



By Fred McConnell - Lake Steward

Lake Steward's Report

Spring 2023

Wollaston State of the Lake Overview

Wollaston Lake, like lakes within the region, is in the process of transition based on the effects of several stressors such as climate change, invasive species, shoreline and adjacent,

development, increased short term rentals, increased angling pressure, and increased pleasure craft traffic (to name a few). The public review of the report is scheduled for Wednesday June 28, 2023, 2:00 – 4:00 at the Coe Hill legion and via zoom (the meeting will be recorded). The mid- week timing is necessary to accommodate the guest, environmental, experts from Ministry of Environment Conservation and Parks (MECP), Watersheds Canada and Crowe Valley Conservation Authority (CVCA). The objectives of the public review are:

- (1) To provide the Wollaston Lake stakeholder community with information pertaining to the state of Wollaston Lake health, Threats affecting lake health and actions that can be taken to promote improved lake health
- (2) To receive stakeholder views regarding lake health priorities via completed Watersheds Canada Love Your Lake surveys - this will also inform the Wollaston Lake Management



plan that we will utilize to apply for larger funding pots of money (e.g. Trillium grant)

The Wollaston, State of the Lake Report (first draft water quality analysis was presented at the WLHCA 2022 AGM) provides a summary of the most current and relevant environmental information on Wollaston Lake and its watershed. The report is the first step towards preparing a Lake Management Plan, which is an action-oriented document to guide stewardship activities and land use policy for the long-term protection, maintenance, and restoration of the Wollaston Lake environment. It is also a prerequisite for application for larger grants to combat invasive species and address other lake ecosystem threats.

The State of the Lake Report

documents and summarizes relevant information and identifies possible trends on Wollaston Lake up to December 2021 which includes a broad range of sources of information (see partner list). It compares Wollaston Lake with similar neighboring lakes on a number of water quality metrics. The report provides an overview of the values and issues that the community wants to address (based on the Love Your Lake survey results). It summarizes key science based observations, local and social knowledge about a wide range of aspects that contribute to the lake's character including; a history of the area, information on land use, development, water quality, water levels, natural habitats, endangered species, invasive species, wetlands, as well as fish and wildlife.



Partners

The Wollaston Lake Home and Cottage Association (WLHCA) has partnered with a number of environmental expert organizations such as the Trent Aquatic Research Program (TARP), Watersheds Canada, The Land Between and Ontario Ministry of Environment Conservation and Parks (MECP) to name a few for advice, programs and peer review of aspects of the report.

Wollaston Lake is a cold deep naturally reproducing Lake Trout Lake deemed “at capacity for further development” by the MECP as first recognized in the County of Hastings official plan 2002. Because Lake Trout is a sensitive species that is adapted to a narrow range of environmental conditions, it is an excellent indicator of the health of fragile aquatic ecosystems (indicator species). It can be thought of as the “canary in the coal mine” species as it will be the first (but not the only) species to be impacted by changes to its environment brought on by a number of influences.

The following is an example of the type of data presentation and comparisons with similar lakes in the area the report provides:

Total phosphorus (µg/L) is an important water quality parameter as phosphorus is a growth-limiting nutrient that supports algal biomass. Values below 10 µg/L are generally

Total Phosphorus (filtered - all in micrograms per litre - ug./L)					
Date (2022)	Lake Partner Program (MECP)	WLHCA Program (Caduceon)			
	Main Lake: Deep Spot	Main Lake: Deep Spot	Second Lake	Third Lake	Inlet
May 10	N/A	2	2	3	-
June 22	N/A	4	18	12	8
July 7	N/A	12	7	11	32
Aug 20	N/A	5	16	30	11
Sept 27	N/A	2	4	4	2
2022 Average		5.0	9.4	12	13.3
Historical Average: 1997 to 2016**	6.7				
Readings in the eutrophic (very high) nutrient ■					

* The average was calculated using all of the data we have for each lake between the years of 2015-2021 which for most lakes is 4 or 5 sampling years. Wollaston historical average is 1997 to 2017 of Lake Partner sampling data.



associated with good water quality and typically support low algal biomass.

Process

During the Lake Planning Process, two key documents are produced: a Report on the State of Wollaston Lake and the Wollaston Lake Stewardship Plan. The State of the Lake Report is the technical document summarizing the known information about the various environmental and social characteristics of the lake and its watershed. Its purpose is to provide and confirm key observations about various aspects of the lake in order to provide recommendations based on science and consensus, that are to be considered by the Wollaston Lake Community and included in the Lake Stewardship Plan. The Plan is a stewardship document intended to guide actions towards the protection and management of the environmental characteristics important to the health of the lake.

The target community for both documents is defined as anyone who works, lives, or plays within the Wollaston Lake watershed, and includes all agencies responsible for the management of land, water, wildlife, fish and other resources, not limited to:

- Permanent and seasonal residential shoreline and watershed property owners;
- Commercial operators, owners



and users (e.g. resorts, camps, rental cottages, marinas);

- Day users (e.g. anglers, boaters, tourists); and
- Interest groups, government and

non-government agencies with an interest in the state of the lake.