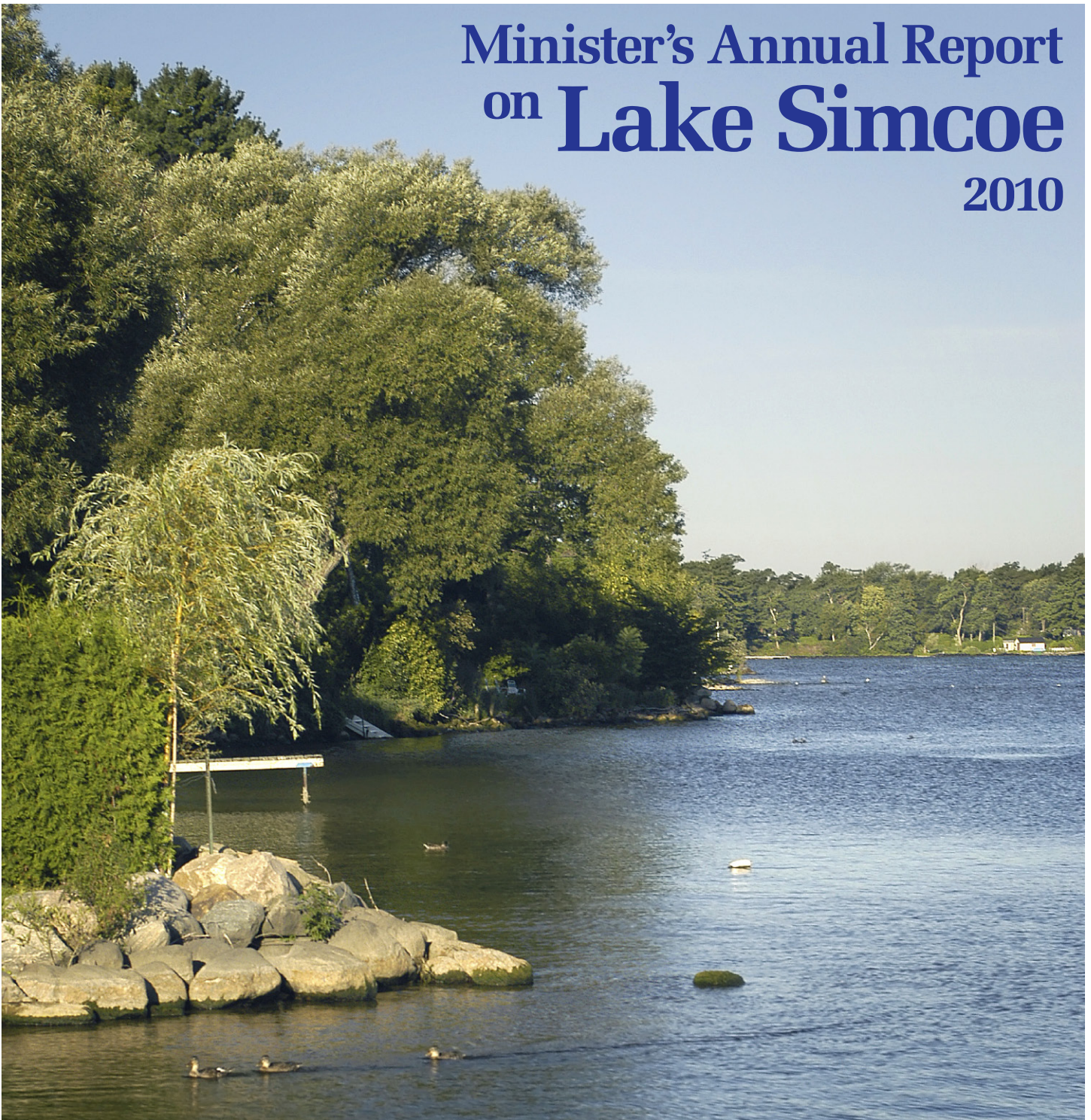


Minister's Annual Report on **Lake Simcoe** 2010



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January 25, 2011

For more information, contact:
Ministry of the Environment
Public Information Centre
Telephone: 416-325-4000
Toll free: 1-800-565-4923
Email: picemail.moe@ontario.ca
Web: www.Ontario.ca/Environment

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MINISTER'S ANNUAL REPORT ON LAKE SIMCOE 2010

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Message from the Minister of the Environment

John Wilkinson

I am pleased to report that our government is continuing its commitment to taking strong action to protect and restore the ecological health of Lake Simcoe and its watershed.

In June 2009 we released our Lake Simcoe Protection Plan on how to make the lake healthy again. Now, one year later, we can say that we have met our commitments for the first year of implementing the plan and are moving forward to meet the commitments for the second year and beyond.

This first year's success builds on the great work that has been done by so many individuals and groups over more than 30 years, and it lays the groundwork for future progress.

Our government is taking an approach that brings together everyone who has a role to play in protecting and restoring the lake. And our work is grounded in the best science, yet flexible so that we can incorporate new research and new technologies as they become available.

Over the past year, we have made progress on a number of priority areas and we intend to keep the momentum going.

We developed an aggressive strategy to reduce phosphorus in the lake by almost 40 per cent — from 72 tonnes to 44 tonnes per year. This is a long-term strategy that requires the commitment of all parties with an interest in Lake Simcoe to reach our goal.

We committed provincial funds to advance scientific research related to the lake and its ecological health.

We have implemented, together with our regulatory partners, binding policies that will help ensure development and other regulated activities are undertaken in a manner that protects key natural features, our shorelines and the quality of water in this watershed.

We supported stewardship activities by promoting best management practices for farmers and the agricultural sector, and individual actions by local residents and cottagers.

Individual actions do make a difference. Whether you are a farmer, resident, visitor, boater, or angler, you can protect Lake Simcoe. Over the coming year we

will be further developing programs to help everyone, near the shore and throughout the watershed, take action to protect their Lake.

We also brought together three important groups to provide guidance and expertise: The Lake Simcoe Science Committee, the Lake Simcoe Coordinating Committee and the Lake Simcoe Stewardship Network.

These are just a few of the implementation highlights from the past year. In total, our government and partners have addressed 88 of the 119 policies as outlined in the Lake Simcoe Protection Plan so far.

I encourage you to read this report, the first of our annual reports on implementing the plan and the results we are starting to see.

None of this work could have been done without the expertise and dedication of a number of individuals and groups involved in this project. I would like to thank all of our partners — you are making a significant difference to the success of the Lake Simcoe watershed project.

While we have met all of the commitments made for the first year we still have much more to do. We need to continue to work with our partners and achieve our implementation targets as laid out in the plan.

This project is important for Lake Simcoe, but it is also important for our natural heritage in Ontario, as we work towards creating sustainable communities that care for the environment they depend on and enjoy.

I look forward to continuing to work with you, our partners, to make the vision of a healthy Lake Simcoe watershed a reality.

John Wilkinson
Minister of the Environment

<i>"I would like to thank all of our partners — you are making a significant difference to the success of the Lake Simcoe watershed project."</i>

Our Vision for Lake Simcoe

We believe ...

that the lake is life and the health of the lake determines the quality of life

We see a *Lake Simcoe watershed* ...

where a healthy environment provides the foundation for healthy communities, healthy people and a healthy economy

where the well-being of diverse life forms — fish, wildlife, plants and human beings is enhanced

where we protect our natural environment for future generations

where natural shorelines are maintained and where *development* is well planned and ecologically sound

where citizens, governments, businesses and industries are stewards of the land, water and natural heritage

where there is greater cooperation, leadership and responsibility among all parties to protect the Lake Simcoe watershed for present and future generations

where our children can take their children to the beach and our grandchildren can take their grandchildren fishing and canoeing.

About Lake Simcoe

Lake Simcoe is the largest inland lake in southern Ontario, and is home to a natural heritage that includes wetlands, woodlands and wildlife and fish habitats, as well as home to approximately 350,000 people.

