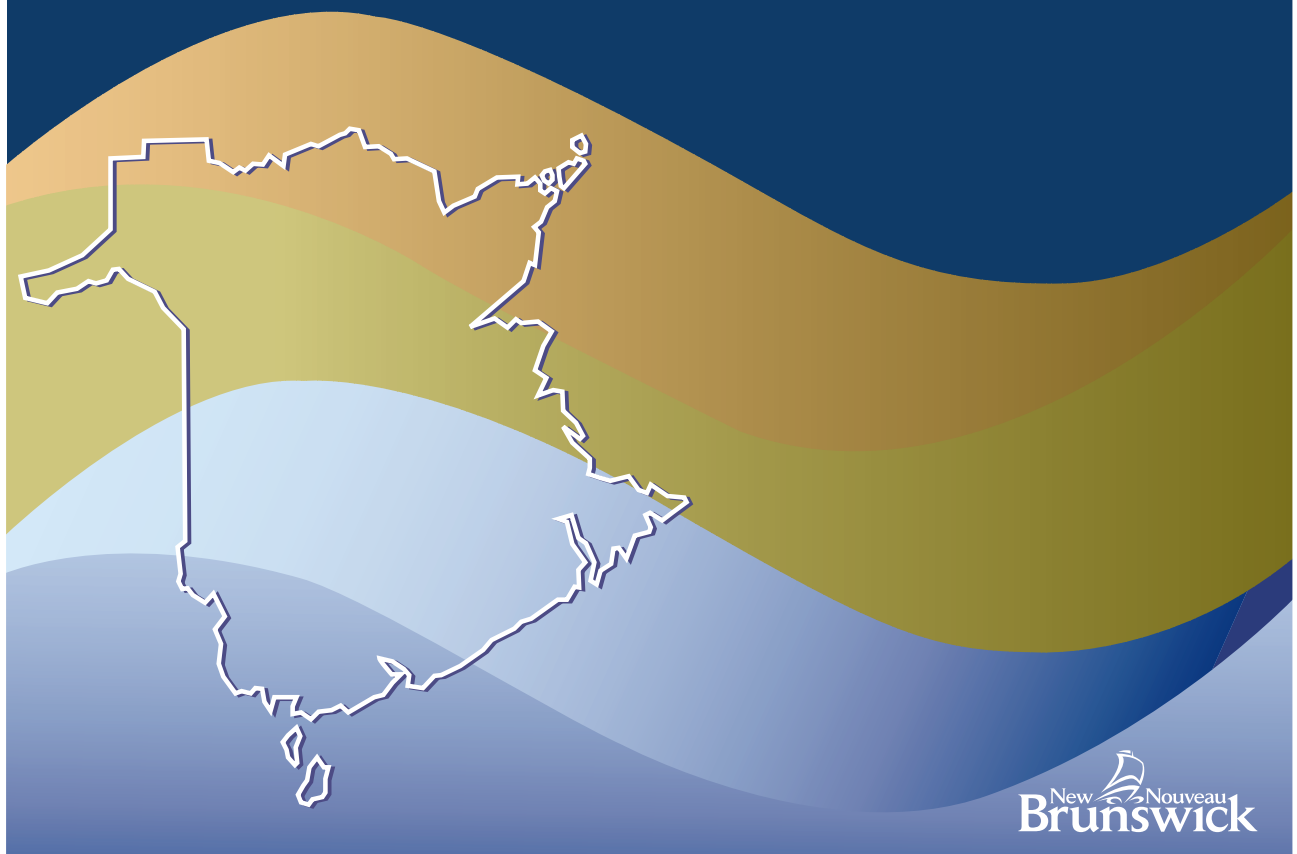


A Coastal Areas Protection Policy for New Brunswick



For additional copies of this document, please contact:

**The Sustainable Planning Branch
New Brunswick Department of the Environment and Local Government**

P.O. Box 6000, Fredericton, NB, E3B 5H1

This document is also available on the Department's
Web site at the following address:

<http://www.gnb.ca/elg-egl/0371/0002>

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A Coastal Areas Protection Policy for New Brunswick

Introduction

Our coastal areas are an important part of New Brunswick's identity. From earliest times, when transportation was water dependent, these avenues to and from the sea have been home to a significant part of our population. Our earliest industries centred around fisheries and ship-building, and many early agricultural operations relied on draining coastal marshes. Today, our coastal areas continue to provide places to live and work for many New Brunswickers, and an increasing population of visitors. Coastal lands and waterways support fisheries and tourism and continue to play a part in transportation, all dependent to an extent on the natural habitat and ecosystems unique to our coasts.

