

Nipigon and Jackpine Regional Plan

This is one of twenty Regional Plans that support implementation of the Lake Superior Biodiversity Conservation Strategy (Strategy). The Strategy, prepared and overseen by the Lake Superior Partnership, contains information and 62 sub-strategies to provide guidance to restoring and protecting biodiversity (www.natureconservancy.ca/superiorbca).

Regional Plans are intended to be adaptive documents that support and respond to local conservation efforts and contribute to lakewide biodiversity goals. To contribute an update to this Regional Plan, please contact: greatlakes-grandslacs@ec.gc.ca.

6. Nipigon and Jackpine



Many Canadians know this region as the starting point of the classic story, *Paddle-to-the-Sea*, which follows the journey of a toy canoe from Lake Superior to the Atlantic Ocean. The region has a world-class fishery, rare plants and animals, and vast stretches of excellent ecological conditions. The Nipigon River is the biggest tributary to the Great Lakes. It is

home to the largest remaining wild population of Brook Trout, and is a source of their rehabilitation efforts in other areas. The Nipigon River and Nipigon Bay contain important coastal wetland and waterfowl nesting and staging areas. The Town of Nipigon and the Red Rock Indian Band are two of many small communities throughout the region. At least 61 species and communities of conservation concern have been documented in this regional unit, including Northern Brook Lamprey and American White Pelican^{1,2}. The current viability ranking of Woodland Caribou is unknown, but they have been present in the regional unit. The watershed extends well north, and includes the largest lake totally within Ontario's borders, Lake Nipigon. Woodland Caribou can be found calving on the islands of Lake Nipigon, and the waters shelter isolated populations of Lake Sturgeon.

Report Card ³ , Overall Grade: A-		
Conservation Target	Grade	Conservation Target Notes
Nearshore	C	Construction of a secondary wastewater treatment plant in the Township of Red Rock should be completed by 2017.
Embayments and Inshore	B	Restoration targets for the Nipigon Bay Area of Concern (AOC) have been met.
Islands	A	Most of the 212 islands are undeveloped intact wilderness.
Coastal Wetlands	B	Only one percent of the coast is wetlands, which makes them of high conservation value for the area's biodiversity.
Coastal Terrestrial Habitats	A+	90% of the coastline is naturalized.

¹ Data provided by the Ontario Ministry of Natural Resources and Forestry. Copyright Queen's Printer for Ontario (2012).

² For a full list please see the corresponding [regional unit chapter](#) in Vol. 2 of the Lake Superior Biodiversity Conservation Assessment.

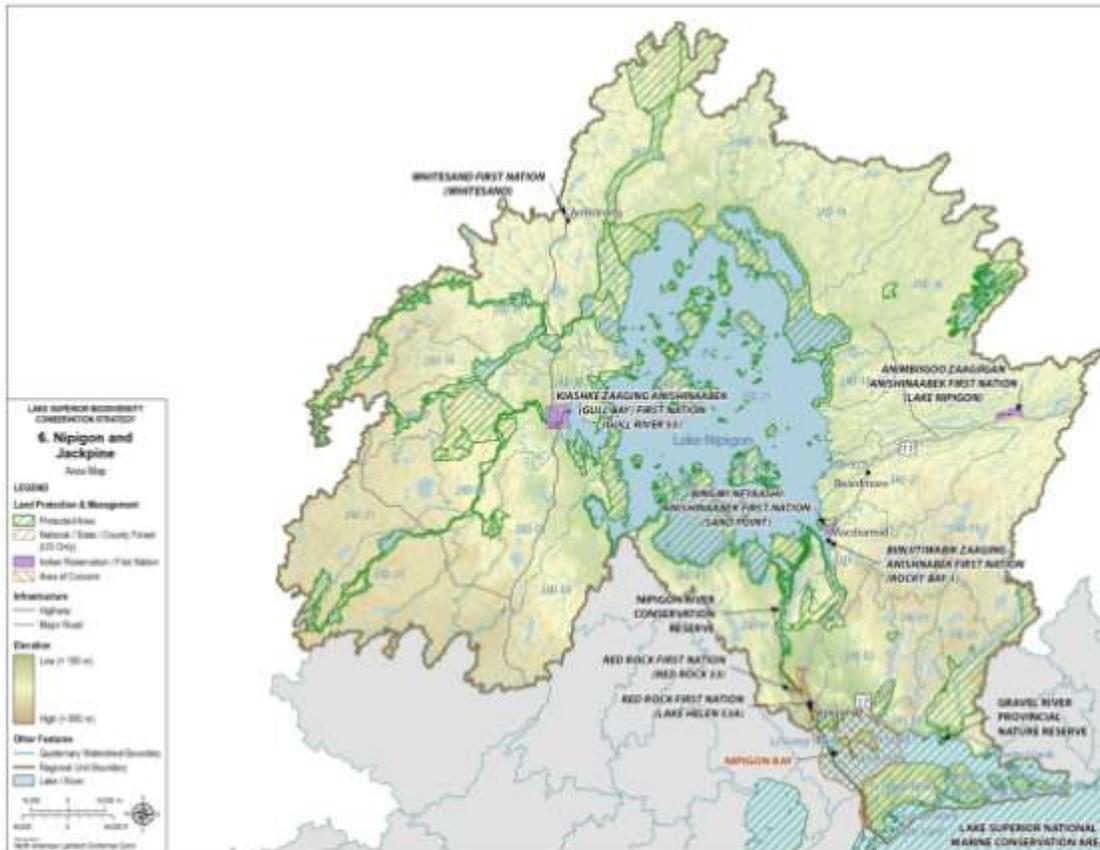
³ Report Card grades are intended to denote relative (within the Lake Superior basin) condition/health and stresses for each biodiversity target in the region based on available condition and stress indices. A more detailed explanation and expert comments on grades are available in the Lake Superior Biodiversity Conservation Assessment – Volume 2: Regional Unit Summaries.

