COASTAL MANAGEMENT STRATEGY

August 2012

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Photo Courtesy of Linda Ross

The Municipality of the District of Shelburne
Integrated Community Sustainability Plan (ICSP)

ICSP Goal 2-2: Our coastal areas, beaches and harbours, forests, wetlands and watercourses are protected from development that may damage the natural ecosystems.

ICSP Goal 9-1: We have a sound understanding of the potential impacts of climate change on our communities.

ICSP Goal 9-2: We have implemented an effective Climate Change Adaptation Strategy that includes anticipatory adaptation principles which have significantly reduced the negative impacts of climate change on our communities.

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Introduction

The Municipality of the District of Shelburne is a coastal community in Southwest Nova Scotia. There is over 350 km of coastline within our communities and approximately 84% of our homes and infrastructure are within 5 km of the coast. Our community has a very strong connection, economically and culturally to the coast. During the public engagement process for the ICSP, our coastal areas were identified as a significant asset of the community, and residents expressed concern over development in coastal areas of the municipality for many reasons including habitat protection, public access to the coast, climate change and storm events, and protection of the natural environment for ecotourism.

Coastal lands provide significant ecosystem services (buffering from storms, flood control, improved water quality, habitat for fish and shellfish). Traditionally home to residential and industrial development, fishing, transportation and tourism, there is a growing trend across Nova Scotia for residential and recreational development which can lead to negative consequences such a property at risk during storms, degraded water quality, reduced public access and habitat loss.

This Coastal Management Strategy aims to balance environmental protection with public access and sustainable economic development to ensure our coastal areas maintain their social, economic and environmental value for future generations. It is designed to provide a structure to help better manage our community's interactions with the coast to ensure its long term sustainability. This project is an identified action in the ICSP and will also form a critical component of the Municipality's Climate Change Action Plan, which must incorporate strategies for climate change adaptation and mitigation by March 31, 2014. This project is funded by the Federal Gas Tax Fund and will determine an appropriate strategy to ensure that development in our coastal areas is sustainable.

The development of this strategy has included public engagement through outreach programs, interviews with residents and stakeholder consultation and has been guided by the Coastal Management Strategy Planning Advisory Committee. It will provide a framework for future policy and programs regarding the relationship of our community with the coast and it is intended that the goals and action plan outlined here will protect the economic, environmental, social and cultural value of what our community considers its most important natural asset.

Context

From December 2008 - March 2009, extensive public engagement an consultation was conducted to contribute to the development the District of Shelburne's Integrated Community Sustainability Plan (ICSP). As part of this process, a diverse group of stakeholders came together in December 2008 to participate in an Asset Mapping exercise. The result of this process was the identification of a prioritized list of community assets in several categories. The group identified the coastline as the most important natural asset in the community. From the Community Engagement Summary Report (Appendix B, ICSP) several sustainability issues were summarized regarding the coast, including concerns about unrestricted development, increasing private ownership of land (resulting in restricted access) and rising sea level and erosion. As a result, coastal issues were included in three ICSP goals, listed below:

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Nova Scotia's Coastal Strategy

In November 2011, the Province of Nova Scotia released a draft Coastal Strategy. This document followed the release in 2009 of The State of Nova Scotia's Coast report. The Provincial Coastal Strategy identifies seven key issues that are crucial to effective coastal management in Nova Scotia:

- Coastal development
- Working waterfronts
- Public coastal access
- Sea level rise and storm events
- Coastal ecosystems and habitats
- Coastal water quality
- Governance

This strategy document has been developed to work within alongside the structure created by the seven key issues and followed by these provincial documents, but focusing on the three issues where the Municipality has jurisdiction and the greatest influence: **Coastal Development, Sea Level Rise and Storm Events and Coastal Ecosystems and Habitats**.

Municipal Role in Coastal Management

Under the Municipal Government Act (MGA), municipalities may use municipal planning strategies and land use by-laws to establish and implement policy regarding protection, use and development of lands within the municipality. This includes identification, protection, use and development of lands subject to flooding, steep slopes, lands susceptible to subsidence, erosion or other geological hazards, swamps, marshes or other environmentally sensitive areas. Municipalities also have the legal capacity to establish development provisions, impose buffers or use zoning to protect

watercourses (including the coast). The purpose of this legislative authority is to enable municipalities to assume the primary authority for the planning of development in their jurisdictions in order to ensure consistency with the character of their community. To this end, municipalities also have powers to regulate landscaping, building materials and the alteration, infilling and excavation of private land. These legislative powers give municipalities a significant role in the planning and control of coastal development, but many municipalities in Nova Scotia, including the District of Shelburne, have not yet made use of these.

In addition to the legislative role of municipalities, the planning process also acts to engage citizens and stakeholders in decisions regarding the long term vision for the community and addressing coastal issues in a way that ensures sustainable development of coastal areas. This strategy includes actions relating to policy development, but also to enhancing available information and providing education and outreach programs to support the effective implementation of policy.

Climate Change

Our climate is changing. Scientific understanding of climate change indicates that Canada will experience significant shifts in weather patterns over the span of a single generation, a trend that will most likely continue. Long-term sea level rise is projected in Atlantic Canada, and will accelerate as a result of climate change. Sea level rise will result in storm events having ever increasing impacts on our communities. Climate changes poses a risk to sensitive coastal ecosystems, coastal infrastructure, low lying properties and areas of rapid coastal erosion. Given the value of coastal areas, the municipality has an opportunity to plan for development that preserves the value of coastal areas and intentionally designates different areas for different uses, minimizes conflict about land use and manages the risks associated with climate change. This strategy document will be a key component of the Municipality's Climate Change Adaptation Plan, to be completed by March 31, 2014.