More facts about the lake:

- Home to approximately 12,000 cottages, increasing the population by 50,000 during the summer months.
- 35 rivers flow into Lake Simcoe, including the Holland River, Black River, Beaver River, Pefferlaw River and Uxbridge Brook, which in total comprise almost 4,000 kilometres of streams.
- Lake Simcoe supports a wide variety of aquatic animals including:
 - coldwater fish such as lake trout and lake whitefish
 - warmwater fish such as bass and perch
 - invertebrates including crayfish, insects, snails and clams
 - amphibians and reptiles
 - benthos (organisms that live on, in or near the bottom of the lake) and plankton.
- 65 species within the watershed ecosystem are rare and 33 of these are species at risk, including the Jefferson salamander and the spotted turtle.
- Lake Simcoe is the most intensively fished inland lake in the province. In 2005, anglers spent over 700,000 hours ice fishing on Lake Simcoe from the end of January to the middle of March.
- Recreational activities are estimated to inject more than \$200 million annually into the local economy.
- Overall, 47 per cent of the Lake Simcoe watershed's land area (approximately 2800 square kilometres) is currently agricultural. Agriculture contributes at least \$300 million per year to the provincial economy.
- Approximately 35 per cent of the Lake Simcoe watershed is under natural cover (woodlands and wetlands). The distribution of natural cover varies across the watershed with a low of nine per cent in the Keswick Creeks subwatershed to a high of 55 per cent in the Carthew Bay Creeks subwatershed.

INTRODUCTION

Background

There are many groups and individuals who are working hard to protect and restore the Lake Simcoe watershed.

To help bring their projects together and build upon their many successful initiatives, our government developed the [Lake Simcoe Protection Act](#) which was passed by the Ontario Legislature in December 2008, and the [Lake Simcoe Protection Plan](#), which became effective on June 2, 2009.

They were significant accomplishments — the act was the first legislation in Canada to focus on a watershed and the plan was the first of its kind in Ontario to address identified threats to the Lake Simcoe watershed.

Building on consultation with citizens and expert advice from scientists, the plan sets a new standard for environmental protection of a watershed and provides a roadmap for helping to restore and protect the health of Lake Simcoe.

This Minister's Report on Lake Simcoe 2010 is the first of our reports on the implementation of the plan, reporting on year one — the period of June 2009, (when the Plan was released) to August 2010. Throughout the report, the use of 'we' refers to the Government of Ontario and the work produced through multi-ministry/multi-partner initiatives; otherwise the lead ministry has been identified.

We have organized the report into sections that follow the Lake Simcoe Protection Plan — on the areas that are most critical to the health of Lake Simcoe:

- Restoring the health of **aquatic life** within the Lake Simcoe watershed, page 9
- Improving **water quality**, including reducing phosphorus in the lake, page 13
- Maintaining **water quantity**, page 19
- Improving the health of the ecosystem by protecting and rehabilitating important areas, such as **shorelines and natural heritage**, page 22
- Addressing impacts of other threats and activities, such as **invasive species**, page 25
- Developing **stewardship, education** and **outreach** programs, page 28.

And in the **next steps** section, we highlight projects that are an important part of the second year of implementing the plan.

Each chapter highlights some of the work completed or in progress. For a complete list of the policies that have been implemented and a status update, please read our [implementation table](#). For a list of the objectives we are working towards, consult page four of the Lake Simcoe Protection Plan.

Snapshot: Implementation Highlights

This first year has been an important year for our government and partners to build on previous work done and lay the foundation for future progress — a year spent developing the right approach as well as taking immediate action to protect the lake.

Implementation highlights include:

- **Developing a [Lake Simcoe Phosphorus Reduction Strategy](#)** which sets out a long-term, phased approach to reducing phosphorus in the lake by almost 40 per cent, from 72 tonnes to 44 tonnes per year. We released the strategy in July 2010.
- **Implemented policies affecting watershed development to protect natural features, shorelines and water quality**, including providing training sessions to land use planners (provincial, municipal, the conservation authority and private sector) to increase their understanding of the requirements of the Lake Simcoe Protection Plan and the implications for making informed environmental decisions around land-use planning and development.
- **Releasing a [Lake Simcoe Water Quality Report](#)**, providing a baseline description of Lake Simcoe water quality. The report includes information on the past 29 years of water quality monitoring of the lake.
- **Conducting a [Water Quality Trading Feasibility Study](#)**, which could potentially be one tool within the [Lake Simcoe Phosphorus Reduction Strategy](#).
- **Enhancing our monitoring program** for fisheries and aquatic biodiversity.
- **Supporting stewardship activities** by developing and promoting programs that encourage voluntary implementation of:
 - best management practices by farmers and the agricultural sector
 - individual actions by local residents and cottagers.

- **Launching an invasive species website** (in beta-testing), a web-based resource and tracking device for invasive species in the Lake Simcoe Watershed. This resource was developed in partnership with the Ontario Federation of Anglers and Hunters and the federal government through their Lake Simcoe Clean-Up Fund.
- **Developing proposals for shoreline protection.** Developed and consulted on proposals for regulatory restrictions on specific activities affecting Lake Simcoe. Based on advice received, the next step will be development of a more comprehensive shoreline protection program.

We have also established expert groups to help guide our initiatives:

- **Lake Simcoe Science Committee** — comprised of leading scientists who provide advice from a scientific perspective about the lake and its watershed. Read our news release [Scientists Help Protect Lake Simcoe](#).
- **Lake Simcoe Coordinating Committee** — represents the interests of municipalities, farmers and the agricultural sector, tourism, fisheries, business, developers, residents, cottagers and environmentalists. Read our news release [Partners Help Keep Lake Simcoe Clean](#).
- **Lake Simcoe Stewardship Network** — brings together organizations, individuals, educational groups, businesses and industry to share information about stewardship programs and opportunities and to encourage collaboration.

The Lake Simcoe Science and Coordinating Committees have provided valuable advice on a number of our first-year deliverables. Appendix A in this report includes a summary of the recommendations provided by the two committees. For a complete copy of the minutes from the committee meetings, go [to Lake Simcoe Committees](#).

Learn more

Read the [Lake Simcoe Protection Plan](#).

Consult the [Lake Simcoe Protection Act](#).

The role of science in achieving success with the Lake Simcoe Protection Plan cannot be overstated. Scientific research and monitoring are the cornerstones of any successful environmental management program and our committee has been working closely with the Province's Lake Simcoe Team to review the science and advise on corrective actions. We will continue engaging in this successful partnership to ensure the watershed is protected for years to come.

Dr. Peter Dillon, Canada Research Chair in Watershed Biogeochemistry at Trent University, Director, Worsfold Water Quality Centre Chair, Lake Simcoe Science Committee

AQUATIC LIFE

Background

Lake Simcoe's aquatic communities and habitats are stressed by poor water quality, unsustainable land uses and pressures from other human activities.

Lake Simcoe's fish and their habitats tell us a lot about the quality of the aquatic ecosystem and the overall health of the lake and its surrounding environment.

Over the past year, we have worked on a number of initiatives to help improve the aquatic communities and their habitats. The Ministry of Natural Resources has enhanced its aquatic monitoring program. It has also begun developing [Fish Community Objectives](#) — a public document that will help ensure Lake Simcoe initiatives take into consideration the aquatic community.

Lake Simcoe is an extraordinary provincial asset and the Lake Simcoe Protection Plan is an extraordinary public policy response designed to protect and enhance this natural gem. Our Committee represents a diverse range of talents and perspectives, all working towards a common goal, and I am proud to be a part of it. As community members we have a critical role to play in advancing the Lake Simcoe Protection Plan, a challenge that we readily accept and are committed to achieving.

*Brian Tamblyn, President and CEO, Georgian College
Chair, Lake Simcoe Coordinating Committee*

As we gain a better understanding of the fish communities — coldwater, warmwater and tributary fish — we gain insights into their extended environment, for example, the larger issue of climate change.