A number of factors, from human activity to changes in our global climate have placed stresses on coastal areas, creating greater risk to public safety and structural damage, affecting important agricultural lands, and threatening the bio-diversity of plant and wildlife which have sustained coastal regions for centuries. Our present challenge is to ensure future viability of coastal areas in terms of economic and community growth through advances in environmental protection.

This document, the Coastal Areas Protection Policy, is intended to inform New Brunswickers about the Government's plans for protecting our province's coastal areas, both now and in the future. It covers what is important to protect in our coastal areas and why, and explains how future development and activity will be governed using established zones based on environmental sensitivity.

Beginning in March 2002, the Department of the Environment and Local Government will be conducting a series of open houses in coastal communities to make citizens aware of the policy and to respond to any questions. Information opportunities will also be made available to interested groups in municipal, business, and other key coastal area sectors during the same period.

Apart from these information sessions, those wishing to make inquiries or provide written comments regarding the policy can do so **on or before March 28, 2002**, by contacting:

**The Sustainable Planning Branch
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What We Have to Protect

The Importance of our Coastal Areas

New Brunswick is fortunate to have such diverse coastal areas. From the rugged beauty and grassy dunes along the Acadian Peninsula and Bay du Chaleur to the sandy shores of the Northumberland Strait and the rocky cliffs of the Bay of Fundy, our coast line and surrounding areas contribute significantly to our sense of being Maritime.

There are approximately **5,501 kilometres of coastline** in New Brunswick, stretching between the Gulf of St. Lawrence and the Bay of Fundy. The coastal marine shoreline makes up over 87 per cent of our total New Brunswick boundary and as such is the predominant outline of our provincial map.

Nearly **60% of our population lives within 50 kilometres of our shores**, where coastal areas support economic activity, provide spaces for recreation, support a rich diversity of plant and wildlife, and are part of our culture and history.

One of the longest-standing industries in the province, traditional inshore **fisheries bring in approximately \$125 million** worth of fish landings annually, which in turn supports the province's fish processing sector. The more recent aquaculture industry has become a vital part of New Brunswick's export business. The value of these fisheries, and the employment they generate, is dependent to a large extent on a healthy coastal ecosystem.

Approximately **70 per cent of tourism**, worth nearly three-quarters of a billion dollars, is tied directly to the coastal experience, where attractions depend on scenic beauty, as well as clean beaches and waterways. In fact, eco-tourism has become one of New Brunswick's greatest drawing cards for residents and tourists alike. It's worth noting that sixty-seven percent of our visitor accommodations exist within walking distance of saltwater, resulting in annual revenues of nearly \$500 million.

As with other areas, the presence of key industries or attractions in some coastal areas form a centrepiece for an array of other economic opportunities, whether local provision of goods and services, or cottage industries such as New Brunswick's renowned arts and crafts sector.

Coastal areas are also important to the ecology of our province. They provide **habitat** for native wildlife and plant populations which contribute significantly to provincial biodiversity.

New Brunswickers are proud of the hard-working spirit inherent in both our traditional ways of life, and our newer endeavours. We also have a strong sense of stewardship, both of our individual properties, and our communities as a whole. These values will play an important role as we work to protect the future of our coastal environment.

Why Protection is Becoming Increasingly Important:

Issues Affecting our Approach to Coastal Areas

As noted in the introduction, there has been development activity in our coastal areas for generations. So, why are we more concerned with protection now than in the past? There are **three key factors** which account for our more recent attention to coastal protection:

1. Over the past few years, our **knowledge** of how eco-systems in coastal areas function has grown dramatically, and new technologies have been developed to help identify and better manage the areas of greatest sensitivity. This improved understanding of the relationship between the natural environment and its ability to withstand human and other activity no longer allows us to maintain a stand-still approach. We know what the threats are and how to prevent or better protect against them, and the Coastal Areas Protection Policy is a concrete step in that direction.

Information sharing is also an important ingredient in our ability to manage coastal eco-systems. There is a connection between the environmental conditions along New Brunswick's coastlines and the activities which occur further inland. Careful land, air and water management elsewhere will aid in protecting the coastal environment. Similarly, our co-operative efforts with neighbouring Canadian and American jurisdictions help us better understand pollution patterns and to join forces on preventive measures. New Brunswick's membership in the Gulf of Maine Council on the Marine Environment, for example, allows our respective scientists to share important marine data, as well as monitoring, sampling and prevention activities.

2. There has been much **greater pressure for development** in coastal areas during the last half of the twentieth century than ever before. Urban sprawl near coastal communities, growth of economic activities, and the increased desire for recreational homes and pastimes have all placed significant stress on coastal land and waterways.

