

## Richardson Backcountry Lakes

### Recreational Fisheries Management Objectives

Version Date: October 2017	Prepared by: Trish Kelley	Reviewed by: Rebecca Baldwin	Approved by: Kathy Hendren
Waterbody ID: 9391 Bear Bait Lake	Surface Area: 72 (Ha)	Hydrologic Unit Code Name (HUC_8): Maybelle River	Hydrologic Unit Code (HUC_8): 17070403
Waterbody ID: 9320 Blueberry Lake 1	Surface Area: 153 (Ha)	Hydrologic Unit Code Name (HUC_8): Maybelle River	Hydrologic Unit Code (HUC_8): 17070403
Waterbody ID: 9331 Blueberry Lake 2	Surface Area: 126 (Ha)	Hydrologic Unit Code Name (HUC_8): Maybelle River	Hydrologic Unit Code (HUC_8): 17070403
Waterbody ID: 9339 Blueberry Lake 3	Surface Area: 85 (Ha)	Hydrologic Unit Code Name (HUC_8): Maybelle River	Hydrologic Unit Code (HUC_8): 17070403
Waterbody ID: 9329 Blueberry Lake 4	Surface Area: 258 (Ha)	Hydrologic Unit Code Name (HUC_8): Maybelle River	Hydrologic Unit Code (HUC_8): 17070403
Waterbody ID: 9317 Blueberry Lake 6	Surface Area: 93 (Ha)	Hydrologic Unit Code Name (HUC_8): Maybelle River	Hydrologic Unit Code (HUC_8): 17070403
Waterbody ID: 4117 Bowen Lake	Surface Area: 309 (Ha)	Hydrologic Unit Code Name (HUC_8): Lower Athabasca & Delta	Hydrologic Unit Code (HUC_8): 17070401
Waterbody ID: 4123 Brander Lake	Survey Area: 551 (Ha)	Hydrologic Unit Code Name (HUC_8): Old Fort River	Hydrologic Unit Code (HUC_8): 21010102
Waterbody ID: 12018 Brutus Lake	Surface Area: 148 (Ha)	Hydrologic Unit Code Name (HUC_8): Lower Athabasca and Delta	Hydrologic Unit Code (HUC_8): 17070401
Waterbody ID: 13112 East Jackson Lake	Surface Area: 164 (Ha)	Hydrologic Unit Code Name (HUC_8): Richardson River	Hydrologic Unit Code (HUC_8): 17070402
Waterbody ID: 12886 Jacks Lake	Surface Area: 0.3 (inaccurate) (Ha)	Hydrologic Unit Code Name (HUC_8): Maybelle River	Hydrologic Unit Code (HUC_8): 17070403
Waterbody ID: 12143 Jackson Lake	Surface Area: 310 (Ha)	Hydrologic Unit Code Name (HUC_8): Richardson River	Hydrologic Unit Code (HUC_8): 17070402
Waterbody ID: 9402 Jaz Lake	Surface Area: ?	Hydrologic Unit Code Name (HUC_8): Maybelle River	Hydrologic Unit Code (HUC_8): 17070403
Waterbody ID: 11998 Keith Lake	Surface Area: 171	Hydrologic Unit Code Name (HUC_8): Lower Athabasca and Delta	Hydrologic Unit Code (HUC_8): 17070401
Waterbody ID: 5145 Long Lake	Surface Area: 116 (Ha)	Hydrologic Unit Code Name (HUC_8): Lower Athabasca and Delta	Hydrologic Unit Code (HUC_8): 17070401

