

A scenic photograph of a lake, likely Lake Simcoe, with lush green trees in the foreground and a calm body of water in the background. A small boat is visible on the left, and a wooden dock or pier is on the right. The sky is a pale blue.

HOW WELL- PROTECTED ARE GREENLANDS IN SIMCOE COUNTY?

The Rescue Lake Simcoe Coalition's greenlands mapping project seeks to identify how well-protected our forests, wetlands, and shorelines are by analyzing the strength of the policies applied to the features that make up our greenlands.






HOW WELL-PROTECTED ARE OUR GREENLANDS?

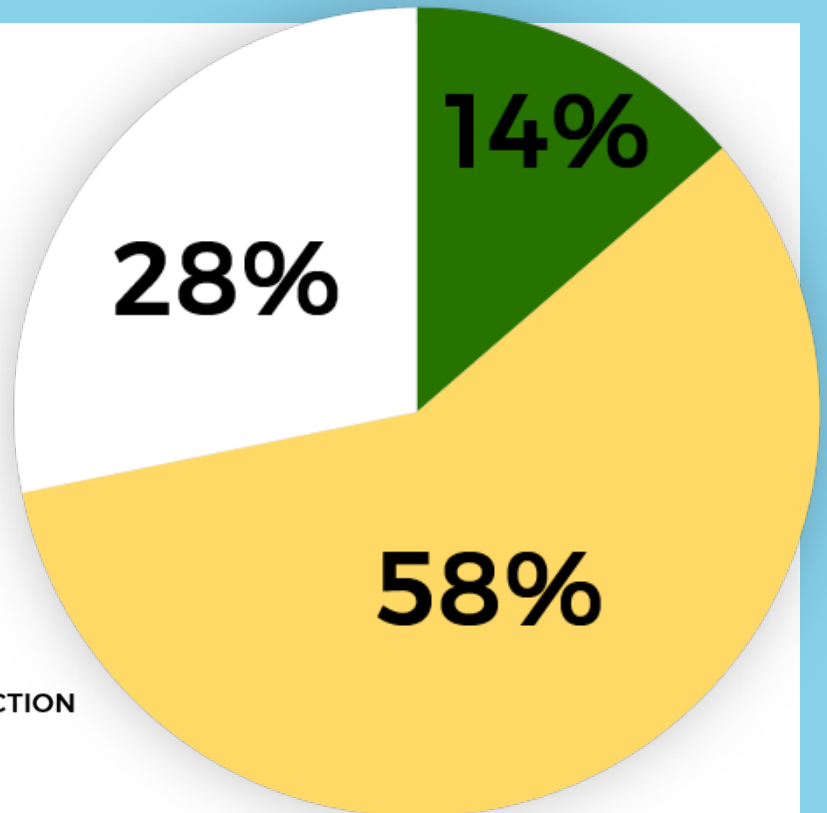
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LEVELS OF ENVIRONMENTAL PROTECTION

-  LEVEL 1. Best protected
-  LEVEL 2. Somewhat protected
-  LEVEL 3. Not protected

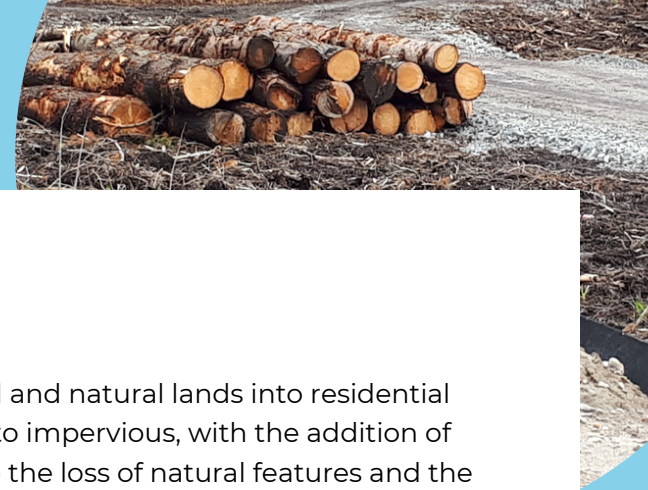
* For more information about what the levels of protection mean, see map p. 3, and legend p. 10.



