Protecting Georgian Bay's Coastal Region

Discussion Paper

URBAN STRATEGIES INC.



OCTOBER 2026

Prepared for the Georgian Bay Vision 2050 Project

A message from Marilyn Capreol

> World as we know Her was created in a circle. A place where all living beings have space and are equal. Looking forward to 2050 is a celebration of responsibility. Sharing all knowledge systems of how best to care for the land above and beneath the water. The same respect must be given to the Sacred medicine of water above and below the land. Let us all join in preparing for the future health and celebration of 2050 and beyond. Our grandchildren and great-grandchildren will know we cared for their future.

- Shawanaga First Nation Elder Marilyn Capreol

Director, Georgian Bay Biosphere Mnidoo Gamii

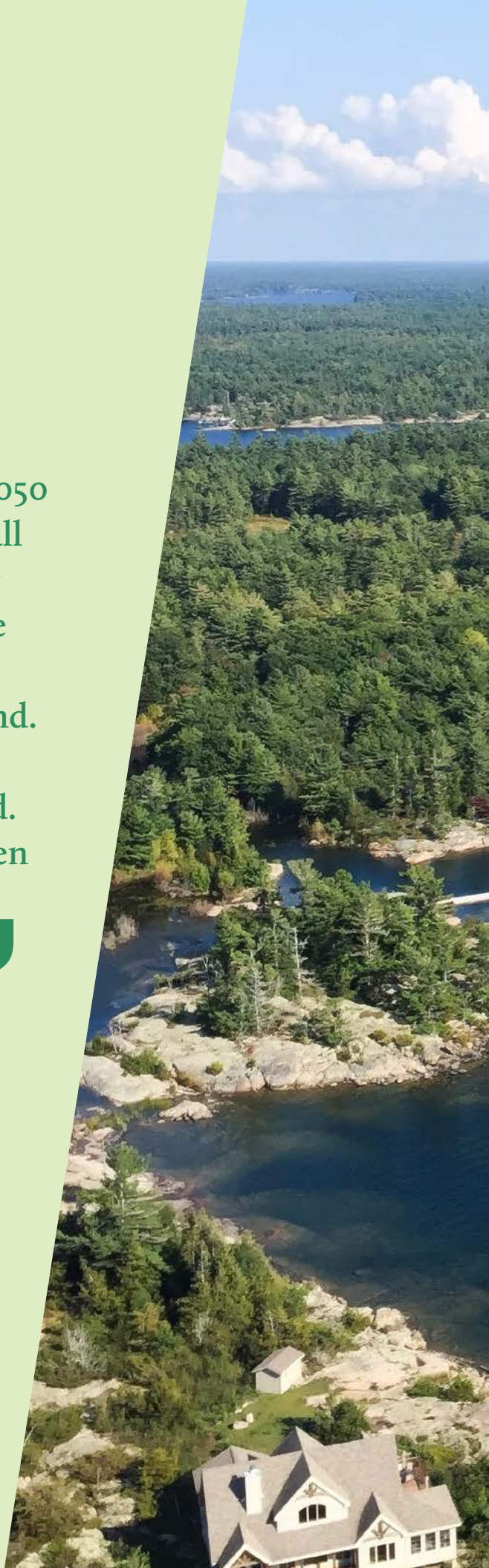
Founding member, Conservation through Reconciliation Partnership (CRP) Elder's Lodge, based at the University of Guelph

Participant in the national circle, UNESCO Canadian Heritage Indigenous Language

Member of the Indigenous Circle for the Canadian Biosphere Reserves Association

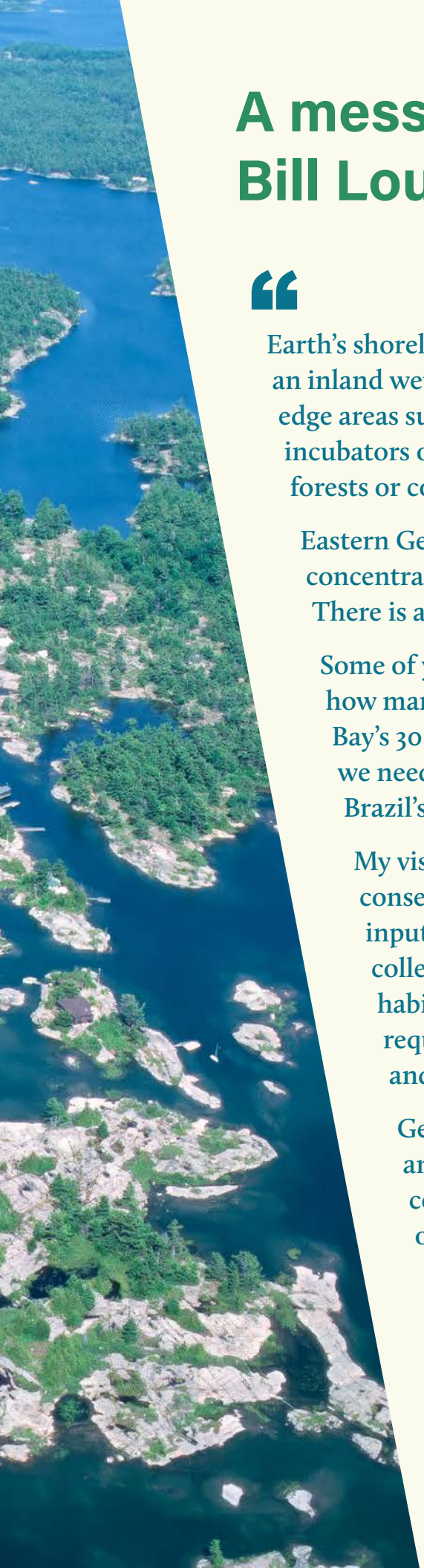
Member, Vision 2050 Advisory Council

In her reflective piece, Niibii – Water – Sacred Medicine, Marilyn shares Anishinaabe teachings that view water not as a resource, but as the lifeblood of Mother Earth.
Read it here: https://georgianbay.ca/wp-content/uploads/2026/05/Niibii-Water-Sacred-Medicine.pdf









A message from Bill Lougheed

“

Earth’s shoreline zones are the ***ribbon of life*** where land meets: a stream, an inland wetland, a river, a lake, a great lake or an ocean. These diverse edge areas support 90% of life-forms on our small planet and are crucial incubators of species diversity. They are as important as tropical rain forests or coral reefs.

Eastern Georgian Bay is such a ***ribbon of life***, having the highest concentration of land/island to freshwater interface in the world. There is a global responsibility to care for it.

Some of you will know that freshwater islands are globally rare. Yet, how many of us really appreciate the global significance of Georgian Bay’s 30,000 Islands archipelago? To appreciate its significance, we need to know that the second largest freshwater archipelago is Brazil’s Anavilhanas Archipelago, with only 400 islands.

My vision for the next thirty years does not differ from those conservation-minded individuals who have given very valuable input to this Discussion Paper. My hope for the future is that collective conservation efforts will bring 75% of our coastal habitats under long-term protection – the protection that is required to preserve 90% of the present coastal flora and fauna and watershed integrity.

Georgian Bay is a globally significant freshwater keystone and should command in all our minds the highest priority in conservation planning and stewardship. We must take care of this jewel of which the world has only one.

”

- Bill Lougheed

Former Executive Director, Georgian Bay Land Trust

Vice Chair, Alliance of Canadian Land Trusts

ACLT Working Group for Canada's Conserved Areas

Member, Vision 2050 Advisory Council



Lands and Waters Acknowledgement

The Georgian Bay Vision 2050 project study area in the eastern and northern coastal region of Georgian Bay is situated in Anishinaabe traditional lands and waters. Indigenous peoples in the area are of Ojibway, Chippewa, Odawa and Potawatomi lineage; Mohawk people from the Haudenosaunee Confederacy also reside in the area. The project study area is covered by the Robinson-Huron Treaty of 1850 and the Williams Treaties of 1923.

The Georgian Bay Association (GBA) and the Georgian Bay Vision 2050 project recognize the traditional stewardship of the lands and waters in the area by these First Nations: Henvey Inlet First Nation, Magnetawan First Nation, Shawanaga First Nation, Wasauksing First Nation, Moose Deer Point First Nation, Wahta Mohawks, Beausoleil First Nation, Dokis First Nation, Whitefish River First Nation, and Wiikwemkoong Unceded Territory.

The Georgian Bay Vision 2050 team hopes to work in partnership with First Nations in developing any form of conservation framework for the region and to move beyond acknowledgement to meaningful action. The GBA will continue to learn from traditional teachings on conserving and restoring these lands and waters as we work together to conserve the region's ecological and cultural health. The GBA recognizes that any form of collaboration must be a decision made by each Nation based on its independent jurisdiction.



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Protecting Georgian Bay's Coastal Region

Georgian Bay's Coastal Region is a globally unique freshwater ecosystem rich in geological, physical, biological, and ecological features. It encompasses the world's largest freshwater archipelago, an extraordinary diversity of terrestrial, coastal, littoral, and aquatic habitats and 20% of the Great Lakes' remaining wetlands. Together, these natural assets support an exceptional abundance of biodiversity (See Section 2).

Yet this remarkable landscape is increasingly under pressure. Increasing population pressures, recreational use, development, habitat fragmentation, climate change, and water pollution threaten the lands, waters, biodiversity, and natural beauty that define the Coastal Region (see Section 3).

Although the region remains relatively healthy compared with most of the Great Lakes, its largely natural character is threatened. Situated between intensive development to the south and largely intact wilderness to the north, it stands at a critical threshold. As Ontario continues to grow rapidly and development and recreational pressures move north, the risk of ecological degradation is increasing.

Although many separate protected areas and conservation initiatives are in place, significant gaps remain:

- The Bay's waters and littoral zones are almost entirely unprotected.
- Many ecologically valuable land areas remain unprotected.
- The region has no overarching regional, ecosystem-wide plan or coordinating organization to guide protection and conservation as an integrated natural system. This stands in contrast to many similar environmentally valuable large natural areas in Canada and worldwide (See Section 4).

Without strong protection and conservation, the ecological integrity and natural beauty that define the region could suffer permanent damage. The time to act is now – to seize the opportunity to protect these irreplaceable natural assets before that damage occurs.



Executive Summary

This Discussion Paper was commissioned by the Georgian Bay Association (GBA) as part of its Georgian Bay Vision 2050 project. Georgian Bay Vision 2050 is an effort to convene dialogue and invite action to protect and conserve the Coastal Region ecosystem in perpetuity.

The Discussion Paper sets out the evidence and the rationale for stronger environmental protection and conservation across the northern and eastern coastal region of Georgian Bay (the "Coastal Region" or the "region"). Part A sets out the region's unique and globally significant natural assets and covers the increasing threats that it faces. It also identifies critical gaps in existing protection and conservation efforts. Part B sets out a framework for discussion on 1) how to significantly expand and strengthen both protection and conservation, and 2) proposals for action.

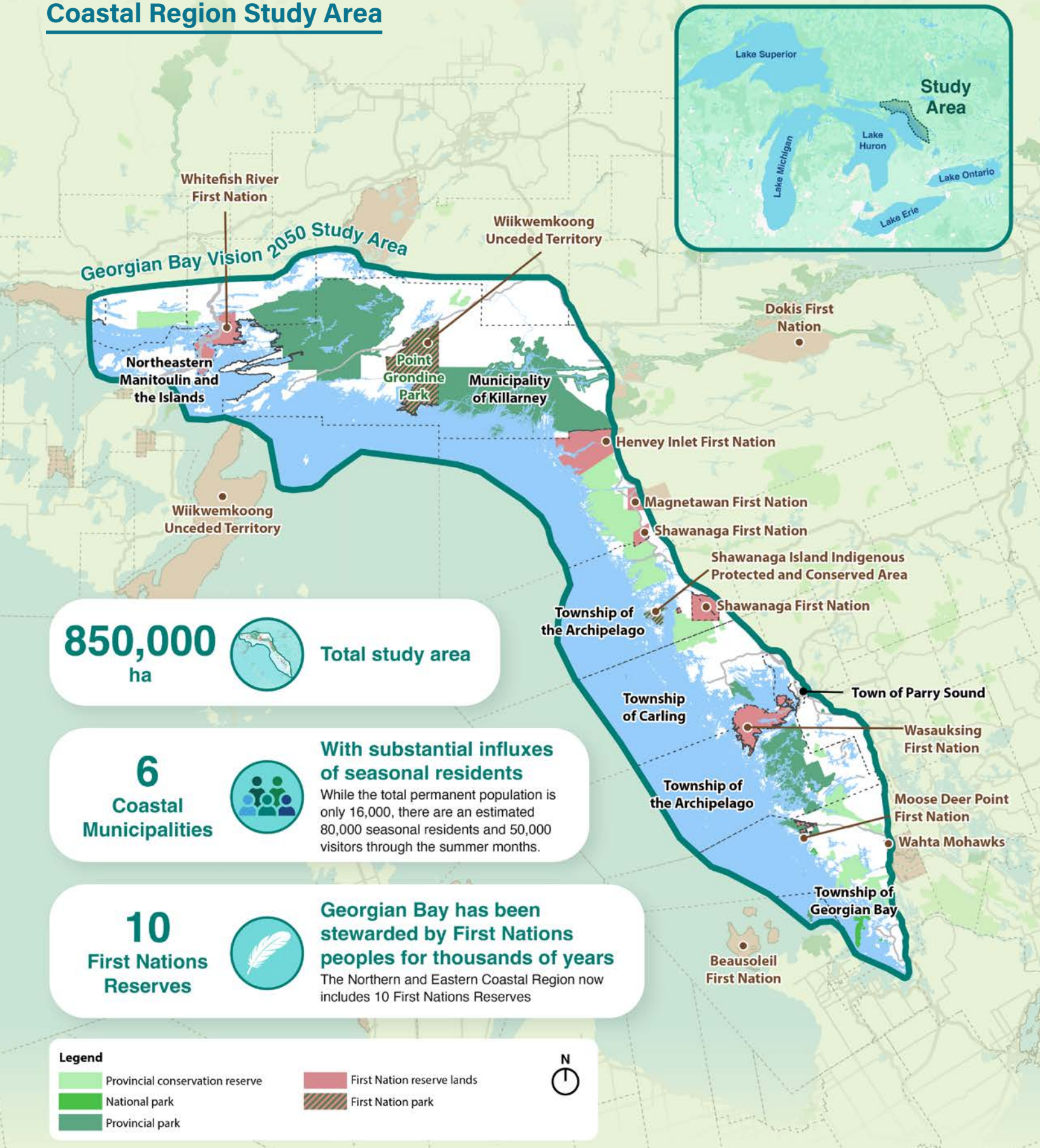
Both environmental protection and conservation are essential. Protection safeguards sensitive lands, waters, habitats and ecosystems by restricting or preventing activities that could cause ecological harm or degradation. Conservation is broader and more active, involving the ongoing stewardship, management, maintenance, and restoration of natural systems to sustain their ecological health and biodiversity over the long term.

As defined in this Paper, the Coastal Region extends from Port Severn in the south to the Bay of Islands in the north and encompasses approximately 850,000 hectares of coastal lands and nearshore waters.

This Discussion Paper lays the foundation for advancing critical dialogue among governments, First Nations, conservation organizations, communities, and other interest holders on how best to protect and conserve this remarkable Coastal Region for many generations to come.



Coastal Region Study Area



Note: The extent of the Georgian Bay Vision 2050 study area shown in above is for illustrative and discussion purposes only. A detailed and scientific-based analysis must be conducted by appropriate parties to determine the exact boundaries of any future environmental protection and conservation mechanisms.



The Coastal Region is Unique, Remarkable and Irreplaceable

The Coastal Region contains exceptional geological, physical, biological, and chemical features within the globally significant Great Lakes system (See Section 2.1). It includes the world's largest freshwater archipelago and a remarkable range of terrestrial, coastal, littoral, and aquatic habitats that are exceptionally biodiverse.

International environmental organizations and Canadian government scientists have recognized the Coastal Region's significance, honouring it with designations such as the United Nations Educational, Scientific and Cultural Organization (UNESCO) Georgian Bay Biosphere Mnidoo Gamii, multiple International Union for Conservation of Nature (IUCN) Key Biodiversity Areas, Parks Canada's national priority areas for ecological corridors, and Canadian Wildlife Service's High Value Biodiversity Areas (See Section 2.3). Finally, unlike many parts of the Great Lakes system that have already experienced significant ecological degradation, much of the Coastal Region remains in relatively good ecological health (See Section 2.2).

The Coastal Region's ecological integrity is increasingly rare and irreplaceable.

The Coastal Region is at Risk

Although the Coastal Region ecosystem is more intact compared to elsewhere in the Great Lakes, the area is subject to the same pressures that have degraded those other ecosystems. These include increased development, shoreline hardening, invasive species, climate change, pollution, and habitat fragmentation and destruction. These pressures are cumulative and are being intensified by climate change (See Section 3.1).

Population growth in southern Ontario over the last 30 years has been explosive and will continue to add pressure as people and related development march northwards. In particular, communities surrounding the Coastal Region are projected to continue to grow by approximately 30% between 2026 and 2051. Seasonal populations already exceed permanent populations in many areas, while demand for recreational use and development continues to increase (See Section 3.2).

These impacts are already evident in the south and west parts of Georgian Bay, where growth has driven significant development, infrastructure and servicing pressures. Positioned between intense development to the south and largely intact wilderness to the north, the Coastal Region is at a critical threshold. As Ontario continues to grow rapidly and development and recreation pressures move north, the Coastal Region faces increasing risk.

Without stronger protection and conservation, the ecological integrity and natural beauty that define the Coastal Region are at risk of permanent damage. The opportunity to act before that damage occurs is quickly narrowing.

Critical Gaps Persist in Protection and Conservation Initiatives

The Coastal Region already benefits from federal and provincial monitoring, conservation activities, and many non-governmental organizations (NGO), First Nations, and community initiatives in stewardship, land protection, education, invasive species management, and species-at-risk protection. Further, about 55% of the lands within the Coastal Region are protected[i].

This is a significant foundation, but it is not enough. **Critical gaps remain**.

Current protection and conservation efforts remain fragmented and lack key components of effective environmental protection:

- No Coastal Region-wide ecosystem-based regime exists for protection, monitoring or management.
- No formal collaboration occurs across governments and organizations involved in protection and conservation initiatives.
- Limited to no protection exists for Coastal Region waters, including littoral or aquatic ecosystems.
- Many ecologically important lands remain unprotected.

These gaps must be addressed before irreversible ecological loss is caused by rising development pressure and related threats.

i As per GBA's analysis using information from the Canadian Protected and Conserved Areas Database and local knowledge.

A Timely Opportunity to Respond to the Biodiversity Crisis

The mounting global biodiversity crisis is evidenced by unprecedented losses of species, habitat destruction, and population declines. In response, international commitments aim to halt the loss of biodiversity, including a target to protect 30% of the planet by 2030 ("30 by 30"). Canada is a signatory to this target, and Ontario has agreed to collaborate on achieving it. This is a timely opportunity to leverage these priorities through increased protection of the Coastal Region as part of a national solution.

A regional, collaborative, and ecosystem-based conservation framework extending across both lands and waters of the Coastal Region should form part of Canada's and Ontario's response to the biodiversity crisis and efforts to achieve Canada's 30 by 30 target.



The Path Forward

The next step must be to develop a **Coastal Region conservation framework** that clearly defines why stronger protection and conservation are required, what the top priorities for protection and conservation are, who should be involved, and how coordinated action and decision-making will occur.

Key principles for protection and conservation have been drawn from international frameworks, including those of the IUCN, and from global, large-landscape protected area case studies relevant to the Coastal Region. The key principles include:

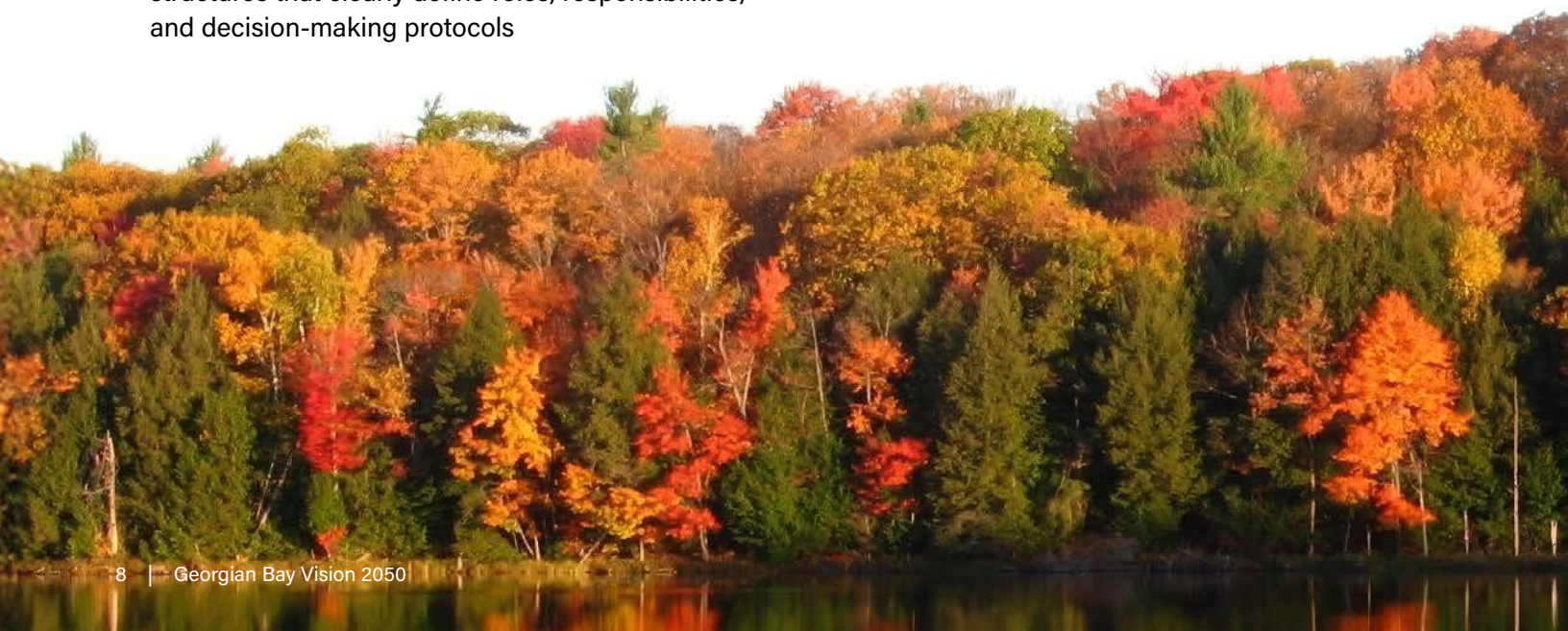
- **Regional, ecosystem-based protection** involving bodies with jurisdiction across the land, waters, and littoral components of the Coastal Region ecosystem
- **Inclusive approaches** that support First Nations participation or leadership and incorporate the perspectives of local communities and interest holders
- **Layered conservation mechanisms** including legislation, policies, stewardship, and enforcement tools to strengthen and expand protection
- **Adaptive, collaborative management** supported by shared data, coordinated conservation priorities, ongoing monitoring, and management strategies that can evolve over time
- **Secure political backing and sustainable financing** supported by agreements and working structures that clearly define roles, responsibilities, and decision-making protocols

Building on these principles and the situational analysis of the Coastal Region, a collaborative governance model is proposed for discussion. Collaborative governance is a decision-making approach in which multiple governments, First Nations, NGOs, communities, and interest holders share responsibility for establishing, implementing, and overseeing environmental conservation objectives.

Notable options for protection and conservation mechanisms include:

- Identifying additional protected and conserved areas (including water)
- Creating a cohesive network of existing protected and conserved areas
- Creating an area-specific land use plan, such as the Niagara Escarpment Plan or Greenbelt Plan
- Creating a Conservation Authority for the Coastal Region's watershed
- Promoting additional First Nations and community conservation, collaboration, and actions

However, no single mechanism will be sufficient for a region of this scale and ecological diversity. A coordinated suite of protection and conservation tools will be required.



The appropriate mechanisms and governance structure must ultimately be determined by the willing and engaged interest holders. What should no longer be deferred is the decision to begin. The time to start is now.

It is time to convene all concerned partners to co-design a coordinated, region-wide protection and conservation framework that safeguards the Coastal Region's ecological integrity before it is lost.

Now Is the Time to Act

Governments, First Nations, conservation organizations, communities, landowners, and other interest holders are invited to work together to establish a shared vision, define governance and conservation mechanisms, and commit to a sustained regional framework for long-term protection and conservation.

The Coastal Region is unique. It is vulnerable. It is worth protecting.

Now is the time to act.

Nature does not have a seat at the table.
Who will speak and act for it?





1.0 Introduction

1.0 Introduction

The Discussion Paper presents an evidence-based rationale for increased levels of environmental protection and conservation implemented at a regional scale for the northern and eastern Coastal Region of Georgian Bay (the Coastal Region). It distills and synthesizes available data and knowledge to demonstrate the ecological significance of the area to provide a foundation for making this case.

In the Coastal Region, both environmental protection and conservation are essential. Protection safeguards sensitive lands, waters, habitats and ecosystems by restricting or preventing activities that could cause ecological harm or degradation. Conservation is broader and more active, involving the ongoing stewardship, management, maintenance and restoration of natural systems to sustain their ecological health and biodiversity over the long term.

The Discussion Paper demonstrates that the Coastal Region is a globally unique ecosystem worthy of enhanced ecological protection and conservation. Achieving regional, ecosystem-based protection and conservation for the Coastal Region will require governments, First Nations, environmental non-profit organizations and other interest holders to work collaboratively towards a shared conservation strategy.

This Paper is intended as a starting point for critical dialogue amongst interest holders on the way forward, rather than a defining blueprint. Developing and implementing a coordinated conservation framework for the Coastal Region will require years of collaboration, partnership, and commitment. The need to start this process is immediate.

The Coastal Region is globally significant, ecologically distinct, irreplaceable and increasingly at risk. There is a way forward, and the time to act is now.



American Camp Island in Wah Wah Taysee. (Source: Georgian Bay Biosphere)



1.1
The Global Importance of Nature Conservation

The world is facing an unprecedented biodiversity crisis, marked by a 73% drop in global species richness between 1950 and 2020, driven by species extinctions and population declines.[1] Protecting nature has become a global imperative for the survival of our planet, and international commitments like the 2022 Kunming-Montreal Global Biodiversity Framework, which Canada has signed, aim to halt this decline. Protecting the Coastal Region, a highly biodiverse yet vulnerable ecosystem, offers a critical opportunity to meet these urgent international commitments.

1.2 The Northern and Eastern Georgian Bay Coastal Region

The Coastal Region is extensive and diverse, encompassing approximately 9,000 kilometres of shore and island coastline along which rich and diverse ecosystems are proximate and synergistic with one another. This geography supports a mosaic of aquatic, littoral, and terrestrial ecosystems that are distinct from other areas of Georgian Bay and the Great Lakes.

This Discussion Paper focuses on the 850,000-hectare study area, which includes coastal lands and nearshore waters of Georgian Bay and the immediate watershed inland from the coast. It extends from Port Severn in the south to the Bay of Islands in the North Channel in the north.

The First Nation Reserves and Municipalities* within the Coastal Region Study Area:

1. Whitefish River First Nation
2. Wiikwemkoong Unceded Territory
3. Henvey Inlet First Nation
4. Dokis First Nation
5. Magnetawan First Nation
6. Shawanaga First Nation
7. Wasauksing First Nation
8. Moose Deer Point First Nation
9. Wahta Mohawks
10. Beausoleil First Nation

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1. Northeastern Manitoulin and the Islands
2. Municipality of Killarney
3. Township of the Archipelago
4. Township of Carling
5. Town of Parry Sound
6. Township of Georgian Bay

* Note: Some additional Municipalities overlap slightly within the Study Area but have not been included as their major population centres are not within the Coastal Region.

