic/Fishing/LS_ChequamegonBaySmallmouthBassReport2019.pdf).
- Lewandoski, S. A., Hrodey, P., Miehl, S., Piszczek, P.P., & Zielinski, D. P. (2020). Behavioral responses of sea lamprey (*Petromyzon marinus*) and white sucker (*Catostomus commersonii*) to turbulent flow during fishway passage attempts. Canadian Journal of Fisheries and Aquatic Sciences. 78. 409-421. 10.1139/cjfas-2020-0223.
- Edwards, A. N., Sitar, S. P., Moerke, A. H., Doubek, J. P., Yule, D. L., Carl, D. D., Goldsworthy, C. A., Harding, I. C., Michaels, S. B., Berglund, E. K., Moore, S. A., & Gerig, B. S. (2025). Food web structure of the Lake Superior fish community in 2021–2022. Journal of Great Lakes Research, 51(1), 102486.

- Fitzpatrick, F.A., A. Vaughan, E.D. Dantoin, S.P. Sterner, P.C. Reneau, C.J. Roland. (2025) Effects of river floods and sedimentation on a naturally dynamic Great Lakes estuary, *Journal of Great Lakes Research*, 51, Issue 1, 2025, 102458, ISSN 0380-1330, <https://doi.org/10.1016/j.jglr.2024.102458>.
- Gerig, B.S., Sitar, S.P., Otte, W.F., Yule, D.L., Swanson, H.K., Bronte, C.R., Carl, D.D. and Blankenheim, J. (2024). Trophic ecology of juvenile lean and siscowet lake charr (*Salvelinus namaycush*) in Lake Superior: assessing for potential competition. *Canadian Journal of Fisheries and Aquatic Sciences*. 81(1): 115-128. <https://doi.org/10.1139/cjfas-2023-0102>.
- Goldsworthy, C. A., Carl, D. D., Sitar, S. P., Seider, M. J., Vinson, M. R., Harding, I., & Barber, J. M. (2025). Lake Superior fish community and fisheries, 2001–2022: An era of stability. *Journal of Great Lakes Research*, 51(1), 102414.
- Hanson, J., M. Gordon, N. Peterson, R. Lepak, C. Goldsworthy, V. Brady, T. Hrabik, J.C. Hoffman (2024). Stable isotope analysis of Lake Superior nearshore native and introduced fishes part one: trophic niche overlap. *Journal of Great Lakes Research*, 51, Article 102441, 10.1016/j.jglr.2024.102441.
- Hartsock, J.A., R.J. Schwarting, K. Beaster, N.P. Danz. (2022). Coastal wetland plant community responses to record-high Lake Superior water levels: An Allouez Bay case study, *Journal of Great Lakes Research*, 48, Issue 3, 828-836, ISSN 0380-1330, <https://doi.org/10.1016/j.jglr.2022.02.001>.
- Hrabik, T. R., Olson, K. W., Kaspar, T. J., Sierszen, M. E., & Matthias, B. G. (2023). The influence of conditions in Lake Superior and the Bois Brule River, Wisconsin on returns of migratory rainbow trout. *Journal of Great Lakes Research*, 49, 506-514.
- Hudson, M.J., Cooper, M.J., Suchy, A.K., Levi, P.S., Thornburg, B.R., Penningroth, P.J., and Lehr, R.A. (2025). Watershed inputs of suspended sediment drive patterns of total phosphorus in Chequamegon Bay, Lake Superior, *Journal of Great Lakes Research*, Volume 51, Issue 1, 2025, 102444, ISSN 0380-1330, <https://doi.org/10.1016/j.jglr.2024.102444>.
- Kreiling, R.M., Givens, C.E., Baker, A.C., Kiesling, R.L., Dantoin, E.D., Perner, P.M., Sterner, S.P., Gierke, K.J., and Reneau, P.C. (2025). Role of tributary cyanobacterial and nutrient transport and sediment processes on cyanobacterial bloom initiation in Lake Superior nearshore, *Journal of Great Lakes Research*, Volume 51, Issue 1, 102409, ISSN 0380-1330, <https://doi.org/10.1016/j.jglr.2024.102409>.