Simcoe County total land area,
excluding water

In the context of this report, **greenlands** are primarily forests and wetlands, and the buffers around our forests, wetlands, lakes and rivers, that make up Simcoe County's "Natural Heritage System" or NHS. Our analysis excludes water bodies.

Context: While governments and land use policies change, climate change impacts, water quality deterioration, and losses of forests and wetlands proceed across Southern Ontario. This report is intended to demonstrate that we need to increase the amount of land that is well protected for the long term, now. The province has an opportunity to do so for the Lake Simcoe watershed in the 2019 review of the *Lake Simcoe Protection Act*, 2008, and Plan, 2009, and more broadly in the current consultation on proposed changes to the Provincial Policy Statement.



Vulnerabilities

Development

Greenfield development is just as it sounds; turning agricultural and natural lands into residential areas. Development generally changes the land from pervious to impervious, with the addition of roads, roofs, driveways, and shallow-rooted lawns. In addition to the loss of natural features and the free services they provide (like filtering water), erosion and dust from development negatively impact water quality. Although better development techniques are being applied in the Lake Simcoe watershed due to the Lake Simcoe Protection Plan, Low Impact Development and erosion control techniques should be used across Simcoe County to help improve water quality.[1]

There is virtually no justification for rezoning more land for development in Simcoe County. Simcoe County has far more land zoned for residential uses than it needs. The population of Simcoe County today is 305,516 people. Ontario's Growth Plan sets Simcoe County's population target for 2031 at 416,000 (excluding Barrie and Orillia).[2] There is enough land currently zoned residential set aside to accommodate another 165,651 more people than the provincial 2031 population target.[3] But, it turns out, people are not moving to Simcoe County as expected. The Ministry of Finance projects that the 2041 population of Simcoe County will be 99,000 fewer people than the Growth Plan's population target for the same year.[4] Overbuilding unnecessarily destroys our green spaces and threatens our communities' financial well being.

Reliance on the Province's natural heritage protection policies

Of the lands that fall into the Best Protected category, Simcoe County's Natural Heritage System is only responsible for 1% more land than what is protected by provincial policies.[5] The most protective policies are those contained in the Provincial Policy Statement and the Growth Plan. This means that if the provincial policies that best protect our greenlands are weakened, we could be left with a much smaller and weaker Natural Heritage System in Simcoe County.

See Level One Protection Features map at bit.ly/greenlandsreport.

Aggregate activity could remove 11% of lands in the Best Protected category

Potential sites for aggregate, sand, and gravel make up approximately 11% of the total land area currently classified as Best Protected (Level 1) in Simcoe County. If permits are issued for these extractive industries, which is possible by law even in the Best Protected areas, then Simcoe County could lose up to 11% of its best protected greenlands.

See Aggregate Potential map at bit.ly/greenlandsreport.