<p>Tributaries & Watershed</p>	<p>B</p>	<p>A recent project re-established access to an important Lake Superior fish spawning and nursery habitat on the Nipigon River first blocked in 1906 when the CN railroad was built.</p>
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Overview of Conservation Opportunities

Having 15% of the land currently designated as parks or protected lands is contributing to the good ecological condition of the area. Once the Lake Superior National Marine Conservation Area is established, Parks Canada in collaboration with the Province of Ontario, First Nations, Métis, north shore communities, and stakeholders will

be working on strategies to protect the biodiversity of the area. Over 1000 dams and other barriers do exist in the region, and some could be assessed for potential rehabilitation in support of conservation of Lake Superior's habitat and species. Continued native fish and habitat rehabilitation actions, along with ongoing



sustainable fishing practices, could result in even more robust fish communities, resembling historical records. Restoration targets for the Nipigon Bay Area of Concern have been met, with the last major project being the addition of a new secondary wastewater treatment plant in Red Rock. Current and future forestry, mining, and energy projects in the region can continue to pursue excellence in environmental sustainability and conservation of biodiversity.

Conservation Actions

The Lake Superior community has a strong and ongoing history of taking action to restore and protect the lake’s extraordinary biodiversity. Actions are already occurring at all scales – from national state, provincial, tribal, First Nations, Métis, and municipal programs, to lakewide initiatives and local projects by communities, businesses and households. Some important habitats currently have a conservation designation with a corresponding management strategy, and active supervision of these areas is essential to sustaining biodiversity. The table below presents next steps for conserving and protecting biodiversity in this regional unit. Other existing plans relevant to conserving habitats and species in this region should continue to be implemented. A list of existing plans relevant to the next steps presented below is presented at the end of this document.

Regional Plan Next Steps

There is some variation among Regional Plans in how future actions from existing plans were incorporated into this document, based on advice from the implementers of those plans in the region. Similarly, implementation approaches vary greatly among regional units. The Lake Superior Partnership serves an important role in facilitating cooperation among agencies to support on-the-ground action. Priority implementation actions developed through the Partnership are identified in the Lake Superior LAMP, Lake Partnership committee work plans, and agency specific action plans.

