Lake Fact Sheet – Parry Sound District

Background Information

This document explains the content found in Parry Sound District Lake Fact Sheets. Currently fact sheets are in two formats with slightly different content; therefore, all the information types described below are not found on all fact sheets. The older format sheets contain some data types that are not currently being collected/updated by MNR and/or are collected by other agencies.

Location

Official Name:	Name of the lake as it appears in the Gazetteer of Canada and on federal topographic maps. *Geographical Names of Canada website:* http://geonames.nrcan.gc.ca/search/search_e.php
Local Names:	Alternate names by which the lake is currently or was historically known.
County/District:	The name of the county or territorial district in which the lake is located.
Geographic Twp.:	List of geographic townships in which the lake is located.
Municipality:	Lower tier municipalities which border on the lake. The lower tier municipality is normally the agency to contact regarding property development (building permit, zoning, etc).
MNR Admin. Area:	The name of the Ministry of Natural Resources administrative area (Bracebridge or Parry Sound) in which the lake is located. Some MNR functions are carried out at the area office level; while others are at the District level and staff could be in either office.
Lat./Long.:	The latitude and longitude of the center of the lake in decimal degrees.
UTM (NAD83)	The Universal Transverse Mercator grid location of the center of the lake; projected in the North American Datum, 1983.
Topographic Map (1:50,000):	The number of the federal topographic map on which the lake is located. *Topographic Maps website*: http://ess.nrcan.gc.ca/mapcar/index_e.php
Drainage Basin:	The name of the local river system in which the lake is located.

Physical Features

Surface Area (ha):	Surface area of the lake in hectares. Source of information is Ontario Base Maps.
Maximum Depth (m):	The maximum depth of the water body, in metres, normally measured from the average summer water level. Source is usually the MNR Aquatic Habitat Inventory database.
Mean Depth (m):	The average depth of the lake, in metres, calculated as the volume divided by the surface area.
Elevation (m asl):	The estimated elevation of the surface of the lake, above sea level. Source of information is usually MNR Aquatic Habitat Inventory database.
Perimeter (km):	Length of the outside shoreline of the lake, normally excluding significant shoreline wetlands
Island Shoreline (km):	Sum of the length of the shoreline of all islands in the lake. Calculated from Ontario Base Maps.
Volume (10^4 m^3):	Estimated volume of water in the lake. Calculated from the bathymetric map.
Watershed (km2):	The land area that drains into the lake. Does not include the area of the lake itself. Usually calculated using Ontario Flow Assessment Techniques and the 20 m digital elevation model.

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Water Clarity (m):	Measured using a Secchi Disc; a black and white disc lowering into the water until it can no longer be seen. Sources of data include District Municipality of Muskoka , MOE lake partner program, MNR aquatic habitat inventory database. See 'water quality', below.
Littoral Zone (%):	The littoral zone is the shallow, inshore part of the lake where light penetrates to the bottom. It is a indicator of the productivity of the lake.

Water Quality

The Ministry of Natural Resources generally collects water quality information only for specific fisheries management purposes. Therefore, detailed water quality information is not included in the fact sheets.

The Ministry of the Environment is the lead provincial agency for water quality in Ontario. Many lakes are sampled through the volunteer-based Lake Partner Program. Some municipalities and non-government organizations (eg. cottage associations) also collect data.

MOE Lake Partner Program: .....www.ene.gov.on.ca/envision/water/lake_partner/index.htm
District Municipality of Muskoka: ....www.muskokawaterweb.ca

Older format sheets contain the following fields. In many cases the data provided are dated and may not reflect the current conditions in the lake:

Secchi reading:	see "water clarity", above.
Colour:	a subjective description of the colour of the water: yellow/brown, blue/green or clear. Yellow/brown colour results from dissolved organic matter originating from wetlands in the watershed. Deeply stained waters have low productivity due to low light penetration. Green colouration results from suspended algae.
Alkalinity (mg/l):	a measure of the ability of the lake water to neutralize acids. The Ministry of the Environment has assigned a sensitivity rating.
Total phosphorus (ug/l):	Phosphorous is usually the element that limits the amount of algae growth in a lake: <10ug/l oligotrophic; low level of phosphorus, 10-20ug/l mesotrophic; moderate level of phosphorus >20ug/l eutrophic; high level of phosphorus; nuisance algae may occur
M.E.I.	Morphoedaphic Index; calculated as total dissolved solids/mean depth. Shallower, more enriched lakes have higher MEI values. Values can range from 0 to over 100. Most lakes in the District have values of less than 10. Some enriched or very shallow lakes in the District have values up to about 50. The index has been used to predict the potential fish yield.