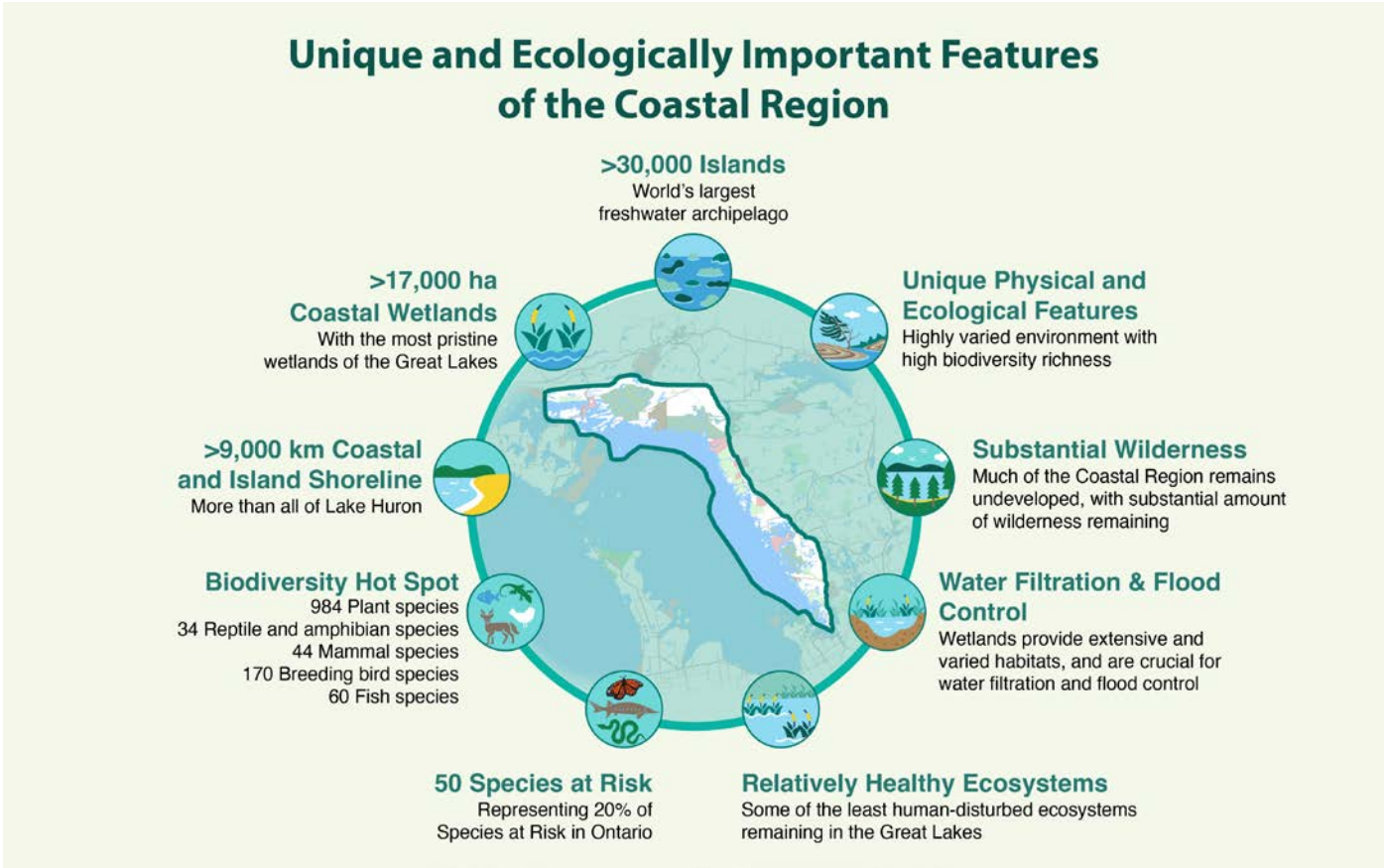


Figure 1: The Coastal Region has many unique and ecologically important features.

First Nations and The Great Lakes

Excerpt from Annex 13 of the Canada-Ontario Agreement on the Great Lakes

"There are many First Nations communities within the Great Lakes basin. First Nations value their spiritual and cultural relationship to the waters of the Great Lakes. They contribute to the protection of Great Lakes water quality and ecosystem health through the wise use and management of land and water in their communities.

Canada and Ontario work together with First Nations on a good governance basis on a wide range of environmental protection issues. This Agreement supports opportunities for First Nations, as members of the broader Great Lakes community, to participate in and contribute to Great Lakes restoration, protection and conservation initiatives. This Annex will provide a framework for Canada and Ontario to engage with First Nations in the implementation of this Agreement and to consider their Traditional Ecological Knowledge to assist in restoring, protecting and conserving Great Lakes water quality and ecosystem health."

Source: https://www.canada.ca/en/environment-climate-change/services/canadian-environmental-protection-act-registry/publications/canada-ontario-agreement-great-lakes/annex-13.html

Excerpt from Shawanaga Island IPCA Website

"Our ancestors were nomadic, depending on the plentiful supply of fish and game, and on water as the source of life and our mode of travel.

Out of our ancestors' dependence on Mother Earth grew a respectful and spiritual relationship with all living beings and the environment. This relationship continues to this day, informing how we live, taking from Mother Earth only what we need.

Based on this fellowship with our non-human relatives, our nindoodemag (clans) formed and continue to form our collective identities, and guide relations with extended families and connections to place. For example, the Amikwa, or Beaver people, honour the sacred site along the French River where the Great Beaver's tomb is located."

Source: Shawanaga Island IPCA website, First Peoples of Georgian Bay: https://storymaps.arcgis.com/stories/2af63b18bc264c188907bdc3040285e4



1.3
Georgian Bay Vision 2050

This Discussion Paper was commissioned by the Georgian Bay Association (GBA)[ii] as part of its Georgian Bay Vision 2050 project. Georgian Bay Vision 2050 is an effort to convene dialogue and invite action to protect and conserve the Coastal Region ecosystem in perpetuity. The Vision 2050 team has worked with advice and assistance from many existing Georgian Bay conservation organizations and input from consultations with government authorities, First Nations, non-governmental organizations (NGOs), and interest holders.

In 2025, the GBA initiated Georgian Bay Vision 2050 with a mission to:

> ... conserve and protect the unique natural environment, ecosystems and biodiversity of the eastern and northern coasts of Georgian Bay in perpetuity while supporting sustainable communities.

The GBA established the Georgian Bay Vision 2050 Steering Committee to oversee the initiative, supported by an Advisory Council of experts representing diverse interests and perspectives. Members of both groups are listed in the Acknowledgements section of this Discussion Paper. The Steering Committee has collaborated with partner organizations, compiled key data and reached out to First Nations, governments, NGOs and other interest holders for their input and insights, which have informed the Discussion Paper. Urban Strategies Inc has prepared this Discussion Paper in collaboration with the Steering Committee. The paper reflects extensive input received from the Vision 2050 Advisory Council of experts and numerous organizations that shared information and data with, or made submissions to, the project.

ii The GBA is a not-for-profit umbrella advocacy organization that represents 17 community associations. GBA works to protect Georgian Bay and its environment.

1.4
Discussion Paper Structure and Intent

The Discussion Paper is organized in two parts:

A. A Situational Analysis of the Coastal Region: A snapshot of the ecological value of the Coastal Region, cumulative and impending threats, and the ongoing environmental actions being undertaken by an array of organizations; and

B. Potential Pathways for Enhanced Protection: A description of the global and local imperatives for environmental protection, key principles of a conservation framework, mechanisms for increasing protection and conservation and potential next steps to advance protection and conservation in the Coastal Region.

This Discussion Paper lays the foundation for critical dialogue on increasing protection and conservation of this remarkable Coastal Region for many generations to come.

1.5
Note on Indigenous Perspectives

The development of this paper has included efforts to seek input from Indigenous partners and to learn from the knowledge and teachings they have shared with us. We recognize that Indigenous perspectives should not be written or represented on behalf of Indigenous peoples without their active participation.

As an Indigenous elder has reminded us:

> Don't write for us, write with us.
>
> Don't talk for us, talk with us.

We have taken these words to heart.

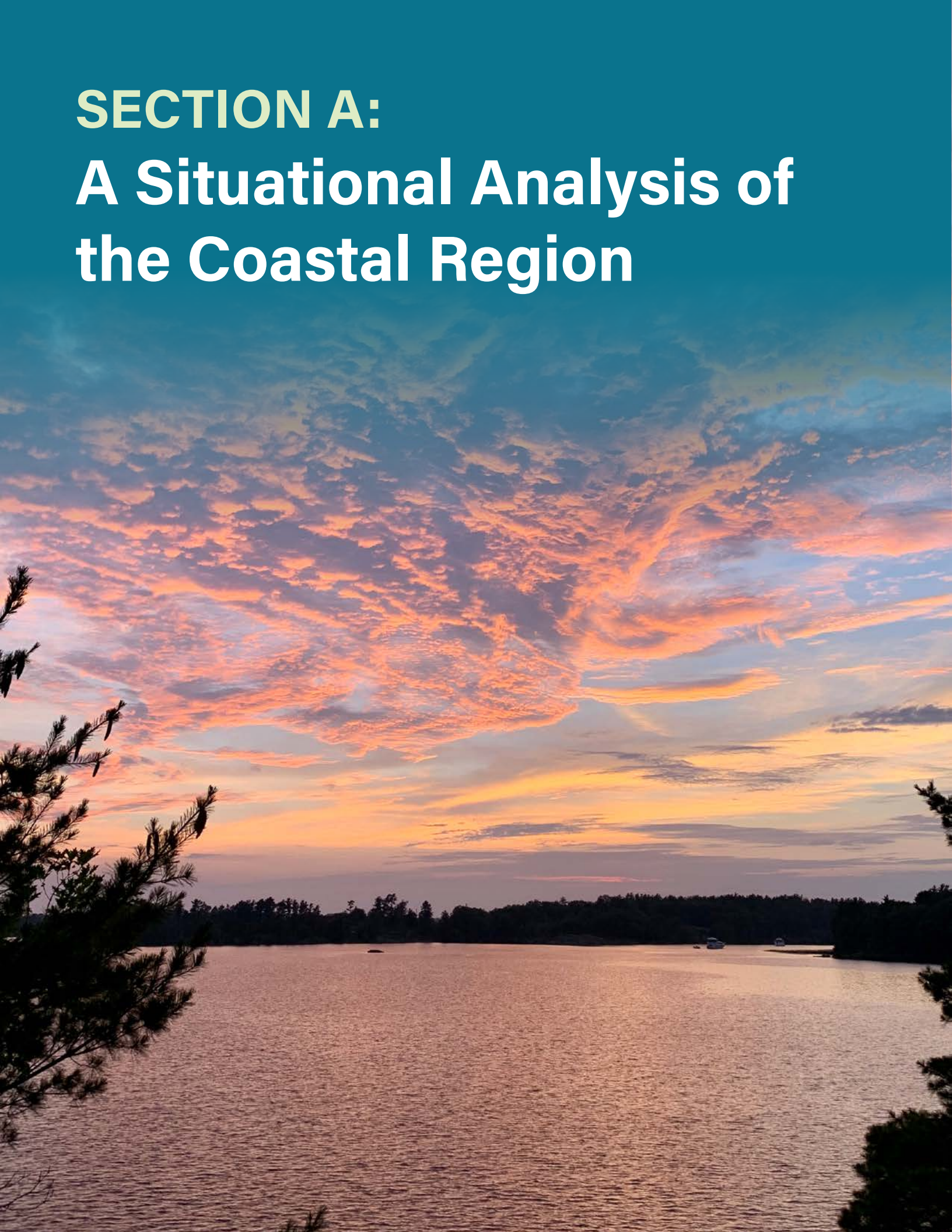
We are still learning how best to work together and how to respectfully reflect Indigenous knowledge in this work. As a result, we have not incorporated Indigenous teachings into this paper at this time, nor will we presume to speak for our partners or put their teachings into writing on their behalf.

This does not mark the end of the conversation but hopefully the beginning of many constructive ones to come. We remain committed to building relationships with Indigenous partners as Vision 2050 evolves and to working together — when the right relationships, understanding and direction are in place — to reflect their perspectives respectfully in future work.



SECTION A:

A Situational Analysis of the Coastal Region





2.0 A Unique and Globally Significant Ecosystem

2.0
A Unique and Globally Significant Ecosystem

The Coastal Region is located within Lake Huron, one of the five Great Lakes of North America (Figure 2). Within the Great Lakes basin, the Coastal Region includes a unique series of aquatic, terrestrial and littoral ecosystems which support high levels of biodiversity. These features make the Coastal Region a stunning place of beauty and natural wonder.

This section provides evidence on what makes the Coastal Region so distinctive, describes its relatively good ecological health compared to other parts of the Great Lakes, and outlines the many ecologically significant designations it has received from governments and NGOs.



Figure 2: The Coastal Region is part of Lake Huron within the Great Lakes system. (Source: Shutterstock)

2.1 The Coastal Region Is Distinct and Highly Biodiverse

The Coastal Region differs from the rest of Georgian Bay in its geological, physical, chemical, biological, and development characteristics, as discussed below. Together, the key features of the Coastal Region create an integrated environment that functions as a cohesive and symbiotic ecosystem.[2]

The Rocky Shores of the Canadian Shield

As the Coastal Region abuts the Canadian Shield, its geology differs from the rest of Georgian Bay, which is made up primarily of limestone and dolomite. These other areas of Georgian Bay's coasts are part of the St. Lawrence Lowlands, a fertile geographic region that follows the St. Lawrence River from southern Ontario to Quebec City (Figure 3).

The Canadian Shield, levelled by many long periods of erosion, resulted in the Coastal Region's iconic rocky shores with hard rock deposits (for example, gneiss, granite, feldspar, mica, quartz, and amphibole) (Figure 4).[3] The area's glacial history created a highly patchy mosaic of soil buildup, allowing a range of ecosystems to exist in close proximity to each other. [4]

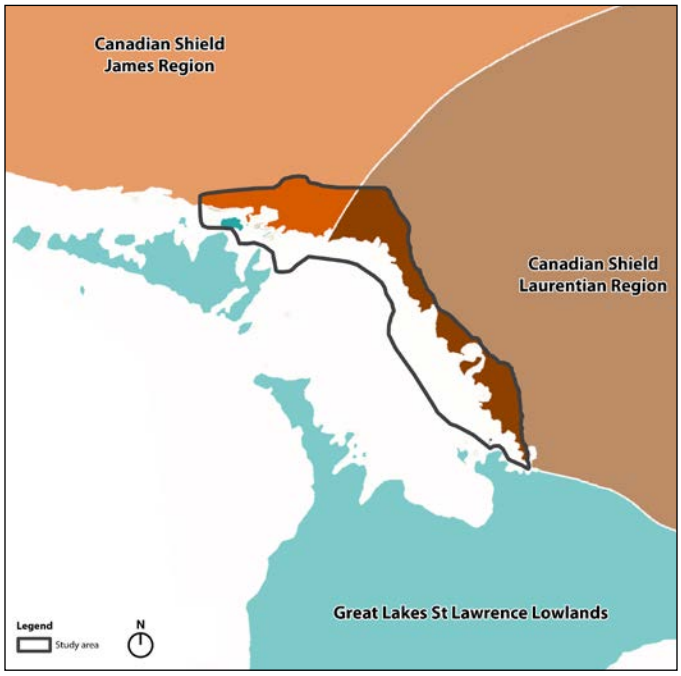


Figure 3: Located along the Canadian Shield, the Coastal Region's iconic rocky shores include many hard rocks, including gneiss, granite, and quartz. (Source: Georgian Bay Association)



Figure 4: Located along the Canadian Shield, the Coastal Region's iconic rocky shores include many hard rocks, including gneiss, granite, and quartz. (Source: Georgian Bay Association)

Warm, Shallow, Nutrient-Rich Waters

The Coastal Region's waters are distinct due to the change in water depths and complex interchanging water flows of Georgian Bay (Figure 5).[5] This has created a chemical and physical gradient across Georgian Bay: the northern and eastern coasts have shallow, nutrient-rich, warm waters, while the southern and western coasts have low-nutrient, cold, deep waters along the limestone cliffs of the Niagara Escarpment.

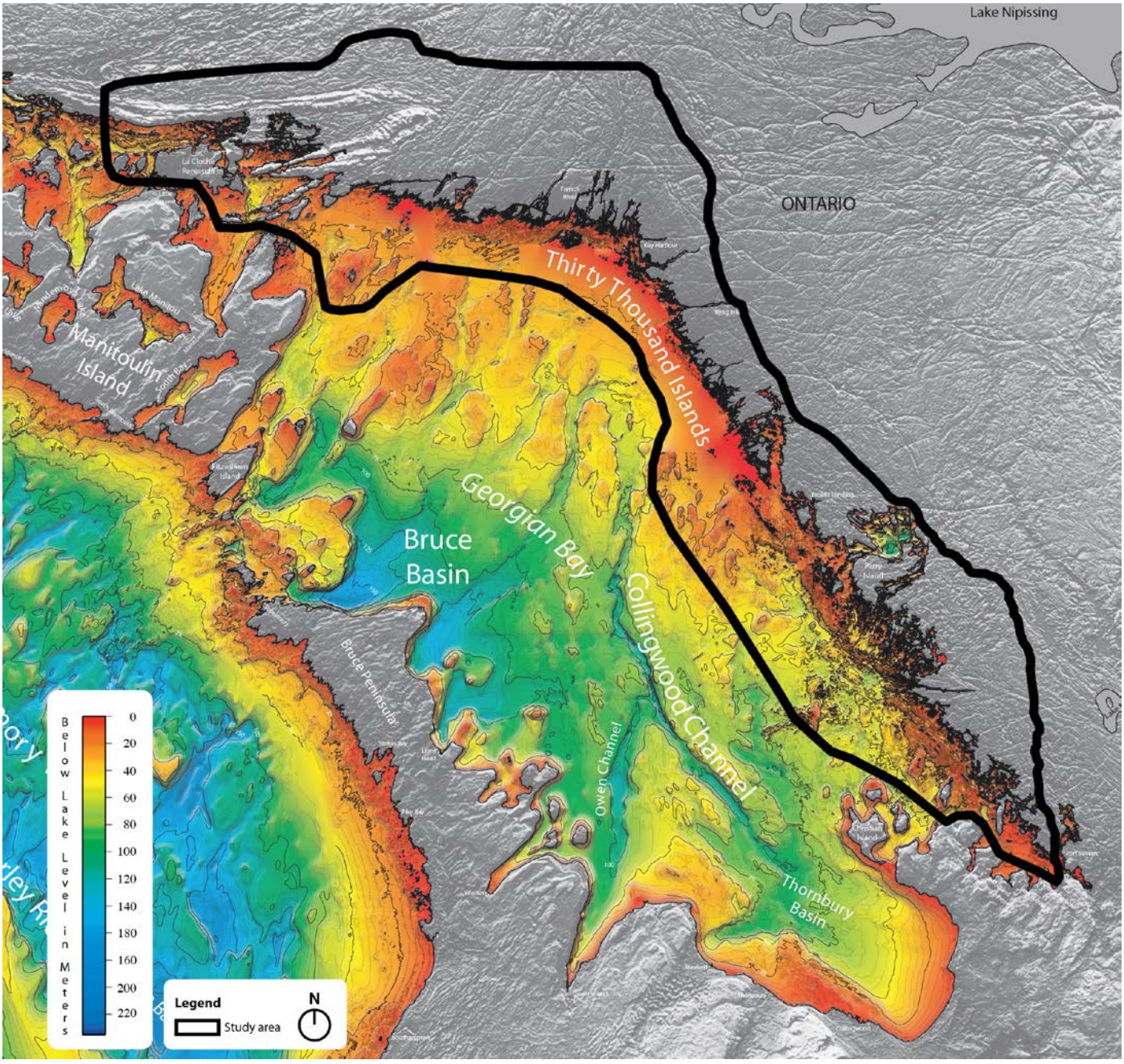


Figure 5: Georgian Bay demonstrates a substantial east-west differentiation in water depth, creating both water chemistry and physical gradients. (Source: National Oceanic and Atmospheric Administration)

The World's Largest Freshwater Archipelago

The Canadian Shield's glacial history created one of the Coastal Region's most distinctive features: islands and shallow waters (Figure 6). Today, the Coastal Region includes more than 30,000 islands and forms the world's largest freshwater archipelago.[6] These islands, along with the warm, nutrient-rich and shallow waters, are a significant contributor to the biodiversity of the Coastal Region and create an ecologically distinct region within Lake Huron and Georgian Bay.[7]

The vast number of islands in the Coastal Region, more than two-thirds of all Great Lakes islands, creates more than 9,000 kilometres of littoral shoreline.[8] Many offshore islands harbour plant and animal communities that are distinct from the mainland due to this isolation.[9]



Figure 6: The Coastal Region includes over 30,000 islands and forms the largest freshwater archipelago in the world. (Source: Franks-Taylor et al. 2010)



An Abundance of Coastal Wetland and Littoral Ecosystems

The Coastal Region includes a wide array of littoral ecosystems due to the amount of coastline, wetlands, and inland lakes.[10] Littoral habitats, where water and land meet, are highly productive components of the environment, providing food or shelter to up to 70% of terrestrial species and 90% of aquatic species at some time in their life cycles.[11]

The Coastal Region also includes more than 17,000 hectares of coastal wetlands, representing over 20% of the coastal wetlands within the entire Great Lakes basin.[12] These coastal wetlands provide essential ecosystem services, including maintaining water tables, preventing flooding and erosion impacts and filtering water.[13] Coastal wetlands also create feeding and nursery habitat for a wide variety of fish, birds, invertebrates, mammals, and reptiles, as well as critical spawning habitat for Great Lakes fish species.[14] Since Ontario was settled by Europeans, it has lost an estimated 50% to 90% of its wetlands.[15] Therefore, protecting the significant wetland systems in the Coastal Region is vital to sustaining ecosystem services and habitat.

Rich Biodiversity and a Haven for Species at Risk

The diverse geology, chemistry, and scale of the Coastal Region result in an interconnected and diverse mosaic of ecosystems, including granite coastlines, sandy beaches, forests, wetlands, shoals and sheltered bays, which together create high habitat diversity along the coast.[16]

A 2018 ecosystem classification study identified 77 different aquatic ecological units throughout the Great Lakes system (Figure 7).[17] Georgian Bay includes 33 aquatic ecological units, representing 40% of all diversity shown in the Great Lakes aquatic ecosystems. Regarding terrestrial ecosystems, the Coastal Region includes two distinct ecodistricts (5E-3 and 5E-7) (Figure 8)[18].

The 2005 *Ecological Survey of the Eastern Georgian Bay Coast*, authored by Nature Conservancy Canada and the Ontario Ministry of Natural Resources, found that the Coastal Region included 150 different vegetation community types, 984 plant species, 34 reptile and amphibian species, 44 mammal species, and 170 breeding bird species.[19] It also found 85 species of fish within Georgian Bay, with at least 60 found in the Coastal Region. According to the Government of Ontario's provincially tracked species data, the study area supported 56 species at risk in 2024, representing 20% of all species at risk in Ontario.[20]

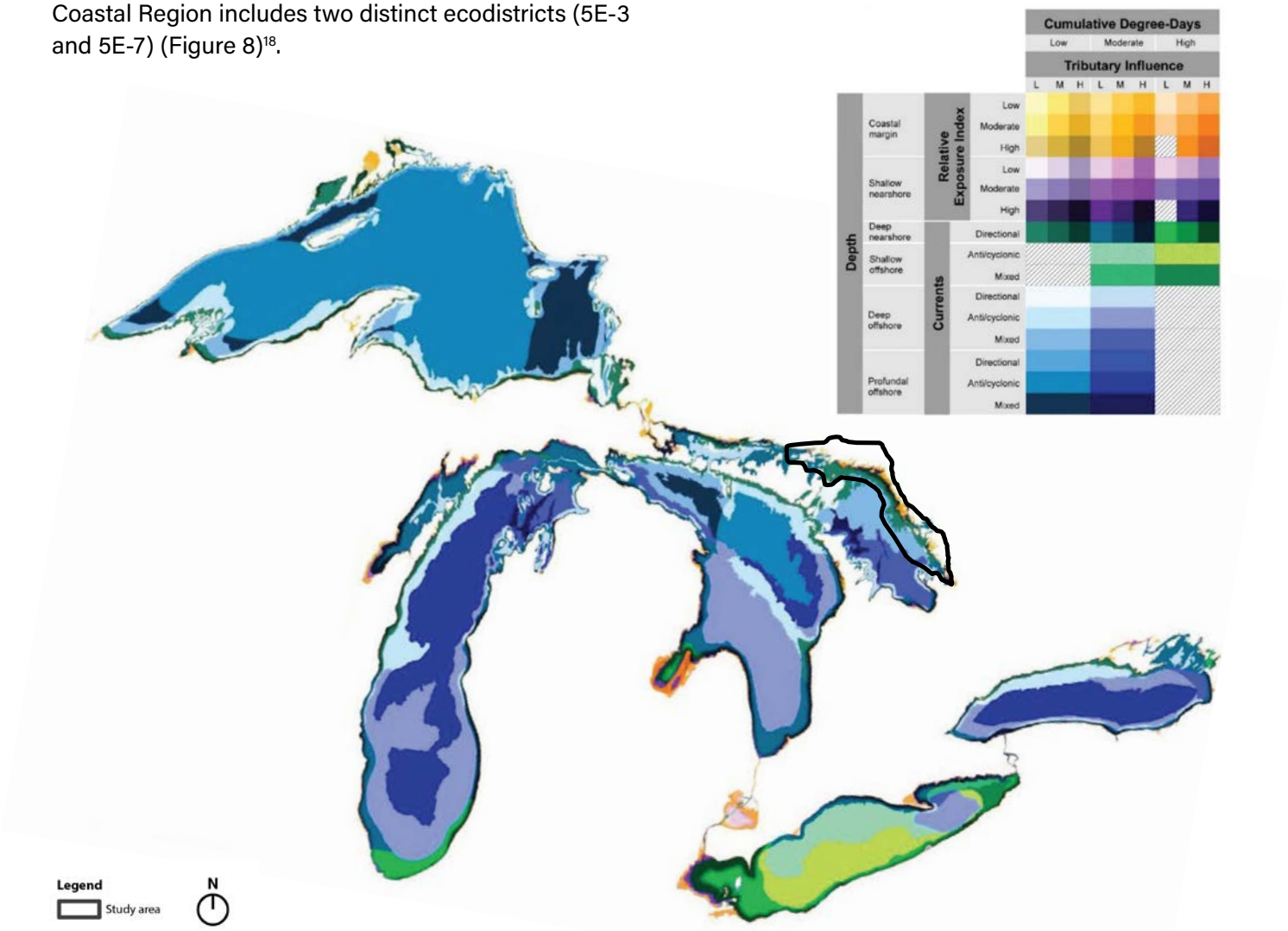


Figure 7: Georgian Bay includes 33 different aquatic ecological units, over 40% of the diversity shown in all the Great Lakes. (Source: Riseng et al. 2018)

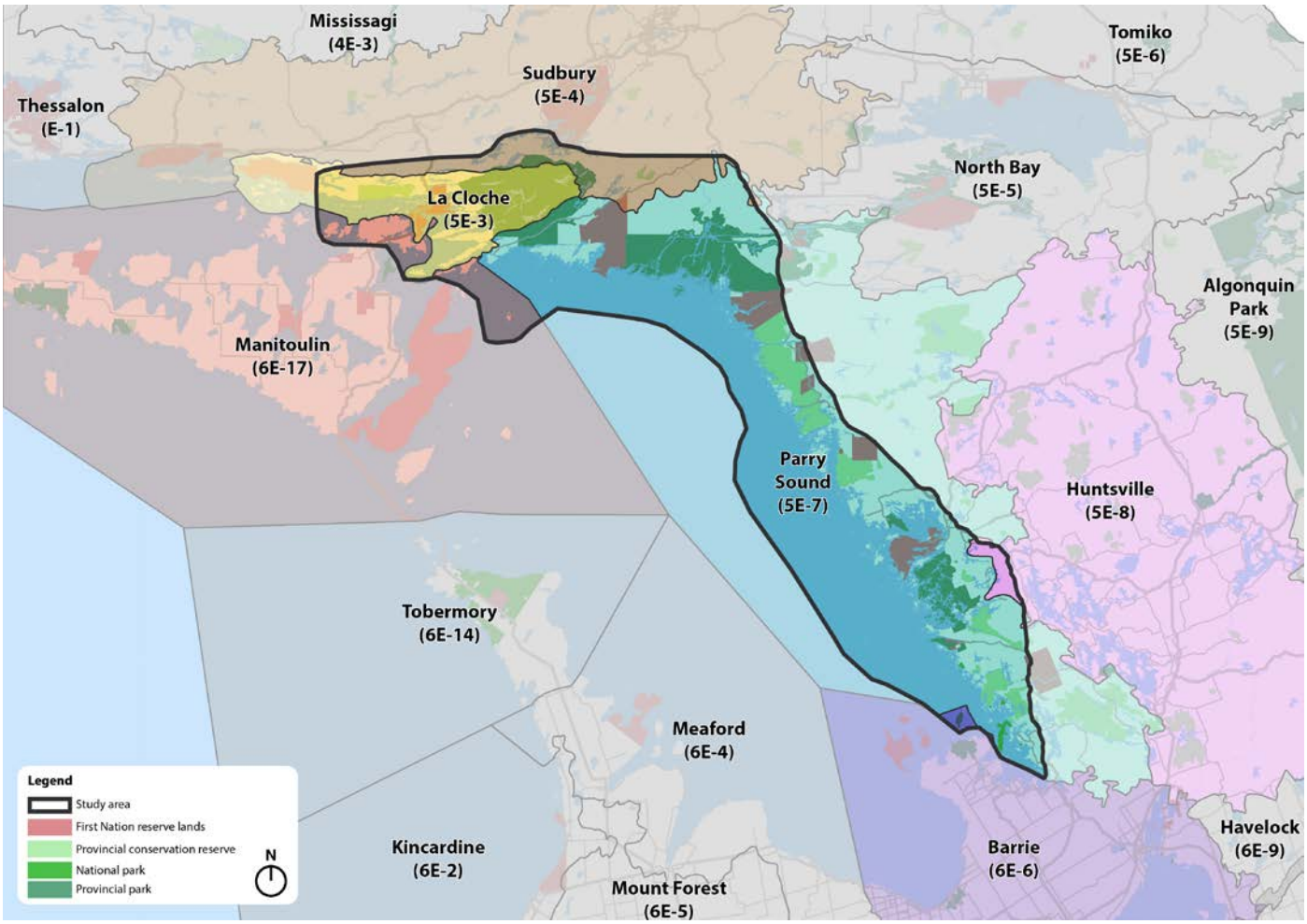


Figure 8: The Coastal Region is part of Ontario's Ecodistricts 5E-3 and 5E-7, which are distinct from the other Georgian Bay coasts. (Source: Government of Ontario 2021)

The Coastal Region supports the highest diversity of reptiles and amphibians in Canada, including numerous species at risk and Ontario's only lizard species, the five-lined skink (*Eumeces fasciatus*)[21]. Together, this evidence underscores the Coastal Region's importance in supporting rich biodiversity and critical habitats, particularly for species at risk.

