East Coast Environmental Law

Nova Scotia's Coastal Protection Act: The Journey to Develop Canada's First Dedicated Coastal Protection Law

January 2024

What is this document?

The materials in this document were first published on the East Coast Environmental Law website as a project page describing our work on helping to develop Nova Scotia's *Coastal Protection Act*. We removed project pages from the website during a redesign process in the summer of 2023 and the contents of that project page were preserved in this new form. The contents presented here are substantially the same as those of the former project page, but some corrections and updates have been made.

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Introduction

Nova Scotia has 13,000 kilometres of coastline, and global sea levels are expected to rise 1 meter above current levels by the year 2100.[1] Nova Scotia will experience some of the greatest local sea-level rise because the land is sinking as sea levels rise. With 70% of Nova Scotia's population living in coastal communities, it is important to protect the coast, its ecosystems, and its residents.

For several years, East Coast Environmental Law has been advocating for legislation to protect the coastal areas of Nova Scotia. Coastal areas and resources have played an essential role in making Nova Scotia what it is today, and its ecosystems are crucial for species, ecosystems, and culture.

In April 2019, the provincial legislature passed the *Coastal Protection Act* ("CPA") for Nova Scotia.[2] This gave advocates hope for stronger laws to enforce protection and create clearer rules around activities and development near the coast. While the CPA will not address all coastal issues, it aims to address the development, construction, and related activity along the coast that increasingly puts people at risk from sea level rise, storm surge, and coastal flooding. The CPA also seeks to address erosion and damage to sensitive coastal ecosystems that provide valuable ecological functions.

However, the CPA is currently not in force, which means its rules do not yet apply. The Government of Nova Scotia has delayed proclamation of the regulations that will provide the details about how the CPA will operate. The Nova Scotia Department of Environment and Climate Change invited public comments on the proposed regulations until September 30, 2021. A second round of public consultations in the form of an online survey, focused on soliciting input from coastal property owners, occurred in the autumn of 2023.

[1] Nova Scotia Environment and Climate Change, "Consultation Begins on Coastal Protection Act Regulations," *Government of Nova Scotia* (15 July 2021), online: <https://novascotia.ca/news/release/?id=20210715003>

[2] *Coastal Protection Act*, SNS 2019, c 3 [*CPA*].

Who is responsible for protecting the coast?

The coast is, essentially, where the land meets the sea. Parts of the coast include a clear interaction between the land and the sea, such as beaches, coastal marshes, and rocky shores whereas other parts are less well-defined. Conceptually, the coast represents the area of interface and influence between terrestrial and marine environments.[3] Nova Scotia's coastline has many different coastal ecosystems, with a complex natural environment hosting many vulnerable species and habitats. There are many species at risk along the coast that must be protected to maintain biodiversity.

Ownership and control of the coast – and its many aspects – is divided between multiple levels of government, including federal, provincial, municipal, and Indigenous governments. You can find out more information in our Summary Series volume Environmental Law for the Coast: Nova Scotia.

Federal Government

The federal government manages coastal areas from the ordinary low-water mark seaward to the 200 nautical mile limit of the Exclusive Economic Zone (the limit of Canada's jurisdiction). Section 91 of the *Constitution Act, 1867* gives the federal government legal authority over aspects of the coast like navigation and shipping and seacoast and inland fisheries. Additionally, the federal government oversees federally owned properties, land designations under the *Indian Act*, fisheries, and marine navigation. If development impacts the aquatic and marine environments, federal jurisdiction may be triggered under the *Fisheries Act*, the *Oceans Act*, the *Shipping Act*, the *Species at Risk Act*, or other federal laws.

Provincial Government

The provincial government manages coastal areas from the ordinary low water-mark landward. Section 92 *Constitution Act, 1867* gives provincial governments authority over aspects of the coast, including property rights, local works, and natural resources. There is currently no provincial legislation that protects the entirety of the Nova Scotian coast; instead, aspects of the coast are protected in a piecemeal way. For example, the *Wilderness Areas Protection Act* and *Special Places Protection Act* prohibit certain activities that may include development and construction near the coast. The *Beaches Act* protects beaches but only applies to beaches below the high-water mark and beaches above the high-water mark that are designated by the government through regulation.[4] Designation as a "beach" under the *Beaches Act* does not guarantee that the land will not be further developed.

[3] Dan Walmsley & Jay Walmsley, "Our Coast: Live. Work. Play. Protect" (2009) The 2009 State of Nova Scotia's Coast Technical Report at 33 [*State of the Coast Report*], page 33.
[4] *Beaches Act*, RSNS 1989, c 32 [*Beaches Act*].

Indigenous Governance

Indigenous peoples in Canada have their own legal traditions and laws. They also have rights under section 35 of the *Constitution Act, 1982*, which requires the federal, provincial, and territorial governments to consult with Indigenous peoples when government conduct could affect their Aboriginal or treaty rights adversely. In Nova Scotia, incorporating Mi'kmaw laws and Mi'kmaw ecological knowledge into the *CPA* regime can help to ensure that the Act serves its purposes of protecting Nova Scotia's coasts and coastal communities.

Municipal Government

Municipal governments do not have jurisdiction under the *Constitution Act*. Instead, provinces give authority to municipal governments by delegating constitutional powers that would otherwise belong to the provinces themselves. Under Nova Scotia's *Municipal Government Act*, municipalities have limited jurisdiction over aspects of the coast, and they can exercise that jurisdiction through the creation of bylaws and land use planning strategies.[5]

[5] *Municipal Government Act*, SNS 1998, c 18 [*MGA*].

What has been done to protect the coast in Nova Scotia?

The Government of Nova Scotia and various advocates have been seeking to mitigate industrial, historical, and climate-related impacts on the coast for decades, including through multiple— and failed— attempts to create policy or legislation to steward the coast. The following is a timeline of attempts to create coastal protections in Nova Scotia and how the *CPA* became what it is today.

1976: First province to introduce a Coastal Zone Management Strategy

An increased awareness of the relationships between land-based activities and oceans emerged in the 1970s.[6] Nova Scotia was the first Canadian provinces to introduce a coastal zone management strategy in 1976 and had an executive director for coastal zone issues.[7]

1993-94: Province launched "Coastal 2000"

The provincial government launched *Coastal 2000*, which was a provincial coastal planning process. However, legislation did not get the necessary political or public support to be pursued.

2004: Renewed efforts for an integrated coastal management strategy

To further communicate the importance of coastal protection, the Coastal Coalition of Nova Scotia conducted a workshop called *Changing Tides: Towards an Integrated Coastal Management Strategy for Nova Scotia*. The workshop highlighted Nova Scotia's lack of coherent and integrated coastal zone management. Jurisdictional overlap, conflicting mandates of regulatory agencies, and a lack of public involvement were highlighted. The Coalition urged the Government of Nova Scotia to create legislative improvements to protect the coast, emphasizing the rapid loss of coastal habitats, erosion, and water quality, among other concerns. The workshop also made suggestions for improving municipal planning strategies and laws that impact coastal areas and residents. However, conflict remained about how to approach an integrated coastal zone management regime.[8]

2006: Province launched the interdepartmental Provincial Oceans Network

Reconsidering the importance of coastal issues, the Government of Nova Scotia launched a

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[6] Gloria Chao "The Emergence of Integrated Coastal and Ocean Management in Canada's Oceans Act: Challenges of Integrating Fragmented Resource Sectors in Georges Bank, Nova Scotia and Hectate Strait" (1999) [unpublished] Dal J Leg Stud at 5 [Chao], page 4.

[7] *State of the Coast Report*, page 34.

[8] Nicole Hynes & Jennifer Graham, "Coastal Zone Planning in Nova Scotia," (2005) *Ecology Action Centre* **[**Hynes**]**. Note: The Changing Tides – Taking Action on Coastal Management Plan for Nova Scotia Workshop was held November 5-7th, 2004 at Cornwallis Park, Annapolis Basin, NS.

coordinated initiative in 2006 under the direction of an interdepartmental Provincial Oceans Network ("the PON"). The PON was housed with the Nova Scotia Department of Fisheries and Aquaculture as a joint effort of many provincial departments and agencies that are responsible for coastal issues, and it served to:

- Develop an integrated approach to coastal zone management in the province.
- Facilitate coordination on coastal and ocean management issues and initiatives within the provincial government.
- Provide advice and expertise in implementing the Coastal Management Framework and associated activities.[9]

After significant work within the provincial government, the PON established the *Coastal Management Framework*. The framework's goal was to ensure the sustainable development and conservation of Nova Scotia's valuable coastal areas and resources. It focused largely on creating a unified approach to coastal management, to understand the current state of the coast, and to develop proper means of intervention.[10]

2009-10: Release of the "State of Nova Scotia's Coasts" and further calls for action

The Government of Nova Scotia recognized the coast as a major public asset and sought to ensure that the coast received the attention and nurturing it needs to support the province's plans for sustainable development. In 2009, Nova Scotia's Department of Fisheries and Aquaculture prepared the *State of Nova Scotia's Coasts Technical Report*. The report collected information about the coasts of Nova Scotia and identified the province's most important coastal issues and information gaps. It categorized Nova Scotia's coastal issues into 6 categories and made recommendations for improvements:

- Coastal development interrupts the natural connections between land and ocean with human infrastructure, causing damage to coastal ecosystems and creating potential problems of the permanence and stability of infrastructure on changing coastal environments. The report recommended reducing strip like developments on the coasts and including municipal planning strategies in coastal protection so that they are integrated in the future. The report also noted the importance of paying attention to privately owned properties and infrastructure on the coasts, both for the protection of the coasts and those properties.

- Working waterfronts are communities and organizations that require physical access to the coasts for ocean-dependant uses and business practices. These include Port Authority ports, local and regional ports, and small municipal craft harbours. These working waterfronts pose management and operational problems where the federal government has handed the day-to-day management to municipalities but maintained

[9] *State of the Coast Report,* page 34.
[10] *Ibid*.

ownership. The effectiveness of these waterfronts has also been greatly affected by the province's aging population and the rural-to-urban migration of residents.

- Coastal access concerns the public's ability to reach and view the coast. That access had been changing through shifting land-use patterns and property ownership. The report suggested that if governments, institutions, or organizations were to purchase coastal land and dedicate those lands to coastal protection with different levels of public access, it would increase overall access to coasts and shorelines to the public. Increasing public access may also increase the protection of coasts in their most natural states because it is the natural state of a coast or shoreline that usually attracts the public.

- Sea level rise and storm events have increased flooding and erosion on Nova Scotia's coasts, and they will only become more frequent and severe as climate change progresses. Low coastal zones in the region will gradually be covered if these events continue in their current trajectory. Recommendations included establishing setback limits for coastal development to reduce the effects to infrastructure in storm surge events and prevent further erosion.

- Coastal water quality is important because there are threats to Nova Scotia's water quality due to human activity on land, shorelines, and in the water. According to the report, researchers had not been able to determine the overall picture of the quality of the water in the province.

In 2010, the PON released a "What We Heard" document that further highlighted the public's concerns about coastal management strategies. Using the PON report and feedback from public consultations, the Government of Nova Scotia intended to develop a blueprint called the *Sustainable Coastal Development Strategy*. Once completed, the strategy was anticipated to act as the road map for addressing the coastal issues that mattered most to Nova Scotians. However, the intent never became fully realized, and no final strategy was ever produced.[11]

2011: More efforts to create a coastal management framework

In 2011, the Government of Nova Scotia outlined a draft coastal strategy for the next decade by focusing on seven issues that are crucial to effective coastal management. Those issues were:

- coastal development;
- working waterfronts;
- public coastal access;
- sea level rise & storm events;
- coastal ecosystems and habitats;
- coastal water quality; and,
- governance.[12]

[11] *Ibid*, page 35.
[12] *Ibid*.

The public anticipated that a lead body for coastal management would be established within the Government of Nova Scotia. As it was envisioned, this body would be responsible for facilitating integrated approaches to coastal management across the provincial government and with other levels of government and coastal stakeholders. East Coast Environmental Law was part of the Coastal Governance Working Group in 2011 tasked with developing an integrative coastal strategy. An important aspect was partnering with municipalities to establish planning strategies and land-use bylaws in coastal areas so that municipal land-use plans and bylaws would consider the coastal environment. However, these efforts, once again, did not materialize.[13]

2017-2019: The promise of a *Coastal Protection Act*

For many years, Nova Scotians had been calling for legislation dealing with coastal protection. Action on climate change and energy was a key component of the 2017 election platform of the Liberal Party of Nova Scotia, led by then-Premier Stephen McNeil. The party made a promise to pass coastal protection legislation by 2019.[14]

In June 2018, Nova Scotia's Department of Environment released a consultation document for a proposed *Coastal Protection Act* (see Appendix A). Three key components of effective coastal protection legislation were identified:

- the creation of a coastal protection zone;
- the regulation of specific activities and practices within that zone; and,
- the creation of administration, monitoring, and compliance provisions.[15]

The public was given 30 days to submit their comments and concerns via an online survey or through mailed-in responses during the summer of 2018; over 1,300 replies were received. Ministry representatives also held meetings with stakeholders like seafood companies, land developers, and community associations. The province separately consulted with municipalities, planners, the real estate industry, and Mi'kmaq.[16]

On March 12, 2019, the government introduced **Bill 106**—a proposed *Coastal Protection Act* for Nova Scotia—in the provincial legislature. The Bill 106 was passed in April, 2019, and the *Coastal Protection Act* become the first legislation in Canada with the objective of coastal protection.

As of August 2021, the *Coastal Protection Act* is still not in force (meaning its rules do not yet apply in Nova Scotia).

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[13] *Ibid*, page 21.
[14] Piotr Rak, "How Can the Province of Nova Scotia Protect Its Coast?" (14 March 2019) *East Coast Environmental Law*, online: <https://www.ecelaw.ca/blog/how-can-the-province-of-nova-scotia-protect-its-coast>] [*Rak*].
[15] *Ibid.*
[16] *Ibid*.

How were we involved in the development of the CPA?

East Coast Environmental Law has been advocating for legislation to protect Nova Scotia's coastal areas for many years. We engaged with other environmental organizations, communities, and the provincial Department of Environment and Climate Change on early concepts for coastal protection legislation. We also provided oral and written submissions to the Nova Scotia Legislative Assembly's Law Amendments Committee on Bill-106.

Our Multi-jurisdictional Legislative Review

As part of its engagement on the creation of Bill-106, East Coast Environmental Law produced a report that compared how different jurisdictions have protected their coasts. For more information, see *Protecting the Coast: A Multi-Jurisdictional Legislative Review* (available in Appendix B). All jurisdictions outside of Canada that we surveyed have legislation that creates a coastal zone or zones, which are normally measured from either the high-water mark or low-water mark. Within these coastal zones, various activities are regulated, and some jurisdictions also provide protections for coastal access.

We also concluded that many jurisdictions outside of Canada use "coastal management regimes" that use an integrated management approach, which are guided by principles of sustainable management and best available science, and some have legislation and policies that offer protections to vulnerable and sensitive coastal species and habitats.

In many jurisdictions, coastal management focuses on three kinds of issues:

- regulating development and human activity (both to limit economic and human health hazards from the coastal environment and to protect the environment from those activities);
- identifying and mapping coastal floodplains and areas that vulnerable to sea-level rise and erosion; and,
- protecting and enhancing public access to the coast and its resources.

Community Engagement on the Proposed Coastal Protection Act

When the Nova Scotia Department of Environment issued its tentative plan for the *CPA* in 2019, East Coast Environmental Law collaborated with the Ecology Action Centre to host a series of community engagement sessions in Antigonish, Baddeck, St. Margaret's Bay, Shelburne, and Wolfville. The community sessions were an opportunity to provide members of the public with information about the proposed *Coastal Protection Act*, and to gather ideas and feedback about the coastal issues that people were concerned about.

During these community sessions, participants expressed various concerns about the implementation of a *CPA*, including the need to regulate against inappropriate development along the coastline, the need to recognize property rights of current landowners, the need to

protect coastal ecosystems and human development from coastal erosion and flooding, the desire to reduce the impacts of open-net pet aquaculture, the need to protect marine habitats, and the need to recognize and respect Indigenous knowledge and rights.

Advocacy for Bill-106

Once Bill-106 was introduced, East Coast Environmental Law provided a written submission (available in Appendix C) and oral testimony to the provincial Law Amendments Committee about the proposed law before it was passed unchanged.

What is the CPA and how does it work?

The *Coastal Protection Act* (the "*CPA"*) has two purposes: to protect the province's coast and ecosystems by preventing development that may damage the natural and dynamic nature of the coast, and to protect new developments from coastal threats such as sea-level rise, coastal flooding, storm surges, and coastal erosion.[17]

The *CPA* is based on the following principles:

a. portions of the Province's coast are dynamic and naturally migrate landward and seaward as a result of the interaction of natural forces such as tides, winds, currents and wave action with varying geological conditions;
b. preservation of the dynamic nature of the coast is important in order to protect and allow for the natural adaptation of coastal ecosystems that provide fish, wildlife and plant habitat and perform important ecological functions that Nova Scotians value;
c. human-made structures designed to delay or obstruct the natural migration and shifting of coastal features may accelerate the effects of coastal erosion and may accelerate these effects on adjacent properties that do not contain similar structures;
d. coastal features such as beaches, dune systems, barrier beaches, coastal lagoons, barachois ponds, coastal wetlands and salt marshes provide valuable habitat and provide other valuable ecological functions and services important to the health and well-being of Nova Scotians;
e. sea-level rise, coastal flooding, storm surge and coastal erosion pose significant threats to the safety of future development in coastal areas;
f. there is a link between economic and environmental issues and a recognition that long-term economic prosperity depends upon sound environmental management and that effective environmental protection depends upon a strong economy; and
g. risk-informed decisions regarding development in coastal areas are an important part of climate change adaptation given the inevitability of relative sea-level rise, coastal flooding, storm surge and coastal erosion and their related impacts on the province.[18]

These principles should help to guide the interpretation of the *CPA* and any regulations created under it. They are also important because they highlight the importance and unique challenges of protecting the province's coast.

The fundamental function of the *Coastal Protection Act* is to create a **Coastal Protection Zone** ("the CPZ"). This is where the *CPA* and its regulations will apply.

The Coastal Protection Zone

The Coastal Protection Zone is a zone that goes around Nova Scotia's entire coast. In the CPZ, there are restrictions, limits and even prohibitions on development and other activities, in the

[17] *Coastal Protection Act*, SNS 2019, c 3 [*CPA*]*,* section 2.
[18] *Ibid*, section 7.

form of mandatory building "**setbacks**". There will be a horizontal building setback and a horizontal building setback (also called the minimum building elevation). The building setbacks will apply to private and public development.

The CPZ will not include federal Crown Lands such as First Nation reserve lands, lands used for national defence, marine terminals, and lands and structures used for transportation and other infrastructure.[19]

The Role of Designated Professionals

All development within the CPZ that requires a building permit or development agreement must be certified by a **designated professional** ("DP") to ensure that the proposed development and its location comply with the Act and the regulations.[20] A person wishing to build will need to hire a designated professional, who will come to the specific site and determine the appropriate setbacks. They will a **designated professional's report** that certifies that a proposed development and its location in the CPZ are in compliance with the Act. Regulations made under the *CPA* will set out who is qualified to be a designated professional. They will have specific credentials and likely liability insurance that makes them qualified to assess properties and areas under the *CPA* and its regulations.

The Role of Municipalities

Under the *CPA,* municipalities will be responsible for ensuring that building permits and development agreements comply with the *CPA* and its regulations. They will do this by verifying all reports from designated professionals. Municipalities cannot issue a building permit or development agreement for any development or modifications to existing building that is inside the CPZ, unless they have certified by a designated professional to be in compliance with the Act and its regulations.

Exceptions under the CPA

Some developments are exempted from the building setbacks in the CPZ.

Building or modifying a structure in the CPZ for commercial or industrial purposes is permitted if the structure includes direct access to the coast on the seaward side of the ordinary high-water mark, and that access is "essential" for commercial or industrial operation (the Act does not define what is "essential").

The Act also does not prevent commercial fishing, aquaculture, harvesting, or processing that are done legally under other provincial or federal law.[21]

[19] *Ibid,* section 8(2)(a).
[20] *Ibid*, section 12(1).
[21] *Ibid,* section 17.

Developments that are exempted under the *CPA* must still be consistent, whenever possible, with the purpose and principles of the *CPA*.[22]

Protected Coastal Ecosystems

The *CPA* offers some protections for coastal ecosystems.

The *CPA* prohibits the alteration of wetlands in the CPZ unless the alteration is done in compliance with the Act and its regulations.

Activities that are related to conserving, preserving, restoring, or reclaiming beaches, salt marshes, coastal wetlands, and fish, wildlife, and plant habitat in the CPZ—as authorized under the *Beaches Act* or the *Environment Act*—must be done in ways that are consistent with the purpose and principles of the Act and its regulations.[23]

[22] *Ibid*, section15(1)(b).
[23] *Ibid*, section 22.

What are our concerns with the CPA?

East Coast Environmental Law raised various concerns about the proposed *CPA* before it became law. In general, the Act takes a narrow approach to protecting the coast by focusing on limiting and regulating human development and providing protections for coastal ecosystems. The *CPA* is largely meant to provide another layer of coastal protection and to work in conjunction with existing environmental laws. It was not meant to transform or consolidate coastal protection into one law. While East Coast Environmental Law believes more can and should be done to protect the province's coasts, the *CPA* provides some useful mechanisms to enhance existing legal protection.

Purpose and Principles

Overall, the purpose and principles sections are valuable because they provide clarity on the *CPA*'s goals and set out the vision for the Act. These principles are featured near the beginning of the Act. The protections provided by the *Coastal Protection Act* take priority over other laws where they conflict unless other the laws provide greater environmental protection.[24]

Exemptions under the CPA

East Coast Environmental Law has concerns about the exemptions in the *CPA* that would allow some developments in the Coastal Protection Zone to ignore the building setback requirements. While some exemptions are specifically set out, the Act also allows additional lands to be exempted in regulations.[25]

One type of development that is exempted under the *CPA*, and which will not require building setbacks, is any commercial or industrial structure that requires direct access to the seaward side of the ordinary high-water mark. This exemption is problematic because it is not clear how the exemption will be operationalized. There is no list or mechanism in the Act that can be used to determine whether a structure requires direct access to the seaward side of the ordinary high-water mark. East Coast Environmental Law called for a provision to be added to the *CPA,* which would require that a designated professional must certify that a commercial or industrial structures requires direct access to coastal waters.

Other exemptions under the *CPA* – public infrastructure, commercial fishery, aquaculture or harvesting operations, marine renewable energy, agricultural marshlands, structures to protect physical integrity or public access to CPZ on certain protection lands, and cemeteries—further limit the scope of the Act.

[24] *CPA,* section 4.
[25] *Ibid,* section 8(2)(b).

It is a requirement under the Act that developments that are exempted must be “consistent, wherever possible, with the purpose and principles of this Act”. However, the Act is also not clear about what “whenever possible” means, which will make it difficult to enforce. For example, under the current wording of the Act, the costs associated with modifying structures could be used as justification for a development to avoid being consistent with the purposes and principles of the Act.

What are the proposed Regulations under the CPA and what do they do?

Regulations under the *CPA* will provide the details about how the Act will work. Under the *CPA*, the **Minister** may make regulations about standards that must be followed when constructing, modifying, repairing and maintaining structures, and carrying out permitted activities in the Coastal Protection Zone.[26] The **Governor in Council** may make regulations for a number of other things, including setting out the boundaries of the CPZ, creating additional exemptions, and setting the qualifications for designated professionals.[27]

The Government of Nova Scotia proposed regulations in the summer of 2021 (see Appendix D). As proposed, the regulations would clarify how the *CPA* will work. The key things the proposed regulations would do is set out the boundaries of the Coastal Protection Zone, provide criteria for building setbacks, and set out requirements and qualifications for designated professionals.

The Boundaries of the Coastal Protection Zone

Under the proposed regulations, the CPZ will have two parts:

The seaward side of the high-water mark: the first part of the CPZ will be measured from the high-water mark out to the limit of the province's jurisdiction in the ocean. Within this area of the CPZ, the regulations will apply to wharfs, jetties, seawalls, groynes, infilling, shoreline armoring, and similar structures, and it will be administered by Department of Natural Resources and Renewables in areas where the *Crown Lands Act* and *Beaches Act* apply.
The inland side of the high-water mark: the second part of the CPZ will be measured from the high-water mark in a straight horizontal line to a specified distance inland. The proposed distance of this part of the CPZ is currently in the range of 80-100 meters.[28] This horizontal line will not follow the contour of the land.

Under the proposed regulations, the CPZ will cover islands, barrier beaches, and the coastal parts of estuaries.[29]

Modifications of the CPZ Boundaries

The Department of Environment and Climate Change has identified two kinds of naturally occurring shorelines that will modify the boundaries of the CPZ: **barrier beaches**, which are defined in the proposed regulations as "typically thin beaches that separate ocean waters from

[26] *CPA*. section 27.
[27] *Ibid,* section 28.
[28] Province of Nova Scotia, Department of Environment and Climate Change, Part 2: A Detailed Guide to Proposed *Coastal Protection Act* Regulations (July 2021) [Proposed Regulations], page 3.
[29] *Ibid*.

ponds or lakes;"[30] and **estuaries**, which are defined in the *CPA* as "a watercourse that meets a body of salt water, where the water is a mixture of salt and fresh water".[31]

In cases of barrier beaches, where a pond or lake behind a barrier beach is within the CPZ, the inland boundary of the CPZ would extend farther than normal. The barrier beach boundary of the CPZ would be a set distance to the nearest point from the ordinary high-water mark (on the ocean side of the barrier beach). The boundary would be no closer than another set distance from the ordinary high-water mark of the pond or lake.[32]

In cases of estuaries, two methods for determining the modified boundary of the CPZ have been proposed: the CPZ will end either when the estuary has narrowed to a specific width or reaches a specified distance inland, or the CPZ will end where the inland portion of the estuary meets an area where an existing municipal land-use bylaw has vertical setbacks to address sea level rise, flooding plans for an 80 year horizon, and other restrictions that are consistent with the Statement of Provincial Interest on Flooding.[33]

Construction Setbacks in the CPZ

The regulations will create a vertical and horizontal setback that will apply to all development within the CPZ and be administered through the municipal building permitting process.
A **minimum building elevation** will be determined and set out in regulations. It will set the minimum height of the ground upon which a structure can be built or modified. The Department of Environment and Climate Change will divide the province's coast into regions and set out the appropriate vertical setback in each region.[34]

A **horizontal setback** will be calculated on a case-by-case basis, for each development or site, by a designated professional. This is the horizontal distance from the coast at which a structure can be built or modified.

In other words, no development that requires a building permit or development agreement can take place above the high-water mark without adhering to the setbacks, unless it meets one of the exemptions.

The Role of Designated Professionals

Landowners wishing to get a building permit within the CPZ will need to hire a designated professional to determine the appropriate horizontal setback. The designated professional must use an **assessment methodology** designed by the Department of Environment and

[30] *Ibid,* page 4.
[31] *CPA,* section 3(g).
[32] Proposed Regulations, page 4.
[33] *Ibid,* pages 4-5.
[34] *Ibid,* page 3.

Climate Change. The property owner will then submit the report as part of their permit application to the municipality.[35]

The proposed regulations will set out the qualifications and responsibilities of designated professionals. These responsibilities include certifying that a) they are qualified, b) that the property was assessed using the risk assessment methodology, and c) that the resulting horizontal setback was established in accordance with the regulations.[36]

When there are varied property conditions, the designated professional must: conduct multiple assessments to determine horizontal setback for each area; limit their report to an area within the property lot and provide a diagram indicating the area in which the specific horizontal setback applies; or, determine the most erosion prone area, conduct an assessment, and certify a setback for the entire property.[37]

The Role of Municipalities

Municipalities will play a central role in the administration of the proposed regulations made under the *CPA*. They will be responsible for ensuring that building permits comply with the law by verifying designated professional reports. A municipality can accept a report that is signed by a qualified DP, even if the report was issued to a previous landowner. If a landowner provides reports by different DPs for the same proposed building location, the municipality may accept the one chosen by the landowner.[38]

[35] *Ibid*, page16.
[36] *Ibid*, page14.
[37] *Ibid*.
[38] *Ibid*, page 9.

What are our concerns about the proposed Regulations?

East Coast Environment Law provided a submission to the Department of Environment and Climate Change on the proposed regulations (see Appendix E).

We are concerned that the regulations further narrow the scope of the Act by creating additional exemptions, which will result in more developments not being required to adhere to the minimum building setbacks. The reliance on the municipal building permit and development agreement process is problematic because there may be inconsistent application across the province. There will need to be transparency with respect to when a property has a building permit or development agreement in the CPZ, and what the minimum building setbacks are.