Potential Impacts of Climate Change in Coastal Areas of Shelburne County

- High water results from a combination of sea level rise, storm surge, sinking land and wave run-up.
- Storm surge results from ever-increasing intensity storms crossing Atlantic Canada
- On average storm surge ranges from 0.5 to 0.8m
- In extreme cases, with Hurricane Juan as example, surge can exceed 1.5m
- Sea Level Rise range 0.6 - 1.5 m (2100).
- Sinking land adds 0.2–0.3 m to relative sea level rise
- Wave run-up, event-based, could exceed 5m.
- Annual average temperature increase of 2.5^{o}C
- Six-fold increase in the number of hot days (temperature higher than 30^{o}C)
- More precipitation year-round, particularly in the winter and spring

Public Engagement and Stakeholder Consultation Process

From July - October 2011, several public engagement activities were implemented for the Coastal Management Strategy.

Interviews

Eight long term residents of the District of Shelburne were interviewed about what they have witnessed around the coastline near their homes. Each of them told us about similar changes they have noticed around their home, but all in a different area. All were concerned about the vastly changing coast for the safety of people and the environment. The interview questions included comparing the past to the present in relation to climate change and discussing potential options for future policy and activities. The evidence collected from the interviews has been compiled into a Google Map, available on the Municipal web site at

http://municipalityofshelburne.ca/top_links/icsp/left_links/costal%20management/index.php

Aerial Photos

The Department of Natural Resources provided aerial photos of areas that are at high risk to coastal changes dating back to 1955. The photos were geo-referenced to a map of the District of Shelburne and also layered on top of each other by year, oldest to newest. This information was compiled into a Power Point file so the progression could be easily seen.

Outreach at public events

Over the summer there were five public outreach events in various places in Shelburne County: the Sable River Farmer's Market, Shelburne Farmer's Market, Shelburne Founder's day, Lockeport's Harmony Bazaar and the Shelburne County Exhibition. After meeting and speaking with the local public and with tourists, people started to recognize the project by the last public outreach, the Exhibition. People were interested in learning more but not many people signed up to be contacted by the project.

Open Houses

In September and October, two open house events were held alongside the Whirligig Festival and the Harvest Fair. Several stations were set up including a display of the aerial photographs, and maps where people could mark areas of concern. Approximately 40 people visited the open houses over the two events. Although this was not a large number of people, the people who visited the open houses were interested and engaged and had information to share about their experiences.

Results

Overall, there was genuine concern expressed by residents who have had personal experience of changes along the coast, but for those without that personal experience, awareness of the issue is low. Although people recognize the importance of the issue once some information is provided, it is not something that those unaffected are concerned about.

In general, there was support and a feeling that the time was right for some type of development controls. Many people cited the example of the houses built on the dunes at Louishead beach as being something that should have been better controlled. There was general support for at least guidelines and also for land use controls or a buffer area

along the coast. Some concerns were also expressed regarding property rights and coastal access (there were concerns both about maintaining access, but also about granting access rights without any control for the landowner).

Residents who have observed or experienced coastline changes are engaged and interested in the project and the process. A short survey was also available to people who attended the open houses, and 100% of respondents (of which there were only eight) said that they had noticed coastal changes, and were worried about climate change. All respondents also indicated that development should be somehow controlled or planned in coastal areas.

Stakeholder Consultation

The outreach activities demonstrated that there is genuine concern amongst residents and an appetite for some development controls to protect property and the environment. However, it was clear that the Coastal Management Strategy will need to have a strong educational component. It was recommended that the next stage of the project be to compile some best practices regarding coastal management and development controls and present the results to a stakeholders which would include developers, real estate agents, property managers and coastal residents. It was thought that an engaged stakeholder group could be more effective than simply approaching the general public going forward.

During December 2011, a total of 20 stakeholders including representatives from government, environmental NGOs, RCMP, fire departments, EMO, property managers, real estate agents, developers and residents were consulted on the coastal management strategy strategic focus areas and several potential strategies and actions. The responses are included in Appendix B of this document. In general all stakeholders supported the Municipality taking steps towards better managing human interaction with coastal areas. All stakeholders supported activities related to education and outreach for residents and landowners. The majority of stakeholders supported development controls and also recognized the challenges for implementation of such controls. The stakeholder input was used to form the goals and action plan presented in this strategy.

Review of Coastal Development Controls in the Atlantic Region

A review of all land use by-laws in rural districts of Nova Scotia, PEI, New Brunswick, New Hampshire and Maine was completed as part of the research for this project and is included as Appendix A of this document. Policy is established at the state and province level everywhere but in Nova Scotia, which relies on municipalities to establish coastal development restrictions though land use planning. The most common mechanism for development control along the coast is a horizontal setback but elevation requirements are becoming more common. Horizontal setbacks range from 2 m (Cheticamp) to 23 m (Richmond) in Nova Scotia, universally set to 23 m in PEI, 41 m in Maine and 15 m in New Hampshire. Elevation requirements range from 1 ft above the 100 year flood elevation (Maine) to 2.5 m above the ordinary high water mark in Halifax Regional Municipality. Other controls used include zoning of coastal wetlands for the purpose of restricting or prohibiting development (Barrington, Arglye and Yarmouth).