Overall, the Coastal Region hosts a unique set of geological, physical, and water chemistry features. The Coastal Region is a rich mosaic of islands, rocky shores, wetlands, shoals and nearshore habitats that form a connected ecosystem supporting exceptional biodiversity, including many species at risk. Together, the Coastal Region functions as a heterogeneous but cohesive ecosystem that is distinct and rare.







2.2
The Coastal Region Remains Healthier Than Much of the Great Lakes

Generally, the Coastal Region is less developed, and therefore less impacted by humans, than many other parts of the Great Lakes system, including the southern coast of Georgian Bay (Figure 9). This has helped maintain the ecological integrity of the Coastal Region compared to other areas which have experienced degradation (Figure 10).

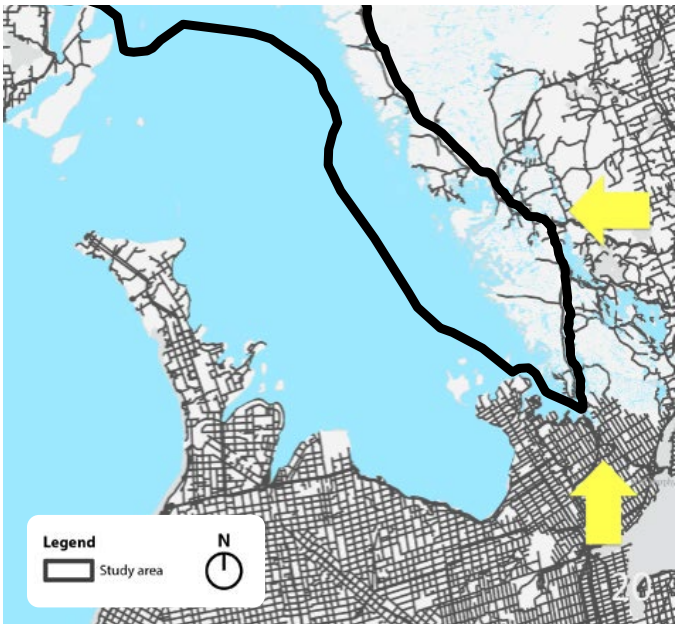


Figure 9: The Coastal Region demonstrates substantially less road development than the surrounding shorelines of Georgian Bay. (Source: Georgian Bay Land Trust)



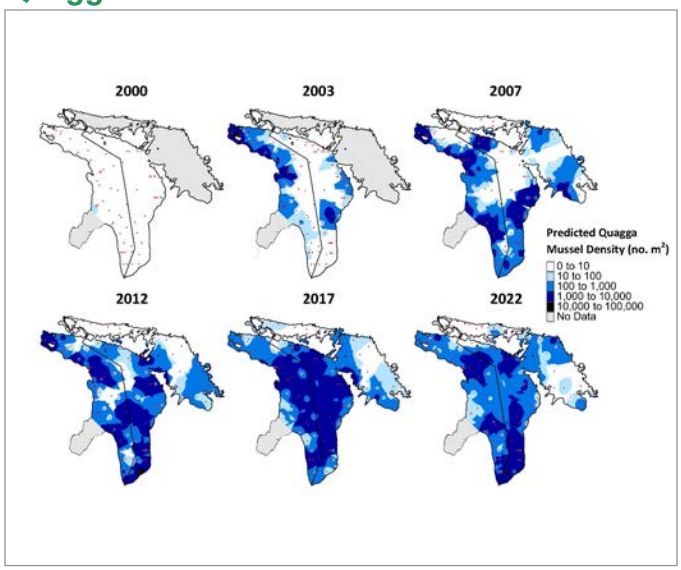
States of the Great Lakes – Lake Huron

In 2025, Environment and Climate Change Canada (ECCC) and the United States Environmental Protection Agency (USA EPA) released a *State of the Great Lakes Report*.[22] It assessed the different Lake Huron metrics as "Fair to Good" and "Unchanging."

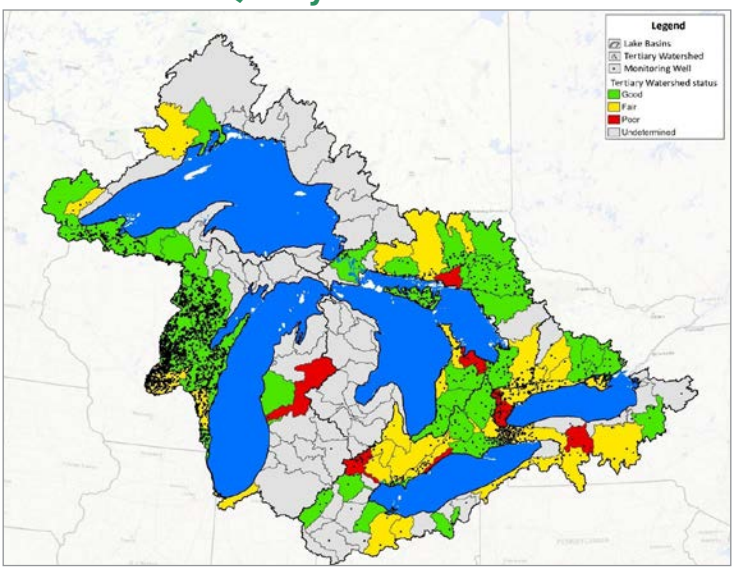
Water Quality Gradients Across the Great Lakes

A 2023 holistic study of water quality across the Great Lakes examined ten water quality indicators across the Great Lakes.[23] As depicted in Figure 11, the Coastal Region generally demonstrated better water quality variables compared to much of the Great Lakes.

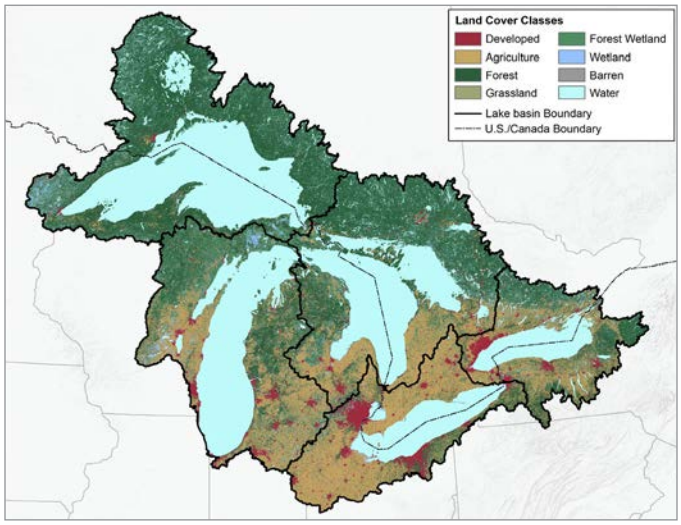
Quagga Mussel in Lake Huron



Ground Water Quality



Land Cover



Phosphorus

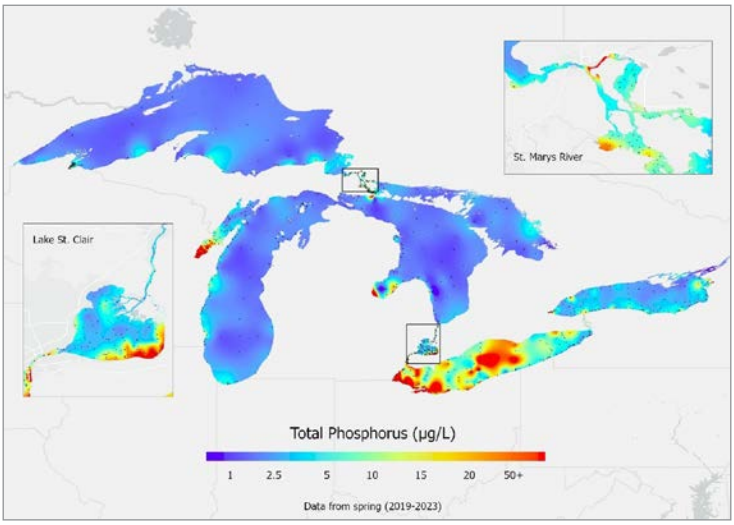


Figure 10: Relative to other parts of the Great Lakes, the Coastal Region has had less impact from quagga mussels and phosphorus levels and continues to have healthy groundwater and forested land cover. (Source: State of the Great Lakes Report 2025)

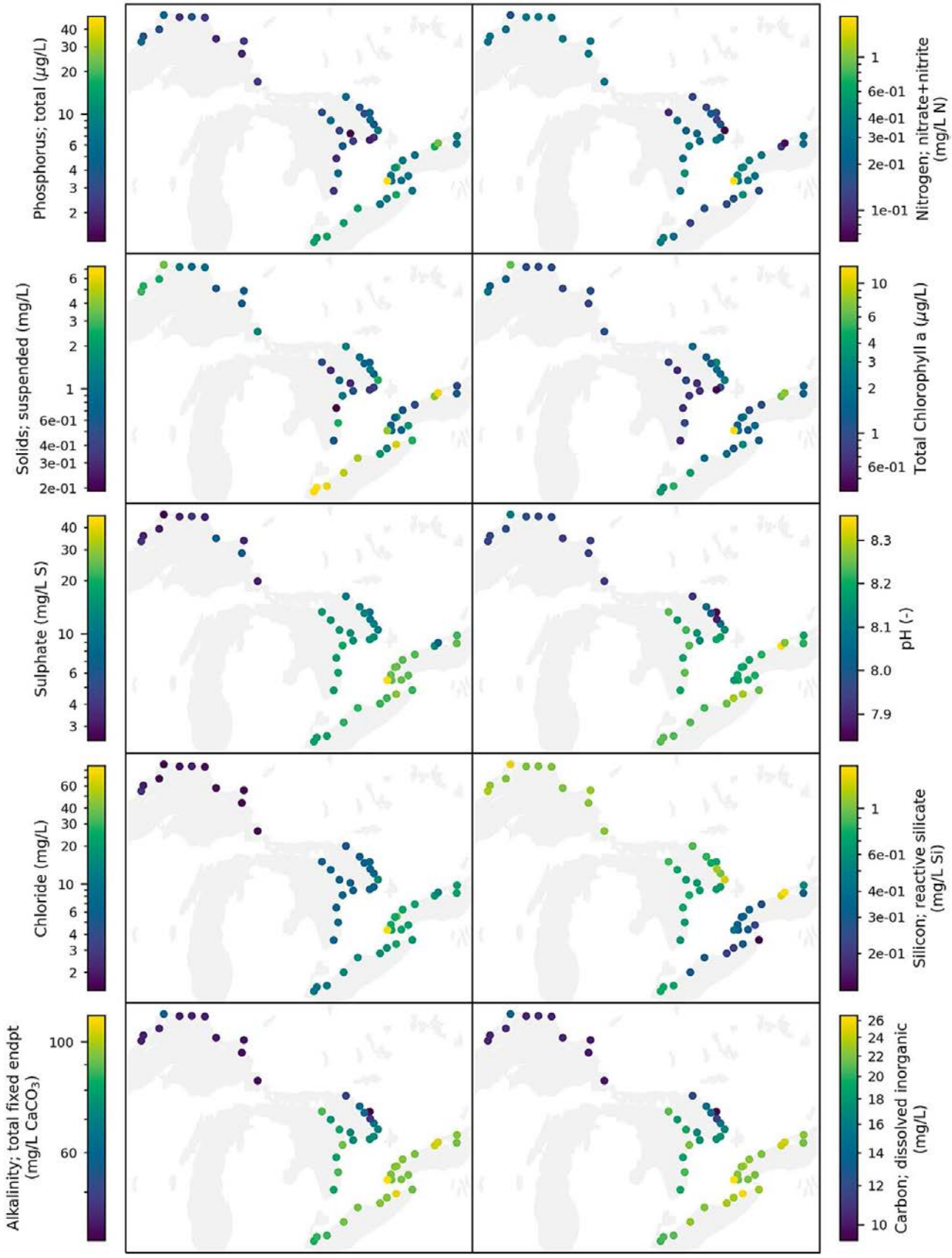


Figure 11: A series of 10 water quality indicators (total phosphorus, nitrates and nitrites, suspended solids, chlorophyll a, sulphate, pH, chloride, silicate, alkalinity and dissolved inorganic carbon) generally show the Coastal Region today to be in relatively good condition compared to the more developed southern shores of the Great Lakes. (Source: Blagrave et al 2023)

Inventory of Coastal Wetlands in the Coastal Region

A 2011 inventory of Great Lakes wetlands found that Georgian Bay had the highest proportion of wetlands in very good and excellent condition, and the lowest proportion in a degraded state.[24] More recently, *State of the Great Lakes 2025 report* described the coastal wetlands in the Coastal Region as being in "Very Good" and "Excellent" condition, except for those located near towns and marinas, which it described as "Fair" or "Good" (Figure 12).[25] These differences are likely tied to the impacts of development and recreation activity.

Healthy coastal wetlands are better able to provide ecosystem services including maintaining water tables, preventing flooding, filtering water, preventing erosion, and providing habitat for many species.[26]

Stable State of Health for Georgian Bay

The 2023 State of the Bay report, released by the Georgian Bay Biosphere Mnidoo Gamii (GBB), identified further indications of good health, including no change in metrics related to 10-year trends in phosphorus levels, nor in the overall health of populations of zooplankton, benthic invertebrates, smallmouth bass, northern pike, muskellunge, walleye, and some lake trout.[27]

Today the Coastal Region is in relatively good environmental health, with coastal wetlands and water bodies that remain more pristine than most other parts of the Great Lakes. These natural assets are valuable and irreplaceable.

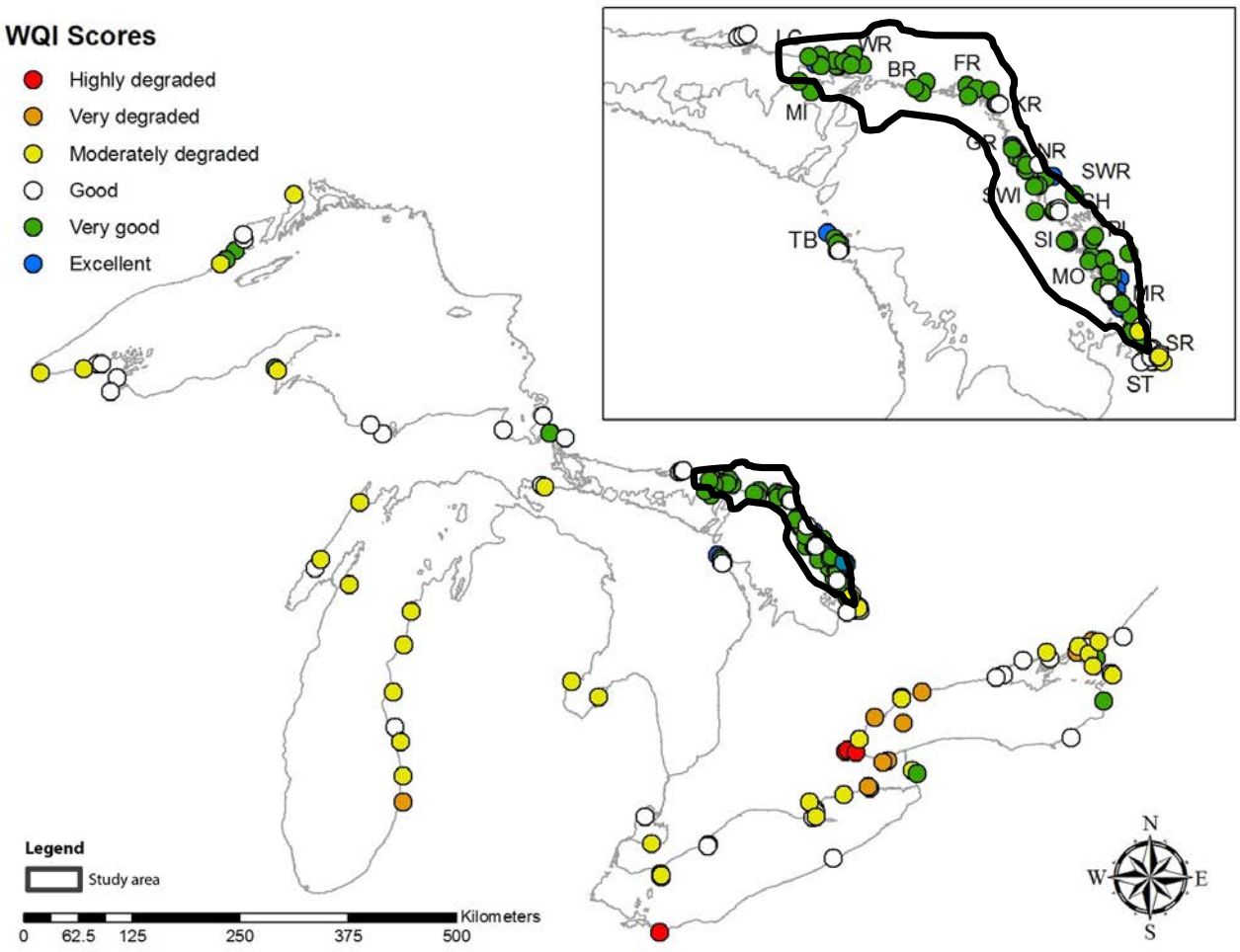


Figure 12: The Coastal Region not only includes a substantial 17,000 hectares of coastal wetlands, it also has the highest proportion of Great Lakes wetlands in very good and excellent condition and the lowest proportion in a degraded state, as demonstrated by their Water Quality Index (WQI) scores. (Source: Cvetkovic and Chow-Fraser, 2011)

2.3 The Coastal Region's Significance Is Widely Recognized

The Coastal Region's ecological significance and exceptional biodiversity are reflected by the number of protected and conserved areas in the region.

Governments, scientists, and NGOs have also recognized the Coastal Region with various other ecological designations. While these designations do not provide formal protection, they further affirm the region's ecological importance. These include: the United Nations Educational, Scientific and Cultural Organization (UNESCO) Georgian Bay Biosphere Mnidoo Gamii, multiple International Union for Conservation of Nature (IUCN) Key Biodiversity Areas, Parks Canada's national priority areas for ecological corridors, and Canadian Wildlife Service High Value Biodiversity Areas.

Protected and Conserved Areas

The Canadian Protected and Conserved Areas Database (CPCAD) indicates that 232,300 hectares within the study area are designated as protected and conserved areas[28]. The GBLT protects an additional 3,475 hectares through private land trusts not included in the CPCAD, bringing the total amount of protected and conserved lands to over 235,700 hectares (Figure 13). According to geographic information system (GIS) analysis, this accounts for roughly 55% of the total land in the Coastal Region. Most of these areas are provincial parks and conservation reserves.

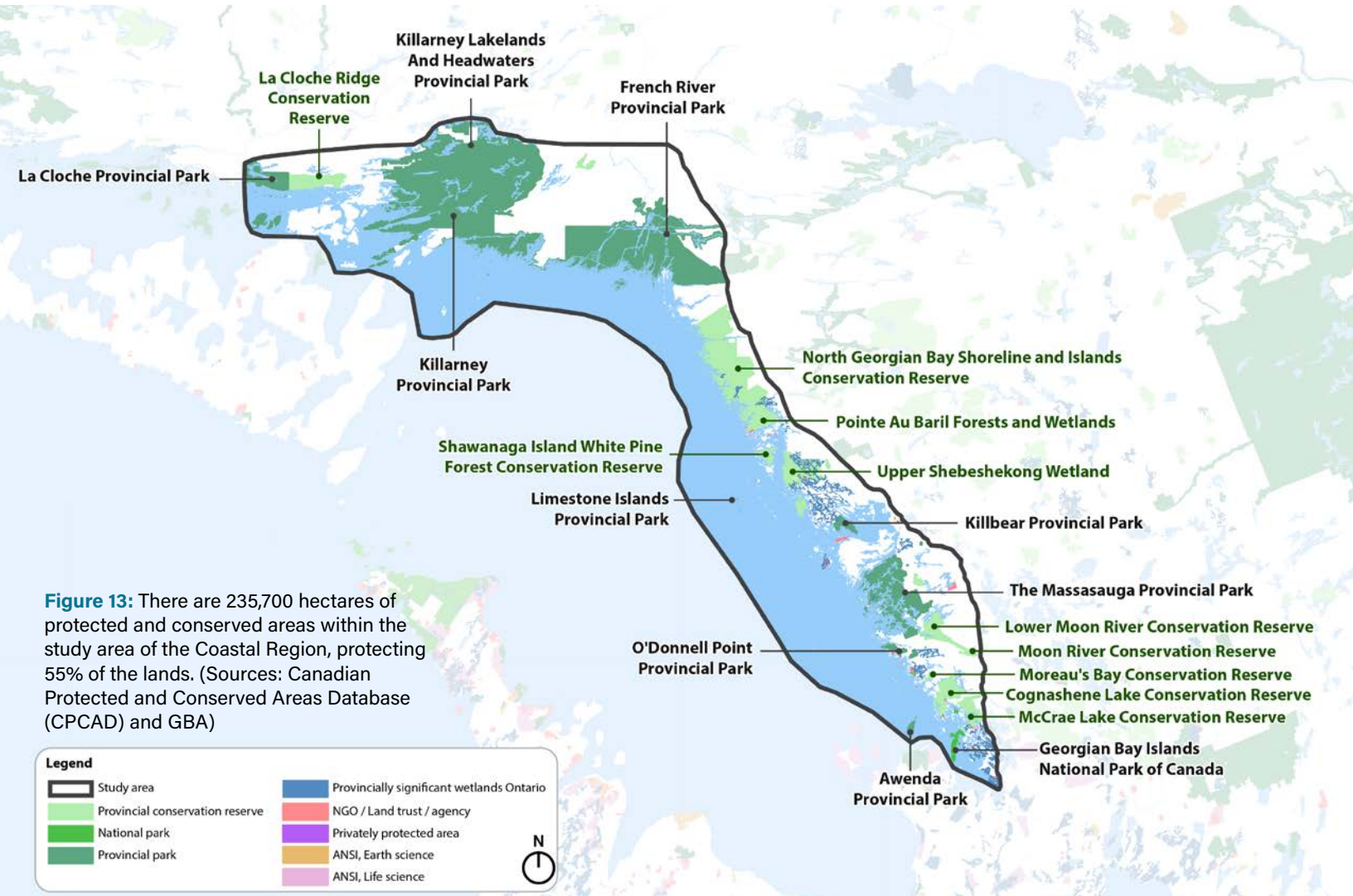


Figure 13: There are 235,700 hectares of protected and conserved areas within the study area of the Coastal Region, protecting 55% of the lands. (Sources: Canadian Protected and Conserved Areas Database (CPCAD) and GBA)

The Canadian Protected and Conserved Areas Database (CPCAD)

The CPCAD is the national repository of spatial and descriptive data on Canada's terrestrial and marine protected and conserved areas in categories recognized by the International Union for Conservation of Nature.

It includes existing and interim parks and conservation reserves, some land trust holdings, other effective area-based conservation measures, and Indigenous Protected and Conserved Areas (IPCAs), if recognized.[29] Shawanaga Island IPCA is included. Compiled and managed by Environment and Climate Change Canada, CPCAD is developed in collaboration with a diverse range of partners, including federal, provincial, territorial, and local governments, First Nations, NGOs, and private landowners.

The CPCAD is the authoritative source on protected and conserved areas in Canada, but it is not an exhaustive source:

- It does not account for different levels of protection in land categories. For example, the degree of protection varies for Ontario's conservation reserves and can easily be changed by amending a reserve's management plan.
- It does not account for the range of uses in protected and conserved areas. For example, many provincial parks have large visitor numbers and host many recreational activities, including Killbear Provincial Park.
- It does not include most lands protected by the Georgian Bay Land Trust, including those covered by private conservation easements.
- The CPCAD omits Point Grondine Park because it is owned and operated by Wiikwemkoong Unceded Territory within their reserve lands.