There will need to be a clear process for determining the high-water mark because it is what the boundaries of the Coastal Protection Zone are measured from. This is important for consistent application of the Act and its regulations, and to ensure effective monitoring, compliance, and enforcement.

We are also concerned that the proposed regulations will not currently apply to septic systems, or to infilling or construction of shoreline stabilization structures above the high-water mark. This is a missed opportunity to address development that can have highly adverse impacts on coastal ecosystems and negatively affect the shifting and dynamic nature of the coast.

The Minimum Building Setbacks Need to Apply Everywhere in the CPZ

The minimum vertical and horizontal building setbacks will only apply to development that is required to go through the municipal building permitting process. As such, any development or construction that does not require a building permit or development agreement will not have to adhere to the setbacks.

We are concerned because this will narrow the scope of protection under the *CPA* because there are many kinds of construction or development that do not require municipal building permits, including on-site sewage systems, golf courses, and playgrounds.

We are also concerned by the fact that the seaward side of the CPZ only applies to Crown land and beaches. This means that it will not apply to privately owned water lots or parts that are located below the high-water mark.

Building Permits and Development Agreements in the CPZ Should be Available to the Public

The protections for coastal ecosystems and for developments along the coast – in the CPZ – that are set out in the *CPA* and its regulations are based on the minimum building setbacks. If the setbacks are ignored or development is not compliant with the setbacks, the Act and its regulations will fail.

In order to ensure that development is compliant with the Act and its regulations, there needs to be accountability and transparency to the public. This means that building permit and development agreement applications, including designated professional reports, should be available to the public.

There Needs to Be a Clear Process to Determine the High-water Mark

The regulations set out the boundaries of the CPZ. Because the CPZ is almost exclusively dependent on the location of the high-water mark, it is critical that the high-water mark be defined effectively in the regulations or that the regulations include an accurate and consistent method of determining the locations of the high-water mark.

East Coast Environmental Law suggests that the high-water mark be marked by a designated professional as part of their site-specific property assessment. We also recommend that a determination of the high-water mark should account for erosion (the gradual washing away of land along the shoreline) and avulsion (sudden change to shoreline caused by natural forces, usually by a storm event).

The Role and Power of Municipalities Should Be More Explicit

East Coast Environmental Law is concerned that the regulations are unclear about powers are available to municipalities to remedy noncompliance with the Act and its regulations. East Coast Environmental Law suggest that the regulations provide clear powers to municipalities, for instance, by requiring non-compliant structures to be relocated and the land rehabilitated, at the landowner's expense.

The Modifications for Developed Downtown Waterfronts Should

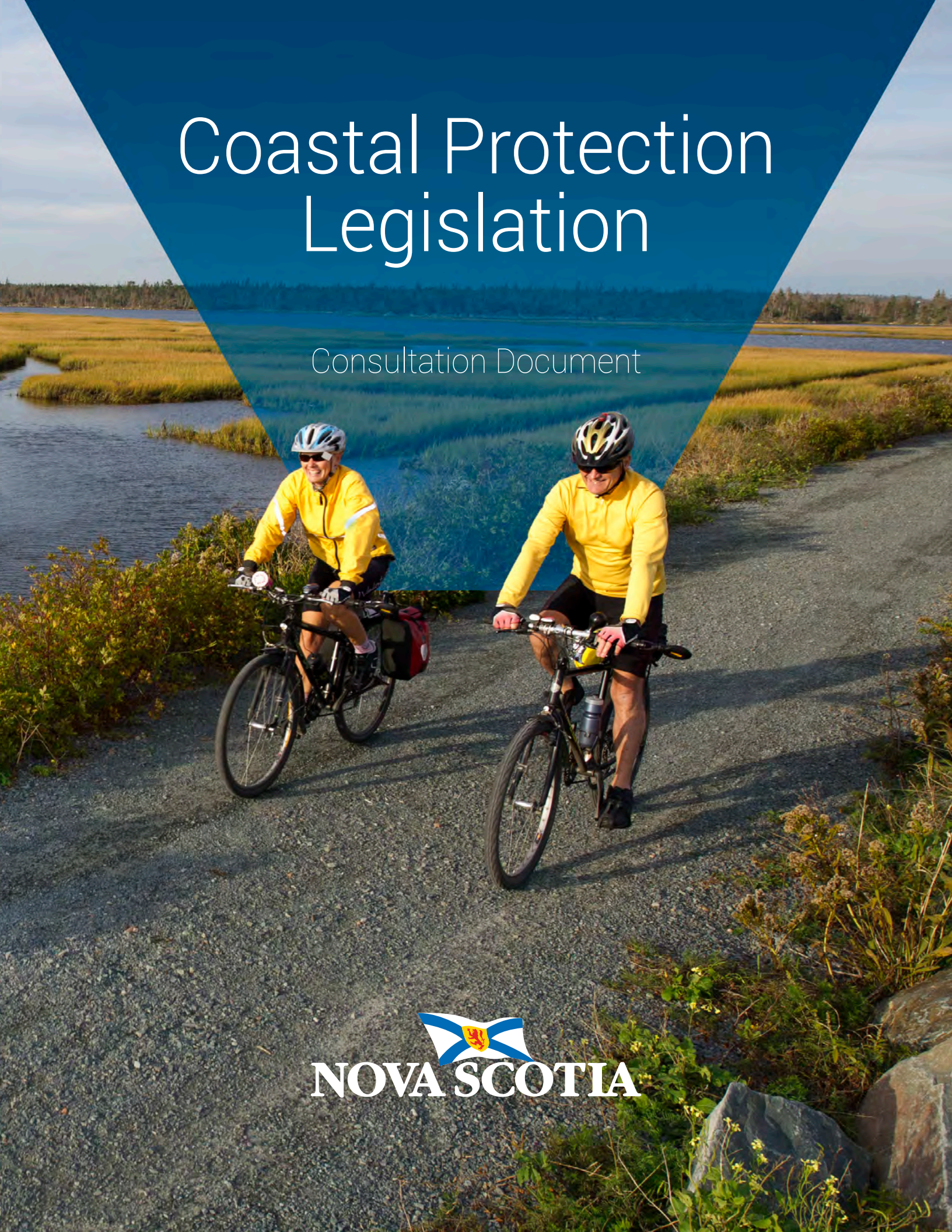
The proposed regulations will create modified requirements for developed downtown waterfronts, which may be defined as: developed downtown waterfront areas as dominated by mixed-use structures with a public amenity or multi- unit residential component where there are no gaps of greater than 75 meters between existing mixed-use structures, or where the area was zoned for commercial, mixed use or equivalent prior to the Act coming into effect.[39] Within a developed downtown waterfront, building permits or development agreements for construction of commercial or mixed-use or food-service or similar public amenities in the CPZ would be exempted from the site-specific horizontal setback and designated professional report requirements (the minimum elevation would still apply). East Coast Environmental Law disagrees with this approach. The regulations should be applied to developed downtown waterfronts to protect coastal ecosystems.

[39] Proposed Regulations, page 7.

Appendix A: Province of Nova Scotia CPA Consultation Document

Coastal Protection Legislation

Consultation Document



NOVA SCOTIA

Coastal Protection Legislation: Consultation Document
Department of Environment
June 2018

ISBN: 978-1-55457-859-7

Nova Scotia is rich in coastline and nearly surrounded by the sea. To travel the edges, entering every harbour, cove, inlet, and tidal estuary, would be 13,300 kilometres. No wonder we are fishing people. We are boating people. We are beach and cottage people. We are swimmers, sailors, surfers, and divers. We love the sea.

Our province is shaped by the sea. We have stories of sea adventures and sea tragedies. We have calm harbours, windswept bluffs, and shifting sands. We witness the wind and the waves and the tides constantly reshaping our coastline — and sometimes sweeping away what we build. Respect for the sea — and the power of the sea — is a lesson we continue to learn.

We like to build in sight of the sea. But the tides, currents, wave action, erosion, and high winds are givens. When we interfere unnecessarily with these natural processes, there are serious consequences. Coastal areas like saltmarshes and coastal wetlands help filter out harmful substances and provide habitat for endangered species. Interfering with the normal, natural movement of these features, by building too close to the shoreline, for example, can damage sensitive coastal areas. Building too close to the shoreline also puts people's investment in their property at risk and can threaten public safety. Rising sea levels and powerful storm surges are making damage more common. Sometimes, we unintentionally add to the problem. When we physically alter the shoreline, we can accelerate the coastal erosion we are trying to control. Trying to control the sea is expensive and not often possible. A more realistic solution would be to build on less vulnerable land.

Our coast has been formed through billions of years of natural history. It has been a source of food and a means of transportation for Mi'kmaq for thousands of years. It has enabled trade and been a gateway for immigration for hundreds of years. It is a part of our identity, and protecting our coast is important to Nova Scotians.

Our prosperity is closely tied to the sea and our coastal nature. Ships come here — and are built here. We feast on our local sea catch and export sea products around the world. We escape to the beach to relax and unwind. We invite the world to enjoy our unspoiled spaces, our picturesque coastal towns, our plentiful wildlife, and our spectacular natural beauty.

How do we balance protecting what we build near the coast with protecting natural ecosystems and the natural beauty that make our province special?

A 1998 report by the Geological Survey of Canada identified Atlantic Canada as having the largest extent of sensitive (to sea-level rise) coastline in Canada, including much of the coast of Nova Scotia. We have a land mass that is gradually sinking, through a natural process called subsidence. We have a coastline that varies in composition, from stable cliffs to erosion-prone beaches and dune systems. We have dynamic coastal features that constantly change in response to tides, currents, and storm surges, with ecosystems and wildlife that shift and migrate in response to these natural coastal processes. So as sea levels rise, we are going to notice change in coastal areas. Some coastal bluffs, for example, could retreat by meters per year.

While it is difficult to generalize about large sections of coast, significant areas of Nova Scotia are prone to high rates of coastal erosion and coastal flooding. The Intergovernmental Panel on Climate Change projects that sea level will continue to rise. This, combined with regional conditions in Atlantic Canada, where some of our land base is sinking, means Nova Scotia may experience significant sea-level change in the coming decades. Some experts (Forbes et al., 2006) estimate sea-level rise of between 0.7 and 1.4 meters by the end of this century.*

* Forbes report: quoted in *Our Coast: Live, Work, Play, Protect: The State of Nova Scotia's Coast: Technical Report*, Province of Nova Scotia, 2009, p 162.

The government has committed to creating legislation to provide legal protection for our coasts. So how do we design new legislation that helps ensure future generations can continue to benefit from our natural coastal areas, that helps protect our coastal assets, that preserves healthy ecosystems, and that encourages people to build in areas less vulnerable to damage from rising sea level, erosion, and storm surges?

We want to hear from Nova Scotians. Your opinions can help us develop an effective piece of legislation.

The legislation will need to:

1. Define a "Coastal Protection Zone" where the act will apply
2. Restrict certain activities within the Coastal Protection Zone
3. Create provisions for monitoring and compliance

Each of these tasks is discussed more fully below.

Define a Coastal Protection Zone

The new law needs to clearly define where it applies — the Coastal Protection Zone —and where it doesn't.

This needs to be easy for everyone to understand — citizens, businesses, governments, and those who enforce regulations and bylaws.

Where do you think the new legislation should apply?

A coastal protection zone could be a band of area around our entire coastline.

Here are some of the things we will consider:

- How wide a band?
- Where would it start? We need to define a starting point or reference line — like the high-water mark, the low water mark, or mean sea level.
- What would be the setback distance?

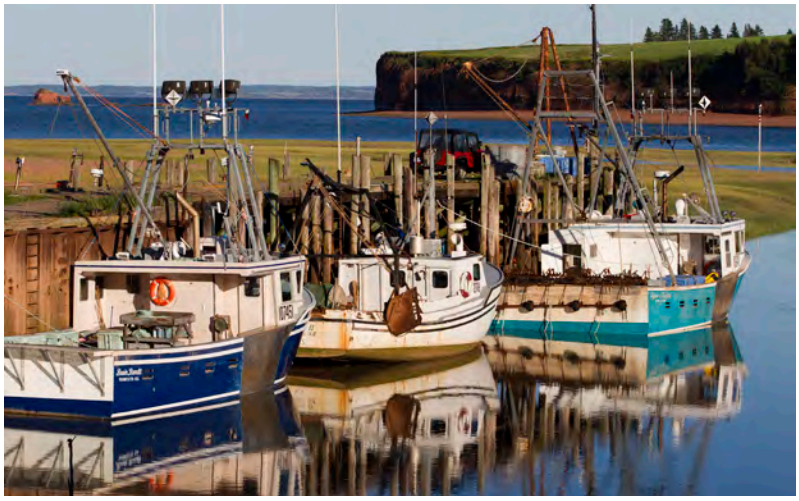
- Should the coastal protection zone include elevation in its calculations? For example, a cottage near the ocean at sea level is more vulnerable than one near the ocean but on a hill. What minimum elevation above the high-water mark allows for storm surge?
- What about evidence of erosion? Some areas are sheltered with little evidence of erosion, while some are actively eroding or constantly changing. How do we include an on-the-ground assessment of local risk?

A new law would need to be mindful of other laws and overlapping jurisdictions and the ways we live and work and play in our coastal areas.

Here are some of the issues and perspectives we will be working through:

- How do we respect commercial and industrial uses? Many of us make our living on the sea or near the sea. Seafood is our number one export, valued at $2 billion annually, and the seafood sector employs thousands of Nova Scotians. How do we keep out of the way of the economic activities that sustain us? This includes activities covered by the Fisheries and Coastal Resources Act and the Marine Renewable Energy Act — fish processing, aquaculture, rockweed harvesting. Fishing and aquaculture will be exempt, but how do we define this exemption? What other economic activities must we keep out of the way of?
- What about land protected by other laws? Beaches are protected under the Beaches Act, sensitive areas protected by the Special Places Act, or dykelands protected under the Agricultural Marshlands Conservation Act. The boundary of a coastal protection zone may exclude specific types of land designations.

- What about local land-use bylaws? Some areas of the province already define coastal setbacks under local municipal land use bylaws. Other areas have no specific restrictions. How do we balance local needs with provincial standards?
- What about respecting the ways we have lived on the coast for hundreds and thousands of years? The Mi'kmaq depended on coastal resources long before contact with Europeans — evidenced by finds in the Acadian dykelands and shell middens. Preserving traditional uses and natural ecosystems are important to the Mi'kmaq — and to all Nova Scotians. Most coastal communities have existed for hundreds of years in our bays and coves, with generation after generation relying on the ocean for their livelihoods. How do coastal communities adapt to changing coastlines in harmony with nature and natural processes?



Restrict Certain Activities

The goals of coastal protection are to:

- prevent damage to sensitive coastal ecosystems and wildlife habitat — like saltmarshes and coastal wetlands
- reduce risks to public safety — from storm surges, flooding, flying debris, washed out bridges and roads
- reduce the risk of property damage — to future homes, cottages, businesses, public infrastructure

But we must achieve these goals with consideration for our coastal way of life:

- the vibrancy of our coastal lifestyle — fishing communities, downtown working waterfronts, and industries that depend on direct access to coastal waters
- the economic activity that involves our coastal assets — how we make a living here

As we work out the provisions of the new law, we will need to get specific:

What activities should the new legislation prohibit or restrict within the coastal protection zone?

- New construction?
- Removal of material — like beach sand?
- Alteration of the natural contour of the land — like saltmarshes?
- Deposit or dumping of waste or other materials?

How do we carefully balance the need to accommodate existing structures and recreational and commercial use of coastal areas while still providing meaningful protection for coastal areas?

For example, we don't want to disturb the vibrancy of our fishing communities, or our downtown waterfronts, or our industries that depend on direct access to coastal waters.

What types of structures and activities do you think should be restricted in the coastal zone?

How do we make allowances for existing homes, cottages, and businesses on coastal waterfronts and inside the Coastal Protection Zone?

We will also need to consider how we protect existing structures threatened by sea-level rise and coastal erosion while minimizing the impact on the environment.

What about potential building sites near the shoreline which, because of local conditions, pose no risk of environmental damage? Sites both on firm ground that's not prone to erosion and those high enough above sea level to not be threatened by storm surges. Would it make sense to issue a "variance" that allows construction to go ahead in these cases? Should we require a professional, such as an engineer or a geologist, to sign off on an exception?

What sorts of exceptions do you think we should consider making for activities in the coastal zone?

We want to ensure that the new law also respects approved activities under other federal or provincial laws. For example,

- Aquaculture leases and rockweed harvesting leases
- Permits issued under the Beaches and Foreshores Act or Crown Lands Act
- Projects approved under the Marine Renewable Energy Act
- Agricultural marshlands protected under the Agricultural Marshlands Conservation Act
- Projects or activities that have been approved under the Environment Act

Create provisions for monitoring and compliance

We want to make it as easy as possible for Nova Scotians to understand and comply with the new legislation. For example, we don't want people to invest a great deal of time and money in planning to build a structure that the new legislation won't allow.

As we create and implement this new law, we need to think through how it will be experienced by the people who will need to comply with it:

- How do we make the new rules easy to know about? Easy to comply with?

- How do we intervene early enough in the development or building process to avoid disappointment and unnecessary expense?
- How do we minimize the overall administrative burden of a new law while still providing protection for our coasts?

Share your thoughts on coastal protection legislation with us

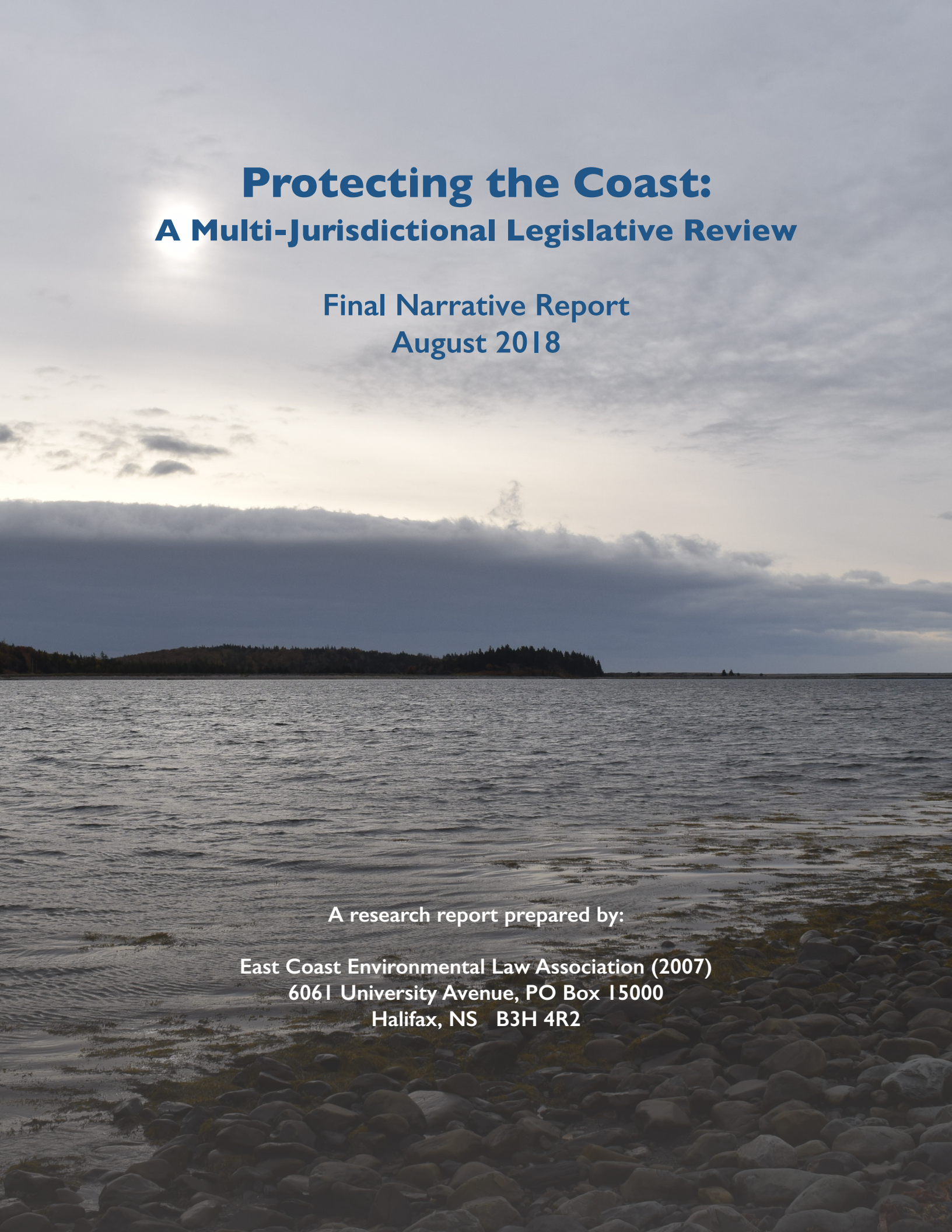
We need to hear from you! Please take the time to share your thoughts about the proposed legislation. A few questions are set out below. If you have thoughts about anything else we should consider, please share those as well.

- What are your thoughts on the proposed legislation?
- Where should the new law apply? What should the boundaries of the Coastal Protection Zone be?
- What other provisions, if any, would you like to see in the new law and why?
- Are there any ideas in this document you would like to see removed from consideration? Why?
- What sorts of exceptions do you think we should consider making for activities in the coastal zone?
- How do you think coastal protection legislation might affect you?

How to respond to this document

Please visit novascotia.ca/coast to fill out our online survey. If you don't have Internet access, please call 902-424-2547 and we'll send you a paper copy.

Appendix B: ECEL Multi-Jurisdictional Review Report



Protecting the Coast:
A Multi-Jurisdictional Legislative Review

Final Narrative Report
August 2018

A research report prepared by:

East Coast Environmental Law Association (2007)
6061 University Avenue, PO Box 15000
Halifax, NS B3H 4R2

Disclaimer

Every reasonable effort has been made to ensure that the information in the Protecting the Coast: A Multi-Jurisdictional Legislative Review report is accurate.

The legislative and regulatory provisions in this Report and the Appendices are for general information purposes only. This Report is not legal advice and does not replace official government publications.

If a discrepancy occurs between government policies, statutes or regulations and this document, the government-authorized documents will apply. For official legislative provisions, consult the relevant legislation and policy documents that are referenced in the Report.

Funding for the Protecting the Coast: A Multi-Jurisdictional Legislative Review report was provided through a grant from the Nova Scotia Department of Environment.

Any use which a third party makes of this document, or any reliance on or decisions made based on it, are the responsibility of such third parties.

Table of Contents

1. Executive Summary

This section contains the executive research summary. It includes a brief overview of the research conducted and synopsis of the most common components of coastal legislation and policies found in other jurisdictions.

A. General Principles

Most coastal protection regimes are, in reality, coastal management regimes using an **integrated management approach**. They are usually guided by **principles of sustainable management** and **best-available science**.

In many jurisdictions, generally speaking, coastal management focuses on three kinds of issues: **regulating development** and human activity (both to limit economic and human health hazards from the coastal environment, and to protect the environment from those activities), **identifying and mapping coastal floodplains** and areas vulnerable to sea-level rise erosion, and protecting and enhancing **public access** to the coast and its resources. While most jurisdictions provide some environmental protections to areas that have vulnerable, valuable, or biologically significant species, habitats and ecosystems, these protections do not form a large or significant part of coastal management regimes.

It is also important to note the **role of Indigenous peoples** in coastal management. Traditional and local knowledge are an important component of coastal management regimes, especially since many of the responsibilities for managing coastal areas ultimately fall on local or municipal (or Indigenous) governments. This means that Indigenous Peoples can be, and are, involved in decision-making affecting coasts and all of their ecosystems, parts, and features.

B. Key Components of Coastal Management and Protection

Coastal Development: Coastal development is regulated, and sometimes prohibited, either through local or municipal government (the majority), or through a specialized and authorized advisory or regulatory body (the minority). The regulation of coastal development is achieved through:

- Delineation of the "coastal zone"
- By-law development zoning
- Setbacks, buffer zones, and variances
- Permitting and licencing
- Operational and policy standards
- Environmental assessments

Access to Coast and Coastal Resources: Most Canadian jurisdictions do not focus on coastal access. Those that do tend to discuss or treat coastal access as an ambition, rather than a right or an obligation. Most international jurisdictions are particularly focused on establishing specific public rights of access to the coast and the use of coastal resources. Features of these include:

- Public right of access
- Creation of points of access to coast
- Development of public coastal areas for recreation
- Traditional and customary rights of access and rights of use of traditional resources

Coastal Erosion and Flooding: It may be best to think of coastal erosion and flooding together, outside of those developments that are already regulated via local and municipal governments. Most jurisdictions have legislation and policies that govern the authority over, and responsibility for, preventing human and economic hazards and risk from coastal flooding. Features of these regimes include:

- Floodplain mapping
- Setbacks, buffer zones, and variances
- Climate Change Action Plans (holistic approaches that include protection against storm surges and sea level rise)

Protection of Sensitive Coastal Ecosystems: Most jurisdictions have separate legislation and policies that offer protections to vulnerable and sensitive species and habitats. Many of these jurisdictions achieve this using an ecosystem management approach that considers the best available science, as well as local and traditional knowledge where relevant. Many of the necessary environmental protections come within the purview of other large regulatory regimes (for example: municipal waste disposal, water quality, aquaculture, and fisheries). Some of the types of coastal ecosystems that receive some attention in coastal management regimes include:

- Coastal marshes
- Coastal wetlands
- Rivers, streams, and estuaries (in the context of identifying "coastal zones" and for the purposes of delineation)
- Beaches and dune systems

Monitoring, Compliance, and Enforcement: Jurisdictions vary in the kinds of administrative regimes and mechanisms they use to monitor compliance and enforce the various coastal management and protection systems. Some of these mechanisms include:

- Creation of offences with penalties including fines and imprisonment
- Compliance and enforcement orders
- Restoration orders
- Progress and Monitoring Reports

Administrative Bodies: The administration of coastal management and protection regimes also involves various kinds of management bodies or persons responsible for ensuring effective implementation of legislation and policies. These include:

- Collaborative management bodies or networks
- Ministerial oversight
- Government agencies
- Quasi-judicial bodies
- Coastal Committees
- Advisory Groups

2. Overview

This section is an overview of the structure of the narrative report. It acknowledges the funding provided for the research, explains the research's scope and parameters, and describes the research objectives. It also includes a brief summary of the jurisdiction over the coast (federal, provincial, municipal and Indigenous) and concludes with an outline of the remainder of the narrative report.

A. Research Funding

The funding for this research was made available through a grant provided to the East Coast Environmental Law Association ("**ECELAW**") by the Nova Scotia Department of Environment in support of fact-finding research comparing the extent and manner in which select jurisdictions at the provincial or state and local government levels provide legal protection for their coasts. The research was conducted in anticipation of coastal protection or management legislation to be introduced in Nova Scotia in the future.

B. Methodology: Rationale and Parameters

This research, conducted independently by ECELAW, began with a process to select relevant jurisdictions that are representative of various kinds of coastal protection, whether that protection is embedded in legislation or policy. The selection process was conducted in collaboration with the **Ecology Action Centre** ("**EAC**") and the **Nova Scotia Department of Environment** ("**NSE**"), both of which provided suggestions and input into which jurisdictions would be best suited for review and research.

As part of this jurisdiction selection process, a general jurisdictional scan was conducted of coastal protection regimes, with a focus on English-speaking, common-law jurisdictions as a matter of convenience and practicality.

The scan first identified four key Canadian jurisdictions: British Columbia, New Brunswick, Newfoundland and Labrador, and Prince Edward Island. After further consideration, Quebec was added as another relevant province to be reviewed.

The Atlantic Canadian jurisdictions were selected because they are representative of the kinds of issues and environments most similar to Nova Scotia. Like Nova Scotia, these jurisdictions face similar issues in terms of demographics, climate, and culture. Furthermore, the Atlantic provinces collaborate closely and share many of the same challenges in terms of protecting their coasts.

British Columbia was selected because it is the other major coastal province. It also offers unique insights into how Indigenous peoples may be included in the processes of creating, administering, and enforcing coastal legislation and policies.

Consideration was also given to including international coastal jurisdictions in the research. Four jurisdictions were initially identified: California, the United Kingdom, Australia, and New Zealand. These international jurisdictions were selected based primarily on accessibility. All four jurisdictions are common-law jurisdictions whose primary language is English. Furthermore, the four jurisdictions are representative of a broad range of geography, demographics, and climate.

California was selected because it is generally considered a leader in coastal and marine protection and boasts a comprehensive legal regime and framework offering various levels of protection to coastal residents and habitats.

The United Kingdom was selected because it too offers a comprehensive legal framework for coastal protection and because of its similarities (parliamentary, common law) and differences (unitary state vs. federal state) with respect to Nova Scotia.