In examining development in New Brunswick's coastal communities, the Department of the Environment and Local Government has compared sub-division rates for inland communities with those for communities within 500 metres of the shore. Over the period from 1990-1999:

- 87,830 new lots or parcels were created provincially with an average of 8,783 new properties per year.
- 6,268 new coastal lots or parcels created with an average of 627 new coastal properties per year.

Although coastal development remains relatively stable at an annual rate of approximately 600 new lots or parcels per year, the proportion of coastal subdivisions as a percentage of all subdivisions in the province, has increased 35% over the 1990-99 period.

Increased and unplanned development is a key factor in creating land use conflicts resulting from inappropriate use of coastal resources. It can also result in insufficient or inappropriate public access. Each of these issues poses challenges for both existing and potential development, but a Coastal Areas Protection Policy, supported by legislation, can begin to address these challenges.

The key to future protection is better planning, both from an individual property perspective and at community and regional levels. Thriving coastal areas are inter-dependent in many ways, including a mutual reliance on the environment. By adopting improved planning and development practices, individuals and businesses will gain improved protection for the future.

3. While the weather has always affected life and work in coastal areas, there are new risks associated with the phenomenon known as **climate change**. After hundreds of years, and especially since the Industrial Revolution, humans have generated considerable pollution. And while substantial strides have been made in the past fifty years to limit, reduce or remove many significant forms of air and water contaminants, the earth is now experiencing the cumulative affects of years of neglect. One of those effects is a change in the global climate that results in increased sea levels and severe weather systems.

While nature itself plays a role in creating land and water formations; it also has a hand in altering them, and from a human perspective, not always for the better. There is now no doubt that there will be a slight warming in New Brunswick and that water levels around our coast will rise slightly. For coastal areas this means more heavy rainfalls that can trigger flooding and more intense storms which, when accompanied with higher water levels, high winds and high tides, will trigger strong storm surges, placing people and infrastructure at risk. This, in turn, places a burden on New Brunswick's economy when businesses and citizens seek compensation for lost or damaged buildings or usable land. For the year 2000 alone there will be public compensation of almost \$4.5 million related to two serious storm surge events (January and October), which affected coastal properties almost exclusively. That figure does not include money paid out by insurance companies or other uncompensated damages.

It is clear from an environmental, public safety, and economic perspective that our efforts to limit the pollution which contributes to climate-change should be extended to include coastal area management which guards against its affects.

Understanding the Coastal Eco-system: Identifying Sensitive Coastal Areas

For many people, coastal areas are distinguished by salt water and beaches, but there are actually many **features** which make up the coastal environment. Besides beaches, the features which are closest to the water include dunes, coastal marshes, inter-tidal areas and rock platforms. Together they form what is called a **coastal lands core area**, and are considered the most sensitive area in environmental terms.

Coastal features such as dunes, barrier islands, salt marshes, and beaches, perform two significant functions. They act as natural buffers to reduce the impact of storm surges and flooding. These features were both created by the interaction of wind and waves and serve to dissipate the energy of wind and waves. By absorbing the forces of storm surges they reduce the risk to public safety and damage to structures behind the coastline.

These features also provide essential habitat for land and marine plants and animals, some of which are rare or endangered. Coastal salt marshes for example, are a critical component of the eco-system that supports our traditional fisheries. They serve as nursery grounds for various species of fish that contribute either directly or indirectly to our commercial fisheries. They also are natural filters and act as a purifier of water. It should be noted that the Government has recently brought forward a Provincial Wetlands Conservation Policy which aims, among other things, to protect human health by storing and purifying ground and surface water, and to maintain ecosystem health by providing habitats and nutrients for many economically important fish and wildlife species. This wetlands policy, accordingly includes coastal marshes.

Some features, such as beaches and dunes, can be prone to erosion. Development in these areas can disrupt the natural eco-system balance causing water quality problems or placing these developments at greater risk to damage.

Not all lands along our coast are natural coastal features. Reclaimed or **dyked lands** are human-made and have been established over the years to support agricultural operations, provide protection for roads and structures, and have been used for habitat management. Because of their multiple functions, and their potential to revert to coastal marshes, this policy recognizes reclaimed lands as a unique part of coastal areas.

There has been a substantial effort made by scientists here and elsewhere to understand what function each of these features plays in the overall coastal environmental network or eco-system. With the aid of aerial photography and computer-enhanced mapping, it is now possible to identify the precise location and behaviour of features such as coastal marshes, inter-tidal areas, beaches, dunes, rock platforms, and their associated landward limits and high water marks. This in turn enables scientists to identify the development capacity for coastal lands and waterways. Under the Coastal Areas Protection Policy, these tools would be used to assess the likely environmental sensitivity in a particular coastal area and to establish zones for different types of development activity.