Our monitoring program also helps provide feedback on how well our programs are working; a reduction in phosphorus in the lake should gradually improve oxygen levels and in turn result in a healthier fish community.

We are starting to see some encouraging signs within the fish community — the ministry has documented the presence of naturally reproduced lake trout, lake whitefish, and cisco (lake herring), which are all native members of the coldwater fish community.

Making Improvements

Enhancing our monitoring program of the aquatic communities

To improve and restore the health of aquatic life within the Lake Simcoe watershed, we need to have a better understanding of the fish communities and their environment — the habitats — in which they live.

Over the past year, we have enhanced our fisheries and aquatic biodiversity monitoring program, so that more of the lake is monitored, more frequently. The monitoring fills in some information gaps and gives us a clearer picture of the lake's health.

On any day of the week over the course of the year, you can see scientists from the Ministry of Natural Resources — aquatic and fisheries biologists, limnologists and technicians — in boats, or on snowmobiles during the winter, collecting information about Lake Simcoe's aquatic community and its fisheries.

The scientists monitor the fisheries: they interview anglers to record what types of fish they are catching, the number of fish they've caught, how long they've been fishing and how well their fishing is going in general.

They interview a range of anglers — such as winter anglers and anglers who fish in open water away from the shoreline — to get a sense of changes in the fish community by season and location in the lake.

They also monitor the health of fish populations: length, weight, age and general condition. They also note whether the fish are stocked (marked with a fin clip) or naturally reproduced. And what kind of biodiversity — variety of fish type — they are seeing in the lake.

The new information we are gathering, combined with the data we have been collecting over 60 years, provides us with excellent long-term data to see changes in the fish community. The information also helps us better understand the impacts of climate change and invasive species on the lake and will help us focus our protection and restoration efforts.

Aquatic research

Over the past year, our government has also had the opportunity to bring together experts from the science community — water quality experts, surface water scientists, hydrologists and limnologists — to help us in our aquatic research, our understanding of how the lake functions and ultimately how to better manage the lake.

We are partnering with a number of universities, such as Trent, Victoria and Waterloo to further research a range of issues — for example, the impact of land use practices, climate change and invasive species on food webs, water quality and the ecosystem function of Lake Simcoe.

Over the next few years, this research will be instrumental in moving our work forward on a number of projects, such as climate change.

Stocking program

In response to population crashes in the 1960s and 1970s, the Ministry of Natural Resources has been stocking Lake Simcoe with lake trout since 1966 and whitefish since 1982. The goal of these stocking programs is to restore a self-sustaining and naturally-reproducing coldwater fish community in Lake Simcoe, and to maintain a recreational fishery and its associated socio-economic benefits.

Natural lake trout had not been seen for more than 20 years in the lake, as a result of high levels of phosphorus and related low oxygen levels.

We are now seeing some positive changes — since 2001, the Ministry of Natural Resources has reported signs of naturally reproduced lake trout. It is also seeing signs of potential recovery in other key members of the coldwater fish community — lake whitefish, cisco (lake herring) and sculpin.

Starting this year, 2010, the ministry is making some changes to its lake trout stocking program. It is reducing lake trout stocking by 50 per cent, from 100,000 to 50,000 yearlings (fish over one year of age), for five years with a review at the three-year mark in 2013.

This adaptive management approach was the result of extensive consultation with the Lake Simcoe Fisheries Stakeholder and Management Committees. The Lake Simcoe Fisheries Stakeholder Committee has representation from a broad range of stakeholders who provide advice to the ministry on fisheries management issues within Lake Simcoe, Lake Couchiching and their watersheds. The ministry also held three information sessions for the public to provide input.

Making changes to the stocking program will help us determine if stocking is having an impact on the natural reproduction of lake trout. And as other Lake Simcoe Protection Plan initiatives are implemented, we hope to see an increase in the natural reproduction of lake trout and other coldwater fish.

Learn more

Read our [Review of Lake Simcoe's Coldwater Fish Stocking Program](#).

View our [implementation table](#) for an update on each of the policies related to aquatic life in the Lake Simcoe Protection Plan.

What you can do

As a shoreline property owner

Natural vegetation along shorelines of lakes and rivers plays a crucial role in protecting water quality, preventing soil erosion and preserving the function of this ecologically important environment. Ninety per cent of all lake life is born, raised and fed in the area where land and water meet.

- Avoid altering shorelines as much as possible.
- Restore your shoreline by planting native species of trees and shrubs. Visit <http://www.ontariostewardship.org/> for more information.
- Do not create sand beaches on top of natural lake and river beds — this may destroy fish spawning areas.
- Install floating or cantilever-type docks to reduce the impact on the lake and maintain water movement.

As an angler

- Follow the recreational fishing regulations, ensuring you fish during open seasons and respect catch and possession limits. Visit the Ministry of Natural Resources [Fish Ontario](#) site for more information.
- Be on the lookout for invasive species and report any sightings on the [Invasives Tracking System](#).
- Inspect, drain and wash all of your fishing and boating equipment to prevent the further spread of invasive species.
- Do not empty the contents of your bait buckets into the water.
- Slow down near shorelines to reduce your impact on nesting ducks and loons.

WATER QUALITY

Background

Looking at the quality of the water — much like looking at Lake Simcoe's aquatic communities — tells us a lot about how a lake and its surrounding environment are doing. We look at a number of factors, such as nutrients in the water, oxygen levels and the clarity of the water.

There is some good news to share — we are seeing some improvements to the quality of the water. Actions over the past thirty years have helped reduce phosphorus levels and, as a result, there is more oxygen available now than there was 30 years ago.

However, Lake Simcoe's water is still very much under stress: dissolved oxygen levels in the deep, cold parts of the lake are too low to allow Lake Simcoe's coldwater fish community to fully sustain itself without stocking initiatives. Phosphorus levels of 72 tonnes per year, from a range of sources, are currently being put into the lake. These levels are too high. We also know that additional issues, such as climate change, invasive species, changes to land use and conventional urban development practices are affecting the water quality of the lake.

To build on the significant work of the past three decades and to continue the momentum, our government is taking aggressive action to protect and restore the lake's ecological health. Over the past year, we have:

The Chippewas of Georgina Island First Nation have always had a special relationship with Lake Simcoe. It affects almost every aspect of this community's daily life. The water is Mother Earth's life blood, and it must be protected.

In the past decade, Georgina Island First Nation has independently taken the lead and completed an overhaul of over 280 septic systems on Snake and Fox Islands. We are currently partnering with Georgian College Barrie campus to conduct a point and non-point source pollution reduction project for all three islands. We will be continuing on with such projects as our species at risk identification, rehabilitation and mapping, and our shoreline and fish habitat restoration around Georgina Island. Other strategies included planning and facilitating workshops and information sessions for members and cottagers alike and encouraging them to take part in the [Phosphorus Reduction Strategy].

The health of Lake Simcoe has a great impact on this First Nation community and The Chippewas of Georgina Island strongly support the Lake Simcoe Protection Plan and its initiatives.

— from the Lake Simcoe Phosphorus Reduction Strategy

- Launched the [Lake Simcoe Phosphorus Reduction Strategy](#) to reduce phosphorus levels in the lake by almost 40 per cent, from 72 to 44 tonnes per year.
- Released the Lake Simcoe Water Quality Report, providing baseline information from the past 29 years of water quality monitoring of the lake.
- Consulted on a feasibility study for using water quality trading to help reduce phosphorus levels in the lake and watershed.

Making improvements

Our Lake Simcoe Phosphorus Reduction Strategy

Phosphorus is a naturally occurring nutrient that all living things need to grow; however, too much phosphorus in the lake has led to excessive growth of plants and algae. The decomposition of these plants and algae, in turn, depletes oxygen levels in the deep waters of the lake and deprives fish of the oxygen they need to thrive.

Reducing phosphorus in the lake is absolutely critical to improving the health of the lake, water quality and the coldwater fish community.

