

Summary Information

Version Date: September 2018	Prepared by: Myles Brown	Reviewed by: Kristy Wakeling	Approved by: Norbert Raffael
Waterbody ID: 5852	Surface Area: 6439 ha	Hydrologic Unit Code Name (HUC_8):	Hydrologic Unit Code (HUC_8): 18050102
Sport Fish Species: Walleye, Northern Pike, Lake Whitefish, Yellow Perch, Burbot			
Indigenous Fishery: Yes, NLT 127 mm, Seasonal Conservation Closures for areas in lake			
Environment and Parks Region: Upper Athabasca Region (UAR)		Fisheries Management Zone: Northern Boreal 2 (NB2)	Fisheries Management Office: Slave Lake

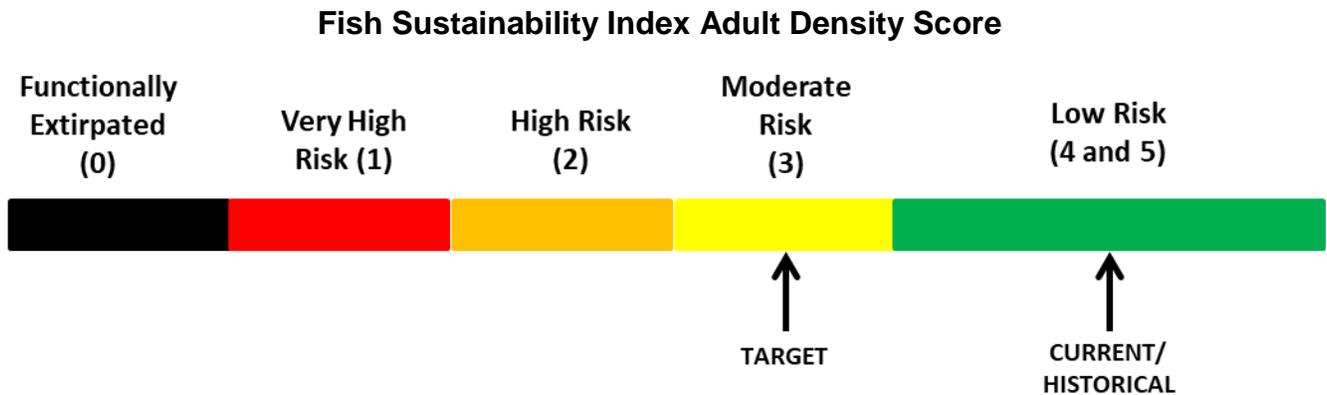
Background

South Wabasca Lake is an actively managed lake located approximately 125 km Northeast of Slave Lake, Alberta. The lake is comprised of a single, shallow basin with an average depth of 1.5 m and a maximum depth of 5.5 m. The lake is accessible by pavement road. There are two undeveloped, partially maintained boat launches used to access the lake located in the Wabsaca River channel connecting the north and south lakes and along the eastern shore.