Creating a Policy for Protection: A Provincial and Local Approach

The Coastal Areas Protection Policy is designed to manage our land-based coastal resources through sustainable development to ensure a balance between growth and environmental integrity.

To accomplish this, the policy establishes minimum standards for the management and sustainable development of coastal lands in unincorporated areas of the province. Municipal governments would be required to manage growth and development on coastal lands in a fashion consistent with the needs and aspirations of each community.

The policy aims to protect local coastal features such as beaches, dunes, and coastal marshes, while maintaining a commitment to manage the development of coastal areas provincially.

The objectives of the policy are as follows:

- To reduce the likelihood of threats to personal safety by storm surges and to minimize the danger to personnel involved in emergency and rescue efforts during storm and/or flooding events.
- To minimize the contamination of water and wetlands from hazardous materials or other contaminants, (e.g. the contents of heating fuel, or septic tanks), as well as to minimize the intrusion of salt water into wells due to water table draw-down.
- To maintain the buffering capacity of coastal areas to protect inland areas from storm surges.
- To maintain flora and fauna, both for the role they play in traditional fisheries and eco-tourism, as well for their inherent value in maintaining the coastal eco-system.
- To minimize public expenditures required to repair storm damage to public property such as roads, bridges, public buildings and so on, as well as to reduce the expenditures required to control erosion as a means of protecting human-made structures.

The Coastal Areas Protection Policy recognizes the following operating principles:

- That individuals should not transfer costs for private risk to the public purse or to others. In other words, there should be no compensation provided to people who choose to build in harm's way, and any development should not increase risk for others.
- That the policy will apply at the provincial level, including both incorporated and unincorporated areas, and in privately and publicly owned land.
- That provision be made for activities that, by their very nature, must take place in the coastal area (such as work in dry docks, fish landings etc.) Such activities would be subject to appropriate analysis due to their potential to harm coastal area features.
- That appropriate public access to coastal areas is secured for public purposes.
- That the policy should contribute to a cohesive and consistent provincial framework for other land and water use policies and environmental legislation.

How Sensitive Areas will be Protected:

The Establishment of Protection Zones

The Government has adopted a coastal management approach based on sensitivity to impact. In order to accomplish this, the coastal area has been divided into three sensitivity zones.

Zone A - the areas closest to the water known as the coastal lands **core** area

Zone B - the areas beyond Zone A which provide a further **buffer**, and

Zone C - the areas beyond Zone B that form a **transition** from coastal to inland areas.

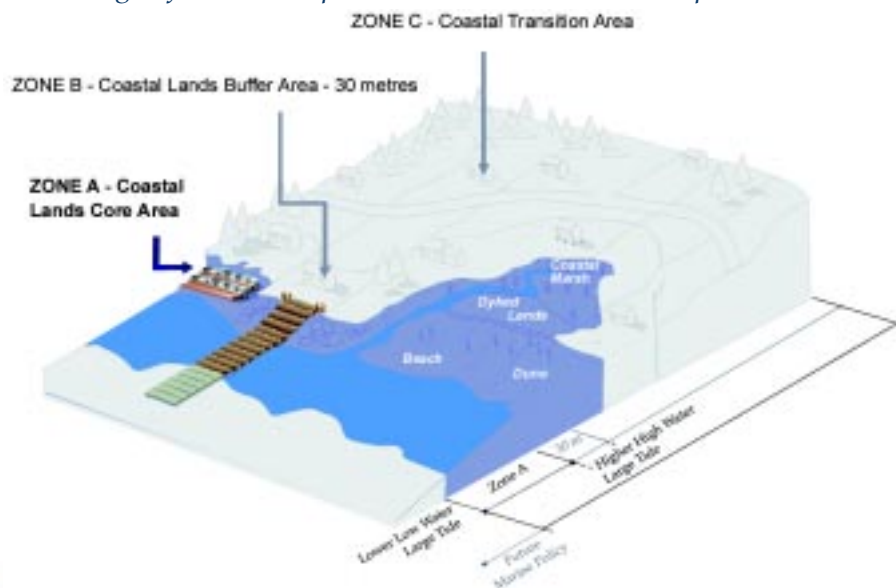
This approach enables Government, development officers, municipal officials and land-owners to clearly identify where one zone ends and another begins, and allows for different management of the three zones to reflect sensitivity, with least activity in Zone A and progressively more activity through Zones B and C.

Prior to implementation, the policy will propose an review mechanism which uses defined criteria as the appropriate way to assess the varying levels of sensitivity in Zones A, B, and C.