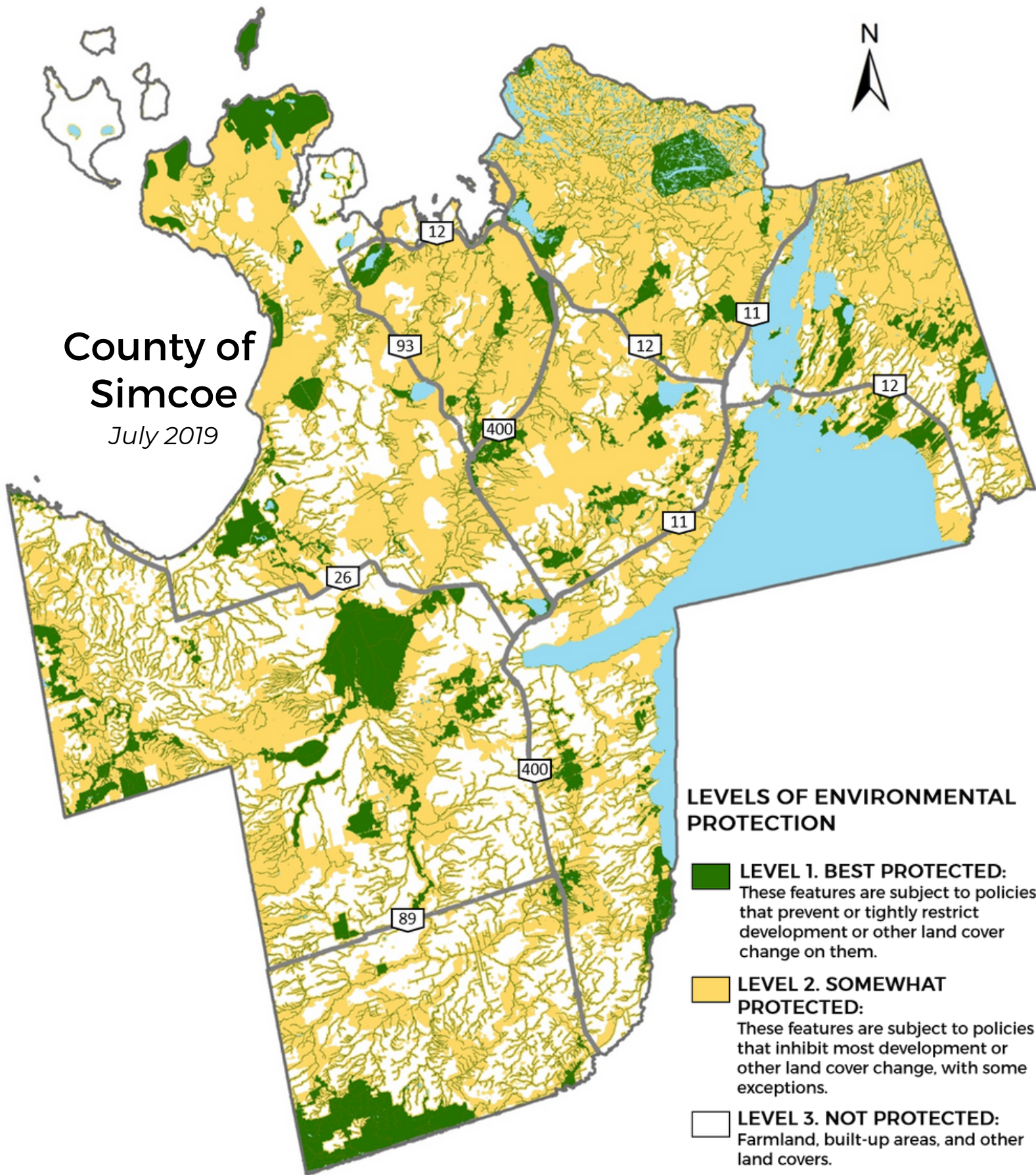
1 Nottawasaga Valley Conservation Authority. 2019. "Nottawasaga Valley Integrated Watershed Management Plan." https://www.nvca.on.ca/Shared%20Documents/Nottawasga_Valley_IWMP_2019.pdf

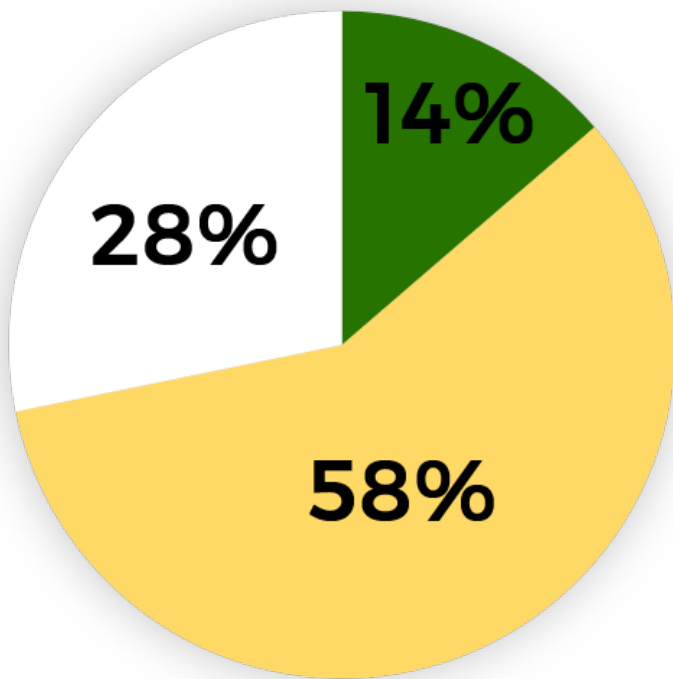
2 Ministry of Municipal Affairs and Housing. 2019. "A Place to Grow: Growth Plan for the Greater Golden Horseshoe." Schedule 7.