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Waterbody ID: 12016 Lost Lake	Surface Area: 87 (Ha)	Hydrologic Unit Code Name (HUC_8): Lower Athabasca and Delta	Hydrologic Unit Code (HUC_8): 17070403
Waterbody ID: 13122 Lower Herb Lake	Surface Area: 164 (Ha)	Hydrologic Unit Code Name (HUC_8): Lower Athabasca and Delta	Hydrologic Unit Code (HUC_8): 17070401
Waterbody ID: 9330 Mandys Lake	Surface Area: 65 (Ha)	Hydrologic Unit Code Name (HUC_8): Maybelle River	Hydrologic Unit Code (HUC_8): 17070403
Waterbody ID: 9530 MyLake	Surface Area: 107 (Ha)	Hydrologic Unit Code Name (HUC_8): Lower Athabasca and Delta	Hydrologic Unit Code (HUC_8): 17070403
Waterbody ID: 9321 Net Lake	Surface Area: 258 (Ha)	Hydrologic Unit Code Name (HUC_8): Maybelle River	Hydrologic Unit Code (HUC_8): 17070403
Waterbody ID: 5536 Paxton Lake	Surface Area: 161 (Ha)	Hydrologic Unit Code Name (HUC_8): Maybelle River	Hydrologic Unit Code (HUC_8): 17070403
Waterbody ID: 5543 Pearson Lake	Surface Area: 358 (Ha)	Hydrologic Unit Code Name (HUC_8): Lower Athabasca and Delta	Hydrologic Unit Code (HUC_8): 17070401
Waterbody ID: 9087 Release Lake	Surface Area: 224 (Ha)	Hydrologic Unit Code Name (HUC_8): Richardson River	Hydrologic Unit Code (HUC_8): 1707042
Waterbody ID: 9533 Rustys Lake	Surface Area: ?? (Ha)	Hydrologic Unit Code Name (HUC_8): Maybelle River	Hydrologic Unit Code (HUC_8): 17070403
Waterbody ID: 12017 South Brutus Lake	Surface Area: 65 (Ha)	Hydrologic Unit Code Name (HUC_8): Lower Athabasca and Delta	Hydrologic Unit Code (HUC_8): 17070401
Waterbody ID: 12859 V-Lake	Surface Area: 9	Hydrologic Unit Code Name (HUC_8): Richardson River	Hydrologic Unit Code (HUC_8): 17070402
Waterbody ID: 9400 UNNAMED - next to Bear Bait and Jaz lakes RBC	Surface Area: 67 (Ha)	Hydrologic Unit Code Name (HUC_8): Maybelle River	Hydrologic Unit Code (HUC_8): 17070403
Waterbody ID: 9338 UNNAMED - North of Blueberry Lakes RBC	Surface Area: 58 (Ha)	Hydrologic Unit Code Name (HUC_8): Maybelle River	Hydrologic Unit Code (HUC_8): 17070403
Waterbody ID: 12023 UNNAMED - upper Eleanor Cr	Surface Area: 81 (Ha)	Hydrologic Unit Code Name (HUC_8): Lower Athabasca and Delta	Hydrologic Unit Code (HUC_8): 17070401
Waterbody ID: 25986 UNNAMED - Upper Keane Cr	Surface Area: 500 (Ha)	Hydrologic Unit Code Name (HUC_8): Lower Athabasca and Delta	Hydrologic Unit Code (HUC_8): 17070401
Waterbody ID: 19181 Upper Herb Lake	Surface Area: 174 (Ha)	Hydrologic Unit Code Name (HUC_8): Richardson River	Hydrologic Unit Code (HUC_8): 17070402

<b>Version Date:</b> October 2017	<b>Prepared by:</b> Trish Kelley	<b>Reviewed by:</b> Rebecca Baldwin	<b>Approved by:</b> Kathy Hendren
<b>Waterbody ID:</b> 12152 Whale Lake	<b>Surface Area:</b> 211 (Ha)	<b>Hydrologic Unit Code Name (HUC_8):</b> Lower Athabasca and Delta	<b>Hydrologic Unit Code (HUC_8):</b> 17070401
<b>Waterbody ID:</b> 9305 Spring Lake	<b>Surface Area:</b> 94 (Ha)	<b>Hydrologic Unit Code Name (HUC_8):</b> Richardson River	<b>Hydrologic Unit Code (HUC_8):</b> 17070402
<b>Waterbody ID:</b> 11980 UNNAMED - Grayling Cr	<b>Surface Area:</b> 40 (Ha)	<b>Hydrologic Unit Code Name (HUC_8):</b> Lower Athabasca and Delta	<b>Hydrologic Unit Code (HUC_8):</b> 17070401
<b>Sport Fish Species: Walleye, Northern Pike, Lake Whitefish, Yellow Perch, and Burbot</b>			
<b>Indigenous Fishery: NLT 152 (Brutus)</b>			
<b>Environment and Parks Region:</b> Lower Athabasca Region (LAR)		<b>Fisheries Management Zone: Northern Boreal 4 (NB1)</b>	<b>Fisheries Management Office:</b> Fort McMurray

## Background

The lakes of the Richardson Backcountry are located north of Fort McMurray and have relatively small surface areas. Despite being remote, the lakes are popular with anglers and for backcountry recreation. The lakes are all relatively small, and productivity is likely limited due to their size. Fishing pressure on the lakes is relatively high, and the pike and walleye populations for the lakes are likely collapsed. Sportfish populations in some lakes, such as the walleye in Keith Lake, have been extirpated from fishing pressure.