For Australia, the territories of South Australia and Queensland were initially identified. Given time and budget restraints, Queensland was selected as being fairly representative of the approaches used for coastal protection in Australia.

New Zealand was selected because of its unique approach to coastal management through a comprehensive natural resources management regime. Additionally, New Zealand has a large Indigenous population, and Indigenous rights, customs, and communities play a large role in coastal decision-making.

After further consultations and discussion between ECELAW, the EAC and NSE, Maine and South Carolina were later added as jurisdictions to be reviewed. Both of these states were selected as being representative of the eastern seaboard in the United States and because their coastal environments are similar to those in Nova Scotia.

C. Jurisdiction over Coastal Areas ("Who Owns the Coast")

Canada's ***Constitution Act, 1867*** recognizes and creates Canada's division of powers between the federal and provincial governments.[1] Section 91 grants the federal government legal authority over navigation and shipping, and seacoast and inland fisheries. Section 92 outlines provincial authority to create laws concerning matters within the provincial or municipal spheres, including local works. Additionally, Section 35 of the ***Constitution Act, 1982*** recognizes and affirms the existing Aboriginal and treaty rights of the Aboriginal peoples of Canada.

The federal authority manages coastal areas from the ordinary low watermark seaward to the 200 nautical mile limit of the Exclusive Economic Zone ("EEZ"). Additionally, the federal government also oversees federally owned properties, land designations under the *Indian Act*, fisheries, and marine navigation.

1 See sections 91, 92 and 35.

The provincial authority manages everything landward from the ordinary low water mark, except privately owned water lots such as private wharves. In Nova Scotia, the Provincial government also governs provincial lands, activities within the province, the regulation of tidal energy development off Nova Scotia, inland waters such as harbours, bays, estuaries, and water bodies between the jaws of land (except canals and public harbours that were transferred to the federal authorities at the time of Confederation).

In Nova Scotia, municipal authority is granted by the province through the ***Municipal Government Act*** ("**MGA**"). It grants municipal governments the power over municipal land-use planning, including the creation of Municipal Planning Strategies and Land Use By-Laws.[2]

Aboriginal peoples in Canada (including Métis, First Nations and Inuit) are accorded rights under section 35 of the *Constitution Act*, 1982. Additionally, the Supreme Court of Canada has held that this section also obliges government to consult Indigenous communities when the Crown contemplates action that may adversely affect their Aboriginal or treaty rights.

D. Outline

This Narrative Report sets out to provide an overview of the jurisdictions that were reviewed and identify the main components of coastal protection regimes.

It begins with a summary of the legislative and policy frameworks in each jurisdiction. This includes identifying the key enabling statutes in each jurisdiction that help to set the stage for regulatory and policy approaches to managing and protecting coasts and coastal areas.

Next, the primary discussion section will highlight the key components that were found in most coastal protection regimes. This starts with a discussion about the delineation of coastal zones in different jurisdictions to establish the kinds of areas that have or do not have legal protection. Then, four key coastal issue areas are reviewed: coastal development, coastal flooding, access to the coast and its resources, and protection of sensitive coastal ecosystems.

Finally, the Narrative Report will conclude with a review of the kinds of administrative models to govern, monitor, and enforce coastal governance regimes. This includes a review of the most used types of mechanisms from issuance of fines and permits to the creation of offences.

For more information, please consult this Narrative Report's companion documents: The **Coastal Protection Jurisdiction Tables**, the **Coastal Protection Jurisdiction Comparative Spreadsheet**, and the **Nova Scotia Municipal Coastal Protection Tables**.[3]

2 East Coast Environmental Law Association, "Who Owns the Coast", 2nd Edition (Aug, 2018).

3 These companion documents are available at the East Coast Environmental Association website: www.ecelaw.ca.

3. Jurisdiction Summaries

This section provides summaries of each of the jurisdictions that were researched and reviewed for the purposes of this Narrative Report. The summaries are not meant to be exhaustive reviews of the applicable legislation pertaining to coastal protection and management within each jurisdiction. Rather, they summarize the key pieces of legislation and policies that provide the framework for coastal management and protection within those jurisdictions.

A. Summary of Select Canadian Provinces

Canadian jurisdictions have taken a strong policy-focused approach to coastal protection and management. In fact, none of the Canadian jurisdictions that were reviewed have a comprehensive coastal protection statute to guide coastal development and management. Instead, the coastal provinces each have a horizontally-structured legal regime that governs aspects of coastal issues. This means that the identified coastal issues (development, access, flooding and erosion, and sensitive ecosystems) are addressed as separate issues by different legislation and policies. Any substantive protections are usually general and broadly-worded within the framework legislation. Regulations and policies are then used to provide the details, if any, for the management of the different issue areas.

Municipalities or local governments do much of the work with respect to determining and managing appropriate coastal land-use and land development, regulating local coastal activities, and carrying out appropriate protections for coastal flooding and erosion.

The provinces vary in their approaches to public access to the coast and coastal resources, including traditional and customary Indigenous access and use. Some are silent on the issue while others provide minimal or broadly worded rights for citizens and businesses to access the coast or extract coastal resources.

Protection of sensitive coastal habitats generally falls within provincial jurisdiction, rather than to municipal authority. All the provinces have legislation and policies that provide various levels of protection for vulnerable or at-risk species, including those along the coast. None of the Canadian coastal provinces reviewed make it a specific priority to protect coastal habitats or species. Most provinces also have legislation protecting, and regulating activities on, beaches and wetlands.

I. British Columbia

British Columbia has no comprehensive coastal protection regime, legal or otherwise. It does have various environmentally and non-environmentally oriented statutes and regulatory regimes to govern various aspects of coastal activities like land-use, resource management and extraction, fisheries and aquaculture, and water use.

The ***Land Act*** is the primary legislation used in British Columbia to govern land-use, including regulation of developments and commercial activities. Many of the powers and responsibilities for land-use are then passed onto municipal governments through the ***Community Charter Act*** ("**CCA**") and ***Local Government Act*** ("**LGA**"). The CCA provides the framework for the province's municipalities (other than Vancouver), including authority to create by-laws and by-law enforcement. The LGA is the primary legislation dealing with regional districts and improvement districts. It is the framework governing building of structure and operations and it gives municipalities and regional districts authority for land-use planning. Municipal governments in British Columbia achieve their work under these statutes through a permitting system for land-use and development.

These two laws also give municipal governments responsibility to regulate developments in areas subject to erosion or flooding. Municipal governments must consider the **Flood Hazard Area Land Use Management Guidelines** when creating by-laws. The guidelines create set-backs for building within floodplain areas that are identified by that municipal government.

Additionally, the ***Water Sustainability Act*** is the primary legislation used to regulate the province's use of water resources, including aquatic ecosystems. It requires the establishment of "water objectives" to maintain water quality.

Perhaps one of the central components of BC's coastal and marine governance is the **Marine Planning Partnership for the North Pacific Coast** ("**MaPP**" or "**MaPP Program**"). This is a collaborative initiative between the provincial government and seventeen First Nations that creates four coastal and marine management sub-regions. A management group governs each sub-region and develops a marine plan to set out policy objectives and strategies to facilitate sustainable economic growth using collaborative management of resources. The agreements are not legally binding.

The MaPP program is perhaps the most substantive coastal protection regime within British Columbia. The objectives of the program are the joint management of coastal resources, identification of marine uses that support sustainable communities, protection and restoration of marine ecosystems, and support of marine economic development through appropriate zoning and regulation.

Each management group creates their respective coastal management plan (the "**marine plan**") using an ecosystem-based ("ESB") approach. These management plans set out a framework for managing resources using best-available science alongside traditional and local knowledge. The management plans provide general management principles and directions, planning priorities for economic development, provisions for spatial zoning and planning, and provisions for implementation, monitoring, and compliance.

II. New Brunswick

New Brunswick does not have a comprehensive legal framework for coastal protection. However, it has a **Coastal Areas Protection Policy** that was developed in 2002 to help guide the management of land-based coastal resources through sustainable development. It was meant to set out minimum standards

for coastal developments, both public and private. The policy includes lists of activities that require an environmental assessment. The policy is comprehensive in the sense that its objectives include reduction of threats to safety and property damage from storm surges and flooding events, protection of coastal ecosystems like wetlands, and maintaining the buffering capacity of coastal areas. It also sets out an operating principle requiring public access for public purposes.

Like many other Canadian and non-Canadian jurisdictions, New Brunswick delegates many of its land-use and development responsibilities to municipal governments. Under the ***Community Planning Act***, the province's municipal governments are responsible to regulate various coastal development and activities.

The ***Clean Water Act*** allows the Minister to create regulations that designate flood hazard areas.[4] Although there is no regulatory regime created under this Act, the province's **Flood Risk Reduction Strategy** was produced in 2014 and is intended to identify flood hazard areas, provide a planning strategy to reduce flood risks, and inform flood risk mitigation.

New Brunswick does not have legislation specifically addressing or protecting sensitive coastal ecosystems. However, both the ***Clean Water Act*** and ***Clean Environment Act*** provide protections for some species and habitats. For example, the *Clean Water Act* allows coastal designation orders to be made to designate certain coastal areas as protected areas.[5] The order will include a schedule of requirements and a plan of the protected area.[6] A similar Wetlands Designation Order under the *Clean Environment Act* can be issued and could target vulnerable coastal wetlands.[7] Both types of designation orders can include prohibitions or restrictions on water use and the kinds of activities allowed. The orders may also create standards to be followed in the course of these activities.[8]

Under its **Water Strategy for New Brunswick**, the province sets out water-related priorities, including wetland protection and management generally. It also calls for the development of a regulatory framework to designate coastal protected areas under the *Clean Water Act*.[9] As of this research, no regulatory framework like that exists.

III. Newfoundland and Labrador

Newfoundland and Labrador does not have a comprehensive statutory regime for coastal protection and management. However, its **Coastal and Ocean Management Strategy and Policy Framework** ("**Framework**") sets out a long-term vision for managing and conserving the province's coastal and ocean areas and resources. Like British Columbia's MaPP program (above), this strategy policy combines coastal and ocean management. The Framework discusses and elaborates on the role of **Coastal Management**

4 *Clean Water Act*, s. 40(r).

5 *Ibid*, s. 14.

6 *Clean Environment Act* s. 6.4(7).

7 *Ibid*, s. 6. The Minister is responsible for keeping a general register of Coastal Designation Orders under s. 6.4(11).

8 *Ibid*, s. 6.1(6).

9 *Clean Water Act*, s. 23. It reads: "Develop a regulatory framework to designate coastal protected areas…".

Areas ("**CMAs**"), which were established by the Department of Fisheries and Oceans ("DFO") together with the provincial government. Five CMA committees currently exist in Newfoundland and Labrador to manage the CMAs. They are comprised of communities, businesses, local industries, and other stakeholders.

The province's ***Water Resources Act*** ("**WRA**") is applicable to the general governance and management of water resources in Newfoundland and Labrador. It sets out regulation-making power for water-related objectives, including land-use and flooding area risk reduction. For example, regulations may be created that undertake mapping and inventory of wetlands, flood plains, shorelines, coastal waters, and other aquatic systems.[10] There are currently no such regulations. The WRA also authorizes the creation of a permitting system to allow for certain activities that require permits pursuant to the regulations. Persons are prohibited from carrying out any activity that requires a permit. There are no regulations under the Act that relate to use or modification of shorelines. The WRA sets out the criteria for issuance of permits.[11]

Under the WRA, the Minister of Municipal Affairs and Environment can issue an order where a party has not complied with the Act, including a condition of a licence or permit. The order can require the non-complying party, at their own expense, to stop an activity and remedy or prevent adverse effects. The WRA also creates offences and penalties for failure to comply with its provisions.

The province also has the **Policy for Development in Shore Water Zones**. This policy instrument must be considered before the Minister can approve any permit for development in any Shore Water Zone. These zones are created under the *WRA*.

It is also important to note that prior to creating a strategy for management of estuarine, coastal, and marine areas within the Labrador Inuit Settlement Area created pursuant to the ***Labrador Inuit Land Claims Agreement***, the provincial government must consult the Nunatsiavut Government about its plan. This consultation includes establishment, and possible participation, of an Aboriginal advisory or management body and establishment of environmental guidelines, objectives and criteria for the quality of those areas affected.[12]

IV. Prince Edward Island

Prince Edward Island does not have a comprehensive legal regime or policy framework dealing with coastal protection. Its ***Environmental Protection Act*** is the general legislation dealing with environmental protection, including non-specific coastal protection and management. It provides power to the Governor in Council to make regulations pertaining to wetlands and watercourses, including wetlands that are found along the coast. [13] Contravention or violations of the Act or its regulations can result in an offence, which is punishable by fines or imprisonment.

10 *Water Resources Act*, s. 30.

11 *Water Resources Act*, s. 48.

12 Newfoundland and Labrador Land Claims Agreement, s. 6.3.3.

13 *Environmental Protection Act*, ss. 25 (m), (m.1), (m.2).

Under the **Subdivision and Development Regulations**, which are created under the province's Planning Act, subdivisions of land that are proposed within a coastal area must have regard to a buffer zone that is a minimum of 60 feet (18.3 metres) or 60 times the annual erosion rate, whichever is greater. This is measured from the top of the bank adjacent to the beach.[14] Variances may be allowed to build within the set buffer zone where the variance does not violate the intent and purpose of the Regulations, there are unique circumstances, and the circumstances do not intentionally disregard the requirements of the Regulations.[15] While the intent and purpose of the Regulations is not set out explicitly within the Regulations, the objectives of the *Planning Act* include protection of the unique environment of the province.[16]

The **Watercourse and Wetland Protection Regulations**, made pursuant to the *Environmental Protection Act*, prohibit anyone without a licence or Watercourse or Wetland Activity permit to alter a watercourse or wetland. This includes coastal watercourses or wetlands.[17] They also establish a buffer zone around the entire island province, in which zone development and activity are restricted or prohibited.

V. Quebec

Quebec does not have comprehensive legislation dealing with coastal protection. Like other Canadian provinces, Quebec has a statute dealing with land-use and development, called ***An Act Respecting Land Use Planning and Development***. It sets out the governance regime for land-use planning and creates a body that is responsible for its governance. Under the statute, the governing body must set out a regional municipal land-use and development plan for each municipality. The plans must identify areas that should be subject to restrictions for public safety, including flood and erosion zones, as well as areas that require environmental protection with respect to wetlands and water bodies.

Quebec's ***Environmental Quality Act*** ("**EQA**") is the key statute dealing with environmental protection. This includes protection of sensitive species and habitats, adapting and responding to climate change, and setting out principles for sustainable development. The EQA is the enabling statute for a number of regulations and policies that impact the coast. The EQA requires the provincial government to create the **Protection Policy for Lakeshores, Riverbanks, Littoral Zones and Floodplains** ("**Protection Policy**"). The provincial government must also implement the protection policy and coordinate its application.

The Protection Policy has the force of law and sets out minimum protections for littoral zones and floodplains. This includes coastal areas. Some activities are prohibited within those areas. Under the policy, all structures, undertakings, or works that encroach on the littoral zone must be authorized by a permit before they commence.

Under the EQA, the Minister of Sustainable Development, Environment and Parks may impose monetary administrative penalties in the form of fines on any party, including a municipality, that does not comply with the act or its regulations (that includes the Protection Policy).

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14 *Subdivision and Development Regulations*, s. 16.

15 *Subdivision and Development Regulations*, s. 10.

16 *Planning Act*, s. 2(c).

17 *Watercourse and Wetland Protection Regulations* s. 2.

B. Summary of Select International Jurisdictions

Unlike Canadian jurisdictions, which tend to have no centralized or comprehensive statutory framework or regime for coastal protection, many extra-Canadian jurisdictions do have a more comprehensive statutory framework. One of the reasons for this may be that most of these coastal protection or management regimes are much older than those in Canada. Many have been in place for decades.

Especially in the various state jurisdictions within the United States, the coastal protection or management regimes usually consist of one major statute or Code of Laws, under which various regulations and policies are then created to carry out the objectives of coastal protection and management.

Another distinguishing feature of many extra-Canadian jurisdictions is that their coastal protection or management regimes, unlike those found in Canada, tend to include provisions that set out rights of public access to the coast and public use of coastal resources. Finally, many of the jurisdictions have a separate governing body, usually a committee or advisory body, that oversees or manages, in part or in whole, the coastal regime.

1. California (US)

California has a comprehensive coastal protection regime. At its center is the ***Coastal Act*** ("**CA**") that was created in 1972. The exception to this is coastal protection and management in the San Francisco Bay area, which has its own legislation called the ***McAteer-Petris Act*** ("**MPA**").

The Coastal Act is, in reality, an assortment or collection of various state codes, strung together as an "Act". It is composed of a number of Chapters and sub-sections that relate to different functions or issue areas. The heart of the CA is Chapter Three, which sets out a number of protections for the coast, as well as coastal access rights. The CA makes protection of the coast and its resources a high priority in California.

The CA authorizes the creation of, and is administered by, the **California Coastal Commission** ("Commission"). The Commission has authority to issue administrative orders requiring compliance with the CA, including removal of unpermitted developments or activities, and for orders requiring restoration of disturbed areas.

The CA also creates a permitting regime for all construction and development along the shoreline and coastal zone. This is administered by the Commission, which receives applications for construction or development within affected areas. The CA also has provisions related to mitigating and minimizing effects on the character of the coast, flood and erosion prevention and mitigation measures, and sensitive ecosystem protections.

A key feature of the CA, and one of the primary motivations for its creation, is the establishment and protection of the right of the public to access and use the coast and its resources. Whereas the Coastal Commission is authorized to apply for court enforcement of the CA's other provisions, the Commission has

direct authority to deal with access issues, including issuance of fines where access is unlawfully restricted or prevented.[18] The CA also has provisions that create a balance between accessing a coastal area and that area being overcrowded and overused by the public.

Finally, the CA mandates the creation of **Local Coastal Programs** ("LCPs") by local municipalities.[19] The LCPs set out zoning and zoning restrictions, buyout programs, and development rights, and they also provide for creation of set-back requirements for local developments. The LCPs must be approved by the Commission. Once they are, the local government takes over permitting.

Like the CA, the MPA establishes a commission that is responsible for overseeing and carrying out the objectives of the legislation. The Bay Conservation and Development Commission regulates development around the San Francisco Bay area.

II. Maine (US)

Similar to California and South Carolina, an entire section of Maine's state code is dedicated to coastal protection and management. Part of its Revised Statutes, ***Title 38 – Waters and Navigation*** ("***Title 38***"), is responsible for setting out the various legislative protections and enabling provisions for further regulatory and policy efforts for coastal management. While this section of the state code governs all aspects of water use and management, beyond merely its coastal aspects, certain chapters within *Title 38* exclusively target coastal management.

Sections 435 to 449 of *Title 38* are collectively (and informally) referred to as the "**Mandatory Shoreland Zoning Act**", which creates a permitting and ordinance regime for the state's coastal municipalities. For example, Section 435 subjects the shoreland area to zoning and land-use controls.

Chapter 19 ("Coastal Management Policies") of *Title 38* sets out the policy statements to guide the state's coastal resource management. It directs state and local agencies that have regulatory, planning, development, or management authority for coastal resources to conduct themselves within the bounds of the set "policies".

Chapter 21 ("Coastal Barrier Resources System") of *Title 38* creates protection and conservation measures for certain areas along Maine's coast and places limitations on state funding to affect those areas with respect to development. The section sets out a process for establishing watershed districts, which are governed by a board of trustees for the purpose of natural resource development and sensitive ecosystem protection and rehabilitation.

Finally, Chapter 1000 ("**Guidelines for Municipal Shoreland Zoning Ordinances**") sets out the ordinances allowed for the state's municipalities to follow. The guidelines prescribe the acceptable land-

18 *Coastal Act*, s. 30212.5 (Access -General).

19 *Ibid*, s. 30500.

uses and activities, and they also deal with non-conforming structures, repairs and maintenance, and the permitting process for granting ordinances. They also divide the state into districts. Different uses and activities are allowed within each district.

Maine's coastal management regime does not have specific provisions to deal with coastal flooding. Coastal erosion is addressed indirectly through the permitting provisions that include buffer areas and set-backs.

Like all other jurisdictions, *Title 38* and Chapter 1000 create a number of prohibitions and offences for failure to comply with their provisions. Enforcement officers monitor and enforce compliance with the code. Fines are also used.

III. South Carolina (US)

Like California and Maine, South Carolina has a state code that provides comprehensive coverage of a range of coastal-specific issues. Chapter 39 ("Coastal Tidelands and Wetlands") of Title 48 of the state's Code of Laws is often referred to as the ***South Carolina Coastal Zone Management Act*** ("**CZMA**").

The CZMA establishes a permanent Coastal Council, requires development and administration of a Coastal Management Program, creates a permitting regime for activities within "critical areas" of the coastal zone, and provides a framework for applying the coastal management program through local and state agencies. Activities occurring within the coastal zone require a permit, which is approved if the activity (including development) meets all the considerations and policies as outlined in the CZMA.[20]

The Coastal Management Program also helps to guide the purposes of the Act by containing policies and procedures to be used for decision making regarding activities within critical areas of the coastal zone. Approval for permits under the state regulations must consider the policies set out in the program.

Chapter 30 of South Carolina's **Code of State Regulations**, which are created pursuant to the CZMA, set out details to accomplish the purposes of the Act. This includes the details of the permitting process and list of activities exempt from requiring a permit. The Regulations also set out the baselines of the coastal zone.[21]

The sections of *Title 48* from section 250 onwards are often referred to as the ***Beachfront Management Act***. It is a part of the state's Code of Laws dedicated to environmental protection that gives guidance and provides state policies related to "beachfront" activities and decision-making. Both the **State Comprehensive Beachfront Management Plan** and the **Local Comprehensive Beach Management Plans** are created under this section of the Code of Laws. The key feature of this is the promotion of public access to the state's coastal features and enhancement of public access points. The management plans also require identification of beach and coastal erosion areas, as well as strategies to deal with that erosion. Finally, they set out guidelines on priority uses of the coastal areas.

20 Coastal Zone Management Act, div. 48, c. 39, s. 150.

21 See regulation definitions (4)(a-c).

IV. New Zealand

In New Zealand, the ***Resource Management Act*** ("**RMA**") provides the statutory anchor upon which laws and policies are created for the management of natural resources in the country, including coastal resources.

The RMA requires the Minister of Conservation to prepare a **New Zealand Coastal Policy Statement** ("**NZCPS**"). This sets out policies that help achieve the purposes of the RMA with respect to the coastal environment. It also requires regional councils to prepare regional policy statements and a regional coastal plan that set out objectives and policies with regard to the coast. The regional policy statements and regional plans must comply with the RMA and be compliant with the NZCPS. The NZCPS must be applied by all persons exercising functions and powers under the RMA.

The NZCPS sets out Policy Statements, each with their own focus. Some of the policy statements focus on the need to create plans that identify areas that would be inappropriate for development and other land-use strategic planning considerations, identify coastal hazards related to flooding and erosion, and set out rights of access to the coast and its resources.

The NZCPS recognizes broad public rights of access to the coastal marine area, for both active and passive recreation. The policy recognizes the need to protect public space for future generations, the need to maintain and enhance access points, and the need to consider of human activity with respect to climate change effects.

The NZCPS recognizes the Indigenous rights, traditions, and cultures of Indigenous peoples. It provides for Indigenous decision-making rights and powers and requires government consultation with Indigenous groups for decisions affecting the coastal environment.

Recognition of Indigenous traditional use and culture within the coastal environment is also provided by the ***Marine and Coastal Area (Takutai Moana) Act***, which creates a sui generis property class for the marine and coastal environment, meaning the land is not vested in the New Zealand Crown; instead, the common marine and coastal areas have special status as a common public resource.[22]

The RMA creates a number of offences for contravention of the Act. It also enables New Zealand's Environment Court to require persons to cease activities in contravention of the Act.

V. Queensland (Australia)

The state of Queensland in Australia has no comprehensive statutory regime governing all aspects of coastal management and protection; however, its ***Coastal Protection and Management Act*** ("**CPMA**") does serve as the framework for the protection and management of some aspects of its coastline. The CPMA sets out and defines the coastal zone and establishes a monitoring, compliance, and enforcement regime.

22 *Marine and Coastal Area (Takutai Moana) Act* s.11.

Coastal Management Districts are created pursuant to the CPMA for coastal areas that need protection or management. The Minister for Environment and the Great Barrier Reef may require any activity within the district to cease, or may require resumption of any activity, if the activity is causing, or is likely to cause, an adverse effect on coastal resources.[23] The districts are created using mapping processes like sea-level rise projections to determine erosion prone areas. Approval of any development in these districts will depend on the type and nature of the development and may be subject to additional assessments under other legislation like the *Sustainable Planning Act*.

The CPMA also requires the creation of the national **Coastal Management Plan**, which provides policy guidance for the management of coastal resources. It is targeted for use by local governments, which are responsible for managing large areas of public coastal land.

Finally, the CPMA requires the creation of **erosion prone area plans**. These plans are used to develop assessments under other planning schemes like the Planning Act (below). Erosion prone areas have already been identified for all coastal local government areas and are publicly available.[24]

The other key statute in Queensland with respect to the coast is its ***Planning Act***. Under the Planning Act, each local (municipal) government must include an integrated state, regional, and local planning and development policy for the entire area under its jurisdiction.

The **State Planning Policy** ("**SPP**"), which is created under the *Planning Act*, is a policy instrument that supports this integrated state planning scheme by setting out the state interests that apply to and should be given effect by each local planning scheme. The state interests must be incorporated into all planning and development outcomes. One of the state interests is protection of the coastal environment. It includes: protection of coastal processes and resources from infilling and redevelopment; conservation of natural landforms, wetlands and native vegetation; avoidance of development in flood or erosion prone areas; and the creation of opportunities for public use and access of coastal lands and resources.

The **Planning Regulation (2017)** is also created under the *Planning Act*. The Regulations create zones for the local planning instruments (above) and set out which types of development, as defined under the Act, require an environmental assessment.[25]

Coastal development generally requires an assessment under the *Planning Act* to be approved. This process is meant to protect and conserve the coast for environmental, social, and economic reasons. Any activities not defined as "development" under the *Planning Act* must still consider the Coastal Management Plan.

23 *Coastal Protection and Management Act*, s. 59(2).

24 See: https://www.ehp.qld.gov.au/coastal/development/assessment/erosion_prone_areas.html.

25 *Planning Regulation*, s.28.

VI. United Kingdom

Coastal protection and management in the United Kingdom is provided under three key statutes.

First, the ***Coast Protection Act*** was created in 1949 to provide the framework for protection of the island nation's coast against erosion and encroachment by the sea. It gives powers to local governments within each maritime district to undertake coastal protection work.

Second, the ***Countryside and Rights of Way Act*** ("***CROW Act***") is primarily a statute setting out the public rights of access to the coast, both for recreational use and resource use.

Third, the United Kingdom deals with coastal flooding and erosion through the ***Flood and Water Management Act.*** This legislation governs sustainable management of flood and coastal risks and creates a regulatory regime. It requires the Environment Agency to develop, apply and maintain a strategy for flood and coastal erosion risk management throughout the country. This **National Flood and Coastal Risk Management Strategy for England** includes provisions that the Environment Agency must avoid inappropriate building or redevelopment in areas of high flood or coastal erosion risk.[26] The Act also requires local authorities to develop, maintain, and apply local flood risk management strategies that are consistent with the national strategy.

There are no separate statutory protections for sensitive coastal ecosystems. Many species at risk, sensitive species, and ecosystems are provided protections under the UK's ***Natural Environment and Rural Communities Act***. It identifies "priority" species or habitats to protect. This includes coastal marshes and beach environments.

26 The National Flood and Coastal Erosion Risk Management Strategy for England, s. 3.3.2.

4. Comparative Analysis: Components of Coastal Protection

*This section begins with an introduction on how various jurisdictions delineate and define their coastal zones. Next is a discussion of how Indigenous rights, customs, communities, and language are incorporated into coastal management regimes. It continues with a comparative analysis of the four key coastal "**issue areas**" (development, access, flooding and erosion, and coastal ecosystem protection) by highlighting the different kinds of mechanism used to protect and manage coastal areas in different jurisdictions. It concludes by canvassing the different approaches to administration of coastal protection and management regimes, including monitoring and enforcement.*

A. Delineating and Defining the "Coastal Zone"

Identification of the areas in which coastal protection or coastal management occurs (the "**Coastal Zone**" for the purposes of this Report) is an important first step in determining the kinds of components that coastal protection laws should or will include. Every jurisdiction has some form of Coastal Zone that is both delineated and defined. It should be noted that no jurisdiction is explicit about this distinction.

(i) Delineation:

Many jurisdictions delineate the boundaries of their coastal zones by creating an area within a certain (arbitrary) distance of the **high-water mark** or **low-water mark**. In fact, this is a key component in the delineation of most coastal zones. Some jurisdictions also use maps to provide more precision or detail for decision-makers. The boundaries of coastal zones can have both horizontal and vertical dimensions. Coastal zones may also be further divided to create sub-types of zones or coastal districts.