3 "Growth Information: Population & Employment Growth." *County of Simcoe*. <https://www.simcoe.ca/dpt/pln/growth>

4 Ontario Ministry of Finance. "Ontario Population Projections Update, 2017–2041." Table 4. <https://www.fin.gov.on.ca/en/economy/demographics/projections/table4.html>

5 County Of Simcoe. 2007. "The County of Simcoe Official Plan." <https://www.simcoe.ca/Planning/Documents/2008%20SCOP.pdf>





Proportion of total land area in each 'level of protection'.
(See full legend for details, p 10.)

About this map:

This map is based on best-available data collected from multiple sources, including Land Information Ontario, the Lake Simcoe Region Conservation Authority, and the County of Simcoe. Still, there may be data gaps which result in some areas not being represented here.

What's missing?

- Additional greenlands that may be protected by lower tier municipalities that are not mapped;
- Habitats of sensitive species;
- Lands that are protected by individual land owners conservation agreements;
- Traditional Ecological Knowledge is not included in land analyses.

For the full policy analysis upon which this study is based, see Simcoe County greenlands mapping spreadsheets at bit.ly/greenlandsreport.

Traditional Knowledge: What is its importance?

Since contact, Indigenous peoples in North America and all over the world have been forced to fight for their right to practice their traditions, embrace their culture, and carry out their responsibility to protect Mother Earth. Many land use activities have had detrimental effects on the land and waters that sustain us and are being felt by all. Although we cannot change what has happened in the past, we have the opportunity to move forward in a good way.

Traditional Ecological Knowledge, Traditional Knowledge and/or Indigenous Knowledge is a connection that Indigenous people have to the land that surrounds them, including all of the biodiversity contained within. It is a recognition and a knowing that all that exists on Mother Earth is not only significant but also interconnected, and that respect, relationship, reciprocity, and responsibility must be practiced in order to maintain the health of the landscapes that sustain us.

Borne from long periods of personal interaction, observation, and exploration with and on the land that is passed down from generation to generation, Traditional Knowledge meaningfully contributes to the continued existence of all plants, animals, lands, and waters. It informs preservation of biodiversity and guides restoration, rehabilitation, and recovery activities of Mother Earth in a way that Western knowledge cannot, and has since the beginning of time.

It is more important than ever that the teachings and knowledge of the Indigenous peoples remain relevant in contemporary times as they hold powerful insights into how human beings can and should interact with the land in a way that promotes environmental sustainability.

This is a co-learning journey and it is time for Indigenous and non-Indigenous to come together to ensure that we are protecting enough of what sustains us for our future generations.

Kerry Ann Charles, Cambium Aboriginal



What should be protected?

Healthy, robust natural heritage systems provide people with better air and water quality, and provide habitat for animals.

Four fifths of Ontario's species at risk live in Southern Ontario's "mixed wood plains" ecozone, within which Simcoe County is situated,[6] so what happens to our greenlands matters to a lot of creatures.

It is not enough to protect the features identified as Level 1 in our analysis; those protected patches should be connected to one another. Permanently protecting a natural heritage system of connected greenlands provides space for plants, animals, and birds to live and migrate.

Simcoe County is comprised of two watersheds (Lake Simcoe and Nottawasaga Valley). There are forest and wetland targets for the Lake Simcoe watershed,[7] but not for the Nottawasaga. The targets used on the next page are relevant, though generalized.