The main categories of protected and conserved areas in the Coastal Region are:

- Provincial parks and interim parks (187,800 hectares)
- Provincial conservation reserves and interim conservation reserves (42,300 hectares)
- Georgian Bay Islands National Park (1,290 hectares)
- Georgian Bay Land Trust protects approximately 4,249 hectares (10,500 acres) of land through donation or conservation easements. Of this, approximately 774 hectares (1,913 acres) are currently included in the CPCAD. The remainder is either in the process of being included or will not be included because it consists of private lands protected through conservation easements.

Approximately 45% of the land within the Coastal Region remains outside the ECCC definition of protected and conserved areas. Some of this land may be protected in ways not recognized by ECCC, but the great majority is not protected and may be at risk of future development.

The Coastal Region's protected and conserved areas are impressive but suffer from two major shortcomings:

1. **Protected areas do not include the waters.** Protection does not extend into the littoral zones, the nearshore waters or into the open waters of Georgian Bay. The waters are arguably the defining feature of the Coastal Region and include littoral and aquatic habitats that are a vital component to the overall ecosystem.
2. **Protected and conserved lands are not managed as a coordinated regional system using an ecosystem-wide approach.** Instead, each area is separately managed with individual management plans.



Recognitions of Ecological Significance

The following recognitions of environmental significance have been determined by environmental NGOs and government scientists. These recognitions do not provide any formal protection or legal status; rather, they show that experts in the field have affirmed the region's ecological importance.

UNESCO Biosphere Region

In 2004, the eastern Georgian Bay coast became a UNESCO Biosphere Region (now known as the Georgian Bay Biosphere Mnidoo Gamii or GBB) (Figure 14).[30] A UNESCO Biosphere Region is an international designation for areas of high conservation value and potential, where communities are actively working to conserve biodiversity and implement the United Nations' Sustainable Development Goals as supported by Canada.[31] To achieve this designation, the GBB must demonstrate that the Coastal Region includes globally-important features as defined by the UNESCO program.

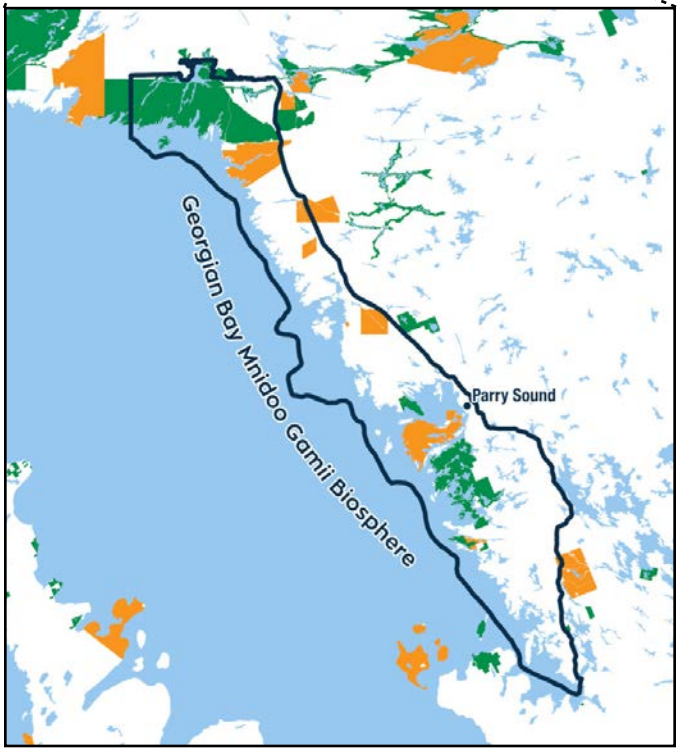


Figure 14: The Georgian Bay Biosphere Mnidoo Gamii (GBB) is one of 19 UNESCO biosphere regions in Canada recognized for their high conservation value. (Source: Government of Canada, Georgian Bay Biosphere Mnidoo Gamii)

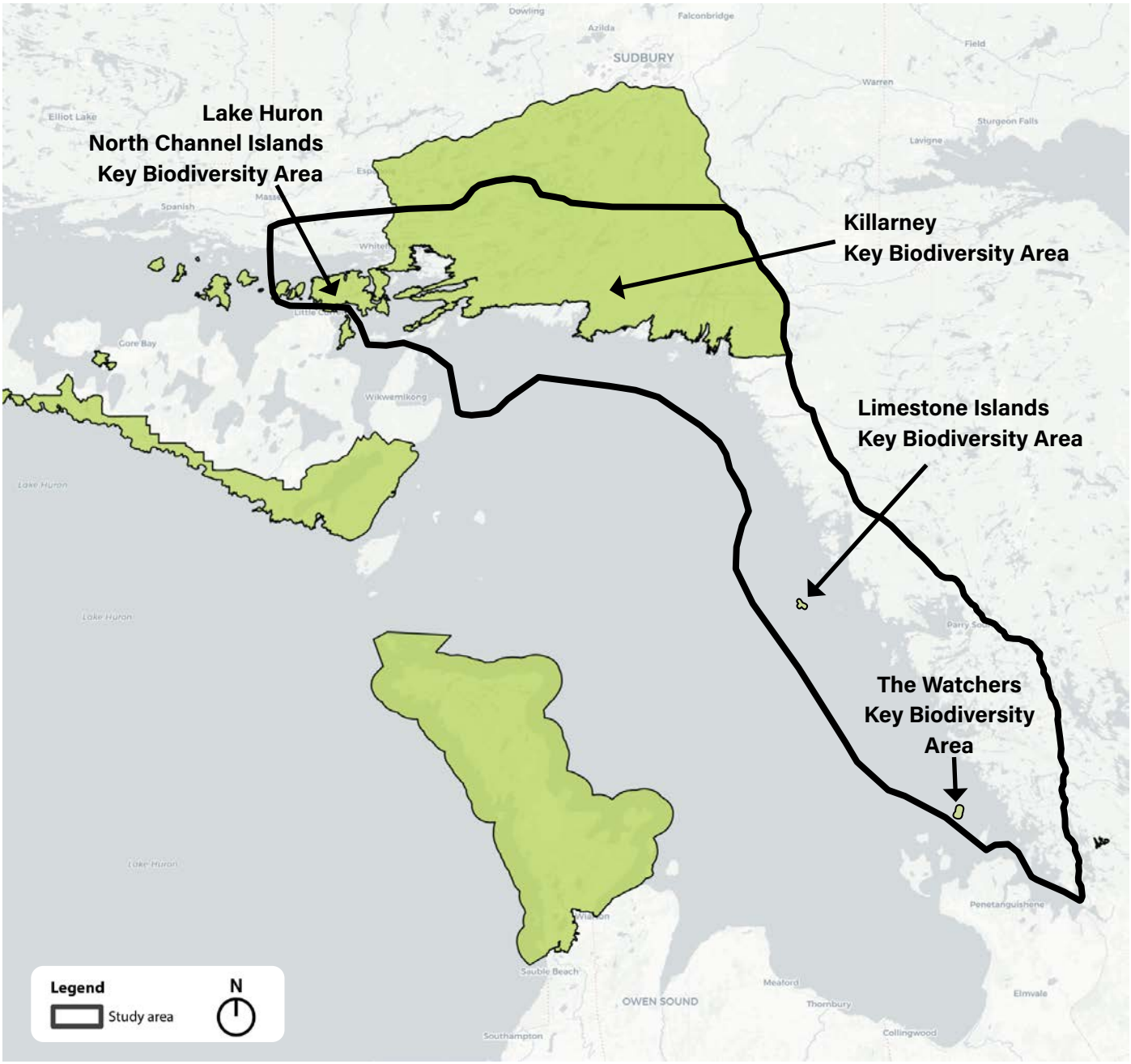


Figure 15: Four KBAs have been identified within the Coastal Region. (Sources: KBA Canada and KBA Partnership)

Key Biodiversity Areas (KBAs)

KBAs are sites that contribute to the persistence of biodiversity at both the national and global scale, as defined by the IUCN, the global authority on nature conservation.[32]

Internationally, KBAs are identified by the KBA Partnership.[33] In Canada, KBAs are identified by the KBA Canada Coalition formed in 2019.[34] Within the Coastal Region, there are four KBAs identified by the KBA Partnership and KBA Canada and: Killarney, the Lake Huron North Channel Islands, the Watchers, and Limestone Islands (Figure 15).[iii,35]

iii The Killarney KBA was selected for including important populations of the eastern wolf; the Lake Huron North Channel Islands KBA was selected for including an endangered ecosystem (the Great Lakes Alvar (eel) group) and four endangered species (Gattinger's agalinis and Houghton's goldenrod plants, the red-tailed leafhopper, and Blanding's turtle); the Watchers were selected due to their significant concentration of nesting Caspian terns; the Limestone Islands were selected because they support significant colonies of common terns, Caspian terns and ring-billed gulls.

Federal Government Recognition

The federal government has also recognized the importance of the Coastal Region, most recently through initiatives led by Parks Canada and ECCC. Again, these recognitions do not provide additional protection; rather, they highlight that government biologists and ecologists have determined that parts of the Coastal Region are ecologically significant.

Parks Canada – National Priority Area for Ecological Corridor

Parks Canada has developed a map of national priority areas for ecological corridors (NPAECs). NPAECs have national importance for connectivity conservation, and an NAPEC designation is intended to provide direction and support the initiatives of local and regional jurisdictions.[36]

One corridor stretches from the Niagara Escarpment to the southern section of the Coastal Region (Figure 16), demonstrating its national importance for habitat connectivity.

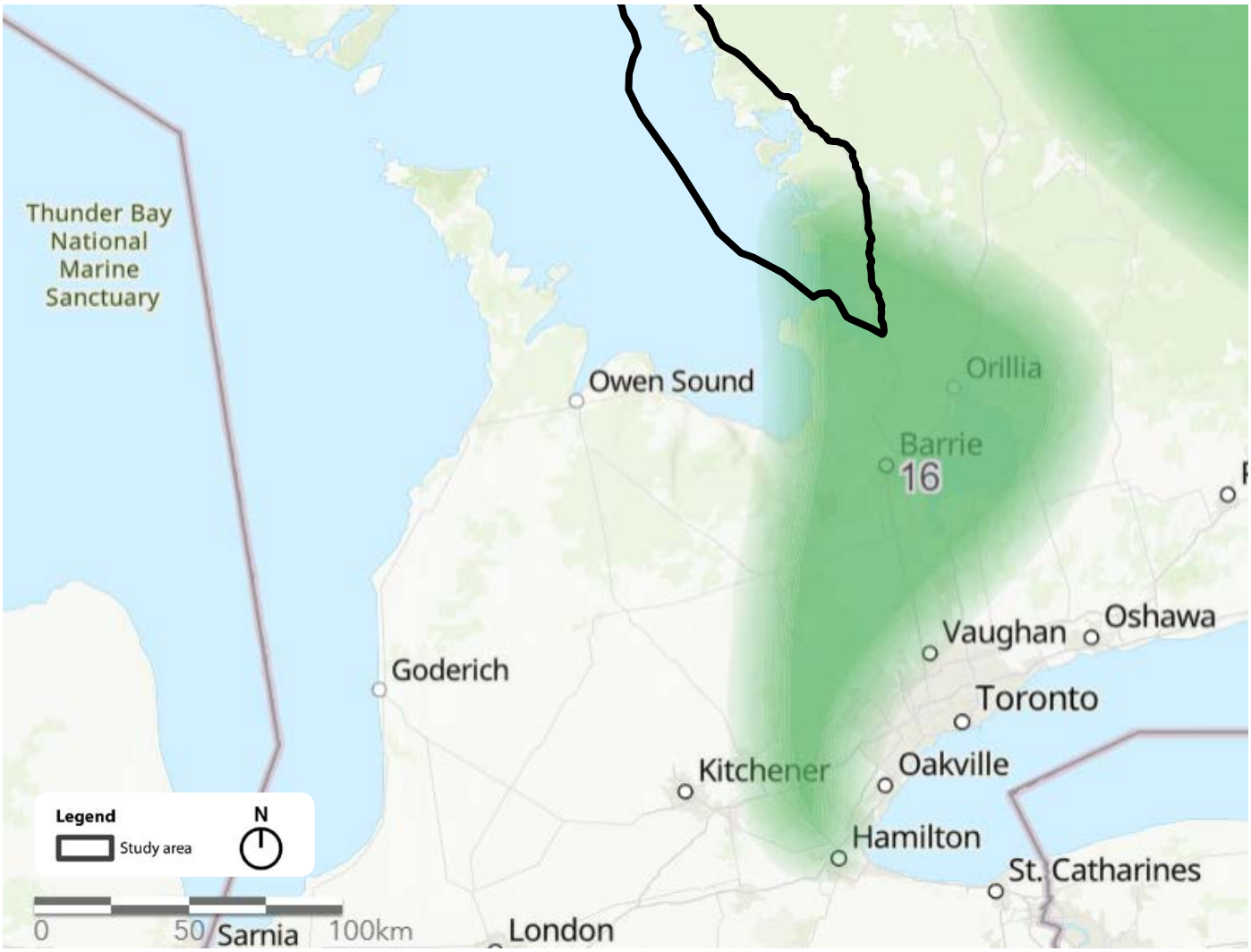


Figure 16: Parks Canada has identified the area from the Niagara Escarpment to Georgian Bay as a national priority area for ecological corridors (NPAEC). The boundary of the area is blurred to avoid suggesting it is precise. (Source: Parks Canada)

Canadian Wildlife Service Biodiversity Atlas – High Value Biodiversity Areas

As part of the ECCC, the Canadian Wildlife Service (CWS) - Ontario Region created a Biodiversity Atlas to represent their monitored biodiversity portfolio across Ontario.[37] The Biodiversity Atlas refers to areas with both high biodiversity conservation scores and high-value habitats as high value biodiversity areas.[38]

The CWS Biodiversity Atlas identified the Coastal Region as having a high biodiversity conservation score, based on the aggregate of data for elements such as species at risk, globally rare species, coastal wetlands, and waterbird colonies (Figure 17). It also identified high-value habitats along the eastern Georgian Bay coast, demonstrating its importance as determined by the CWS (Figure 18).

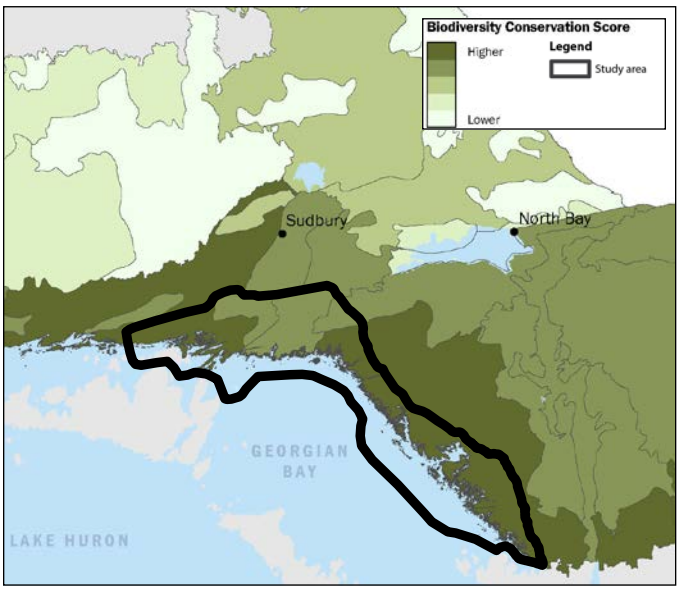


Figure 17: The Canadian Wildlife Service - Ontario Region Biodiversity Atlas identified the eastern Georgian Bay ecoregion as having a high biodiversity conservation score. (Source: Ontario Region Biodiversity Atlas)





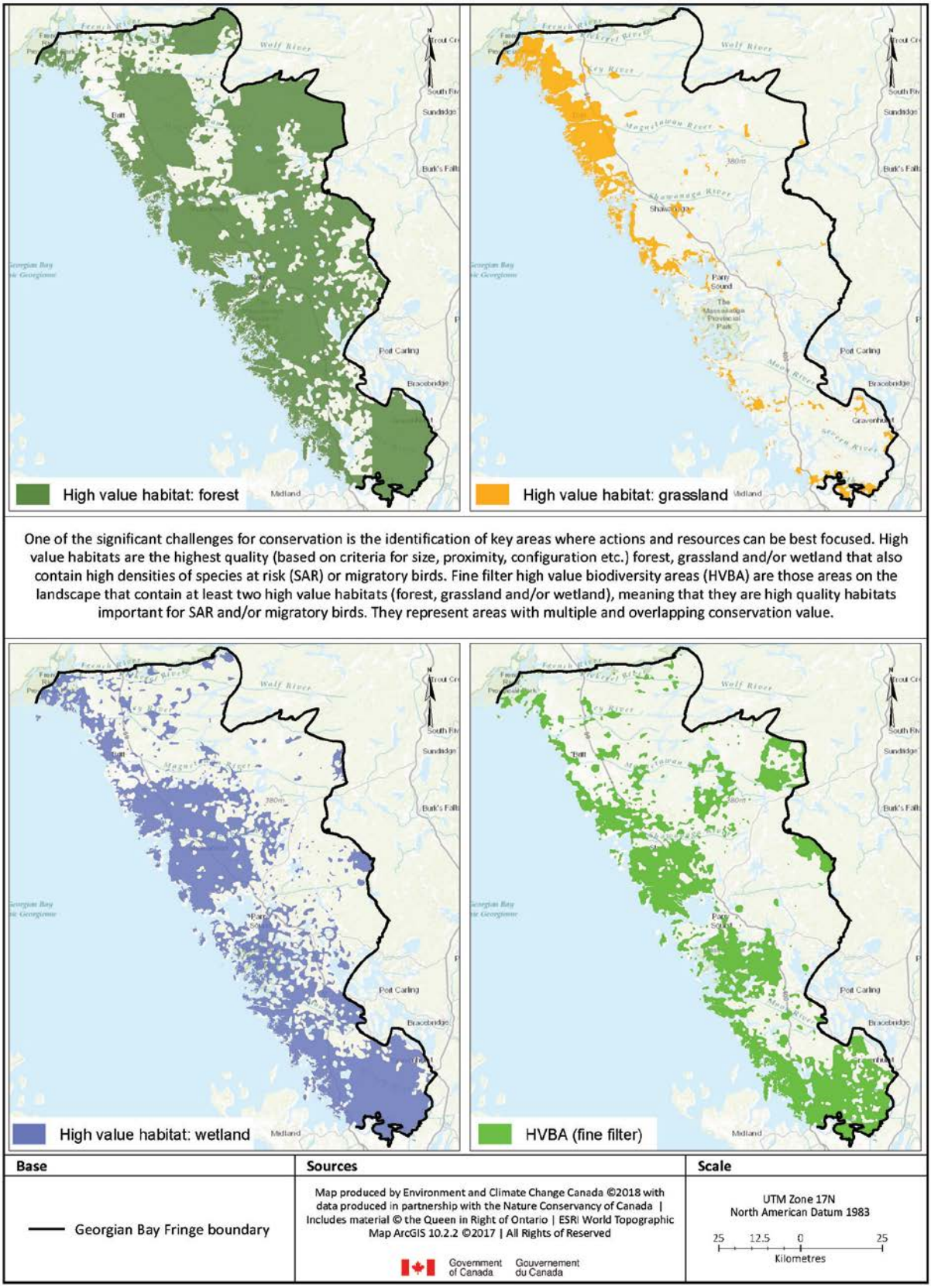


Figure 18: The Canadian Wildlife Service - Ontario Region Biodiversity Atlas identified the eastern Georgian Bay ecoregion as having high-value habitats of forest, grasslands and wetlands, resulting in a number of high-value biodiversity areas within the Coastal Region. (Source: Ontario Region Biodiversity Atlas)[iv]

iv Some conservation experts question the accuracy of the mapping because it does not fully reflect the amount of Canadian Shield rock in the region.

ECCC – Areas of High Ecological Value

ECCC monitors the Great Lakes, including the Coastal Region, under the 2012 Canada-United States Great Lakes Water Quality Agreement (GLWQA) and the 2021 Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health. One of the commitments of the GLWQA is to determine factors of cumulative effects causing stress or threatening areas of high ecological value within the Great Lakes.[39]

Using these definitions, ECCC has identified six areas of high ecological value within the Coastal Region (Figure 19):

1. McGregor Bay and Bay of Islands
2. Killarney to French River Delta, NE Georgian Bay
3. Magnetawan River Mouth to Franklin Island
4. Big Sound (Parry Sound)
5. The Moon River Archipelago
6. Severn Sound and Beausoleil Island

ECCC selected the six areas of high ecological value within the Coastal Region for a number of reasons, including but not limited to:

- Largest freshwater archipelago in the world
- High diversity of habitats and species
- Important fish spawning areas
- Breeding bird habitats
- Presence of species at risk
- Extensive coastal wetlands
- Limestone alvar islands
- Relatively low development and pristine environments
- Number of protected areas
- Presence of the UNESCO Biosphere
- Importance to Indigenous communities



Figure 19: ECCC has identified six areas of high ecological value within the Coastal Region (Source: ECCC 2022).

45% of lands in the Coastal Region remain unprotected while the waters remain entirely vulnerable. Many areas of ecological significance have been recognized by international environmental NGOs and/or Canadian government bodies. Clear evidence from subject-matter experts demonstrates that the Coastal Region has a high ecological value, reinforcing the case for enhanced protection and conservation.



3.0 Increasing Threats to the Coastal Region

3.0 Increasing Threats to the Coastal Region

While the Coastal Region remains relatively healthy, several stressors are having substantial cumulative impacts (Figure 20). Gaps in local data mean that some threats are understood primarily through broader Lake Huron and Great Lakes research. However, available evidence points to growing impacts from invasive species, habitat fragmentation, shoreline modification, pollution, declining water quality, and recreational activity, all exacerbated by the cumulative impacts of climate change.

Additionally, the Coastal Region's relatively good ecological health, compared with more heavily degraded areas of the Great Lakes such as Lake Erie, reflects historically limited human activity. That advantage is increasingly at risk. Population growth and development pressures are expanding northward, placing greater stress on the region's ecosystems and biodiversity. Because many ecological losses are difficult or impossible to reverse, stronger protection and management are needed.



Figure 20: The Coastal Region is being impacted by a number of stressors and threats.

3.1 Cumulative Threats Are Increasing Across the Coastal Region

This section discusses the degradation of the Great Lakes as a whole, and where available, provides area-specific information for Lake Huron, Georgian Bay, and the Coastal Region. As the Great Lakes are a system of interconnected waterways, overall threats to the system directly impact the Coastal Region. The following threats are particularly relevant to the Coastal Region and, together, are placing increasing pressure on its ecological health.

Invasive Aquatic Species

The Great Lakes are the freshwater system most heavily impacted by invasive species in the world. The impacts of invasive species continue to grow. Since the 1950s, the cumulative impacts of invasive species in the Great Lakes have more than doubled.[40] As of 2023, a total of 78 invasive species have been established in the Great Lakes and are causing ongoing harm.

More specifically for Lake Huron, which includes Georgian Bay, the 2025 *State of the Great Lakes* report ranked impacts from aquatic invasive species as "poor." This metric included the rate at which new aquatic invasive species establish themselves in different parts of Lake Huron, as well as the impacts of already-established invasives such as sea lampreys, zebra mussels, and quagga mussels. Other key invasive species harming the Coastal Region, as identified by local community groups, include the round goby, Eurasian milfoil and phragmites.[41]

Biodiversity Loss

The Great Lakes system experienced significant biodiversity loss following the introduction of mechanized farming and extractive industries, and it accelerated with the introduction of additional invasive species during the 20th century. In Lake Huron, fish populations of lake trout, lake whitefish, cisco, and alewife, along with the important zooplankton *Diporeia*, have all collapsed.[42] Despite recent efforts, populations of species continue to decline, including nesting bird populations that reside within Lake Huron, and *Diporeia* and benthic invertebrates within Georgian Bay.[43]



Round goby. (Source: Fishi-pedia)



Phragmites. (Source: Invasive Species Centre)

Habitat Fragmentation

Human-caused habitat fragmentation has negative effects on biodiversity worldwide.[44] Within the Coastal Region, habitat fragmentation occurs when utility corridors and roads bisect forest and wetland communities, impeding the required movement of migratory species across lands.[45]

The 2021 Lake Huron Canadian Nearshore Assessment identified low connectivity (i.e. habitat fragmentation) as a source of moderate stress within the Coastal Region (Figure 21). Across much of the region, only 36% to 58% of tributaries remain connected to Lake Huron.[46] Around Severn Sound, connectivity falls to approximately 9%.

