

## Summary Information

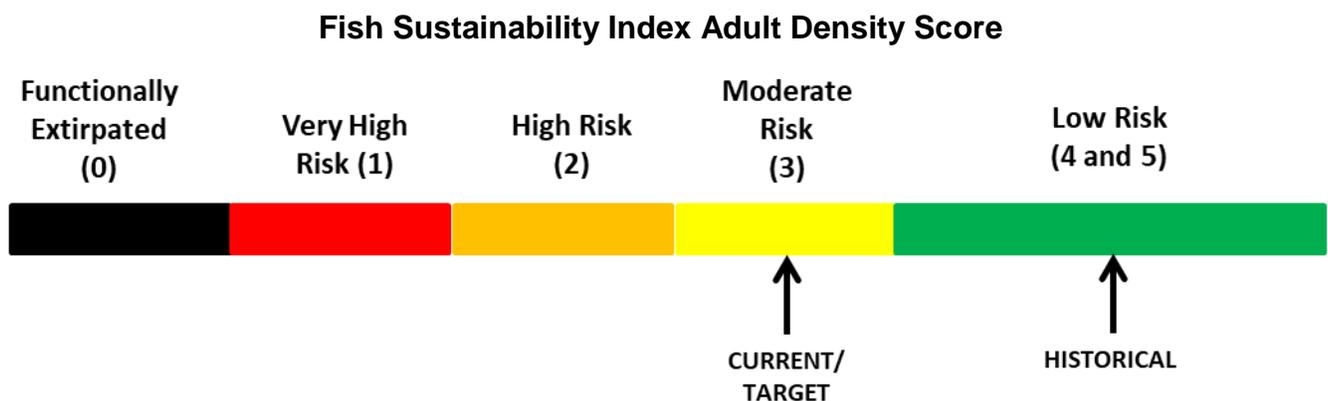
<b>Version Date:</b> October 2018	<b>Prepared by:</b> Marcel Macullo	<b>Reviewed by:</b> Marcel Macullo	<b>Approved by:</b> Curtis Brock
<b>Waterbody ID:</b> 4917	<b>Surface Area:</b> 2274 ha	<b>Hydrologic Unit Code Name (HUC_8):</b> Sturgeon River	<b>Hydrologic Unit Code (HUC_8):</b> 11020301
<b>Sport Fish Species:</b> Northern Pike, Walleye, Yellow Perch			
<b>Indigenous Fishery:</b> Yes			
<b>Environment and Parks Region:</b> Upper Athabasca Region (UAR)	<b>Fisheries Management Zone:</b> Parkland Prairie 2 (PP2)	<b>Fisheries Management Office:</b> Athabasca	

## Background

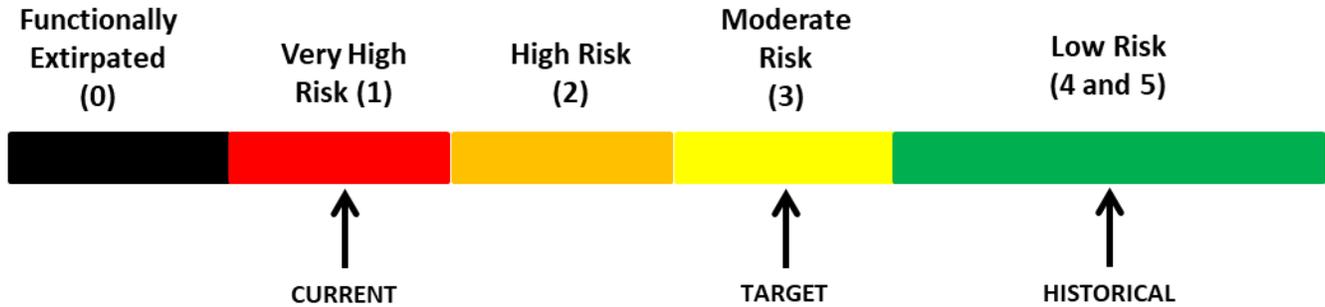
Isle Lake is located 96 km west of Edmonton. Traditionally, Isle Lake had excellent fisheries for walleye, northern pike, perch and Lake Whitefish. Deteriorating water quality in this shallow and nutrient rich lake has resulted in repeated winterkills and limited habitat for sportfish and extirpated Lake Whitefish. The large drainage area for this medium sized and shallow waterbody combined with climate change and land use practices suggest that water quality will be limiting in the future and fish kills will continue. However, a 2018 assessment demonstrated that the northern pike population, a species more tolerant to low oxygen levels compared to other native sportfish, has recovered sufficiently to allow harvest. Given the poor water quality, the frequent winterkills and close proximity to Edmonton, the goal for Isle Lake is to maintain sustainable regulations in healthy populations that spread harvest among anglers while allowing fish to grow to suitable sizes to spawn multiple times.

## Fish Population Status

### Northern Pike – Adult Abundance



## Walleye – Adult Abundance



## Yellow Perch- Adult Abundance - Undetermined

### Recreational Fishery Management Objectives

The **focal species** for recreational management is northern pike. The secondary species managed for recreational objectives are walleye and yellow perch. These sport-fisheries are not directly assessed at intervals, and therefore are passively managed. The **Overharvest Protection Need** is assessed as **Very High**.

**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 a regulation of **1 Northern Pike over 63 cm**.

**Walleye** - The recreational fishery management objective for walleye is **Sustainable Harvest**. The corresponding FSI score for the current mature density of walleye was assessed as **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 current management action to restore this outcome is a regulation of **Catch and Release**.

**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 perch, any size.

### Management Summary

Management Priority	Species	Overharvest Protection Need	Management Action	Sport Fishing Harvest Regulation
1	Northern Pike	High	Sustainable Harvest	1 over 63 cm
2	Walleye	High	Recovery	Catch & Release
3	Yellow Perch*	High	Maintenance – Sustainable Harvest	15 any size

\*Recreational management objectives for 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 this species within the context of relative abundance, catch rates and trends associated with index netting assessments, in relation to the management of this species at a provincial level.