Later in 2019 the Rescue Lake Simcoe Coalition will release a Lake Simcoe watershed greenlands report, in which mapping results will be measured against specific Provincial and Lake Simcoe Region Conservation Authority (LSRCA) targets for the Lake Simcoe watershed.

Non-policy landscape protection

Land Trusts protect some properties, but the locations are not mapped.

In Simcoe County land trusts protect:

Oak Ridges Moraine Land Trust - 349 acres
Couchiching Conservancy - 707 acres
Nature Conservancy of Canada - 1886 acres.

Simcoe County is 1,316,947 acres in size..

(Continued next page)

6 Ministry of Natural Resources. 2009. "State of Ontario's Protected Spaces Report." <https://www.ontario.ca/page/state-ontarios-protected-areas-report>

7 Lake Simcoe Region Conservation Authority. 2018. "Natural Heritage System and Restoration Strategy."

For the Southern Ontario context, Environment Canada recommends:

Minimum 10% wetland cover

The greater of (a) 10% of each major watershed and 6% of each subwatershed, or (b) 40% of the historic watershed wetland coverage, should be protected and restored, and no net loss of wetlands.[8]

- Simcoe County has 14% wetland cover based on our analysis,[9] and approximately half of its historic wetland cover.[10]

Commentary: Despite the relatively good looking numbers, Simcoe County is losing wetlands.[11] Many subwatersheds are below the LSRCA's watershed-wide targets.[12] (Subwatersheds are areas that drain into a river that itself drains into the main receiving body of water, such as Lake Simcoe and Lake Huron.) To achieve "no net loss", all wetlands should be formally evaluated, identified and protected in the County's Natural Heritage System.

50% forest cover

50% forest cover or more at the watershed scale equates to a low-risk approach that is likely to support most of the potential species, and healthy aquatic systems. [13]

- Simcoe County has 22% forest cover.[14]

Commentary: Simcoe County is nowhere near the forest cover target, and forests are being lost. [15] Forest cover is not evenly distributed across Simcoe County, with most cover in the north. Ecologically based forest cover targets should be set for the subwatersheds.

Less than 10% impervious land cover

Urbanizing watersheds should maintain less than 10% impervious land cover in order to preserve the abundance and biodiversity of aquatic species.[16]

- Simcoe County is 8% urbanized.

Commentary: As new lands zoned residential are developed, the urbanized and impervious portion of the County will increase. Efforts should be made to increase residential density within existing settlement boundaries to limit the need to convert more agricultural and natural lands to residential.

8 Environment Canada. 2013. "How Much Habitat Is Enough?" Third Edition. Toronto, Ontario: Environment Canada. https://www.ec.gc.ca/nature/default.asp?lang=En&n=E33B007C-1#_01.

9 Map - Land Cover Breakdown Simcoe County. bit.ly/greenlandsreport

10 Ducks Unlimited. 2010. "Southern Ontario wetland conversion analysis." p. 8.

11 Nottawasaga Valley Conservation Authority. 2013. "Watershed health checks, 2002 - 2008." <https://www.nvca.on.ca/watershed-science/watershed-report-cards>

12 Lake Simcoe Region Conservation Authority. 2018. "Natural Heritage System and Restoration Strategy." p. 115.

13 Environment Canada.

14 Map - Land Cover Breakdown Simcoe County. bit.ly/greenlandsreport

15 Nottawasaga Valley Conservation Authority. 2013.

16 Environment Canada.





Recommended Next Steps

We can achieve these ecological targets in Simcoe County, since we currently have 14% of the County in the Best Protected, and 58% in the Somewhat Protected categories. But both of these categories allow for a death by a thousand cuts; many changes to land use are permitted even in the Best Protected category. *See the map legend on page 10.*

We have an opportunity to get it right in Simcoe County by permanently protecting an adequate amount of greenlands to ensure the long-term sustainability of the region.