Our [Lake Simcoe Phosphorus Reduction Strategy](#) released in July 2010, provides an excellent roadmap forward: it takes a long-term (35 years), phased approach to reducing phosphorus levels by almost 40 per cent, from 72 tonnes to 44 tonnes per year.

The goal is to help increase dissolved oxygen levels and ensure a healthy fish community. The strategy sets a deep water dissolved oxygen target of 7 mg/L (seven milligrams of dissolved oxygen per litre of water), which is necessary to support a naturally-reproducing and self-sustaining coldwater fish community. Oxygen concentrations have been getting better over the past two decades; however, the five-year running average has remained below the 7 mg/L minimum target.

Our strategy identifies the major sources of phosphorus, which include:

- stormwater runoff from urban areas
- atmospheric sources, such as dust and windblown soils
- runoff from rural and agricultural areas
- agricultural polders such as the Holland Marsh (polders are cultivated marshes in which water levels are maintained through a series of pumping stations and canals.; in this case, Holland Marsh has been reclaimed for agricultural purposes)
- sewage treatment plants
 - private septic systems located close to the lake.

For each of these sources, we have set short- and long-term phosphorus targets, and have outlined the different approaches necessary to reduce phosphorus from each of these sources.

Our strategy will incorporate new scientific knowledge, best practices and innovative design and technology as they become available.

Our partners in the Lake Simcoe watershed community provided valuable input and feedback on the strategy.

Scientific water quality monitoring and research

In May 2010, the Ministry of the Environment released the [Lake Simcoe Water Quality Report](#), which includes 29 years of water quality information about the lake, collected in partnership with the Lake Simcoe Region Conservation Authority. The report provides an excellent baseline description of the lake's water quality from which we can measure improvements to the health of the lake.

The report provides a sense of what has improved over the years and what areas require additional help. There is good news — we are seeing some improvements to the lake over the past three decades: phosphorus concentrations have generally decreased, and water clarity has improved, which potentially means better conditions for aquatic life.

The Ministry of the Environment has led water quality monitoring programs on Lake Simcoe since the 1970s and produces water quality reports approximately every four years. The ministry looks at a number of water quality issues, including:

- nutrients — for example, phosphorus, phosphate, nitrogen
- algae and plants — weeds and other plants that clog waterways and outflows, which also absorb oxygen
- pH levels — the alkalinity/acidity of the water
- dissolved organic and inorganic carbon
- other ions, such as calcium, manganese, sodium, potassium, chloride, sulphate
- general clarity of the water
- water temperatures and dissolved oxygen — how much oxygen there is for the fish and aquatic life.

Re-inspecting septic systems

Small on-site sewage systems — systems designed to treat and dispose of domestic sewage — along Lake Simcoe are a contributor of phosphorus and pathogens. We estimate that septic systems along the lake contribute roughly 4.4 tonnes of phosphorus each year.

To ensure small on-site sewage systems are performing well, municipalities will be required to re-inspect the existing systems. Inspections will initially be required of systems located within 100 metres of certain portions of the Lake Simcoe shoreline and will be required within five years of January 1, 2011 and every five years thereafter. This will be extended to septic systems located within 100 metres of the balance of the Lake Simcoe shoreline and within 100 metres of other lakes or ponds and permanent rivers or streams in the Lake Simcoe watershed, for which inspections will be required within five years of January 1, 2016 and every five years thereafter.

The requirement to inspect is part of a recent amendment to the Building Code (Ontario Regulation 315/10) which establishes and governs mandatory on-site sewage system maintenance inspection programs to be administered by principal authorities (such as, municipalities, health units and/or conservation authorities) in certain areas.

This requirement was established as a result of the Lake Simcoe Protection Plan which contains a policy that the Ministry of Municipal Affairs and Housing and the Ministry of the Environment will develop a proposal for a regulation under the Building Code Act, 1992 to designate lands within 100 meters of the Lake Simcoe shoreline, other lakes and any permanent stream of Lake Simcoe, as a prescribed area for required septic re-inspection.

For more information on the re-inspection program under the Building Code, visit www.ontario.ca/buildingcode.

Sewage Treatment Plants

Sewage treatment plants within the Lake Simcoe watershed are among the most effective in Ontario in removing phosphorus. Over the past two decades, we have seen a reduction in the amount of phosphorus coming from these plants, even though there has been a greater demand to treat larger volumes of wastewater from urban development.

To ensure best practices, our [Phosphorus Reduction Strategy](#) establishes individual phosphorus concentration limits for each plant in the watershed. The strategy also sets a limit of 7.2 tonnes of phosphorus per year from all of the plants combined.

These limits will be in effect as of 2015. If a plant is expanded before this date, the limit will be effective at the time of expansion.

The Phosphorus Reduction Strategy is a living document that will be reviewed and updated a minimum of every five years; over time, the strategy will include more details and stringent requirements for all sources.

Stormwater management and urban development

Stormwater — rainfall and snowmelt that runs into storm sewers, streams and lakes — carries with it phosphorus and a number of other contaminants that effect water quality within the Lake Simcoe watershed.

Urban development increases the potential for stormwater and its contaminants to directly impact the lake — hard surfaces such as roads and buildings are impervious, making it difficult for water to soak into the ground and easier to drain into the lake.

Urban stormwater contributes substantially to the amount of total phosphorus going into Lake Simcoe — approximately 31 per cent by current estimates. We are taking a number of actions to improve the management of stormwater for both existing and planned development in the Lake Simcoe region.

This past year, the Lake Simcoe Region Conservation Authority — working in partnership with the Ministry of the Environment, Ministry of Natural Resources, Environment Canada, watershed municipalities and the Building Industry and Land Development Association — has been working on a guidance document to help municipalities develop and implement stormwater management master plans.

We have also started work on a phosphorus budget guidance document to help the development community and municipalities adopt best management practices to reduce additional phosphorus going into the lake.

“Environmentally sustainable development is one of the key objectives of the Lake Simcoe Protection Plan. Accordingly, the future economic and population growth in the Lake Simcoe watershed must be managed in a way that sustains a healthy ecosystem, a healthy economy and healthy communities.”

— from the Lake Simcoe Phosphorus Reduction Strategy

Learn more

Read the [Lake Simcoe Phosphorus Reduction Strategy](#) and [background material](#).

Read the [Lake Simcoe Water Quality Report](#).

View our [implementation table](#) for an update on each of the policies related to water quality in the Lake Simcoe Protection Plan.

What you can do

Your actions to improve Lake Simcoe's water quality make a difference:

- Switch to phosphorus-free fertilizers and cleaning products, including dishwasher detergents and personal hygiene products.
- Make sure your septic system is functioning properly — maintain your septic systems every three to five years.
- Keep or restore your shoreline to a natural mix of native trees, shrubs and grasses — to help absorb nutrients, such as phosphorus.
- Do not use fertilizers near the shoreline.

For more tips, visit www.ontario.ca/lakesimcoe, or the [Lake Simcoe Region Conservation Authority's website](#).

WATER QUANTITY

Background

For a healthy aquatic ecosystem, we need to have excellent water quality; we also need to maintain the right water quantity balance in Lake Simcoe and its tributaries.

Some of Lake Simcoe's subwatersheds — its creeks, rivers and streams — already have low levels of water, causing changes to the aquatic habitats and their fish communities.

Stresses may come from naturally occurring droughts, or from taking water for a variety of purposes, including agriculture or recreation. The Maskinonge River on the southern part of Lake Simcoe is an example of one of the subwatersheds that is at particular risk of low water levels.

Making improvements

Water supply

Over the past year the Ministry of the Environment, along with the Lake Simcoe Region Conservation Authority, has begun work on developing instream flow targets — the amount of water that should be flowing to maintain healthy aquatic ecosystems in the watershed — for the stressed subwatersheds in Lake Simcoe.

This work continues to be a priority over the next year, and will be extremely important for us to understand where to focus efforts to conserve water and restore land.