Land Use and Development

Crown Land (%):	An estimate of the percentage of the shoreline of the lake (excluding islands) that is Crown Land. Development and activities on Crown Land are managed by the Ministry of Natural Resources. The Crown Land Use Policy Atlas describes what is or may be permitted on individual parcels. *Crown Land Use Policy Atlas:*.....http://crownlanduseatlas.mnr.gov.on.ca/
Provincial Parks:	A list of Provincial Parks and Conservation Reserves that border on the lake shoreline.
Shoreline Development:	A subjective estimate of the relative density and type of shoreline development on the lake shoreline. Density categories: low, moderate, high, intense Type categories: recreation camp (hunting or trapping cabins), shoreline residential (includes seasonal and permanent), commercial (includes marinas), urban

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Older format sheets include counts of cottages and resorts. This data is generally no longer collected by MNR.

Access: Description of type and location (if known) of public access:

Public:	legal access is available
Permitted:	access crosses private land but access is generally permitted
Private:	access is across private land and not permitted or land owner permission required
Unknown:	the status of access is not known

Water Level Management: Describes whether the water level in the lake is managed (usually by a dam at the outlet), who owns and operates the dam and whether there is plan or other guidance that regulates how the dam is operated.

Regulated:	water level is controlled by humans in some way
Not regulated:	water level is not controlled; water levels vary with natural factors such as rainfall and beaver activity

Fish Species

A list of fish species documented to occur, or have occurred in the lake. The classification of 'major' and 'other' is arbitrary; the 'major' species generally being sport fish and species that are dominant in the fish community.

Where known, a status indicator is provided:

E	extirpated	The species was native to the lake but not longer occurs. The most common reason for extirpation is from competition with introduced, non-native species.
I	introduced	The species did not naturally occur in the lake. It was introduced, intentionally, accidentally or by immigration from another waterbody where it was introduced. Usually indicates that a self-sustaining population has been established. If known, the first year the species was documented is included.
O	occasional	The species has been documented in the lake but a self-sustaining population is present . Usually indicates stray or migratory individuals from tributary streams.
R	remnant	Species is native to the lake, but abundance has been greatly reduced. Similar to extirpation, but a small number of individuals remain.
S	stocked	The species is currently stocked. Species may or may not be native.
?		The status of the species is currently unknown. Could refer to origin (native or introduced) or occurrence/abundance (extirpated, etc).
Blank		if no status is given, the species has been documented and is presumed to be native to the lake. However, it is very difficult to know for certainty as many species were stocked before good record keeping began. Other species are difficult to detect; new 'discoveries' are not necessarily new introductions, but failure to capture in previous sampling efforts

Other Species: A list of other species of special interest (and their status if known). Includes introduced invertebrates (spiny water flea)

Fisheries Management

Fisheries Management Zone: The fisheries management zone (FMZ) in which the lake is located. Fishing regulations are applied on two-tiered basis. FMZ –wide regulations are the default that apply to all waterbodies in the zone, unless the water body has an individual waterbody regulation exception.

Designation for Lake Trout Management: Lakes managed for lake trout have special policy designations that may affect the amount and type of development that may occur on a lake. To be 'designated' a lake must appear on a formal published list. There is a small number of lakes that have small, introduced or remnant populations of lake trout that are not officially designated.

Designated:	the lake is managed for lake trout
Not designated:	the lake is NOT managed for lake trout

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Lakes are designated as ‘natural’, where management decisions/actions are made to sustain a self-sustaining population (may be native or introduced). Lakes designated as ’natural’ are generally not stocked and may have lake-specific fishing regulations to protect the population.