Fisheries and Oceans Canada also produced a Guide to Land Use Planning in Coastal Areas of the Maritime Provinces (January 2003). This resource identifies the following tools and instruments for land use planning in the Coastal Zone:

Coastal or Shoreline Buffer Zones/Setbacks

- Typically from 30 to 500 m from shore and are meant to control human activities in the immediate coastal area
- Entrenches, promotes and fosters recognition of the importance of coastal areas, resources and features
- Can include a requirement for vegetative buffers
- Helps to preserve scenic and tourism values
- Buffers can be used to allow both humans and natural uses of the coastal environment to coexist
- Should include a timeframe for review to allow for change

Coastal Classification

- classification of coastal areas based on use, shoreline type or special designation (park or wilderness area, etc.).
- can aid in land use planning by promoting increased awareness of special features and needs, often data is already available at the provincial level

Public Involvement

- Includes both community involvement and public education, improving communication and increasing awareness
- Stewardship, information gathering, seminars and events - proactive approach which goes hand in hand with policy and legislation

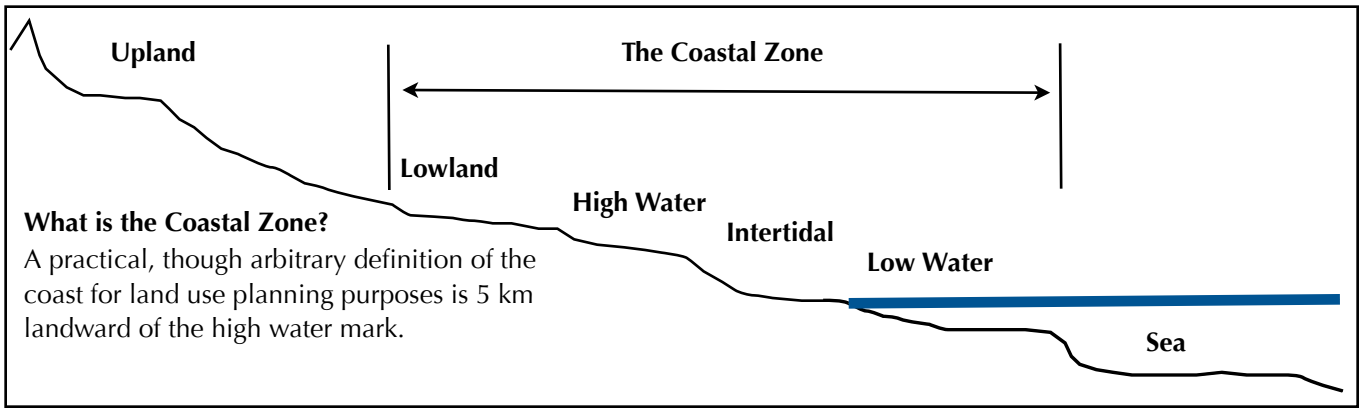
Zoning

- Spatially separates uses and controls incompatible uses, usually implemented through by-laws. Can be based on ecological, social and economic values and generally regulates the use of land and other aspects of site configuration
- Should be as simple as possible to encourage public understanding and support

- Examples of the use of zones include establishing protected zones, prohibiting certain land uses within watershed zones, requiring large lot sizes to limit residential impacts, open space zoning to cluster development and preserve areas undeveloped

Municipality of the District of Shelburne Coastal Impact Area

The coast is a term that refers generally to the area where the land meets the sea; the interface between marine environments and land based environments where the influences of both are important. The definition of the coastal zone varies based on the particular management issue being addressed and should include consideration of both the zone of influence and the zone of impact for each issue. In 'The State of Nova Scotia's Coast: Technical Report' the indicative physical dimensions of these zones are examined in detail for the six focus issues of the Province's Coastal Strategy. For the three issues covered by this municipal strategy, the zone of impact ranges from 0 - 5 km. Other references suggest that the coast should include lands up to 10 km inland from the high water mark.



In considering an appropriate definition of the coastal impact area for this strategy and examining the suggested definitions, it was important that there be an area of distinction within the Municipality of Shelburne. It is not useful for the purpose of this strategy to define the coast in such a way that all or a large majority of the land within the Municipality is included. For this reason, in this strategy document we have defined a **coastal impact area**.

Purpose

The purpose of defining a **coastal impact area** in this strategy is not for land use planning or zoning. It is to act as a tool for education and outreach and to help residents understand which areas of the municipality may be most impacted by coastal events such as sea level rise and storm surge, and where development and other human activities have the most influence on habitat and natural processes in coastal areas. It is the intention of the Coastal Management Planning Advisory Committee that this definition be re-evaluated as additional data become available and before any further policy development or land use planning.

Coastal Impact Area Definition

It was noted during the development of this definition of a coastal impact area that the impact and influence may be different on inland coastal waters, such as tidal rivers, compared with headlands exposed to open ocean. At this time, the geographic information available is not detailed enough to usefully distinguish these, but it is the intention of this strategy to re-evaluate this definition in future when better data is available and the distinction is better understood.

For the purposes of education and outreach within the Municipality of the District of Shelburne, the **coastal impact area** is defined as:

All lands from the Ordinary High Water Mark inland until an elevation of 5 metres or a horizontal distance of 500 metres is reached, whichever is greater.

This coastal impact area may in future be adjusted to include anomalous areas as dictated by topography, geology, watersheds and other natural and manmade structures. It should also be adjusted to incorporate a 100 year flood plain combined with predicted sea level rise when more detailed geographic information is available.

The **coastal impact area** is depicted on the map included as Appendix A.

Strategic Focus Areas, Goals & Objectives

The Province of Nova Scotia released a draft Coastal Strategy in November 2011 which included goals, strategies and actions on seven key issues. Based on municipal jurisdiction and feedback from the public engagement process, the following three Strategic Focus Areas have been identified for this strategy in the District of Shelburne. In order to facilitate collaboration and understanding with the Provincial government language and terminology for these areas has been kept consistent with the Provincial strategy where appropriate, but the goals and objectives relate to the role of the Municipality.

