

Summary Information

Version Date: July 2018	Prepared by: Chris Briggs	Reviewed by: Adrian Meinke	Approved by: KayeDon Wilcox
Waterbody ID: 5994	Surface Area: 1479 ha	Hydrologic Unit Code Name (HUC_8): Petitot River	Hydrologic Unit Code (HUC_8): 20010101
Sport Fish Species: Walleye, Northern Pike, Lake Whitefish, Yellow Perch, and Burbot			
Indigenous Fishery: NLT 140 mm, Closed: Apr 1 – May 31			
Environment and Parks Region: Peace Region	Fisheries Management Zone: Northern Boreal 3 (NB3)	Fisheries Management Office: Peace River	

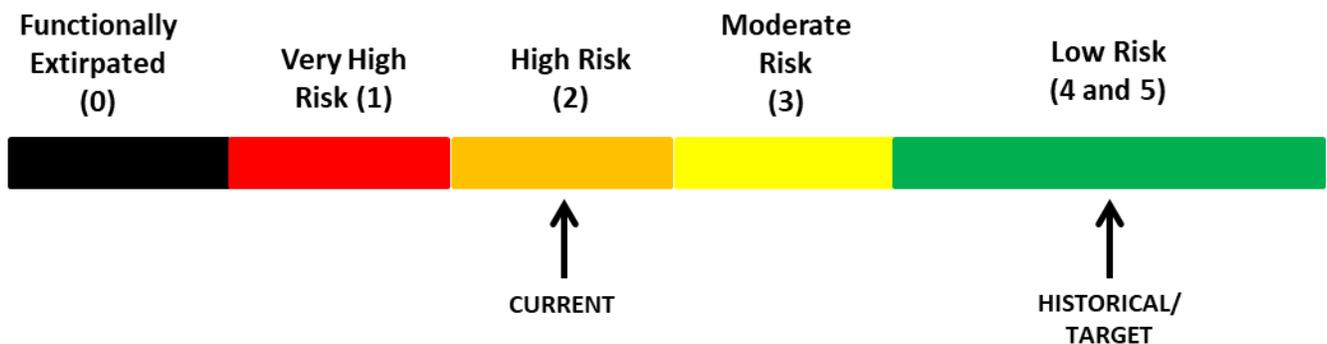
Background

Thurston Lake is located 165 km north of High Level, Alberta. Although it is one of the larger lakes in the far northwest portion of the province, the mean depth is only 2 m and maximum depth is 3.5 m. Thurston Lake has native populations of walleye, northern pike and lake whitefish along with sucker and forage fish species. Thurston Lake has a reputation for producing large pike which has made the lake a popular fly-in fishing destination throughout the years. Prior to 1994 the Alberta Forest Service (AFS) maintained an airstrip associated with the Thurston Lake Recreation Area and access to the lake is limited to aircraft in the summer, but ground access is possible in the winter. The lake has been sampled four times over the last 50 years, with the most recent survey being a FWIN in 2014. Surveys have found a decrease in pike abundance over the years, with angling pressure on this northern lake being cited as the primary reason for population decline. However, large pike remain in the lake that could provide a quality harvest opportunity while still allowing the population to remain sustainable.