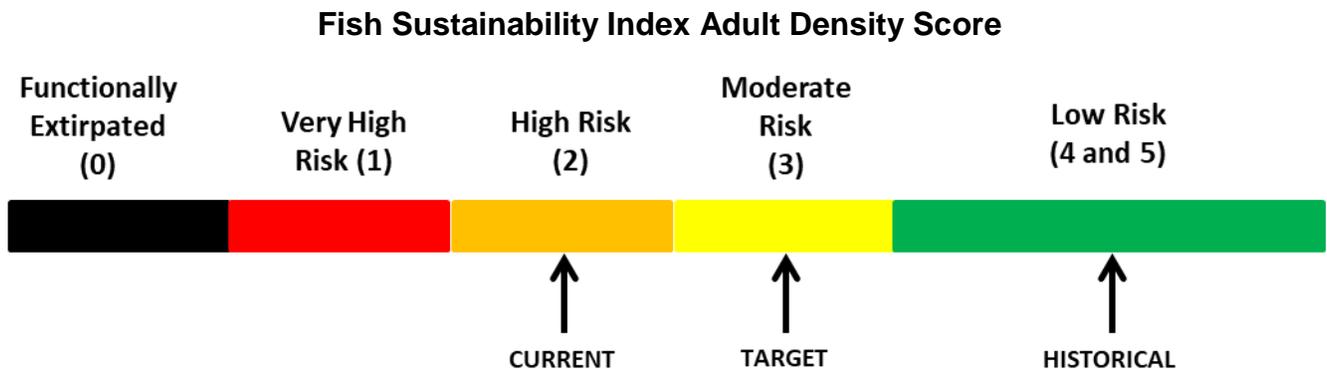
South Wabasca Lake supports Indigenous and recreational fisheries targeting walleye, northern pike, yellow perch and lake whitefish. Historically, the sport fish populations (walleye, northern pike) in South Wabasca Lake were assessed as being low risk to sustainability but experienced declines and collapses followed by periods of recovery. The open water fishery is estimated to be low effort for recreational and indigenous use. The majority of use and harvest takes place in the spring and winter months when there is a strong Indigenous netting presence and some recreational fishing as well. Previously the lake supported commercial fisheries. The commercial fishery was closed to promote lake whitefish and walleye recovery following a trend of population decline and growing bycatch of non-target species. Survey data in 2010 showed the walleye were at very low abundances with an adult catch rate of 1.5 walleye /net-night corresponding to a very high risk to sustainability (FSI 1). The management action for walleye was recovery and the sportfishing regulation was changed to catch and release along with the lake whitefish regulation in 2014. Prior to the sportfishing regulation being changed, strong management actions were taken to promote walleye recovery including the implementation of conservation closures in North and South Wabasca Lakes to protect vulnerable spawning walleye in 2008. The northern pike population in 2010 were low risk to sustainability with a high abundance and broad size structure. Since the survey in 2010, the walleye are beginning to show signs of recovery however they remain a high risk to sustainability. South Wabasca Lake was last surveyed in 2017.

Fish Population Status

Northern Pike – Adult Abundance



Walleye – Adult Abundance



Yellow Perch- FSI Adult Abundance - Undetermined

Lake Whitefish - FSI 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 and lake whitefish. These sport-fisheries are directly assessed at intervals, and therefore are actively managed. The **Overharvest Protection Need** is assessed as **Moderate**.

Walleye - The current recreational fishery management objective for walleye is **Sustainable Harvest**. The corresponding FSI score for the current mature density of walleye was assessed at **high risk (2)** to sustainability. The walleye population is currently **not meeting** the status and criteria for the objective of a sustainable harvest fishery. The current regulation is catch and release. The recommended RFMO is **Sustainable Harvest**. The management action is **recovery** to achieve the desired RFMO using catch and release. To align with the Walleye Recreational Management Framework, the proposed management action is a maintenance regulation of **catch and release**.

Northern Pike - The current recreational fishery management objective for northern pike is **Sustainable Harvest**. The corresponding FSI score for the current mature density of northern pike was assessed as **Low Risk** to sustainability. The northern pike population is currently **meeting** the status and criteria for the objective of a sustainable harvest fishery. The current regulation is 2 fish over 63 cm. The recommended RFMO is sustainable harvest. To align with the Northern Pike Recreational Management framework, the proposed management action is a maintenance regulation of **2 fish > 63 cm**. South Wabasca Lake is also capable of producing a **Quality Fishery**. If supported through consultation, the management action to meet the criteria of a quality objective would be a maintenance regulation of **1 or 2 fish over 75 cm total length**.

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 using FSI. The current management action is a maintenance regulation of **15 perch, any size**.

Lake Whitefish – The current recreational fishery management objective for lake whitefish is **Sustainable Harvest**. The corresponding FSI score for the current mature density of lake whitefish has not been formally assessed but would be equivalent to a **very high risk** to sustainability. The current regulation is catch and release. 2017 survey data indicates the lake whitefish population is likely **not meeting** the status for the objective of a sustainable harvest fishery. The required management action is a continued recovery regulation of **Catch and Release** to support recovery of the population.

Management Summary

Management Priority	Species	Overharvest Protection Need	Management Action	Sport Fishing Harvest Regulation
1	Walleye	Moderate	Recovery – Sustainable Harvest	Catch and Release
2	Northern Pike	Moderate	Options: Maintenance – Sustainable Harvest Maintenance – Quality Harvest	Options: 2 > 63 cm (Sustainable Harvest options) 2 > 75 cm (Quality Harvest options)
3	Yellow Perch*	Moderate	Maintenance – Sustainable Harvest	15 any size
4	Lake Whitefish*	Moderate	Recovery – Sustainable Harvest	Catch and Release

*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.