

Brintnell Lake

Recreational Fisheries Management Objectives

Version Date: October 2017	Prepared by: Myles Brown	Reviewed by: Myles Brown	Approved by: Norbert Raffael
Waterbody ID: 4134	Surface Area: 817	Hydrologic Unit Code Name (HUC_8): Nipisi River	Hydrologic Unit Code (HUC_8): 18050105
Sport Fish Species: Northern Pike, Yellow Perch, Lake Whitefish/Cisco, Burbot			
Indigenous Fishery: Yes, NLT 140mm, No lake closures			
Environment and Parks Region: Upper Athabasca Region (UAR)	Fisheries Management Zone: Northern Boreal 3 (NB3)	Fisheries Management Office: Slave Lake	

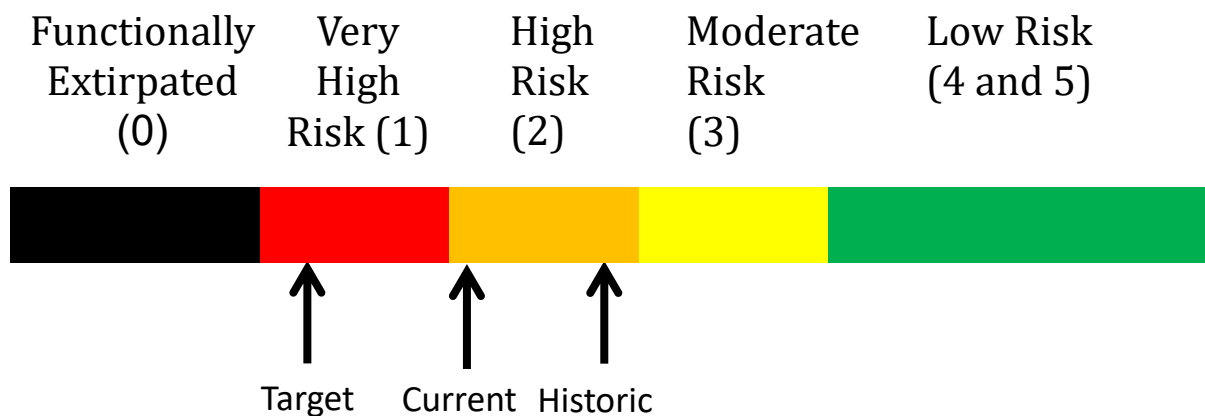
Background

Brintnell Lake is a passively managed lake located approximately 58km northeast of Slave Lake. The lake is comprised of a single basin with a max depth of 7.3m with an average depth of 1m. Historical surveys indicate that due to the shallow depth of the lake, there are low winter dissolved oxygen levels that are likely naturally limiting for overwintering fish populations. Brintnell Lake currently supports Indigenous and recreational fishing pressure. The recreational fishery is focused on northern pike and periodically yellow perch. Brintnell lake periodically sustains winter fish kills resulting from low dissolved oxygen. This results in periods of low sportfish abundance prior to natural recovery through recruitment and immigration from surrounding river systems. As a result the fish populations in Brintnell Lake are naturally limited from achieving sustainable fish populations. In the open water season the lake is accessible by ATV or OHV from a high grade all weather gravel road to the east of the lake. In the winter it can be accessed with OHV and snowmobiles. There are no designated camping facilities around the lake.

Section 1. Fish Population Status

Northern Pike – Adult Abundance

Fish Sustainable Index Adult Density Score



Yellow Perch – FSI Adult Abundance – Undetermined
 Lake Whitefish/Cisco – FSI Adult Abundance – Undetermined
 Burbot – FSI Adult Abundance – Undetermined

Section 2. Recreational Fishery Management Objectives and Management Summary

The **focal species** for recreational management is **Northern Pike**. The secondary species managed for recreational objectives are Yellow Perch and Lake Whitefish. These sport-fisheries are directly assessed at intervals, and therefore are actively managed. The **Overharvest Protection Need** is assessed as **Low**.

Northern Pike – The recreational fishery management objective for northern pike is **Liberal Harvest**. The corresponding FSI score for the current mature density of northern pike was assessed as **High Risk** to sustainability. The northern pike population is currently meeting the status and criteria for the objective of a liberal harvest fishery. The required management action to maintain this outcome is a regulation of **3 pike any size**. This is a change from the current regulation of 3 pike over 63cm.

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

Lake Whitefish/Cisco – The recreational fishery management objective being applied is the provincial default (**Passive Sustainable Harvest**). Cisco in Brintnell Lake can grow relatively large in size, and may be easily confused for Lake Whitefish. The relative status of the Lake Whitefish/Cisco population has been assessed as Very High Risk to sustainability. The required management action is a recovery regulation of **Catch and Release** to support recovery of the population. This is a change from the current regulation of 10 lake whitefish and size.

Burbot – The recreational fishery management objective being applied is the provincial default (**Passive Sustainable Harvest**). The status of the Burbot population has not been assessed. The current management action is a regulation of **10 Burbot, any size**.

Management Summary

Management Priority	Species	Overharvest Protection Need	Management Action	Sport Fishing Harvest Regulation
1	Northern Pike	Low	Maintenance – Liberal Harvest	<ul style="list-style-type: none"> 3 > 63cm (2017-18) 3 any size (Implementation April 1st, 2018-19)
2	Yellow Perch*	Low	Maintenance – Passive Sustainable Harvest	15 any size
3	Cisco/Lake Whitefish*	Low	Recovery – Catch and Release	<ul style="list-style-type: none"> 10 any size (2017-18) Catch and Release (Implementation April 1st, 2018-19)
4	Burbot	Low	Maintenance – Passive Sustainable Harvest	10 any size

*Recreational management objectives for Lake Whitefish, Yellow Perch and Burbot 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.