For example, the "coastal area" under New Brunswick's ***Clean Environment Act*** is defined as the air, water, and land between the lower low water large tide, and one kilometre landward of the higher high-water large tide or one kilometre landward of any coastal feature, whichever extends farther inland.[27] It should be noted that this definition of the coastal area includes a vertical component (the air). Several other jurisdictions also include a vertical limit in their description of their coastal zones.

The state of Queensland, Australia, defines and delineates its coastal zone using a **coastal zone map**. This coastal zone includes both the airspace above the surface of the area and the subsoil below.[28] The coastal zone map is a map that is certified by the chief executive. Queensland's coastal zone includes land and

27 *Clean Environment Act*, s. 1.

28 *Coastal Protection and Management Act*, s. 15.

waters landward of coastal waters and seaward of the coastal zone inner limit.[29] The coastal zone inner limit is further defined as an imaginary line, whose points represent the most landward of either five kilometres of the high-water mark or the point nearest the high-water mark where the land reaches a height of 10 metres (Australian Height Datum).[30]

In Maine, the state's coastal **shoreland areas** are defined as all land areas within its coast that are within 250 feet horizontally of the upland edge of a coastal wetland, including all areas affected by tidal action.[31] Municipalities do have the discretion to extend this area beyond the minimum limits where necessary to protect public health, safety, and welfare, and to avoid problems associated with floodplain development.[32] Similar to Queensland, Maine's shoreland zones are shown on an official Shoreland Zoning Map, which is part of the **Guidelines for Municipal Shoreland Zoning Ordinance**. The shoreland zones are further divided into districts, each with their own objectives and limitations.[33]

California's coastal zone is generally defined in its **Coastal Act**. It includes the marine area extending to the state's jurisdictional limits, including all offshore islands, and extends inland 1000 yards from the mean high tide.[34] The definition leaves flexibility for "significant coastal estuarine, habitat and recreational areas" that extend further than 1000 yards inland, up to five miles landward of the mean high tide line.[35] Unlike the other American states, California's CA requires its Coastal Commission to prepare and adopt a detailed map of the entire coastal area. Further authority for deviations of the boundaries of the coastal zone are provided for clarity for the Commission's work.[36]

(ii) Definition:

In many jurisdictions, defining what is included in the coastal zone is a matter of providing a definition of the "coast" or "coastal area". A definition is usually a broad, non-technical description that encompasses the entire coastline and include a description of one or more of its functional features. Common coastal features used to describe coastal zones include the presence of tides, the saline content of the water, and the presence of unique coastal or marine vegetation, species, or ecosystems. For example, unique coastal ecosystems can include coastal wetlands or salt marshes, as well as beaches or dune systems. Sometimes jurisdictions will offer broad definitions of these features that encompass more than just a part of the coast, but that necessarily include the coast. This usually occurs in jurisdictions where the coastal protection or management provisions offered are part of a broader regime (for example, coastal flooding as part of a broader flood management regime).

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29 *Coastal Protection and Management Act*, s. 18.

30 *Ibid*, section 18(3).

31 Chapter 1000: *Guidelines for Municipal Shoreland Zoning Ordinance*, s. 3.

32 *Maine Code of Laws Title 38*, Chp 3, s. 440.

33 *Maine Code of Laws Title 38*, Chp 3 s. 435. Shoreland areas; see also Maine, Chapter 1000: *Guidelines for Municipal Shoreland Zoning Ordinance*, s. 9. *The district types include* Resource Protection, Limited Residential, Limited Commercial, General Development I & II, and Commercial Fisheries/ Maritime Activities.

34 *Coastal Act* s. 30103.

35 *Ibid.*

36 *Ibid*, s. 30103(b).

In Quebec, the high-water mark is the boundary that marks the limit of its **Littoral Zone** and the shoreline. It corresponds to the natural high-water mark, defined as the point where predominantly terrestrial plants succeed predominantly aquatic plants, or, where there are no aquatic plants, the point closest to the water where terrestrial plants no longer grow. The definition also further describes aquatic plants and their potential characteristics.[37] If the above definition cannot be used to determine the high-water mark, the two-year flood limit can be used as a reference point.[38]

South Carolina defines its coastal zone as all the coastal waters and submerged lands seaward to jurisdictional limits, as well as all land and water that contain one or more **critical areas**.[39] Critical areas means coastal waters, tidelands, beaches, and dune systems (an area from the mean high-water mark to the setback line as further defined within the Act).[40] South Carolina's inclusion of tidelands in the description of its coastal area is noted here.

Tidelands in that jurisdiction include all areas that are at or below mean high tide, as well as coastal wetlands, mudflats, and similar areas that are contiguous with or adjacent to coastal waters and that are integral parts of the estuarine systems. Coastal wetlands subsequently include marshes, mudflats, and shallows that are "periodically inundated by saline waters", as well as areas that are "characterized by the prevalence of saline water vegetation capable of growth and reproduction".[41]

In British Columbia, the marine plans created under its collaborative **Marine Plan Partnership for the North Pacific Coast** ("**MaPP Program**") delineate areas based on marine areas and uses. Those areas include the **foreshore** (intertidal zone) and coastal inland waters on the outer coast, as well as lands covered by water. Additional management is achieved through spatial planning (marine mapping).[42]

In Newfoundland and Labrador, the coastal zone is described as a **Shore Water Zone** and includes areas that are intermittently occupied by water as a result of the naturally occurring "fluctuating water level in a body of water". This can include both fresh or salt water bodies. The low- and high-water marks are the edges of this zone.[43] Like several other jurisdictions, Newfoundland and Labrador's coastal zone is a coastal area defined, at least in part, by its tides. These Tidal Zones fluctuate and change depending on the area of the coast and usually require some aspects of floodplain mapping (below).

New Zealand's ***Resource Management Act*** identifies its coastal area as the foreshore, seabed, and coastal water, as well as the air space above the water. The area captured within this zone is that space between the limit of the **territorial sea** (which is generally considered to be 12 nautical miles seaward) and the **mean high-water springs**. A further exception and calculation is provided for areas where that landward line

37 *Protection Policy for Lakeshores, Riverbanks, Littoral Zones and Floodplains* s. 2.1.

38 *Ibid*, s. 2.1(d).

39 *Coastal Management Act* (title 38, c. 39), definition section.

40 *Ibid*, definition section. See Section 48-39-280 for the determination of the setback lines.

41 *Ibid*, definition section.

42 See page 13 for criteria for designating zones. There is a full list of existing designations.

43 Newfoundland and Labrador Policy for Development in Shore Water Zones s. 4 (definitions) created pursuant to the *Water Resources Act*.

crosses the mouth of a river: the lesser of either 1 kilometre upstream or the point upstream that is the distance of the width of the river multiplied by five.[44] New Zealand's RMA further defines its **foreshore** by the presence of tides: it is the land that is "covered and uncovered by the flow and ebb of the tide at mean spring tides".[45] This is an example of the way that delineation and definition of the coastal zone are not easily separated.

Prince Edward Island is another one of the jurisdictions that sets out and defines different features of coastal and aquatic areas. Many of the protections in its **Watercourse and Wetland Protection Regulations** are created by limiting and restricting activities within a **watercourse area**. This is a common type of area within many Canadian jurisdictions. In PEI, "watercourse" means an area that has a sediment bed (whether or not it contains water), including the bank and shore of any stream, spring, creek, brook, river, lake, pond, bay, estuary, or coastal body.[46] The features within the definition of a watercourse are then further described in the definition section.[47]

Another common coastal feature that many jurisdictions protect is **wetland areas**. Some jurisdictions will generally designate or identify a coastal wetland as a type of wetland, while others specifically identify the features of a coastal wetland. In PEI for example, a wetland is described as (i) an area which contains hydric soil, aquatic or water-tolerant vegetation, and may or may not contain water, and includes any water therein and everything up to and including the wetland boundary, and (ii) without limiting the generality of the foregoing, includes any area identified in the Prince Edward Island Wetland Inventory as open water, deep marsh, shallow marsh, salt marsh, seasonally flooded flats, brackish marsh, a shrub swamp, a wooded swamp, a bog or a meadow.[48]

(iii) Coastal Districts and Sub-division of Zones:

As stated above, some jurisdictions further divide their coastal zones into specific types of zones that serve specific purposes or encompass certain features. For example, New Brunswick's government adopted a management approach as part of its **Coastal Areas Protection Policy** that is based on the areas' sensitivity to impacts from human activities.[49] The policy creates three **sensitivity zones**: Zone A is the area closest to the water, known as the coastal lands "core" area; Zone B is the area landward of the core zone and is defined as a "buffer" zone; Zone C is the area further landward of the buffer zone and is defined as a "transition" zone. As stated in the policy, this is the same zoning approach taken by the United Nations Educational, Scientific and Cultural Organization ("UNESCO").

44 *Resource Management Act*, s. 2 (Interpretation).

45 *Ibid.*

46 *Watercourse and Wetland Protection Regulations*, s.1 (ee).

47 In the PEI *Watercourse and Wetland Protection Regulations*, this includes definitions for sediment bed, shrub swamp, watercourse boundary, wetland boundary and wooded swamp.

48 *Watercourse and Wetland Protection Regulations*, s.1 (gg).

49 Coastal Areas Protection Policy, p. 08.

UNESCO has created biosphere zones to offer different degrees or levels of protection to different areas. The core area is provided with the strictest ecosystem protections, with the purpose of conserving the landscapes, ecosystems, species, and genetic variation. The buffer zone is the area surrounding the core zone and is meant for activities that are compatible with the core area's ecological functions. Finally, the transition area is still offered protections, but allows greater human activity for economic development in conjunction with socio-cultural and ecological sustainability.[50]

As a whole, this zoning approach is based on an **ecosystem-based management** ("**EBM**") approach that values ecological diversity and sustainability. Its three interconnected functions are conservation, development, and logistics support. This process is managed through integrated zoning and collaborative management that include the use of traditional (Indigenous) and local knowledge and custom.[51]

British Columbia also uses a degree-of-protection zoning approach similar to New Brunswick, but within the context of combined coastal and marine management. A key component of its MaPP Program is marine spatial planning that is based on the **MaPP Zoning Framework**. This is applied consistently across all four MaPP planning sub-regions. There are three zone types: General Management Zone ("GMZ"), Special Management Zone ("SMZ") and Protection Management Zone ("PMZ"), as set out in Table 8-1 of the Framework. Within the SMZ and PMZ categories, a range of sub-zones is applied: for example, the shellfish aquaculture and renewable energy sub-zones in SMZs, and the International Union for Conservation of Nature ("IUCN") categories in PMZs.

In several jurisdictions (for example, in British Columbia, Newfoundland and Labrador, Quebec, and New Zealand), coastal protection or management is actually part of a larger marine management regime, where the coastal area is one zone within the broader management framework, usually within the content of a specific issue area.

The most common type of broad management regime that was identified in many jurisdictions is floodplain or **flood area hazard management**. These regimes typically identify **flood prone areas** or **flood hazard areas**, which usually have a (sometimes significant) coastal component. There are a variety of terms to describe these areas, but the basis of this type of zone is that it is a coastal area, or includes a coastal area, which is prone to flooding. Some jurisdictions also include coastal erosion as a part of these zones, or may create two separate categories for each. Floodplain mapping is an important part of the process of identifying these areas and is discussed in further detail below in the Coastal Erosion and Flooding section. However, as an example, in British Columbia, a regional floodplain mapping initiative is meant to identify those coastal areas that are flood hazard areas.[52]

50 See: http://www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/biosphere-reserves/.

51 See also: http://www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/biosphere-reserves/main-characteristics/zoning-schemes/

52 Flood Hazard Area Land Use Management Guidelines, s. 3.5.5.1 – Standard Flood Construction Levels and Setbacks

B. Aboriginal Rights, Laws, Languages, and Communities

In Canada, consideration of Aboriginal rights and the impact of a coastal management or protection regime on coastal resources that are an important part of life, culture, and custom for Indigenous communities is legally important. Under section 35 of the ***Constitution Act, 1982***, government must consult with Indigenous communities when the Crown contemplates action that may adversely affect their Aboriginal or treaty rights.

British Columbia and Newfoundland and Labrador are the only Canadian jurisdictions reviewed that have substantive Aboriginal rights and protections set out specifically with regard to the governance of coastal areas.

In British Columbia, the **Marine Plan Partnership for the North Pacific Coast** ("**MaPP Program**") is a collaboration between the provincial government and seventeen First Nation member communities. The agreement is not legally binding. Each of the four sub-regions created under the MaPP program is governed by a management group that includes Aboriginal representatives. These management groups develop a Marine Plan for their region, which sets out objectives and strategies and attempts to provide Indigenous groups with a method to manage the resources that they use and need.

The planning areas of the four Marine Plans are delineated by the traditional territory of the Indigenous community involved in that area. Some of the criteria for boundary delineation include: existing designations, ecological values, cultural and traditional uses values, cultural uses and activities, and adjacent land-use.[53] Monitoring of the Marine Plans is done by both Indigenous and public sector groups and may occur through a plan Implementation and Monitoring Committee, comprised of First Nations, sector-based interests, and local governments.

The sub-regional Marine Plans also incorporate the language, customs, and values that are fundamental to the Indigenous communities. For example, the general section of the **Haida Gwaii Marine Plan** sets out a vision that is guided by principles and strategies. These principles include the Haida Gwaii First Nation's values, ethics, visions, and goals, using their traditional language:

> **Haida Gwaii Ethics and Values**
>
> Haida ethics and values are fundamental to Haida culture and society – respect, responsibility, interconnectedness, balance, seeking wise counsel, and giving and receiving are all elements that define the Haida world view.
>
> These principles also resonate among broader communities, stakeholders and governments. Accordingly, they underlie the approach to marine planning on Haida Gwaii and are considered to be the foundation of the Marine Plan.

53 See Haida Gwaii Marine Plan pp. 11, 60.

Yahguudang or ***Yakguudang – Respect***: Respect for each other and all living things is rooted in our culture. We take only what we need, we give thanks, and we acknowledge those who behave accordingly.

'***Laa guu ga kanhllns – Responsibility***: We accept the responsibility passed on by our ancestors to manage and care for our sea and land. We will ensure that our heritage is passed onto future generations.

Gina 'waadluxan gud ad kwaagiida – Interconnectedness: Everything depends on everything else. The principle of interconnectedness is fundamental to integrated planning and management. This comprehensive approach considers the relationships between species and habitats, and accounts for short-term, long-term and cumulative effects of human activities on the environment. Interrelationships are accounted for across spatial and temporal scales and across agencies and jurisdictions.

Giid tll'juus – Balance: The world is as sharp as the edge of a knife.[54]

In Newfoundland and Labrador, under the **Labrador Inuit Land Claims Agreement**, the responsible Minister must consult with the Nunatsiavut Government prior to finalizing a strategy for management of estuarine, coastal, and marine areas applying to the relevant area captured by the Agreement.[55] This includes consultation for the development and implementation of plans that will have integrated management of activities or measures directly affecting estuarine, coastal and marine areas within the Labrador Inuit Settlement Area.[56]

Consultation under the Labrador Inuit Land Claims Agreement must also include consultation about establishment, and Inuit participation in, advisory or management bodies, and for the establishment of environmental guidelines, objectives, and criteria with respect to the quality of the estuarine, coastal, and marine areas.[57]

Queensland (as well as other Australian states or territories) and New Zealand also provide for Indigenous participation and decision-making, and protect Indigenous rights and customs, within coastal areas. A key component of the statutes and policies in these jurisdictions, as is highlighted in the British Columbia MaPP Program Marine Plans, is the recognition and use of **Aboriginal languages, values, and principles**.

In Queensland, one of the guiding principles of its **Coastal Management Plan** is that "Aboriginal People and Torres Strait Islanders are the primary guardians, keepers and knowledge holders of their cultural heritage; their connection to coastal and marine resources should be maintained and enhanced".[58] Under

54 Haida Gwaii Marine Plan, p. 11.

55 *Labrador Inuit Land Claims Agreement*, part 6, s. 6.3.1.

56 *Ibid*, part 6 s. 6.3.2.

57 *Ibid*, part 6, s. 6.3.3.

58 *Coastal Management Plan*, p. 11.

the plan, coastal management outcomes should include engagement with Traditional Owners (Indigenous communities) to enable their access to coastal resources for cultural activities.

Similar to Canada, the Crown in Australia owes a duty of care towards Aboriginal peoples. Both the ***Aboriginal Cultural Heritage Act* (2003)** and the ***Torress Strait Islander Cultural Heritage Act* (2003)** recognize, protect, and conserve Aboriginal rights. Under Queensland's Coastal Management Plan, the sustainable management of marine resources for Traditional Owners is attempted through the use of Traditional Use of Marine Resource Agreements and Sea Country Plans.[59]

In New Zealand, the ***Marine and Coastal Area (Takutai Moana) Act*** has the specific purpose of establishing a scheme to ensure protection of the interest of all New Zealanders in the coastal areas of the country, as well as recognizing the mana tuku iho (cultural property or heritage)[60] exercised in the marine and coastal area by iwi, hapū, and whānau (all tribes or nations of Indigenous peoples) as tangata whenua (people born to, or natural to, that place)[61]. Its other purpose is to provide for the exercise of customary interests in the **common marine and coastal area** and to acknowledge Aboriginal treaty rights.[62] The rights and customs of the Aboriginal peoples are also reflected in the use of their language within the legislation.

One unique feature of the *Marine and Coastal Area (Takutai Moana) Act* is that it gives the common marine and coastal area special status. More specifically, this means that neither the Crown, nor any other party, owns or is capable of owning the common marine and coastal area. The Act achieves this by divesting the Crown and every local authority of every title as owner. It supersedes any other enactment.[63]

Additionally, the New Zealand **Coastal Policy Statement** also provides a policy statement regarding the Treaty of Waitangi, *tangata whenua*, and Māori. In taking account of the principles of the Treaty of Waitangi (*Te Tiriti o Waitangi*) and *kaitiakitanga* (guardianship and stewardship)[64], there must be a recognition that the *tangata* whenua have traditional and continuing cultural relationships with areas of the coastal environment. Furthermore, iwi authorities or hapū must be involved in the preparation of regional policy statements and plans regarding management of coastal areas. This requires meaningful consultation and involvement of Māori in decision-making.[65]

59 *Ibid*, p.11.

60 Definition found at website: http://maoridictionary.co.nz/search?idiom=&phrase=&proverb=&loan=&keywords=taonga+tuku+iho&search=

61 Definition found at website: http://maoridictionary.co.nz/search?idiom=&phrase=&proverb=&loan=&histLoanWords=&keywords=tangata+whenua

62 *Marine and Coastal Area (Takutai Moana)* Act ss. 4, 7.

63 *Marine and Coastal Area (Takutai Moana)* Act, s. 11.

64 Definition found at website: http://maoridictionary.co.nz/search?idiom=&phrase=&proverb=&loan=&histLoanWords=&keywords=kaitiakitanga

65 Coastal Policy Statement, pp. 11-12.

C. Coastal Development & Land-Use

This section provides an overview of the breadth and scope of land-use and development that is regulated along the coast. It then reviews some of the most prominent and important features of coastal land-use and development rules, including those set out in legislation and policy.

I. Regulatory Regimes: Permits and Licences

Coastal activity, including development, industrial activity, and various other land-uses are governed and managed using regulations and by-laws. These are usually overseen by local or municipal governments. This typically involves the creation of regulations under a broad statutory power (usually a state or provincial land-use law) that sets out the specifics of the regime. This can include setting out lists of developments, activities, and land uses that are allowed or prohibited, as well as various exceptions to those allowances or prohibitions. The objective of these regimes is a balance of sustainable economic development and environmental protection, achieved through the use of permits and licences.

(i) Proscription-Based Approach:

All jurisdictions reviewed for this Report have some form of municipal or local government by-law system governing aspects of coastal development, activity, and land-use. The specific forms these systems take can vary in both their scope and detail. One of the more common mechanisms used to regulate development and activity is the creation of lists of activities that are prohibited or restricted in the coastal zones. Certain activities are then authorized following an application process. Approved applications receive conditional permits or licences for that activity.

For example, in Newfoundland and Labrador the **Policy for Development in Shore Water Zones**, created under the ***Water Resources Act***, sets out the types of developments allowed (requiring permission) or not allowed in its Shore Water Zones. Prohibited activities include infilling, drainage, dredging, channelization, and removal of surface or underwater vegetation, where those activities could cause aggregate flooding or unmitigable adverse water quality, impact water circulation, or result in sediment deposition or removal.[66]

Additionally, the policy prohibits developments that place, discharge, or deposit certain kinds of materials or waste into shore water zones where those materials or wastes would impair the water quality or affect the **intrinsic character** of the shore water zone.[67] The key types of development allowed, with written permission from the Minister of Environment and Climate Change, are the kinds of activities that are **functionally connected** to the coastal area, such as development or removal of wharfs, marinas, boathouses, and other docking facilities.[68]

66 Policy for Development in Shore Water Zones, s. 5.2.

67 *Ibid*, s. 5.2.4 and 5.2.5.

68 *Ibid*, s. 5.3.

Prince Edward Island has one of the more detailed regulatory regimes for permitting of the Canadian jurisdictions reviewed. Under its **Watercourse and Wetland Protection Regulations**, a number of activities are prohibited in or on a watercourse or a wetland (including coastal waters and coastal wetlands). This includes a general prohibition on any activity that alters, fully or in part, the water flow of that watercourse of wetland. Some of the prohibited activities include: drainage, pumping, and excavation or removal of soil, water, mud, sand, gravel, stones, or other types of aggregate, as well as the construction, placement, repair or replacement, and demolition of all manner of structures (this list is not exhaustive).[69]

The Watercourse and Wetland Protection Regulations also provide broader protections throughout the province's entire coastline with the creation of a buffer zone (discussed in more detail in this section below),[70] and they prohibit any person to alter or disturb the ground or soil within 15 metres of a watercourse or wetland boundary without a **Buffer Zone Activity Permit**. The Regulations set out a list of activities requiring this permit.[71]

In South Carolina, **Chapter 30 of the Code of State Regulations** (dealing with coastal divisions) sets out the process for applying for a permit. The process starts with a potential preliminary review of the development application or development plans by the Department of Health and Environmental Control to review or assist the applicant.[72] The Regulations then require that any party wishing to alter a critical area (including a coastal area) must receive a permit from the aforementioned Department.[73]

A list of activities that do not require a permit is also set out in the South Carolina Regulations, and includes: following emergency orders; otherwise permitted hunting, fishing, and trapping; conservation activities; maintenance of drainage and sewer facilities; maintenance of major utility facilities; upkeep of piers and walkways; and recreational activities that do not cause material harm to flora, fauna, or real or aesthetic resources in the area (this list is not exhaustive).[74]

Chapter 39 of South Carolina's ***Code of Laws Title 48*** (Coastal Tidelands and Wetlands) sets out further considerations for permit applications for developments within a coastal tideland or coastal wetland. The chapter lists a number of considerations that the Department must make in considering whether to approve an application. Considerations include: the activity's impacts on the natural flow of navigable water and marine wildlife, whether it would cause erosion or create stagnant water; the activity's effect on public access to the coastal area including beaches or other recreational resources; the economic and conservation benefits of allowing the activity; any adverse impacts the activity may have on public safety; and the activity's effect on the value and enjoyment of adjacent property owners.[75] Additionally, the chapter requires public hearings for activities that would effect a critical area.[76]

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69 For a full list see: *Watercourse and Wetland Protection Regulations* s. 2.

70 *Watercourse and Wetland Protection Regulations* s. 3.

71 *Ibid*, s. 3(4).

72 South Carolina Code of State Regulations – Chapter 30: Department of Health and Environmental Control – Coastal Division, s. 30-2.

73 See above for description of "critical areas"; see also *Coastal Zone Management Act* in definition section.

74 *Ibid*, s. 30-5.

75 *Ibid*, 48-39-150.

76 *Ibid*, s. 48-39-150 (b).

(ii) Performance-Based Approach and Standards:

Queensland uses a different type of regulatory scheme. Rather than having proscriptive regulations, it assesses development using a **performance-based approach**. This is achieved using the **State Development Assessment Provisions** ("**SDAPs**"), which are mandated by the ***Planning Act*** and created under the **Planning Regulations**. The SDAPs set benchmarks (outcomes that must be met).

This process begins with an application for a development. The applicants must demonstrate that the development will appropriately manage any of its impacts on a matter of state interest (which are set out in the **State Planning Policy**).[77] Protection of the coastal environment is one of Queensland's state interests.

The **State Assessment and Referral Agency** ("**SARA**") uses the SDAP to assess each application. SARA is guided in its assessment by both the *Planning Act* and the Planning Regulations. The Planning Act creates categories of assessment. The Planning Regulations prescribe the matters that SARA must consider as part of its assessment.

Each **state code** within the SDAP contains assessment criteria in the form of a purpose statement, performance outcomes, and acceptable outcomes. If the application for development complies with all of the performance outcomes, it complies with its purpose statement and can therefore receive approval. If the application does not meet all of the performance outcomes, but SARA determines that the purpose statement is still achieved, the application will still receive approval. The acceptable outcomes are non-essential assessment criteria.[78]

An application for development in a coastal area that triggers an assessment would need to fulfil the purpose section in **State Code 8**, which reads:

> *State Code 8: Coastal Development and Tidal Works*
>
> *The purpose of this code is to ensure that development is designed and located to:*
>
> 1. *protect life, buildings and infrastructure from the impacts of coastal erosion*
> 2. *maintain coastal processes*
> 3. *conserve coastal resources*
> 4. *maintain appropriate public use of, and access to and along, state coastal land*
> 5. *account for the projected impacts of climate change; and*
> 6. *avoid impacts on matters of state environmental significance and, where avoidance is not reasonably possible, minimize and mitigate impacts, and provide an offset for significant residual impacts where appropriate.*[79]

77 State Development Assessment Provisions ("SDAP"), p. 06.

78 SDAP, p. 06.

79 SDAP at s. 8.1 at p. 8-1 (p. 97/261 on PDF version).

An example of a performance outcome in a coastal area under the SDAP is as follows:

> *PO1 – Development does not occur in the erosion prone area unless the development:*
>
> *1. is one of the following types of development:*
>
> 1. *coastal-dependent development; or*
> 2. *temporary, readily relocatable or able to be abandoned; or*
> 3. *essential community infrastructure; or*
> 4. *redevelopment of an existing permanent building or structure that cannot be relocated or abandoned; and*
>
> *2. cannot feasibly be located elsewhere.*[80]

The state of Maine uses a somewhat hybrid system. Chapter Three of its ***Revised Statutes Title 38: Waters and Navigation*** (protection and improvement of waters) sets out standards which a development application must meet in order to receive a permit for that development or proposed activity. Four of the standards are related to coastal areas: the activity must not interfere with scenic, aesthetic, recreational, or navigational uses, must not cause unreasonable soil or sediment erosion or transfer soil into the marine environment, must not interfere with natural water flow, and must not unreasonably cause or increase flooding of the area or its adjacent properties.[81]

(iii) Certifications

Some jurisdictions have additional requirements in order for development applications to be approved. This additional requirement is the approval or certification of the development by a licenced professional, usually an engineer.

For example, in British Columbia, municipal governments have authority under the ***Community Charter (Act)*** to issue building permits for construction, including in its coastal areas. However, the *Community Charter (Act)* also requires that where a municipal by-law regulates construction of a building, and a building inspector determines that that construction is on land subject to flooding or erosion, a **geotechnical report** is required.[82] Without the approval (via the report) of a qualified professional, a permit cannot be issued.[83] Under the Community Charter (Act) a qualified professional is either a professional engineer or a professional geoscientist with experience or training in geotechnical study and geo-hazard assessments.[84]

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80 *Ibid.*

81 §480-D. (Standards).

82 *Community Charter (Act)*, s. 56(1).

83 *Ibid*, s. 56(2).

84 *Ibid*, definition section.

In Prince Edward Island a different system of certification is used. Under the Watercourse and Wetland Protection Regulations, the Minister may grant a **Watercourse, Wetland and Buffer Zone Activity Certificate** upon the successful completion of a training course. The training course must be approved and accepted by the Minister.[85]

II. Coastal Set-backs, Buffers, and Variances

In addition to permitting, some jurisdictions have an additional layer of regulatory protections in the form of coastal **setbacks** or **buffer zones**, as well as complimentary variances to those setbacks and buffers. Coastal setbacks can be both vertical and horizontal, or both. A note on language: "**set-back**" generally implies that it can be varied, while "**buffer**" is concrete and allows for no variance.