Province of Ontario:

- Maintain or strengthen the provincial policies that protect wetlands, forests and shorelines in provincial planning documents;
- Make efforts to engage Indigenous people and ensure their perspectives and Traditional Ecological Knowledge are incorporated into provincial policies that protect wetlands, forests, shorelines and other significant natural features they may identify;
- Work with municipalities and the County to implement the Growth Plan's Natural Heritage System for the Greater Golden Horseshoe and related policies as soon as possible to protect linkages in particular;
- Prohibit the removal of greenlands and linkages from the Growth Plan's Provincial Natural Heritage System;
- Preliminary maps of "high quality natural cover" have been developed by the province in the Lake Simcoe watershed.^[17] Take the next steps and ensure the mapping is completed, and that these features are protected in the Lake Simcoe Protection Plan;
- Expand the Greenbelt into Simcoe County.

¹⁷ "Lake Simcoe Monitoring". 2014. Forests-Settled-Urban-Landscapes.org. <http://forests-settled-urban-landscapes.org/VSP/Results.html>.

Municipalities and Simcoe County:

- Municipalities in the Lake Simcoe watershed that have not already done so, should adopt the Lake Simcoe Region Conservation Authority's Natural Heritage Strategy in their municipal Official Plans;
- Municipalities in the Nottawasaga Valley watershed should implement the Natural Heritage recommendations in the NVCA's Integrated Watershed Management Plan;[18]
- Set targets, implementation mechanisms, and timelines to meet or exceed the federal habitat protection guidelines above, on a subwatershed basis, and put biodiversity objectives in municipal planning documents;
- Ensure that the "high quality natural cover" features in the Lake Simcoe watershed are protected in Simcoe County's Official Plan;
- Refuse requests to expand settlement boundaries, and instead develop "complete communities";[19]
- Increase environmental restoration activity, focusing on linkages, shorelines and riverbanks;
- Develop strong regional and municipal tree cutting bylaws and enforcement regimes using the Ontario Woodlot Tree Conservation By-law Template;[20]
- Explore and invest in green infrastructure.[21]

Landowners:

Landowners wanting to protect environmental or farm features on their lands forever can do so in a number of ways through a Land Trust. Land Trusts are charitable organizations committed to permanent protection of lands with ecological, scenic, historical, agricultural and recreational values.

These Land Trusts operate in Simcoe County: Oak Ridges Moraine Land Trust, Couchiching Conservancy, Nature Conservancy of Canada and Huronia Land Conservancy. See the Ontario Land Trust Alliance website for information about local land trusts.[22]

18 Nottawasaga Valley Conservation Authority. 2019.

19 Government of Ontario. "Building Complete Communities: Supporting Quality of Life."
<http://www.mah.gov.on.ca/AssetFactory.aspx?did=15007>

20 "Tree Conservation By-law Template." 2013. *Ontario Woodlot Association*.
https://www.ontariowoodlot.com/images/Tree_Conervation_By-law_Template_Jan-2013.pdf

21 "Green Infrastructure: A Key Resource For Improving Our Communities". 2019. *Friends Of The Greenbelt Foundation*.
https://www.greenbelt.ca/green_infrastructure.

22 <https://olta.ca/land-trust-members/>



Greenlands. What are they good for?

Protecting greenlands is good for the environment, our economy, and our way of life.

Access to Lake Simcoe and an outdoorsy lifestyle are two of the top four reasons people move to the Barrie area.[23] Indeed, Simcoe County forests are being used more than ever by members of the public and school boards, for mountain bike events, horse drawn sleigh rides, and snowmobile trails.[24]

Wetlands and forests provide us with free “ecosystem services,” It is highly recommended, and far more cost-effective, to protect natural features than to destroy them, and offset the loss of function by building for example, an engineered wetland to replace the natural one.[25]

Wetlands regulate water flow, filter water and remove some contaminants, help to control flooding, and provide wildlife habitat and recreational opportunities.

Forests also help to filter water and regulate water flow, they store carbon, create oxygen, provide habitat for pollinators and wildlife; and are an essential part of outdoor, sustainable recreation opportunities.