This zoning approach - core, buffer and transition - is the same approach used by the United Nations for the UNESCO (United Nations Educational, Scientific and Cultural Organization) Biosphere Reserves.

ZONE A - COASTAL LANDS CORE AREA

Zone A, the most sensitive zone, includes beaches, dunes, rock platforms, coastal marshes and dyked lands found between the Higher High Water Large Tide (HHWLT) and the Lower Low Water Large Tide (LLWLT) plus dunes extending beyond the HHWLT. Due to the extreme sensitivity and the very high risk of danger/damage from storm surges, fewer development activities would be acceptable in Zone A.



Acceptable Activities In Zone A

- The maintenance or enhancement of the coastal feature, e.g. sand fencing or planting native dune grasses to protect sand dunes.
- Acceptable erosion control structures.
- Development associated with access and interpretation for educational or research purposes.
- A development or undertaking to protect a coastal feature while providing approved public or private access to a shoreline, e.g. a boardwalk.
- On coastal marshes that have been historically dyked for agricultural purposes:
 - Carry out agricultural practices.
 - Construct agricultural storage buildings for activities related to the use of that land, e.g. hay storage (provided no hazardous materials are stored).

Note: the intent would be to minimize structures that would be damaged by flooding during storm surges. This would also reduce the investment that would need to be considered when determining whether to allow a dyked coastal marsh to revert to a natural eco-system.

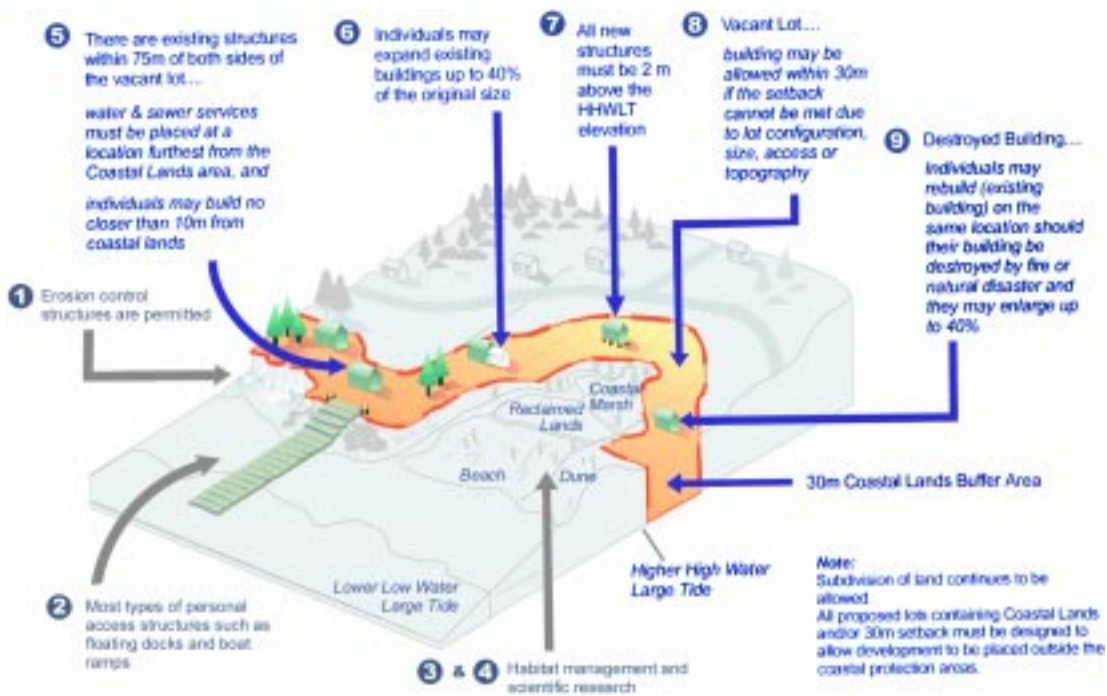
- Allow dyked marshlands to naturally revert to salt water marshes by removing control structures and subject to review the conversion of dyked marshlands to freshwater marshes.

Note: Activities that require operation in Zone A (such as commercial fisheries, transportation etc.) or infrastructure or development deemed to be in the public interest would be considered for exemption under the policy, providing appropriate analysis had been undertaken.

ZONE B - COASTAL LANDS BUFFER AREA

Zone B is the land immediately adjacent to the coastal features. Zone B would consist of an area 30 metres landward from the inland edge of Zone A. In the case of coastal marshes, a 30-metre buffer is essential for maintaining the integrity of the marsh. While development activities in Zone B would continue to have a direct impact on the coastal features and expose people to storm damage, the impacts in most cases would be somewhat less due to the protection afforded by both the natural features and prohibitions in Zone A. As such, a slightly greater range of activities would be acceptable.