As previously stated, Prince Edward Island has one of the more comprehensive buffer zone systems. Under its **Watercourse and Wetland Protection Regulations**, a buffer zone is created within 15 metres of any watercourse or wetland boundary. Because the definition of a watercourse includes the sediment bed and bank or shore of a bay, estuary, or coastal body, this effectively creates a 15-metre buffer zone around the entire coast of the province. A **Buffer Zone Activity Permit** is required for any activity within the buffer zone.

Additionally, Prince Edward Island's **Subdivision and Development Regulations** set out a buffer zone for property subdivisions. Subdivision means either the division of one parcel of land or consolidation of two or more contiguous parcels of land. Under the Regulations, any subdivision within a coastal area must include a buffer zone that is a minimum width of the greater of either 18.3 metres (60 feet) or 60 times the annual erosion rate in the area. This buffer zone is required where the subdivision property is adjacent to a beach or sand dune.[86]

British Columbia also has a comparable system of setbacks. Local governments in that province must consider a number of provincial development setbacks that are set out in its **Flood Hazard Area Land Use Management Guidelines**. The setbacks are both horizontal and vertical. For instance, the standard setback for any building is 30 metres from the natural boundary of any watercourse.[87] Recently, the guidelines were amended to better account for updated sea-level rise projections.[88] Variances can be issued for activities to be situated within the setback area.[89]

85 *Watercourse and Wetland Protection Regulations* s. 4.

86 Subdivision and Development Regulations s. 16.

87 Flood Hazard Area Land Use Management Guidelines s. 3.2.1.

88 Refer to the Flood Hazard Area Land Use Management Guidelines sections 3.5 and 3.6 for detailed guidelines for areas affected by coastal erosion and coastal flooding.

89 Chapter 1000 – *Guidelines for Municipal Shoreland Zoning Ordinance,* s. 12(b)(1).

III. Existing Structures, Expansions, and Re-building ("Grandfathering")

Perhaps one of the more controversial issues with the creation of coastal setbacks or buffer zones, or, more generally, any prohibition against development or construction within the coastal zone, is that structures can already exist within those areas. Jurisdictions can deal with this issue by either **grandfathering existing structures** (allowing them to remain, unaltered and in non-compliance) or requiring them to be brought into compliance (rare). The nuance of this system is determining under what conditions a grandfathered structure must become compliant with new by-laws, setbacks, or buffer zone requirements. This consideration is usually triggered when a grandfathered structure must be renovated, repaired, expanded, or re-built.

As an example, in Maine, the **Guidelines for Municipal Shoreland Zoning Ordinance** states that its purpose is the promotion of land-use conformities (new setbacks), with the exception of non-conforming conditions existing before the effective dates of the Ordinance or subsequent amendments. The exception is that the non-conforming condition "shall not be permitted to become more non-conforming". In Maine, non-conforming structures, lots, and activities may be transferred to a new owner, and the new owner may be permitted to continue being non-compliant, subject to the conditions of the Ordinance. The Ordinance also allows for normal upkeep and maintenance of the non-conforming use or structure. This includes repairs and renovations but does not include expansions to the use or structure.[90]

In California, under the ***Coastal Act***, industrial facilities are encouraged to remain and expand within existing sites, where their continued operation is consistent with the Act. Where new or expanded facilities cannot be accommodated in a way that is consistent with the other policies of the CA, they can be permitted to remain regardless, if no alternative location is feasible or if movement is more environmentally damaging or would adversely affect public welfare, and if adverse environmental effects are mitigated to their maximum extent.[91]

IV. Coastal Development Triggering Assessments

In some jurisdictions, developments or activities that are planned to occur within a coastal zone may trigger an environmental assessment.

Under Queensland's **Planning Regulations**, certain activities (called "operational work") must undergo an assessment if the work is tidal works, or if the activity is one of the designated works and is being carried out in a coastal management district. The designated works include: (i) interfering with quarry material, as defined under the *Coastal Act*, on state coastal land above the high-water mark; (ii) disposing of dredge spoil, or other solid waste material, in tidal water; (iii) constructing an artificial waterway; and (iv) removing or interfering with coastal dunes on land, other than state coastal land, that is in an erosion prone area.[92]

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90 *Ibid*, s. 12(b)(2).

91 *Coastal Act*, ss. 30260, 30261, 30262.

92 *Planning Regulation*, s. 28.

In New Brunswick, the **Coastal Areas Protection Policy (2002)**, which helps guide the management of land-based coastal resources for sustainable development, sets out the minimum standards for coastal development. As part of this framework, the Policy has two appendices which list activities that require, or do not require, respectively, an environmental assessment. Coastal activities that require a formal environmental review include permanent wharves, docks and piers, coastal road infrastructure, activities that impact beaches, and "any coastal works not otherwise addressed".[93]

D. Coastal Erosion & Flooding

This section reviews the management regimes for coastal flooding and erosion. Many of the jurisdictions reviewed have a statutory regime that deals with management and mitigation of coastal flooding and/or coastal erosion. Usually, these regimes are dedicated to identifying flood plain areas or areas that will be at future risk of flooding disasters, usually related to sea-level rise caused by climate change and warming ocean temperatures. Mitigation of the risks to public health and safety, and to properties, is usually dealt with through other mechanisms (for example: setbacks and buffer zones, and municipal zoning).

I. Floodplain Mapping

A great deal of the law and policy dealing with coastal flooding focuses on mapping areas that are prone to flooding. The use of LiDAR mapping for the subsequent use of by-law and land-use management policy designs is common, albeit sometimes difficult due to a variety of factors, including cost and capacity. Some districts require flood mapping, while others make it a policy priority or enable it through funding initiatives (usually funded collaboratively and jointly with the federal government). One of the common ways to identify and categorize flood plain areas is through the use of "**return periods**" that use scientific modeling to show which coastal areas will be affected in a certain period (for example, an 1:100 year storm event).

South Carolina has adopted a forty-year policy of retreat from the shoreline. Under this "policy", which is set out in the state's ***Coastal Zone Management Act*** ("**CZMA**"), the Department of Health and Environmental Control uses best available science and historical data to establish a baseline, running parallel to the shoreline for each of the established standard erosion zones and inlet erosion zones. This baseline cannot move seaward from its position after December 31, 2017. The baseline is a reference point beyond which no development is allowed.[94] The baseline was adopted following prior use of a flexible baseline, which was re-configured by the Department every eight to ten years.[95]

South Carolina's CZMA also requires the Department to develop and institute a comprehensive beach erosion control policy that identifies critical erosion areas, evaluates erosion control mechanisms and structures to be funded by the state, and considers littoral and offshore drift systems, sand dunes, and other coastal features.[96]

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93 Coastal Areas Protection Policy, p.14.

94 *Coastal Zone Management Act*, s. 48-39-280 (Forty-year retreat policy)

95 See also: https://coastalconservationleague.org/news/the-latest/house-bill-4683/; and https://www.postandcourier.com/opinion/protect-s-c-coast-no-retreat-from-line-in-the/article_2d5c54e4-fb2b-5e5c-aa44-17102ffa95ce.html.

96 *Coastal Zone Management Act*, s. 48-39-120.

In Quebec, each regional county municipality must maintain a **Regional County Municipality Land-Use Planning and Development Plan** ("**RCM Plan**"), as mandated by ***An Act Respecting Land Use Planning and Development***.[97] The RCM Plan must identify zones like flood zones and erosion zones where land occupation is subject to special restrictions due to reasons of public safety.[98] Furthermore, the province's ***Watercourses Act*** requires each municipality to pass a by-law prohibiting or governing construction within any floodplain recognized by regulation. Until such a by-law is passed, the municipality cannot issue a permit to build in that floodplain.[99]

In British Columbia, the **Flood Hazard Area Land Use Management Guidelines** ("**Guidelines**") call for a qualified professional engineer (with experience in coastal engineering being an asset) to establish the year 2100 Flood Construction Level ("FCL") for specific coastal areas, as part of a regional floodplain mapping initiative.[100] The FCL is the appropriate level at which development can occur with significant risk of a flooding event. Municipalities or local governments must consider the Guidelines, including the FCL, when creating by-laws; however, the Guidelines are not binding on municipal governments and are more aspirational in practice.[101]

The Guidelines also state that building requirements for buildings, sub-divisions, and zoning should allow for a sea level rise ("SLR") to the year 2100 (at minimum), meaning that the appropriate point for development would be at a point whereby it would be unaffected by projected SLR in the year 2100.[102] Where no FCL has been established or determined, the Guidelines call for a FCL of no lower than three metres above the natural boundary of any nearby watercourse.[103] The Guidelines further state that land-use adaptation strategies in Official Community Plans and Regional Growth Strategies should allow for SLR to the year 2200 and beyond.[104]

Under its *Local Government Act*, British Columbia also allows a municipal government to designate land which it considers at risk to flooding as a flood plain; however, this is left to the discretion of each municipality.[105] If a municipality does designate an area as being at risk of flooding, it can create development setbacks.[106]

Newfoundland and Labrador also has no legal requirement to identify or mitigate the effects of coastal flooding. Its ***Water Resource Act*** gives the Minister discretion to undertake an inventory and mapping of wetlands, floodplains, shorelines, coastal waters, and other aquatic systems.[107]

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97 *An Act Respecting Land Use Planning and Development*, s. 3.

98 *Ibid*, s. 5.

99 *Watercourses Act*, s. 8.

100 Section 3.5.5.1 – Standard Flood Construction Levels and Setbacks

101 *Local Government Act*, s. 910.

102 Flood Hazard Area Land Use Management Guidelines, s. 3.5.2.

103 *Ibid*, s. 3.2.1.

104 *Ibid.*

105 *Local Government Act*, s. 910(1.1).

106 *Local Government Act*, s. 524(2).

107 *Water Resources Act (2002)* at s. 30(1).

Likewise, Queensland's ***Coastal Protection and Management Act*** gives the Chief Executive discretion to declare an area within its coastal zone as an erosion prone area, and only where the Chief Executive is satisfied that the area may be subject to erosion or tidal inundation.[108] However, once such an area is identified, the Chief Executive is required to ensure that the erosion prone area is shown on a document describing the area and that the document is publicly available.[109]

In New Zealand, the **Coastal Policy Statement** requires the identification of coastal areas that are potentially affected by "coastal hazards", with those areas at highest risk having priority. Policy 24 (Identification of coastal hazards) sets out a comprehensive list of factors to be considered in this identification process.[110] Hazard risks within a period of at least 100 years must be assessed with consideration of factors such as: sea level rise, short- and long-term coastal erosion and accretion, geomorphology, storm surges, human influences on the coast, and effects of climate change (this list is not exhaustive).

The United Kingdom has one of the most comprehensive coastal flood and erosion management regimes of all the jurisdictions reviewed. The Environment Agency is required under the ***Flood and Water Management Act* (2010)** ("**FWMA**") to develop, maintain, apply, and monitor a strategy for flood and coastal erosion risk management for the country.[111] The Agency must submit regular reports to the Minister about flood and coastal erosion risk management.[112]

The FWMA sets out a number of components required in the strategy, including but not limited to: the creation of **coastal erosion risk management authorities**, the creation of the objectives for the strategy, an assessment of flood and coastal erosion risk, and a discussion of the current and predicted impact of climate change on flood and coastal erosion risk management.[113]

The FWMA gives the risk management authorities broad powers for the maintenance and repair of its coastal protection works.[114] The Act also requires the local flood authorities for an area to develop, maintain, apply, and monitor a **strategy for local flood risk management**.[115]

Under the **National Flood and Coastal Erosion Risk Management Strategy**, the Environment Agency is further tasked with working with local authorities and developers to avoid inappropriate building or redevelopment in areas of high flood or coastal erosion risk.

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108 *Coastal Protection and Management Act*, s. 70(1).

109 *Ibid*, s. 70(2). See also the following website for Queensland's Erosion Prone Area Mapping: https://www.ehp.qld.gov.au/coastal/development/assessment/erosion_prone_areas.html

110 Coastal Policy Statement, at p. 23.

111 *Flood and Water Management Act*, s.7(1).

112 *Ibid*, s. 18. The Minister can make regulations about the requirements for the contents of the report and the times the reports must be filed with the Minister (subsection 3).

113 *Ibid*, s. 7(2).

114 *Ibid*, s. 12.

115 *Ibid*, s. 9.

Additional protections are offered under the UK's ***Coast Protection Act***, which was created in 1949 to provide a framework for protecting the country's coast against erosion and encroachment by the sea. The Act gives local authorities power to undertake coastal protection works. This is unlike many other jurisdictions, which usually assess coastal protection works (sea barriers, sea walls, etc.) within the parameters of proscribed coastal development (usually prohibiting these sorts of works unless they are otherwise exempt or necessary). The *Coast Protection Act* makes the council of each maritime district the **coast protection authority** for that district.[116]

The coast protection authorities have broad powers under the Act to carry out coast protection work. The authorities must believe that the work is desirable, having regard to the national flood and coastal erosion strategy.[117] The authorities must create a work scheme for the coast protection work, to be approved by the Minister in accordance with the Act.[118]

E. Coastal Access

This section discusses the types of access rights that many (mostly extra-Canadian) jurisdictions have set out in their coastal protection and management regimes. This includes both an overview of the varying degrees of public access rights to the coasts and its resources, and an overview of the breadth of some of the rights that the regimes establish.

Coastal access or use of coastal resources is usually managed at the provincial, territorial, or state government level rather than at the local or municipal government level. Municipal governments do regulate aspects of access related to emergency access, historical and cultural sites, and some local industrial resource use (usually through zoning).

I. Public Rights of Access to the Coast

Canadian provinces that were reviewed for this Report do not provide many rights of access to the coast, nor do they provide rights for the use of coastal resources. Any rights of access are mostly related to Aboriginal Rights (see above, in Aboriginal Rights, Laws, Languages and Communities).

Under its **Coastal and Ocean Management Strategy and Policy Framework** ("**Framework**"), Newfoundland and Labrador has a policy direction which encourages support for the "promotion and preservation of the province's natural and cultural history". The Framework identifies its cultural, historic, and archaeological sites (on land and underwater) as important components of coastal and ocean management. The Framework also notes both the importance of traditional activities and the importance of maintaining and providing opportunities for access and recreation.[119]

116 *Coastal Protection Act,* ss. 1, 2, 2A.

117 *Ibid*, s.4.

118 *Ibid*, s. 6.

119 Coastal and Ocean Management Strategy and Policy Framework, at p. 12.

As was already canvassed, New Zealand has a unique legal environment, in that the ***Marine and Coastal Area (Takutai Moana) Act*** makes the common marine and coastal area a unique, un-owned space. Under the Act, every individual has a right to enter, stay in, or leave that area, to pass through and over the area, and to engage in recreational activities in or on the area.[120]

Additionally, New Zealand's **Coastal Policy Statement** has several policies that relate to accessing the coast. Policy 18 (Public Open Space) recognizes the need for a public open space within and adjacent to the coastal marine area, for public use and for recreational purposes. The Policy calls for ensuring that the public space is compatible with the natural character and features of the coastal environment, as well as maintenance and enhancement of access points to the coastal area.[121] Policy 19 recognizes the public expectation and need for walking access to and along the coast, free of charge and safe to use. It calls for maintenance and enhancement of those access points, as well as limitations to any restrictions to that access (it imposes a list of those activities that may be necessary).[122]

Other jurisdictions also call for, or provide, access rights. Queensland's state interests for the coastal environment, as set out in its **State Planning Policy**, call for opportunities for public use of and access to, and along, state coastal land, and is maintained or enhanced in a way that protects or enhances public safety and coastal resources.[123]

In South Carolina, it is a policy of the state, under its Coastal Tidelands and Wetlands Chapter (39) of its Code of Laws, to "preserve existing public access and promote the enhancement of public access to assure full enjoyment of the beach by all our citizens including the handicapped and encourage the purchase of lands adjacent to the Atlantic Ocean to enhance public access".[124] In order to achieve its public access, the state's Environment Department is responsible for the creation of a long-range and comprehensive beach management plan for its shoreline. The management plan must include development guidelines and development of a **beach access program**.[125]

The United Kingdom has a comprehensive legal regime governing public access rights called the ***Countryside and Rights of Way Act*** ("**CROW Act**"). This lengthy statute sets out many rights of the public to enter and access land known as "open country", as defined within the Act. Under the Act, any person may enter and remain on any access land for the purpose of open-air recreation. The Secretary of State (for England) or National Assembly of Wales may amend the definition of "open country" to "include a reference to coastal land or to coastal land of any description".[126]

120 *Marine and Coastal Area (Takutai Moana) Act*, s. 26(1).

121 Coastal Policy Statement (2010), Policy 18.

122 *Ibid*, Policy 19.

123 State Planning Policy, State Interest – Coastal Environment (5) at p. 41.

124 *South Carolina Code of Laws Title 48 – Environmental Protection and Conservation Chp 39: Coastal Tidelands and Wetlands*, s. 48-39-260.

125 *South Carolina Code of Laws Title 48 – Environmental Protection and Conservation Chp 39: Coastal Tidelands and Wetlands*, s. 48-39-320(a)(2).

126 *Countryside and Rights of Way Act*, ss. 2, 3.

However, of all the jurisdictions reviewed, California has the most expansive rights and protections for coastal access, coastal resource use, and coastal recreation. California's ***Coastal Act*** ("**CA**") prioritizes preservation of public access to the coast and enhancement of access where possible; access to the coast and its resources is a central component and objective of the CA.[127] This can be inferred by the first provision of Article 2 of the CA, which sets out the Public Access rights. It reads:

> *In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*

California's CA has numerous provisions dealing with public access. The Act prevents development from interfering with public rights of access to the sea, requires public access to be provided in new development projects, requires appropriate and feasible public facilities (including parking) to be distributed throughout an area to mitigate against impacts of overcrowding or overuse, and provides safeguards against visitor and recreational facilities from becoming costly.[128]

California's CA also sets out rights of recreation. For example, "[c]oastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses".[129] The Act also provides protection for oceanfront land suitable for recreational uses, including land-based recreation, aquaculture, and recreational boating.[130]

F. Coastal Ecosystems

Generally speaking, conservation of sensitive ecosystems is a provincial jurisdictional matter, not a municipal matter. Municipalities really can best deal with disturbances to ecosystems and the natural environment through the use of nuisances and public safety by-laws. Note, however, that municipalities may regulate activities if they complement provincial efforts or further those efforts with more restrictive measures.

I. Coastal Wetlands

As mentioned above, sensitive ecosystem protection usually falls under the jurisdiction of the provincial or state government of the jurisdictions reviewed. And, generally, none of the jurisdictions reviewed offer comprehensive or specific protections for a wide range of coastal ecosystems, species, or habitats. However, one particular coastal ecosystem does seem to garner attention of various coastal protection or management regimes.

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127 Jordan Diamond, Holly Doremus and Mae Manupipatpong, "The Past, Present, and Future of California's Coastal Act: Overcoming Division to Comprehensively Manage the Coast", pp. 05, 09-10.

128 *Coastal Act*, ss. 30210, 30211, 30212, 30212.5, 30213, and 30214.

129 *Ibid*, s. 30220.

130 *Ibid*,, ss. 30221-30224.

In Canada, New Brunswick has an expansive policy framework focused on wetlands protection, including coastal wetlands (i.e. salt marshes).

Under New Brunswick's **Wetlands Conservation Policy (2002)**, the government makes a policy statement that it will prevent the loss of **Provincially Significant Wetland Habitat** and achieve a goal of no net loss of wetland functions for all other wetlands. Under the Policy, all coastal marshes are considered provincially significant, and, thus, they receive the highest degree of protection.[131] Additionally, under the Policy, the Provincially Significant Wetlands will be listed and mapped, and the data will be made available to the public.[132] There is also a 30-metre buffer around these wetlands, and government will not support proposed activities within the wetlands or buffer zone (the exception being rehabilitation efforts or activities following an environmental assessment).[133]

In New Brunswick's new **Water Strategy for New Brunswick (2018-2028)**, the government has made a commitment to improve wetland protection and management by releasing new, more accurate online wetland mapping, releasing an implementation guide to ensure better, more consistent decision-making with respect to its Conservation Policy, and amending its Watercourse and Wetland Alteration Regulations to extend protection to Provincially Significant Wetlands under 1 hectare in size.[134]

Other jurisdictions also have protections in place for wetlands. As discussed above, in many jurisdictions, coastal wetlands are included within the definition or description of coastal zone. Coastal wetlands are then dealt with in these jurisdictions through the regulatory mechanisms mentioned earlier, rather than specifically under their own legislation.

II. Other Sensitive Ecosystems and Biologically Significant Species

More general coastal environmental protection can be found in several of the jurisdictions. Perhaps the most comprehensive protections for the coastal environment, including its biologically significant species and sensitive ecosystems, are provided by California.

Under California's ***Coastal Act***, the state's Coastal Commission (discussed in greater detail below) has authority to make civil claims against those parties who conduct activities in sensitive areas that are contrary to the intentions and objectives of the Act. Under the CA, a coastal area can receive designation as a **sensitive coastal resource area**.[135] To receive such a designation, the Commission must prepare and adopt a separate report.[136]

131 Wetlands Conservation Policy (2002), Policy Statement.

132 See website for wetland mapping: http://www.snb.ca/geonb1/e/apps/wetlands-E.asp

133 *Ibid*,

134 A Water Strategy for New Brunswick, s. 16 (Preserving wetland protection and management in New Brunswick).

135 *Coastal Act*, s. 30502(b).

136 *Ibid*, s. 30502.

Furthermore, the CA requires that marine resources be maintained, enhanced, and, where feasible, restored. Additionally, special protection is given to areas and species of special biological or economic significance.[137] Under the CA, the marine environment must be used in such a way that it will sustain the biological productivity of coastal waters and maintain healthy populations of species for long-term commercial, recreational, scientific, and educational purposes.[138] Other protections offered under the CA include protection for biological productivity and quality of coastal waters, streams, wetlands, estuaries, and lakes, as well as protection for environmentally sensitive habitat areas against disruptive practices.[139]

In Maine, watershed districts may be created pursuant to Title 38 of its Revised Statutes. These watershed districts, composed of representatives of the relevant regions, are meant to protect, restore, and maintain the natural functions and values of several key coastal areas, including coastal wetlands, coastal harbours, bays, estuaries, and marine waters. They are also meant to manage and conserve the land and water resources of those watersheds within their respective district.[140] Some of the activities that the watershed districts can do include conducting research and surveys to gather information on their watersheds, planning natural resource restoration projects, coordinating with municipal officials and state agencies for the purpose of enacting and enforcing ordinances and regulations to further the purposes of the districts, and adopting natural resource protection, management, and restoration plans.

In New Brunswick, the Minister under the ***Clean Environment Act*** can issue either a **Wetland Designation Order** or a **Coastal Designation Order** to designate all or a portion of a coastal area as a protected area.[141] This area can include any land or water adjacent to the coastal area that the Minister believes is necessary for the protection of the environment of the coastal area.[142] This means that many of the sensitive species or habitats that form part of a coastal ecosystem could be protected using a Coastal Designation Order. Under such an Orders, the Minister may restrict or prohibit certain activities that might impact the protected area, or place terms and conditions on any activities. The Minister can also impose standards for the purpose of protecting the environment of the protection area.[143]

Finally, in New Zealand, the **Coastal Policy Statement** recognizes the important of indigenous biological diversity. Protecting the indigenous biological diversity of the coastal environment requires the avoidance of adverse effects of activities on a number of species and habitats.[144] Some of the species that are offered protection include indigenous ecosystems and habitats found only in the coastal environment, which are particularly vulnerable to modification, like estuaries, lagoons, coastal wetlands, dunelands, intertidal zones, rocky reef systems, eelgrass, and saltmarshes.[145]

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137 *Ibid* s. 30230.

138 *Ibid*, s. 30230.

139 *Ibid*, ss. 30231 and 30240(a).

140 *Maine Revised Statutes Title 38: Waters and Navigation, Ch.21 – Coastal Barrier Resources System*, §2001.

141 *Clean Environment Act*, ss. 6.1(6), 6.4(2).

142 *Ibid*, s. 6.4(3).

143 *Ibid.*

144 Coastal Policy Statement, Policy 11.

145 *Ibid*, Policy 11(b)(iii).

G. Administration

This section canvasses the varying kinds of administrative structures that different jurisdictions use to administer their coastal protection and management regimes. It also reviews the various mechanisms used by those administrative structures to monitor and enforce compliance with legislation and policies.

I. Administration Structures (Committees and Ministers)

Because many of the jurisdictions (especially the Canadian ones) do not have a comprehensive coastal management or protection regime, very few of the jurisdictions have a comprehensive administrative structure that governs all aspects of the coast.

(i) Consultation Groups:

In Newfoundland and Labrador, the **Coastal and Ocean Management Strategy and Policy Framework** sets out the establishment of **Consultation Committees** or structures that can help address conflicts in areas where multiple users need a forum to share information.[146]

In South Carolina, the **Coastal Zone Management Program** is managed by the Department of Health and Environmental Control's office of Ocean and Coastal Resource Management ("OCRM"). As the General Assembly of South Carolina's House of Representatives declared in its legislative declaration of findings (rough equivalent to a preamble): "A variety of federal agencies presently operate land use controls and permit systems in the coastal zone. South Carolina can only regain control of the regulation of its critical areas by developing its own management program. The key to accomplishing this is to encourage the state and local governments to exercise their full authority over the lands and waters in the coastal zone".[147]

Subsequently, it seems that the OCRM has attempted to work with state and local governments to achieve priority issues within its coastal zone. For example, the OCRM must develop strategies under its CZMA, including the creation of living shorelines. This includes the development of successful criteria for evaluating the living shorelines performance, monitoring current shorelines, and establishing standards to permit living shoreline projects. The OCRM created the **Living Shorelines Working Group** to guide and inform the strategy implementation process for this priority area. The Working Group coordinates and develops the process to implement the strategy.[148]

South Carolina also has a **Coastal Zone Management Appellate Panel**, which consists of fifteen members.[149] The panel serves as an advisory council to the Department. Its members are elected representatives from each of the coastal zone counties.

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146 Coastal and Ocean Management Strategy and Policy Framework, p. 14.

147 *Coastal Zone Management Act* , s 48-39-20(c).

148 See: http://www.scdhec.gov/HomeAndEnvironment/Water/CoastalManagement/LivingShorelines/

149 Created under s. 48-39-40 of the South Carolina *Coastal Zone Management Act*.

(ii) Municipal and Local Governance:

As mentioned above, many jurisdictions leave much of the regulatory and permitting work to municipal or local governments. For example, in New Zealand, any application for a coastal permit to carry out an activity within a regional coastal plan must be made to the regional council for the region concerned. The regional council is the consent authority for the application process.[150]

In the United Kingdom, there are several responsible authorities for governing the legislative framework for coastal management and protection. Under the ***Coast Protection Act***, the council of each maritime district will be the **coast protection authority** for the district, with all the powers to perform coast protection work and set out work schemes in pursuit of its mandate.[151] The coast protection authority is composed of representatives of every maritime district, as well as other relevant bodies, as necessary.[152]

In Queensland, development within the Coastal Management District is overseen by the State Assessment Referral Agency ("SARA"). SARA assesses development applications and determines whether they meet the various state interest and policy directives required by the Planning Act and Planning Regulations.

(iii) Coastal Commissions:

In Maine, permit-granting authority is granted to the Maine Land-Use Planning Commission.[153] The Commission is responsible for issuance of all permits for activities located within its jurisdiction. The Commission is not subject to review or approval by any Department under any other article of the Maine Statutes.

California has perhaps the most unique administrative body of all the jurisdictions reviewed. Its Coastal Act creates the **California Coastal Commission**, which is a quasi-judicial administrative body.[154] The Commission has broad jurisdiction over matters including permitting, federal consistency review, appeals, local coastal programs, master port plans, public work plans, long-range development plans, and other quasi-judicial matters requiring its attention.[155] Thus, the Coastal Commission is the primary vehicle for monitoring, compliance, and enforcement. It has authority to issue permits and administrative orders to require compliance with the CA, including for removal of unpermitted development or restoration of sites. The Commission also has the ability to seek judicial remedies and can impose fines in cases involving violations of public access provisions. The Commission also has authority to conduct hearings, as appropriate.[156]

150 *Resource Management Act*, s. 117.

151 *Coast Protection Act*, s.1.

152 *Ibid*, s.2.

153 Maine Revised Statutes *Title 38: Waters and Navigation, Ch.3 – Protection and Improvement of Waters*, §480-E-1.

154 *Coastal Act*, s. 30320.

155 *Ibid*, s. 30321.

156 *Ibid*, s. 30325.

