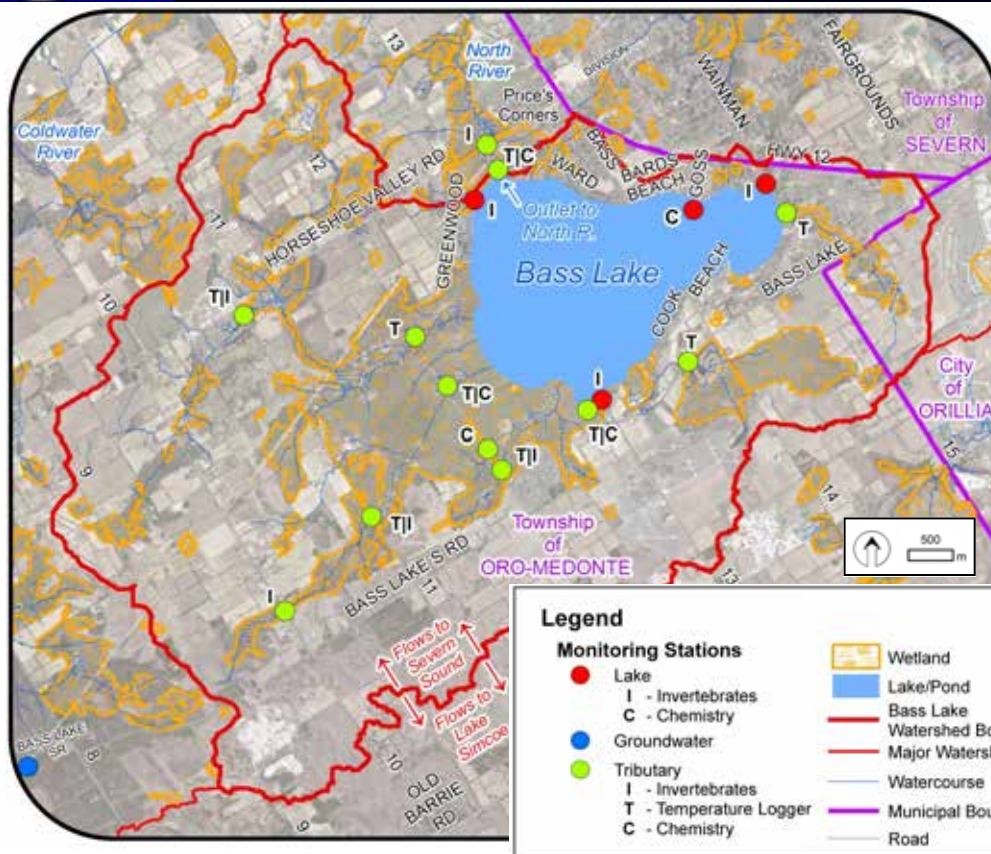




Bass Lake Subwatershed 2018 Conditions Report



Bass Lake is a shallow, warm-water lake located in Oro-Medonte Township, west of Orillia. The underlying geology in the watershed is limestone-based, resulting in well buffered waters with high pH. The lake is fed by a combination of ground and surface water, with several inflowing streams, both permanent and intermittent. The lake discharges via the North River at the northwest end of the lake.

This report describes the current status, trends, and baseline conditions for Bass Lake. It is supported by the Township of Oro-Medonte and contains data from SSEA, the Nottawasaga Valley Conservation Authority (NVCA), Ministry of Environment Conservation and Parks (MECP), and the MECP's Lake Partner Program (LPP).

Legend

Monitoring Stations

- Lake
- I - Invertebrates
- C - Chemistry
- Groundwater
- Tributary
- I - Invertebrates
- T - Temperature Logger
- C - Chemistry

- Wetland
- Lake/Pond
- Bass Lake
- Watershed Boundary
- Major Watershed Boundary
- Watercourse
- Municipal Boundary
- Road

Status Scoring

Good
Fair
Poor
I.D.

Trends

↑ = Improving
↓ = Deteriorating
↔ = No Change
I.D. = Insufficient data

Summary: How Does Bass Lake Measure Up?

Indicator	Quality Status*	Trend	Indicator Description
Lake Water Quality Index	Good	↑	The Canadian Council of Ministers of the Environment (CCME) Water Quality Index (WQI) summarizes water quality as a score which is lowered based on the number of parameters not meeting guidelines, and the number of times and amount by which they are not met.
Stream Water Quality Index	Good	↓	
Lake Benthic Invertebrates	I.D.	I.D.	Percent of the sample that contains Mayflies, Dragonflies and Caddisflies (%EOT).
Stream Benthic Invertebrates	Typical	↔	Percent of the sample that contains Mayflies, Stoneflies and Caddisflies (%EPT).
Forest Cover	Fair	↔	Proportion of watershed that is forested.
Forest Interior	Fair	↔	Proportion of watershed that is interior forest (>100m from an outside edge).
Riparian Cover	Fair	↓	Amount of stream length with >30m adjacent forest cover on both sides of watercourse.
Wetland Cover	Good	↔	Proportion of watershed that is wetland; includes wooded wetlands (swamps).
Wetland Buffer	N/A	I.D.	Proportion of land within 100m of wetlands that is in a relatively natural state.

*For more information on how indicator statuses were derived, please refer to the [technical report](#). N/A signifies that no standard indicator value exists to compare with.

The **Severn Sound Environmental Association (SSEA)** provides support to local municipalities, ensuring exceptional environmental quality and exemplary stewardship of the Severn Sound area through sound science, collaboration and partnerships. The Bass Lake subwatershed is part of the North River, a major tributary to Severn Sound. The SSEA samples Bass Lake water quality every five years. The SSEA is a Joint Service Board under the Municipal Act (Section 202) with membership consisting of the municipalities of Midland, Penetanguishene, Tiny, Tay, Springwater, Oro-Medonte, Georgian Bay, and Severn. The SSEA also works with many other partners including the provincial and federal governments to develop cost effective environmental projects in the Severn Sound area to the benefit of the entire community.



www.severnsound.ca



@SSEA_SSRAP



@severnsoundea



YouTube

Lake Water Quality

Lake WQI **Good**

The CCME's WQI for the protection of aquatic life is a summary index based on water quality guidelines. Using this index, water quality in Bass Lake is considered good and improving. Trends in individual water quality indicators are shown in the adjacent table, and described below. Not all indicators were used in calculating the WQI.

Bass Lake is considered moderately productive, or mesotrophic, based on nutrient concentrations and water clarity. Given its small size and shallow depth, Bass Lake has likely always been mesotrophic. This moderate level of productivity shapes the types of plant and animal communities to be expected in the lake. The presence of invasive zebra mussels also greatly impacts the lake, and is likely driving the trend towards greater water clarity and lower phosphorus and chlorophyll *a*.

Shoreline Conditions

The lake shoreline is a mix of natural and manicured conditions. There are two Provincially Significant Wetlands on the west shore, while the remaining shoreline is privately developed with the exception of public access points (public beach, Bass Lake Provincial Park). Developed sections of shoreline vary from being natural and well vegetated to being artificial and hardened.