- Piszczek, P., Olson, K., and Massa, E. (2021). Lower Bois Brule River Creel Survey Douglas County, Wisconsin 2016-2018. DNR Fisheries Management Report No. 161. [LS\\_LowerBoisBruleRiverCreelSurvey2018.pdf](#).
- Piszczek, P. (2024). St. Louis River Walleye Population Estimate Report. DNR Fisheries Report. [https://dnr.wisconsin.gov/sites/default/files/topic/Fishing/LS\\_StLouisRiverWalleyeReport2021.pdf](https://dnr.wisconsin.gov/sites/default/files/topic/Fishing/LS_StLouisRiverWalleyeReport2021.pdf).
- Rook, B., & Hansen, M. and Bronte, C. (2021). How Many Ciscoes Are Needed for Stocking in the Laurentian Great Lakes? *Journal of Fish and Wildlife Management*. 13. 10.3996/JFWM-21-025.
- Roland, C.J. and Zoet, L.K. (2025). LiDAR-derived measurements of rapid coastal change along Wisconsin's Lake Superior coast (2009–2019), *Journal of Great Lakes Research*, Volume 51, Issue 1, 2025, 102366, ISSN 0380-1330, <https://doi.org/10.1016/j.jglr.2024.102366>.
- Rosinski, C.L., Vinson, M.R., and Yule, D.L. (2020) Niche Partitioning among Native Ciscoes and Nonnative Rainbow Smelt in Lake Superior, *Transactions of the American Fisheries Society*, Volume 149, Issue 2, Pages 184–203, <https://doi.org/10.1002/tafs.10219>.
- Schaeffer, E.M., Pinkerton, J.J., Venturelli, P.A., and Miller, L.M. (2020) Muskellunge Spatial Ecology in the St. Louis River Estuary and Southwestern Lake Superior, *Transactions of the American Fisheries Society*, Volume 149, Issue 6, November 2020, Pages 651–663, <https://doi.org/10.1002/tafs.10265>.
- Sitar, S.P., Seider, M.J., Ebener, M.P., Chong, S.C., Goldsworthy, C.A., Harding, I., Michaels, S.B., Moore, S.A., Pratt, T., and Ray, B.A. (2024). Synthesis of recent research and attributes of recovered lean Lake Trout populations in Lake Superior, 1993–2022, *North American Journal of Fisheries Management*, Volume 44, Issue 4. Pages 776–798, <https://doi.org/10.1002/nafm.11007>.
- Shrovnal, J.S., Ray, B.A., Carl, D.D., Shaw, S.L., Sapper, S.A., Zunker, C.A., and Lind, R.A. 2025. Vertical distribution of Lake Superior cisco (*Coregonus artedii*) spawning aggregations and implications for population monitoring, *Journal of Great Lakes Research*, Volume 51, Issue 1, 102424, ISSN 0380-1330. <https://doi.org/10.1016/j.jglr.2024.102424>.
- Vasquez, B.R., John A. Whiting, Shawn P. Sitar, Troy G. Zorn, Brandon S. Gerig. (2021). Diet and trophic ecology of introduced salmonines at two south shore ports of Lake Superior, 2019. *Journal of Great Lakes Research*, Volume 47, Issue 4, Pages 1117-1125, ISSN 0380-1330, <https://doi.org/10.1016/j.jglr.2021.03.018>.

Wood, A.W., Callaghan, J.D., Loiselle, R., McManus, R.M., Brovold, S.S., Wellard Kelly, H.A., Alexson, E.E., Sterner, R.W., Hudson, M.J., and Sheik, C.S. (2025). Spatiotemporal dynamics of cyanobacterium *Dolichospermum lemmermannii* populations in a bloom-prone region of Lake Superior, Journal of Great Lakes Research, Volume 51, Issue 1, 2025, 102455, ISSN 0380-1330, <https://doi.org/10.1016/j.jglr.2024.102455>.