COASTAL DEVELOPMENT

Coastal Development refers to human-made changes to the coast such as the building of homes, businesses, roads and other infrastructure.

Goal: *Introduce and support development practices that accommodate natural coastal processes, and protect or enhance the social, economic and cultural value of our coastal areas.*

The objective of this focus area is to introduce education programs, planning, and policy development into the management of our coastal assets, which are essential to our economy and our quality of life. Education, planning and policy can contribute to ensuring coastal infrastructure is safe and unintended impacts on the environment, economy, people and property are minimized.

SEA LEVEL RISE AND STORM EVENTS:

It is expected that the sea level will rise at least one metre over the next century. Storm events resulting in large waves, high winds, storm surge, shoreline erosion and coastal flooding are becoming more common due to climate change and create coastal hazards that threaten our residents, businesses, and property.

Goal: *Protect people and property from coastal hazards.*

The objective of this focus area is to educate residents and introduce policy that ensures buildings and infrastructure are located and built such that the impacts from coastal hazards are minimized.

COASTAL ECOSYSTEMS AND HABITATS:

The health and productivity of natural systems, landscapes and features along the coast including salt marshes, wetlands, beaches, dunes or islands is essential for the social and economic health of our communities.

Goal: *Ensure the health and productivity of sensitive coastal ecosystems.*

The objective of this focus area is to increase awareness of the importance of coastal features and to ensure appropriate protection of sensitive ecosystems and habitats is incorporated into coastal management policy.

Action Plan

TIMING & FOCUS	ACTION
Short term (within the next year) **Focus:** Education, Research & Outreach	**Coastal Impact Area:** Define and communicate the definition of a coastal impact area within the Municipality using distance and elevation from the ordinary high water mark for the purposes of education and information gathering.
	Eduction and Outreach Program: Develop and implement an education and outreach program for coastal landowners about stewardship and development best practices, including recommendations for distance and elevation for development from the high water mark, erosion control and vegetative buffers. Include a checklist or point system to help landowners assess development plans. Make information packages available through the building inspection department.
	Climate Change Vulnerability Assessment: Include in the Climate Change Action Plan a Climate Change Vulnerability Assessment for coastal areas to better understand potential risks and impacts. Investigate ways to reduce vulnerability and to help residents manage risk.
	Define Sensitive Areas: Define sensitive areas within the coastal impact area based on definitions rather than geographic location (e.g. saltwater marshes, wetlands)
Medium term (within 1 - 3 years) **Focus:** Planning, Education	**Detailed Topographic Mapping and Determination of Flood Risk Zones:** Secure funding and partnerships in order to collect detailed topographic information (LIDAR and Pictometry) to delineate flood risk areas and better understand risks from coastal hazards.
	Municipal Planning Strategy and Climate Change Adaptation Planning: As required by the Gas Tax Funding agreement, complete a Municipal Climate Change Action Plan as an amendment to the ICSP which includes a component of public engagement and education about climate change and the predicted impacts. Integrate coastal management policy with other planning documents for wind energy development and the Lake Rodney Watershed to create a single Municipal Planning Strategy.
	Beach Planning: Work with stakeholders and other partners to examine the suite of beaches in the municipality and prioritize for conservation or development of recreation/tourism infrastructure. Advocate for the development of beach management plans and work with other levels of government to help manage our impacts on these valuable coastal resources.
Long Term (3 - 5 years or more) **Focus:** Policy and Regulation	**Community Consultation:** Consider creating a requirement for community consultation in coastal areas to ensure community members are consulted about significant non-residential developments (commercial, industrial).
	Consider Zoning Sensitive Areas: Investigate and consider mechanisms, such as zoning or protection by definition, for the protection of sensitive areas within the coastal impact area.
	Consider Land Use Planning in Coastal Areas: Based on the results of the education and planning activities, consider the implementation of land use planning including setbacks (horizontal and vertical) from the ordinary high water mark. Include flexibility in the policy where reasonable for variances if property owners can prove the suitability of the development based on soil type, shoreline type and other site specific data.

Implementation

The Action Plan described in the preceding section progresses over a period of several years from a focus on Education, Research and Outreach, through Planning and then the development of appropriate Policy and Regulations. It is important to precede the implementation of policy and regulation with education and outreach to increase awareness of the issues and the need for planning and policy development. Taking this work forward into implementation will require coordination of a number of different departments, committees and stakeholders. The following table illustrates for each action item who will be responsible, accountable, consulted and informed as the action progresses to illustrate how implementation of this plan will be managed.

R = Responsible: The person or group assigned to complete the action.
A = Accountable: The person or group who makes the final decision and has ultimate ownership and accountability.
C = Consulted: The person or group who will be consulted before a decision or action is taken.
I = Informed: The person or group who will be informed that a decision or action has been taken.

ACTION	Sustainable Development Coordinator	Planning Advisory Committee	Council	Identified Stakeholders	EMO	Development Officer	Residents
Coastal Impact Area	R	C	A	I	C	C	I
Eduction and Outreach Program	R	C,A	I	I	C	R	I
Climate Change Vulnerability Assessment	R	C	A	C	C	R	C
Define Sensitive Areas	R	R	A	I	I	R	I
Detailed Topographic Mapping and Determination of Flood Risk Zones	R	C	A	I	R,C	C	I
Municipal Planning Strategy and Climate Change Adaptation Planning	R	C,A	A	C	C	R,C	C
Beach Planning	R	C	A	R	C,I	C	C,I
Community Consultation Zone		R	A	C	C	C	C
Consider Zoning Sensitive Areas		R	A	C	C	C	C
Consider Land Use Planning in Coastal Areas		R	A	C	C	C	C

References

Richards, William and Réal Daigle. Scenarios and Guidance for Adaptation to Climate Change and Sea Level Rise - NS and PEI Municipalities. Atlantic Climate Adaptation Solutions Association, August 2011.

