

Summary Information

Version Date: October 2018	Prepared by: Nate Medinski	Reviewed by: Marcel Macullo	Approved by: Curtis Brock
Waterbody ID: 5448	Surface Area: 1293 Ha	Hydrologic Unit Code Name (HUC_8): Lower Pembina River	Hydrologic Unit Code (HUC_8): 17030201
Sport Fish Species: Walleye, Northern Pike, Yellow Perch, Lake Whitefish, Burbot			
Indigenous Fishery: Yes			
Environment and Parks Region: Upper Athabasca Region (UAR)	Fisheries Management Zone: Northern Boreal 2 (NB2)	Fisheries Management Office: Athabasca	

Background

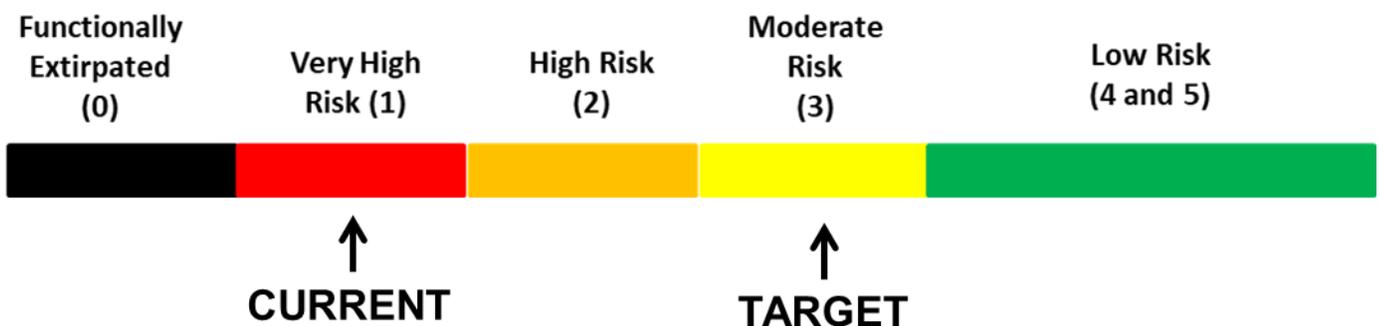
Lac La Nonne is located approximately 90 km northwest of Edmonton. It supports a sport fishery for walleye, northern pike, yellow perch, lake whitefish and burbot that receives very high angling pressure due to the local communities and villages, campground facilities and short travelling distance from the Greater Edmonton Area. A commercial fishery previously existed on Lac La Nonne, with detailed records dating back to the 1940's. Commercial fishing no longer occurs anywhere in Alberta, including at Lac La Nonne.

Prior to 1998, regulations which permitted the overharvest of walleye stocks resulted in a decline in population abundance, ultimately resulting in a collapsed recreational fishery. In response to the observed declines, catch and release regulations were implemented from 1998 through 2009, allowing the walleye fishery to recover. In order to create a sustainable harvest walleye fishery, a Special Harvest License (SHL) system was implemented in 2010. The SHL was implemented successfully until 2015, when a severe winterkill occurred. Since the winterkill event, SHL tags have not been allocated to expedite the recovery of the walleye population. Fall Index Netting (FIN) following the winterkill revealed that walleye and lake whitefish suffered substantial population declines, whereas other fish species decreased in abundance but to a lesser degree. Fish populations in Lac La Nonne are currently recovering, and in fall 2018, FIN results demonstrated that Northern Pike abundance has increased to a level where a Sustainable Harvest fishery is once again viable.

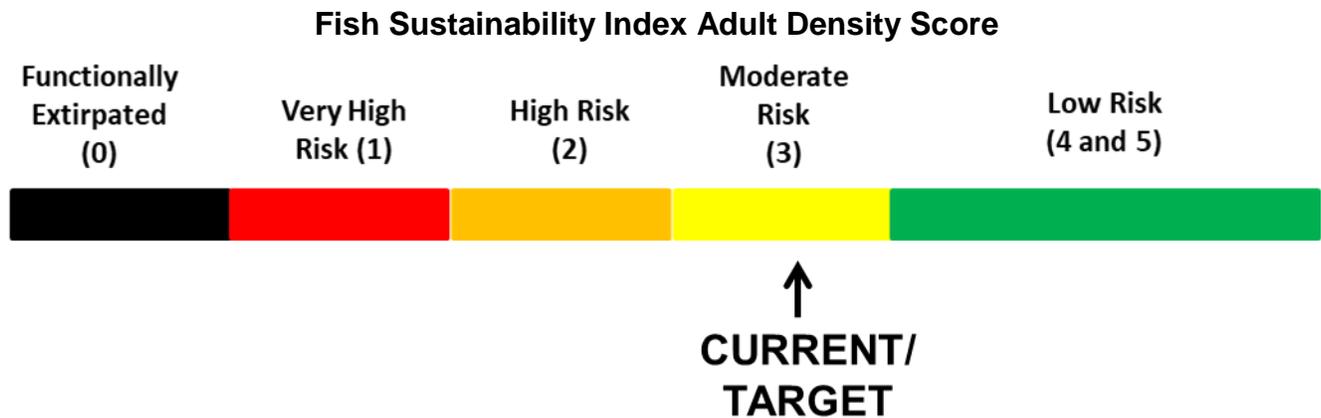
Fish Population Status

Walleye – Adult Abundance

Fish Sustainability Index Adult Density Score



Northern Pike – Adult Abundance



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. These sport-fisheries are directly assessed at regular intervals, and therefore are actively managed. The **Overharvest Protection Need** is assessed as **Very High**.

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 **Very High Risk (1)** to sustainability. The walleye population is currently **not meeting** the status and criteria for the objective of a sustainable harvest fishery. The recommended RFMO is **Sustainable Harvest**. The required management action is **recovery** to achieve the desired RFMO. To align with the Walleye Recreational Management Framework, the proposed management action is a recovery regulation of **catch and release**.

Northern Pike - The 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 **Moderate Risk (3)** to sustainability. The northern pike population is currently meeting the status and criteria for the objective of a sustainable harvest fishery. The current management action to maintain this outcome is either a **1 over 63 cm or 2 over 63 cm** regulation. A RFMO of **Sustainable Harvest is recommended for northern pike at Lac La Nonne**.

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 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 10 lake whitefish, any size.

Burbot - The recreational fishery management objective being applied is **Sustainable Harvest**. The status of the burbot population has not been formally assessed. The current management action is a regulation of 2 burbot, any size.

Management Summary

Management Priority	Species	Overharvest Protection Need	Management Action	Sport Fishing Harvest Regulation
1	Walleye	Very High	Recovery – Sustainable Harvest	Catch and Release
2	Northern Pike	Very High	Maintenance – Sustainable Harvest	1 over 63 cm or 2 over 63 cm
3	Yellow Perch*	Very High	Maintenance – Sustainable Harvest	15 any size
4	Lake Whitefish*	Very High	Maintenance – Sustainable Harvest	10 any size
5	Burbot*	Very High	Maintenance – Sustainable Harvest	2 any size (Catch & Release Feb 1 – March 31)

*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.