Nutrients

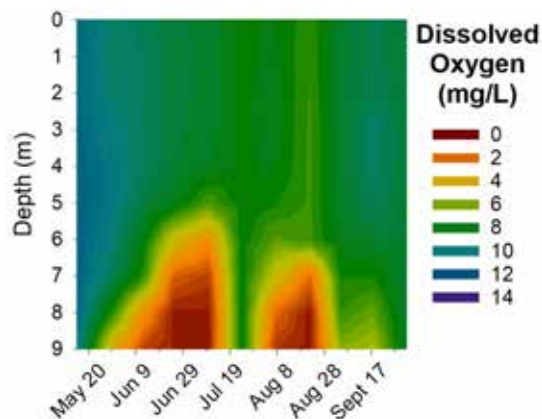
Phosphorus concentrations in the sunlit portion of Bass Lake are low. Levels at 1 m off bottom are also low despite low bottom water oxygen conditions which often lead to higher phosphorus levels due to release from sediments. Nitrate values are low, likely due to rapid uptake by aquatic plants. Total nitrogen values are moderate.

Temperature

Bass Lake is a warm-water lake, which is reflected in the type of fish present. At the deepest point, a temperature gradient forms with warm water on the surface and cooler water on the bottom. Due to its shallow depth, the wind often disturbs this gradient and mixes the lake from top to bottom. Peak bottom water temperatures in 2018 reached 22°C.

Water Clarity

Water clarity in Bass Lake is considered fair to good. Clarity in lakes is described based on the visibility of a Secchi disk. Clarity in Bass Lake increased following the introduction of invasive zebra mussels.

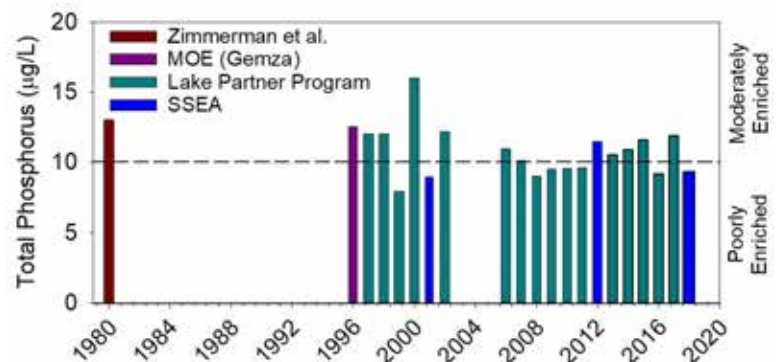


2018 dissolved oxygen contour plot for Bass Lake based on oxygen profiles collected through the water column.

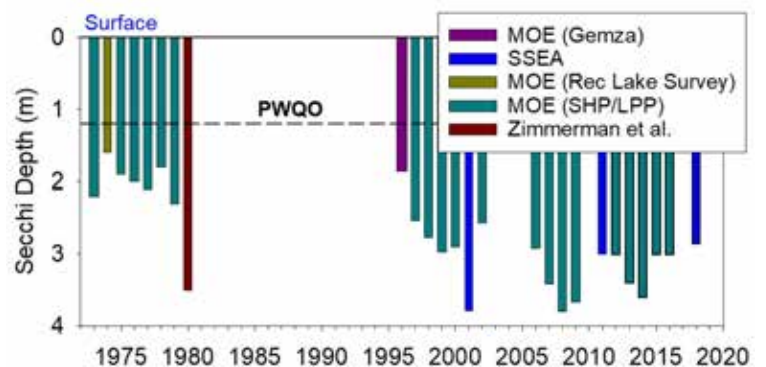
Reds indicate low oxygen conditions (<2 mg/L).

Characteristic	Value
Average depth	3.5 m
Maximum depth	10 m
Shoreline perimeter	11 km
Fetch (longest distance across)	3.6 km
Surface area	5.5 km ²
Watershed area (minus lake)	39.1 km ²
Flushing rate	~7 months
# Shoreline properties (2018)	Approx. 360

Quality Indicator	Trend
Total phosphorus	Improving
Total nitrogen	No change
Water clarity	Improving
Chlorophyll <i>a</i> (algae)	Improving
Sodium, Chloride, Conductivity	Deteriorating



Mean annual total phosphorus from 1980-2018. Multiple data sources were used, including volunteer LPP data. The MECP interim guideline for providing a high level of protection against aesthetic deterioration due to nuisance blooms is also shown (10 µg/L; dashed line).



Mean annual Secchi depth from 1973-2018. Multiple data sources were used, including volunteer LPP data. The Provincial Water Quality Objective (PWQO) for swimming safety is also shown (1.2 m; dashed line).

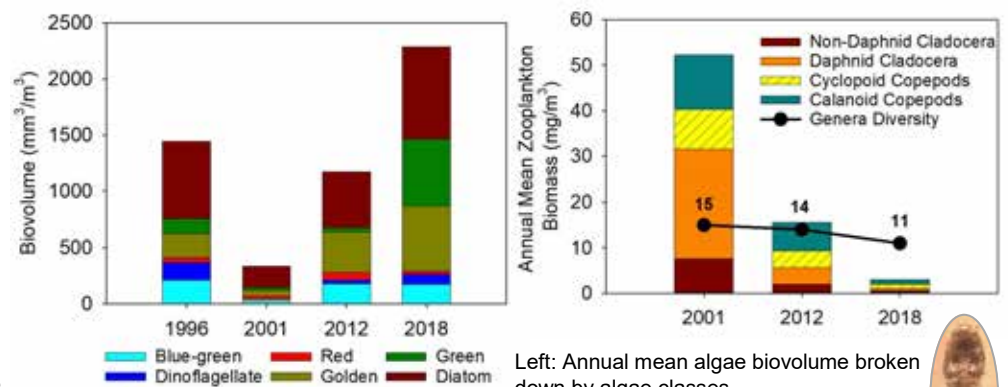
Dissolved Oxygen

Along with a temperature gradient, Bass Lake also experiences an oxygen gradient. Below 7 m, oxygen levels become depleted from mid June to late August, reaching anoxic levels (<2 mg/L). Winter sampling by NVCA in 2009 indicated that an under-ice drop in oxygen also occurs. This is likely a recurrent phenomenon. Low oxygen can restrict fish movement and even lead to fish kills, and causes the release of iron from lake sediment, which can fuel algae growth.



Algae and Zooplankton

Algae and zooplankton (tiny floating or weakly swimming invertebrates that drift with water currents) form the basis of the lake food web, and both are necessary to sustain healthy fish populations. Past studies have shown moderate algae abundance with communities typical of a moderately enriched shallow lake. 2018 densities were higher than previous years. Nuisance species such as the blue-green algae *Microcystis* are present, but no surface blooms have been reported. Zooplankton biodiversity is relatively low, and 2012 and 2018 surveys have shown drastic reductions in population density and biomass. This warrants further monitoring as ripple effects may occur through the food web, such as increased algae production, and decreased fish populations.



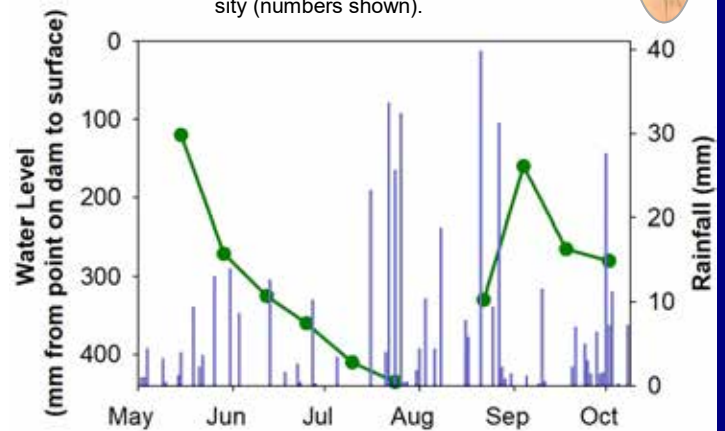
Left: Annual mean algae biovolume broken down by algae classes.