The Executive Director of the Commission has broad powers and responsibilities for the management of the CA. As the sections on the enforcement of the Coastal Act read:

> *Violation of a permit or any term, condition, or provision of a permit is grounds for enforcement under this Section and under Chapter 9 of the California Coastal Act of 1976. Whenever the executive director of the commission determines that a violation of a permit or term, condition, or provision of a permit has occurred or is threatened, the executive director shall refer the matter to the Attorney General for appropriate action. Where such a violation has occurred or is threatened, the Attorney General may file an action in the name of the commission for equitable relief to enjoin such violation of, or for, civil penalties, or both, or may take other appropriate action pursuant to Chapter 9 of the California Coastal Act of 1976.*[157]

> *Whenever the executive director of the commission determines that any violation of the provisions of the California Coastal Act of 1976 has occurred or is threatened, the Attorney General may file an action in the name of the commission for equitable relief to enjoin such violation, or for civil penalties, or both, or may take other appropriate action pursuant to Chapter 9 of the California Coastal Act of 1976.*[158]

The Commission is composed of 15 members, which include the Secretary of the Natural Resources Agency, the Secretary of Transportation, the Chairperson of the State Lands Commission, six representatives of the public from the state at large, and six representatives selected from its six coastal regions (selected by the Governor, speaker of the Assembly and Senate Committee on Rules).[159]

II. Monitoring and Compliance

Beyond the administrative bodies that hold or share responsibility for the various statutes, regulations and policies, many of the jurisdictions have additional mechanisms in place to help ensure that their coastal management and protection regimes continue to function.

(i) Reporting:

Monitoring reports are a valuable tool used in several jurisdictions. These reports are usually created for the benefit of the elected house of representatives.

In the United Kingdom, for example, the Environment Agency must report to the Minister about flood and coastal erosion risk management. The Minister has the authority to create regulations that set out the manner of content and timing of the reports.[160] Similarly, Queensland's **Coastal Protection Management**

157 *Coastal Act*, s. 13172.

158 *Ibid*, s. 13173

159 *Ibid*, s. 30301.

160 *Flood and Water Management Act*, s.18.

Act requires that the Chief Executive prepare and publish a report on the state of the coastal zone at least every four years. The report must: include an assessment of the condition of major coastal resources; identify significant trends in coastal values; review significant programs, activities, and achievements in relation to the protection, restoration and enhancement of the coastal zone; and evaluate the efficiency and effectiveness of the object of coastal management strategies implemented to achieve the objectives of the CPMA.[161]

In British Columbia, the marine plans created under the MaPP Program include plan performance indicators to track the plan's progress. These performance indictors include the number of projects completed, the number of requests for variances, the number of reports of non-compliance with plan zoning, and the number of agency staff using the Marine Plan as part of planning and decision-making. The status indicators are reported each year in an annual report.[162]

The plan's effectiveness is determined using ecosystem based management (EBM) indicators, which track how effectively outcomes under the plan are being achieved.[163] A comprehensive EBM monitoring report on the status of ecological and human well-being indicators will be published every five years. This report will inform the review, amendment, and updating of the plan by tracking measurable changes in ecological and human well-being values.[164]

In the North Vancouver zone, the Marine Plan for the region notes that the primary issue for compliance and enforcement of marine uses and activities is the lack of resources for maintaining an on-water presence, and because of the size of the area and its remoteness. However, advancements in technology have led to new opportunities for wireless observation and monitoring.[165]

In the North Coast zone of British Columbia, the Marine Plan highlights that compliance and enforcement involve a number of things, including inspections, investigations of reported violations, enforcement actions to compel compliance, warnings and tickets, compliance orders, and even court actions (injunctions, prosecutions).[166] The region also has high costs for surveillance and compliance monitoring, and the area's Marine Plan notes several difficulties facing compliance and enforcement that need to be addressed, including: inadequate training for enforcement officers, lack of adequate laboratory testing to verify compliance, and follow-up with perpetrators. The Marine Plan notes the importance of information and education programs to increase awareness and understanding of the laws and regulations.[167]

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161 *Coastal Protection and Management Act*, s.166.

162 For example, see Haida Gwaii Marine Plan, at s. 9.3.

163 *Ibid.*

164 *Ibid.*

165 North Vancouver Marine Plan, s. 4.3.12 – Regulatory Compliance and Enforcement.

166 See North Coast Marine Plan, at p. 30-31.

167 *Ibid.*

III. Enforcement Mechanisms and Offences

Each jurisdiction has multiple kinds of enforcement mechanisms at its disposal. As might be expected, because of the multiplicity of statutes, regulations, and policies that most jurisdictions use to govern different aspects of their coasts, enforcement mechanisms can be found in a number of different places. The mechanisms can vary widely, from generic or general offences and penalties to more specific enforcement mechanisms created for specific purposes.

Typically, the creation of offences for failure to comply with any number of statutes, regulations or even policies (if incorporated into the law) can result in penalties (fines and imprisonment) or revocation of permits and licences. Additionally, court orders are used quite frequently to cause a party to cease their activity, or to force a party to restore part of the coastal area that they damaged.

(i) Orders:

In Newfoundland and Labrador, under the ***Water Resources Act***, if the Minister believes on reasonable grounds that a person has not carried out a directive of the Minister, an inspector, or another official made under the Act, or has contravened the Act, or terms or conditions of a licence or permit, the Minister may issue an Order for that person to either (a) stop or shut down their use or undertaking immediately, permanently, or temporarily, or (b) do all things and take the necessary steps to control, manage, eliminate, remedy, or prevent an adverse effect from taking place as a result of their use or undertaking. These actions must be taken at the person's own expense.[168]

In New Zealand, an **enforcement order** can be made under the ***Resource Management Act*** by the Environment Court, which may require a person to cease, or prohibit them from commencing, anything that is a contravention of the RMA, or any of its regulations, rules, plans, or requirements.[169] Where the enforcement order is made against a person, they must comply with the order and pay all costs of compliance. If the person fails to comply with the order, any person may, with permission by the Environment Court, comply with the order on that person's behalf, including entering on land, selling or otherwise disposing of any structures or materials salvaged in complying with the order, and recovering all costs and expenses of doing so as a debt due from the person who was not in compliance with the RMA.[170]

An application can be made to the Environment Court for an enforcement order by any person at any time. This includes a local authority or consent authority.[171]

168 *Water Resource Act*, s. 76(1).

169 *Resource Management Act*, s. 314(1).

170 *Ibid*, s. 315.

171 *Ibid*, s. 316.

(ii) Offences and Penalties:

The following are the kinds of offences and penalties some jurisdictions have created:

Under its **Watercourse and Wetland Protection Regulations**, Prince Edward Island has an offence for any person who is in violation of the Regulations, or who is in violation of a term, condition, or provision of any certificate, permit, licence, etc that is made under the act or regulation. An offender is guilty of an offence and liable to face a fine of no less $3,000, up to $10,000, as well as pay restitution as the court sees fit to the person aggrieved.[172]

Under the ***Environmental Quality Act***, Quebec's Minister may impose monetary administrative penalties on any person or municipality failing to comply with the Act or its regulations. A monetary administrative penalty of $500 for a natural person, or $2,500 in any other case, may be imposed.[173]

Under the ***Water Resources Act***, a person in Newfoundland and Labrador can be found guilty of an offence and face fines of not less than $1,000 and no more than $10,000 for a first offence, and no less than $4,000 and up to $1,000,000 for a subsequent offence.[174]

Under the ***Resource Management Act***, a person in New Zealand who commits an offence by contravening the Act, or a permit authorized under the Act, faces fines of up to $300,000 for a natural person, or imprisonment not exceeding a two-year term.[175]

Under the *Coastal Act*, a person in California who is in violation of a permit issued under the Act is referred by the Coastal Commission to the Attorney General for appropriate action. The Attorney General may then file for equitable relief, or commence a civil action, or both.[176] The Commission can also assess administrative penalties against a party for any violations of the public access provisions of the CA under its Enforcement Program. The fines can reach as high as $11,250/day.[177]

172 *Watercourse and Wetland Protection Regulations*, s.14.

173 *Environmental Quality Act*, s. 115.

174 *Water Resources Act*, s. 91.

175 *Resources Management Act*, ss. 338, 339.

176 *Coastal Act*, s. 13172.

177 *Ibid*, s. 30821.

Appendix A - Table of Canadian Sources

The following are all Canadian statutes, regulations and policies that were cited for the purposes of this narrative report.

Jurisdiction	Legislation or Policy
British Columbia	• *Land Act* RSBC 1996 c. 245 • *Water Sustainability Act* SBC 2016 c. 15 • *Community Charter* SBC 2003 c. 26 • *Local Government Act* RSBC 2015 c. 1 • *Park Act* RSBC 1996 c. 344 • *Land Title Act* RSBC 1996 c. 250 • Ministry of Water, Land and Air Protection, *Flood Hazard Area Land Use Management Guidelines* (Province of British Columbia: 2004, Amended by Ministry of Forests, Lands, Natural Resource Operations and Rural Development: 2018). • Marine Plan Partnership for the North Pacific Coast, British Columbia (General)
New Brunswick	• *Clean Water Act* SNB 1989 c. C-6.1 • *Clean Environment Act* RSNB 1973 c. C-6 • Department of Environment and Local Government, *Coastal Areas Protection Policy for New Brunswick* (Province of New Brunswick, 2002) • Department of Environment and Local Government, *A Water Strategy for New Brunswick: 2018-2028* (Government of New Brunswick, 2017) • Department of Natural Resources & Department of Environment and Local Government, *Wetlands Conservation Policy* (New Brunswick, 2002) • Minister of Environment and Local Government, Flood Risk Reduction Strategy (Province of New Brunswick, 2014)
Newfoundland and Labrador	• *Water Resources Act* SNL 2002 c.W-4.01 • Department of Fisheries and Aquaculture, *Coastal and Ocean Management Strategy and Policy Framework* (Province of Newfoundland and Labrador, 2011) • Municipal Affairs and Environment, *Policy for Development in Shore Water Zones* (Province of Newfoundland and Labrador, 2001) • Land Claims Agreement Between the Inuit of Labrador and Her Majesty the Queen in Right of Newfoundland and Labrador and Her Majesty the Queen in Right of Canada ("Labrador-Inuit Land Claims Agreement") (2005)
Prince Edward Island	• *Environmental Protection Act* RSPEI 1988 c. E-9 • *Subdivision and Development Regulations* PEI Reg c. P-8 • *Watercourse and Wetland Protection Regulations* PEI Reg c. E-9

Quebec	• *Environmental Quality Act* RSQ c. Q-2 • *Watercourses Act* SQ 1996 c. 37 • *Water Withdrawal and Protection Regulation* Q Reg c. Q-2, r35.2 • Regulation respecting the water property in the domain of the State Q Reg c. R-13, r.1 • *An Act Respecting Land Use Planning and Development* RSQ c.A-19.1 • *Protection Policy for Lakeshores, Riverbanks, Littoral Zones and Floodplains* CQLR c. Q-2, r.35 • *Water Withdrawal and Protection Regulation* Q Reg c. Q-2, r35.2 • Regulation respecting the water property in the domain of the State Q Reg c. R-13, r.1 • Minister for Transport and the Implementation of the Maritime Strategy, *Strategie Maritime: The Maritime Strategy by the Year 2030* (Province of Quebec, 2015)

Appendix B - Table of International Sources

The following are all international statutes, regulations and policies that were cited for the purposes of this narrative report.

Jurisdiction	Legislation or Policy
California (USA)	• California Public Resource Code, Division 20 ("*Coastal Act*") • California Title 7.2, Government Code, § 66600 et seq. § 31000 et seq ("*McAteer-Petris Act*") • California Code of Regulations Title 14, Natural Resources, Division 5.5 ("*California Coastal Commission*")
Maine (USA)	• *Maine Revised Statutes Title 38: Waters and Navigation, ("Ch.3 – Protection and Improvement of Waters, Ch.19 – Coastal Management Policies, Ch.21 – Coastal Barrier Resources System")* • *Chapter 1000: Guidelines for Municipal Shoreland Zoning Ordinances* made pursuant to the *Mandatory Shoreland Zoning Act*, 38 MRSA (sections 435-449)
South Carolina (USA)	• *South Carolina Code of Laws Title 48 – Environmental Protection and Conservation* (*Chp 39: Coastal Tidelands and Wetlands*) (also: "South Carolina Coastal Zone Management Act") • South Carolina Code §48–39–10 et seq. ("*Chapter 30: Department of Health and Environmental Control – Coastal Division*")
New Zealand	• *Resource Management Act* Public Act 1991 No. 69 • *Marine and Coastal Area (Takutai Moana) Act* Public Act 2011 No. 3 • Department of Conservation, *New Zealand Coastal Policy Statement* (Government of New Zealand, 2010)
Queensland (Australia)	• *Planning Act* QCA 2016 • *Coastal Protection and Management Act* QCA 1995 • Planning Regulation Reg 78 of 2017, made pursuant to the *Planning Act* • Department of Infrastructure, Local Government and Planning, *State Planning Policy* (Queensland Government, 2017) • Department of Infrastructure, Local Government and Planning, *State Development Assessment Provisions*, Version 2.3 (Queensland Government, 2018) • Department of Environment and Heritage Protection, *Coastal Management Plan* (Queensland Government, 2013)
United Kingdom	• *Coast Protection Act (1949)* c. 74 • Department for Environment, Food and Rural Affairs, *The National Flood and Coastal Erosion Risk Management Strategy for England* (United Kingdom, 2011) • *Flood and Water Management Act* (2010) c. 29 • Countryside and Rights of Way Act (2000) c. 37

Appendix C: ECEL Submission on CPA to Law Amendments Committee

ecelaw
east coast environmental law

Sent Via Email

Office of the Legislative Counsel
CIBC Building
802-1809 Barrington Street
Halifax, NS. PO Box 1116

25 March 2019

Dear Members of the Law Amendments Committee;

Re: Bill 106 – The Coastal Protection Act

Bill 106 creating the Coastal Protection Act is highly anticipated by the public, and by the East Coast Environmental Law Association and our collaborator, the Ecology Action Centre. It has been a long time in the making, with calls for more legal protections for our province's coast reaching back at least several decades. We hope that this law, which is likely the first of its kind in Canada, will serve all Nova Scotians by providing rigorous and necessary environmental protection to our important and vulnerable coastline. To that end, we respectfully call for the following amendments to the Bill.

First, the purpose section and principles section are extremely valuable because they provide clarity on the Bill's goals and set out the vision of the Act. That is why these principles should be featured at the very beginning of the Act: to make the fundamental intent and necessity of the Act immediately clear. This will then flow nicely into the current Section 4, which prioritizes the protections of the Coastal Protection Act over other Acts where they conflict.

Second, Section 8(2)(b) currently allows lands to be exempted through regulations created under the Act. While this makes sense in relation to land along the coast where there is no current threat, these lands should nonetheless be administered in a way that conforms with the purpose and principles of the Act. This will provide consistency across the province with respect to ecosystem, species and habitat protection while ensuring that structures or activities on those lands which were unforeseen do not threaten the objectives of the Act.

Third, on a point related to the previous two comments, the phrase "consistent, wherever possible, with the purpose and principles of this Act" is found in multiple provisions of the Act, including in sections 15(1)(b), 16, 17(3), 18(3), 19(2), 22(2), and 23. The purpose of the phrase is to require that the activities targeted by each of those sections is consistent with the purpose and principles of the Act. However, we consider the qualifier "wherever possible" to be legally unenforceable. This is because there are any number of reasons something may be possible or not possible. For example, the cost of complying with the principles and purpose of

the Act might be enough to justify non-compliance under this phrasing. Therefore, we recommend that the phrasing in Section 21, which omits "wherever possible", be adopted for all of the highlighted sections.

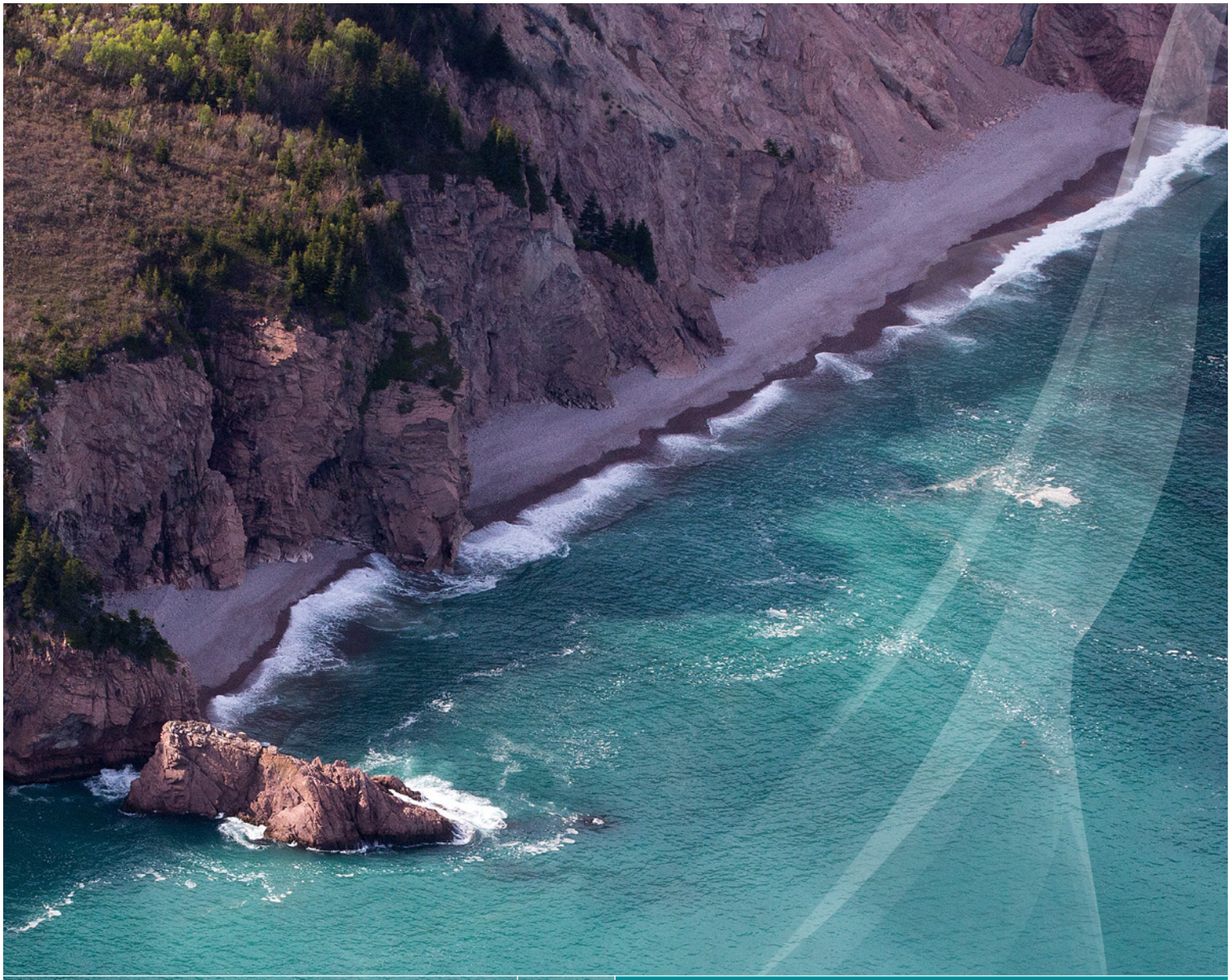
Fourth, we are concerned with Section 15, which permits construction or modification of structures within the Coastal Protection Zone for commercial or industrial operations that require direct access to the coast. To begin, the Act is not clear about how this provision will be operationalized. If an independent designated professional is not required to certify this component of the operation, it will be difficult to know if the structure's access to the coast is "essential". This provision, as it currently stands, creates a double standard between private coastal property owners and businesses, by allowing businesses to function under lower standards with respect to building within the Coastal Protection Zone. Therefore, we call for a passage to be added to the effect that an independent designated professional be required to certify any commercial or industrial structures requiring direct access to coastal waters.

Additionally, "industrial" and "commercial" are not defined in the Act. Both terms are very broad and could encompass a number of activities. Either term might refer to any large or small structure related, even tangentially, to an industrial or commercial operation. Therefore, we call for these terms to be defined within the Act.

Sincerely,

Mike Kofahl
Staff Lawyer
East Coast Environmental Law

Appendix D: Province of Nova Scotia Proposed CPA Regulations



PART 2

A Detailed Guide to **Proposed *Coastal Protection Act* Regulations**

NOVA SCOTIA

Part 2: A Detailed Guide to Proposed Coastal Protection Act Regulations
Department of Environment and Climate Change
July 2021

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Introduction

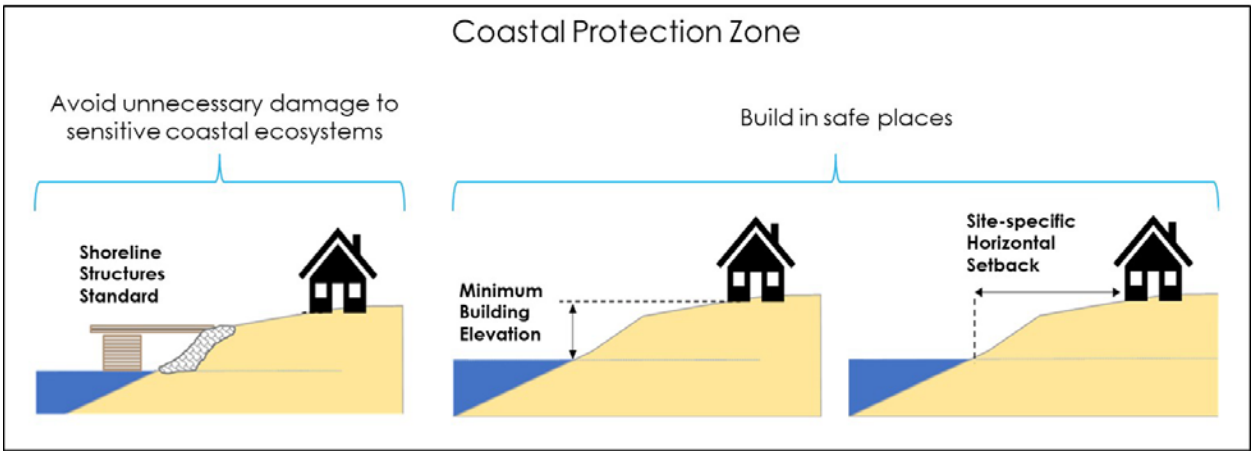
This document is designed to help those who need a more detailed look at the proposed *Coastal Protection Act* regulations. This could include municipal officials, members of professions designated to perform erosion assessments under the Act, and those involved in construction or property purchase, sale or subdivision of coastal lands. We also encourage anyone who may be interested in or impacted by the Act to read this document and share their thoughts with us. We have included a few questions at the end to help people respond to this consultation .

The following sections outline government's proposed approach and are intended for discussion purposes only.
All content is subject to change.

Coastal Protection Zone

Regulations will identify the area included in the Coastal Protection Zone, where the Act and regulations will apply. The Coastal Protection Zone will be a narrow band surrounding the province's coast, including land and water-covered areas on either side of the ordinary high-water mark. This zone will include islands, major tidal rivers where they near the ocean, and other estuaries that are directly connected to coastal waters.

The Coastal Protection Zone includes both public and private lands and may overlap with lands designated under other Acts, such as the *Agricultural Marshlands Conservation Act* and the *Special Places Protection Act*. In these areas, the *Coastal Protection Act* provides exemptions to avoid interference with the intent of existing legislation. The Coastal Protection Zone does not include federal Crown lands.



How the Regulations will Apply in the Coastal Protection Zone

The Coastal Protection Zone boundaries will be identified using the high-water mark (which may be set out in regulations as the ordinary high-water mark, or similar reference line approximating water levels at high tide). The area that starts at the high-water mark and extends inland, in most cases, will be called the "upland" area of the zone. The width of the upland area has not yet been finalized, but government is proposing it be in the range of 80 to 100 meters.

Within this area, municipalities will need to ensure building permits and construction are compliant with two new setbacks: the minimum building elevation for different regions of the coast; and a horizontal building setback determined for the specific property by a Designated Professional, as defined under the regulations.

For the area that starts at the high-water mark and extends seaward, the Coastal Protection Zone boundary will not be specified. Within this zone, regulations will apply to wharfs, jetties, seawalls, groynes, in-filing, shoreline armouring and similar structures, and will be administered using existing permitting processes administered by the Department of Lands and Forestry for areas where the *Crown Lands Act* and *Beaches Act* apply.

Coastal Protection Zone Upland Boundary

The upland boundary will be a line that follows the coastline at a set distance upland from the closest point on the high-water mark.

Two types of naturally occurring shorelines need to be considered when setting the Coastal Protection Zone boundary to the coast - barrier beach areas and estuaries (tidal rivers that meet the sea and, in this case, include the Bras d'Or Lake). Our proposed approached for the boundary in these areas is outlined here.

Coastal Protection Zone boundaries in Areas with Barrier Beaches

Barrier beaches are typically thin beaches that separate ocean waters from pond or lakes. While barrier beaches often shelter the inland water, they are prone to shifting and are often breached by ocean waters, either gradually or suddenly due to a storm. When breached, the pond or lake becomes connected to the ocean. As a result, the freshwater of the pond turns salty, and the shoreline that was previously protected is now at risk from coastal erosion and sea level rise.

Where part of a pond or lake behind a barrier beach is within the Coastal Protection Zone, the upland boundary will extend further inland to include the land adjacent to it. In these areas, regulations will specify that the upland boundary will be:

- a set distance to the nearest point on the Ordinary high-water mark on the ocean side of the beach (proposed to be within the range of 80 to 100 meters); and
- no closer than a set distance from the ordinary high-water mark of the pond or lake behind a barrier beach (proposed to be within the range of range 80 to 100 meters).

It may be possible to build within this part of the Coastal Protection Zone, if the vertical and horizontal setback requirements are met, except on the barrier beach itself. Barrier beaches are generally too dynamic to safely allow development.

Coastal Protection Zone in Estuaries

Estuaries are areas where rivers meet the sea and freshwater mixes with salt water. The Act includes estuaries as part of the coast. Houses and buildings along the banks of an estuary often face the same risks as properties facing open ocean, including sea level rise, storm surge and erosion. At the same time, many rivers in Nova Scotia extend tens of kilometers inland and well away from what many people would consider to be the coast. While there are several criteria (for example, salinity or tidal influence) that could be used to approximate where an estuary turns into an inland watercourse, none are practical ways of determining exactly where the Coastal Protection Zone should end along a river. Instead, government is proposing that the regulations rely on one of two methods to determine the boundary. Both methods can be consistently determined and displayed with digital mapping tools.

1. Size criteria that combine the width and/or inland extent of a river. The inland extent of the Coastal Protection Zone would be where the banks of an estuary narrow to a specified width, or the river has reached a specified distance inland. These criteria can be determined and displayed on a digital map layer and work for large and small rivers. The province is currently exploring various combinations of river widths and upstream distances to determine a best-fit approach that can be consistently applied across the province.

We expect it will be possible to provide map coordinates to identify precisely where the Coastal Protection Zone ends on major estuaries. This will not be practical for smaller rivers because of their number. In these cases, municipalities may choose to rely on provincial visual mapping aids to determine where the zone ends. Disputes over the precise location of the zone boundaries could be resolved by a professional land surveyor based on the definitions in the regulations.

2. Ending the inland reach of the zone on a river where it meets an area where an existing municipal land-use bylaw applies that includes vertical setbacks that address sea level rise and flooding for the planning horizon of 80 years, and any other restrictions required to be consistent with the Statement of Provincial Interest on Flooding.

Boundary Along Water Control Structures

In areas where the shoreline is formed by human-built structures designed to restrict or prevent the upstream or inland flow of water, such as a dam, roll-over dam, or aboiteau, the seaward side of the structure will be taken as the ordinary high-water mark for setting the upland boundary. The body of water on the upstream side of the structure would not be included in the Coastal Protection Zone because water levels and flow on this side of the water control structure are generally under human control. A possible exception to this rule is the canal lock at St. Peters that connects the ocean to the Bras d'Or Lake, as there are other connections to ocean waters. A causeway would be considered a water control structure if it includes a means to restrict or prevent the inland flow of ocean waters. A bridge that is not designed to restrict the flow of water would not be considered a water control structure.

Coastal Protection Zone in **Map or Graphic Form**

Provincially produced maps to display the approximate boundaries of the zone and related information are for general guidance only. If information on a map differs from the written regulations, the written regulations are correct.

Coastal Protection Regulations and Municipal Building Permits

The proposed regulations will add new requirements for building permits, development permits and development agreements within the zone. It is the responsibility of municipalities to ensure that permits comply with the *Coastal Protection Act*. This will include whether the Act applies to the proposed construction and ensures the site is compliant with the minimum building elevation and horizontal setback certified in the Designated Professional's report.

Structures Covered by the Act

Requirements for building permits within the zone apply to houses, cottages and commercial or industrial buildings, with some exceptions. This will include public infrastructure and commercial or industrial structures that need to be located at the shoreline. Other proposed exemptions being considered include:

- trailers or mobile homes that are designed for frequent transport;
- boathouses, detached garages, or outbuildings that are intended for storage or similar uses and do not have water service, plumbing, living quarters or similar amenities, and
- decks, gazebos or similar structures, regardless of whether it requires a permit.