As we determine the flow targets, we will also develop plans to help reach the targets, plans that might include specific conservation measures and water allocation for water takers, including farmers and municipalities, among others. We need to make sure that an adequate portion of the water supply is reserved for the environment.

The conservation authority is also working closely with the municipalities to complete water budgets for all of Lake Simcoe's subwatersheds, with priority given to the stressed subwatersheds.

So far, water budgets have been developed for eight of the 19 subwatersheds.

In developing water budgets, the conservation authority is looking at the available water supply and the current and future demand for the water. The budgets provide a snapshot of where the water comes from and where the water is going

— and helps us better understand what areas are under water quantity stress and where demand is exceeding an acceptable portion of the supply of water.

These budgets will help inform water conservation and efficiency plans; they will also help us get a better understanding of ecologically significant groundwater recharge areas, so that we can protect these areas. Recharge areas are parcels of land where water seeps in and replenishes the groundwater — water that is used, for example, by municipalities and farmers. There are a number of recharge areas in the Lake Simcoe region that are considered ecologically significant because they replenish adjacent streams and wetlands and their habitats. Wetlands and natural areas also serve a significant function in that they help retain water between rain events, releasing the water slowly for use in streams. We will gain a better understanding over the next year of which recharge and natural areas need to be better protected, improved or restored.

The water budgets will also help set standards for stormwater management (see *above stormwater section for more info on stormwater*) for both existing and planned development in the Lake Simcoe region.

Lake Simcoe's municipalities also ensure that any application to establish or expand a major recreational facility has a recreation water-use plan — this came into effect when the Lake Simcoe Protection Plan was released June 2009.

Recreational areas, such as golf courses, large resorts and marinas, require the use of water. The recreation water-use plans must demonstrate a number of conservation measures, for example: water use for maintenance or snow-making is kept to a minimum, water-conserving technologies (such as low-flow toilets and showerheads) are used in restaurants and clubhouses, and where possible grass mixtures that require minimal watering and upkeep will be used for sports fields and golf fairways.

Efforts to promote water conservation will continue to grow over the next year as we gain a clearer understanding of the stressed subwatersheds and their water needs.

Learn more

Visit the [Lake Simcoe Region Conservation Authority](#) website for more tips on saving water in your home and garden.

Consult the [Lake Simcoe Farm Stewardship Program brochure](#) for water conservation best management practices for farmers.

View our [implementation table](#) for an update on each of the policies related to water quantity in the Lake Simcoe Protection Plan.

What you can do to conserve water

There are many opportunities for the agricultural community, landowners and recreational facilities to protect, conserve and use water more efficiently throughout the Lake Simcoe watershed.

As a farmer:

- Make your barn water wise: install more efficient livestock watering devices and cleanout systems.
- Install more efficient irrigation systems — water only when necessary.
- You may be eligible for getting up to 75 per cent of your costs back from Ontario's Lake Simcoe Farm Stewardship Program (consult the [Lake Simcoe Farm Stewardship Program](#) brochure).

As a homeowner:

- Check for and eliminate any leaks in faucets, toilets, hoses and pipes. A steady drip wastes 55 litres a day and a leaking toilet can waste 550 litres a day.
- Run dishwashers and clothes washers only when they are full.
- Install low-flush toilets and reduce water use by 50 per cent.
- Take short showers instead of baths. Install low-flow showerheads and faucet aerators.
- Reduce lawn watering — lawns only need one inch of water per week.
- Water your lawn in the early morning or evening when evaporation rates are low.
- Convert more of your lawn into perennial gardens with native plants that are tolerant of drier conditions.

As landowners, make sure to keep the wetlands and natural areas in their natural state — these areas help retain water, releasing the water slowly for use in streams.

SHORELINES AND NATURAL HERITAGE

*"I wish to thank you for authorizing the river bank clean up at [Riverbank Drive, Pefferlaw] The clean-up was completed on Tuesday July 20, 2010. It was indeed a pleasure to see a group of young adults working so well together and doing such a tremendously good job.... We thank you and I am sure the neighbours across the river fully appreciate the improved view.
The big winner — the wild life and the environment."*

— John Hastings, landowner, writing to the Ministry of Natural Resources about the work of the Stewardship Ranger Youth Teams to help clean up Lake Simcoe's shoreline.

Background

As we shift our view from the water of the Lake Simcoe watershed — aquatic life, water quantity and water quality — we reach the land of the watershed and its natural heritage and hydrologic features, which are made up of wetlands, woodlands, valleylands, permanent streams and intermittent streams, other lakes and natural areas bordering the Lake Simcoe shoreline.

Looking at the amount and quality of natural vegetation within the watershed provides an indication of the ecological health of the area. While about 35 per cent of the Lake Simcoe watershed has natural cover, there are many areas where the natural cover could be improved or enhanced. Our goal is to ensure there is no further loss of natural shorelines and key natural heritage and hydrologic features and to find ways to restore natural areas or enhance existing features.

What has happened along the shoreline and in the watershed has had a big impact on the ecological health of the watershed: clearing natural vegetation along the shore and building concrete walls have disrupted important connections between the land and water and its natural functions; the use of fertilizers has contributed to high levels of phosphorus in the lake; the loss or degradation of natural heritage features has led to less biodiversity, and has lessened the functional ability of the features to adapt to climate change and resist invasive species — species not natural to Lake Simcoe.

Over the past year, we have released a discussion paper on potential regulations related to shoreline regulations. We have also developed a program to monitor natural cover so that we can better see what is changing and why. And we have defined the key natural heritage and hydrologic features to have a shared understanding of the natural areas as we move forward to restore or improve the watershed's ecological values and functions.

Through enhanced education and incentive opportunities, we are also helping farmers and residents understand and participate in stewardship actions that protect shorelines, wetlands, forests and other natural areas.

Making improvements

Better protection of Lake Simcoe's shoreline

A healthy shoreline means better water quality. A healthy shoreline helps prevent nutrients and other pollutants from going into the lake, provides protection from flooding and erosion, conserves habitats for a high number of aquatic and terrestrial species (fish, plants, animals, insects) and helps regulate temperature and the microclimate within the habitats.

It also means the watershed is better able to face ongoing and future challenges such as invasive species, climate change and changes to the way we use land.

Some of Lake Simcoe's shoreline areas and activities, such as fertilizer use, are not covered by existing policies and acts; to address some of the gaps the Ministry of the Environment has been investigating use of regulatory tools to affect these activities, and in March, 2010, a discussion paper was released setting out some proposed regulatory approaches. Consultation on this paper and discussions with the Lake Simcoe Coordinating Committee have revealed that addressing these activities is a high priority and that a combined approach using both voluntary and mandatory programs is necessary. Over the next year, a shoreline protection program utilizing a range of tools, with increased emphasis on voluntary programs, will be developed.

Mapping and monitoring natural heritage features

Over the past year, the Ministry of Natural Resources has made significant progress on developing a program to monitor natural heritage features within the Lake Simcoe watershed. The program will help us better determine the health of the watershed as well as measure changes to the watershed over time.

The ministry plans to look at a number of factors when monitoring the land, including changes in natural cover — measuring whether a particular wetland is decreasing, staying the same or increasing. The monitoring will also assist in understanding the health and biodiversity of the natural heritage features in the watershed.

The ministry has also determined which subwatersheds are under stress from a natural heritage perspective (using indicators from Environment Canada's "[How Much Habitat is Enough](#)"). Understanding which subwatersheds are under stress will help guide efforts to improve the areas.

Summer students lend a helping hand

Last year, [Stewardship Ranger Youth Teams](#) from the Ministry of Natural Resources planted more than 1,200 native shrubs and trees at Lake Simcoe's three provincial parks — Sibbald Point, Mara and McRae — to help return these areas to their natural state. The rangers used locally-sourced native trees and shrubs that included white pine, Ontario's official provincial tree.