Right: Annual mean zooplankton biomass broken down into major groups, and diversity (numbers shown).



Water Levels

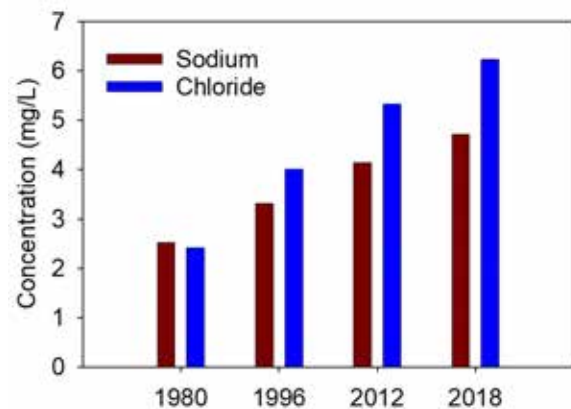
Bass Lake water levels are regulated by a small stop-log dam at the outlet to the North River (northwest end of the lake) which is managed by the Bass Lake Ratepayers Association. Stop logs are put in place in the spring and removed in the fall, or as needed. Water level limits are set by the Ministry of Natural Resources and Forestry (MNR). Water levels are typically high in spring and fall.



Bass Lake water levels for 2018 (green points) measured biweekly. Also shown is daily rainfall from the Orillia climate station (blue bars).

Sodium and Chloride

The most common source of sodium and chloride in lakes is from winter application of de-icing salts. Chlorides can also enter waterways from septic effluent. Concentrations of sodium and chloride have been steadily increasing in Bass Lake and the North River, however sodium has not exceeded the Ontario Ministry of Health and Long-Term Care guideline (20 mg/L) in the lake. Chloride levels are well below the CCME guideline for protecting aquatic life (120 mg/L), however upward trends warrant continued monitoring.



Annual mean sodium and chloride concentrations for Bass Lake.

Fishery

The warm temperature of the lake supports a cool/warm water fishery. The MNR conducted fish surveys in 2012 and 2017. The top 4 species documented by MNR in the 2017 BROADSCALE Monitoring Program survey included: yellow perch, white sucker, pumpkinseed and smallmouth bass. Additional species included black crappie, rock bass, largemouth bass, brown bullhead and common shiner. MNR's [Fish ON-Line website](#) provides information on the Bass Lake fishery and also invites anglers to contribute information on their fishing efforts in order to better understand sportfish populations.

MECP Consumption Advisories are available for: largemouth bass, pumpkinseed, rock bass, smallmouth bass, and yellow perch, and can be found at the MECP's [Fish Consumption Advisory page](#). Generally, the further up the food chain and the larger the fish, the lower the recommended number of servings per month, particularly for more sensitive populations such as children and pregnant women.



Public Beaches

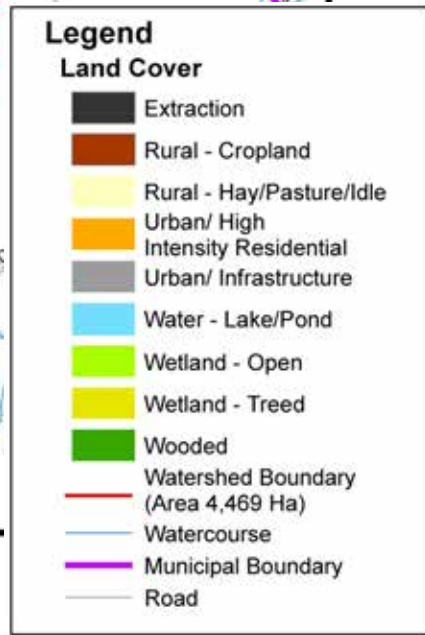
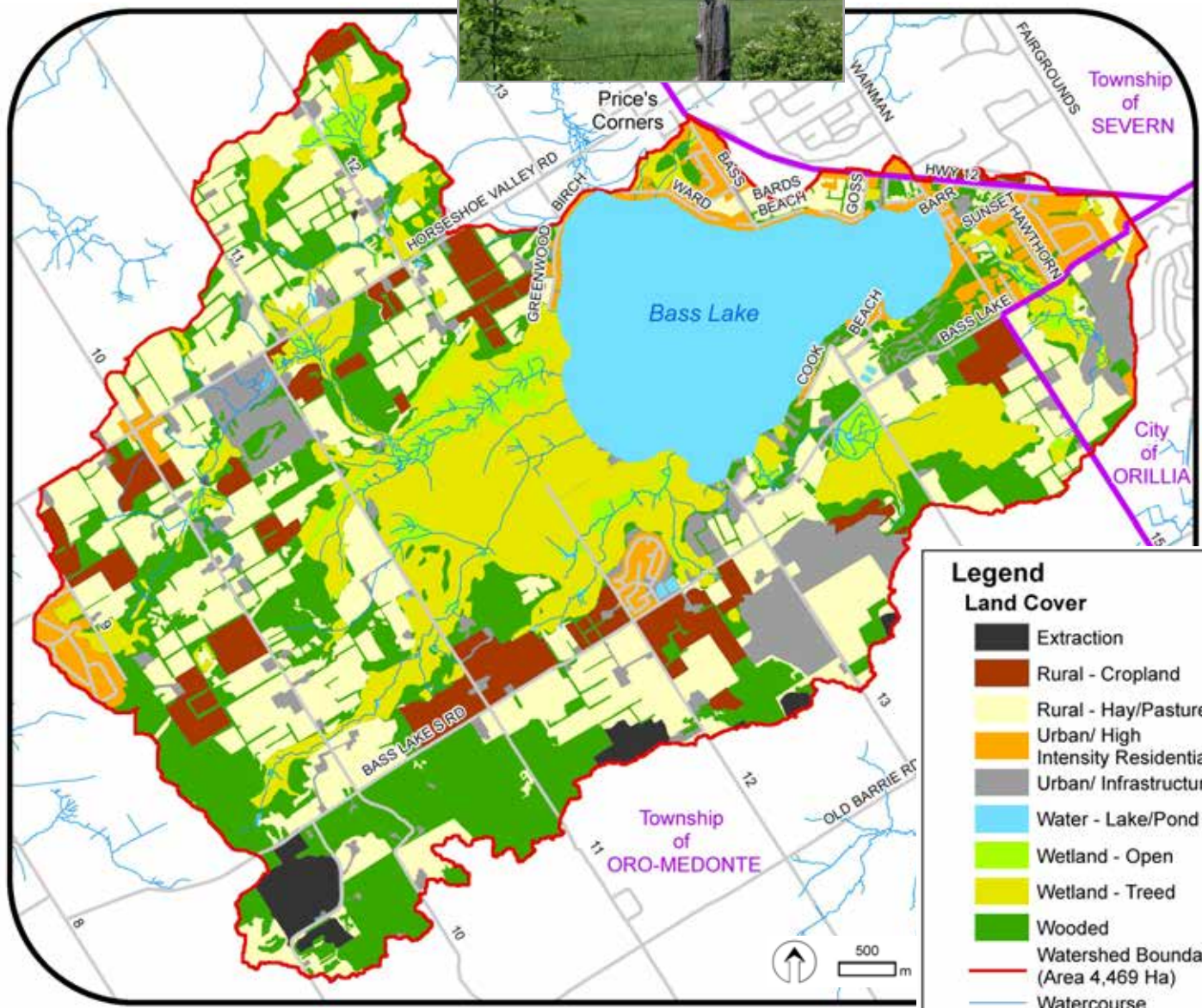
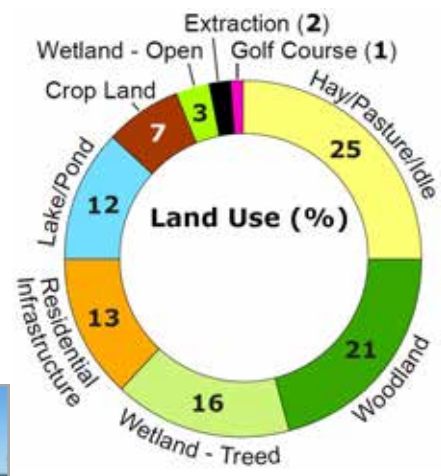
While the Simcoe Muskoka District Health Unit does not currently monitor *E. coli* at the public beach on Line 15 N (monitoring ended in 2015), general information on beach water quality is available on their [website](#). In particular, they recommend that beach users avoid swimming for two days after a heavy rainstorm. Data from 2006-2015 showed the beach was nearly always below the provincial guideline of 100 CFU/100 mL. Beach postings can occur above this level.