Province of Nova Scotia, Draft Coastal Strategy, 2011.

Stewart, P.L., Rutherford, R.J., Levy, H.A. and J.M. Jackson, "A Guide to Land Use Planning in Coastal Areas of the Maritimes. Fisheries and Oceans Canada, January 2003.

Kosloski, A., "Planning for Climate Change and Coastal Zone Management". Dalhousie University, December 2007.

Appendix A: Map of the Municipality of the District of Shelburne Showing Coastal Impact Area

Appendix B: Review of Coastal Development Policies in the Atlantic Region

AREA / MUNICIPALITY	COASTAL DEVELOPMENT POLICY
Cape Breton Regional Municipality	Both Erosion Setbacks from Major Bodies of Water and a Coastal Management Plan are identified in the Municipal Planning Strategy, but the general policy is to collaborate with other levels of government to implement and no land use or development restrictions are in place in coastal areas, nor is a definition of the coastal zone established in policy.
Victoria County	Land use planning established only for the Baddeck area and does not include consideration of coastal areas or setbacks.
Richmond County	Central Richmond - requires minimum setback of 22.9 m from watercourse. No restrictions in West Richmond.
Inverness County	Cheticamp - minimum setback of 6 feet from the high tide mark in the Waterfront zone. Inverness - all developments shall be set back a minimum of 15.25 m from Inverness Harbour and Broad Cover River.
Guysborough County	Setbacks established from the normal high water mark (10 m for single unit residential, 30 m for multi-unit residential) as well as from the top of a bank of a watercourse (7.5 m). Setbacks apply to all zones with coastal frontage.
Antigonish County	Eastern Antigonish County - Conservation Zone established for undeveloped wetland areas (coastal and inland) along with a setback of 15 m from any watercourse for structures, with exceptions.
Pictou County	In the town of Pictou, no structure is permitted within 7.5 m of the high water mark of any watercourse (excluding Pictou Harbour). No regulations outside town.
District of St. Mary's	For all zones there is a 15 m setback from the high water mark, with a requirement to retain 30% of natural vegetation within the buffer zone. There is also a 5 m height setback to account for loss of frontage due to sea level rise and erosion from flooding. In the source water zone the setback is 45 m. Fish shacks and boat houses are required to have a 2.4 m setback from the high water mark.
Halifax Regional Municipality	Residential development is required to have a minimum 2.5 m elevation setback from the high water mark.
Colchester County	No restrictions.
District of East Hants	A setback of 20 m is required for all uses from watercourses greater than 1.6 m wide.
District of West Hants	No structure shall be located closer than 50 feet (15.24 m) to a watercourse.
District of Chester	Construction and infilling near the ocean shoreline can both degrade the nearshore environment and expose construction to the hazards of sea level rise and coastal storm surges. A minimum setback of 8 m is required from any watercourse and 2 m elevation setback from the high water mark at the ocean. Existing vegetation shall be retained unless removal is essential for construction and no fill shall exceed 0.3 m above the natural ground surface.

AREA / MUNICIPALITY	COASTAL DEVELOPMENT POLICY
District of Lunenburg	Much of the District of Lunenburg is not subject to Land Use Planning, but in the areas that have Land Use Bylaws and include coastal areas, there are setbacks in three of them ranging from 14 - 20 metres. In all four areas erosion control measures are required when natural vegetation is removed within 10 metres of a watercourse. There are exemptions from the setbacks for trails
Queens Regional Municipality	Setback established from ordinary high water mark as 15.24 m, with a maximum of 25 % removal of natural vegetation from the buffer zone and no excavation, infilling, stump removal or removal of low lying vegetation. Boat houses and fishing sheds, trails and boardwalks (< 10 feet wide) are exempt. There is a clause to permit development on lot created prior to the LUB which cannot be developed because of this restriction. There is also the power to issue a variance if the elevation is greater than 7.44 m above the high water mark and the setback is at least 7.62 m, given that the development does not increase the hazard posed by shoreline erosion and the land is not subject to seasonal flooding. Schedule included to indicate environmentally sensitive wetland areas (not zoned).
Kings County	Development shall be set back 50 feet from the top bank of any watercourse (excluding driveways, paths, decks, patios, outdoor amenities and bridges in the growth centre of Port Williams).
Annapolis County	In the East End area only, no structure shall be erected within 7.6 m (25 ft.) of the edge (mean high water mark) of any watercourse, except for wharves, boat houses or launches, landscaping structures such as gazebos or pedestrian footbridges, fishery related uses, and bridges.
District of Barrington	Coastal Wetlands zone established with restricted development (no structures).
District of Argyle	Coastal Wetlands zone established with restricted development (no structures). A setback of 20 feet from the watercourse is required in the zone.
District of Yarmouth	Coastal Wetlands zone established with restricted development (no structures).
District of Clare	Policy in development, not yet adopted.
District of Digby	No restrictions.
Little Port L'Hebert (Restrictive Covenants)	Each property shall have a fifty foot easement along the highwater mark and landward throughout the entire development for the purpose of pedestrian access by property owners and their invited guests. No lot owner shall build or erect any structure within the boundary of these easements.
New Brunswick (Provincial Policy)	Coastal areas divided into three zones. Buffer zone from Higher High Water Large Tide to 30 m inland. Single family homes are permitted in this zone, with conditions, and the habitable portion of the dwelling must be 2 m above HHWLT.
Prince Edward Island	Subdivisions in coastal areas must retain a natural buffer, minimum 18 m wide adjacent to wetlands, watercourses and primary or secondary sand dunes, and 18 m or 60 times the annual erosion rate adjacent to beaches. The nearest exterior portion of any structure must be 23 m or 60 times the annual erosion rate from a beach, 30 m from a migrating primary or secondary sand dune and 23 m from a wetland or watercourse.