Fish Population Status

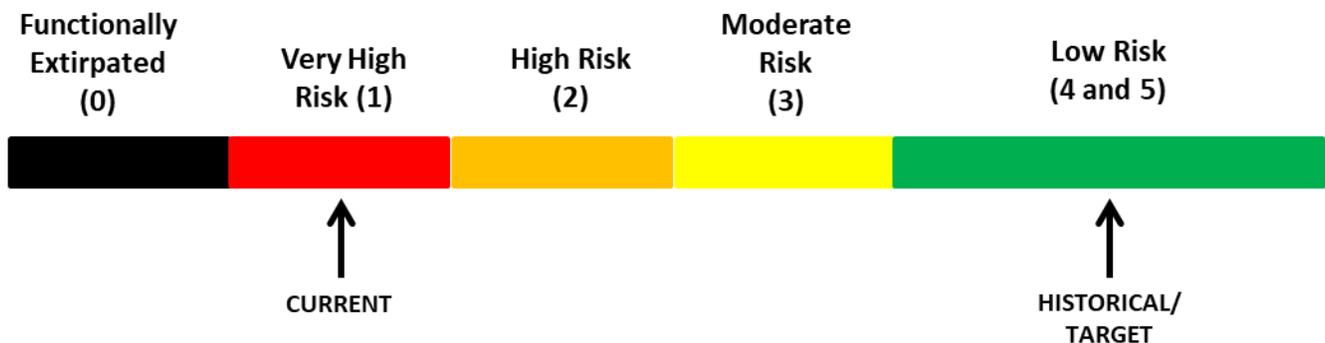
Northern Pike – Adult Abundance

Fish Sustainability Index Adult Density Score



Walleye – Adult Abundance

Fish Sustainability Index Adult Density Score



Lake Whitefish – Adult Abundance - Undetermined
Yellow Perch - Adult Abundance – Undetermined
Burbot – Adult Abundance - Undetermined

Recreational Fisheries Management Objectives

The **focal species** for recreational management is northern pike. The secondary species managed for recreational objectives are walleye, yellow perch and lake whitefish. The **Overharvest Protection Need** is assessed as **Low**.

Northern Pike: The FSI score for the current adult density of northern pike has recently been assessed at **High Risk** to sustainability. The northern pike population is currently not meeting the status and criteria for the objective of a harvest (either sustainable or quality) fishery. However, the remote location and relatively low angling pressure on this lake provides for options. Given the historical abundance and large size of northern pike in Thurston Lake, there is an opportunity to establish a Quality Harvest fishery (1 northern pike over 75 cm). The lower bag limit and larger minimum size combined with relatively low angling effort would provide harvest opportunities while potentially allowing the population to recover to a lower risk category. This option will be consulted with the public and should future sampling indicate that the population is still at risk, management actions will be taken to recover the population. Should the public not wish to have a Quality Harvest FMO, the recreational management objective for northern pike would be a **Sustainable Harvest** fishery (2 northern pike >63 cm), which would be implemented once the population has recovered to the **Moderate Risk** category.

Walleye: The recreational management objective for walleye is a **Sustainable Harvest** fishery. The corresponding FSI score for the current adult density of walleye has recently been assessed at **Very High Risk** to sustainability. The walleye population is currently not meeting the status and criteria for the objective of sustainable harvest fishery. The proposed management action is **to promote recovery through the use of catch and release** until such time as the population increases into the moderate risk (yellow) category, at which time, harvest options will be explored.

Yellow Perch - The recreational fishery management objective being applied is the provincial default (**Sustainable Harvest**). The status of the yellow perch population has not been assessed. The current management action is a regulation of 15 yellow perch, any size.

Lake Whitefish: The recreational fishery management objective being applied is the provincial default (**Sustainable Harvest**). The status of the lake whitefish population has not been assessed. The current management action is a regulation of a total of 10 lake whitefish, any size.

Management Summary

Management Priority	Species	Overharvest Protection Need	Management Action	Recommended Sport Fishing Harvest Regulation
1	Northern Pike	Moderate	Quality Harvest Recovery Or Recovery – Sustainable Harvest	1 northern pike >75 cm Or 2 northern pike > 63 cm (after population recovers through catch and release regulation)
2	Walleye	Moderate	Recovery – Sustainable Harvest	Catch and Release
3	Lake Whitefish*	Moderate	Maintenance – Sustainable Harvest	10 any size
4	Yellow Perch*	Moderate	Maintenance – Sustainable Harvest	15 any size

**Recreational management objectives for lake whitefish and yellow perch, have not been fully developed into management frameworks, and will be subject to change pending on-going work and development. However, general action statements have been listed for these species within the context of relative abundance, catch rates and trends associated with index netting assessments, in relation to the management of these species at a provincial level.*