Bass Lake Provincial Park currently monitors the park beach and data indicates that the beach consistently meets the provincial guideline. The current status of the beach is available on the [Park website](#).

Land Use

The lake has 11 km of shoreline, which contains approximately 360 shoreline properties. In addition to these seasonal and permanent dwellings, there is a Provincial Park on the waterfront. The lake makes up approximately 12% of the watershed area. Land cover within the watershed is highly permeable, allowing for much of the precipitation to infiltrate into the ground before making its way to the lake. This allows for greater uptake of nutrients compared to a more urban watershed with more impervious surfaces like pavement. Excluding the lake itself, land cover is comprised of 85.2% highly permeable lands (including farmlands and non-urban natural spaces) and 14.8% lower permeability lands (urban residential and infrastructure lands). This is above than the 10% threshold above which significant impairment in stream water quality and quantity is highly likely¹. Land use is a combination of agriculture, County Forests, residential, commercial/recreational, and a small amount of aggregate extraction. There is a golf course in the northwest part of the watershed, and a solar farm lies just south of the lake. Residential development has increased in the far east and far west ends of the watershed. Landscapes with greater permeability are more resilient to the impacts of climate change.

Land Use	I.D.
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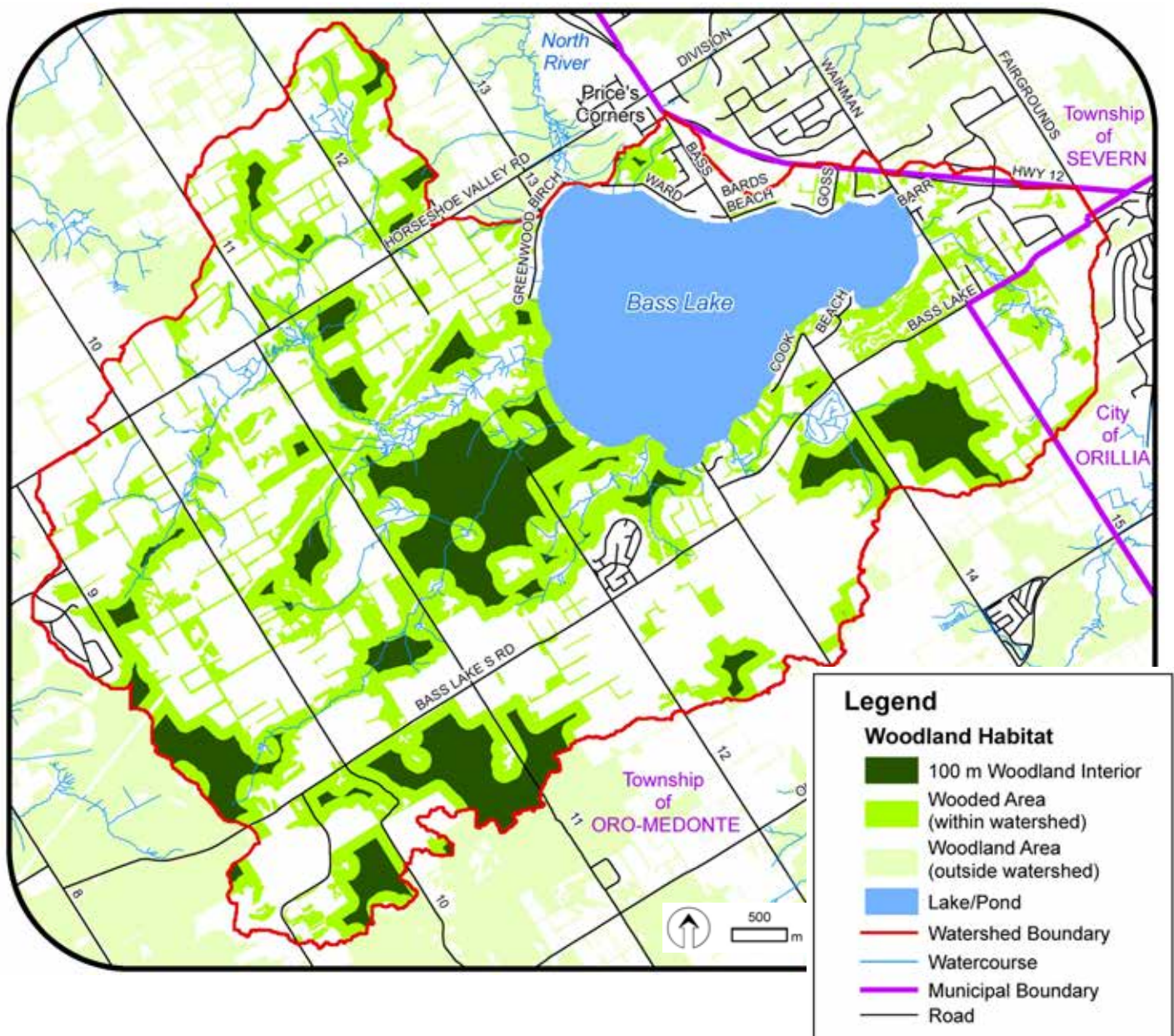
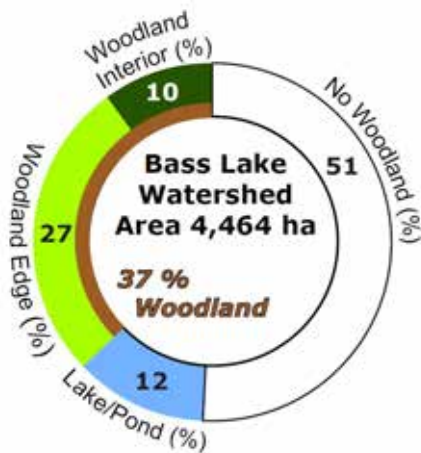
¹ Environment Canada. 2013. [How Much Habitat is Enough? Third Edition](#). Environment Canada, Toronto, Canada.

