

Natural. Valued. Protected.

Lake Fact Sheet – Parry Sound District

Whitestone Lake

Location:	
MNR District:	Parry Sound
Geographic Township:	Hagerman & Croft
Municipal Township:	Whitestone
Watershed:	Magnetawan River (via Whitestone River)
Fisheries Mgmt Zone:	15

Basin and Terrain Characteristics:	
Lake Survey Year:	1974
Surface Area:	698.2 hectares
Maximum Depth:	19.2 meters
Mean Depth:	5.3 meters
Perimeter:	65.2 km
Island shoreline:	8.4 km
Littoral Zone:	64% (zone of light penetration to bottom)
Shoreline Development:	287 Cottages, 4 Resorts (1974); 600 properties (1997)
Access Points:	Road (Public)
Water Level:	Not Regulated (i.e. no dam or influence of a dam)
Crown Land:	10% Shoreline

Water Quality:	
Secchi reading:	2.4 meters; 3.5 (1996); 3.6 – 3.8 (1998)
Colour:	Yellow/Brown
Alkalinity:	20.5 ug/l – Level 3 Moderately Sensitive to acidification (MOE, 1989)
pH:	7.5; 6.4 – 6.7 (1998)
Total Phosphorus:	10.0 to 12.0 ug/l (1998) a peak of 28 ug/l was observed in July 1998
M.E.I.:	6.0
<p>“Guide to eating fish”: Consumptions restrictions apply due to naturally high background levels of mercury in the watershed. Please refer to the current “Guide to Eating Ontario Sport Fish”. This guide is available at all Government Information Centers as well as electronically at www.ene.gov.on.ca</p>	

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Fisheries:

Game Fish Species: Smallmouth Bass, Walleye, Largemouth Bass, Northern Pike, Black Crappie

Other species present: White Sucker, Common Shiner, Bluntnose Minnow, Brown Bullhead, Rock Bass, Pumpkinseed, Yellow Perch

Introduced Species: Northern Pike (1982, Unauthorized introduction), Black Crappie (1986, Unauthorized introduction).

Stocking Record: The lake is not currently being stocked.

1997 Walleye 200 5-month RV clip
1996 Walleye 20,000 5-month RV clip
1970 Lake Trout 2,000 yearling
1956 Walleye 150,000 eggs
1954 Smallmouth Bass 200 fingerling
1954 Walleye 200,000 eggs
1953 Walleye 300,000 eggs
1951 Walleye 300,000 eggs
1950 Walleye 400,000 eggs
1948 Walleye 200,000 fry
1947 Smallmouth Bass 5,000 fry
1947 Walleye 200,000 fry
1946 Smallmouth Bass 500 fingerling
1946 Walleye 300,000 eggs
1945 Smallmouth Bass 5,000 fry
1944 Walleye 500,000 fry
1944 Smallmouth Bass 5,000 fry
1943 Walleye 250,000 fry
1943 Smallmouth Bass 10,000 fry
1942 Walleye 500,000 fry
1942 Smallmouth Bass 10,000 fry
1941 Walleye 300,000 fry
1941 Smallmouth Bass 5,000 fry
1940 Smallmouth Bass 5,000 fry
1940 Walleye 300,000 fry
1939 Smallmouth Bass 100 5 to 8 inches
1939 Walleye 300,000 eggs
1938 Walleye 150 or 200 adult

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Summary of Fisheries Studies / Reports:

McIntyre, E. 2005. Whitestone Lake 2004 **Nearshore Community Index Netting (NSCIN) Survey Report.**

During September and October of 2004, a *Nearshore Community Index Netting (NSCIN)* survey was conducted on Whitestone Lake. The purposes of this survey were:

- To assess the status of the near shore fish community and in particular the game fish populations;
- To evaluate the impact of existing “exception” walleye regulations implemented in 1998; and
- To make informed and appropriate recommendations for Whitestone Lake in anticipation of revised walleye regulations for the Southern Region expected in 2007.

The results of this survey are summarized in a ‘hypothetical report card’ in which we accord Whitestone Lake an over-all grade of B+. Productivity – as measured by *Catch-Per-Unit-Effort by weight (CPUE-wt)* for all species combined was “average”, relative to the Parry Sound Area reference dataset for 6’-trapnet surveys. However, the catch composition, and by inference the community composition, was dominated by game fish species which comprised 81% of the total catch weight. For large and smallmouth bass, northern pike and black crappie; all indices of abundance were well above the reference dataset and greatly exceeded those observed in a similar survey conducted on the lake in 1982. Abundance indices for walleye were “average”, but higher than those observed in the 1982 survey. Size distribution for game fish species was very good or excellent. Abundance indices for non-game fish (white sucker, brown bullhead, rock bass, pumpkinseed and yellow perch) were approximately “average”.