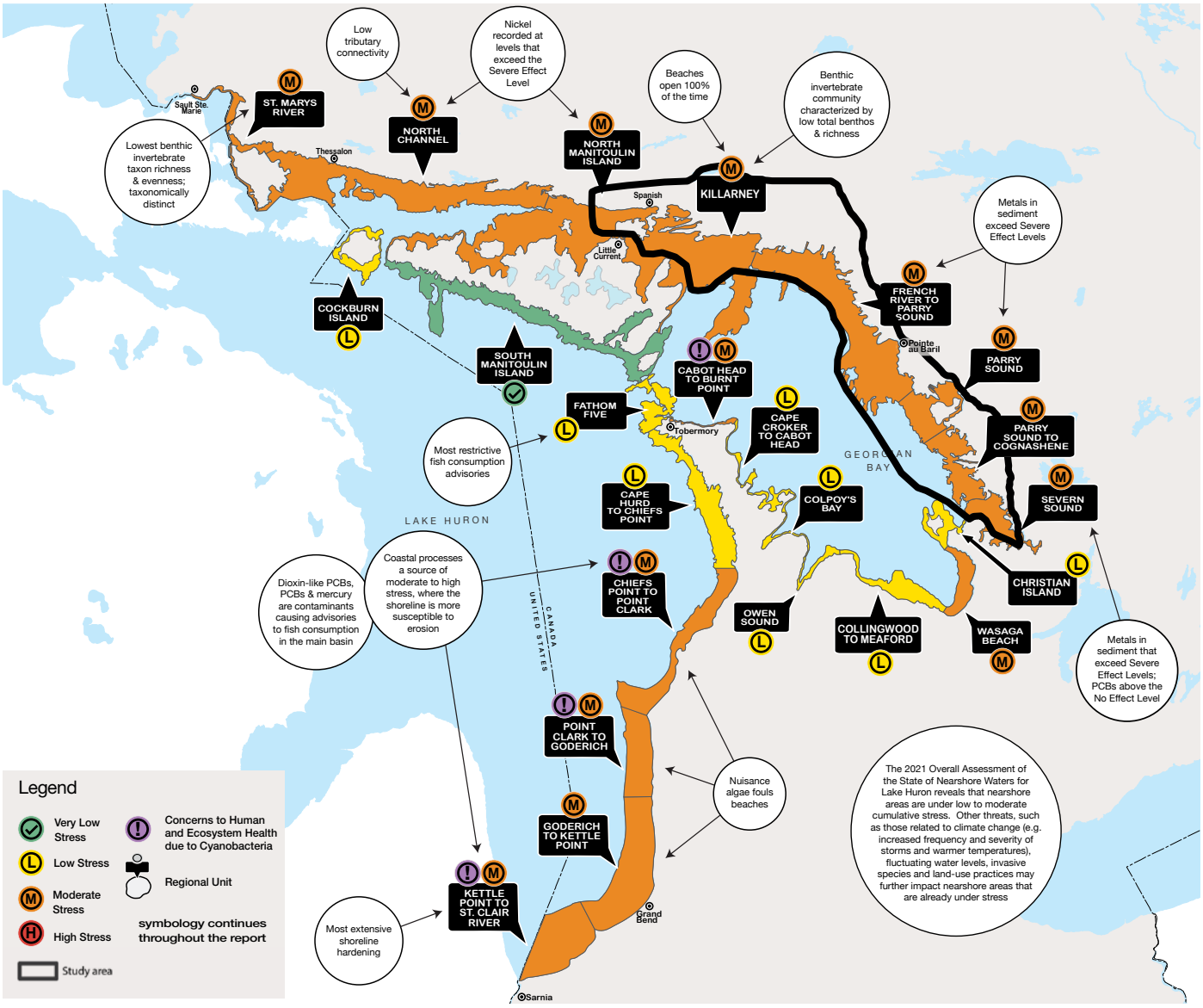


Figure 21: The 2021 Lake Huron Canadian Nearshore Assessment identified the nearshore areas of the Coastal Region were under moderate stress from threats including low connectivity and contaminants in waters and sediment. (Source: ECCC, 2021)

Habitat Disturbance from Roads and Boating

Human activities such as road use and recreational boating negatively impact many species and ecosystems in the Coastal Region.[47] Even small amounts of human disturbance within the Coastal Region have been found to have significant impacts on biodiversity health.[48]

Road density is a main source of habitat disturbance in the Coastal Region. A 2017 analysis of terrestrial human disturbance footprint along the eastern Georgian Bay Coast by the CWS demonstrated the greatest negative impacts correlated with human population centres and road density (Figure 22). Road density is also associated with reduced water quality in the Coastal Region.[49]

Recreational boating is another source of aquatic habitat disturbance in Georgian Bay. Many recreational cottagers and visitors use power boats within the Coastal Region, while some only have boat access to their properties. While studies specific to the impacts of cottage density and power boats within the Coastal Region are limited, boating and associated shore uses have both been found to have significant negative ecological impacts in generalized studies.[50] Power boat sales across Canada have increased since the COVID-19 pandemic, demonstrating a country-wide trend in increased recreational boating.[51] Cruise ship tourism has also been steadily increasing and is forecast to continue growing in the Great Lakes.[52]

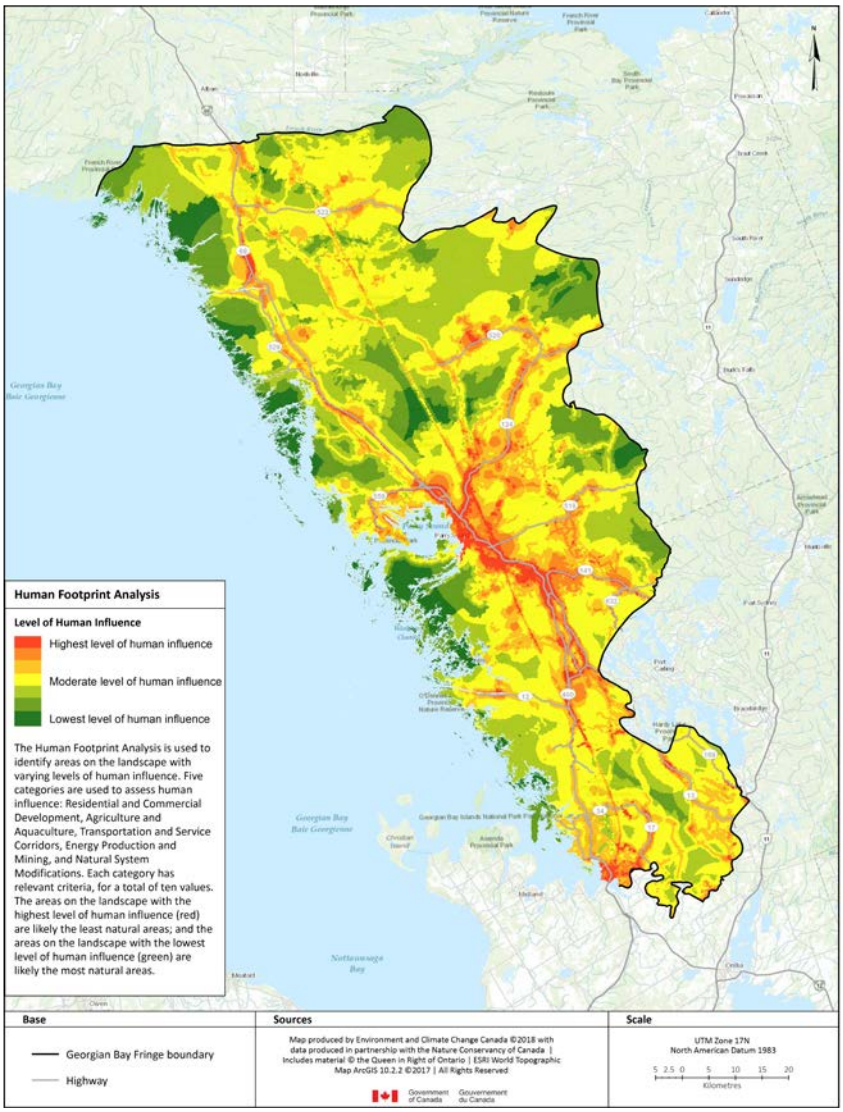


Figure 22: An analysis of human disturbance footprint along the Eastern Georgian Bay Coast by the Canadian Wildlife Service demonstrated the greatest negative impacts were correlated with human population centres and road density. Some members of the Vision 2050 Advisory Council do not agree with the methodology employed by CWS in determining the extent of human impacts in the Coastal Region and believe that it underestimates the impacts of cottage activities and development on the shoreline. (Source: Ontario Region Biodiversity Atlas, Canadian Wildlife Service)

Shoreline Modification and Hardening

Lakeshore development almost inevitably results in disturbance to sensitive shoreline habitat, including the disruption of nearshore coastal processes and ecosystem community structure.[53] Shoreline hardening – including seawalls, gabions, and other rigid erosion control structures – can reduce habitat and water quality.

Today, shoreline hardening remains limited across much of the Coastal Region because of its rocky Canadian Shield shoreline and historically lower levels of development. The 2021 Lake Huron Canadian Nearshore Assessment found that approximately one-third of the shoreline in the area surrounding Severn Sound has been hardened.[54]

Pollution and Contaminants

Historic industrial activity surrounding the Great Lakes continues to affect parts of the Coastal Region. Legacy sulfur emissions from Sudbury still shape local ecosystems at the eastern end of the North Channel,[55] while heavy metals and polychlorinated biphenyls (PCBs) have been identified in sediments region-wide.[56] The 2021 Lake Huron Canadian Nearshore Assessment identified nearshore areas of the Coastal Region as being under "moderate stress" from threats including contaminants in the waters and sediment (Figure 21).

Phosphorus Imbalance

Phosphorus levels are important to aquatic system health. Too much phosphorus can contribute to algal blooms and depleted oxygen, while levels that are too low can reduce aquatic productivity and disrupt the food web.[57] In Georgian Bay, the offshore waters are considered ultra-oligotrophic, meaning they have substantially lower phosphorus levels, whereas the nearshore waters are experiencing increasing phosphorus levels.[58]

While the phosphorus levels within the Coastal Region are lower than highly-degraded Lake Erie, there have nonetheless been nine instances of harmful algal blooms within the Coastal Region reported by the North Bay Parry Sound District Health Unit between 2011 and 2026 (Figure 23).[59]

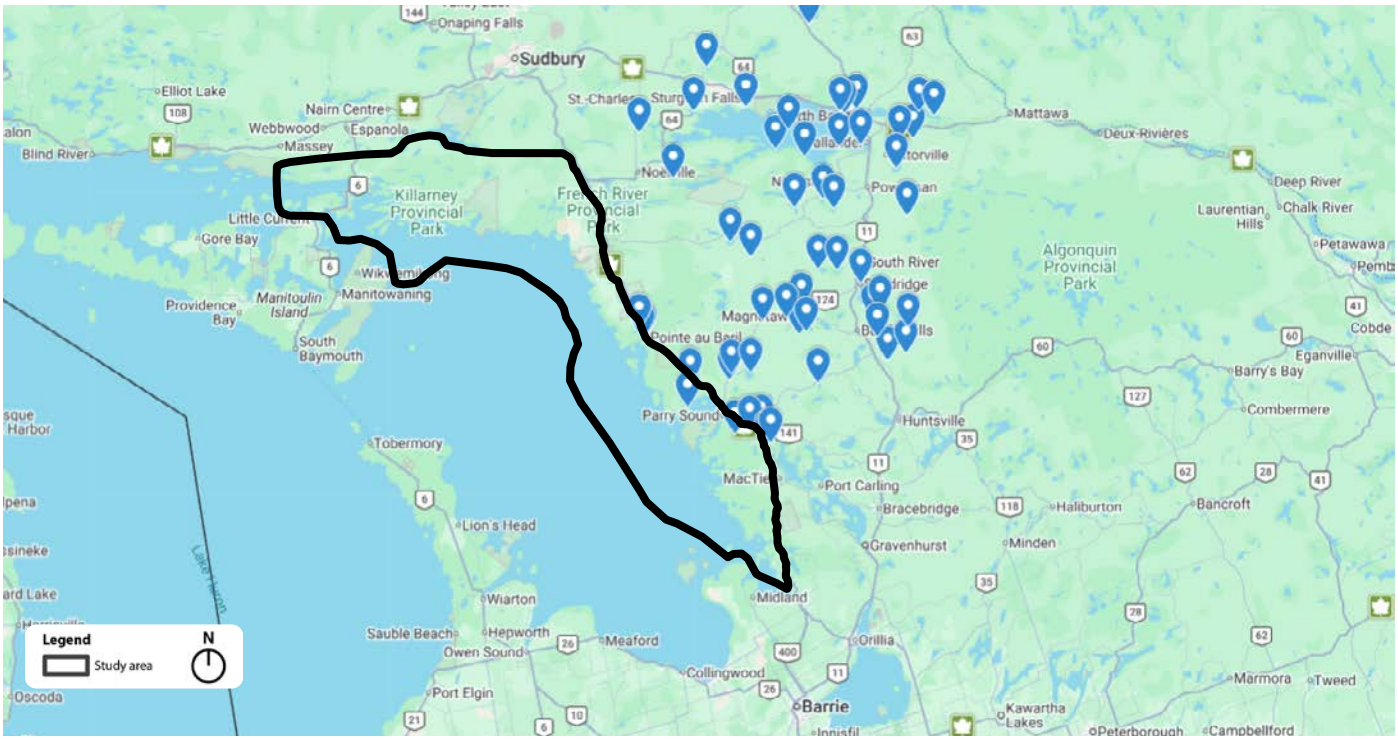


Figure 23: The North Bay Parry Sound District Health Unit map of all confirmed harmful algal blooms reported in their region from 2011 to the present (Source: North Bay Parry Sound District Health Unit)

Water Quality

Protecting water quality is a top priority for many in the Coastal Region.

The Township of Georgian Bay monitors phosphorus and *E. coli* at six coastal locations and seven inland lakes, using thresholds that are more stringent than provincial standards.

In March 2026, monitoring identified six locations where phosphorus and/or *E. Coli* exceeded the Township's established parameters, demonstrating the importance of continued local monitoring (Figure 24).[60]

Climate Change

Climate change is intensifying many pressures on the Coastal Region. Reduced winter ice cover and large storm events are increasing shoreline erosion,[61] while record-breaking temperatures in 2021 and 2023 contributed to warmer surface temperatures.[62]

Extreme weather is also becoming more frequent. Local examples include the 2018 Parry Sound wildfire, extreme winds at Oastler Lake Provincial Park in 2017 and heavy rains causing extreme flooding in Muskoka and southern Georgian Bay in 2019.[63]

Climate change impacts are one factor in the dramatic water level fluctuations on Georgian Bay and Lake Huron. The quality of the ecosystems has been impacted by 14 years of extremely low water levels followed by six years of rapidly increasing water levels, resulting in dead tree zones and impacts to wetlands.[64] Similarly, changes to the Coastal Region's overwintering conditions caused by climate change have been found to impact hibernating reptile mortality, specifically of Massasauga rattlesnakes.[65]

These impacts compound other threats: warmer waters can favour invasive species, while extreme rainfall can overwhelm wastewater infrastructure and increase pollution in waterways. Climate change therefore increases both the severity and complexity of the conservation challenges facing the Coastal Region.

While the Coastal Region is in relatively good health compared to the rest of the Great Lakes, it is nonetheless degraded compared to its natural state. Ongoing impacts from human activities continue to threaten the Coastal Region, and climate change is increasing the cumulative impacts of these threats.

Now is the time to protect and conserve this remarkable region before degradation becomes costly or impossible to reverse. Restoring damaged ecosystems costs many times the cost of prevention. Protection is the most cost-effective environmental strategy.

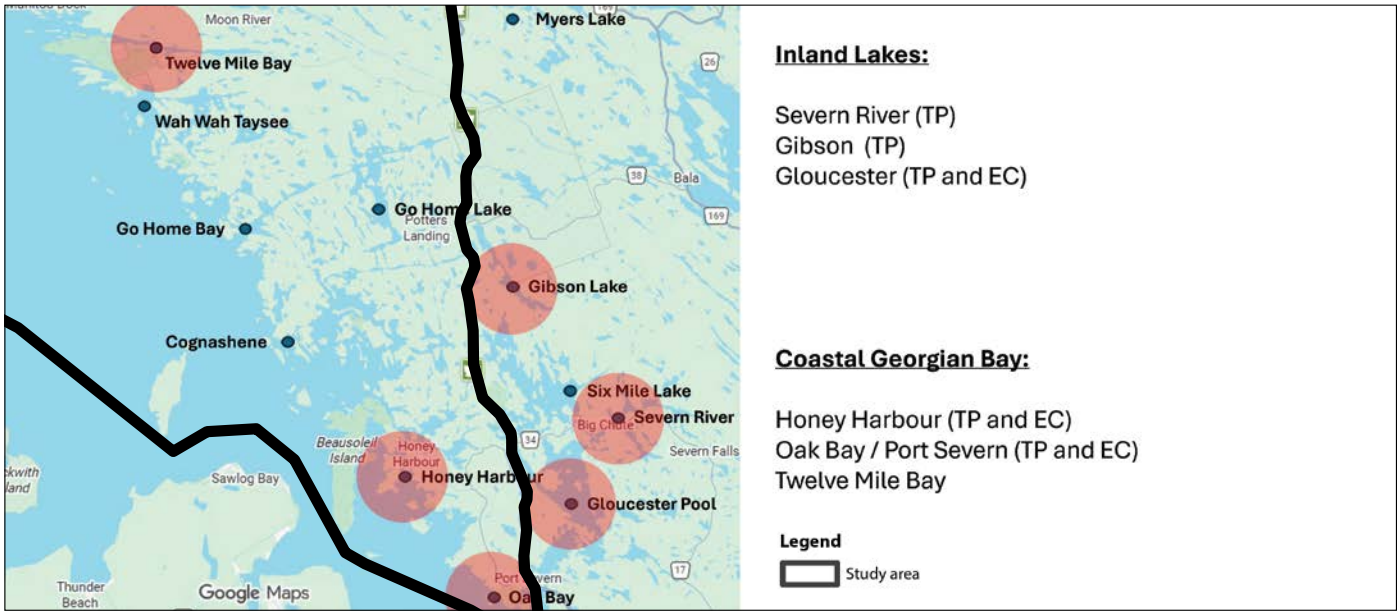


Figure 24: The Township of Georgian Bay Water Quality Monitoring Program identified six hotspots where phosphorus and E. Coli parameters surpassed the program's thresholds (Source: Schiefer, 2026)



3.2 Population Growth Will Intensify Pressure on the Coastal Region

The Coastal Region's relative health largely reflects its northern Canadian Shield setting, limited road access, and low development and resource extraction pressures compared with other Great Lakes coastal areas.[66] However, the Coastal Region is at a turning point: due to growth pressure from southern Ontario, the health and longevity of the Coastal Region is at risk.

> "The coastal ecosystem [of the Great Lakes] is particularly vulnerable to the effects of a growing human population, incompatible shoreline development and alteration, and tributary dams and barriers. These threats are compounded by climate change and cumulatively result in the loss of habitat extent, biodiversity, condition, and function."
>
> **- 2022 Lake Huron Canadian Baseline Coastal Habitat Survey - Technical Report**

The Coastal Region Lies Between Heavily Developed and Largely Intact Landscapes

A recent study of Canada's human footprint reviewed the impacts of 12 anthropogenic pressures.[v,67] This study revealed large areas of intact wilderness adjacent to areas under immense anthropogenic pressures. As shown in Figure 25, the Coastal Region lies within Canada's largest Boreal ecological area, where 84% of ecosystems remain intact. Immediately to the south is the Great Lakes Plains, which includes southern Ontario (and the Greater Golden Horseshoe (GGH) and has the country's highest human footprint, affecting 76% of the area. Satellite land-cover imagery reinforces this pattern, showing predominantly agricultural and urban lands to the south and extensive forest cover to the north (Figure 26).[68] On a more granular scale, a 2010 Lake Huron study similarly found limited coastal development in the Coastal Region and substantially greater impacts farther south, while warning that development pressures were increasing (Figure 27).[69]

v The 12 anthropogenic thresholds are: built environments, population density, nighttime lights, crop land, pasture land, roads, railways, navigable waterways, dams and associated reservoirs, mines, forestry and oil and gas

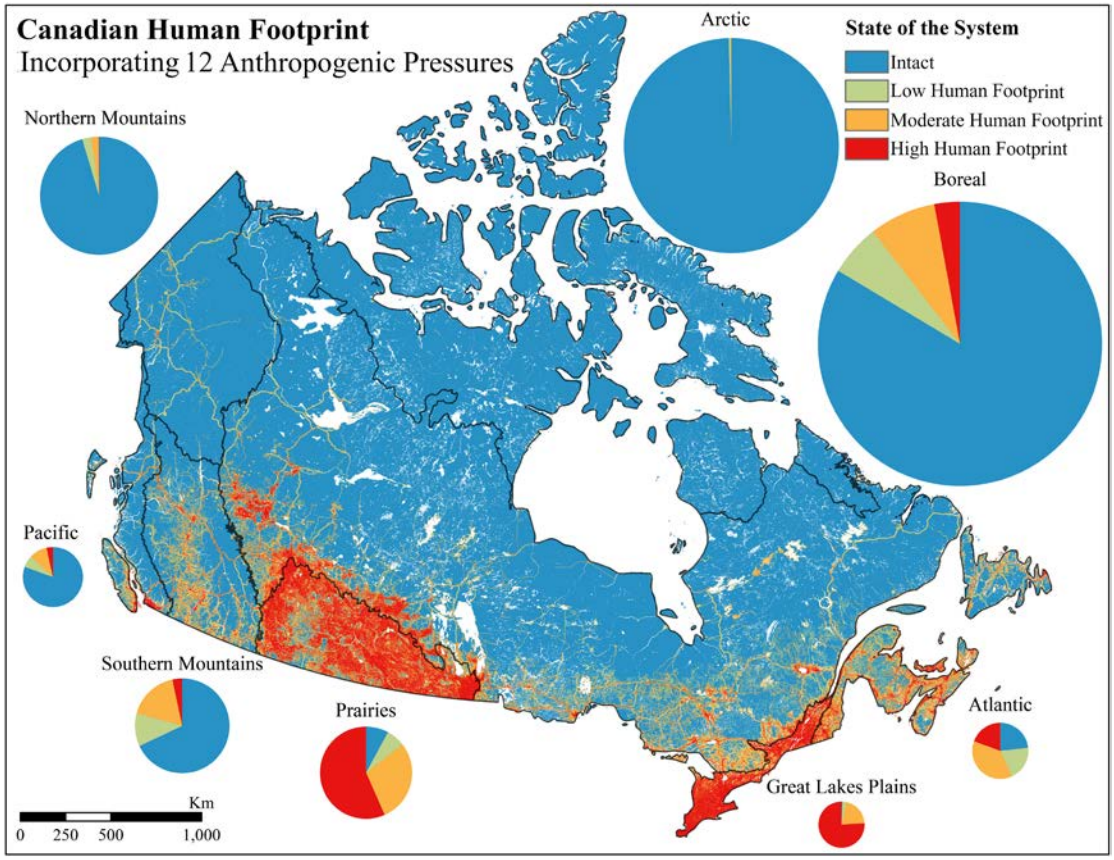


Figure 25: The Canadian Human Footprint study shows that the Coastal Region is located at the end of immense anthropogenic pressures. (Source: Hirsh-Pearson et al. 2021)

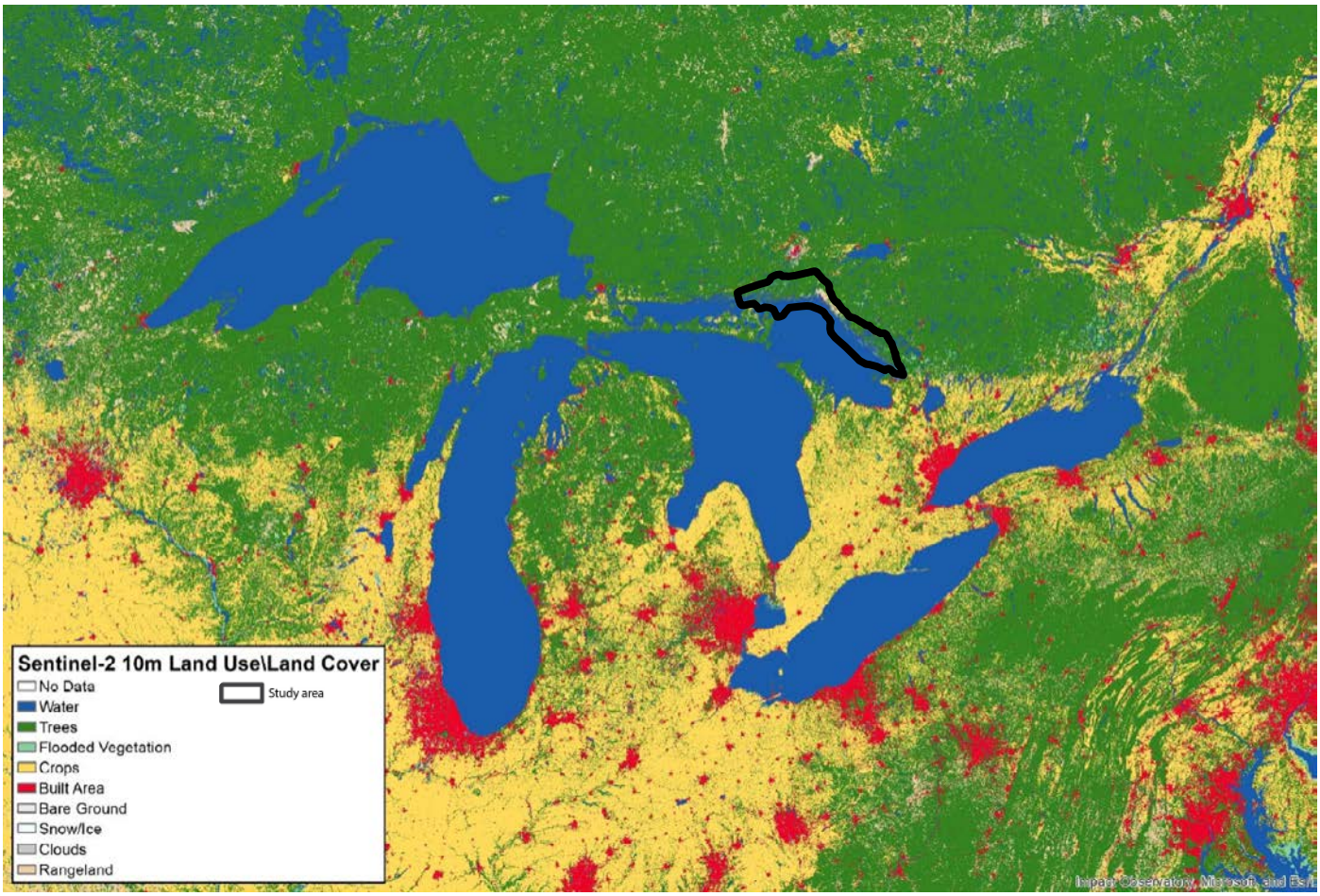


Figure 26: Global Land Use cover demonstrated the location of the Coastal Region at the precipice of development. (Source: Impact Observatory and Esri 2026)

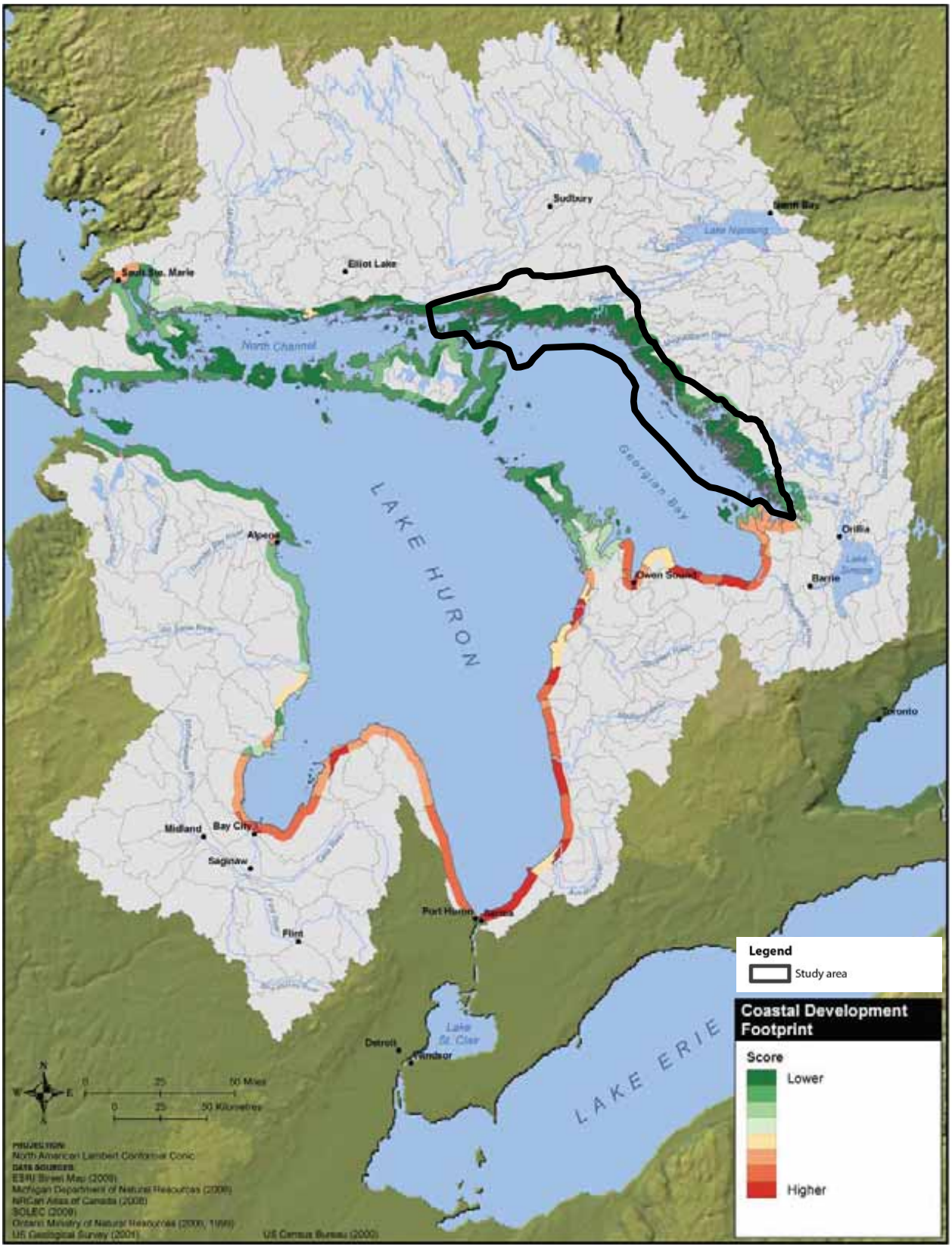


Figure 27: The greatest coastal development impact on Lake Huron's shorelines have occurred in the southern half of the basin. The Coastal Region was located at the boundary of low to high human impacts. (Source Franks-Taylor et al. 2010).

