

MARTEN FALLS FIRST NATION COMMUNITY ACCESS ROAD

Existing Conditions Fact Sheet: Fish and Fish Habitat

Issued: October 2023



The various study areas associated with the Community Access Road contain many waterbodies and support several different fish species. Waterbodies can provide fish habitat, including spawning, rearing, feeding, and overwintering habitat. Our studies looked at fish and fish habitat in the area close to the footprint of the proposed routes, plus an additional 2.5 km and more broadly to include the watershed areas of each waterbody that is crossed by the proposed route options and segments. The areas were largely located within the Albany River watershed, and included catchment areas in the Upper Albany Makokibatan, Lower Ogoki, and Upper Albany Muswabik watersheds.

Based on feedback we've heard from the Indigenous peoples, the public, federal authorities, and / or other interested parties, six species of fish were of particular interest and have been identified as valued components for the Community Access Road. The six species of fish are:

- Nameh / Lake Sturgeon
- Okaas / Pickerel / Walleye
- Masamekos / Speckled Trout / Brook Trout
- Naiwabe / Northern Pike
- Atikameg / Lake Whitefish
- Mihzhash / Ling / Burbot



These six species of fish have either been historically documented, or captured during field studies, in all three study areas (Project Development Area, Local Study Area, and Regional Study Area).

Study Areas

Study areas identify the geographic limit where potential effects of the road may occur. The existing conditions are documented for three study areas:

- Project Development Area (PDA): the area of direct disturbance
- Local Study Area (LSA): the area where direct effects of the road are likely to take place
- Regional Study Area (RSA): the area where indirect effects are likely to occur





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Our Findings

Fish Habitat

There are 81 waterbodies crossed by the 100m right-of-way in the Project Disturbance Area for both route alternatives. The majority of the crossings are permanent waterbodies, with unclassified thermal regimes. The Ogoki and Albany rivers, and Gourlie Creek have been identified by local Indigenous Communities as waterbodies with high traditional value. Indigenous Knowledge also suggests that the Albany River provides spawning habitat for sportfish such as Lake Sturgeon, Walleye, and Brook Trout and that the Dusey River provides spawning habitat for Brook Trout and Northern Pike.

Observations during field surveys identified spawning areas for the six Valued Component fish species (Lake Sturgeon, Lake Whitefish, Brook Trout, Walleye, Northern Pike, and Burbot) in Gourlie Creek and in the Albany, Ogoki and Dusey rivers.

The Aquatics Local Study Area contains many waterbodies that provide fish habitat and have potential to support 37 fish species, including the six Valued Component fish species.



The larger waterbodies in the Aquatics Local Study Area provide fish habitat year-round, including spawning, rearing, feeding, and overwintering habitat.





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The smaller, shallower waterbodies in the Aquatics Local Study Area may not provide overwintering habitat (due to freezing), however, these smaller waterbodies can provide suitable habitat for spawning, rearing, and feeding for portions of the year, typically in early spring and after the spring freshet. Spring and fall spawning habitat are available in the Aquatics Local Study Area for a variety of species.

The watercourses with faster moving water and coarse substrates (i.e., gravel or cobble) would provide fall spawning habitat for Brook Trout or spring spawning habitat for sucker species. Some of the larger watercourses may provide spawning habitat for Lake Sturgeon. Certain lakes, like Patience Lake, in the Aquatics Local Study Area may also provide spawning habitat for lake spawning species including Walleye.

<u>Benthic Invertebrates</u>

Of the 40 benthic invertebrate sampling sites, 17 were located on Alternative 1, 16 were located on Alternative 4, and six were located on overlapping sections of Alternatives 1 and 4 (and thus included in both Alternatives). Sampling sites were located in watercourses that ranged from small tributaries to large rivers. Field-measured water quality parameters were generally within Provincial Water Quality Objectives, but several sites on both Route Alternatives had lower pH than the guideline range, which is typical of northern boreal systems.

Fish Presence

A total of 64 crossings in the Project Development Area are either on waterbodies with documented fish presence or are connected (within 2 km) to waterbodies with documented fish presence. Most of the historical fish presence data were gathered during historic field surveys. Most of the named waterbodies, and some of the smaller unnamed watercourses, have documented fish presence. The waterbodies in the Project Development Area are considered likely to have fish present even if there is no documented fish presence. During field surveys, fish were captured at 16 of the 46 sites sampled.

Contact Information

You are welcome to contact the Project Team at any time with questions or comments.

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