

**EXAMPLE
MUNICIPAL PLANNING STRATEGY
TEXT MODULES**

INTRODUCTION

This example municipal planning strategy text is intended to be a resource to help municipalities in Nova Scotia establish coastal land use planning that is tailored to their context.

Each of the following pages includes a "module" of example municipal planning strategy text for a specific coastal land use planning topic. These include preamble and policy. These example modules are meant to be flexible; while they provide a functional policy framework, you should also feel free to modify and adapt them as necessary. In many cases the example text modules include "fill-in-the-blank" portions that must be completed to tailor the content to your community and chosen approach. This might include places to write about the specific context of your community, or places to list the specific numerical values (e.g. vertical elevation) your council adopts. These portions are identified with the following **[formatting]**.

In many cases there are multiple aspects of a given coastal land use planning topic that can be considered. These are identified by a numbering scheme. For example, your municipality may wish to include exemptions from land use by-law regulations in difference instances. Exemptions as a whole are addressed under Module M5, while separate types of possible exemptions are identified under M5.1, M5.2, and M5.3.

In other cases there are multiple main approaches that can be taken for a specific topic. These are identified by lettering. For example, areas at risk for coastal flooding can be identified with mapping from the Municipal Flood Line Mapping Program or through a custom-developed vertical elevation. Example text for each possible approach is numbered M3.1A and M3.1B, respectively. While the lettering scheme is intended to identify separate approaches, each option should not necessarily be seen as mutually exclusive. For example, you may use M3.1A for areas that have been mapped under the Municipal Flood Line Mapping Program and M3.1B in areas where flood mapping has not yet been done.

More information to provide context on each of the example text modules and to help you decide which approaches are appropriate to your municipal context can be found in the companion document, *A Guide to Incorporating Coastal Protection into Land Use By-laws in Nova Scotia*.

M1 DEVELOPMENT IN COASTAL AREAS

[Municipality] is a coastal community. **[List any interesting facts about the municipality's coast and describe the different coastal areas of the municipality, such as downtown waterfronts, different shorelines, coastal cottage areas, major islands, and/or key harbours and other areas of commercial and industrial marine activity].** Community members value the coast for its natural beauty, recreational opportunities, and role in **[list any locally significant marine industries].**

At the same time, Council and residents are aware of the value of coastal areas as natural environments, and of the risks that the sea presents to infrastructure and development. Residents who participated in municipal discussions about coastal issues highlighted concerns about **[list specific or priority concerns that the community has focused on, both in terms of risks (environment, safety, economy) and the hazards that create those risks (flooding, erosion, etc.)].** These issues are expected to become more important because of climate change and its effects on local weather patterns, on the frequency and intensity of storms, and on rising sea levels.

In addressing the above issues, Council and residents are also aware that any regulation must be balanced against other goals or objectives outlined in this Municipal Planning Strategy. Some of the key goals or objectives that are factored into the **[Municipality's/Town's]** approach to coastal development include **[broadly describe these considerations, such as encouraging investment in downtown waterfronts or supporting specific marine industries].**

Council has decided to tackle coastal issues using several planning tools, each of which is described in detail in the sections below. **[You may also wish to describe any non-regulatory approaches, such as municipal programs or investments, that your municipality is taking in coastal areas].**

M2 DEFINING THE COAST

One of the challenges of coastal regulation is defining where the “coast” ends. From a regulatory perspective, when does a river or estuary become the coast? Coastal dynamics are complicated and depending on local factors can sometimes reach far inland.

In establishing a coastal planning area Council has taken a *[...]*

M2.1A

targeted approach, focusing on those areas most exposed to the direct effects of ocean. ***[describe any specific cutoff points on major watercourses]***

M2.1B

broad approach, including areas of inland watercourses that are likely influenced by tides and other coastal processes. ***[describe any specific cutoff points on major watercourses]***

The coastal planning area for *[municipality]* will be identified in the Land Use By-law *[...]*

M2.2A

by the establishment of a specific Coastal Land Use Zone.

POLICY: Council shall, on the Zoning Map of the Land Use By-law, establish the Coastal Land Use Zone. This zone is intended to permit and guide coastal development such as, ***[applicable land uses]*** and to identify areas where specific Land Use By-law regulations related to coastal hazards will apply. This zone will be applied to lands ***[describe your criteria]***.

M2.2B

by overlay mapping that applies in addition to zoning.

POLICY: Council shall, through the Land Use By-law, establish the Coastal Planning Area Overlay Map to identify lands that are subject to Land Use By-law regulations for coastal development. The Coastal Planning Area Overlay will be applied to lands ***[describe your criteria]***.