### Maximum and mean lake depths are:

Lake Name	Maximum Depth (m)	Mean Depth (m)
Bear Bait Lake	5.0	2.6
Blueberry Lake 1	9.5	4.2
Blueberry Lake 2	6.0	2.8
Blueberry Lake 3	7.0	3.4
Blueberry Lake 4	6.0	2.8
Blueberry Lake 6	7.5	3.8
Bowen Lake	13	N/A
Brander Lake	17.1	6.1
Brutus Lake	12	3.8
East Jackson	3.4	7.5
Jacks Lake	3.3	10.5
Jackson Lake	16.5	8.3
Jaz Lake	8.5	4.3
Keith Lake	N/A	N/A
Long Lake	N/A	N/A
Lower Herb Lake	9.0	3.9
Mandys Lake	5.0	2.0
MyLake	25	8.1
Net Lake	7.5	2.7
Paxton Lake	13.5	7.0
Pearson Lake	13.5	5.7
Release Lake	14.5	5.4
Rustys Lake	N/A	N/A
South Brutus Lake	4.0	2.0
Spring Lake	14.0	5.6
Unnamed – Grayling Creek	3.0	1.4
Unnamed – Next to Bear Bait and	14.0	4.4

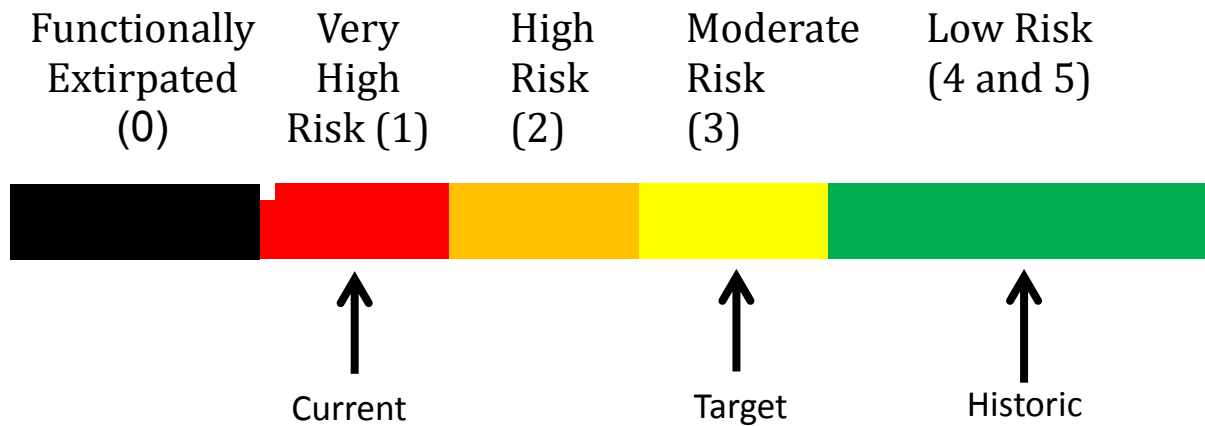
Lake Name	Maximum Depth (m)	Mean Depth (m)
Jaz		
Unnamed – North of Blueberry Lakes	5.0	1.7
Unnamed – upper Eleanor Creek	8.0	3.7
Unnamed – Upper Keane Creek	N/A	N/A
Upper Herb Lake	9.0	3.5
V-Lake	N/A	N/A
Whale Lake	4.0	N/A

The shoreline and the watershed in the Richardson Backcountry are completely crown owned. The Richardson Backcountry Area is a sensitive sand dune area that can be easily disturbed by travel and recreational activities. Access to all lakes is available via ATV from the staging area north of Fort McMurray in the summer, or snowmobile from the ice road between the staging area and Fort Chipewyan in the winter. Recreational activity in the area is high, despite its remote location, as there are a number of ATV trails in the watershed.