AREA / MUNICIPALITY	COASTAL DEVELOPMENT POLICY
New Hampshire	Tidal buffer zones are allocated to all areas within 30 m of the highest observable tide line. Projects are rated in terms of impact, decreasing based on whether the tidal buffer is already developed and if the development is more than 15 m from a salt marsh. Primary buildings must be 15 m from public waters and accessory buildings 7 m from public waters. Many land uses are not permitted in the shoreline zone (e.g. salt storage, solid and hazardous waste facilities, junk yards) which is 83 m from the high water mark.
Maine	Municipalities in Maine must show that proposed subdivisions within 83 m of any wetland or shoreline will not adversely affect water or shoreline quality. In special coastal areas, the primary structures must have a combined shoreline frontage and setback of 167 m from the normal high water mark. In proposed subdivisions, structures must be constructed with the lowest floor level at least 1 ft above the 100 year flood elevation. New structures must be set back a minimum of 41 m from the normal high water line with vegetation between the watercourse and structure.

Appendix B: Stakeholder Consultation

Dale Richardson, President Shelburne County Firefighters Association

QUESTION	RESPONSES
What input would you like to provide about coastal management and/or development planning in coastal areas?	There are many examples in Eastern Shelburne County of homes and cottages built in inappropriate locations which pose a risk to the safety of people and protection of property.
In which of the focus areas are you a stakeholder, or do you have significant interests?	All these areas affect one another and are closely interrelated. To be concerned with one is to be concerned with them all. Primary focus of the fire departments is emergency response during storms.
What is working well at present?	EMO Planning and information flow. In Little Harbour the Fire Department warns residents of high risk properties door-to-door when a storm is approaching.
What is not working well?	Not all fire departments participate in EMO. New residents assume that buildings can be constructed like in the Southern United States, but tides and storm surge there are much lower than in Nova Scotia. There is no land use bylaw in place to prevent construction in dangerous locations.
What actions should be considered?	Setbacks and elevations. Zoning of senstive areas. Education and awareness building. More data on topography doesn't help much, we area already aware of vulnerable areas. Most important is to prevent the creation of more habitable dwellings in dangerous locations.

Rob Harlow, Harlow Construction

QUESTION	RESPONSES
What input would you like to provide about coastal management and/or development planning in coastal areas?	There should not be strict development bylaws to control what happens on private land, but there are properties that shouldn't be developed. The role of government should be to provide the best information and guidelines possible, not to over regulate. Work in coastal areas (like armour stone) requires five different permits, and much of this work happens illegally as a result. It is over regulated and so people go around the regulations and do more damage.
In which of the focus areas are you a stakeholder, or do you have significant interests?	All the focus areas are connected. Development is happening where it shouldn't, storms are worse and more frequent and habitat is damaged because people go around the regulations or aren't educated about them.
What is working well at present?	In my development work I encourage people to build "on the water, not in the water". That simple phrase seems to get through to people. There are also reasonable solutions to erosion problems, if permitting wasn't so hard.
What is not working well?	The Provincial and Federal processes for work in shoreline areas are too complicated an onerous and time consuming. People shouldn't be permitted to build in a bad spot and then expect to be paid out by the government or insurance when their properties are damaged.
What actions should be considered?	Identification and zoning of sensitive areas (within reason). Filling in of coastal and inland marsh areas should not be permitted. Recommendations and guidelines for coastal development. Information packages with building permits. Consider guidelines with a waiver system if people do not follow them. A site assessment before issuing a building permit. Protect and provide information, guidance and inspection as necessary.

Lisa Kamperman, Southwest Nova Biosphere Reserve Association

QUESTION	RESPONSES
What input would you like to provide about coastal management and/or development planning in coastal areas?	The SNBRA is interested in partnering with the Municipality to facilitate, create, and educate youth, citizens and industry about the biosphere and supporting sustainable development.
In which of the focus areas are you a stakeholder, or do you have significant interests?	The SNBRA is about balance and sustainability so all three focus areas are important to us.
What is working well at present?	Building on the existing relationship of the citizens with the coast. Community engagement.
What is not working well?	How to get people to recognize the urgency of the issue, to make it personal for them.
What actions should be considered?	Focus on education. Rules and regulations where necessary to ensure health and environmental protection, but present from a positive point of view and explain the rationale. Educate and provide stewardship guidelines, perhaps even a program to become certified for citizens.