Seasonal Residents and Visitors Already Place Significant Pressure on the Region

The six municipalities have approximately 15,800 permanent residents, but seasonal populations are much larger. The Archipelago, for example, has fewer than 1,000 permanent residents and more than 12,800 seasonal residents,[70] while Georgian Bay has approximately 3,400 permanent and 17,500 seasonal residents.[71] Provincial parks also attract hundreds of thousands of visitors annually.[72]

The Coastal Region's environmental pressures are therefore shaped not only by its permanent resident population, but also by growing seasonal and recreational demand from across Ontario.

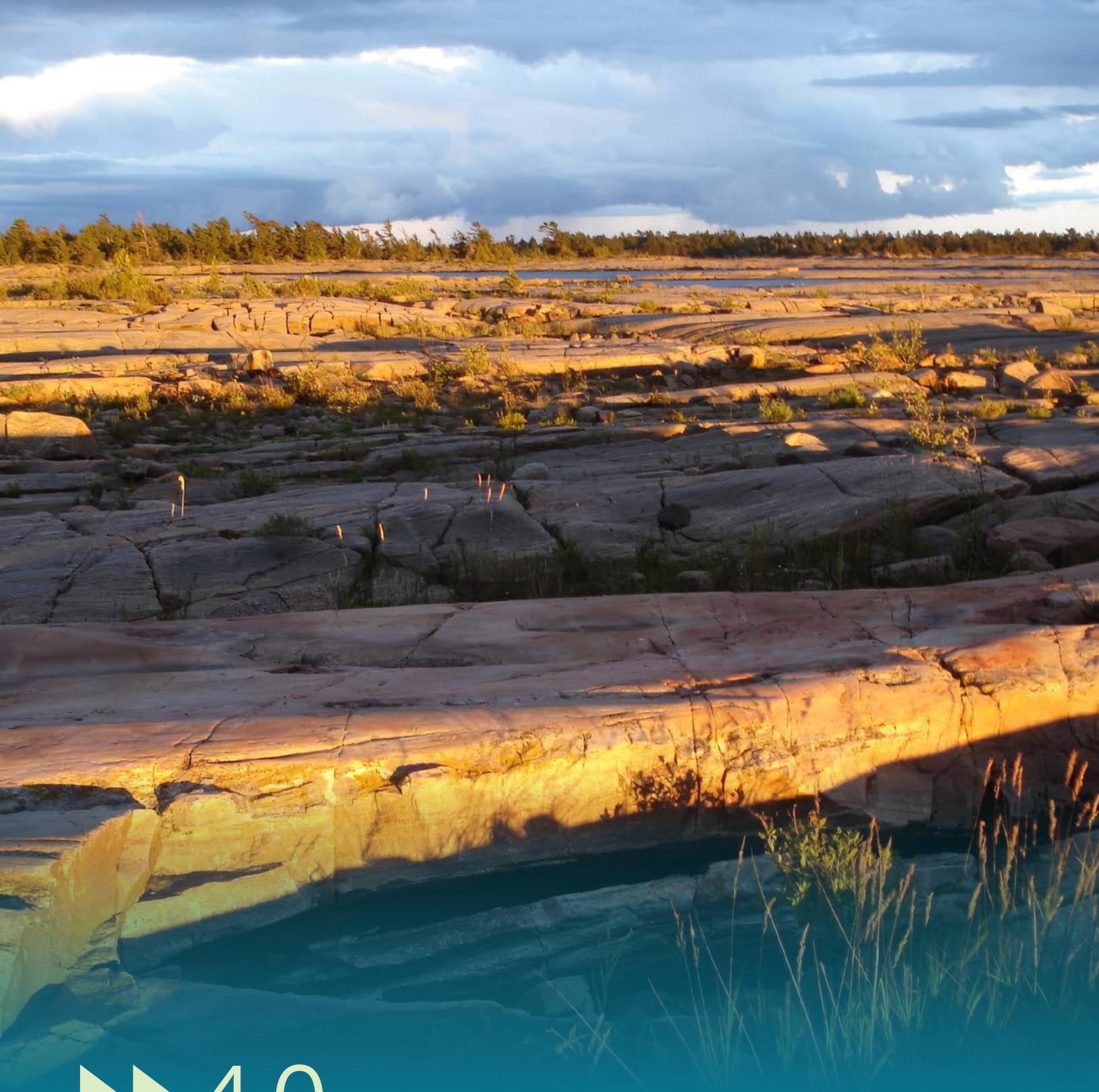
Southern Ontario's Growth Will Increase Development and Recreational Demand

Decades of major population growth in southern Ontario have extended and intensified settlement patterns. Between 1991 and 2021, the GGH added 3.4 million people, a 52% increase in population. Projecting forward, the GGH is expected to continue to grow rapidly, adding another 28% or 3 million more residents over the next 30 years.[73]

More locally, the municipalities surrounding the Coastal Region (Simcoe, Muskoka, Parry Sound, Greater Sudbury, and Manitoulin) are anticipated to grow 30% from 2026 to 2051.[74] This growth will increase demand for cottages, tourism, boating, roads, utilities, and other infrastructure, intensifying pressure on the Coastal Region.

The Coastal Region's natural beauty will continue to attract residents and visitors. Without stronger, coordinated protection and conservation, growing development and recreational use could permanently diminish the ecological integrity that defines the region. Decisions related to managing future growth must balance protection and conservation with recreation and community prosperity.





4.0

Critical Gaps Persist in Protection and Conservation Initiatives

4.0
Critical Gaps Persist in Protection and Conservation Initiatives

Many protected areas and conservation initiatives are in place in the Coastal Region today. But critical gaps in protection and conservation exist.

The Coastal Region lacks key components of effective environmental protection.

- No Coastal Region-wide ecosystem-based regime exists for protection, monitoring or management.
- No formal collaboration occurs across governments and organizations involved in protection and conservation initiatives.
- Limited to no protection exists for the Coastal Region of waters, including littoral or aquatic ecosystems.
- Many ecologically important lands remain unprotected.





No Coastal Region-wide ecosystem-based regime exists for protection, monitoring or management

The conservation initiatives and protected and conserved areas within the Coastal Region are currently managed discretely, and there is no cohesive ecosystems-based approach to conserving the Coastal Region holistically. Ongoing community-led efforts are typically hyper-localized, working to provide reptile crossings along one road, for example, and cannot provide the wide-scale regional and adaptive conservation that is truly impactful for an ecological community the size of the Coastal Region.

Ecosystems are complex, and function beyond human-defined boundaries. As the Coastal Region forms a heterogeneous and coherent ecosystem, it should be monitored, protected, and managed at the ecosystem-level. Today there is no authority or mechanism in place to do so. A watershed-based or basin-based management approach would include all components of the ecosystem, including terrestrial, littoral and aquatic ecosystems that function together to form the Coastal Region.

Without an ecosystem-based conservation framework across the Coastal Region, policies and regulations are applied inconsistently and may not fully consider cumulative, upstream, or downstream impacts of human activities, development, and servicing infrastructure on regional ecological health.

No formal collaboration across governments and organizations

There is no established body, task force, or board that facilitates formal and permanent collaboration amongst governments, First Nations, NGOs or community groups with regard to the protection and conservation of the Coastal Region. While informal collaboration and coordination exist, community-led initiatives require ongoing volunteer support and sustainable funding to continue their operations. Community groups cannot have the breadth of scientific research or legal protection mechanisms available to government bodies. Stronger collaboration between existing and new interest holders would allow government resources and local expertise to come together to enhance protection of the Coastal Region.

Limited to no protection of littoral or aquatic ecosystems

The Coastal Region's ecological importance is driven in large part by the amount of littoral habitat formed within the world's largest freshwater archipelago. Despite this, the vast majority of aquatic and littoral ecosystems remain unprotected.

Many ecologically important lands remain unprotected

The Coastal Region includes lands that have been identified as ecologically important by designations such as the UNESCO Georgian Bay Biosphere Mnidoo Gamii, KBAs, a NPAEC, High Value Biodiversity Areas, and areas of high ecological value. Despite these areas being recognized by governments and environmental organizations for their ecological importance, these designations do not offer legal protections. The 45% of the lands located outside of the ECCC-defined protected and conserved areas have limited to no protection, and remain largely at risk of the impacts of development.

Section B of the Discussion Paper includes a way forward to address these gaps and enhance the protection and conservation of the Coastal Region in perpetuity.

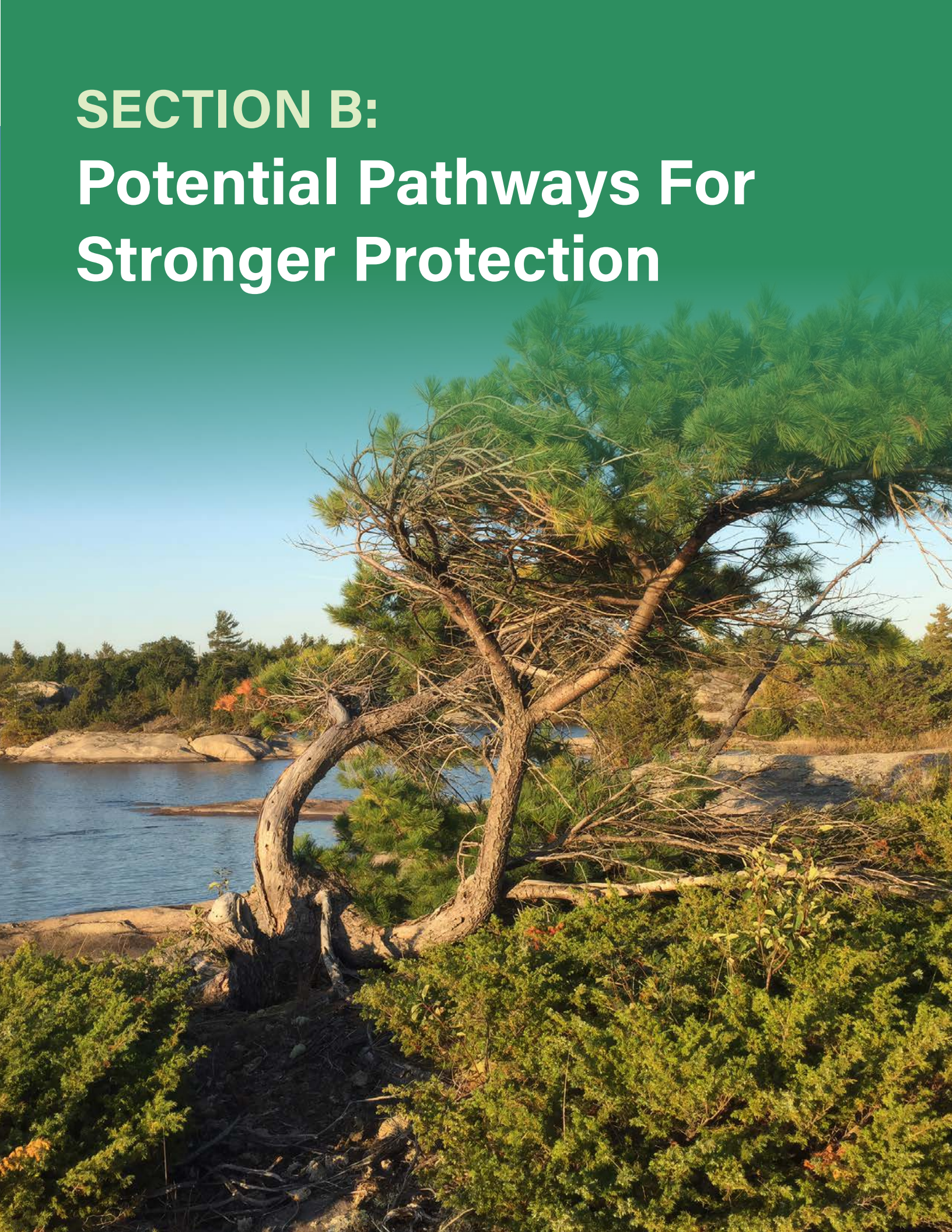
Today, the Coastal Region benefits from federal and provincial monitoring and environmental management activities, as well as numerous area-specific conservation initiatives undertaken by First Nations, NGOs, and community groups. These include initiatives focused on stewardship, land protection and conservation, education, invasive species management and species at risk protection (See Appendix A).

While significant protected areas and conservation programs exist in the Coastal Region, the lack of a cohesive regional, ecosystem-based protection of the region's lands and waters means that critical gaps exist. Addressing these gaps is critical to sustaining this globally unique ecosystem.



SECTION B:

Potential Pathways For Stronger Protection





5.0 A Framework to Strengthen Long-Term Conservation

5.0
A Framework to Strengthen Long-Term Conservation

This section describes key components of a conservation framework for increased protection and conservation based on a review of international conservation frameworks and tools.[75] A Coastal Region conservation framework should address the following:

- **Why** increased protection and enhanced conservation are important now?
- **What** conservation principles are key to increasing protection and conservation of the Coastal Region?
- **How** can increased protection and conservation be best implemented, and through which mechanisms?
- **Who** should be involved in the conservation planning and implementation?
- **What** governance or decision-making models could most effectively increase protection and conservation and achieve broad-based support?

The following sub-sections set out the potential approaches and responses to the above questions. These sub-sections also include five Canadian case studies which illustrate significant conservation frameworks, mechanisms, and governance models, and identify lessons relevant to the Coastal Region.



5.1 Why: A Response to a Global Biodiversity Crisis and Global Commitments

Section 4 demonstrates that the Coastal Region is unique, irreplaceable and at risk. The global biodiversity crisis further underscores the urgency of coordinated, ecosystem scale approach to protect the region while its habitats and species remain relatively healthy. Between 1950 and 2020, global wildlife populations declined by 73%, with freshwater populations suffering the steepest decline at 85% (Figure 28).[76] In Canada, 52% of monitored wildlife populations have shown a decline in abundance from 1970 and 2022.[77] As one of the Great Lakes' last comparatively intact ecosystems, the Coastal Region presents a key opportunity for Canada to help to counter the worldwide loss of biodiversity.

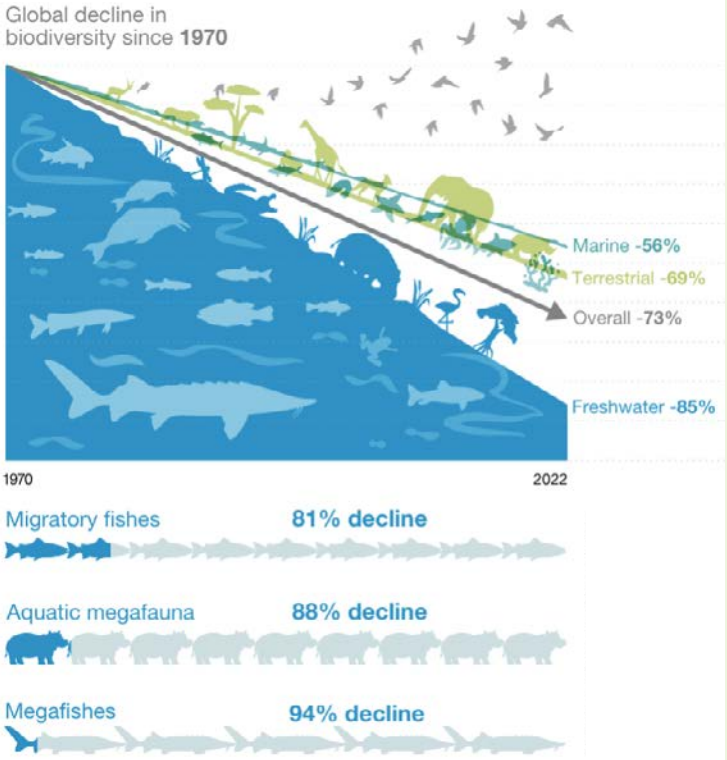
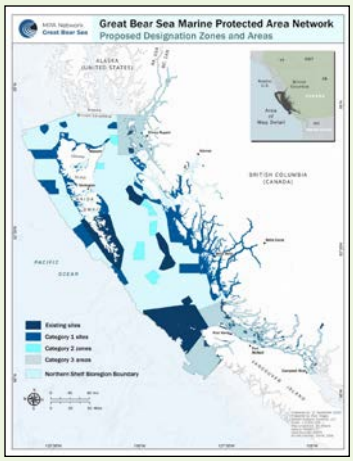


Figure 28: Global freshwater populations declined by 85% from 1950 to 2020, making them the type of population most impacted by the ongoing biodiversity crisis. (Source: Moberg et al. 2024)

Case Study

Great Bear Sea Marine Protected Area (MPA) Network (British Columbia)[78]



Type: Protected and Conserved Areas – Network

Location: Northern Shelf Bioregion

Size: Three million hectares

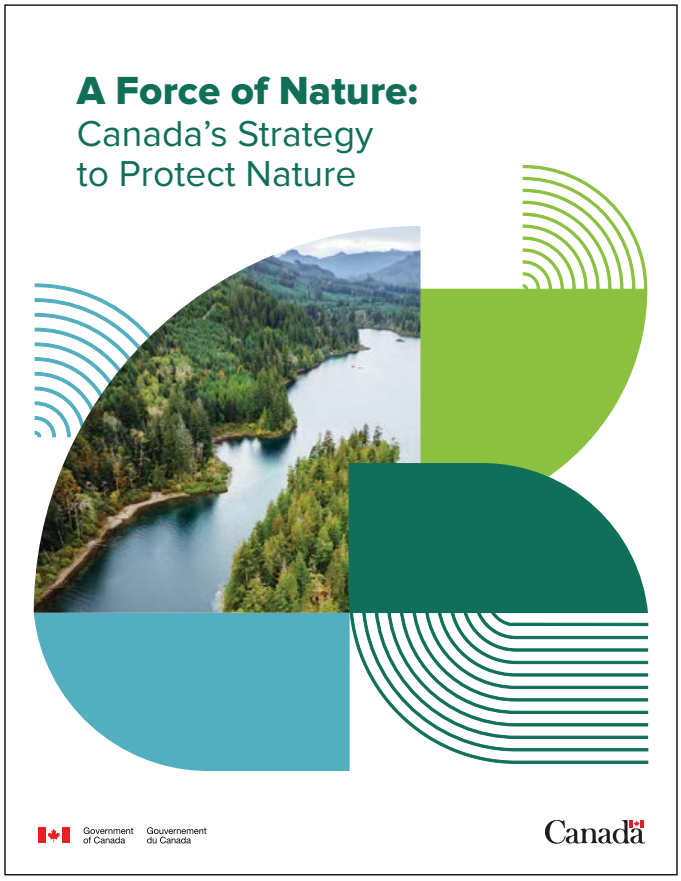
Governance: A collaborative governance agreement between Federal, Provincial, and 17 First Nation Governments as defined by the Great Bear Sea Project Finance for Permanence

Description: The Great Bear Sea MPA Network is Canada's first coordinated marine conservation network, covering more than three million hectares of marine, nearshore (coastal) and offshore habitat in northern British Columbia.

Components Applicable to the Coastal Region:

- The creation of a network of marine, littoral and terrestrial protected areas with varying levels of protection. Together this network protects and conserves this large coastal region more effectively and comprehensively than individual sites could alone.
- A collaborative initiative between multiple governments and First Nations, involving local communities and interest holders, that took decades of planning and formalized agreements (starting in 2008 and ongoing).
- Strategic advocacy which secured over $335 million for initial capital to support sustainable, long-term funding, formalized through the Great Bear Sea Project Finance for Permanence (GBS PFP).

In response to this accelerating global biodiversity loss, the United Nations established the Convention on Biological Diversity (CBD) at the 1992 Earth Summit.[79] In 2022, UN member parties to the CBD adopted the *Kunming-Montreal Global Biodiversity Framework* (the "2022 Biodiversity Framework"), the most recent agreement to advance conservation and halt the loss of biodiversity.[80] It includes 23 targets, three of which align closely with the needs of the Coastal Region, where conservation and protection depend on maintaining large, connected habitats:



A Force of Nature: Canada's Strategy to Protect Nature (2026)

- **Target 1:** Reduce the loss of areas of high biodiversity importance to close to zero by 2030, while respecting the rights of Indigenous peoples and local communities.
- **Target 2:** Restore at least 30% of degraded terrestrial, inland water, coastal, and marine ecosystems by 2030.
- **Target 3:** Conserve at least 30% of terrestrial, inland water, coastal, and marine areas through protected areas and other effective area-based conservation measures (OECMs) by 2030. This is commonly known as the 30 by 30 target.

Canada has adopted the 2022 Biodiversity Framework and committed to achieving the 30 by 30 target.[81] As of 2024, 13.8% of Canada's terrestrial area and 15.5% of its marine territory were conserved.[82] Ontario has also committed to working toward the 30 by 30 target.[83] Most recently, to accelerate progress, the federal government released *A Force of Nature: Canada's Strategy to Protect Nature* (the "2026 Nature Strategy"), supported by $3.8 billion in funding.[84] This represents a crucial opportunity for the Coastal Region: its relatively healthy coastal wetlands, islands, forests, and nearshore waters can make a meaningful contribution to biodiversity protection if conservation is coordinated at the scale of the ecosystem.

The Situational Analysis demonstrates the rationale for increased protection and conservation of the Coastal Region as a globally unique ecosystem. Increased protection and conservation extending across both lands and waters of the Coastal Region would respond directly to international, federal, and provincial biodiversity protection and conservation commitments.

5.2 What: Establishing Principles of Conservation

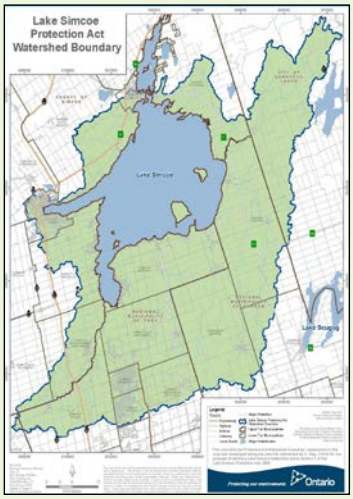
The Coastal Region requires a conservation framework that can address its interconnected lands and waters, leverage ongoing initiatives, expand partnerships and increase effective protection at the regional scale. The following key principles provide the foundation for that framework. They have been drawn from international frameworks such as the IUCN, as well as case studies selected for their applicability to the Coastal Region.[85]

- **Regional, ecosystem-based protection** should span land and water and use large-scale spatial planning. Because inland waters are interconnected, single protected areas are often insufficient and do not protect at the appropriate scale. Instead, a coordinated network with watershed-level interventions is needed.
- **Inclusive, rights-based approaches** must recognize Indigenous and local community rights and stewardship while supporting sustainable development. A collaborative, inclusive decision-making structure will build broad-based, long-term support for protection and conservation.
- **Layered conservation mechanisms** should combine protected and conserved areas, watershed planning, land use controls, and stewardship activities. Multiple tools are more resilient than any single mechanism, and cross-sector cooperation builds trust and pools resources.
- **Adaptive management approaches** should include ongoing monitoring and respond to climate change and human impacts. Conservation should manage for ongoing ecological change rather than a fixed historical baseline.
- **Long-term, opportunistic collaboration** needs to build over time, develop in layers, and align with government and international priorities. Effective conservation also requires long-term, sustainable financing to remain viable.

These high-level principles provide a strong foundation and critical starting point. A conservation framework for the Coastal Region must tailor these principles to this specific region, working collaboratively with all parties interested in the shared goal of ecosystem-based conservation.

Case Study

Lake Simcoe Act and Protection Plan (Ontario)[86]



Type: Land Use Controls

Location: Lake Simcoe Watershed, Ontario

Size: 260,000 hectares

Governance: Government-led model in which Provincial legislation and policy together provide protection and conservation. This is combined funding from Federal and Provincial governments, and implementation by Municipalities, First Nations, and the Lake Simcoe Region Conservation Authority.

Description: The Lake Simcoe Protection Plan is a watershed-based provincial land use planning policy document that is intended to protect and restore the ecological health of Lake Simcoe, including reducing phosphorus levels.

Components Applicable to the Coastal Region:

- Spearheaded by grassroots action, including environmental NGOS and more than 25 local community groups, including cottagers and residents concerned about the impacts of encroaching urban growth.
- Is a watershed-based land use planning tool that extends beyond protected and conserved areas and adopts adaptive management practices.
- Lake Simcoe Act and Plan are supported by monitoring and progress reports along with formal Plan review requirements.

5.3 How: Mechanisms for Increasing Conservation

This Discussion Paper synthesizes a variety of mechanisms to protect and conserve ecosystems in four categories, with a focus on five specific mechanisms to consider employing in the Coastal Region. These mechanisms have been selected because they respond directly to the Coastal Region's context: its interconnected lands, waters, wetlands, islands, littoral and shoreline ecosystems; the importance of First Nations stewardship and leadership; the presence of existing protected and conserved areas and community-led initiatives; and the current gaps in coordinated, region-wide protection, particularly for littoral and aquatic ecosystems.

The four categories of mechanisms described in this Discussion Paper include the following:

1. Protected and conserved areas
2. Land use controls
3. Indigenous-led conservation
4. Community-led conservation

Protected and Conserved Areas

Generally considered to be the gold standard for biodiversity protection, protected and conserved areas are established to safeguard habitats, species, and ecological processes.[87] Protected and conserved areas can provide varying levels of protection of lands and waters, and can be managed cooperatively by governments, Indigenous peoples, NGOs or private landowners.[88]

Protected and conserved areas provide different degrees of protection and conservation based on their purpose. For example, areas created predominantly for recreation provide a lower level of protection and conservation compared to areas created specifically to conserve wildlife or habitats.

In Canada, each level of government can establish and manage protected and conserved areas. Lands and waters may also be protected and conserved by private landowners, First Nations, and NGOs as land trusts and private conservation areas. Lands may also be conserved and cooperatively managed by OECMs. Table 1 delineates the protected and conserved areas by jurisdiction across Ontario and within the Coastal Region as a proportion of the overall amount of protected and conserved land area (per the CPCAD).

Within the Coastal Region, 98% of protected and conserved areas are managed by the Province of Ontario, demonstrating the importance of government involvement in ecosystem-scaled protection. Opportunities exist for the federal government, First Nations, and others to not only expand protected and conserved areas but also to connect these in a cohesive network across the Coastal Region.

Table 1: Protected and Conserved Areas by governing body in Ontario and the Coastal Region

Governing Body	Protected and Conserved Areas			
	Ontario [89]		Coastal Region [90]	
	Ha	%	ha	%
Provincial	10,186,077	86%	230,216	98%
Federal	1,357,071	12%	1,291	1%
Municipal	35,484	0%	0	0%
Private	215,032	2%	4,249	2%
OECM	4,305	0%	0	0%
Total	11,797,969	100%	235,756	100%

Land Use Controls

Land use controls are a potential conservation mechanism for lands located outside of protected and conserved areas that are typically available for development. Official Plans, zoning by-laws, and permitting requirements can achieve conservation by protecting mapped natural heritage features, restricting development, and integrating biodiversity considerations into planning decisions.[91]

In Ontario, land use planning conservation is set by:

- **The Provincial Planning Statement:** The Provincial Planning Statement, 2024 (PPS), is a consolidated statement of the government's policies on land use planning issued through the *Planning Act* [92]. It gives provincial policy direction on key land use planning issues that affect communities. PPS Policy 4.1.5 prohibits development in provincially significant wetlands and requires stringent development tests of "no negative impact" for coastal wetlands within ecoregion 5E, providing some protection for certain wetlands.
- **Provincial Area-Specific Legislation and Land Use Plans:** Area-specific land use plans have been established to protect and conserve ecosystem-based, large-scale landscapes while establishing direction for sustainable development and rural economies. These include the Niagara Escarpment, Greenbelt, and Oak Ridges Moraine Plans.
- **Municipal controls:** Official Plans and zoning by-laws, which must be consistent with the PPS, implement land use planning goals through rules and regulations that must be applied to development. The level of environmental protection of these planning tools varies by municipality. Unincorporated areas are not subject to municipal Official Plans and zoning by-laws.
- **Conservation Authority Permitting:** Unique to Ontario, Conservation Authorities are mandated to protect people and property from natural hazards, protect source water, and conserve and manage the lands they own. Conservation Authority permits are required for development that falls within their jurisdiction, and they review these development applications on a watershed-basis beyond municipal boundaries.