Approval of a Building Permit in the Coastal Protection Zone

Unless an exemption applies, municipalities are required to do the following before a building permit is approved or issued for construction within the Coastal Protection Zone:

- receive the designated professional's report stating the minimum horizontal setback distance from the high-water mark,
- receive a plot plan or a professional land surveyor's location certificate that identifies:
  - minimum building elevation (includes the structure and its footings)
  - minimum horizontal setback distance, as defined by the designated professional

Permits will not be issued for construction of living spaces in structures built below the high-water mark (such as on wharves or similar structures).

Modification and Repair of Existing Structures

Applications for municipal building permits that increase the footprint of a building or increase its internal living space will need to meet the new requirements. A municipality will not be allowed to issue a building permit that includes creation or conversion of existing space to residential in a structure that is located below the minimum building elevation.

Modifications that do not increase the footprint of its foundation or internal living space are exempted, as is work limited to improving a structure's strength or resistance to damage from flooding (such as increasing the height of the foundation walls to raise the existing living space to reduce the risk of flood damage).

Relocation of Existing Structures

If a landowner proposes to move an existing permanent structure inside the zone, it is considered construction and the Act still applies. If the structure was already located inside the zone, the structure may be moved to a location where the elevation is the same or greater height from the high-water mark. In this case, a municipality may exempt the landowner from supplying a designated professional's report.

Modified Requirements for Developed Downtown Waterfronts

Many waterfront areas along the coast are important economic and public centers for municipalities and communities. To preserve the economic potential and character of an existing developed waterfront that provides public amenities and mixed-use commercial/residential space, it is proposed that some regulations be modified for specific types of structures within these areas.

We are currently exploring definitions for these areas to avoid putting any more structures at risk from flooding due to sea level rise. A possible definition could be, "developed downtown waterfront areas as dominated by mixed-use structures with a public amenity or multi-unit residential component where there are no gaps of greater than 75 meters between existing mixed-use structures, or where the area was zoned for commercial, mixed use or equivalent prior to the Act coming into effect".

Municipal building permits for construction of commercial or mixed-use, or food-service or similar public amenities in the zone could be exempted from a site-specific horizontal setback and the requirement for a designated professional's report. Some elements of the minimum building elevation rules would still apply to reduce the risk from sea level rise and coastal flooding, including that no residential part of:

- a new structure can be below the minimum building elevation, or
- an existing structure being modified can be below the minimum building elevation.

The proposed modified provisions for developed downtown waterfront areas would not apply to construction or a new or expanded single or semi-detached residence. For these, all provisions of the Act and regulations would apply and the entire structure must be located above the minimum building elevation, a designated professional's report must be completed and the horizontal building setback certified by the designated professional will apply.

Permit and Agreement Administration

Existing building permits that have not expired before the date the Act comes into effect will be exempted for the duration of the remainder of the permit. Any extensions or amendments to a building permit initiated after that time are subject to the Act.

The period for which the permit is valid, including any extensions, must not exceed two years from the date on which the original building permit was issued, or two years from the date the Act came into effect.

Municipalities will not be able to issue a development permit or enter into a development agreement that has the effect of exempting a landowner or developer from the Act.

Subdivision of Lots

If a designated professional certifies a horizontal setback for an area that covers several PIDs, or an area was subdivided after the initial report was completed, the report may be accepted by the municipality for the areas included.

When a landowner applies to subdivide lots that include areas inside the zone, a municipality must inform them about the Act and regulations and how it may impact their development plans.

Acceptance of Reports by a Municipality

The following provisions are proposed around the acceptance and administration by municipalities of reports by designated professionals:

- a municipality can accept a designated professional's report that is signed by a qualified designated professional;
- a municipality may accept a designated professional's report that was issued to a landowner other than the current landowner;
- if a landowner or building proponent provides more than one report by from different designated professionals for the same proposed building location, the municipality may accept the one chosen by the landowner provided it meets all requirements;
- municipalities must refuse a designated professional's report if, in the opinion of the municipality:
    a) the designated professional is not qualified to provide the report;
    b) the information and/or specified setback in the report is incomplete or inconsistent with the relevant conditions on the site (for example, the height or slope of a bluff appears to be misstated),
    c) the methodology prescribed in the regulations for determining and certifying the site-specific horizontal setback was not followed; or,
    d) Conditions at the proposed building location have changed since the date the field work for the erosion risk assessment was conducted.

A municipality will be required to retain a copy of a designated professional's report for 10 years from the date the report was signed. A municipality will make any or all reports available to the provincial department administering the Act, upon request.

Ensuring Compliance

Once a building permit is issued, a municipality is responsible for ensuring the construction is compliant with the permit, including the new *Coastal Protection Act* and regulations, in the normal manner. This may include building inspectors verifying that a new structure, or one being expanded, is located where the plot plan or location certificate indicates.

Determining Building Setbacks

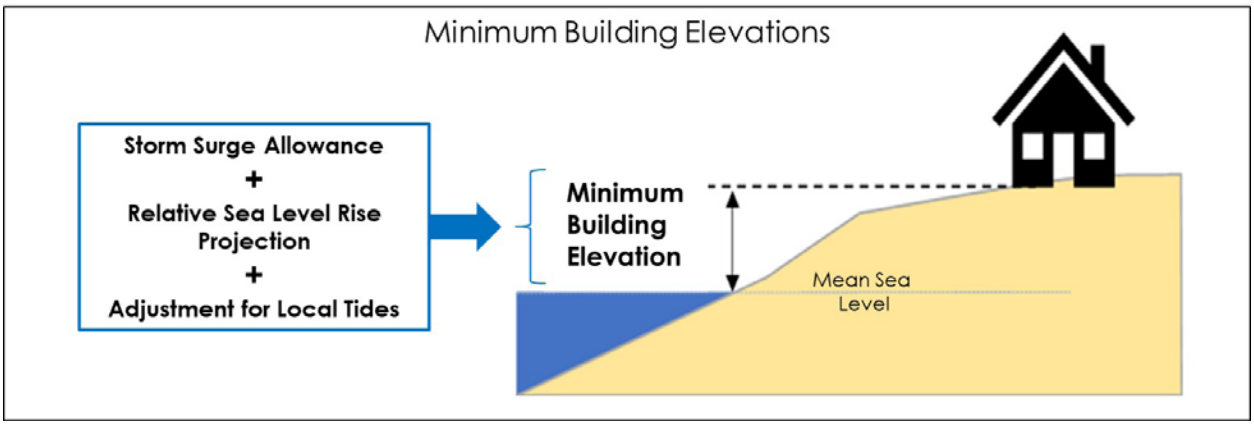
The regulations include two types of setbacks within most areas of the zone to reduce risks for future development. Vertical setbacks, called minimum building elevations, will help reduce risks from coastal flooding and will be determined by the province for different regions of the coast. Site-specific horizontal setbacks are designed to avoid erosion risks and will be determined for a specific property when a landowner wants to build within the zone.

Minimum Building Elevation

Some Nova Scotian municipalities are already preparing for climate change by including vertical building setbacks in their land-use bylaws. The *Coastal Protection Act* will create a province-wide set of vertical building setbacks known as minimum building elevations to cover all areas of the coast.

Regulations will set out minimum building elevations for all areas of the coast as a vertical height above mean sea level in meters to the nearest 20 centimetres. The mean sea level will likely be identified as an established geodetic datum, possibly Canadian Geodetic Vertical Datum 2013 (CGVD2013). Where a municipality uses a different vertical datum in their planning documents, the municipality is responsible for converting elevations to the datum set out in the regulations.

Because the minimum building elevations will be measured from mean sea level, they will be adjusted for local tides, which vary around the coast, especially in the Bay of Fundy and Minas Basin areas. Regulations will divide the coast into sections (using map coordinates, with visual maps for general guidance) and will assign a minimum building elevation for each section. The minimum building elevation for islands will be taken from the minimum building elevation on the nearest section of the coast on the mainland.



We are currently developing a schedule of minimum building elevations that will incorporate the latest relative sea level rise projections released by Natural Resources Canada in early 2021 and a more generalized additional margin of safety for storm surge.

How will municipalities and landowners know if a proposed building location is above the required minimum building elevation? We are developing map resources to help interpret the regulations. These may include contour lines for the minimum building elevations for each coastal section, illustrating what parts of properties are above and below the minimum building elevation for that part of the coast. Mapping resources are intended only to provide general guidance. If there is a difference in the location of the segment boundaries on a map and the coordinates or minimum building elevation set out in regulations, the written form in the regulations will be taken as correct. In some cases, a landowner or municipality may wish to rely on professional land survey (at the landowner's cost) to resolve any uncertainty. If there is a difference in an elevation determined from a map and an elevation determined by a licensed land surveyor, the elevation determined by the surveyor shall be taken as correct.

Determining the Horizontal Building Setback

The Act and regulations will use a system of site-specific horizontal building setbacks to ensure new construction is located where it is safer from coastal erosion throughout an 80-year planning horizon. The risk of erosion can vary significantly, even between neighbouring properties. This makes it impractical to set "blanket" setback distances for large areas of the coast. The proposed regulations will require the designated professional to use a specific analytical tool to determine the horizontal building setback for a given property. The setback determined by the designated professional represents the minimum allowed horizontal distance between the proposed structure and the high-water mark. Although the assessment tool might produce a setback that extends farther upland than the boundary of the zone, the upland boundary of the zone will be the maximum horizontal setback possible under the regulations.

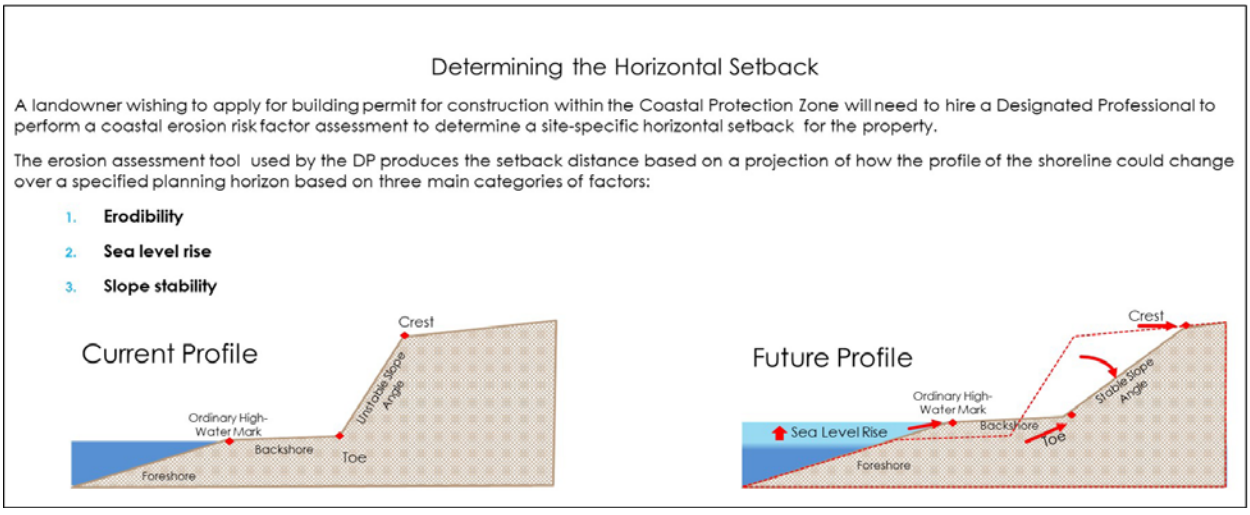
The method a designated professional will use to determine the horizontal building setback for a specific property is being developed to ensure that it is affordable to landowners. It also needs to be readily usable for a range of professionals designated under the Act. The final design of the tool will ensure designated professionals can produce consistent results based on various combinations of erosion risk factors that appear anywhere on Nova Scotia's coast.

We will make resources available online to assist designated professionals in determining horizontal setbacks, including:

- an assessment tool that will calculate the horizontal setback, in spreadsheet format;
- instructions and training resources to guide designated professionals during site assessments, and
- a template for the report.

A designated professional will visit the proposed building lot, measure distances, angles and slopes to capture the shoreline profile; record information about materials within any beach areas; test the hardness of bluffs or rock faces, and record any other information required for the assessment tool. The designated professional will refer to maps to determine the amount of open water in front of a property, which the tool uses to estimate how wave energy impacts the shoreline. The designated professional will also take photographs of the site to include in the report.

Designated Professionals will enter measurements and observations collected at the site and from public maps into the spreadsheet. Formulas built into the spreadsheet will project how far inland the shoreline could shift over the planning horizon, which is proposed to be 80 years. These projections incorporate risks related to sea level rise, the erodibility of the material and the amount of wave energy it could be exposed to, and the height and slope of bluffs and or rock faces along the shoreline. The distance the tool calculates is the horizontal building setback for the property that the designated professional then certifies in their Report.



Designated Professionals

A landowner seeking a building permit to construct a new structure or expand an existing structure in the zone will need to hire a designated professional to assess the coastal erosion risks at the proposed site and determine the site-specific horizontal building setback that will apply to the property. The result will be provided in a report, which landowners must provide to municipalities when applying for a building permit for construction within the zone.

The erosion assessment tool proposed by the province is designed to be a general risk assessment tool that can be used by a variety of professions. We are currently exploring the possibility for designation with specific self-regulating professional bodies that are governed by legislation. The professional bodies qualified to be designated professionals will be set out in the regulations.

Role and Qualifications of the Designated Professional

The designated professionals' role will be to:

- provide independent professional judgement free from bias in completing the report.
- perform an erosion risk assessment at the property, using the specified method and analytical tool;
- determine horizontal setback distance;
- provide the designated professional's report certifying the horizontal setback to the landowner, and
- maintain records, as required by regulations.

A designated professional must be:

- a member in good standing with their professional organization,
- acting within their abilities and experience, skills and/or training to carry out the assessment and complete the report as per the regulations.

The designated professional's responsibility under the Act is specific: to certify that they are qualified, the property has been assessed in accordance with the erosion risk assessment methodology, and that the resulting horizontal building setback has been established in accordance with the regulations. A designated professional's report is meant to reduce risk and is not a guarantee of safety of the building location against coastal erosion.

Designated professionals will be required to self-declare as being qualified and a member in good standing of their professional body. Laws governing their respective professional bodies and scope of practice will apply.

A designated professional (or their employer) will maintain professional liability insurance that is valid at the time of the assessment as well as continues if the insured becomes bankrupt or insolvent, is declared incompetent or dies during the period of insurance. The coverage must continue for two years after the date the person ceases as a designated professional.

A designated professional will be required to produce proof of their qualification and insurance if a municipality or the province requests it.

Responsibilities Regarding Site Assessment

Designated Professionals will sometimes be hired to assess large lots that may exhibit considerable variation in geological and topographical conditions within the property boundaries. Variations in erosion risk factors can significantly change the horizontal setback. The designated professional will be required to check for significant variations in conditions, such as:

- exposure to wave energy;
- geological composition of the foreshore, backshore, bluff, bank, or rock face;
- angle, elevation or width of the foreshore, backshore, buff, bank, or rock face in the area being assessed.

Where these varied conditions are present within the area being assessed, designated professionals must do one of the following:

1. conduct multiple assessments using the prescribed method to determine the appropriate horizontal setback for each area, including diagram in the report that clearly indicates where the setback applies.
2. limit the report to an area smaller than the lot being assessed and provide a diagram attached to the report clearly indicating the area where the site-specific horizontal setback applies.
3. determine what is likely to be the most erosion prone area, perform the assessment with the prescribed tool and certify the setback for the entire property.

Information to be Included in the Report

The designated professional's report may apply to a single lot, a portion of a lot, or multiple lots. It may apply to a portion of a lot if the owner requests it or if the designated professional has determined that conditions are not sufficiently consistent throughout to allow for a single assessment, such as a large lost that includes more than one type of shoreline. If a designated professional's report applies only to a portion of a property associated with a PID, the report must include a diagram indicating the area for which the setback applies.

A report may apply to multiple lots with multiple PIDs if:

1. the lots share common boundaries;
2. the designated professional has determined that erosion risk assessment factors are consistent throughout the area within which the setback applies and do not include material variations in exposure to wave energy; geological composition of the foreshore, backshore, bluff, bank or rock face being assessed; or variations in slope angle or elevation in the area being assessed; and,
3. the common setback applicable to all lots reflects the greatest horizontal setback distance (and therefore the highest erosion risk level) for the properties to which the report applies.

Form and Certification of the Report

The province is currently developing a template for the report that will be accessible online. It will clearly articulate the information presented and certified. By signing the report, the designated professional will be certifying:

1. the horizontal setback, in meters from the high-water mark, that applies to the area covered in the report.
2. they are qualified under the regulations.
3. the assessment was completed in the prescribed manner.

The report will be valid for 10 years from the date it is signed by the designated professional.

It is important for all parties – landowner, municipalities, realtors, developers, and designated professionals – to recognize the horizontal setback is a generalized risk management tool. It is not a guarantee that a structure will be safe from coastal erosion.

Additional Assessment to Override a Report

The *Costal Protection Act's* horizontal setbacks are based on surface observations and measurements of the shoreline profile and geologic material to provide a consistent, risk-managed horizontal setback based on the precautionary principle. We are exploring whether evidence-based adjustments to the setback produced by the erosion assessment tool should be permitted. Any allowable revisions to a designated professional report would be limited to improvements to the accuracy of the inputs for the assessment tool, and not on varying the assumptions, decision rules or calculations that are incorporated into the tool's calculations.

For example, a landowner may wish to hire a professional, such as a geotechnical engineer or geologist, to undertake additional investigation to determine if harder geological material is present beneath a thin layer of loose sediment visible at the surface in order to update that particular input parameter to the erosion assessment tool. This could also apply to more precise measurement of the distances, slopes and angles that are also required as inputs. Consideration is being given to what processes and conditions would need to exist to ensure additional studies that over-ride the original erosion assessment result would not undermine the intention of the regulations or place undue burden on municipal officials.

Protecting Coastal Ecosystems

Coastal ecosystems provide fish and wildlife habitat, filter excess nutrients from run-off before they reach the ocean, absorb flood waters, protect inland areas against wave action and store carbon in this era when reducing CO2 concentrations is particularly important. The proposed approach is designed to balance environmental protection with the need to protected existing legally located structures from erosion risk.

Wharves, boat ramps and structures that stabilize the shoreline (such as breakwaters, seawalls, revetments, rip-rap and armour stone) can disrupt sensitive coastal ecosystems and their ability to adapt to natural processes. Regulations will restrict or limit works and construction that may interfere with the dynamic nature of the coast or disrupt sensitive coastal ecosystems. To do this, requirements will be outlined that apply to permits to build or modify structures or earth works on Crown land below the high-water mark or on designated beaches. The new requirements will be incorporated into existing permitting processes currently administered by the Nova Scotia Department of Lands and Forestry, and additional policies and conditions required by that department will also continue to apply. Landowners will not need to apply for any additional permits.

Regulations will ensure that wharves, boat ramps and other structures are designed, constructed and located to allow natural shoreline movement and protect sensitive coastal ecosystems. Shoreline armouring, which by its nature disrupts movement of the shoreline and in some cases may accelerate erosion, will only be allowed on Crown land seaward of the high-water mark when needed to protect an existing structure from risk. Hard structures that are intended to trap sand to create a beach for recreation. The Act and regulations will help ensure people are less likely to build in areas that will require shoreline armouring over the planning horizon.

For boat ramps, wharves and other similar structures, the regulations will:

- allow for maintenance of existing structures, as long as the work does not use pressurized lumber or other toxic materials;
- permit construction of new structures or expansion of existing structures as long as new section(s) are built using open cribwork to minimize disruption of normal sediment transport and habitat connectivity, and no toxic materials including pressurized lumber are used or come into contact with the water.

For in-filling and shoreline stabilization (including shoreline armouring), the regulations will:

- prohibit in-filling on Crown land or on beaches designated under the *Beaches Act* on the seaward side of the high-water mark, except when used to anchor a footing of a wharf, boat ramp or similar structure;
- prohibit installation of shoreline stabilization on Crown land below the high-water mark, including new or expanded shoreline armouring, unless it is needed to protect an existing home, cottage, business, or similar structure that is at risk from coastal erosion and was located within the Coastal Protection Zone prior to the date the Act came into effect;
- allow for maintenance of existing, legal shoreline stabilization structures, and
- prohibit installation of groynes or breakwaters that disrupt along-shore sediment transport, unless they are required to protect the entrance of a publicly-accessible harbour, dock, or marina, or are needed to protect public infrastructure.

These restrictions do not apply to permitted projects or activities undertaken to conserve or improve ecosystem function.

In some areas, the zone will overlap with dyke lands designated under the *Agricultural Marshlands Conservation Act*. The regulations will place no new restrictions on work to maintain, repair or modify any element of the dyke system in areas undertaken by, or on behalf of, either a marsh body or the province. Also exempted are works within the Coastal Protection Zone required to anchor a designated dyke system to higher ground that may extend outside of the area designated under the *Agricultural Marshlands Conservation Act*. Any proposed activity or construction in the designated marshlands will need to meet the requirements of both the *Coastal Protection Act* and the *Agricultural Marshland Conservation Act*.

Compliance

The proposed approach is for no new application processes on Crown land along the high-water mark or in an area designated as a protected beach. Landowners and contractors working in these areas will apply for permits as they do now. Permits will not be issued if the proposed structure does not comply with the Act. Conservation officers, who are responsible for enforcing the *Crown Lands Act* and the *Beaches Act*, will determine whether work undertaken is consistent with the issued permits and investigate where necessary.

We want to hear from You!

The *Coastal Protection Act* Regulations will be a new and substantial step forward in mitigating risks to our coastal environment and construction in these areas. As we continue to develop these regulations, please share your thoughts so we can ensure the regulations are as effective and practical as possible.

These questions are designed to help you in providing feedback in any form that is convenient for you.

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1. The regulations will create a Coastal Protection Zone that will extend inland from the high-water mark by a set distance. Government is proposing this distance be in the range of 80 to 100 meters. This is not a setback but will be the area within which a minimum building elevation would apply and where a landowner would need to hire a designated professional to assess erosion risk. Thinking about sea level rise, coastal flooding and the range of coastal erosion risks facing areas of Nova Scotia's coast, do you think this distance is appropriate to provide the margin of safety we need in future decades? Is it too wide? Too narrow?

2. Are the proposed role and responsibilities of designated professionals appropriate and clear? What changes would you like to see in the role or responsibilities of delegated professionals?

3. Do the types of structures to which the regulations apply seem reasonable? Do the proposed exemptions make sense?

4. Do the proposed regulations for building and maintenance of shoreline structures, such as shoreline armouring, make sense to you? Will they help protect our sensitive coastal ecosystems? Are they too restrictive, and if so, why?

5. What are the most important things government can do to make sure introduction of these regulations is as smooth as possible?

6. Do you have any further thoughts you would like to share to help us as we finalize the regulations?

Appendix E: ECEL Submission on Proposed CPA Regulations

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September 30, 2021

Department of Environment and Climate Change
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Submission on the Proposed *Coastal Protection Act* Regulations

Introduction

East Coast Environmental Law is an environmental law charity based in Halifax, Nova Scotia, that engages in public interest environmental law throughout Atlantic Canada. As part of our mandate, we encourage the development and fair application of innovative and effective environmental laws in Atlantic Canada.

Nova Scotia will experience some of the greatest sea-level rise in Canada because the province is subsiding (sinking) as sea levels rise at an accelerated pace. Additionally, the effects of climate change make threats such as storm surge, coastal flooding, and erosion more severe, frequent, and dangerous. With 70% of Nova Scotia's population living in coastal communities, it is vital that we protect the coast, its ecosystems, and its residents. That is why East Coast Environmental Law has advocated over many years for legislation to protect the province's coastal areas. The proposed *Coastal Protection Act* regulations are the next important step the provincial government can take to adopt achievable measures to protect our coasts. We urge the Government of Nova Scotia to take this opportunity to implement broad and strong protections for the coast. To do this, the protections available under the Act and regulations must apply to all activities in the coastal protection zone and must be put into force without delay.

Submission Overview

As the first law of its kind in Canada, the Nova Scotia *Coastal Protection Act* is an important piece of legislation, and the culmination of years – decades – of discussion and debate about protecting the province's coast. In the 1990's and early 2000's there were serious calls for

effective legislation to deal with the challenges that coastal ecosystems and communities faced, and in 2009, the province began drafting a coastal protection strategy; however, these calls for action ended as lost opportunities for action. Now, with a law in place, Nova Scotia is on the cusp of realizing some of the key elements in these decades long calls for action, as we await the moment when that law comes into force.

The proposed regulations under the *Coastal Protection Act* are the final key to unlocking coastal protection and now that more than 2 years have passed since the Act was passed, we urge the provincial government to make every effort to bring this chapter of the process to a conclusion. While there is more work ahead to facilitate coastal protection, especially for coastal ecosystems and coastal features like beaches and wetlands, there is urgency to move forward with the protections that will be available under the Act. Therefore, our submission is set within the context that our coasts require immediate protection, and that the province cannot afford further delays in implementing the Act.

We recognize that the *Coastal Protection Act* will not provide solutions for all of the challenges faced by ecosystems and communities along our coasts. However, the actions that can be taken under the Act, and under the proposed regulations, must be bold, fair, effective, transparent, and enforceable. We have focused our submission on the language of the proposed regulations considering the purposes and principles of the *Coastal Protection Act*, and on its reach and scope. Specifically, we comment on the role of the proposed regulations to provide a clear path to protect coastal ecosystem features – barrier beaches, estuaries, and wetlands – and on the impact of exemptions, which will limit the protections offered under the Act on private land and private water lots. It is our submission that the regulatory language used to describe how coastal wetlands, barrier beaches, and estuaries will be protected needs clarification, and the exemptions – written and silent – that the proposed regulations create need to be reconsidered.

We find it unfathomable that building restrictions in the coastal protection zone will only apply to Crown land below the high-water mark. As well, we are concerned that developments and activities on private land – such as shoreline stabilization structures, infilling and excavation, septic systems, or golf courses – are exempt simply because the Act and proposed regulations are silent about these activities. This silence is inexplicable when viewed in the context of the *Coastal Protection Act*'s principles, which include recognition of the importance of coastal ecosystems, and an explicit nod to the fact that certain structures can accelerate coastal erosion and impact adjacent properties.

Finally, we offer our thoughts on the practical considerations for monitoring, compliance, and enforcement under the Act and the proposed regulations. It is our submission that small changes or additions to the proposed regulations, with respect to determining the high-water mark, and with respect to enabling transparency and access to building permits or development agreements issued for development in the coastal protection zone, will strengthen compliance under the Act.

We look forward to seeing government take the next step in this important work, and we hope our recommendations will provide the Department of Environment and Climate Change with valuable solutions to appropriately strengthen the proposed regulations to protect our coast. We encourage the Department to continue engaging with stakeholders, to communicate their plans

about how and when the regulations will be rolled out, and to commit to completing this stage of the work as soon as possible so the law takes effect.

Part 1: Ecosystem Protection – Wetlands, Barrier Beaches, Estuaries

The protection that is provided by the *Coastal Protection Act* and its proposed regulations primarily takes the form of building setbacks within the coastal protection zone. That means that if important and sensitive coastal ecosystem components, which significantly contribute to the health of our coasts, are not included as a part of the coastal protection zone, they are not protected from development. Therefore, coastal ecosystem features must be included as part of the coastal protection zone in order to serve the purposes of the Act – which are to protect the province's coast for future generations by preventing development and activity in locations adjacent to the coast that damage the environment by interfering with the natural dynamic and shifting nature of the coast)[1] – and to be consistent with the principles set out in the Act – which include recognition that coastal features provide important ecological functions and are important for the health and wellbeing of Nova Scotians.[2]

The proposed regulations do not expand the wetland protection already created under the *Coastal Protection Act*, but they do modify the boundaries of the coastal protection zone, which are otherwise also set out in the proposed regulations, for barrier beaches and estuaries. We submit that these modifications to the boundaries of the coastal protection zone are an important aspect of the proposed regulatory framework. We applaud the Department's recognition that these valuable ecosystem features must receive enhanced protection, and urge the Department not to waiver in implementing these protections.

This first part of our submission contains our thoughts on how coastal ecosystem protections for wetlands, barrier beaches, and estuaries will likely work, both technically, considering the *Coastal Protection Act* and the proposed regulatory language, and practically, considering the framework's relationship with other related environmental laws and policies.

Recommendation 1
The regulations need to enhance coastal wetlands protections.