Forest Cover	Fair
Forest Interior	Fair

Forests provide a variety of benefits, including nutrient and water cycling, preventing erosion, and providing wildlife habitat, clean air, recreational opportunities and wood products. Some woodland plants and animals require large tracts of undisturbed woodland with wide buffers from the forest edge because they are vulnerable to noise, light, temperature, wind, predation and parasitism conditions found in edge habitat. The amount of *forest interior habitat* in a woodland is the portion of the forest that is situated 100 metres or more from an outside edge.

Bass Lake Watershed

- 1,627 ha or 37% of watershed is woodland
- 439 ha or 10% of watershed is forest interior habitat



Wetland Conditions

Wetland Cover	Good
Wetland Buffer	N/A

Wetlands are areas that are periodically or permanently flooded with shallow water, or where the water table is close to the surface, resulting in saturated soils and the establishment of water-loving or water-tolerant plants. Common types of wetlands are swamps (treed wetlands) and marshes.

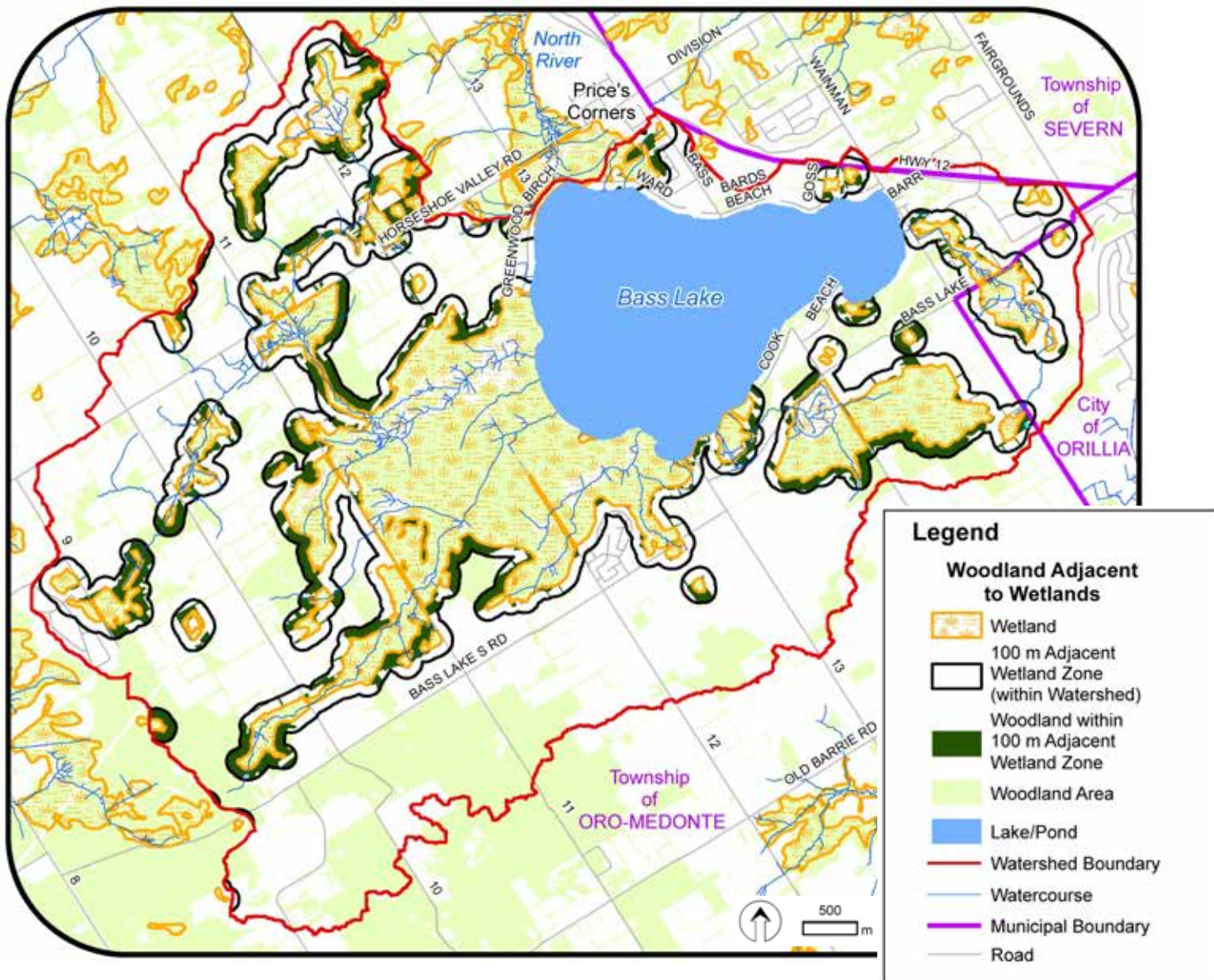
Wetlands are home to a wide variety of native plants and wildlife, and provide important ecological and hydrological services such as flood retention, water quality improvement and shoreline erosion control.

Natural areas adjacent to wetlands are important for protecting and maintaining wetland functions and features, and for providing additional breeding, foraging, dispersal and overwintering habitat for wetland species.

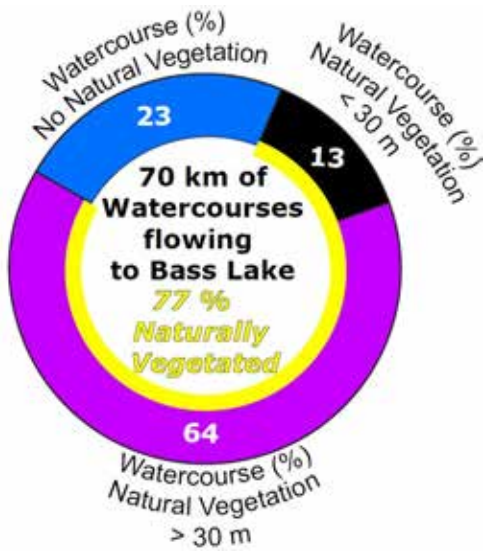


Bass Lake Watershed

- Three provincially significant wetlands: Bass Lake Wetland, Marchmont Swamp, and Langman Marsh
- 933 ha or 21% of watershed is wetland (includes wooded wetlands/swamps and parts of Bass Lake nearshore/open water). This is considered Good based on criteria in *How Much Habitat is Enough?* (Environment Canada, 2013)
- Within 100 m of wetlands, 26% of the land has been developed or altered, and 74% is in a relatively natural state. No standard recommendations exist for what percentage of developed land cover within a 100 m wetland buffer is acceptable, so results from this report will be used to compare to future conditions.



Riparian Cover Fair



The riparian zone is “the area beside a river, stream or lake where the aquatic and upland habitats influence each other”. A wide, vegetated riparian zone provides habitat, mitigates water temperature fluctuations, helps reduce bank erosion, and protects aquatic health and water quality by providing a buffer for the stream.

