

Natural. Valued. Protected.

Lake Fact Sheet – Parry Sound District

Bernard Lake

Location	
Official Name:	Bernard Lake Local Names:
County/District:	Parry Sound Geographic Twp:..... Strong
Municipality:.....	Township of Strong MNR Admin. Area:.....Bracebridge
Lat./Long:.....	45.738 N 79.384 W UTM (NAD83):.....17 625706 5066214
Topographic Map (1:50,000):.....	31E11 Drainage Basin: Magnetawan River – Stirling Creek

Physical Features		
Surface Area (ha):	2050 Maximum Depth (m):.....48	Mean Depth (m):.....16
Elevation (m asl):.....	330 Perimeter (km):.....23	Island Shoreline (km):.....0
Volume (10 ⁴ m ³):.....	32,600 Watershed (km ²):.....79.9	Water Clarity (m):.....4.3
(excludes area of lake)		

Land Use and Development	
Crown Land (%):.....	0 Provincial Parks:
none	
Shoreline Development:	intense; urban, shoreline residential, commercial
Access:.....	public; launches at Sundridge, High Rock Drive, South Lake Bernard Road
Water Level Management:	regulated; water level is controlled by MNR-owned and operated dam

Fish Species	
Major Fish Species:	rainbow trout (I), brook trout, lake trout, lake whitefish, cisco (lake herring)
.....	rainbow smelt (I), burbot, smallmouth bass, yellow perch
Other Fish Species:	trout-perch, white sucker, brown bullhead
Other Species:	spiny water flea (I 1998)

Notes: E: extirpated, I: introduced – intentional or accidental, O: occasional, R: remnant, S: currently stocked, ?: status uncertain, 2009: year of first record or introduction if known, blank: presumed native

Lake Fact Sheet – Parry Sound District

Bernard Lake

Fisheries Management

Fisheries Management Zone:..... 15

Designation for Lake Trout Management:..... designated; natural reproduction; at development capacity

Fishing Regulation Exceptions:.....no lake-specific exceptions

Joly Creek (Inlet Creek) – from Bernard Lake upstream to Strong/Joly Twp. Boundary - fish Sanctuary - no fishing from April 1 to May 31

Current Stocking:.....none

Historic Stocking (last year stocked):lake herring (1927), walleye (1937), brook trout (1957),
..... rainbow trout (1968), lake trout (1996)

Contaminants (species tested):.....lake trout, smallmouth bass, yellow perch

Assessment:

Completed Projects:

1949	Assessment and Inventory
1968	Lake Survey Summary
1973	Rainbow Trout Spawning Run Observations
1985	Lake Trout Spawning Shoal Assessment
1987	Winter Voluntary Creel Survey
1989	Lake Trout Spawning Observations
1990	Lake Trout Spawning Shoal Enhancement Project
1993	Lake Trout Tagging Project
1993	Winter Creel Survey
1994	Lake Trout Spawning Observations
1993	Winter Creel Survey
1995	Spring Littoral Index Netting (SLIN)
2000	Spring Littoral Index Netting (SLIN)
2001	Winter Creel Survey
2006	Summer Profundal Index Netting

Dissolved oxygen profiles are collected on a regular basis

Synopsis

Bernard Lake is the largest lake in the Almaguin area. As such it has received considerable management attention.

The discontinuation of lake trout stocking has been very controversial. Supplemental stocking was last done in 1996, in response to finding a significant proportion of naturally reproduced fish in the 1995 SLIN. A SLIN in 2000 and SPIN in 2006 have documented the decline in abundance of stocked fish to the point where natural fish comprise 80% of the population. The population of naturally produced fish appears to be relatively healthy; therefore the current management is to not re-instate supplemental stocking. Regular assessment is planned to monitor this important fishery

Bernard Lake has an abundant lake whitefish population that supports what is probably the largest whitefish angling fishery in the District. The zone-wide catch limit was reduced from 25 to 12 fish, beginning in 2008. The impact on harvest will probably be minimal as few anglers catch that many whitefish in a day.

Lake Fact Sheet – Parry Sound District

Bernard Lake

The 2001 winter creel survey estimated fishing effort at almost 20,000 ang/hr; a very high level of effort. Over 600 lake trout and 1,500 whitefish were estimated to be caught.

It is one of only two inland lakes in the District, and very few in the province, where rainbow trout have become naturalized and maintain a self-sustaining population. The Joly Creek sanctuary is intended to protect rainbow trout while they are spawning.

The lake has been chosen as a 'fixed' lake for the provincial Broad-scale Monitoring Program. Repeated sampling on a five year cycle is planned to monitor long-term trends in water quality, fish community and sport fish abundance in randomly selected lakes across the province.

The long term average hypolimnetic oxygen concentration has been very close to the 7 mg/l criterion. In 2006, three profiles, spaced throughout the summer were collected to determine the rate of oxygen depletion. The depletion rate was used to correct the observed values to the recommended Sep 15 standard. The correction resulted in an average of well below 7 ppm. In addition, there are close to 100 existing vacant lots on the lake. Based on these results it was recommended to the municipality that no more planning approvals be granted on the lake.

Updated: February 2010

Refer to Lake Fact Background Information document for explanation of content.

This information is supplied without expressed or implied warranty of any kind, including warranty of fitness for a particular purpose. In no event will the Ministry of Natural Resources be liable for any damages, whether incidental, consequential or direct in conjunction with, or arising from the furnishing or use of this information.