

## Summary Information

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<b>Waterbody ID:</b> 5922	<b>Surface Area:</b> 4849ha	<b>Hydrologic Unit Code Name (HUC_8):</b> Sturgeon Lake	<b>Hydrologic Unit Code (HUC_8):</b> 18020802
<b>Sport Fish Species:</b> Burbot, Lake Whitefish, Northern Pike, Walleye, Yellow Perch			
<b>Indigenous Fishery:</b> Minimum mesh size=140mm, Closed: April 01- May 14			
<b>Environment and Parks Region:</b> Upper Peace Region		<b>Fisheries Management Zone:</b> East Slopes 4 (ES4)	<b>Fisheries Management Office:</b> Grande Prairie

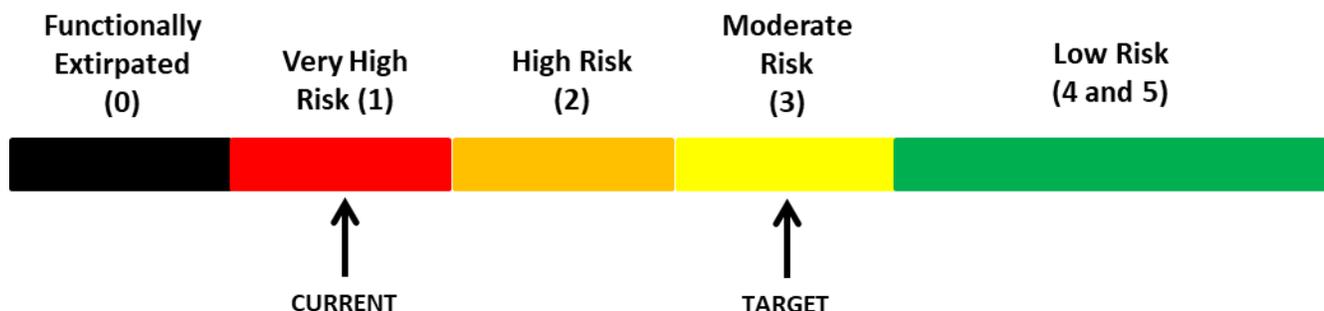
## Background

Sturgeon Lake is located approximately 90 km east of Grande Prairie and is one of the few native walleye fisheries in northwestern Alberta. Sturgeon Lake has a surface area of 4849 ha with an average depth of 5.4 m. Sturgeon Lake is a popular fishing destination with recreational anglers on account of the opportunity to harvest walleye and given the proximity to Grande Prairie. There are two provincial parks, Young’s Point and Williamson, located on the shores of Sturgeon Lake that allow for boat access and overnight camping. The angling pressure on Sturgeon Lake has been steadily increasing as a result of a robust walleye fishery. Sturgeon Lake once supported a lake whitefish commercial fishery until it was suspended in 2009 as a result of low densities, however, the lake continues to support a domestic fishery for lake whitefish. Sturgeon Lake is classified as hypereutrophic and thus is extremely productive as a result of high nutrient loading. The productivity of the lake produces high numbers of fish but can also create algae blooms as a result of high phosphorous concentrations that occur from both internal and external inputs. Both algal blooms and fish kills, to varying degrees, have been recorded regularly at Sturgeon Lake as a result of the interaction between trophic status and local environmental factors.

## Fish Population Status

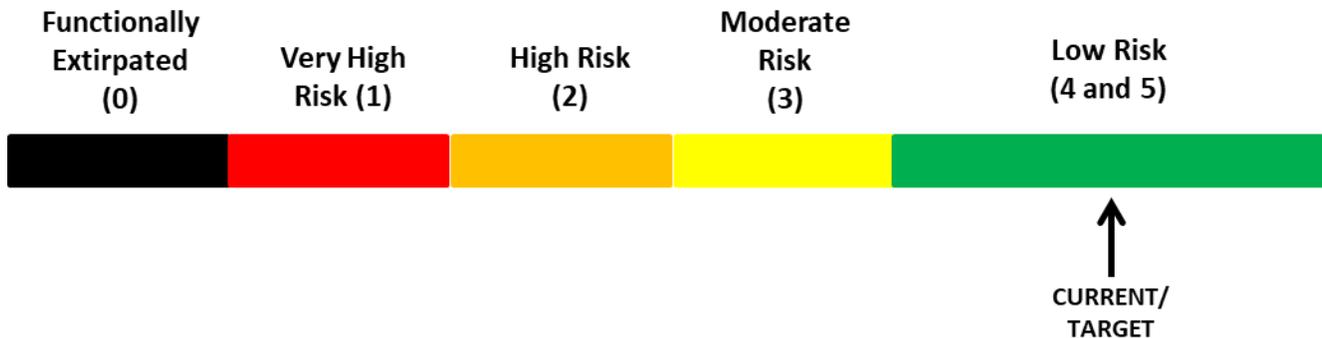
### Northern Pike – Adult Abundance

#### 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 Fishery Management Objectives

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

**Walleye:** The recommended recreational management objective for walleye is a **Sustainable Harvest** fishery. The corresponding Fish Sustainability Index score for the current adult density of walleye was assessed at **Low Risk** to sustainability. The walleye population is currently exceeding the status and criteria for the objective of sustainable harvest fishery. The recommended management objective identifies more than one management action option.

**Northern Pike:** The recreational management objective for northern pike is a **Sustainable Harvest** fishery. The corresponding Fish Sustainability Index score for the current adult density of northern pike was assessed at **Very High Risk** to sustainability. The northern pike population is currently not meeting the status and criteria for the objective of sustainable harvest fishery. The required management action is **to promote recovery through the use of catch and release** until such time the as population increases into the moderate risk (yellow) category where alternative options can be explored (e.g. special harvest licenses, open harvest).

**Lake Whitefish:** The recreational management objective for lake whitefish is a **Sustainable Harvest** fishery. Although there is no FSI completed for lake whitefish the current adult density of lake whitefish was estimated to be at **Very High Risk** to sustainability. The lake whitefish population is currently not meeting the status and criteria for the objective of sustainable harvest fishery. The required management action is **to promote recovery through the use of catch and release** until such time the population increases into the moderate risk category (yellow) where alternative options can 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 5 perch, any size.

**Burbot:** The recreational fishery management objective being applied is the provincial default (**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	Walleye	High	<b>Options:</b> <ul style="list-style-type: none"> <li>• <b>Maintenance-Sustainable Harvest (Recommended);</b></li> <li>• Recovery – Quality Harvest;</li> <li>• Maintenance – Experimental Harvest</li> </ul>	<b>Options:</b> <ul style="list-style-type: none"> <li>• 1&gt;50 cm, 2&gt;50 cm, or SHL (Sustainable Harvest Options);</li> <li>• 1&gt;60 cm (Quality Harvest);</li> <li>• 1&gt;43 cm (Experimental Harvest)</li> </ul>
2	Northern Pike	High	Recovery-Sustainable Harvest	<ul style="list-style-type: none"> <li>• 1 &gt; 63 cm (2017-18)</li> <li>• <b>Catch and Release (Implementation April 1<sup>st</sup>, 2018-19)</b></li> </ul>
3	Lake Whitefish*	High	Recovery-Sustainable Harvest	<ul style="list-style-type: none"> <li>• 5 any size (2017-18)</li> <li>• <b>Catch and Release (Implementation April 1<sup>st</sup>, 2018-19)</b></li> </ul>
4	Yellow Perch*	High	Maintenance-Sustainable Harvest	5 any size
5	Burbot*	High	Maintenance-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.