

Summary Information

Version Date: July 2018	Prepared by: Owen Watkins	Reviewed by: Jessica Reilly	Approved by: John Tchir (Regional Resource Manager)
Waterbody ID: 4922	Surface Area: 40 ha	Hydrologic Unit Code Name (HUC_8): Baptiste River	Hydrologic Unit Code (HUC_8): 11010203
Sport Fish Species: Walleye, Northern Pike and Yellow Perch			
Indigenous Fishery: No			
Environment and Parks Region: Red Deer North Saskatchewan River (RDNSR)	Fisheries Management Zone: Eastern Slopes 2 (ES2)	Fisheries Management Office: Rocky Mountain House	

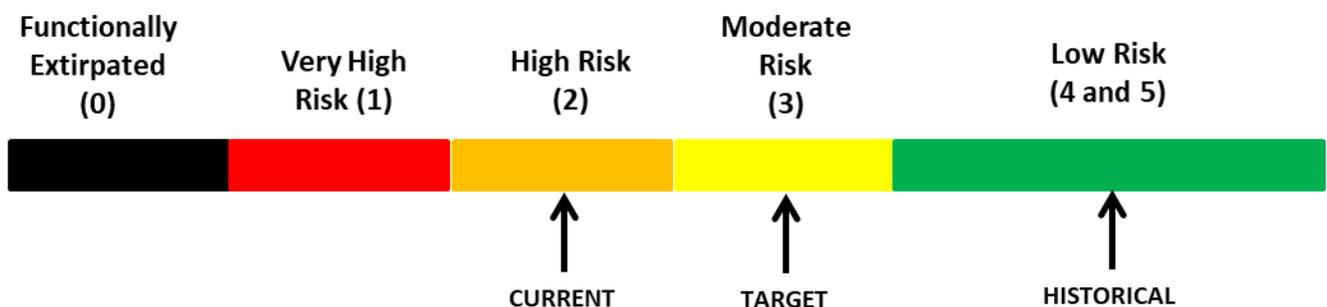
Background

Jackfish Lake is approximately 50 km west of Rocky Mountain House, Alberta. Jackfish Lake is a natural waterbody 40 ha in size and is connected by its outlet (an unnamed watercourse) to the Baptiste River. The maximum depth of Jackfish Lake is 7.3 m. There are two areas of development along its shoreline, both are within the Jackfish Lake Provincial Recreation Area; a small public campground at the south-east end (camping, boat launch, dock), and a small group campground at the north-west end (camping, dock). Jackfish Lake is primarily a recreational waterbody, containing sport fisheries for northern pike, yellow perch and walleye. Early years of record indicate that Jackfish Lake had maintained a high abundance of northern pike. Rainbow trout were introduced into the lake in the early 1950s; however, there is no record of any fishing success for rainbow trout or survival of rainbow trout. Yellow perch were introduced into the lake in 1962 and 1963, and have produced a self-sustaining fishery. Walleye were first reported by anglers in 1976, and are believed to have been accidentally stocked along with yellow perch in the early 1960s. Walleye have established a reproducing population, however the population remains very marginal with intermittent recruitment and low overall density compared to other walleye populations in the province, even despite management actions of minimizing harvest with a catch and release regulation. The largest walleye on record is 67 cm (26", ~5 lbs).