“Put-grow-take” (PGT)lakes are stocked on an ongoing basis primarily to create recreational fisheries. Some natural reproduction may occur but generally it is not the goal of management.

There is a policy to protect lake trout habitat. It applies to natural and PGT lakes. The amount of dissolved oxygen in the hypolimnion (the deep, cold water below the thermocline) is measured as an indicator of the amount and quality of lake trout habitat. The amount of dissolved oxygen can be affected by shoreline development through increased supply of phosphorus from land clearing and septic systems. MNR will consider a lake to be ‘at capacity’ if the average oxygen concentration is measured or predicted to be less than 7 mg/l and will recommend to the municipality that no further shoreline development be permitted, in order to protect lake trout habitat.

A lake may be considered to be ‘at capacity’ for reasons other than lake trout habitat. Contact your municipality for more information.

Fishing Regulation Exceptions:

If fishing regulations on the lake differ from the FMZ-wide default, details will be listed here.

Refer to current Regulation Summary for details: www.mnr.gov.on.ca/en/index.html

Current Stocking:

List of the species that are currently stocked by MNR in the lake. In some cases Licences to Stock Fish are issued to private individuals or groups. If the lakes licenced are publicly accessible, stocking authorized by these licences may be listed as well.

A list of lakes currently stocked is prepared annually in late fall and is available through ServiceOntario and MNR Area Offices.

Historic Stocking:

List of species that have been stocked in the lake in the past but are no longer being stocked. If known, the last year the species was stocked is included. If past stocking established a self-sustaining population, the species will be listed under species occurrence, above. In many cases the number of historic stocked records is too extensive to include in the fact sheet.

Stocking may be discontinued for many reasons including successful occurrence of natural reproduction, low returns of stocked fish due to changing or poor habitat, incompatible fish community or change to management policy. The status of the fish species (introduced, etc) may provide an indication of the reason stocking was discontinued

In many cases the purpose or success of historical stocking is not documented.

Contaminants:

The Ministry of the Environment tests fish for their suitability for human consumption. Samples may be collected by MNR or MOE for this purpose. Results are published by MOE in the Guide to Eating Ontario Sportfish.

Mercury is the major contaminant in most inland lakes. Top predators, such as walleye or lake trout generally have higher levels of contaminants than species that feed lower on the food chain, such as whitefish and perch. Larger, older individuals of a species generally have more contaminants than smaller, younger individuals.

For species that have not been tested, we suggest using the guideline from a downstream lake in the same watershed or a nearby lake with similar water clarity and fish community.

Guide to Eating Ontario Sport Fish (MOE): www.ene.gov.on.ca

Assessment:

A list of inventory and assessment projects that have been completed on the lake. The list normally includes only projects done by the Ministry of Natural Resources and is focused on fisheries. Some other relevant projects may be included if we are aware of them

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Contact Information

Link to 'INFO-GO' (Ontario government address and telephone directory):

http://www.infogo.gov.on.ca/infogo/office.do?actionType=telephonedirectory&infoType=telephone&unitId=UNT0004661&locale=en

General Inquiry:	Service Ontario, 207 Main St W Huntsville 705-789-4616
	Service Ontario, 7 Bay St. Parry Sound 705-746-2101
	Natural Resources Information Centre 1-800-667-1940
	MNR Bracebridge Area Office 705-645-8747
	MNR Parry Sound Area Office 705-746-4201
	MNR internet: ..... www.mnr.gov.on.ca
Fisheries Management:	District Fisheries Management Biologist: 705-646-5523
	Sr. Fish and Wildlife Technician (Bracebridge) 705-646-5522
	Sr. Fish and Wildlife Technician (Parry Sound) 705-773-4267
	Invading Species Hotline 1-800-563-7711
Water Levels:	Water Management Specialist 705-646-5531
Crown Land Management (Work Permits, Leases, etc.):	 705-645-8747
Enforcement:	TIPS Line: 1-877-847-7667

Bathymetry

The Ministry of Natural Resources has collected lake depth information for many lakes for fisheries management purposes. These maps are no longer being provided to the public. Maps of selected lakes, in the form of map books and outdoor guides, are available commercially through local outdoor product retailers.

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