Bass Lake Watershed

- 77% of stream length is bordered by natural vegetation, but only 64% of watercourses have at least 30 m of natural vegetation on both stream banks.



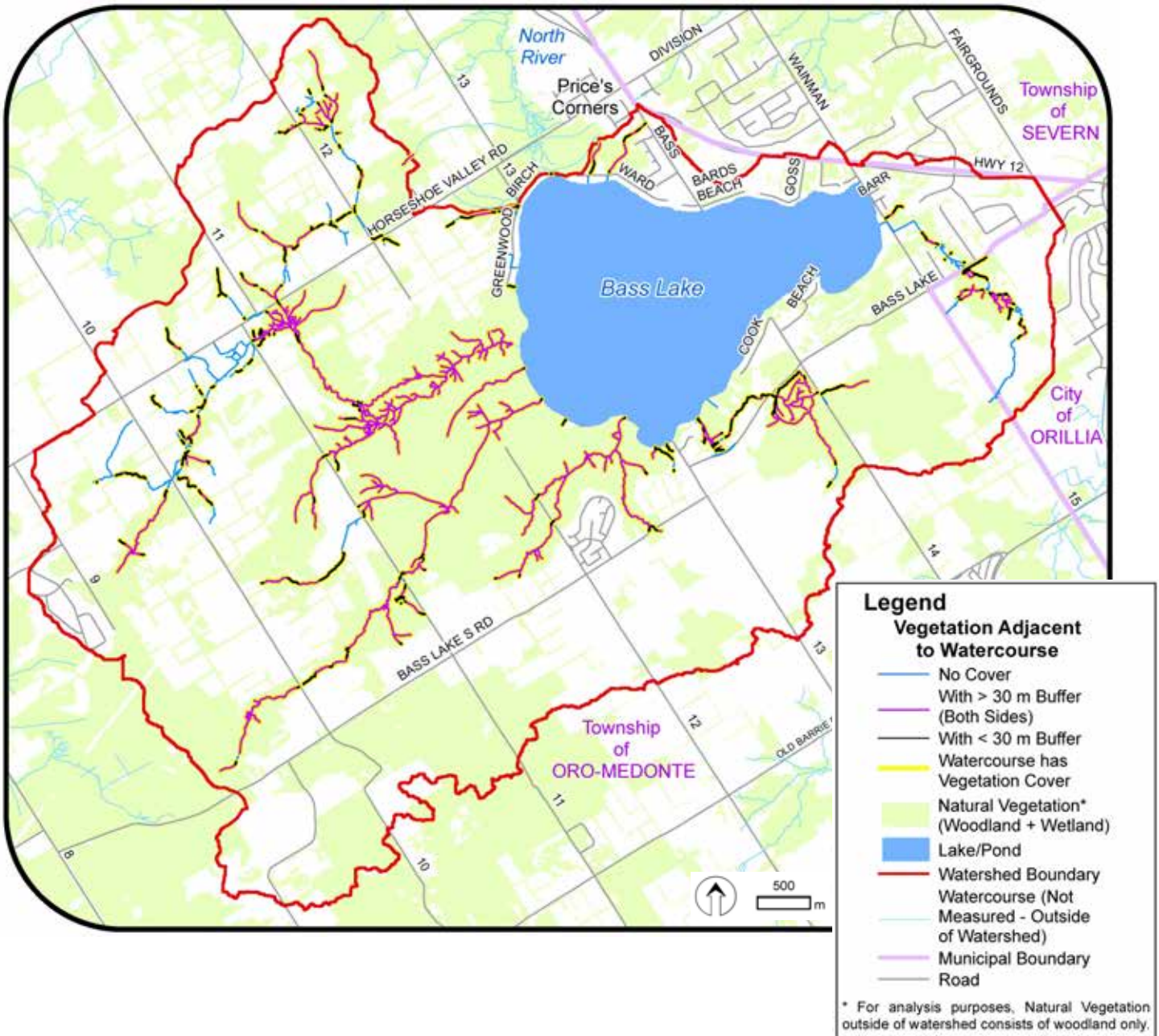
Painted Turtle



Osprey



Northern Leopard Frog



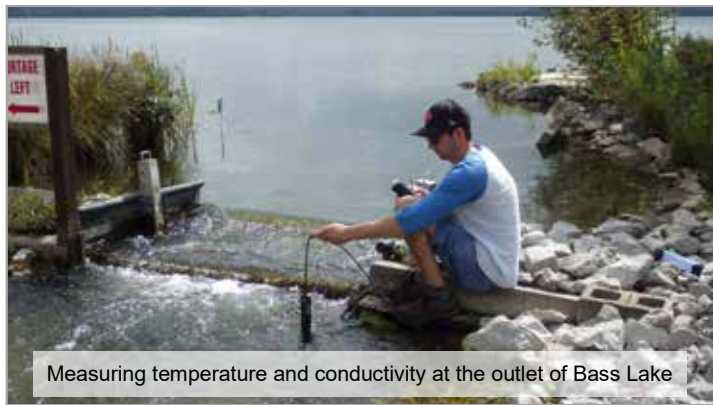
Stream Water Quality

Based on the CCME WQI, the overall water quality in the North River (upstream of outflowing dam) and the streams flowing into Bass Lake in 2018 is good in terms of nutrients and general chemistry. Trends indicated in the adjacent table show whether individual water quality parameters improved or deteriorated from 2012 to 2018. Compared to 2012, total phosphorus was higher in 2018, while nitrate and chloride were lower.

Stream WQI **Good**

The inflowing tributary adjacent to the boat launch (end of Line 13 N) has high nitrate concentrations and represents a source of nutrients to the lake, however lake concentrations do not appear to be affected. Water quality in the North River downstream of the dam shows low levels of phosphorus and moderate nitrogen levels.

Quality Indicator	Trend
Total Phosphorus	Deteriorating
Nitrate	Improving
Chloride	Improving
Conductivity	No change



Measuring temperature and conductivity at the outlet of Bass Lake



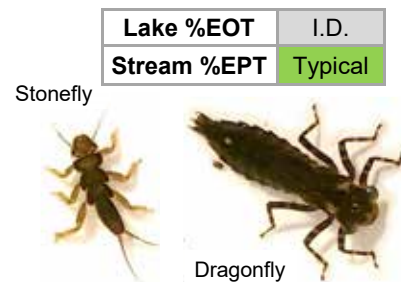
Collecting a phosphorus sample from an inflowing tributary

Lake and Stream Benthic Macroinvertebrates

Benthic macroinvertebrates (BMIs) are organisms that live in the bottom sediments of streams and lakes (benthic), are large enough to see with the naked eye (macro) and lack a backbone (invertebrate). They are an essential part of stream and lake ecosystems because they help break down organic matter and are a vital food source for fish. BMIs are excellent indicators of water quality conditions because they are bottom sediment dwellers, they have limited tolerances to changing water quality, and they are relatively immobile, thus reflecting local conditions.

Mayflies (*Ephemeroptera*), Stoneflies (*Plecoptera*) and Caddisflies (*Trichoptera*) are sensitive invertebrates that are easily impacted by pollution. Taken as a percentage of the entire invertebrate community, they collectively make up the %EPT indicator, and low values indicate an impacted stream. Based on %EPT, results from five sites show that most streams are in a typical range (between 10th-90th percentiles, based on historical range of %EPT values for each individual site) for the Bass Lake watershed, with the exception of one stream in the northwest portion of the watershed, which had low % EPT. An analysis of trends since 2008 show no significant changes in %EPT at any of the sites.