Case Study



Lake Superior National Marine Conservation Area (NMCA), Ontario[93]

Type: Protected and Conserved Areas

Location: Lake Superior, Ontario

Size: 1,088,000 hectares (one-eighth of Lake Superior)

Governance: Parks Canada managed, in collaboration with First Nations and Métis organizations, provincial government representatives, other federal agencies, coastal communities and other organizations.

Description: The Lake Superior NMCA is the largest freshwater protected area in the world. The Lake Superior NMCA Interim Management Plan outlines the framework for decision-making and how Parks Canada will work with First Nations and Métis organizations, partners and interest holders to manage the NMCA.

Components Applicable to the Coastal Region:

- Utilizes a federal NMCA, a type of protected area that applies to freshwater.
- Involved extensive consultations between government agencies, coastal communities, First Nations and stakeholders, including the establishment of a 20-member, multi-interest Interim Management Advisory Board.
- An Interim Management Plan outlines the framework for decision-making and ongoing management.

The Coastal Region lacks area-specific land use plans that apply planning decisions on a watershed or ecosystem-based level. There are no conservation authorities in the region. Provincial policies that increasingly prioritize growth and development over environmental protection are not well suited to the region, which is largely natural state Canadian Shield terrain with limited access and services. **Planning policies and guidelines for the Coastal Region must be tailored to its unique geography, character and ecosystems**.

Municipalities have planning powers that result in varying levels of environmental protection in the region. A 2022 GBA review of five coastal municipalities (Northeastern Manitoulin and the Islands, Killarney, Township of the Archipelago, Carling, and Township of Georgian Bay) identified differences in protections related to waterfront development, environmental protection and open space designations, lot creation, blasting, and dredging.[94] As a result, conservation outcomes can vary across the Coastal Region depending on local policies, political decisions, and implementation and enforcement resources.

Municipalities may count natural state lands as assets in asset management plans, including forests, wetlands and coastal areas. The Township of the Archipelago, where 92% of lands are natural state, plans to do this. This helps to sustain their benefits for the future and enhances community resilience.

Indigenous-Led Conservation

Indigenous peoples have historically practiced biodiversity stewardship. There is a growing body of evidence that modern Indigenous-led conservation initiatives lead to improved conservation outcomes.[95] Governments are now providing greater support for Indigenous peoples to lead and participate in conservation initiatives.

Indigenous-led conservation may include the creation and management of protected and conserved areas, the use of land use planning controls, and the varied examples of community-led conservation actions noted above. Both Canada and the CBD have acknowledged the importance of increasing Indigenous-led conservation efforts moving forward.[96] Accordingly, in 2022 the Government of Canada established the Indigenous-Led Area-Based Conservation fund to encourage Indigenous-led conservation and contribute to the 30 by 30 target.[97]

Given the ten First Nations in and around the Coastal Region, and the resources now available for Indigenous-led conservation, this mechanism could significantly increase protection and conservation in the Coastal Region and support reconciliation with its traditional stewards. Ongoing Indigenous-led conservation efforts are described in Appendix A.

Community-Led Conservation

Community-led conservation includes actions by local governments, NGOs, conservation authorities, and grassroots community groups, including stewardship, restoration, species at risk habitat protection, ecological monitoring, and environmental education.[98] Community-led initiatives are often more localized in nature, but may cover more expansive areas; for example, GBB and GBLT programs as described in Appendix A. In the Coastal Region, there is an opportunity for the number of highly dedicated community groups to work together and leverage their strengths.

A variety of effective mechanisms are available to provide protection and conservation for ecosystems and enhance biodiversity. Notable options for the Coastal Region include:

- **Additional protected and conserved areas (including waters)**
- **Creating a cohesive network of existing protected and conserved areas**
- **Creating an area-specific land use plan, such as the Niagara Escarpment Plan or Greenbelt Plan**
- **Creating a Conservation Authority for the Coastal Region's watershed**
- **Additional First Nations-led conservation and community-led conservation collaboration and actions**

A multi-pronged approach that uses multiple mechanisms would leverage the strengths of each and be more resilient to changes in the environment and government priorities.

5.4 Who: Governance and Decision-Making Models

Environmental conservation projects use a range of decision-making models, which are led by senior levels of government, First Nations, NGOs, non-profits, and private landowners, with varying levels of effectiveness.[99] To understand which models may be most useful for the Coastal Region, five Canadian case studies were reviewed that demonstrate varying degrees of collaboration and leadership roles among governments, interest holders, and First Nations and employ various approaches to implementation. Key lessons from each are summarized in the call-out boxes in this section; more detailed summaries, including maps, can be found in Appendix B.

The Great Bear Sea Marine Protected Area (MPA) Network and Lake Superior National Marine Conservation Area show how conservation can extend from terrestrial systems into marine and freshwater environments. Protection and conservation of waters is especially important in the Coastal Region, given its unique freshwater archipelago, vast total coastline area and the critical importance of its nearshore waters, littoral zone and wetlands to marine and terrestrial habitat. These examples point toward a coordinated network of protected areas that include both land and water, rather than a collection of disconnected site-specific protected lands.

Case Study



Fraser Basin Council (British Columbia)[100]

Type: Community-Led Conservation

Location: Fraser River Basin from its mouth near Vancouver upstream to its headwaters in the Rocky Mountains near Valemount

Size: Operates on both province-wide and basin-wide scale (historical focus on the Fraser River Basin, covering approximately 23.8 million hectares)

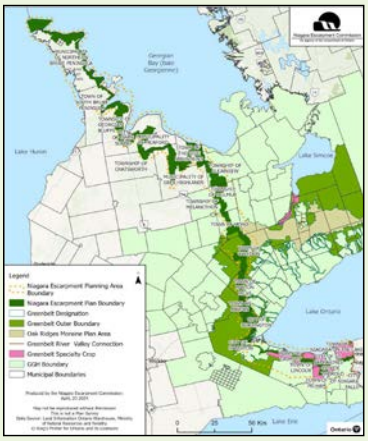
Governance: The Fraser Basin Council Board has 38 Directors from the four orders of Canadian government (Federal, Provincial, municipal, and First Nations), the private sector and communities throughout British Columbia

Description: The Fraser Basin Council works with multiple levels of government, communities and organizations on sustainability issues and initiatives, including flood management, climate change action and adaptation, green transportation, energy efficiency, air quality improvement, healthy watersheds and community sustainability planning.

Components Applicable to the Coastal Region:

- Provides an example of a community-led collaboration that does not have regulatory authority but works cooperatively on conservation initiatives.
- Covers a large watershed and includes initiatives related to both land and water.

Case Study



Niagara Escarpment Plan (NEP) (Ontario)[101]

Type: Land Use Controls

Location: The NEP crosses 23 municipalities, spanning over 725 kilometres from Niagara Region to the top of the Bruce Peninsula.

Size: 195,000 hectares

Governance: The NEP is administered by the Niagara Escarpment Commission (NEC), a provincially appointed regulatory agency made up of 17 members. Nine members (including the chair) represent the broader public, and eight members are municipally elected officials from municipalities within the Niagara Escarpment Plan's boundaries. The Commission reports to the Ontario Ministry of Natural Resources and Forestry.

Description: The NEP includes land use designations that protect the lands and ecosystems of the Escarpment and provide a series of connected and conserved areas. Development within the NEP area requires an NEC development permit to proceed. This ensures that all such development is aligned with the NEP.

Components Applicable to the Coastal Region:

- Spearheaded by concerned citizen groups who lobbied for better preservation and land use controls of a large-scale landform and related headwaters.
- Illustrates the complexity and structure involved in a provincially appointed regulatory agency that coordinates land use policies and decisions to ensure consistent protection of an environmental feature across municipal boundaries.

Those two models also demonstrate that protection is most durable when it is developed through a collaborative governance model with senior governments, First Nations, local communities, and interest holders.

The Lake Simcoe Protection Plan and Niagara Escarpment Plan utilize a government-led model and highlight the importance of regional land use tools that operate across municipal boundaries and address pressures beyond the limits of formal protected and conserved areas.

Those two models point to the potential value of an overarching protection plan for the Coastal Region, supported by legislation or policy, that guides land use, coastal development, infrastructure needs, watershed management, c and ecological restoration at a regional scale. Such a plan could adopt different policies on governance, planning, and protections than apply in those models. They also show that planning frameworks need clear authority, enforceable policy direction, regular monitoring, and sustained funding to remain effective over time.

Finally, the Fraser Basin Council provides an example of a collaborative entity that does not have regulatory authority. As a charitable non-profit organization, the Council works with different orders of government, communities, and organizations on sustainability issues and initiatives without any specific regulatory powers, legislation, or authority.

Across the case studies, the most effective approaches combine collaborative governance, the creation of an ecosystem-based network approach to



enhance protected and conserved areas, and long-term implementation funding. These recurring features provide a practical basis for assessing what a Coastal Region governance structure should be able to do.

- Drawing from these case studies and the conservation principles identified earlier, a governance structure for the Coastal Region should be designed to achieve the following:
- **Regional, ecosystem-based protection:** requiring the involvement of bodies with jurisdiction across the land, waters, and littoral components of the Coastal Region ecosystem.
- **Inclusive, rights-based approaches:** inviting First Nations participation or leadership and embracing the perspectives of local communities and interest holders.
- **Layered mechanisms:** implementing multiple mechanisms such as legislation, policy and stewardship to enhance and expand conservation and protection.
- **Adaptive, collaborative management:** creating collaborative and adaptive management strategies, including on data-sharing and conservation priorities, to promote effective management and ongoing monitoring at the Coastal Region scale.
- **Secure political backing and sustainable financing:** crafting agreements and working structures that clearly define roles, responsibilities and decision-making protocols that allow for sustained political support and need to include long-term financing.

The most suitable governance model for the Coastal Region will be one that begins collaboratively and evolves over time. No single organization or level of government can deliver ecosystem-based protection across the Coastal Region's lands, waters, shoreline, and littoral areas on its own. Therefore, a collaborative governance model is proposed that would bring together First Nations, governments, NGOs, community organizations, and other interest holders around shared conservation objectives, clear roles, decision-making protocols, and to secure sustainable funding.

The path forward is clear: the Coastal Region needs a conservation framework that builds on existing initiatives, expands partnerships, and strengthens ecosystem-scale protection. The framework should include tailored conservation principles, layered protection mechanisms, and a collaborative decision-making model.





6.0
Proposed Next Steps to Protect the Coastal Region

6.0
Proposed Next Steps to Protect the Coastal Region

The Coastal Region lacks a coordinated, ecosystem-based conservation framework spanning across its interconnected aquatic and terrestrial habitats. Establishing one is essential to protect the Coastal Region's long-term ecological health and unique natural assets.

Drawing on the IUCN's *Designing and managing protected and conserved areas to support inland water ecosystems and biodiversity and Lessons Learned from the Great Bear Sea Project Finance for Permanence*, the following seven steps to strengthening protection and conservation of the Coastal Region are proposed for discussion[102]. These steps have been created in response to the findings of the Situational Analysis and tailored to the context of the Coastal Region today.



6.1 Seven Steps to Strengthen Protection and Conservation

Step 1: Establish Collaborative Governance and Project Charter

Building on existing collaboration, Coastal Region interest holders should come together through a task force or working group to advance an ecosystem-based regional conservation framework. The task force should identify a project lead and create a project charter to clarify roles and responsibilities.

This process should include NGOs, First Nations, and federal, provincial, and municipal governments, while also creating opportunities for broader community involvement. This Discussion Paper can serve as a foundation for dialogue and for developing a coordinated, inclusive, and sustained approach to collaborative implementation.

Step 2: Define Shared Conservation Objectives

Shared principles, goals, and conservation priorities will help strengthen alignment, focus collaboration, and secure commitments from partners and interest holders. Aligning these objectives with government priorities and national targets, including *Canada's Force of Nature strategy* and 30 by 30 commitments, can further support efforts to advance regional protection and conservation.

Step 3: Strengthen the Knowledge Base

Creating a consolidated inventory of Coastal Region data, including current gaps, would enable consistent, ecosystem-scaled monitoring and research, and provide better insight into the cumulative impacts of current and emerging threats. Ideally, this inventory will evolve into a publicly available, central repository of data and geospatial information on the region.

Step 4: Evaluate Protection and Conservation Opportunities

The task force should identify opportunities to expand protected area networks and conservation efforts. This could include creating new government-led protected and conserved areas, such as National Marine Conservation Areas, as well as private land trusts and conservation corridors, with priorities determined collaboratively.

Step 5: Develop a Network-Based Conservation Approach

It is crucial that the Coastal Region is conserved, monitored, and managed on an ecosystem-wide basis. A robust conservation strategy should create a cohesive network of environmental initiatives, including expanded protected and conserved areas, marine conservation areas and ICPAs, that are not managed in isolation.

Step 6: Implement Long-term Monitoring and Adaptive Management

Ecosystem conservation requires ongoing monitoring and adaptive management. Interest holders should establish a coordinated, Coastal Region-specific monitoring framework that builds on existing initiatives, supports funded research and engages community-based monitoring. The framework should also recognize ecosystems as dynamic and evolving, particularly in response to climate change, and use ecosystem-based indicators to adapt conservation actions and desired outcomes over time.

Step 7: Build on Successful Models

In preparing a Coastal Region protection and conservation framework, the task force should continue to build on successful protection and conservation models by adapting and applying relevant components.

Common lessons from the case studies reviewed include:

- Environmental protection and conservation take time to establish
- Partnerships and decision-making processes evolve over time, often with new partners coming to the table
- Additional layers of protection can be added based on adaptive management and changes to political priorities
- Collaboration across sectors is essential
- Long-term funding is critical

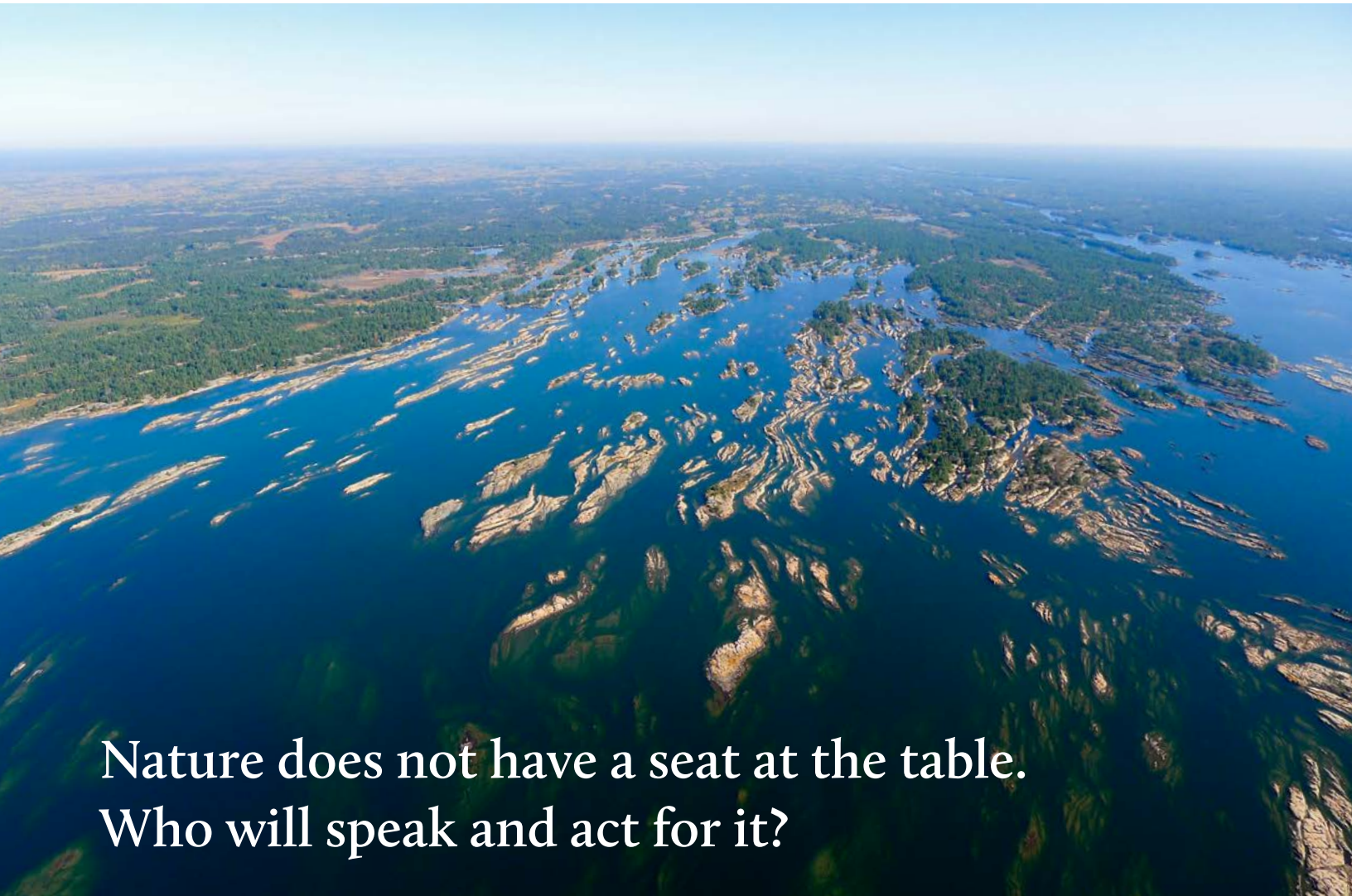
6.2 Leadership Is Needed

Thanks to decades of conservation initiatives and the expansion of protected lands, the Coastal Region remains healthier than many other areas of the Great Lakes. Nevertheless, pressures from development, climate change, and the lack of a region-wide conservation plan are increasing, making coordinated action urgent. Governments, First Nations, conservation organizations, communities, landowners, and other interest holders must come together to establish a shared vision, define governance and conservation mechanisms, and commit to a sustained regional framework for long-term protection and conservation.

Leadership is needed to achieve these goals for the Coastal Region:

- Enhancing protection and conservation Coastal Region ecosystem scale
- A network-based approach
- Multiple layers of protection and conservation mechanisms
- Long-term, sustainable funding

The Coastal Region is unique. It is vulnerable. It is worth protecting. Now is the time to move from contemplation and exploration to action.



Acknowledgements

GBA Vision 2050 Steering Committee

John Carson (Chair) – Wah Wah Taysee
Rolfe Jones - Cognashene
Allison Needham – West Carling
Liz Phillips – Bay of Islands
Tom Scoon – Pointe au Baril
Steve Sprague – South Channel
Alan Stratton – Sans Souci & Copperhead

GBA Team

GBA Executive Director:

- Meredith Denning

Vision 2050 project coordinators:

- Kate Bentley-Taylor - Sans Souci & Copperhead Association
- Megan Tan May

Vision 2050 Advisory Council

The Advisory Council's mandate is to provide expert advice to the Steering Committee on the project's objectives, process and work program. The Council comprises experts who represent key stakeholders, including Georgian Bay NGOs and regional municipalities, as well as independent experts. GBA notes that participation on the Advisory Council does not connote support for the Vision 2050 project or the contents of the Discussion Paper. The current members of the Council are:

- **Neil Davis (Chair)**, Planning and Development Lawyer, former Chair, Georgian Bay Land Trust
- **Marilyn Capreol**, Shawanaga First Nation Elder
- **Peter Cooper**, Area and District Councillor, Township of Georgian Bay and Muskoka District; *Alternate: Kristian Graziano, Councillor*
- **Peter Frost**, Councillor and Planning Director, Township of The Archipelago; *Alternate: Scott Sheard, Deputy Reeve and Councillor*
- **Bruce Kelly**, Councillor, Township of Carling
- **Bill Lougheed**, Advisor to and former Executive Director, Georgian Bay Land Trust
- **Greg Mason**, Director of Operations, Georgian Bay Biosphere Mnidoo Gamii
- **Rod Northey**, Environmental Law Specialist, Gowlings WLG
- **Michael Reider**, Mayor, Municipality of Killarney
- **David Sweetnam**, Executive Director, Georgian Bay Forever

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- Environment and Climate Change Canada (ECCC)
- Georgian Bay Biosphere Mnidoo Gamii (GBB)
- Georgian Bay Forever (GBF)
- Georgian Bay Great Lakes Foundation (GBGLF)
- Georgian Bay Islands National Park (GBINP)
- Georgian Bay Land Trust (GBLT)
- Ministry of Environment, Conservation and Parks (MECP)
- Nature Conservancy Canada (NCC)
- Ontario Parks (managed by MECP)

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- Henvey Inlet First Nation
- Magnetawan First Nation
- Moose Deer Point First Nation
- Wahta Mohawk First Nation
- Whitefish River First Nation
- Wiikwemkoong Unceded Territory

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- Township of Georgian Bay

Appendix A

Environmental Protection and Conservation Initiatives Underway in the Coastal Region

A wide array of communities and organizations recognize the importance of the Coastal Region and have undertaken significant work in support of its conservation. The following section provides a summary of existing ecological protections and ongoing conservation work, as well as gaps in the work to date.

International, National, and Provincial Government Data Collection and Monitoring Initiatives

Governments and international bodies are undertaking many initiatives to restore the health of the Great Lakes. At the Great Lakes basin scale, there are multiple international commissions that have undertaken this work, including:

- The International Joint Commission[103]
- The Great Lakes Commission[104]
- The Great Lakes Fishery Commission[105]
- The Great Lakes-St. Lawrence Governors and Premiers[106]

The Great Lakes are also monitored by Canadian and American federal and state/provincial governments. The Canada-United States Great Lakes Water Quality Agreement (GLWQA) was first signed in 1972 to set binational priorities. The GLWQA requires efforts to be undertaken by both Canadian and American governments to address the ecological health of the Great Lakes. As part of the Great Lakes, the Coastal Region undergoes the same monitoring as the rest of the system.

In accordance with the 2012 GLWQA, State of the Great Lakes Reports are released every three years to identify current and emerging challenges to the Great Lakes water quality and ecosystem health to inform and engage others.[107] The GLWQA additionally requires the development of nearshore frameworks that provide an overall assessment of the state of the nearshore waters and identify cumulative effects that are causing stress or threatening nearshore areas of high ecological value.[108]

There is significant effort and collaboration, involving over 40 organizations in preparation of the State of the Great Lakes Report.[109] Substantial research and monitoring are required for the publication of State of the Great Lakes Reports and nearshore assessments.

The American and Canadian Governments also conduct monitoring throughout the country and province.

Ontario and Canada have additionally entered into the Canada-Ontario Agreement for the Great Lakes, which outlines how the governments of Canada and Ontario will cooperate and coordinate their efforts to restore, protect and conserve the Great Lakes basin ecosystem per the GLWQA.[110]

Due to these agreements and the overall importance of the Great Lakes, federal and provincial departments each conduct ongoing monitoring, research, and initiatives of the Great Lakes at various scales.[111]

Overall, as part of the internationally recognized Great Lakes system, the Coastal Region benefits from the large-scale monitoring and conservation efforts being undertaken by American and Canadian governments through binational and federal-provincial commitments. These actions have substantial value and provide extensive data on the health of the Great Lakes and nearshore waters; however, they are not specific to Georgian Bay, nor are they fine-grained enough to identify Coastal Region trends specifically.

Local Municipal Initiatives

Local municipalities are empowered to implement land use planning regulations but may also run and support environmental programs. A review of local municipal initiatives are outlined in Table 1. This review examined initiatives that are disclosed publicly for the six municipalities located entirely within the Coastal Region. Additional work that is not available publicly may be ongoing through other initiatives or partnerships.

Local municipal involvement is highly specific to each area. Local municipal initiatives are dependent on local priorities and subject to changing direction of municipal Councils. Additionally, local initiatives are limited to local boundaries, and do not extend to ecological or watershed-based boundaries.

Table 2: The six municipalities located within the Coastal Region are undertaking a number of environmental initiatives

Municipality	Water Quality Monitoring	Education	Stewardship
Northeastern Manitoulin and the Islands (NEMI)	None specified	None specified	None specified
Municipality of Killarney	None specified	None specified	None specified
Township of the Archipelago	A volunteer-based water quality program was established in 1999.	Annual environmental reports (in partnership with GBB), and the municipal website includes information on forest stewardship, GBB programming, invasive species, and blue-green algae.	None specified
Township of Carling	None specified	None specified	In partnership with GBB, the Town runs "Reptile Conservation on Conservation Drive," a program aimed at reducing reptile mortality on this specific road.
Town of Parry Sound	None specified	None specified	None specified
Township of Georgian Bay	Both quality and quantity are monitored, with annual water quality reports published. A Water Quality Working Group was established in 2026 to broaden the scope and impact of the program. [112]	The municipal website includes information on invasive species, species at risk, biodiversity conservation, water levels, water quality, water filtration, and other resources.	None specified

Non-Governmental Organizations and Community-Based Initiatives

Not-for-profits and community groups are undertaking a wide range of conservation work within the Coastal Region, often in collaboration with governments, First Nations, and each other. The following section provides a snapshot of this ongoing work.

The not-for-profit and NGO work being undertaken in the Coastal Region is impressive. These community groups and not-for-profits are dependent on volunteer action and funding opportunities, and risk losing momentum if the local interests and funding opportunities diminish. For example, the Eastern Georgian Bay Stewardship Council was a fishery conservation not-for-profit that was forced to cease operations after nearly two decades when funding became unviable.[113]

Georgian Bay Association (GBA)

The GBA is a not-for-profit umbrella advocacy organization that represents 17 community associations, representing over 3,000 households within the Coastal Region. Formed in 1916, the GBA Board includes 24 volunteer directors supported by a full-time executive director and a part-time communications and executive services coordinator. Together, the GBA Board and staff advocate to all levels of government to preserve the unique characteristics and ensure the careful stewardship of Georgian Bay. GBA also provides members with information on a wide range of topics and issues, with publications reaching approximately 18,000 people. GBA commissioned this Discussion Paper as part of its Vision 2050 project.

Georgian Bay Biosphere Mnidoo Gamii (GBB)

Established in 2004, GBB is a charity responsible for maintaining the UNESCO World Biosphere designation for eastern Georgian Bay. GBB undertakes initiatives and facilitates collaboration between many partners to conserve biodiversity and promote sustainable development. Initiatives range from supporting sustainable community food initiatives, providing education and learning opportunities, coordinating conservation and stewardship actions, supporting municipal climate action plans, and collaborating with Indigenous groups for cultural learnings.[114]

Georgian Bay Forever (GBF)

GBF is a not-for-profit that aims to protect, enhance, and restore the waters and aquatic ecosystem of Georgian Bay by funding accredited research on water levels, water quality, and ecosystems; by educating the public and governments on issues regarding the environmental protection of the Georgian Bay area; and by enhancing the public's appreciation for their environment. Key programs and initiatives include shoreline cleanups, water usage information, invasive phragmites management, and water quality monitoring. To this end, GBF recently announced the creation of a fully autonomous, high-resolution water-quality monitoring AI network across Georgian Bay.[115]

Georgian Bay Great Lakes Foundation (GBGLF)

GBGLF is a charity that works to protect and enhance the environment of Georgian Bay as part of the Great Lakes' ecology. GBGLF's work focuses on threats to water quality, threats of extreme water levels on Lake Michigan-Huron (including Georgian Bay), and threats to wetlands.[116]

Georgian Bay Land Trust (GBLT)

Formed in 1991, the Georgian Bay Land Trust acts to protect wilderness lands and species along the eastern shore of Georgian Bay and the North Channel and its near watershed through undertaking strategic conservation planning, creating private land trusts, and facilitating land securement, stewardship, research, and education.

