



CATARAQUI REGION DETAILED LAKE MONITORING DATA SUMMARY

Appendix 2

The Cataraqui Region is home to over 170 inland lakes with multiple organizations collaborating to monitor, analyze and report on lake parameters and health. This report would not be possible without the collaboration and data made available from both government and non-government organizations. The table below is a summary of important data sources used to report on specific lakes.

Organizations and related data acquired for the reported lakes in the Cataraqui Region

ORGANIZATION/PROGRAM	DATA AVAILABLE	REPORTED LAKES
Dorset Environmental Science Center <ul style="list-style-type: none"> Lake Partner Program 	Water quality data from 1995 to 2015: <ul style="list-style-type: none"> Secchi Disk Depth Total phosphorus Calcium 	Based on monitoring frequency. The following reported lakes have data from this source: <ul style="list-style-type: none"> Bass Lake Benson Lake Big Clear Lake Birch Lake Buck Lake Canoe Lake Charleston Lake Cranberry Lake Desert Lake Devil Lake Dog Lake Gananoque Lake Graham Lake Grippen Lake Higley Lake Indian Lake Inverary Lake Killenbeck Lake Knowlton Lake Little Long Lake Long Lake Loon Lake Loughborough Lake Lower Beverley Lake Lyndhurst Lake Newboro Lake North Otter Lake Opinicon Lake Red Horse Lake Sand Lake South Lake Sydenham Lake Temperance Lake Troy Lake Upper Beverley Lake Whitefish Lake
Energy Ottawa	Water levels	Reported lakes: <ul style="list-style-type: none"> Buck Lake Canoe Lake Charleston Lake Desert Lake Devil Lake Loughborough Lake

ORGANIZATION/PROGRAM

DATA AVAILABLE

REPORTED LAKES

Fisheries and Oceans Canada

Aquatic Species at Risk information and locations
[Dock Primer](#)

All reported lakes

Lake Associations
(for a complete list see Appendix 7)

Water level changes
Lake history
Aquatic diversity
Invasive species presence
Water quality data
Habitat surveys
Shoreline development

Reported lakes:

- Buck Lake
- Charleston Lake
- [Charleston Lake Plan \(2006\)](#)
- Desert Lake
- Dog Lake
- Gananoque Lake and Lower Beverley Lake
- [Gananoque River Watershed Community Stewardship Project \(2008-2010\)](#)
- Loughborough Lake
- Sydenham Lake
- Troy Lake
- [Troy Lake Water Report 2015](#)

Ministry of Natural Resources and Forestry
(Peterborough and Kemptville Districts)

- Broad Scale Monitoring Program
- [Fish ON-line Interactive Map](#)
- [Species at Risk Interactive Map](#)
- Dam Operations

Bathymetric maps
Lake statistics
Fish presence/absence
Fish stocking
Fisheries management
Water quality data
Species at Risk by area
Vegetation surveys
Water level control
Water flow

All reported lakes with levels of detail

Broad Scale Monitoring:

- Big Clear Lake
- Birch Lake
- Charleston Lake
- Sand Lake
- Sydenham Lake

Water level control for:

- Delta Dam
- Graham Lake
- Lyndhurst Lake

Ministry of the Environment and Climate Change

- Lake Trout Monitoring Program
- Lake Trout Reports:
 - [Southeastern Ontario \(1999\)](#)
 - [Lennox and Addington \(2005\)](#)
 - Frontenac (2016)

Lake Trout population and fish surveys
Water quality data
Lake statistics

Lake Trout present:

- Big Clear Lake
- Birch Lake
- Buck Lake
- Charleston Lake
- Canoe Lake
- Desert Lake
- Devil Lake
- Dog Lake
- Gould Lake
- Knowlton Lake
- Loughborough Lake
- Red Horse Lake

ORGANIZATION/PROGRAM**DATA AVAILABLE****REPORTED LAKES**

Nature Conservancy of Canada

Water quality data
Bathymetry data

Reported lakes:

- Elbow Lake
- Fishing Lake

- Guerley Lake

Navionics USA

Bathymetry data

Reported lakes:

- Big Clear Lake
- Birch Lake
- Benson Lake
- Canoe Lake
- Charleston Lake
- Colonel By Lake
- Cranberry Lake
- Desert Lake
- Devil Lake
- Dog Lake

- Gould Lake
- Indian Lake
- Knowlton Lake
- Loon Lake
- Loughborough Lake
- Newboro Lake
- Opinicon Lake
- Sand Lake
- Sydenham Lake
- Whitefish Lake

Ontario Federation of Anglers and Hunters

- [Invading Species Watch Program](#)
- Annual Reports from 2011-2015
- [Invasive Species Tracking System](#)

Invasive species (i.e. zebra mussel and spiny water flea)
presence and absence based on monitoring efforts
Invasive species information

Reported lakes:

- Bass Lake
- Benson Lake
- Big Clear Lake
- Devil Lake
- Elbow Lake
- Gananoque Lake
- Grippen Lake
- Indian Lake

- Killenbeck Lake
- Long Lake
- Loughborough Lake
- Lyndhurst Lake
- Red Horse Lake
- South Lake
- Sydenham Lake

[Ontario Freshwater Fishes Life History Database](#) (Robert J. Eakins)Fish characteristics, habitat, and life history
information

Not specific to any reported lake

Parks Canada and Ontario Parks

Water level control
History of lake level changes
Invasive Species presence
Water quality data
Trophic status information
Charleston Lake information:

- [Charleston Lake Preliminary Management Report \(2007\)](#)

Reported lakes within the following locks:

- Chaffey's Locks
 - Newboro Lake
 - Indian Lake
 - Mosquito Lake
 - Loon Lake
 - Benson Lake
- Davis Lock
 - Opinicon Lake
- Jones Fall Locks
 - Sand Lake
- Upper Brewers Locks
 - Cranberry Lake
 - Whitefish Lake
 - Dog Lake
- Kingston Mills
 - Colonel By Lake

ORGANIZATION/PROGRAM

DATA AVAILABLE

REPORTED LAKES

Queen's University

- [Queen's University Biology Station](#)
- [Elbow Lake Environmental Education Center](#)
- [PEARL Lab](#)
- [Dr. Arnott Ecology Lab](#) (2012 to 2014 data)

Water quality data including:

- Secchi Disk Depth
- Calcium
- pH
- Total phosphorus
- TN:TP ratio
- Dissolved oxygen
- Temperature

Historical lake trends

Bathymetric maps

Reported lakes:

- Big Clear Lake
- Birch Lake
- Buck Lake
- Colonel By Lake
- Cranberry Lake
- Desert Lake
- Devil Lake
- Elbow Lake
- Gould Lake
- Indian Lake
- Loughborough Lake
- Lower Rock Lake
- Opinicon Lake
- Sand Lake
- South Otter Lake
- Upper Rock Lake
- Whitefish Lake

Historical trends for lakes above and additionally:

- Charleston Lake
- Collins Lake
- Dog Lake
- Gananoque Lake
- Grippen Lake
- Inverary Lake
- Knowlton Lake
- Loon Lake
- Lower Beverley Lake
- Lyndhurst Lake
- Red Horse Lake
- Singleton Lake
- South Lake
- Troy Lake