M2.2C

by a text description.

POLICY: Council, through the Land Use By-law, define the coastal planning area where Land Use By-law regulations for coastal development apply as lands ***[describe your criteria]***.

M3 COASTAL FLOODING AND SEA LEVEL RISE

Coastal flooding is a natural and common occurrence in **[municipality]**. During storms the combination of tides, wave action, and storm surge can raise water levels high enough to inundate the land. In some cases, the impact of this flooding on our communities has been significant. **[Describe areas that flood regularly, infrastructure that has been damaged, or notable major storm events (e.g. hurricanes) that have affected the community].**

The impacts of coastal flooding are only expected to get worse in the coming years. The effects of climate change include warming global temperatures, which will continue to increase average sea levels for two main reasons:

1. when water warms up it expands and takes up more space; and
2. the warming temperatures are melting glaciers and polar ice caps, and this melted water ends up in the ocean.

In addition to a rise in sea water levels caused by climate change, Nova Scotia's landmass is also sinking at a rate of approximately 1 to 3 millimetres per year due to a process known as "post-glacial rebound".

High-precision satellite data shows that the global average sea level has increased by 9.95 centimetres (+/- 0.4 cm) since 1993, and historical tidal gauge data suggests that levels have risen over 20 centimetres since 1900. Depending on humanity's response to the threat of climate change, sea levels in **[municipality]** are expected to increase by a metre or more by the year 2100.

Council believes it is wise to be thoughtful about the types of development that are permitted in coastal areas that are at risk of flooding today and in the future. To that end, Council **[...]**

M3.1A

is using mapping produced by the Municipal Flood Line Mapping Program. On these lands, Council intends to prohibit certain uses as required by the Floodway Fringe standards of the Statement of Provincial Interest Regarding Flood Risk Areas, and further to **[limit / only permit]** the following types of development: **[list development]**

POLICY: Council shall, through the Land Use By-law, prohibit uses associated with the warehousing or production of hazardous materials as well as residential institutions such as hospitals, senior citizen homes, and homes for special care within the coastal planning area on lands identified through the Municipal Flood Line Mapping Program.

POLICY: Further to **[policy above]** Council shall, through the Land Use By-law, **[prohibit / only permit]** **[any targeted types of development, such as "habitable areas"]** development in the coastal planning area on lands identified through the Municipal Flood Line Mapping Program.

M3.1B

has established a minimum vertical elevation for many forms of development. This vertical elevation is based on the following components:

- a Higher High Water Large Tide of **[value]** relative to **[vertical datum]** measured at **[tidal gauge]**;
- a storm surge of **[value]** which corresponds to **[return period or extreme event]**; and
- a projected relative sea level rise of **[value]**. This is based on the **[climate scenario, uncertainty profile, and time period]** of the Intergovernmental Panel on Climate Changes' **[Fifth/Sixth]** Assessment Report, as presented in **[data source]**.

[You may wish to describe your council's choices for how conservative or not the storm surge and projected sea level rise scenarios are]

Below this minimum vertical elevation, Council intends to **[limit / only permit]** the following types of development: **[list development]**

POLICY: Council shall, through the Land Use By-law, **[prohibit / only permit]** **[any targeted types of development, such as "habitable areas"]** development in the coastal planning area on lands below **[value]** metres relative to **[datum]**.

M4 COASTAL EROSION

[Municipality]'s coastline is always changing. Wave action, storm surge, rivers, overland stormwater (e.g. rain runoff), and human activities all combine to reshape our shores on a regular basis. Sometimes this happens as a slow, continuous process. Other times it can happen in one big event with multiple metres of shoreline lost in a single storm.

Coastal erosion is a natural and important process, providing the sediment that builds beaches and new coastlines and feeds coastal marshes and other habitats. However, it also can conflict with human development, which is typically fixed in place.

The rate that coastal erosion happens varies widely along each coast depending on the underlying geology, exposure to wave action, the amount and type of vegetation, the extent and thickness of winter sea ice, and the scope of any human-made infrastructure or land disturbance. **[describe any differences in specific coasts or shorelines within your municipality; e.g. areas that are fast eroding and areas that are more stable]**

M4.1A

In **[year]** the **[municipality]** undertook a coastal erosion study to better understand the rate at which various coastlines are eroding. **[Details about the study, like who conducted it, and the high-level methods used].**

Key findings of the study include average annual erosions rates of **[values]** along **[coasts]**. Based on this data, Council has established minimum horizontal buffers for development along each coastline to provide approximately **[value]** number of years before erosion threatens those developments.