Currently, GBLT protects, or contributes to protecting, over 4,047 hectares of land. Currently it is working to complete a 25,500-hectare protected habitat corridor in the region. GBLT directly protects 92 properties. GBLT monitors over 500 species, including 50 species at risk on protected and conserved lands. GBLT conducts ongoing stewardship of their properties, including conservation research, monitoring visits and removal of invasive phragmites.[117]

Nature Conservancy of Canada (NCC)

NCC is Canada's leading national land conservation organization. Since 1962, NCC and its partners have helped protect 20 million hectares from coast to coast. As an environmental charity working hand in hand with communities, Indigenous nations, governments, and businesses, NCC delivers nature-based solutions at a scale unmatched in Canada.[118]

In the Coastal Region, NCC protects and stewards important natural areas, works with partners to manage invasive phragmites at a landscape scale, and supports the planning and protection of new conservation lands. Together, this work safeguards clean air and water, protects biodiversity, fosters resilient communities, and helps ensure the long-term health of this iconic landscape for generations to come.

First Nations Initiatives

First Nations peoples have inhabited the Lake Huron basin for over 15,000 years.[119] This section includes some of the initiatives being led by the First Nations surrounding the Coastal Region. This review examined initiatives that are disclosed publicly. Additional work that is not available publicly may be ongoing through other initiatives or partnerships: this list is not exhaustive. Much of the First Nations' work is collaborative with other Nations, organizations, and municipalities.

Henvey Inlet First Nation: Ganawenim Meshkiki Wind Farm Offsets for Biodiversity Conservation

Henvey Inlet First Nation issued a permit for a wind farm on its lands that requires $1 million per year for biodiversity conservation in the Eastern Georgian Bay Region[120]. The Henvey Inlet Wind is the largest First Nation wind energy partnership in Canada.[121] Ganawenim Meshkiki was established by the Henvey Inlet First Nation to act as Trustee for the Eastern Georgian Bay Initiative funding, and to manage the delivery of the wind farm offset spending.

Magnetawan First Nation: Initiatives

The Magnetawan First Nation Department of Lands, Resources and Environment is committed to managing, conserving, protecting, and preserving Magnetawan First Nation's lands and waters, while ensuring that development projects are done in a sustainable manner. Projects they undertake include turtle conservation, snake conservation, roadway monitoring, wetland monitoring, and the environmental assessment of the Magnetawan First Nation's Quarry.[122]

Shawanaga First Nation: Shawanaga Island Indigenous Protected and Conserved Area (IPCA)

The Shawanaga First Nation are currently establishing Shawanaga Island as an Indigenous Protected and Conserved Area (IPCA). IPCA are lands where Indigenous peoples lead the protection and care of the lands and waters through their traditional laws, knowledge, and customs. The Shawanaga Island IPCA is intended to be a place of reconciliation and education about the history of the Shawanaga First Nation, Anishinaabe culture, and the ecology and importance of the islands.[123]

Shawanaga First Nation: Walleye Hatchery and Aquatic Research

The Shawanaga First Nation has also been involved in walleye conservation since the 1970s. Since 1996, they have operated a walleye hatchery to support a sustainable fishery. As of 2022, the hatchery releases 3 to 5 million walleye fry into the water annually.[124]

Wasauksing First Nation: Initiatives

The Wasauksing First Nation has initiated work to assess the environmental conditions of Depot Harbour, which will be used to form a new Environmental Plan. The Environmental Plan is anticipated to include stewardship guidelines. The Nation is also working to advance a Traditional Fisheries Monitoring Program to understand community concerns about impacts to traditional fisheries and identify areas for future fish and fish habitat monitoring activities.[125]

Wiikwemkoong Unceded Territory: Point Grondine Park

In 2007, the Wiikwemkoong Unceded Territory's lands department began a project to provide overflow campgrounds to support Killarney Provincial Park.[126] The purpose of the park is to protect the land and resources of Point Grondine from future exploitation from forestry and other natural resource extraction. Point Grondine Park is Ontario's first park owned and operated by a First Nation. Programming includes interpretive programs incorporating traditional knowledge of the Wiikwemkoong community.

Multiple First Nations: Maamwi Anjiakiziwin Community Nominated Priority Place

The Community Nominated Priority Place (CNPP) is a partnership involving Magnetawan First Nation, Shawanaga First Nation, Wasauksing First Nation, Moose Deer Point First Nation, GBLT, and GBB. The Georgian Bay CNPP received $4.3 million over seven years (2019–2025) from the Canada Nature Fund to benefit more than 50 species at risk, including Blanding's turtle, eastern foxsnake, Massasauga rattlesnake and several bat species.

The current funding for Maamwi Anjiakiziwin is approaching its conclusion, but the work of protecting species at risk and supporting cross-cultural collaboration continues.[127]

Appendix B

Case Study Details

Great Bear Sea MPA Network (British Columbia)[128]

Type: Protected and Conserved Areas – Network

Location: Northern Shelf Bioregion

Size: Three million hectares

Governance: A collaborative governance agreement between Federal, Provincial, and 17 First Nation Governments as defined by the Great Bear Sea Project Finance for Permanence

The Great Bear Sea Marine Protected Area (MPA) Network in the Northern Shelf Bioregion off the coast of British Columbia is an ongoing novel initiative to create over three million hectares of protected marine, nearshore, and offshore habitats. The project defines an MPA Network as "a collection of individual marine protected areas that operates cooperatively and synergistically, at various spatial scales, and with a range of protection levels, in order to fulfill ecological aims more effectively and comprehensively than individual sites could alone." It is the first marine network in Canada. It is funded by the Great Bear Sea Project Finance for Permanence (GBS PFP), which secured $335 million in initial capital to support durable, long-term funding for the stewardship of First Nations' marine territories and sustainable economic development along the coast.

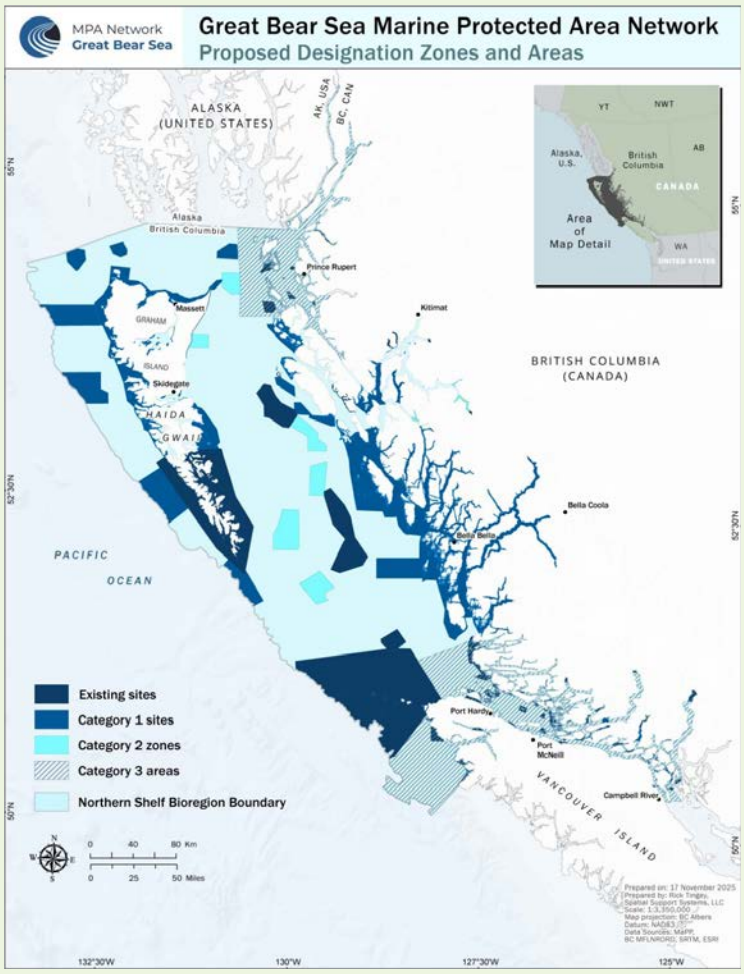


Figure 29: The Great Bear MPA Network includes a number of existing sites, as well as proposed new sites which will have a range of protections. (Source: Great Bear MPA Network)

The Great Bear Sea MPA network is the result of decades of collaborative planning. Early efforts began in 2008, when First Nations, provincial and federal governments together formed a Pacific North Coast Integrated Management Area initiative to identify conservation priorities and coordinate marine spatial planning work. When the federal government's priorities shifted away from this work, the British Columbia (BC) government and participating First Nations bilaterally carried on work to create the Marine Plan Partnership (MaPP) collaboration. Supported predominantly by philanthropy, the MaPP produced detailed marine plans, and outlined stewardship priorities and governance frameworks from 2011 to 2015.

This work culminated in the MaPP Regional Action Framework, released in 2017, which re-established federal involvement and set out plans for an ecosystem-based and adaptive management marine network. The formation of working and task groups, along with initial Terms of Reference, clarified the purpose, roles, and coordination expectations for the parties involved early in the process. Over this period, First Nations, Canada, and BC brought together Indigenous knowledge, academic sciences, and the perspectives of local communities and industries. Together, the First Nations, federal and provincial governments created and provided tripartite endorsement of the Northern Shelf Bioregion Marine Protected Area Network (MPA Network) Action Plan in 2023. This milestone strengthened alignment to guide the implementation of Canada's first MPA network.

Meanwhile, funding momentum also built following effective advocacy undertaken by First Nations. In 2022, the First Nations leading the efforts secured $4 million from nature charities. The First Nations leaders also advocated to both federal and provincial governments for funding. At the UN Biodiversity Conference (COP15) where the 2022 Biodiversity Framework was signed, the Government of Canada announced $800 million to support up to four Indigenous-led Project Finance for Permanence (PFP) initiatives, framing the investment as part of advancing the 2022 Biodiversity Framework and supporting Indigenous leadership in conservation and reconciliation efforts.

Following these efforts, the GBS PFP was launched in 2024. The GBS PFP is a collaborative governance agreement between 17 First Nations, Canada and BC that includes long-term financing, strong partnerships and governance agreements, and clear goals for conservation and community development in a single agreement. The GBS PFP secures $335 million in funding for management and stewardship over the long term, and to contribute to a sustainable coastal economy.

The MPA Network is now undergoing next steps of implementation, per the governance frameworks of the GBS PFP. Within the network, different levels of protection will apply to different regions. Overall, 30% of the Northern Shelf Bioregion will be included in the MPA network. Between 20- 50% of the proposed MPA network (or 6% to 15% of the overall Northern Shelf Bioregion) is recommended to be targeted in areas of high protection. The MPA network is a collaborative effort being governed by 17 coastal First Nations and the governments of Canada and British Columbia. While the project refers to a network of MPAs, it encompasses a range of federal, provincial and First Nations protected and conserved areas.

Lake Simcoe Act and Protection Plan (Ontario)[129]

Type: Land Use Controls

Location: Lake Simcoe Watershed, Ontario

Size: 260,000 hectares

Governance: Provincial Legislation and Provincial Policy, with funding from Federal and Provincial governments, and implementation by Municipalities, First Nations, and the Lake Simcoe Region Conservation Authority

In 2003, a campaign was led by the Rescue Lake Simcoe Coalition, Environmental Defence, and Ontario Nature, with the support of the Ladies of the Lake, and upwards of 35 local groups forming the Rescue Lake Simcoe Coalition. Five years later, in 2007, a bill introducing the Lake Simcoe Protection Act was passed in the Ontario legislature. Becoming a law in 2008, the Lake Simcoe Protection Act allowed for the creation of a provincial Lake Simcoe Protection Plan, which came into force in 2009. The Lake Simcoe Protection Plan is a watershed-based land use planning policy framework that is intended to protect and restore the ecological health of Lake Simcoe, including reducing phosphorus levels. The Lake Simcoe watershed was home to over 350,000 people at the time of the Act, and therefore land use planning policies were a more relevant conservation mechanism than wide-scale protected and conserved areas.

In addition to land use controls, the Lake Simcoe Protection Plan includes ongoing management planning and review policies. A five-year review released in 2015 determined that the Lake Simcoe Protection Plan was effectively restoring the Lake Simcoe watershed. Unfortunately, more recent reports in 2019 and 2025 determined that the termination of government funding, changes to the powers of Conservation Authorities, and lack of enforceable policies has led to no long-term improvements to the health of Lake Simcoe.

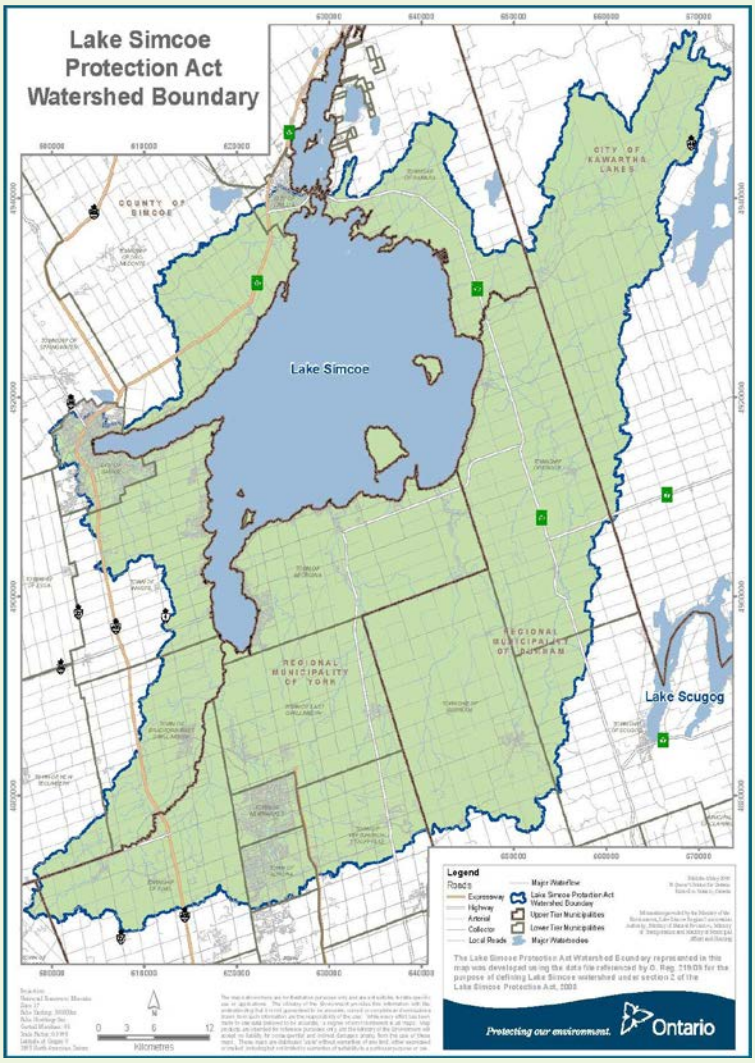


Figure 30: The Lake Simcoe Protection Plan protects the watershed surrounding Lake Simcoe. (Source: Lake Simcoe Protection Plan)

Lake Superior National Marine Conservation Area (Ontario)[130]

Type: Protected and Conserved Areas

Location: Lake Superior, Ontario

Size: 1,088,000 hectares (one eighth of Lake Superior)

Governance: Parks Canada managed, in collaboration with First Nations and Métis organizations, provincial government representatives, other federal agencies, coastal communities and other organizations.

National Marine Conservation Areas (NMCAs) are a type of protected and conserved area governed by Parks Canada. NMCAs provide for protection of lands, waters, and coastal ecosystems, and are applicable to the Great Lakes. There are currently five NMCAs throughout Canada. The Lake Superior NMCA was established after decades of collaboration. In 1993, Parks Canada conducted a regional analysis of Lake Superior, identifying a potential NMCA site in 1995. The Governments of Canada and Ontario signed a Memorandum of Understanding in 1997 to launch a feasibility study. In 1998, a Regional Committee was established to further develop the concept for an NMCA.

Nearly ten years later, in 2006 and 2007, various agreements were signed between the governments of Canada, Ontario, and First Nations to reach a shared understanding of the NMCA. Extensive consultations with other government agencies, coastal communities, First Nations and stakeholders, including the establishment of a 20-member, multi-interest Interim Management Advisory Board was undertaken, with the NMCA being established in 2015 and an interim management plan being released in 2016. As an NMCA, the entire area is protected to safeguard key elements of the ecosystem while providing lasting benefits to local coastal communities that depend on marine industries such as commercial fishing, sport fishing, recreational boating, and shipping.

Today, the Lake Superior NMCA is the largest freshwater protected area in the world. The Lake Superior NMCA Interim Management plan outlines the framework for decision-making and how Parks Canada will work with First Nations and Métis organizations, partners and interest holders to manage the NMCA.

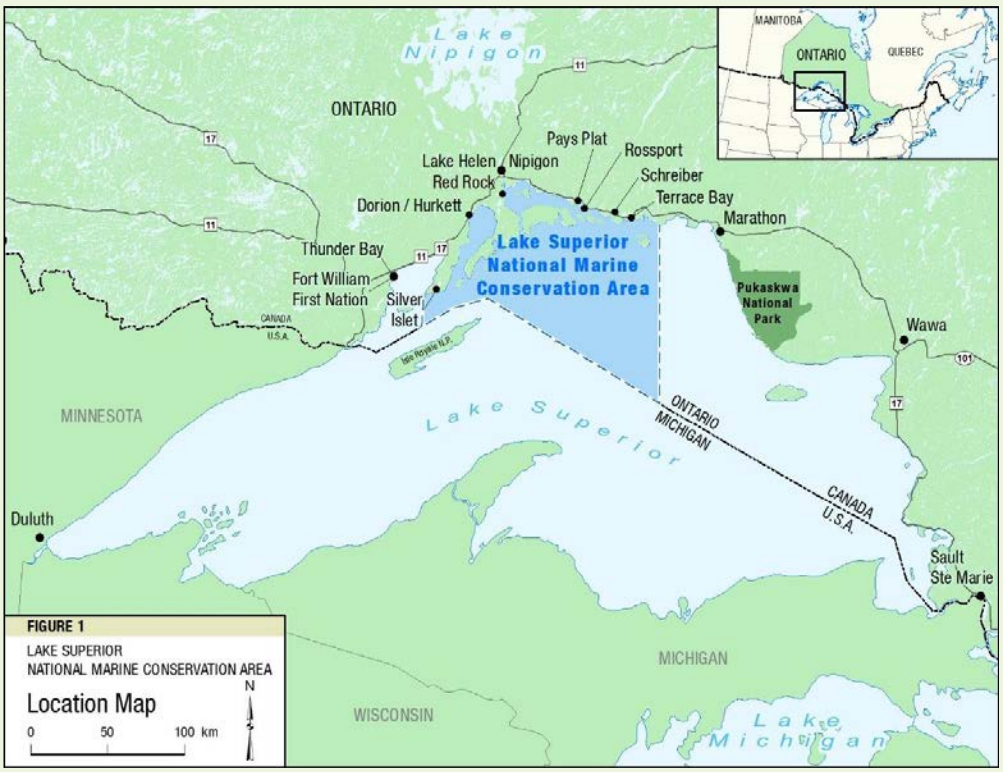


Figure 31: The Lake Superior National Marine Conservation Area (NMCA) is the largest freshwater protected area in the world. (Source: Parks Canada)

Fraser Basin Council (British Colombia)[131]

Type: Community-Led Conservation

Location: Fraser River Basin from its mouth near Vancouver upstream to its headwaters in the Rocky Mountains near Valemount

Size: Operates on both Province-wide and basin-wide scale (historical focus on the **Fraser River Basin**, covering approximately 23.8 million hectares)

Governance: The Fraser Basin Council Board has 38 Directors from the four orders of Canadian government (Federal, Provincial, municipal, and First Nations), the private sector and communities throughout British Columbia

The Fraser Basin Council is a collaborative entity that does not have regulatory authority. The Fraser Basin Council is a charitable non-profit organization that brings together people from all orders of government, community organizations and the private sector to work on sustainability challenges within the Fraser Basin and throughout British Columbia. The council works with different orders of government, communities and organizations on sustainability issues and initiatives, including flood management, climate change action and adaptation, green transportation, energy efficiency, air quality improvement, healthy watersheds and community sustainability planning. It works both within the Fraser Basin specifically, as well as on broader province-wide initiatives.

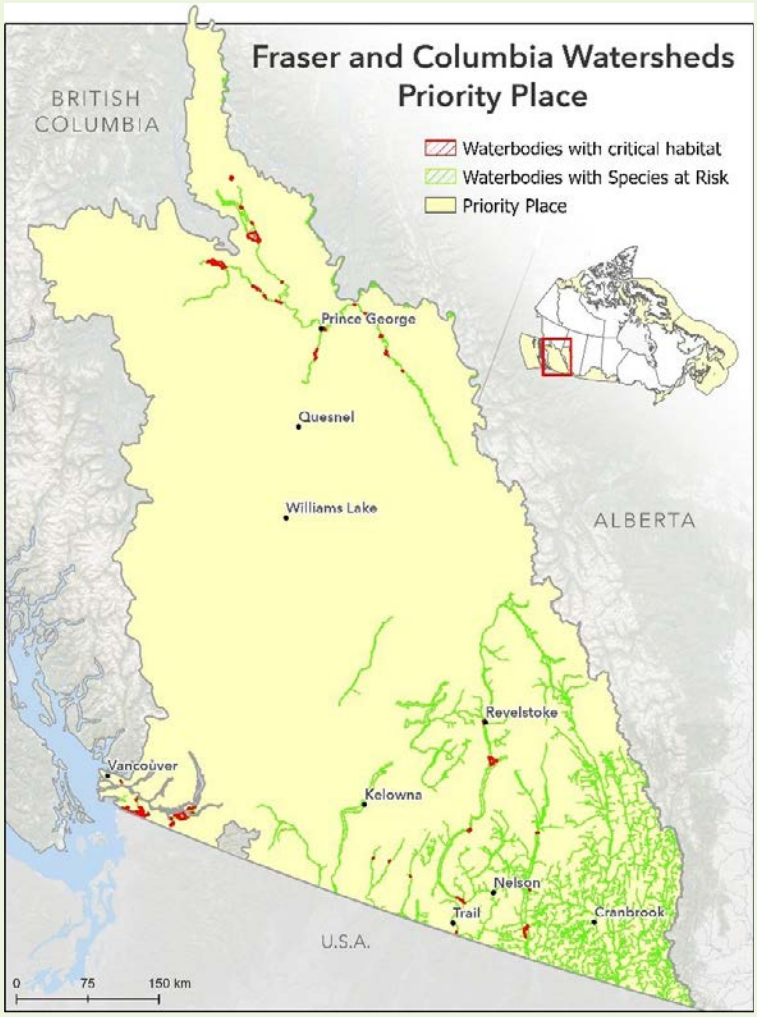


Figure 32: The Fraser River Basin extends from Vancouver upstream to the Rocky Mountains. (Source: Government of Canada 2020)

Niagara Escarpment Plan (NEP) (Ontario)[132]

Type: Land Use Controls

Location: The NEP crosses 23 municipalities, spanning over 725 kilometres from Niagara Region to the top of the Bruce Peninsula

Size: 195,000 hectares

Governance: The NEP is administered by the Niagara Escarpment Commission (NEC), a provincially appointed regulatory agency made up of 17 members. Nine members (including the chair) represent the broader public, and eight members are municipally elected officials from municipalities within the Niagara Escarpment Plan's boundaries. The Commission reports to the Ontario Ministry of Natural Resources and Forestry.

Following Ontario's rapid post-war development, concerned citizen advocacy groups began lobbying for better preservation and land-use controls for the Niagara Escarpment in the 1950s. In 1967, the Government of Ontario commissioned a report by Len Gertler from the University of Waterloo on how to protect the Niagara Escarpment. His recommendations were groundbreaking at the time – he recommended protecting large areas of the escarpment from development as determined by a provincially appointed group as opposed to local municipalities.

In response to these advocacy groups and the Gertler report, Ontario passed the Niagara Escarpment Planning and Development Act in 1973, which established the NEC. The NEC created the first Niagara Escarpment Plan (NEP), following public hearings. Published in 1985, it is Canada's first large-scale environmental land-use plan.

The NEP has since been updated, with the most recent and currently in force plan being from 2017. Now, the NEP works together with two other provincial plans: The Greenbelt Plan and the Oak Ridges Moraine Conservation Plan. Together, these plans set out a land use planning framework that manages growth and environmental conservation across municipal boundaries.

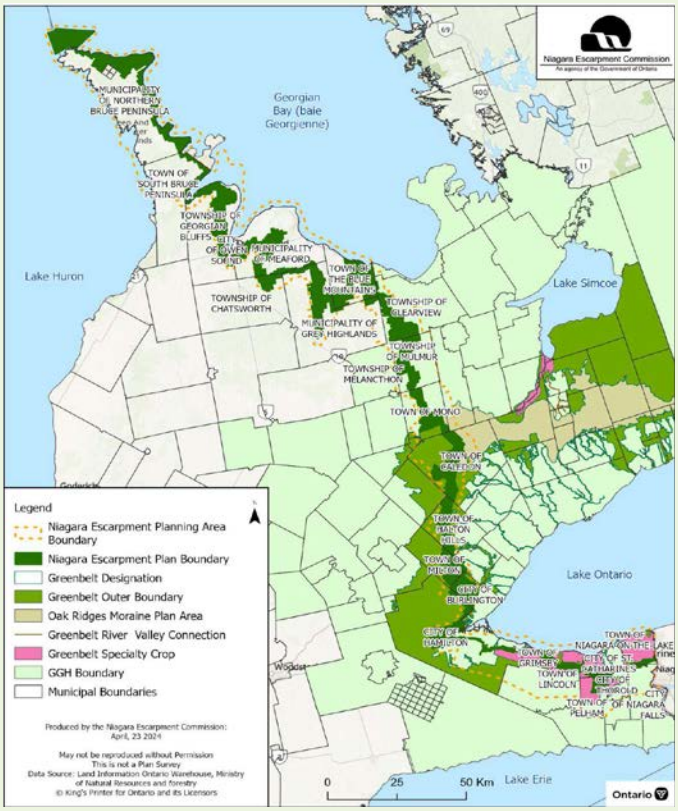


Figure 33: Map of the Niagara Escarpment Plan Area (dark green) and other special policy areas from the NEC Annual Report 2023-2024. (Source: Niagara Escarpment Commission, 2025)

The 2017 NEP seeks to protect the geologic feature of the Niagara Escarpment and lands in its vicinity as a continuous natural environment while only allowing for compatible development. To this end, the NEP includes land use designations that aim to protect the Escarpment's continuous landform and provide a series of connected, conserved areas. Development within the NEP's jurisdiction must obtain an NEC development permit to proceed. This ensures that all such development is aligned with the NEP.

While considered an innovative and comprehensive land use plan, the NEP has nonetheless come under scrutiny. A 2022 report from the Auditor General of Ontario found that while the escarpment benefited overall from the NEP, both the Ministry of Natural Resources and Forestry's and the NEC's processes and systems could be significantly improved.

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