With thousands of local visitors and tourists coming to the parks each year, these sites are an educational experience — places where the public and local residents can see naturalized areas and be inspired to do the same on their own properties.

This summer another two stewardship ranger teams helped landowners around Lake Simcoe make changes to naturalize their land. One of the stewardship teams was made up of youth from the Georgina Island First Nation who divided their time between Georgina Island and the mainland to help residents implement their environmental action plans.

Learn more

Read the [Lake Simcoe Shoreline Protection discussion paper](#).

Visit the [Lake Simcoe Region Conservation Authority](#) website for more tips on keeping your land natural.

Email lakesimcoestewardship@ontario.ca to learn more about the Stewardship Rangers and naturalization opportunities on your property.

View our [implementation table](#) for an update on each of the policies related to shoreline and natural heritage in the Lake Simcoe Protection Plan.

What you can do

- Leave your shoreline natural to avoid soil erosion and preserve the ecosystem.
- What does a good buffer look like? A good shoreline buffer is made up of a mix of native trees, grasses and shrubs. Especially important is the mix of plants and their strong roots — trim and prune the plants to help strengthen the roots.
- Visit one of Lake Simcoe's provincial parks, our demonstration sites, to see the genesis of a natural landscape.

INVASIVE SPECIES — OTHER THREATS AND ACTIVITIES

Background

Invasive species

Most invasive species — plants, animals and other organisms that are present outside of their natural habitats — are introduced to a lake or land unintentionally, due to a lack of public awareness about their potential threats. Since invasive species do not have any natural predators or controls, they can spread very quickly and can cause significant damage to the environment and economy.

Aquatic species — fish, invertebrates, and microscopic organisms — can come in on boats and fishing gear. Terrestrial species — plants, animals, insects — may be introduced through ornamental gardening or by simply bringing in outside soil and firewood.

Species that are not natural to Lake Simcoe can upset the ecological balance — so much so, that they can potentially wipe out species that are essential to the health of the lake.

Making improvements

Over the past year, the Ministry of Natural Resources has enhanced its monitoring program for invasive species in the watershed. The program helps us better understand the effects the invasive species are having in the water and on the land, and what efforts are helping to reduce their presence.

The ministry has also developed a prioritized watch list of aquatic and terrestrial invasive species that are potential new arrivals to the Lake Simcoe watershed — with the aim to determine the best ways to keep these species out or the best way to get rid of them.

This spring the ministry launched an [Invasives Tracking System](#) in partnership with the Ontario Federation of Anglers and Hunters and with support from the federal government's Lake Simcoe Clean-Up Fund. The system is a web-based reporting and tracking resource for invasive species in Ontario.

The site relies on participation from you, the citizen scientist. You can report a sighting, search for previous sightings and find information on what to do about invasive species. New sightings are automatically sent to the right people, at the right time; a number of groups are involved in this project (funded by Environment Canada through the Lake Simcoe Cleanup Fund): Ontario Ministry of Natural Resources, Ontario Federation of Anglers and Hunters, South Lake Simcoe Naturalists, Center for Community Mapping (Comap) and the University of Waterloo, Ontario Invasive Plants Council, Lake Simcoe Region Conservation

Authority, Kids for Turtles, Couchiching Conservancy and the Nature Conservancy of Canada, Ganaraska Region Conservation Authority, and the Stewardship Network of Ontario. The website is a work in progress, and the look and feel of the site may change as we continue to test the site.

The ministry also held a number of events to help increase awareness about invasive species — how to identify them and what to do — in the Lake Simcoe watershed.

The ministry partnered with the Ontario Federation of Anglers and Hunters and local municipalities to hold Invasive Species Road Rallies. One of the rallies was held in the Uxbridge area, south of Lake Simcoe, where we assessed species — such as giant hogweed — along the roadside.

The ministry also delivered on-ice awareness campaigns about invasive species, which will be further expanded in upcoming years to deliver messaging to the thousands of anglers who fish Lake Simcoe in the winter.

For the past two years, Stewardship Ranger Youth Teams from the ministry have helped conservation groups and landowners remove invasive plant species from along shorelines. The teams have also distributed information about aquatic invasive species to boaters passing through the Trent Canal System into Lake Simcoe. Hundreds of landowners in the watershed have also learned about invasive species through their participation in stewardship workshops under the Lake Simcoe Community Stewardship Program. The program encourages landowners to develop stewardship action plans for their properties, which can include invasive species control or removal. More information about the program can be found in the following section on stewardship, education and outreach, or by contacting lakesimcoestewardship@ontario.ca.

The ministry is currently working with partners to develop a comprehensive Invasive Species Management Guide for Landowners.

Learn more

Find out what to do if you find invasive species on your land

Go to our [Invasives Tracking System](#) to report a sighting of an invasive species.

Visit www.invadingspecies.com for more information and [public service announcements](#) from the Ontario Federation of Anglers and Hunters on invasive species.

View our [implementation table](#) for an update on each of the policies related to invasive species in the Lake Simcoe Protection Plan.

What you can do

You can help prevent invasive species from entering Lake Simcoe watershed:

- Wash your boat before bringing it into Lake Simcoe — make sure you are not bringing in species from another body of water.
- When fishing, never use live bait from another lake in Lake Simcoe — it is illegal.
- Do not bring firewood in from outside of the Lake Simcoe region — you could spread forest pests.
- When planting, only use trees, shrubs and plants that are native to the region. Visit the [Lake Simcoe Region Conservation Authority](#) website for some ideas of what to plant.

Learn more

View our [implementation table](#) for an update on each of the policies related to recreational activities in the Lake Simcoe Protection Plan.

STEWARDSHIP, EDUCATION AND OUTREACH

“Our Environmental Farm Plan ensures we are doing what we can to protect the environment in our area. The funds we’ve received from the Lake Simcoe Farm Stewardship Program as well as the Lake Simcoe Clean-Up Fund have allowed us to build a concrete manure pad and a covered manure storage building, ensuring the waste produced from our herd doesn’t make it into the water system. And we can use the nutrients on the farm — it’s good for us and the lake! Through this program I’ve also become more aware of other things the government is doing to protect Lake Simcoe, including tree planting programs, and stabilizing the banks of the lake to stop soil erosion. Thank you!”

— Kevin McGuckin, Farmer, Woodville Area

Background

Environmental action starts at home and within our communities — everyone within the Lake Simcoe community is responsible for protecting the lake. The community understands that its participation is absolutely critical for any improvements to Lake Simcoe. People want to know what they can do in a real, hands-on way.

Change through film: last year, 64 youth filmmakers came together to showcase their 16 short films on Seeking Change in the Lake Simcoe Watershed. Visit the [Waste Films website](#) to view the short films. The films were part of the WASTE: Lake Simcoe Anishnawbe Film Project, and are now the seeds of ReWild! an idea to provide a “greenhouse” to grow ideas to help the Lake Simcoe Watershed. The project was founded by the Ladies of the Lake, the Windfall Ecology Centre and the Lake Simcoe Conservation Authority.

Over the past year, we have supported and developed a number of programs to expand community actions that help improve the lake. Our Lake Simcoe Community and Farm Stewardship programs are helping residents and farmers take action on their land to help protect the lake.

We have also launched the **Lake Simcoe Stewardship Network**, made up of individuals, organizations, businesses and governments engaged in community-based stewardship activities. The network provides an opportunity for its members to share information about their Lake Simcoe programs, improve collaboration, identify new priorities and develop solutions to help advance stewardship actions and results. For more information, contact lakesimcoestewardship@ontario.ca.

The network is supported and guided by the Ministries of Natural Resources, Agriculture, Food and Rural Affairs, Environment and the Lake Simcoe Region Conservation Authority.

Established in 1951, the Lake Simcoe Region Conservation Authority has implemented a number of successful programs to help improve Lake Simcoe over the past 60 years. The authority is an important partner in the implementation of the Lake Simcoe Protection Plan, working closely with our multi-ministry team and contributing key science to ongoing decision-making around Lake Simcoe.