Regional Objective	Next Step	Conservation Target	Primary Lakewide Strategy ⁱ
Lakewide Strategy 1: Restore and protect a system of representative, high quality habitats.			
<i>Common Actions For All Region Plans</i>			
	Maintain or enhance areas where large blocks of land with natural cover exist or could be expanded.	Multiple	1.1
	Preserve sites that have high species diversity and/or critical habitat for fish or wildlife.		
Protect the habitats of biological significance with special consideration of important fish spawning sites in tributaries to Lake Superior.	Determine the highest quality cold water habitats and prioritize projects to protect and connect habitats.	Tributaries & Watersheds	1.9

Regional Objective	Next Step	Conservation Target	Primary Lakewide Strategy ⁱ
Restore the habitats of biological significance, with special consideration of important fish and spawning sites in the Nipigon River.	Continue with plan to clean-up/remove debris from the waters of the Nipigon River lagoon to increase the area's capacity to serve as a habitat for fish and other aquatic life.	Tributaries & Watersheds	1.3
Protect Provincially Significant Wetlands from the impacts of development.	Identify, map, and evaluate remaining wetlands within the region to rank them and identify ones that are most valuable.	Coastal Wetlands	1.11
Restore and delist the Nipigon Bay Area of Concern.	Build new secondary wastewater treatment plant in the Town of Red Rock.	Embayments and Inshore	1.4
Protect habitats of biological and cultural significance in the Nipigon-Jackpine regional unit.	Inventory islands within this regional unit that contain historic records of rare habitats.	Islands	1.9
	Establish special protection designations at sites identified as significant to biodiversity, where appropriate.	Multiple	1.1
Lakewide Strategy 2: Manage plants and animals in a manner that ensures diverse, healthy, and self-sustaining populations.			
<i>Common Actions For All Region Plans</i> Review lists of regional species of conservation concern and identify gaps in monitoring, planning, and related conservation actions.		Multiple	2.7
Restore and protect self-sustaining Brook Trout populations in as many of the original, native habitats as is practical.	Assess the status and distribution of Brook Trout populations in Lake Superior and in tributary streams within this regional unit.	Multiple	2.9
	Assess tributaries where lake-run Brook Trout historically occurred and determine feasibility and priority for habitat restoration.	Multiple	2.9
	Identify and protect terrestrial groundwater recharge areas that provide cold groundwater upwellings to Brook Trout spawning sites.	Tributaries & Watersheds	2.9
Restore and protect self-sustaining, forest-dwelling woodland caribou where they currently	Preserve calving and summer habitat on islands in Lake Nipigon for Woodland Caribou.	Tributaries & Watersheds	2.3

Regional Objective	Next Step	Conservation Target	Primary Lakewide Strategy ⁱ
exist.	Continue tracking studies on Woodland Caribou to understand movement patterns and habitat use as these may change as the habitat changes.	Tributaries & Watersheds	2.9
Achieve and maintain genetically diverse self-sustaining populations of Lake Trout that are similar to those found in the lake prior to 1940.	Continue with Fish Community Index Netting program to track the dynamics of fish populations and their recovery outside and within the Nipigon Bay Area of Concern.	Nearshore	2.4
Restore and protect self-sustaining Walleye populations in their historic range.	Determine population status of Walleye in Nipigon Bay.	Embayments and Inshore	2.3
	Monitor spawning success of Walleye at restored habitat in the Nipigon River lagoon and in Bass (Purdom) Creek.	Tributaries & Watersheds	2.9
Restore and protect self-sustaining Lake Sturgeon populations.	Determine status of Lake Sturgeon population in the Nipigon River.	Tributaries & Watersheds	2.7
	Track seasonal movement patterns of Lake Sturgeon in the lower Nipigon River in order to identify and protect critical habitat.	Tributaries & Watersheds	2.9
Lakewide Strategy 3: Reduce the impact of existing aquatic invasive species and prevent the introduction of new ones.			
<i>Common Actions For All Region Plans</i> Control high priority infestations of aquatic invasive species, including continued control of Sea Lamprey.		Multiple	3.2
Minimize the invasive Sea Lamprey population in Nipigon Bay to the extent feasible.	Continue to monitor Sea Lamprey-induced mortality and wounding rates in Nipigon Bay.	Nearshore	3.4
Prevent the introduction and spread of aquatic invasive species into Lake Nipigon.	Develop and implement education program for public, local tourist operators, and commercial fishermen on how to prevent the introduction and spread of aquatic invasive species.	Multiple	3.11
	Address recent (2014) discovery of zebra mussels in Nipigon Bay to prevent spread to Lake Nipigon.	Multiple	3.3