Walleye abundance appears to be higher in 2004 than prior to implementation of “exception walleye regulations” (i.e. relative to the 1982 survey). However, it is inconclusive to what degree the *exception regulations* are responsible for the improvement observed. Considering the improved state of the walleye population, we recommend existing “walleye exception regulations” be revoked when new, comprehensive and Region-wide regulations are implemented in 2007.

MacDonald & Bard 1997 A Report of Whitestone Lake, The **Cottage Pollution Control Program**, Summer of 1997

- 454 properties sewage systems were inspected
- 23 sites failed inspection and there were a total of 60 potential problems
- The 23 failed inspections required action by the Ministry of Environment
- The problems discovered were generally in the older developments

McIntyre, E. 1997. **Progress report on the walleye (spawning adults) index-netting program** for Whitestone Lake, Spring 1996.

- Spring 1996 - Spawning, Index Trap-Net Project
- Nil catch at Staley’s Creek (walleye access blocked by beaver dam)
- At “Bridge Site”(Hwy 124) - CUE 27.6 walleye per net night
- Observed spawning population comprised of small fish
- 86% of the walleye sampled were less than 1.4 kg (3 pounds).
- Mean age of female spawners: 7.0 yrs
- Mean age of male spawners: 5.7 yrs

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MNR 1983. Raw Data on File: **Creel survey**

- A duplicate of the 1982 creel survey was also conducted in 1983.
- Total estimated effort: 26,450 angler hours (37.9 angler hrs. / ha.; down considerably from 1982 but still exceptionally high fishing pressure)
- Harvest estimate: 1,010 northern pike, 1,118 smallmouth bass & 1,480 walleye.
- Fishing quality for species anglers (i.e. anglers fishing for specific species): Walleye: 11.1 angler hours to catch a walleye, Smallmouth bass: 4.6 angler hours to catch a bass & Northern Pike: 10.3 anglers hours to catch a pike.
- (fishing quality had decreased substantially from previous year)

Thurston, L.D.W. 1983. **Results of a trap and gill net survey** conducted on Whitestone Lake (Hagerman Township) during the summer of 1982

- During the summer of 1982 a trap net (59 sets) and gill net (8 sets) study was conducted by the MNR.
- Species composition by weight in the trap net catch (432 kg. total) was: walleye 37%, smallmouth bass 25%, common white sucker 14%, northern pike 11%, rock bass 9% and other (y. perch, largemouth bass, brown bullhead and pumpkinseed combined) 4.5%. Community composition appeared to be healthy, - dominated by sport fish with moderate levels of intermediate predators and coarse fish species.
- Walleye C.U.E. was 11.2 fish per 8' trapnet set – in the top 25th percentile for lakes similarly surveyed in the Parry Sound Area (up to 2001).
- Mean age in the trap net catch were: walleye - 3.3 years, smallmouth bass - 4.8, northern pike - 1.6 years. The age class structure for walleye suggests heavy exploitation - few old fish, but good reproduction and recruitment - an abundance of young fish.
- Cisco (95%), walleye (2.4%) and common white sucker (2.6%) comprised the gill net catch of 48 kg.

McCrudden, C. and L. Thurston. 1984. **1982 open water creel census** Whitestone Lake – Hagerman Township.

- The creel estimated 39,250 angler hours of fishing effort (57.3 rod hours per hectare). (Exceptionally high fishing pressure.)
- Estimated Angler harvest: walleye - 2028 (1055 kg.), northern pike - 1262 (1058 kg.), smallmouth bass - 1513 (968 kg.) & yellow perch - 1357 (370 kg).
- The above harvests exceed the recommended yields by: northern pike 2.2 times, bass 2.6 times, walleye 1.7 times and yellow perch 1.5 times. This indicates a fishery in the early-intermediate stage of over-exploitation: high fishing effort and high yield.
- Effort per unit catch: (Exceptionally good fishing quality): Walleye - 8.48 anglers hours to catch a walleye, Smallmouth bass - 1.96 angler hours to catch a smallmouth bass & Northern pike - 3.76 angler hours to catch a northern pike.

Kujula, K.H. 1974 **Cleaning pickerel spawning beds** in Parry Sound District 1973

- A spawning bed on Stanley's Creek was cleaned using fire pumps (approximately 600 square feet)

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Management Prescription:

- Manage as a natural self-sustaining, bass, pike and walleye fishery.
- FMZ-15 regulations as per the *Recreational Fishing Regulations Summary* (Map C – Central Ontario) apply for all species except:
 - Walleye catch limit of two (2) which must be less than 35.6 cm (14 in.) in length.

(Note: Regulation exceptions for walleye on Whitestone Lake will be revoked in 2008. At that time, new walleye regulations for the Fishery Management Zone will apply.)

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Refer to Lake Fact Sheet Interpretation document for explanation of content.

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