Gail Daniels, Little Port L'Hebert Property Owners Association

QUESTION	RESPONSES
What input would you like to provide about coastal management and/or development planning in coastal areas?	Our association was formed in order to cooperate on the administration of 250 acres of common land and to come up with covenants for property owners to agree to. This has resulted in some sense of community in the area, a common purpose. The group meets annually and is comprised of mostly seasonal residents.
In which of the focus areas are you a stakeholder, or do you have significant interests?	All of the focus areas are important, and we are interested in any assistance the municipality can provide in helping us to achieve our goals.
What is working well at present?	Covenents in general work well for us. Looking at having a conservation easement put in place on the common land. Most homes have been built in reasonable locations as a result in part of the covenants and 50 foot easement above the ordinary high water mark.
What is not working well?	Hard to get consenus on changes to the covenants. Some people are concerned about traffic on private land (different values and experiences). One area has trouble getting maintenance of the private road agreed (costs shared). Changes need unanimous approval.
What actions should be considered?	Easement or buffer zone has worked well for this area. It would be useful to have more detailed mapping and topographical information for planning purposes. Education and outreach activities should be another focus.

Sue Abbott, Bird Studies Canada

QUESTION	RESPONSES
What input would you like to provide about coastal management and/or development planning in coastal areas?	BSC looks forward to partnering with the municipality on future initiatives relating to coastal management planning and action. It will be important to work with provincial depts responsible for coastal lands and managing coastal biodiversity (i.e., DNR) and for developing NS Coastal Strategy. Shelburne County is blessed with coastal ecosystems that are still relatively wild compared to other counties. Much of the coast has been designated an Important Bird Area (www.ibacanada.com) due to the significant concentrations of coastal bird life. This coastal biodiversity is an asset to the municipality, thus enhancing protection and conservation of coastal lands and waters is in the municipality's best interests. Because of the high stewardship responsibility that Shelburne Co. holds for endangered Piping Plovers in NS, it will be critical to make beaches and dunes a ecosystem of focus in the strategy. Coastal islands, estuaries, and salt marshes are also highly significant ecosystems for fish and wildlife. Best practices that reduce habitat degradation and loss, as well as reduce loss of natural processes (e.g., through armouring) are essential for coastal biodiversity conservation.
In which of the focus areas are you a stakeholder, or do you have significant interests?	Coastal management in general fits well with the work that Bird Studies Canada is doing. BSC is interested in coastal ecosystems and habitats but this is closely linked to coastal development and climate change concerns.
What is working well at present?	There is a deep connection between the people and the coast in Shelburne County. Residents are engaged in coastal stewardship and face to face meetings and education initiatives are successful. Partnerships with other NGOs (Nova Scotia Nature Trust, Nature Conservancy Canada) have also been successful.
What is not working well?	There is not much capacity for enforcing regulations, and in addition to habitat loss due to development, there is a gradual degradation of habitat through increased presence of predators (e.g. crows), off leash dogs, and other human activity over time.
What actions should be considered?	Overall, these draft actions could be improved by focusing not just on anthropogenic aspect of the coast but also the biodiversity needs and values. Beyond best practices, it would be good to see actions relating to conservation of coastal biodiversity, in particularly species at risk, and relating to maintaining natural processes. Priority should be to define the coastal zone and identify sensitive coastal areas where development should be prohibited or restricted. This should be through a scientific process and sensible guidelines and regulations should be developed for sensitive areas, and non hardened coastlines (unconsolidated sediments). Education is also important. The Municipality could identify stewardship partners for program delivery and recognize the contributions of coastal stewards in some way.

Sue had the following additional comments:

- For the record, I wanted to add one more positive thing I see that makes me hopeful about coastal management: that the municipality is undertaking the process of coastal management planning. This is a big step forward and Bird Studies Canada supports this type of coastal planning initiative, so please let me know when you're ready to move forward with as-

sessing coastal habitats, as we would be pleased to provide input and, if needed, help involve other partners in the process.

- Capture video footage of storms on beaches for education
- Behavioural change will come from economic/safety concerns ultimately, but stress the ecosystem services the coastal zone provides to the fisheries, shellfish harvesting and waterfowl hunting.
- Developing coastal development best practices would be helpful for land owners and managers (like the municipality) to reduce habitat degradation and loss on the coast, particularly for sensitive and significant wildlife habitats (e.g., islands, salt marsh, and beaches and dunes). Recommendations need to consider habitat requirements of coastal-dependent wildlife, including species at risk such as Piping Plover.
- Shelburne County has more breeding pairs of endangered Piping Plovers than any other county in NS, and, therefore, has a high stewardship responsibility for Piping Plover recovery in NS. BSC would welcome an opportunity to work closely with the municipality on developing recommendations and materials focusing on beach and dune habitat best practices and landowner outreach.
- Beach and dune ecosystems are dynamic by nature and must change, and often move. These ecosystems are well represented in Shelburne County. Increasing awareness about their dynamic nature and how to reduce degradation and how landowners can adapt (e.g., removable boardwalks) is needed.
- BSC has "Heathy Beaches and Dunes for Tomorrow," a handbook for landowners (available online). We've also worked with Env. Canada to produce a series of beach habitat best practices for different target audiences, and a fact sheet about impacts of motorized vehicles on beaches and dunes.
- Clear and enforceable regulations are needed to better manage coastal development and conserve biodiversity and coastal habitats and ecosystems. Since 2006, BSC has been working with private landowners and other coastal residents through our work on Piping Plover conservation and Important Bird Areas. We hear from many people frustrations regarding some coastal developments that degrade habitats and natural values (e.g., viewscapes). Building permanent structures on dynamic systems, such as dunes, to many is not wise for both safety and environmental reasons.
- Education and outreach is a very important initiative. There are great opportunities for Shelburne Mun. to become a leader in coastal stewardship and develop dynamic coastal partnerships with landowners, community groups and NGOs. Partnering with NGOs that are already working on coastal stewardship (e.g., BSC, NSNT, NCC) is essential, as some of this work is already ongoing.
- Shleburne Co. is unique in that much of its coast is designated as an Important Bird Area through BirdLife International's IBA Program because of significant concentrations of waterfowl, endangered Piping Plovers and fall migrant shorebirds. Coastal habitats and wildlife are a valuable asset that provide numerous ecosystems services. Sustainable tourism initiatives can take advantage of these resources, but awareness of the value of coastal ecosystems and opportunities could be heightened among residents.
- From our engagement of landowners and other coastal residents in Shelburne Co, it's clear that people are passionate about the coast and the vast majority want to learn more and make a positive difference but don't always know how.
- Working with NGOs active in SW NS, like BSC, on supporting ongoing and creating new opportunities for Shelburne Co residents to become more involved in coastal stewardship activities will help the county build awareness and connections to their coastal environment. Engaging citizens in science and conservation activities that benefit habitats and wildlife on the coast is a good approach to kick start stewardship programming.
- Setbacks, elevations and vegetative buffers are all important practices for coastal management. Beyond benefits for flood prevention, there are added habitat values from this action for birds and other wildlife that would be great to promote. BSC could work with municipality to develop some fact sheets about bird habitat.
- Climate change assessment is critical and would be very interesting. Complete LIDAR data are needed to accomplish detailed mapping.
- Suggest also consulting with DNR and Environment Canada as stakeholders.