Aside from section 11 of the *Coastal Protection Act*, which prohibits alteration of wetlands within the coastal protection zone, there is no specific or extensive protection for coastal wetlands. The proposed regulations do not offer guidance or clarity about how coastal wetlands will be protected: it does not mention wetlands at all.

Section 11 of the *Coastal Protection Act* reads as follows:

> No person may alter a wetland in the Coastal Protection Zone unless it is done in compliance with this Act and the regulations.[3]

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[1] *Coastal Protection Act, SNS 2019, c 3 [**CPA**]*, section 2.
[2] *CPA*, section 7.
[3] *CPA*, section 11.

Since the proposed regulations do not expand on this provision, we interpret it broadly to mean that wetland alterations cannot be made except if they adhere to a process that could be set out in the regulations. We take this broad approach to interpretation because the provision would be otherwise meaningless considering the operation of other proposed components of the regulatory framework under the *Coastal Protection Act* and considering the wetland protection that already exists under the Nova Scotia *Environment Act*.

Under the *Coastal Protection Act* and the proposed regulations, the only protection available to coastal wetlands within the coastal protection zone are construction setbacks, and restrictions on infilling and shoreline stabilization structures on Crown lands or on designated beaches (under the *Beaches Act*).[4] These general protections would be in effect regardless of section 11 of the *Coastal Protection Act*. Therefore, if section 11 of the *Coastal Protection Act* is interpreted narrowly, when a development satisfies the construction setback requirements, or is exempted from those setbacks, it is therefore theoretically in compliance with the Act and regulations and could be allowed in a wetland in the coastal protection zone (with all the other appropriate approvals).

The *Activities Designation Regulations*, created under the *Environment Act,* prohibit alteration of wetlands – including coastal wetlands – or the flow of water within wetlands without an approval from the Minister of Environment and Climate Change (the "Minister").[5] As part of the decision-making process for wetlands alteration approvals, the Minister is guided by the province's *Wetlands Conservation Policy*, which prohibits "Wetlands of Special Significance" from receiving a wetlands alteration approval; salt marshes are considered a Wetland of Special Significance.[6] It is important to note that the *Wetlands Conservation Policy* is not law and the Minister is not bound to follow it in making final decisions for wetlands alteration approvals. This means that although alterations of coastal wetlands can be prohibited, the Minister has discretion to approve their alteration.

Taken together, a narrow interpretation of section 11 provides no additional coastal wetlands protection at all – the provision may as well not exist. Therefore, we return to our proposed broad interpretation: that no coastal wetland, within the coastal protection zone, may be altered except as specifically set out in the regulations. In order to compliment this broad interpretation, and for the regulations to provide coastal wetlands with the necessary protection under the Act, we highly recommend that the regulations provide clarity about the circumstances in which it could be appropriate to alter coastal wetlands. One method to achieving this is to grant all coastal wetlands within the coastal protection zone status akin to "Wetlands of Special Significance", as provided for under the *Wetlands Conservation Policy*. However, stronger coastal wetland protection could be provided if the regulations provided scope for designated professionals or municipalities to incorporate the presence of coastal wetlands into the evaluation of building setbacks or permitting within the coastal protection zone. Alternatively, the regulations could create parameters or further guidance for the alteration of wetlands.

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[4] Province of Nova Scotia, Department of Environment and Climate Change, Part 2: A Detailed Guide to Proposed Coastal Protection Act Regulations (July 2021) online: < https://novascotia.ca/coast/docs/part-2-detailed-guide-to-proposed-Coastal-Protection-Act-Regulations.pdf> [**Proposed Regulations**], page 17-18.

[5] *Activities Designation Regulations* NS Reg. 47/95 amended to Reg. 120/16, sections 3(1) and 5A.

[6] Government of Nova Scotia, *Nova Scotia Wetland Conservation Policy*, 2011 ["**WCP**"], page 11-12.

In conclusion, there is potential for the regulations to confirm our broad interpretation of section 11 of the *Coastal Protection Act*, which offers real and effective protection to coastal wetlands that otherwise do not exist in law. Without further guidance for coastal wetlands alterations, set out explicitly in the regulations, we are concerned that one of the most promising coastal ecosystem protections available under the Act will be effectively moot.

Recommendation 2
The regulations should provide a clear and expansive definition for barrier beaches.

We understand that under the proposed regulations, where part of a pond or a lake that is behind a barrier beach is within the coastal protection zone, the upland boundary of the zone will extend further inland to include the land that is adjacent to the barrier beach.[7] We further understand that this proposed modified inland boundary of the coastal protection zone (the barrier breach boundary) will be a set distance beginning at the nearest point on the ordinary high-water mark of the barrier beach's ocean side, and no closer than a set distance from the ordinary high-water mark of the pond or lake behind the barrier beach. It is proposed that it "may be possible to build within this part of the coastal protection zone".[8]

Protection of barrier beaches is important because they serve to provide an important ecosystem function of creating coastal lagoons, ponds, wetlands, salt marshes and lakes; these ecosystem components then provide a habitat for many of the province's most recognizable or sensitive species. As a starting point, we submit that the description of barrier beaches as "typically thin beaches that separate ocean waters from ponds or lakes"[9] will need to be refined to come to a workable definition, which should (must) be set out in the regulations. This will ensure that these modified boundaries for the coastal protection zone are enforceable and that barrier beaches and their associated ecosystems are protected. A definition for barrier beaches should reflect the fact that bodies of water other than "ponds" or "lakes" can create barrier beaches. Additionally, barrier beaches should not be limited by the *Beaches Act*, which defines a beach as:

> that area of land on the coastline lying to the seaward of the mean high watermark and that area of land to landward immediately adjacent thereto to the distance determined by the Governor in Council and includes any lakeshore area declared by the Governor in Council to be a beach.[10]
>
> [emphasis added]

Under the *Beaches Act*, beaches above the high-water mark are only protected if they are designated by regulation. The definition of barrier beaches under the proposed regulations should apply to all beaches, even those that are not captured under the narrow definition set out in the *Beaches Act*. Furthermore, any approach used to define or set selection criteria for barrier beaches must avoid the approach taken by the *Beaches Act* because it is a time consuming process and only protects beaches in a piecemeal and discretionary manner that neither reflects decision-making based on science, local ecology, and biodiversity, nor addresses coastal issues

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[7] Proposed Regulations, page 4.
[8] *Ibid*.
[9] *Ibid*.
[10] *Beaches Act* RSNS 1989 c 32 [***Beaches Act***], section 3(a).

that the *Coastal Protection Act* is meant to deal with (erosion, sea level rise, storm surge and flooding). Instead, we submit that the definition for barrier beaches should be based on their function – protection or shelter of a coastal water body and adjacent land from the currents of the open ocean and mixing of salt and fresh water – and should apply to every ecological feature that falls within that definition.

During a stakeholder meeting between East Coast Environmental Law, the Ecology Action Centre, and representatives from the Department on August 4, 2021, the Department indicated that it may not be desirable or practical to protect every body of water located behind a strip of land along the coastline. While a clear definition of a barrier beach would help to limit the number of eligible barrier beaches, we also submit that there should be a presumption within the definition that every strip of land along the coastline that protects a pond or lagoon is a barrier beach unless it is determined by the Department, using established criteria, that the strip of land does not function as a barrier beach, or it is of a small enough size to be exempt.

Recommendation 3
The definition for estuaries must reflect and protect all estuarial ecosystems.

We are encouraged by the proposal to modify the inland boundary of the coastal protection zone in the presence of estuaries. Like coastal wetlands and barrier beaches, estuaries provide immeasurable benefits to communities. They also provide vital ecosystem functions because they create habitats for vulnerable and at-risk species and contribute to the provinces' biodiversity.

We submit that the definition and criteria for estuaries must be clear. The regulatory intent document has described estuaries as "areas where rivers meet the sea and freshwater mixes with salt water"[11]. However, this narrow focus on rivers does not capture the full extent and variety of estuarial ecosystems. The *Coastal Protection Act* defines an estuary as a "watercourse that meets a body of salt water, where the water is a mixture of salt and fresh water".[12] The definition of a watercourse in the *Environment Act* includes not just rivers, but also streams, lakes, creeks, ponds, springs, lagoons, or other natural bodies of water, as well as groundwater.[13] Therefore, we submit that the Department must be alive to the potential scope of the definition of an estuary, and the regulations must reflect the reality that many important estuarial ecosystems are not found at the ends of rivers.

The two proposed methods for determining the inland boundary of the coastal protection zone, where it is modified by the presence of an estuary, may not be practical for the range or kinds of estuaries that can exist along the province's coast. Specifically, it is not clear how the size criterion, which combines the width and inland extent of the watercourse (the proposed regulatory statement documents refer specifically to a river) [14], can be used to determine the inland boundary for other kinds of watercourses like lakes, ponds, lagoons, or underground water. Additionally, because of the expansive definition of a watercourse in the *Environment Act*, there is a possibility that an unresolved conflict or overlap between

[11] Proposed Regulations, page 4.
[12] *CPA*, section 3(g).
[13] Environment Act SNS 1994-95 c. 1[***Environment Act***], section 3(be).
[14] Proposed Regulations, page 4.

estuaries and barrier beaches will be created: for example, if a barrier beach is breached or erodes, the lagoon or pond behind it – which would be captured under the definition of a watercourse found in the *Environment Act* – could conceivably become an estuary.

It is our understanding, also based on our stakeholder meeting on August 4th, that the Department hopes to provide maps that will identify precise end points of major estuaries, and that disputes about the precise coastal protection zone boundaries of estuaries could be resolved by a professional land surveyor using the definitions in the regulations.[15] We submit that the regulations should provide clear definitions for all boundaries of the coastal protection zone, including the inland boundaries in estuaries, so that conflicts about the location or presence of the coastal protection zone are avoided. Furthermore, if there is a conflict, there should be a presumption that the broader protection for an estuary applies, and that the person or body challenging that presumption does so at their expense.

Part 2: The Scope of the Proposed Regulations – Exemptions, Modifications, Restrictions

As we have already noted above, the primary protections for coastal ecosystems and new developments that are available under the *Coastal Protection Act* are the mandatory vertical and horizontal construction setbacks in the coastal protection zone. As a result, the scope of the Act is already narrow compared to what other jurisdictions outside of Canada have enacted to protect their coasts. The Act is also focused on only some of the pressing coastal issues which previous Nova Scotian government processes – like the State of Nova Scotia's Coasts Technical Report in 2009 and the province's draft coastal strategy in 2011 – identified as priority areas to address.[16] Therefore, while the objective of this submission is not to critique the scope of the *Coastal Protection Act*, it is necessary to highlight the narrow scope of the Act because the proposed regulations will reduce the scope of protections available under the Act even further, in a significant way and counter to the principles of the Act. The two primary ways that the proposed regulations significantly reduce the scope of the Act is their creation of exemptions from (and one modification of) the mandatory construction setbacks, and their silence on critical coastal development issues. It is our submission that the proposed explicit and silent exemptions from mandatory setbacks, together with the limited applicability of prohibitions and restrictions on construction of shoreline stabilization structures and infilling activities, narrows the scope of the Act so substantially that it will severely limit the necessary and anticipated protection of coastal ecosystems that would otherwise be available under the Act.

Recommendation 4
The proposed construction setback exemptions and modifications must be narrowed.

The *Coastal Protection Act* already contains provisions that exempt some activities or development from the mandatory construction setbacks. For example, public infrastructure, and commercial and industrial structures that need access to the coast below the high-water mark, will not be required to adhere to the setbacks as long as they are consistent with the principles of the Act whenever possible.[17] We understand that these legislated exemptions from the mandatory

[15] *Ibid*, page 5.
[16] Government of Nova Scotia, "The 2009 State of Nova Scotia's Coast Technical Report" (2009).
[17] *CPA*, sections 16 and 17.

setbacks are based on the need to allow activities that are directly connected to, reliant on, and inseparable from the coast; essentially, the utility of these activities is derived from their access to the coast. Within that context, some of the additional exemptions proposed for the regulations fit into the category of being inseparable from access to the coast, including boathouses and similar structures. Other structures that are exempted from the mandatory setbacks, like detached garages and similar storage buildings, decks or gazeboes, are not closely and directly linked to the coast.[18] While we understand that a major reason for their exemption is their ancillary role and the fact they are not meant to provide living space, we submit that the exemptions should be consistent with the purposes of the Act, which are as follows:

> The purpose of this Act is to protect the Province's coast for future generations by preventing development and activity in locations adjacent to the coast that
>
> (a) damage the environment by interfering with the natural dynamic and shifting nature of the coast; or
>
> (b) put residences and buildings at risk of damage or destruction from sea-level rise, coastal flooding, storm surges and coastal erosion.[19]

The purposes of the Act, and by extension, its regulations, are twofold: to protect the coast's unique dynamic and shifting environment, and to protect peoples' infrastructure – and by extension their health and safety – along the coast. The proposed exemptions seem to account for the second purpose by being limited to non-living spaces and ancillary structures. However, protection of coastal ecosystems should also be considered before establishing blanket exemptions. Some of the structures being proposed for exemption may have extensive footprints and impact the dynamic and shifting nature of coastal environments. Therefore, the exemptions should be re-evaluated to consider the exempted structures' size and impact.

There is also one proposed exemption that is neither inseparable from access to the coast, nor ancillary in nature: trailers or mobile homes designed for frequent transport. On the contrary, these structures are meant to be living spaces (the lack of which is the basis of some of the other exemptions) and allowing them to be placed in the coastal protection zone without having to adhere to the mandatory setbacks is counter to the purposes of the *Coastal Protection Zone*. Additionally, it does not accord with several of its principles, including the following:

> a) portions of the Province's coast are dynamic and naturally migrate landward and seaward as a result of the interaction of natural forces such as tides, winds, currents and wave action with varying geological conditions; […]
>
> (e) sea-level rise, coastal flooding, storm surge and coastal erosion pose significant threats to the safety of future development in coastal areas; […]

[18] Proposed Regulations, page 6.
[19] *CPA*, section 2.

> (g) risk-informed decisions regarding development in coastal areas are an important part of climate change adaptation given the inevitability of relative sea-level rise, coastal flooding, storm surge and coastal erosion and their related impacts on the Province.[20]
>
> [underlining added]

Despite acknowledgement in the *Coastal Protection Act* that coastal shifts will be accelerated by inevitable sea-level rise, coastal flooding and erosion, and storm surge, which poses significant threats to the safety of future developments, and despite the Act's clear call for risk-informed decision-making, the proposed exemption of trailers or mobile homes will place these structures in the direct path of risks that the Act is meant to address. We submit that there is no reason to allow such a broad exemption. The temporal aspect of the exemption – the fact that these exempted structures are designed for frequent transport – is addressed by the fact that temporary and moveable structures likely do not need a building permit or development agreement under existing municipal by-laws. For example, temporarily parking a recreational vehicle on the coast does not trigger the building setbacks in the coastal protection zone, regardless of the exemption. However, if that same structure were to be made more permanent – by connecting to utilities like electricity, sewage, or water services – occupancy permits or building permits should then apply, and the construction setbacks could be captured under those processes. We therefore recommend that trailers or mobile homes not be exempted under the proposed regulations by virtue of their design for frequent transport (terminology that is also so vague as to be unhelpful), but rather, by virtue of their permanency – if such an exemption is necessary at all.

Finally, we submit that the proposed modified requirements for developed downtown waterfront – which will prevent horizontal building setbacks from applying to "areas that are dominated by mixed-use structures with a public amenity or multi-unit residential component where there are no gaps of greater than 75 meters between existing mixed-use structures, or where the area was zoned for commercial, mixed use or equivalent prior to the Act coming into force" [21] – do not align with the purposes and principles of the Act. This proposed modification will prevent protection for coastal ecosystems and developments, present and future, that the Act is meant to provide. The phrasing is also vague, and if a modification is desired, the criteria for a developed downtown waterfront will need to be clarified. Questions to consider include: What does it mean to describe an area as "dominated" by types of structures? Will it mean a certain percentage of buildings must meet the criteria? Who will make these decisions? What is a public amenity, and will it need to derive its public utility from access to the coast (like the exemptions for commercial and industrial activities found in the *Coastal Protection Act*)? Altogether, the criteria should be clear, and there should be protections for coastal ecosystems, like coastal wetlands, estuaries, and barrier beaches, that are in developed downtown waterfront areas.

Recommendation 5
Construction setbacks must apply to other activities in the coastal protection zone.

Because the primary protections available in the coastal protection zone are the mandatory minimum construction setbacks, it is problematic that the construction setbacks will only apply

[20] *CPA*, section 7.
[21] Proposed Regulations, page 7.

to construction requiring municipal permits (building permits and development agreements). There are many kinds of activities and development – like on-site sewage systems, general land development and infilling, golf courses, parking lots, or playgrounds – that do not require municipal permits, but which can have major impacts on the natural and dynamic nature of the coast, and coastal ecosystems, in the province. The result is a significant and untenable reduction in the scale and scope of protections for coastal lands under the proposed regulations.

We will highlight on-site sewage systems as an example because we confirmed with the Department, during our stakeholder meeting on August 4th, that sewage systems will not be required to adhere to the constructions setbacks. We submit that the proposed regulations should prohibit on-site sewage systems being built in the coastal protection zone without also meeting the mandatory construction setbacks. In the alternative, we submit that the Department amend the *On-site Sewage Disposal Systems Standard,* created under the *Environment Act*. An installer of an on-site sewage system must install a system in accordance with the *On-site Sewage Disposal Systems Standard*, and we recommend that that a sewage system minimum set-back requirement for the coastal protection zone be added.[22] Similar setbacks or modified requirements could be added to the regulations for other kinds of development and activity that is not covered by municipal permitting processes.

Recommendation 6
The proposed restrictions must apply on private land in the coastal protection zone.

While we continue to be concerned about the narrow scope of protections available under the *Coastal Protection Act* – mostly in the form of construction setbacks – there are other proposed restrictions which we submit could provide an additional layer of protection in the coastal protection zone. Comprehensive restrictions on construction of erosion control structures, shoreline stabilizations structures, and infilling, could help achieve protection of the dynamic and shifting nature of the coast, and coastal ecosystems, by preventing the kinds of activities that were a major reason the Act was required in the first place. However, like the construction setbacks, the restrictions are currently too narrowly focused on Crown land and need to be expanded to apply to private land in the coastal protection zone. This is a major gap within the proposed regulations and makes them inconsistent with the intent of section 10 of the *Coastal Protection Act*, which prohibits any activity in the coastal protection zone that interferes with the natural dynamic and shifting nature of the coast, unless the activity is done in compliance with the Act and the regulations.[23] There is no qualification in this section that the Act may only apply to Crown land.

It is asserted that the proposed regulations are meant to "restrict or limit works and construction that interfere with the dynamic nature of the coast or disrupt sensitive coastal ecosystems".[24] To meet this objective, the proposed regulations outline requirements that apply to permits to build or modify structures or earth works on Crown land below the high-water mark or on designated beaches (under the *Beaches Act*).[25] It is proposed that the new requirements will be incorporated into existing permitting processes administered by Lands and Forestry (now the Department of

[22] *On-site Sewage Disposal Systems Regulations* SOR 317/2015 amended to SOR 213/2018, section 4(1)(2)(d).
[23] *CPA*, section 10.
[24] Proposed Regulations, page 17.
[25] *Ibid*, page 17.

Natural Resources and Renewables), and that landowners will not need to apply for any new permits.[26] No reason is given for why the restrictions will only apply to Crown land below the high-water mark and designated beaches, even though it is acknowledged that "wharves, boat ramps and structures that stabilize the shoreline…can disrupt sensitive coastal ecosystems and their ability to adapt to natural processes".[27] We submit that the lack of an existing permitting process for structures above the high-water mark on Crown land and private property should not be used as a reason to fail to regulate structures that directly impact the natural dynamic and shifting nature of the coast, and which can put adjacent properties at risk.

We further submit that the regulations extend to private land below the high-water mark, and specifically, private water lots (also referred to as pre-confederate water lots). There are already several infamous cases of applications to infill private water lots in the Halifax Regional Municipality's Northwest Arm that could be prevented with appropriate regulation under the Coastal Protection Act .[28] We again point to the purposes and principles of the *Coastal Protection Act*, and ask: why would a dangerous and impactful coastal activity or development – like infilling or construction of shoreline stabilization structure – be restricted on Crown land but allowed on an adjacent private property? We submit there is no good answer to this question, and that the regulations should prohibit installation of shoreline stabilization structures and infilling in the entire coastal protection zone, similar to the way that installation of groynes or breakwaters are fully prohibited.[29]

The protections available under the *Coastal Protection Act* and its future regulations will <u>not</u> apply to existing buildings located in the coastal protection zone, so we understand that there will remain a need to protect those existing structures from threats like coastal erosion and flooding, sea level rise, and storm surges. The proposed restrictions on Crown land below the high-water mark already contain exemptions for coastal infrastructure and existing buildings: for example, the prohibition on infilling does not apply to anchor a wharf, boat ramp, or similar structure footings. As well, the prohibition on installation of shoreline stabilization structures does not apply to those installations needed to protect existing buildings that are at risk of coastal erosion.[30] Since there is already a wide caveat to accommodate existing buildings that may be in danger from future coastal threats, restrictions or prohibitions on infilling and construction of shoreline stabilization structures must be otherwise applicable to all land – private and public – in the entire coastal protection zone.

<u>Part 3: Enforcement – High-water Mark, Transparency, Permits and Reports</u>

Given the narrow scope of protections available under the *Coastal Protection Act* and regulations, the success of the Act will be enormously reliant on consistent, high rates of compliance. To achieve high rates of compliance, the information that guides decision-making under the Act and its regulations must be available and easily accessible to the public. In

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[26] *Ibid*, page 17.
[27] *Ibid*.
[28] For example, see Halifax Regional Council Motion, moved by Councilor Waye Mason, "Letter supporting cessation of infill applications on the North West Arm", June 8, 2021, online <https://www.halifax.ca/sites/default/files/documents/city-hall/regional-council/210608rc142.pdf>, and CBC News, "Infilling could hurt Halifax's Northwest Arm, advocates say", Posted August 12, 2021, online <https://www.cbc.ca/news/canada/nova-scotia/advocates-voice-concerns-infilling-waterlots-northwest-arm-1.6138422>
[29] Proposed Regulations, page 18.
[30] *Ibid*.

addition, designated professionals, and others whose role it will be to determine the high-water mark, will require significant support in carrying out this crucial role (which sets the boundaries of the coastal protection zone and guides compliance under the Act). To ensure transparency and accountability, the designated professional reports that set out minimum horizontal construction setbacks, and the building permits and development agreements that contain the conditions for developments within the coastal protection zone, must be easily and readily available for review by professionals, municipalities, enforcement officers, and the public.

Recommendation 7
There must be a clear process to determine the high-water mark.

Because the coastal protection zone is the entire area in which the *Coastal Protection Act* and its regulation will apply, it is critical that the boundaries of, and within, that zone are fully identifiable. Everything along the coast – the seaward and landward portions of the coastal protection zone, the mandatory and minimum building setbacks, and other restrictions and prohibitions – is measured from the ordinary high-water mark. It is therefore a critical reference point for all parties – such as landowners, designated professionals, developers, municipalities, government departments, and the public – and fundamental to monitoring, compliance, and enforcement.

The ordinary high-water mark is not defined in the proposed regulations, or the *Coastal Protection Act*. In fact, the only legislation that we are aware that defines the high-water mark is the *Land Surveyors Regulations* created under the *Land Surveyors Act*.[31] It is defined as follows:

> (a) for non-tidal waters, the limit or edge of the bed of a body of water where the land has been covered by water so long as to wrest it from vegetation or as to mark a distinct character upon the vegetation where it extends into the water or upon the soil itself; and
>
> (b) for tidal waters, the mark on the seashore reached by the average of the mean high tides of the sea between the spring and neap tides in each quarter of a lunar revolution during the year excluding only extraordinary catastrophes or overflow.[32]
>
> [Underlining added]

The *Land Surveyors Regulations* establish that the ordinary high-water mark is presumed as the feature defining water boundaries, unless otherwise provided by an existing right.[33] The precise location of the ordinary high-water mark is determined using facts and evidence.[34] We conducted searches for caselaw or resources that would help to interpret the phrase "excluding only extraordinary catastrophes or overflow" but were unable to find further guidance. Based on the definition set out in the *Land Surveyors Regulations*, we find it difficult to accept that a landowner, developer, designated professional, municipal representative, or a member of the

[31] *Land Surveyors Regulations*, NS Reg 308/2013 amended to NS Reg 32/2014, section 70.
[32] *Ibid*, section 70(1)(a), (b).
[33] *Ibid*, section 70(2).
[34] Gary J Corsano and Robert F Risk, "The Ebb and Flow of Water Law in Nova Scotia", Canadian Bar Association Nova Scotia Branch, 2008 Development Conference, 11 January 2008 at page 9.

public would be able to identify the high-water mark easily or precisely on a given piece of coastal property. That creates a barrier to consistent monitoring of developments on the coast, and in turn, threatens the ability to effectively ensure compliance and enforce the Act and its regulations.

It is our understanding, based on correspondence with the Association of Nova Scotia Land Surveyors, that a Nova Scotia land surveyor must be included in the *Coastal Protection Act* regulations as a designated professional, because only members of their association are qualified to conduct professional land surveying, which includes identifying property boundaries. This is consistent with the *Land Surveyors Act*, which states that:

> No person shall engage in the practice of professional land surveying or shall describe the person's activities as activities falling within the meaning of "professional land surveying" unless the person
>
> (a) is an active member of the Association; or
>
> (b) is otherwise authorized to engage in the practice of professional land surveying as set out in this Act or the regulations.[35]

It is further our understanding that Nova Scotia land surveyors use available skill and technology to conduct consistent observations with respect to property boundaries, including the location of the ordinary high-water mark. These skills and technology are required to make observations of the ordinary high-water mark consistent around the province, and without which, serious errors (tens of meters) can occur with respect to the location of the high-water mark.[36] We therefore submit that the proposed regulations ensure that the level of certainty and accuracy with which the ordinary high-water mark is determined is similar to or better than that of land surveyors, or that land surveyors are part of the process. We further submit that the ordinary high-water mark should be marked by the designated professional, or a land surveyor, as part of their site-specific assessment, to ensure that everyone involved (i.e. developers, contractors, and municipal representatives) is using a consistent marker for their inspections.

Recommendation 8
Designated professional reports, permits and agreements must be publicly available.

It is often the case that enforcement of environmental laws in Nova Scotia begins with a citizen complaint, usually because departments and municipalities do not have the necessary resources to adequately monitor for compliance. It is therefore necessary that information that informs compliance with the *Coastal Protection Act* and its regulations is accessible: this means information is free, readily available, and not subject to delays or time-consuming processes like those under the *Freedom of Information and Protection of Privacy Act*. It is our understanding that municipal building permits and development agreements may be available through a FOIPOP request, but that method of obtaining important information is often delayed, even when information may be required in an

[35] *Land Surveyors Act* SNS 2010 c 38, section 21(1).
[36] Peter Berrigan, President of the Association of Nova Scotia Land Surveyors, Email Correspondence, September 21, 2021.

urgent or timely manner. We submit that the proposed regulations contain provisions requiring that all the information that municipalities use to make decisions under the *Coastal Protection Act* and its regulations, for developments within the coastal protection zone – including designated professional reports, building permits, and development agreements – be made available in a free on-line public registry and that the information be submitted to the registry in a timely fashion.

Conclusion and Summary of Recommendations

While the *Coastal Protection Act* provides a solid foundation, and the proposed regulations offer a strong framework for implementing the Act, more work is required to fill in the proposed regulations to make them into a finished product that provides the best opportunity for the province to protect its coast. We remind the Department that it is a requirement under the Act that the regulations take into account the purposes and principles of the Act.[37] It will therefore be important that the regulations protect existing and future human development *and* protect coastal ecosystems, so that present and future generations can continue to benefit from the dynamic and shifting nature of the coast. It will also be important for the regulations to reflect the principles of the Act, which recognize that protecting coastal ecosystems – like coastal wetlands, barrier beaches, and estuaries – helps to protect human development and activities, and provides opportunities for safe, sustainable economic development.

In our submission, we have made eight key recommendations, which we urge the Department to consider in this next stage of drafting the regulations. Those recommendations are as follows:

- The regulations need to enhance coastal wetlands protections.
- The regulations should provide a clear and expansive definition for barrier beaches.
- The definition for estuaries must reflect and protect all estuarial ecosystems.
- The proposed construction setback exemptions and modifications must be narrowed.
- Construction setbacks must apply to other activities in the coastal protection zone.
- The proposed restrictions must apply on private land in the coastal protection zone.
- There must be a clear process to determine the high-water mark.
- Designated professional reports, permits and agreements must be publicly available.

We look forward to continued collaboration as we work to achieve effective coastal protection in the coming months.

Sincerely,

Mike Kofahl
Staff Lawyer, East Coast Environmental Law

[37] *CPA*, section 26.