

# Rock Lake

## Recreational Fisheries Management Objectives

<b>Version Date:</b> October 2017	<b>Prepared by:</b> Mike Blackburn	<b>Reviewed by:</b> Ryan Cox	<b>Approved by:</b> Dave Hugelschaffer (Resource Manager)
<b>Waterbody ID:</b> 4003	<b>Surface Area:</b> 202 (Ha)	<b>Hydrologic Unit Code Name (HUC_8):</b> Wildhay River	<b>Hydrologic Unit Code (HUC_8):</b> 17010302
<b>Sport Fish Species: Lake Trout, Northern Pike</b>			
<b>Indigenous Fishery: No</b>			
<b>Environment and Parks Region:</b> Upper Athabasca Region (UAR)	<b>Fisheries Management Zone:</b> East Slopes 3 (ES3)	<b>Fisheries Management Office:</b> Edson	

### Background

Rock Lake is located in the mountainous foothills of west-central Alberta, approximately 45 km northwest of the town of Hinton. Rock Lake is adjacent to both Jasper National Park and Willmore Wilderness Park. The relatively unique presence of lake trout and northern pike in a west-central Alberta lake, have made this a popular destination fishery. The lake supports a unique sport fishery for lake trout and northern pike in that it lies at an elevation of 1400m asl. Rock Lake receives moderate to high fishing pressure; creel survey in 2013 reported angler effort at 20 angler-hours/hectare. Other fish species occasionally captured in Rock Lake are bull trout, rainbow trout, burbot, and mountain whitefish.

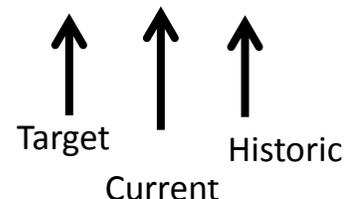
The lake trout sport fishery began to decline in the 1970's and '80's due to improved access and campground development at the lake. In an effort to increase lake trout stock densities, supplemental plants of lake trout fingerlings were stocked in Rock Lake in 1983, '86 and '87 (7,000 fingerlings/year), and special regulations were implemented in 1990 to reduce lake trout harvest rates. These regulations included 1) a 500mm total length minimum size limit; 2) a bait ban; and 3) a fishing season closure from Sept. 15 to May 15. Since 1990 there has been a significant increase in catch rate of mature lake trout.

### Section 1. Fish Population Status

#### Lake Trout – Adult Abundance

#### Fish Sustainable Index Adult Density Score

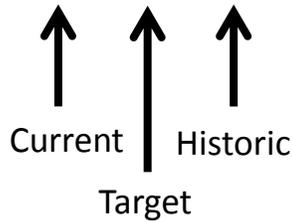
Functionally Extirpated (0)	Very High Risk (1)	High Risk (2)	Moderate Risk (3)	Low Risk (4 and 5)
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Northern Pike – Adult Abundance

**Fish Sustainable Index Adult Density Score**

Functionally Extirpated (0)      Very High Risk (1)      High Risk (2)      Moderate Risk (3)      Low Risk (4 and 5)



Yellow Perch – Adult Abundance – Undetermined

**Section 2. Recreational Fishery Management Objectives and Management Summary**

The **focal species** for recreational management is **Lake Trout**. The secondary species managed for recreational objectives is northern pike. These sport-fisheries are directly assessed at intervals, and therefore are actively managed. The **Overharvest Protection Need** is assessed as **high**.

**Lake Trout** – The current recreational fishery management objective for lake trout is **Sustainable Harvest**. The corresponding FSI score for the current mature density of lake trout was assessed as **Low Risk** to sustainability. The lake trout 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 **3 fish over 50cm** total length.

**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 **Very High Risk** to sustainability. The northern pike population is not meeting the status and criteria for the objective of a sustainable harvest fishery. The management action to maintain this outcome is a regulation of **Catch and Release**. Given the limited production and uniqueness of this population, the required recreational fishery management objective for northern pike is **Preservation**. The management action to maintain this outcome is a regulation of **Catch and Release**. This is a required change from the present 1 pike over 63cm regulation.

**Management Summary**

Management Priority	Species	Overharvest Protection Need	Management Action	Sport Fishing Harvest Regulation
1	Lake Trout	high	Maintenance – Sustainable Harvest	3>50 cm
2	Northern Pike	high	Conservation-Preservation	<ul style="list-style-type: none"> <li>1&gt;63cm (2017-18).</li> <li><b>Catch and release (beginning April 1<sup>st</sup> 2018-19)</b></li> </ul>

*\*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.*