Fish Population Status

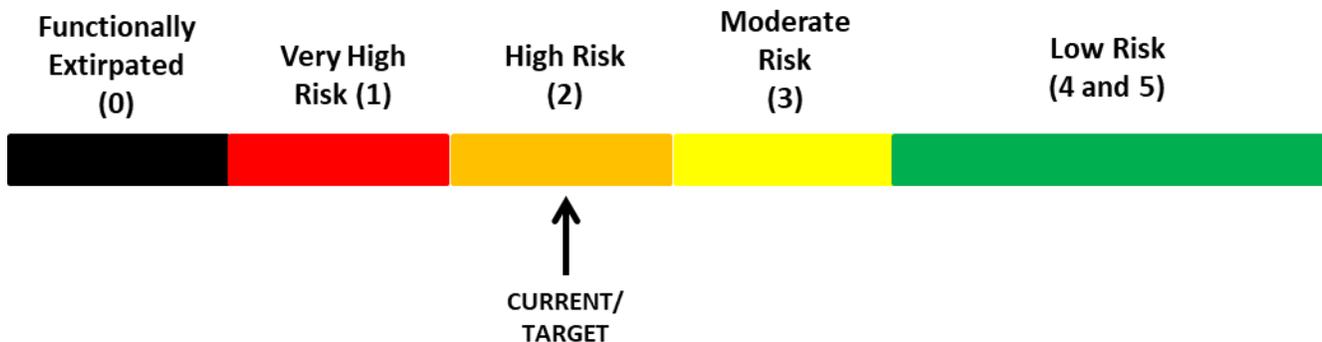
Northern Pike – Adult Abundance

Fish Sustainability Index Adult Density Score



Walleye – Adult Abundance

Fish Sustainability Index Adult Density Score



Yellow Perch- Adult Abundance - Undetermined

Recreational Fishery Management Objectives

The current **focal species** for recreational management is **Northern Pike**. The secondary species managed for recreational objectives are walleye and yellow perch. These sport-fisheries are directly assessed at intervals, and therefore are actively managed. The **Overharvest Protection Need** is assessed as **Moderate Risk**.

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 at (2) **High Risk** to sustainability. The northern pike population is not currently meeting the status and criteria for the objective of a sustainable harvest fishery. The current management action for northern pike is 1 northern pike over 63 cm, the proposed management action is Recovery with a catch and release regulation.

Walleye - Currently, the recreational fishery management objective for walleye is **Preservation**. The corresponding FSI score for the current mature density of walleye was assessed as (2) or **High Risk** to sustainability. The walleye population currently meets the status and criteria for the current objective of a **Preservation** fishery and the population is being managed with a catch-and-release only regulation. This action has so far maintained the stocked population even though it is naturally limited; during the 2017 population assessment, the catch rate was low and there was no detectable recruitment. However, walleye have persisted in the lake since the 1970s, and could continue to survive at low abundance if the occasional spawning year is successful. Continuing with a Preservation objective has a higher chance of maintaining the population, with catch rates varying from low to high over time depending on spawning success. The trade-off is that this would continue to be a catch-and-release walleye fishery with no opportunity for harvest.

A transition from Preservation to Liberal Harvest is an option for walleye management at Jackfish Lake. Under Liberal Harvest, any future declines or loss will not be considered a conservation concern within this particular waterbody. This option would provide more harvest opportunities in the short term, but is likely unsustainable in maintaining the population and will eventually result in lower catch rates and few to no quality sized walleye. There is a chance that this option would lead to the loss of the stocked walleye population from Jackfish Lake.

Yellow Perch* - The recreational fishery management objective for yellow perch is the provincial default **Sustainable Harvest**. Provincially, the default sustainable harvest fishery maintenance regulation is 15 fish, however due to the level of angling effort, previous management actions had focused on addressing the overharvest risk, the current harvest limit of 5 fish will be maintained.

Management Summary

Management Priority	Species	Overharvest Protection Need	Management Action	Sport Fishing Harvest Regulation
1	Northern Pike	Moderate	Maintenance - Sustainable Harvest (current) Recovery- Sustainable Harvest (proposed)	<ul style="list-style-type: none"> 1 fish over 63cm (2018-19) Catch and release (Proposed for April 1st, 2019-2020)
2	Walleye	Moderate	Maintenance - Preservation (proposed) Liberal (proposed)	<ul style="list-style-type: none"> Catch and Release (2018-19, Proposed for April 1st, 2019-2020) 1 fish bag limit (Proposed for April 1st, 2019-2020)
3	Yellow Perch*	Moderate	Maintenance - Sustainable Harvest	5 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.