Their Landowner Environmental Assistance Program — [LEAP](#) — provides technical and financial support to private, public and business landowners to help them complete environmental projects.

From January 2009 to June 2010, LEAP supported more than 370 projects to protect the health of Lake Simcoe, including 129 septic systems upgrades, 121 unused water well decommissions, and 40 land restoration projects with planting trees and shrubs.

The conservation authority continues to be an important partner with the Ontario government as we move forward on implementing the Lake Simcoe Protection Plan.

To learn more, visit their site at <http://www.lsrca.on.ca/>.

This year, we also supported the community group [Ladies of the Lake](#) and their partners, in the development and launch of [OurLakeSimcoe.com](#), a community-based environmental website to help promote the many partners and projects in the Lake Simcoe watershed and serve as a resource for landowners. You can also visit the [our30million](#) website to get an update on some of the Lake Simcoe Protection Plan projects that are being supported by Environment Canada's [Lake Simcoe Clean-Up Fund](#).

Education is a key part of the Lake Simcoe Protection Plan — it is essential to the successful implementation of many of the Lake Simcoe initiatives. Over the past year, we held training sessions for municipalities and their land use planners (people who approve land development proposals) to make sure they are aware of the changes being made to protect and restore Lake Simcoe. More than 150 planners attended our sessions; more sessions are planned for the next year.

This Farm has an Environmental Farm Plan



The agricultural lands of the watershed produce high quality crops and livestock. Farmers help to sustain the land for future generations and protect the streams and rivers that connect the land to the lake.

Our [Lake Simcoe Farm Stewardship Program](#), established in 2008, builds on the [Canada-Ontario Environmental Farm Plan Program](#). The stewardship program is an educational program that provides financial assistance to farmers in the Lake Simcoe watershed. The program's goal is to help farmers adopt best management practices, including those that contribute to reduced levels of phosphorus in the lake and to improving wildlife habitat, while sustaining viable farm operations.

To access cost-share funds through the Lake Simcoe Farm Stewardship Program, a farm business must complete an Environmental Farm Plan educational workshop, prepare an action plan, and have that action plan peer-reviewed and confirmed appropriate.

In the past year, more than 90 farmers have participated in the cost-share program and implemented various best management practices. We encourage more farmers to participate.

Learn more

Consult the [Lake Simcoe Farm Stewardship Program](#) brochure. If you are a hobby and horse farmer, consult the [Healthy Lands for Healthy Horses equine stewardship program](#).

Visit the [Ontario Soil and Crop Improvement Association](#).

Visit Environment Canada's [Lake Simcoe Clean -Up Fund](#) website.

View our [implementation table](#) for an update on each of the policies related to stewardship, education and outreach in the Lake Simcoe Protection Plan.

What you can do

Develop an environmental action plan for your farm and consider implementing these best management practices:

- Control farmyard and horticultural facilities runoff.
- Reduce land erosion from wind and water through no-till cropping systems.
- Establish vegetative buffers along drains and riparian areas to reduce erosion and absorb runoff.

- Recover nutrients from wastewater.

My cottage has an Environmental Action Plan

On the southern tip of Lake Simcoe there is a group of 22 cottages — the Degrassi Point community. This community is made up of family members, some of whom are third generation owners of the properties (tbc). They have come together to develop environmental action plans for all 22 cottages and make improvements to their land together. The properties represent 200 meters of shoreline. Over the next year they will start implementing the recommendations in their action plan.

Many non-farm rural, shoreline and urban landowners, residents and cottagers are making changes to their land to help improve the Lake Simcoe watershed.

There have been many initiatives developed over the past twenty years to promote efforts to help protect the environment among landowners. Building on the success of these initiatives, this year we launched the [Lake Simcoe Community Stewardship Program](#) to help residents maintain their properties in an ecologically sustainable way.

The program uses the same approach as the [Canada-Ontario Environmental Farm Plan Program](#), making it easier for landowners to access technical and financial support to help them implement environmental improvements on their properties. These improvements contribute to the overall health of the Lake Simcoe watershed.

Over the past year, with significant partnership support from Environment Canada's [Lake Simcoe Clean-Up Fund](#), the program has delivered 25 workshops to more than 500 hundred local landowners, helping them assess their current property management practices and create environmental action plans. So far, more than 90 private landowners have developed stewardship action plans for their properties and received financial support to help carry out projects that contribute to phosphorus reduction and natural heritage rehabilitation and protection.

An important part of the program is to encourage natural re-vegetation along shorelines, since vegetative buffers help to stabilize soil and prevent shoreline erosion. Native trees, shrubs, wildflowers and grasses, instead of manicured lawns, also help to soak up nutrients — such as phosphorus — that would otherwise run into the lake.

In the first year of implementing the Lake Simcoe Protection Plan, 20,000 native trees and shrubs have been planted, contributing to the naturalization of more

than two kilometres of shoreline. An additional 700 metres of shoreline have been stabilized through erosion control techniques.

Rural and shoreline residents are encouraged to attend a Lake Simcoe Community Stewardship Program workshop to learn more about stewardship opportunities and to start developing action plans for their properties. Participants will also learn about the various organizations, programs and financial resources available to assist them with their projects.

Learn more

Read [Lake Simcoe Community Stewardship Program](#) brochure, visit <http://www.ontariostewardship.org>, or contact lakesimcoestewardship@ontario.ca.

View our [implementation table](#) for an update on each of the policies related to stewardship, education and outreach activities in the Lake Simcoe Protection Plan.

What You Can Do

Develop an environmental action plan for your rural or shoreline property and consider implementing these best management practices:

- Stop mowing three metres or more from the edge of your stream or lake shoreline and allow natural buffer or vegetation to grow.
- Plant native trees, shrubs and wildflowers in the buffer along your shoreline and around your property.
- Consider reducing or eliminating shoreline erosion using bio-engineering techniques.
- Maintain or increase wetlands on your property.
- Schedule a property visit for technical assistance and advice on selecting appropriate plants or stabilizing an eroding shoreline.

NEXT STEPS

This past year has been an important year for us to establish a strong, resilient foundation upon which to implement the Lake Simcoe Protection Plan — making sure we have the right monitoring programs in place for aquatic life and the natural landscape, putting in place the [Lake Simcoe Phosphorus Reduction Strategy](#), and determining the best way to protect the lake's shoreline.

The principles that have guided us over the past year continue to be critical as we move forward. They include:

- using an adaptive management approach — because scientific research is ongoing and we will make changes when new information or technology becomes available, and
- reviewing decisions and choices regularly as our knowledge increases, to ensure our path continues to be the right one.

These principles underscore the importance of the time and effort needed to reach our goals, and the need to keep moving forward on protecting the Lake Simcoe watershed.

This next year will be a key year for implementing many of the projects. It will also be a time for us to bring all the pieces together — to work in concert — and focus our efforts on the significantly stressed areas of Lake Simcoe.

As well, we will be launching new projects. This year we will develop our climate change adaptation strategy for the Lake Simcoe watershed.

We are already feeling the effects of climate change in Ontario and in the Lake Simcoe area. Delayed freeze-up and earlier ice-off dates have occurred over the past five decades on Lake Simcoe.

While it's important that we fight climate change, we also need to prepare for and deal with its impacts; what we call climate change adaptation.

We are working to make Ontario as climate change resilient as possible. We appointed Ontario's Expert Panel on Climate Change Adaptation to help with adaptation strategies in four areas: health, infrastructure, environment and the economy.

We are now using the panel's advice to guide our climate change strategy for Lake Simcoe and will post the strategy on the [Environmental Registry](#) for public review and comment in the near future.

The strategy will set out our approach for Lake Simcoe and it will also guide climate change efforts for many of Ontario's watersheds.

Another important plan we are in the process of developing is a multi-season recreation strategy to improve conditions for activities that are environmentally sustainable.