International research indicates that homes adjacent to naturalistic parks and open spaces are valued at 8-20% more than comparable properties.[26]

Healthy, naturalized shorelines and river banks provide habitat for fish and bird prey species, in part by shading and cooling the water. And natural shorelines with trees or shrubs erode less than a bare shoreline. This is beneficial for Lake Simcoe since soil erosion contributes to the lake’s phosphorus pollution problem.

23 Barrie District Association of Realtors. 2018. BDAR Member Survey Results.

24 County of Simcoe. 2017. “County Forests Annual Report.” p. 9.

<https://www.simcoe.ca/Forestry/Documents/2017%20Annual%20Report.pdf>

25 Hanson, Craig et al. 2011. “Forests for water: exploring payments for watershed services in the US south.” World Resources Institute Issue Brief, Issue 2, p. 15.

26 Wolf, K.L. 2010. Community Economics - A Literature Review. In: Green Cities: Good Health (www.greenhealth.washington.edu). College of the Environment, University of Washington.

Map Legend with Definitions

Level	Definition	Examples of permitted activities
1. BEST PROTECTED	<p>These features are subject to policies that prevent or tightly restrict development or other land cover change on them. An Environmental Impact Assessment (EIA) is required to demonstrate environmental impacts of permitted activities are minimal and can be mitigated.</p> <p>Level 1 includes mostly features protected by provincial policies:</p> <ul style="list-style-type: none"> • significant woodlands; • significant valleylands; • Provincially Significant Wetlands (PSWs); • Areas of Natural Scientific Interest (ANSI's); • Lake Simcoe shoreline; • natural areas abutting Lake Simcoe; • Significant Wildlife Habitat; • Provincial Parks; • Natural Areas (Niagara Escarpment Plan); • Core Areas (Oak Ridges Moraine Conservation Plan). 	<ul style="list-style-type: none"> • new aggregate operations, with restoration and environmental impact requirements; • low footprint infrastructure that has been proven to have no alternative; • non-intrusive recreation; • maintenance of existing infrastructure; • fish, forest, wildlife management; • stewardship and conservation activities; • flood or erosion control; • retrofits to storm water facilities.
2. SOMEWHAT PROTECTED	<p>These features are subject to policies that inhibit <i>most</i> development or other land cover change with some exceptions. An Environmental Impact Assessment is required to demonstrate that environmental impacts are minimal and can be mitigated.</p> <p>Level 2 includes:</p> <ul style="list-style-type: none"> • Setbacks and vegetation protection zones around protected features such as ANSIs, PSWs, permanent and intermittent streams and lakes; • significant groundwater recharge areas and highly vulnerable aquifers; • linkage areas (Oak Ridges Moraine); • Simcoe County Greenlands linkage areas; • features adjacent to level 1 features. 	<ul style="list-style-type: none"> • new aggregate operations, with restoration and environmental impact requirements; • having met criteria to demonstrate limited environmental impact: development and site alteration, wind power facilities. <p>No Environmental Impact Assessment required for:</p> <ul style="list-style-type: none"> • low footprint infrastructure that has been proven to have no alternative; • non-intrusive recreation; • maintenance of existing infrastructure; • fish, forest, wildlife management; • stewardship and conservation activities; • flood or erosion control; • retrofits to storm water facilities.
3. NOT PROTECTED	<p>Level 3 includes:</p> <ul style="list-style-type: none"> • farmland; • roads; • settlement areas and built up areas. <p>The Greenbelt Protected Countryside designation is included because it does not protect Natural Heritage Features. It does, however, restrict settlement boundary expansions.</p>	N/A

For the methodology and the full policy analysis upon which this study is based, see bit.ly/greenlandsreport.



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Rescue Lake Simcoe Coalition



The Rescue Lake Simcoe Coalition is a lake-wide member-based organization, representing 22 groups in the Lake Simcoe watershed, that provides leadership and inspires people to take action to protect Lake Simcoe.



Thank you to the Friends of the Greenbelt Foundation for their support.

Rescue Lake Simcoe Charitable Foundation

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