## Section 1. Fish Population Status

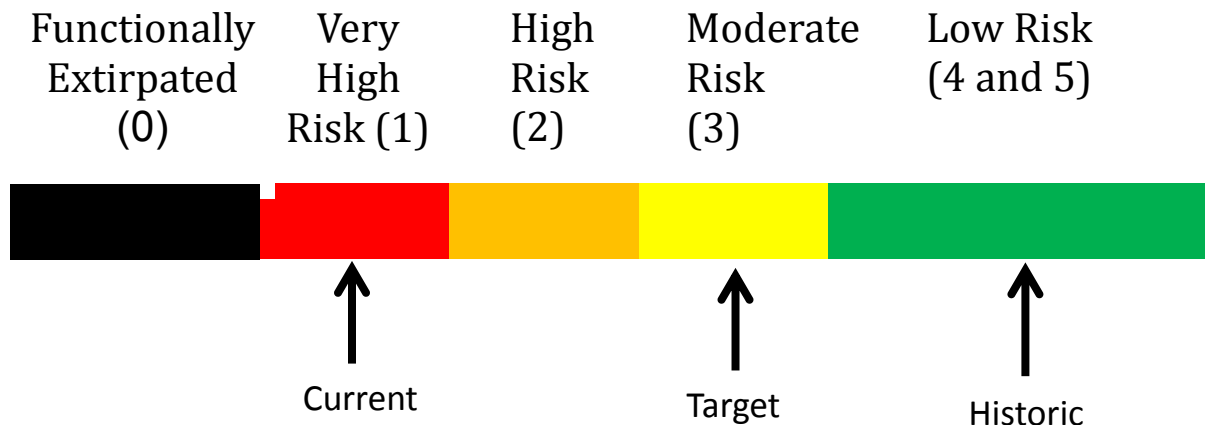
### Walleye – Adult Abundance

#### Fish Sustainable Index Adult Density Score



### Northern Pike – Adult Abundance

#### Fish Sustainable Index Adult Density Score



Lake Whitefish/Cisco – Adult Abundance – Undetermined

Yellow Perch – Adult Abundance – Undetermined

Burbot – Adult Abundance – Undetermined

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

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

**Walleye** – The recreational fishery management objective for walleye is **Sustainable Harvest**. The corresponding Fish Sustainability Index (FSI) score for the current mature density of walleye was assessed as (1) **Very High Risk** to sustainability. The walleye populations are not currently meeting the status and criteria for the objective of sustainable harvest fisheries. The required management action is a **Catch and Release** regulation action. This is a change from the current regulation of 1 over 50cm.

**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 at (1) **Very High Risk** to sustainability, except for Brander Lake that was assessed at (4) Low Risk. The northern pike population is not currently meeting the status and criteria for the objective of a sustainable harvest fishery. The required management action is a **Catch and Release** regulation. This is a change from the current regulation of 3 pike over 63cm.

**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.

**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 Yellow Perch, any size.

**Burbot** – The recreational fishery management objective being applied is the provincial default (**Sustainable Harvest**). The status of the Burbot population has not been assessed. The current management action is a regulation of 10 Burbot, any size.

### Management Summary

Management Priority	Species	Overharvest Protection Need	Management Action	Sport Fishing Harvest Regulation
1	Walleye	Moderate	Recovery – Sustainable Harvest	<ul style="list-style-type: none"> <li>1 &gt; 50cm (2017-18)</li> <li><b>Catch and Release (Implementation April 1<sup>st</sup>, 2018-19)</b></li> </ul>
2	Northern Pike	Moderate	Recovery – Sustainable Harvest	<ul style="list-style-type: none"> <li>3 &gt; 63cm (2017-18)</li> <li><b>Catch and Release (Implementation April 1<sup>st</sup>, 2018-19)</b></li> </ul>
3	Cisco/Lake Whitefish*	Moderate	Maintenance – Sustainable Harvest	10 any size
4	Yellow Perch*	Moderate	Maintenance – Sustainable Harvest	15 any size
5	Burbot*	Moderate	Maintenance – Sustainable Harvest	10 any size

\*Recreational management objectives for Lake Whitefish/Cisco, 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.