The Zone B lands adjacent to a coastal marsh are an integral component of the marsh. Only those activities that would be allowed in the marsh itself would be acceptable in the Zone B adjacent to the marsh.



Acceptable Activities In Zone B

- All of the activities acceptable in a Zone A are acceptable in a Zone B.
- The construction of a new single family residence if it meets conditions related to:
 - existing residences on either side of lot,
 - proximity to the boundary of Zone A,
 - size of structure, and
 - ability to meet other regulatory requirements, e.g. septic system, and elevation as noted above.

Note: Multi-family residences, hotels and apartments will not be considered for this Zone. Commercial and industrial developments are subject to the same restrictions as in Zone A: they must be coastal location essential, and are subject to assessment.

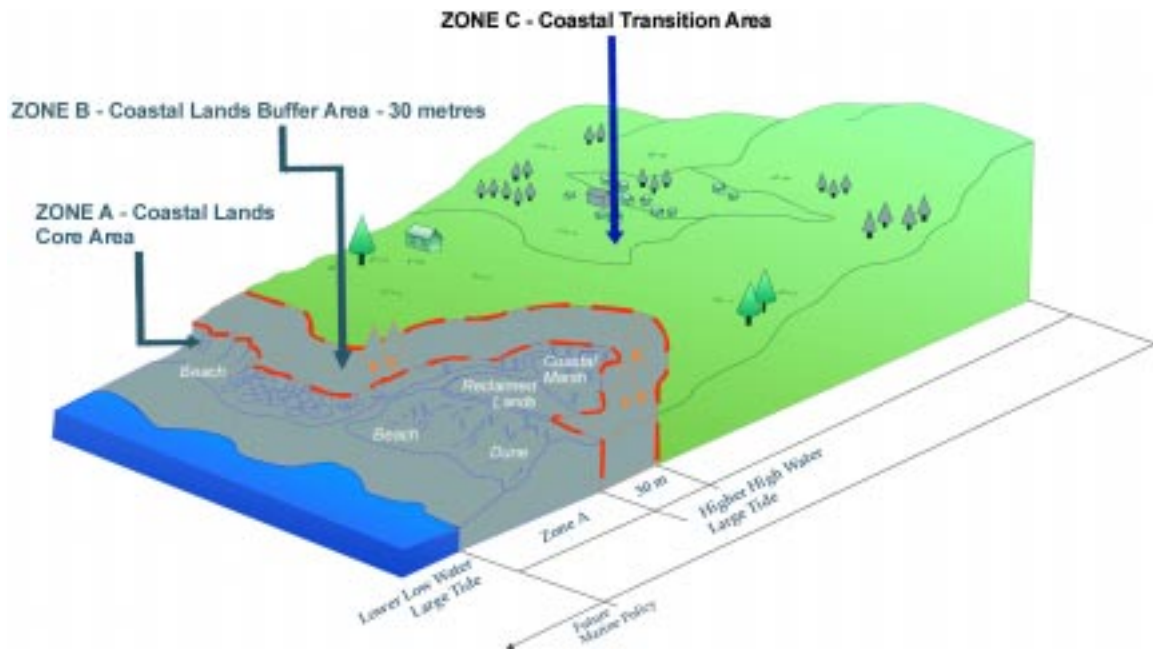
The following may be allowed, pending a review and exemption process -

- The repair, expansion or replacement of existing structures with the following conditions:
 - That this activity is no closer to Zone A than the existing building,
 - That the total increase in size of the building does not exceed 40% of the existing building, and
 - That in the case of new or rebuilt structures, the habitable portion of the structure is at least 2 metres above the HHWLT (Higher High Water Large Tide) elevation.

Note: Activities that require operation in Zone B (such as commercial fisheries, transportation etc.) or infrastructure or development deemed to be in the public interest would be considered for exemption under the policy, providing appropriate analysis had been undertaken.

ZONE C - COASTAL TRANSITION AREA

A further zone, which will not be part of the initial Coastal Areas Protection Policy, but will be adopted in the future, is referred to as - Zone C. It would extend from the outside of Zone B landward. The sensitivity to impact, and to storm damage, would vary considerably in Zone C depending primarily on topography, elevation and the erodibility of the land. As such, a precise distance for Zone C has not been established at this stage in the development of the policy.