For Bass Lake, samples were collected at three locations. The three lake locations had different habitat and substrates, however all were dominated by scuds and fly larvae, both of which indicate slightly impaired conditions. %EOT (Mayflies (*Ephemeroptera*), Dragonflies (*Odonata*) and Caddisflies (*Trichoptera*)) was low, ranging from 2-12%, and indicated impaired conditions. This impairment may be due to sediment and habitat quality. Future quality scoring and trend information will be determined once multiple years of data have been obtained.

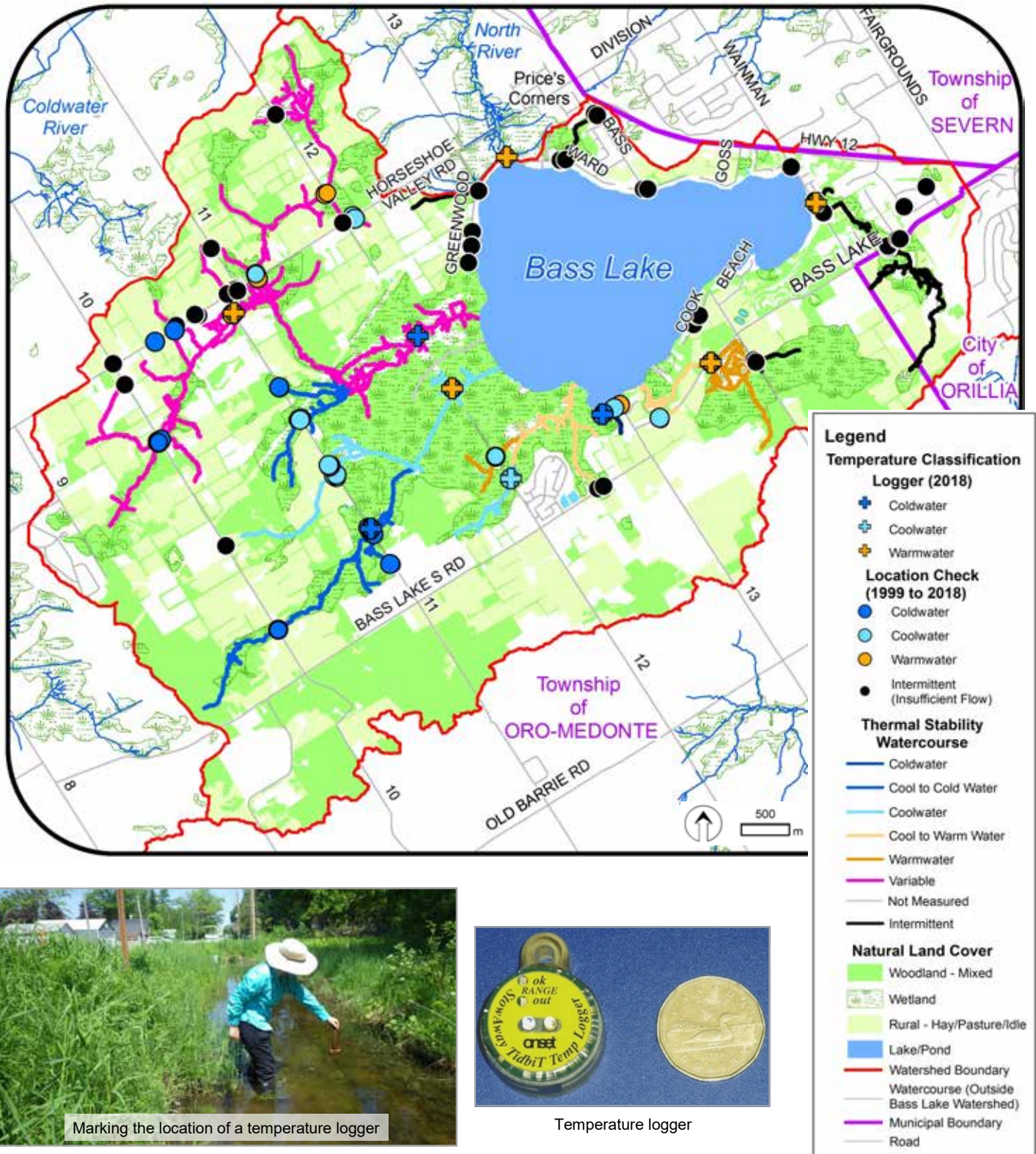


Snail in typical Bass Lake bottom substrate

Quality Indicator	Indicator Description	Site Description	2018 Stream Assessment	Trend
<i>Ephemeroptera</i> , <i>Plecoptera</i> , and <i>Trichoptera</i> (% EPT)	Percent of the sample made up of Mayflies, Stoneflies and Caddisflies	Line 10 N Stream	Typical	No Change
		Line 11 N (N of Bass L Sdrd)	Typical	No Change
		Line 11 N (S of Horseshoe Valley Rd)	Extremely Atypical (poor)	No Change
		North R at Horseshoe	Typical	No Change
		Line 12 N Stream	Typical	No Change

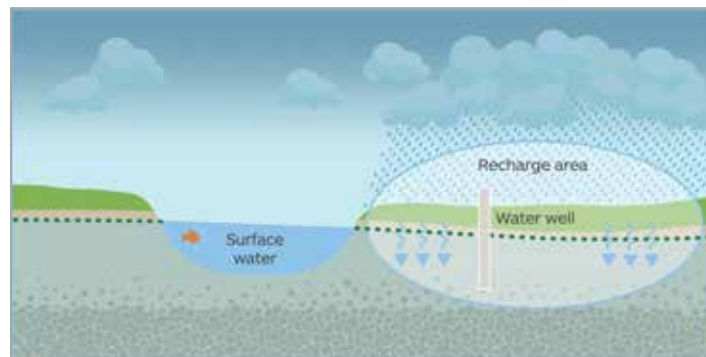
Thermal stability is the ability of a stream to resist increases in water temperature as air temperature increases. This is primarily a function of the influence of groundwater discharge and to some extent, the amount of shading provided by riparian vegetation. Thermal stability is measured during the summer when high air temperatures and low streamflow conditions predominate.

Streams that stay cool even on very hot days are thermally stable, and potentially suitable habitat for cool or cold water fish species such as rainbow or brook trout. The SSEA uses a model to classify streams as suitable for cold, cool or warm water fish communities. The tributaries flowing into Bass Lake through forest and wetland cover are generally cold/cool water streams, while those running through developed landscapes or slow-moving wetland areas are warm or variable (e.g. may start cool and become warm further downstream).



A **Highly Vulnerable Aquifer (HVA)** is an aquifer that is susceptible to contamination because its location is near the ground's surface, or because of the type of soils found in the ground around it.

A **Significant Groundwater Recharge Area (SGRA)** is an area with porous soils that allows water to easily seep into the ground and flow to an aquifer. A recharge area is considered significant when it helps maintain the water level in an aquifer that supplies a community with drinking water. The HVA and SGRA mapping surrounding Bass Lake was done by consultants in 2010 and approved by the Minister of the Environment in 2015 in accordance with the Ministry of Environment's "Technical Rules under the Clean Water Act, 2006". Although there are no policies in the South Georgian Bay Lake Simcoe Source Protection Plan or in the Township of Oro-Medonte Official Plan regulating these areas, low impact development [best management practices](#) such as using permeable pavers and the use of rain gardens to help direct water back into the ground are recommended to help ensure Bass Lake's overall watershed health for generations to come.