Swimming, camping, fishing, boating, golfing and snowmobiling are just a few of the activities enjoyed on and around Lake Simcoe — they are estimated to inject more than \$200 million annually into the local economy.

These activities, however, often have an impact on the quality and quantity of the water, the fish community and the spread of invasive species.

Our challenge is to ensure people have fun on and around Lake Simcoe, and at the same time preserve the ecosystem. With the opportunity to enjoy the lake, comes the responsibility to value the lake.

We are in the early stages of developing the strategy and will be consulting with recreation and tourism groups. We will post the draft recreation strategy on the [Environmental Registry](#) for public comment.

We will also be holding a Lake Simcoe Science Forum to bring together the science community to share their approaches and findings as they work to restore and protect the health of the lake. Information about Lake Simcoe's aquatic life, water quality and water quantity will be shared in more detail at this event.

Another important project underway is to explore the link between a healthy fish community and a healthy economy. Lake Simcoe supports a significant multi-species, year-round fishery and is the most intensively fished inland lake in Ontario. This contributes significantly to local economies and potentially provides multiple social and cultural benefits. Working with our partners, we are looking at the monetary, ecological, social and cultural value and impact of Lake Simcoe's fish community.

Our science-based, ecosystem approach to protecting the lake recognizes that a healthy environment is the cornerstone of healthy communities and a healthy economy.

We look forward to continuing the momentum, starting new projects and working with our partners to protect and restore the Lake Simcoe watershed.

ACKNOWLEDGEMENTS

There are a number of stakeholders representing a broad range of interests around Lake Simcoe: municipalities, First Nations, Metis communities, farmers and the agricultural sector, tourism, fisheries, businesses, developers, residents, cottagers and environmentalists.

We would like to acknowledge the work of all of the stakeholders involved in protecting Lake Simcoe: your work, expertise and dedication make a significant difference to the success of the Lake Simcoe watershed project.

We would also like to specifically thank the Lake Simcoe Region Conservation Authority who has been, and continues to be, an important partner with the Ontario government in implementing the Lake Simcoe Protection Plan and improving the health of the lake. The authority's commitment to restoring the lake is clearly evident and appreciated.

Thank you to the many engaged First Nations, First Nations organizations, Métis organizations and communities, including:

- Chippewas of Georgina Island First Nation
- Chippewas of Rama (Mnjikaning) First Nation
- Métis Nation of Ontario
- Anishinabek Nation

Thank you as well to the many engaged groups, including:

- Building Industry and Land Development Association (BILD)
- Conservation Ontario
- Environment Canada
- Environmental Defence
- Ladies of the Lake
- Lake Simcoe Fisheries Stakeholder Committee and represented organizations
- Ministry of Natural Resources, Ministry of Agriculture, Food and Rural Affairs, Ministry of Municipal Affairs and Housing, Ministry of Infrastructure
- Municipalities: Aurora, Barrie, Bradford, West Gwillimbury, Brock Township, Caledon, Durham Region, East Gwillimbury, Georgina, Innisfil, Kawartha Lakes, King, New Tecumseth, Newmarket, Orillia, Oro-Medonte, Ramara, Richmond Hill, Scugog, Severn, Simcoe County, Uxbridge, Whitchurch-Stouffville, York Region
- Ontario Federation of Anglers and Hunters and affiliated clubs
- Ontario Stewardship Councils:
 - Durham Land Stewardship Council
 - Land Stewardship Network of Dufferin & South Simcoe

- North Simcoe Stewardship
- Victoria Stewardship Council
- York Environmental Stewardship
- Rescue Lake Simcoe Coalition
- South Lake Simcoe Naturalists
- Windfall Ecology Centre

Appendix A: Lake Simcoe Science Committee and Lake Simcoe Coordinating Committee Recommendations

The Ontario government has gathered input on improving the health of Lake Simcoe by:

-
- Creating the Lake Simcoe Science Committee with expertise in water quality, lake and basin ecology, and impacts of surrounding areas on lake health and aquatic life.
- Appointing a Lake Simcoe Coordinating Committee representing the interests of municipalities, farmers and the agricultural sector, tourism, fisheries, business, developers, residents, cottagers and environmentalists.

The committees each met twice between June 2009 and June 2010 and have provided valuable advice on a range of our first-year deliverables.

Committee minutes are available online at [Lake Simcoe Committees](#). A summary of recommendations provided by each committee is below.

Lake Simcoe Science Committee Recommendations

Topic Area:	Recommendations:	Result:
Phosphorus Reduction Strategy (PRS) <i>Committee recognized that the “proportional reduction” concept was a planning tool.</i>	Ensure background phosphorus levels figure into proportional reductions Review “proportional reduction” concept to ensure it fits strategy Consider restoring natural heritage features to reduce phosphorus loading Ensure informed choices are made at all phases of development Focus on sources of urban runoff Increase monitoring to re-evaluate proportional reductions by 2015 Enable usage and promotion of new technology	Strategy completed, recommendations taken into consideration and will be supported as strategy adapted
Water Quality Trading <i>Committee believes this program could have ecological co-benefits.</i>	Further analysis needed, consider pilot program to test concept	Recommendation for further analysis adopted: study underway.
Shoreline Regulation <i>Committee was favourable on the direction of the Shoreline Regulation Discussion Paper.</i>	Regulation should stop new drainage of wetlands	Draft will come back to Committee for further review
Climate Change Adaptation Strategy	Define and scope adaptation Realize impact on all sectors for water supply and demand Utilize PRS categories to measure sector impacts of	Will be brought back to relevant parties

	climate change	
Terrestrial Monitoring <i>Committee noted the importance of terrestrial monitoring and recommended that funding be allocated on an ongoing basis.</i>	Further clarify term “high quality” vegetation for targets	Amended based on reviewer comments New report along with the recommended options will be presented to the Science Committee on September 17 th , 2010
	Identify specifics on data management and analysis	
	Consider ongoing terrestrial monitoring	
Natural Heritage Technical Guidelines	Re-evaluate criteria “not covered by invasive or non-invasive plant species”	Comments received on the guidelines. Currently in the process of approval for posting to EBR
	Do not exclude new trees from guidelines	
	Reconsider decision regarding hectare size- 10 hectares vs. four hectares	
Invasive Species watch list and monitoring <i>Committee believes watch list should be the first step to creating response plans.</i>	Ensure invasive threats list is externally peer reviewed	Workplan adapted based on recommendations and further internal and external review planned
	Distinguish Ontario priorities from Lake Simcoe priorities	

Lake Simcoe Coordinating Committee Recommendations

Topic Area:	Recommendations:	Result:
Phosphorus Reduction Strategy (PRS) <i>Committee in favour of approach that province took on the draft strategy. Some concerns over sector fairness in reduction plan.</i>	Undertake cost-benefit analysis to prioritize early actions on proportional reduction approach Strategy should support innovation and allow permits for new projects Support education and stewardship activities Allow municipalities to have incremental targets Ensure Simcoe Growth Plan is in line with PRS	Strategy completed, recommendations taken into consideration and will be supported as strategy adapted.
Water Quality Trading <i>Committee felt that this was a possible tool with the potential to spur innovation.</i>	Study this initiative further before pursuing	Recommendation adopted: study underway
Shoreline Regulation <i>Committee feels this strategy requires effective education and outreach.</i>	Concerns over compliance enforcement Develop more educational materials, including social marketing tools Examine potential to expand activities beyond shorelines areas	Draft will come back to Committee for further review
Stewardship <i>Committee is strongly in favour of stewardship programming.</i>	Coordinate stewardship through a 'one-window' approach for information	Work ongoing in this area

Get Involved

We all need to play a role in protecting Lake Simcoe

You can contact:

Lake Simcoe Project Team
Ministry of the Environment

Email: protectlakesimcoe@ontario.ca

Website: www.ene.gov.on.ca/en/water.lakesimcoe

Tel: 416-325-4000 or 1-800-565-4923

Fax: 416-327-9823



www.ontario.ca/environment