Acceptable Activities In Zone C

- All activities that are acceptable in zones A and B are acceptable in the transition Zone. There will be greater variability in the sensitivity of this zone. Rather than trying to list all the potentially acceptable activities, the activities will be reviewed based on established criteria. There are two basic categories of criteria:
 1. The susceptibility for the development to storm surges (In addressing susceptibility to storm surges, elevation, topography and erodibility (geomorphology) are key considerations.), and
 2. The biophysical impact on the coastal ecosystem of the development. (In addressing the impact of the development on coastal ecosystems, issues such as the potential to contaminate (hazardous materials storage, septic tanks/sewage), harmful disruption of the habitat, and disruption of natural coastal processes (e.g. littoral drift) are key considerations.)

Note: As a general rule, all permanent structures should be built at an elevation 2 metres above HHWL, to provide a margin of safety from storm surges and flooding.

ACTIVITIES WHICH WILL BE PROHIBITED IN ALL ZONES

There are some activities that are inherently unacceptable in any zone, these include:

- Groynes - rigid structures built out from a shore to protect the shore from erosion, to trap sand or to redirect a current.
- Infilling.
- Dredging, excavation and associated spoil disposal activities except with an Ocean Disposal Permit from the Federal Government.
- Beach quarrying.
- Causeways, where a bridge is a technically feasible alternative.

Building on the Policy: Implementation and Legislation

The Coastal Areas Protection Policy will apply province-wide in both incorporated and unincorporated areas, and to both private and publicly owned land.

The Policy establishes a foundation for coastal area planning and management, and identifies acceptable activities in each of the three sensitivity zones. It also provides for appropriate environmental assessment for coastal area development. **(Please refer to Appendices A and B for lists of activities which would, and would not require formal environmental review.)**

This policy will require that the provincial government and municipal governments, as well as any regional development agencies apply universal standards for development activity and approvals. Criteria to support these standards are under development and will accompany the implementation of the Policy.

Administrative mechanisms for fielding inquiries and managing the review of development proposals will also be created as part of the implementation phase. Regardless of where the access points for this service are ultimately situated, the Government is committed to ensuring a coordinated approach to handling environmental assessment and approval relating to coastal development.

There may be aspects of this policy that require formal adoption in legislation. The primary goals would be to ensure consistency with other legislation, and to provide a legal basis for allowing or prohibiting certain activities.

Once the Department of the Environment and Local Government has completed its series of information sessions for citizens and key stakeholders, an implementation strategy will be submitted to Government outlining both regulated (legislated) and non-regulated mechanisms for adoption of the Policy. This activity is expected by mid-2002.

The protection of our coastal areas means the protection of both public and privately held land; the protection of livelihoods as well as personal and community enjoyment; and ultimately, the protection of our coastal environment to ensure that these same opportunities exist for generations to come.

Your comments on this policy are welcome. Please refer to the Introduction for information concerning how and by when to submit any feedback you, your group, business or organization may have.

This document is also available on the department's web site
at the following address: <http://www.gnb.ca/elg-egl/0371/0002>

APPENDIX A

Activities Which Would Require a Formal Environmental Review

The Province is committed to managing these assessments and approvals processes in a co-ordinated fashion.

1. Permanent wharves, docks, or piers;
2. Bridges and causeways, including repair, upgrading, opening of gates, and decommissioning;
3. Intake/outflow/run-off pipes, as well as cables, pipelines, road ditches, and culverts;
4. Breakwaters and jetties;
5. Beach nourishment;
6. The removal, repair, rebuilding, upgrading or altering of any existing permanent works that are permitted above
7. Roads associated with allowable coastal works that may cross or impact coastal marshes or dunes, including within the associated Zone B area;
8. Dredge and/or disposal activities associated with Ocean Disposal Permits under the Canadian Environmental Assessment Act (CEPA);
9. Floating boardwalks crossing tidally influenced areas for public access;
10. Coastal lands clean-up activities involving large marine mammals or other species;
11. Harvesting, collection, or other activities involving organic matter on coastal lands, including beach wrack or seaweed, as well as beach raking;
12. Opening of natural tidal barriers for water exchange purposes; and
13. Any coastal works not otherwise addressed.

Where applicable, the following conditions apply to the coastal activities outlined above:

- Construction materials used must not be hazardous to the coastal/ marine environment or fauna and must be clean, inorganic, non-ore-bearing, non-toxic, and obtained from a nonwatercourse source;
- All necessary precautions must be taken to prevent discharge or loss of any harmful material or substance into the watercourse, including but not limited to creosote, hydrocarbons, biocides, fresh cement, lime, paint, stains, preservatives, or concrete.
- Any debris or construction material must be removed from the watercourse and coastal lands and disposed of, or placed, in a manner where it cannot be returned to the watercourse.
- Heavy machinery, equipment and pollutants are not permitted below the ordinary high water mark and must be located or stored in areas not in danger of floodwaters;
- The activity must not obstruct pedestrian access/passage along the Crown foreshore;
- Construction materials are not obtained from any coastal feature;
- The proponent is, or has the consent of, the adjacent upland owner(s);
- The proponent indemnifies the Crown/Province against all claims resulting from the use or occupation of the subject Crown Lands;
- They do not interfere with sensitive species or their habitats (e.g., piping plover) or impact sensitive habitats, such as dunes and coastal wetlands, including within the associated Zone B area;
- The proponent assumes responsibility for the continued maintenance of the structure or works, as well as the clean-up of any component materials from the beach, above and below the ordinary high water mark, should the structure be damaged, destroyed, or decommissioned; and
- They are not located within 30m of coastal wetlands.