Groundwater Monitoring

The SSEA monitors groundwater quality and water levels at a well on Bass Lake Sd Rd E (W0439) through MECP's Provincial Groundwater Quality Monitoring Network. Water is tested annually for numerous variables, including metals and nutrients. The aquifer at this location is characterized by hard water with high pH. All drinking water standards have been met with the exception of sodium, which is slightly above the guideline of 20 mg/L. Individuals on low sodium diets who use well water should have their water tested to determine whether their water exceeds the guidelines.



Well Water Testing Information

Regular testing is needed to stay informed about the safety of your well water and the condition of your well. Private wells should be tested through the [Simcoe Muskoka District Health Unit](#) for bacteria (*E. coli* and total coliform) three times per year, after a heavy rainfall or snowmelt. Well water should also be tested occasionally for other parameters such as nitrate, minerals and metals. The Ontario Ground Water Association offers [water testing packages](#) for well owners.



Protecting Bass Lake

Maintaining your Septic System

A septic system, when working properly, safely treats sewage and wastewater. The users can increase the septic system's effectiveness by conservative use of water and careful consideration of what is put down toilets and drains.

If your property has a septic system:

- Conserve water
- Avoid using harsh chemicals, including paints, and cleaners that kill the bacteria needed to keep the system functioning properly
- Keep solids (e.g., oil, grease, food waste), and anything else that takes a long time to break down, out of the system
- Maintain the system: have the tank pumped regularly (generally every 3-5 years) and if present, clean effluent filter every 6 months
- Keep heavy items (e.g., vehicles, swimming pools, skating rinks) off the leaching bed to prevent compaction
- Pursue necessary repairs or replacement as needed



Invasive species are non-native organisms that establish outside of their historical ranges and negatively impact ecological, economic and social factors within their new environments. Invasive species are able to aggressively out-compete native species and displace beneficial plants and animals from healthy ecosystems.

In addition to environmental impacts, the establishment of invasive species can lead to reductions in property values, water quality, recreation opportunities and public safety. Invasive species thrive in disturbed areas with high intensity of human use such as: roadsides, boat launches, beaches, trails and parks and can be spread easily to new locations through the movement of live bait and firewood, improper disposal of yard and garden waste, and as hitchhikers on boats, fishing gear, recreational vehicles, pets and footwear.

Within the Bass Lake watershed and broader Oro-Medonte Township, 19 different invasive species have been reported, of which 8 were found living in or within one kilometer of Bass Lake.

Invasive species confirmed within the Bass Lake Watershed:

- Phragmites (*Phragmites australis* spp. *australis*)
- Dog strangling vine (*Cynanchum rossicum* & *Cynanchum louiseae*)
- Dames Rocket (*Hesperis matronalis*)
- Garlic Mustard (*Alliaria petiolata*)
- Himalayan Balsam (*Impatiens glandulifera*)
- Miscanthus (*Miscanthus sinensis*)
- Periwinkle (*Vinca minor*)
- Zebra mussels (*Dreissena polymorpha*)
- Chinese mystery snail (*Cipangopaludina chinensis mal-leata*)

Of all the species detected within the Bass Lake area, phragmites and zebra mussels are most likely to negatively affect local communities through impacts to fisheries, algae populations, shoreline access and property aesthetics. Residents and visitors to the area should also be cautious of invasive Chinese mystery snails, which have been confirmed living within the lake. These snails not only out-compete native snails, but can be a vector for water borne parasites such as swimmer's itch, and can be a human health risk.

How you can help fight invasive species:

- Learn how to identify common invasive species and report sightings to SSEA
- Don't dump aquariums or release live baitfish
- Clean, drain and dry your watercraft before your next adventure
- Choose native species for landscaping and garden projects, and don't purchase invasive species from nurseries
- Dispose of [yard waste](#) in certified [compost facilities](#)
- Review the "Clean Equipment Protocol" to reduce invasive species spread by vehicles such as ATVs



Get Involved! Citizen Science

YOU can become a lake steward and help gather valuable information about the lake. SSEA's **Ice Spotters program** has observers submit photos and descriptions along with the date that ice forms in the winter and breaks up in the spring. Data collected through this program, along with historical records compiled from IceWatch, has shown that while the timing of ice on/off has not changed drastically, there has been a shift in the last 35 years to slightly later ice on. This is consistent with higher fall temperatures in the region.



SSEA's **Shore Watch and Stream Watch programs** encourage shoreline owners and lake users to regularly monitor the lake and surrounding streams using kits provided by SSEA. Learn more at [Citizen Science in Severn Sound](#).

Contact citizenscience@severnsound.ca if you are interested in becoming a citizen scientist!

SSEA Tree Program

Trees and forests provide a wide variety of benefits to people, wildlife and the environment. The SSEA and local volunteers plant thousands of tree seedlings each year through the [SSEA Habitat Restoration Tree Planting Program](#). This program's goals are to restore habitat, improve stream water quality and increase woodland cover. For larger tree plant projects that qualify, the SSEA provides assistance with project planning, supplies native tree and shrub seedlings, and coordinates volunteers to plant the trees, at no cost. A limited number of seedlings are available each year - landowners should contact SSEA by early fall to accommodate the time required for planning spring tree plant projects.



Property owners planting a smaller number of trees on their own may be interested in the [SSEA's Tree Seedling Distribution Program](#), which offers reasonably-priced native tree and shrub seedlings. For this initiative, seedlings must be pre-ordered by mid-January.



Maintaining Healthy Shorelines

Natural vegetation along the shoreline and in the shallow nearshore plays a crucial role in providing habitat for a diversity of fish and wildlife, as well as maintaining lake health and improving water quality. These shoreline areas are sensitive and are also where many human activities occur. Waterfront property owners and lake users can help limit impacts from damaging practices and shoreline development. SSEA's [Natural Shorelines Project](#) offers more information and tips on maintaining a natural shoreline.

Resources

Additional technical information on this conditions report, please consult the [Bass Lake Technical Report](#)

More Water Quality Information

[SSEA Resources Page](#)
[Fish Consumption Advisory](#)
[Fish ON-Line](#)
[Simcoe Muskoka District Health Unit Beach Water Quality](#)
[Bass Lake Provincial Park Beach Alerts](#)
[Swim Guide](#)
[Lake Partner Program \(MECP\)](#)
[Lake Protection Workbook: A Self Assessment Tool](#)
Working Around Water
[Department of Fisheries and Oceans \(DFO\)](#)
[DFO Projects Near Water](#)
[Ministry of Natural Resources and Forestry \(MNR\)](#)
[Crown Land Work Permits](#)
[Nottawasaga Valley Conservation Authority \(NVCA\) Permits](#)
[Interactive Property Map \(shows NVCA Regulated Area\)](#)
[Municipal permits - Township of Oro-Medonte](#)

Stay Connected!

Join the Bass Lake Ratepayers Association (BLRA) - details on the BLRA Facebook page



Thank you to volunteer boat drivers John Cameron and Sandy Cameron!