POLICY: Council shall, in the Land Use By-law, establish a minimum horizontal coastal buffer of **[values]** from the top of bank for **[coastlines]**. Development within this buffer shall be prohibited.

M4.1B

Currently, there is no detailed data for erosion rates on a municipality-wide basis in **[municipality]**. In lieu of such data, Council has decided to establish a precautionary minimum horizontal coastal buffer of **[value]** from top of bank.

The chosen buffer size is intended to **[describe the intent]**.

POLICY: Council shall, in the Land Use By-law, establish a minimum horizontal coastal buffer of **[value]** from the top of bank. Development within this buffer shall be prohibited.

[If a reduction mechanism is desired:]

POLICY: Council shall, through the Land Use By-law, establish a process to enable a reduction of the minimum horizontal coastal buffer to as low as **[value]** from the top of bank on the basis of on-site study by a qualified professional. The study must demonstrate that the proposed reduction of the minimum coastal buffer does not increase the risk of damage from erosion over a **[value]** year timespan nor increase the risk of damage to the natural environment.

M5 EXEMPTIONS

Avoidance of a hazard is often the most straight-forward approach to reducing risk. However, when it comes to coastal development that is not always possible. Some types of development depend on access to the coast. In other situations, avoiding the coast might conflict with goals set out elsewhere in this *Municipal Planning Strategy*. In those situations, alternative approaches to reducing risk might be appropriate. **[describe any specific exceptions, such as downtown areas]**.

M5.1A **POLICY:** Despite the above **[policies]**, Council shall, through the Land Use By-law, exempt development in **[specific zones]** from the **[minimum coastal elevation, minimum coastal buffer, or both]**.

M5.1B **POLICY:** Despite the above **[policies]**, Council shall, through the Land Use By-law, exempt specific low cost development and development that depends on access to the shore, as outlined in the Land Use By-law, from **[minimum coastal elevation, minimum coastal buffer, or both]**.

M5.1C **POLICY:** Despite the above **[policies]**, Council shall, through the Land Use By-law, exempt development that is **[flood proofed and/or that has specific areas of the development (e.g. habitable areas) raised above the minimum elevation]** from the minimum coastal elevation.

Council understands that there is existing development in many areas affected by the **[Municipality's/Town's]** Land Use By-law regulations for coastal development. While it is generally Council's intention to avoid increasing development in these areas, Council also understands that existing property owners might need some flexibility from the Land Use By-law regulations for existing non-conforming buildings.

POLICY: Despite the above **[policies]**, Council shall, through the Land Use By-law, and subject to all other applicable zone requirements, relax the non-conforming provisions of the *Municipal Government Act* to permit the expansion of existing buildings within the **[minimum coastal elevation, minimum coastal buffer, or both]**. Such expansion shall not result in a **[building elevation, coastal buffer, or both]** smaller than currently exists for the building. Furthermore, any such expansions shall be **[any applicable limitations, such as size, floodproofing, or elevation]**.

M5.2

POLICY: Despite the above **[policies]**, Council shall, through the Land Use By-law, relax the non-conforming provisions of the *Municipal Government Act* to permit existing buildings within the **[minimum coastal elevation, minimum coastal buffer, or both]** to be moved within the **[minimum coastal elevation, minimum coastal buffer, or both]** provided the **[building elevation, coastal buffer, or both]** is not smaller than currently exists.

POLICY: Despite the above **[policies]**, Council shall, through the Land Use By-law, relax the non-conforming provisions of the *Municipal Government Act* to permit existing non-residential buildings within the **[minimum coastal elevation, minimum coastal buffer, or both]** to be rebuilt, replaced, or repaired if destroyed or damaged by fire or otherwise, if it is floodproofed and is otherwise substantially the same as it was before the destruction or damage.

M5.3

There are many existing undeveloped lots in **[municipality]** where the Land Use By-law regulations related to coastal issues combined with other Land Use By-law regulations, such as minimum yard setbacks, make development challenging. In these situations, Council believes the importance of the Land Use By-law regulations for coastal development should be preserved while providing some flexibility to the landowner. As such, the variance provisions of the *Municipal Government Act* will be used to vary yard setbacks for development that would not be possible on other areas of the lot due to the regulations for coastal development.

POLICY: Council shall, through the Land Use By-law, permit the Development Officer to grant a variance to **[yard/setback from property line]** standards as outlined in the Land Use By-law, to the extent necessary to permit development on a lot that is otherwise made undevelopable by Land Use By-law regulations for coastal development.