Regional Objective	Next Step	Conservation Target	Primary Lakewide Strategy ⁱ
	Continue partnership between the OMNRF and Ontario Federation of Anglers and Hunters to deliver province-wide Invading Species Awareness Program, focusing on education and outreach and programs designed to monitor the occurrence and distribution of invasive species.	Multiple	3.3
	Continue annual AIS early detection assessments and develop rapid response protocols to deal with new invasives	Multiple	3.3
Prevent the introduction and spread of aquatic invasive species to other locations within this regional unit.	Develop and implement education program for public, local tourist operators, and commercial fishermen on how to prevent the introduction and spread of AIS.	Multiple	3.3
Lakewide Strategy 4: Adapt to climate change.			
<i>Common Actions For All Region Plans</i> Incorporate climate change model projections and adaptive management measures into natural resource management plans.		Multiple	4.1
Reduce the impact of stormwater on waters and corresponding habitats in communities within this regional unit.	Identify and evaluate probable climate change impacts on stormwater management in communities within this regional unit and the potential effects on waterways.	Tributaries and Watersheds	4.12
	Continue with the development and implementation of a stormwater management plan for the Town of Nipigon.	Tributaries and Watersheds	4.12
	Develop and implement sub-watershed management plan for Clearwater Creek to maintain Coaster Brook Trout spawning habitat.	Tributaries and Watersheds	4.12
Lakewide Strategy 5: Reduce the negative impacts of dams and barriers by increasing connectivity and natural hydrology between the lake and tributaries.			

Regional Objective	Next Step	Conservation Target	Primary Lakewide Strategy ⁱ
<p><i>Common Actions For All Region Plans</i></p> <p>Address barriers to fish passage created by dams, hydroelectric generation, or misplaced or wrong sized culverts.</p> <p>Maintain flows and water levels on managed streams, rivers, and lakes that emulate natural conditions (i.e., magnitude, duration, timing, and pattern).</p>		Tributaries and Watersheds	5.2
Maintain flows and water levels on the Nipigon River that emulate natural conditions.	Continue or enhance the management of flow regimes and water levels on the Nipigon River to ensure habitat protection from drawdown.	Tributaries and Watersheds	5.3
Improve access to spawning habitat for migratory native fish.	Monitor upstream fish passage at the Kama Creek rehabilitation site (former perched culvert).	Tributaries and Watersheds	5.2
	Inventory road/rail stream crossings and identify barriers to upstream fish passage.	Tributaries and Watersheds	5.2
<p>Lakewide Strategy 6: Address other existing and emerging threat that may impact important habitat or native plant and animal communities.</p>			
Prevent the introduction and spread of terrestrial invasive species.	Develop outreach and citizen science monitoring programs to communicate and collect information on terrestrial invasive species in this regional unit.	Multiple	6.7

Regional Plan Development

Regional Plans are informed by a technical assessment, including maps of: 1. Coastal and Watershed Features; 2. Condition, and; 3. Important Habitat Sites. This information is available at: www.natureconservancy.ca/superiorbca.

The public and stakeholders who are connected to these areas provided input to the Next Steps in each Regional Plan. Oversight was provided by a Steering Committee from the Lake Superior Partnership. All input was considered and incorporated whenever possible and when relevant to lakewide biodiversity conservation targets and threats. To contribute an update to this Regional Plan, please contact: greatlakes-grandslacs@ec.gc.ca.

Existing Plans

Other existing plans relevant to conserving habitats and species in this region should continue to be implemented, including but not limited to:

- Provincial Parks and Conservation Reserve Policy direction for the protection, development and management of provincial parks, conservation reserves and their resources
- Great Lakes Fishery Commission - Fish-community objectives for Lake Superior; A lake sturgeon rehabilitation plan for Lake Superior; A brook trout rehabilitation plan for Lake Superior; A lake trout restoration plan for Lake Superior; A rehabilitation plan for walleye populations and habitats in Lake Superior
- Water Management Plan for Waterpower for the Nipigon River System
- Resource Management Plans for Lake Nipigon and Nipigon River Conservation Reserves
- Ontario's Provincial Fish Strategy: Fish for the Future
- Lake Superior Aquatic Invasive Species Complete Prevention Plan
- Ontario Invasive Species Strategic Plan, 2012

ⁱ To access the full Biodiversity Conservation Strategy, other Regional Plans and supporting technical information and maps, please visit the project website: www.natureconservancy.ca/superiorbca