Note: There may be cases where exceptions will need to be made in cases of greater public good.

Activities Which Would Not Require a Formal Environmental Review

Although a formal review is not required, some activities may require permits, and will be monitored for compliance with sound environmental practices.

1. Seasonal access works, such as floating docks and swim platforms, provided that (1) there are no associated new permanent works or dredging activities; (2) they are placed in the water no earlier than April and removed by the end of November; (3) they are not commercial in nature and are for private use (e.g., no multi-boat docks); (4) they do not exceed 15m in length; and (5) Coast Guard approval under the NWPA (Navigable Waters Protection Act) has been obtained by the proponent. Please note that floating boardwalks crossing tidally influenced areas are not included in this group and require formal review and approval (see Appendix A).
2. Boat launching ramps, provided that (1) they do not extend seaward of the ordinary high water mark, including cases where they are part of the design of an existing seawall or bulkhead; (2) the coastline or bank is appropriately stabilized, if required; (3) and the elevation of the works relative to the beach does not exceed 12 inches. Boat launching ramps that extend below the high water mark fall into the category of activities that requires formal review and approval.
3. Boardwalks extending along, or over, dunes or coastal marshes, provided that (1) they do not extend seaward of the ordinary high water mark; (2) they do not require excavation or modification of the dune, marsh, or water; (3) construction activity (e.g., disturbed area) is limited to a single corridor 1 x the width of the structure, including the cutting of vegetation and working area for motor vehicles and machinery; (4) they are constructed on piles or poles a minimum of 1m above the dune or marsh; (5) no fill is used; (6) they are not associated with large-scale tourism or commercial projects which would require formal review and approval by relevant agencies; and (7) DNRE Coastal Habitat staff approval has been obtained by the proponent for proposals involving coastal marshes.
4. Stairs or other structures used to access the beach landward of the ordinary high water mark, provided that (1) there are no coastal marshes or dunes involved; and (2) construction activity (e.g., disturbed area) is limited to a single corridor 1 x the width of the structure, including the cutting of vegetation and working area for motor vehicles and machinery. Note that large-scale tourism or commercial projects require formal review and approval by relevant agencies.
5. Erosion control works and structures, such as riprap, seawalls, and bulkheads, provided that (1) they are located landward of the ordinary high water mark and up against the landward limit of coastal lands with no backfill required; (2) they have a maximum height of 2 m above the elevation of the beach at the landward limit of coastal lands, or 2 m above the ordinary high water mark if no beach exists (e.g., cliff), and extend no more than 3 m seaward from the landward limit of coastal lands; (3) they follow the contours of the landward limit of coastal lands; (4) no construction debris or other refuse is used; (5) sloped structures (max. 45 ° slope), which help dissipate wave energy / reflection, are used rather than vertical structures; and (6) rock is used as construction material with "nooks and crannies" that help dissipate wave energy / reflection.
6. Sand fences installed below the landward limit of coastal lands and landward of the ordinary high water mark to combat erosion, provided that (1) they are installed and removed manually, without machinery; and (2) construction does not interfere with the natural integrity of any dunes.
7. Dune grass (native) planting below the landward limit of coastal lands and landward of the ordinary high water mark to combat erosion, provided that (1) the proponent provides information indicating the location of the dune to be used as the source of the grass and its existing coverage density (%) per square metre; (2) the dune used as the source maintains a minimum coverage density of 75% per square metre after the grass is removed; and (3) planting and maintenance are done manually.
8. Coastal lands clean-up activities involving the removal of human waste, debris or garbage.
9. Any activities involving the rebuilding, replacement, alteration, repair, maintenance or modification of existing permanent structures or works that are permitted landward of the ordinary high water mark provided that they comply with the new proposed standards, as outlined in these recommendations. Also, maintenance and repair activities, which do not comply with the new proposed standards, provided that (1) less than 50% of the structure or works are affected; (2) the original construction material(s) are used to repair the structure or works; and (3) the size or dimensions of the original structure or works do not increase.