Andrew Boyne, Canadian Wildlife Service - Species at Risk Recovery Unit

QUESTION	RESPONSES
What input would you like to provide about coastal management and/or development planning in coastal areas?	There is a direct link between critical habitat for piping plovers and coastal management at the Municipal level. We are interested in partnering with the municipality to help find a balanced way to protect critical habitat for piping plovers. Shelburne County is a critical areas for the recovery of this species. We may be interested in partnering to collect LIDAR data for critical habitat areas.
In which of the focus areas are you a stakeholder, or do you have significant interests?	Coastal ecosystems and habitats is directly related to the work that the Canadian Wildlife Service Species at Risk Recovery Unit does. Areas determined to be critical habitat are protected under federal law, and the federal government does have the power to step in to protect habitat if it is determined that it is not adequately protected by Provincial or Municipal jurisdictions. Critical habitat on plover beaches extends from the mean low water mark to the crest of the dune, or where vegetation starts.
What is working well at present?	Policy in place in Barrington works well. We are currently about to release a recovery strategy that identifies critical habitat for piping plovers and may also provide GIS data on that in future.
What is not working well?	Much of the critical habitat is at risk due to activities that destroy habitat including hardening of shorelines in response to erosion, and development on beaches. Off lease dogs are also a big problem.
What actions should be considered?	Education and outreach is key - consider Community Based Social Marketing approach for this rather than producing another brochure. Would prefer the delineation of a coastal zone with stricter regulations, rather than a universal setback. Vegetative buffers are important, and so are limiting access points to beaches. LIDAR and high resolution topographic data are important tools for habitat evaluation and SAR may be open to partnering on collection of this data in the Municipality of Shelburne.

Don Bower, Shelburne County East EMO Coordinator

QUESTION	RESPONSES
What input would you like to provide about coastal management and/or development planning in coastal areas?	EMO's primary interest in the protection of people. With increasing threats from sea level rise and storm events as a result of climate change we need to consider our mitigation responsibilities and requirements, and what due diligence the Municipalities and EMO need to consider.
In which of the focus areas are you a stakeholder, or do you have significant interests?	Primarily in sea level rise and storm events, but that is heavily influenced by coastal development.
What is working well at present?	Barrington policy clearly excluding areas from development works well. Need to have policy in place.
What is not working well?	Right now we are managing the change in real time and it is hard to determine the best strategy. We have to make decisions about evacuations and sending assistance to people in trouble and we don't have adequate information or regulation to do that.
What actions should be considered?	LIDAR is key to establish areas at risk. This could then also be used to communicate with the general public how land use regulations will affect them, and to Councils about the risks of climate change. Preference for action is a universally applied setback and elevation from the high water mark, illustrated with a map. Education is also important, as is maintenance of vegetative buffers.

Randy Milton, Manager - Habitats Program, Department of Natural Resources

QUESTION	RESPONSES
What input would you like to provide about coastal management and/or development planning in coastal areas?	DNR is involved particularly in identification and classification of wetland areas (along the coast an inland). Coastal management is a balance between protecting infrastructure and people from the environment and development planning. DNR is involved in Kings and East Hants where there are general bylaws in place, but flexibility to change as necessary (e.g. DNR will make a determination if an area is wetland by inspection and provide a letter to the Municipality to confirm or not in the event of a challenge).
In which of the focus areas are you a stakeholder, or do you have significant interests?	Coastal Ecosystems and Habitat primarily, but also Coastal Development and both are linked to Sea Level Rise and Storm Events. Coastal features are migrating as a result.
What is working well at present?	Flexible policy that can adapt as the coastline changes and that identifies consultation with other levels of government.
What is not working well?	There is not enough information available - need a very good digital elevation model to do any real useful development planning, or delineation of sensitive coastal areas.
What actions should be considered?	In the absence of good topographical and GIS data on coastal features, Education and outreach should be the focus, as should stewardship best practices and establishing guidelines and providing information prior to development. If the Province is able to provide detailed topographical information then you could reasonably set and enforce setbacks and elevations, identify vulnerability and do much better emergency response planning. Provincial policy will also help to identify and delineate sensitive coastal areas.

Helen Potgeiter, Sandy Lane Vacation Rentals

QUESTION	RESPONSES
What input would you like to provide about coastal management and/or development planning in coastal areas?	Coastal management is an initiative that both homeowners and tourists should be in favour of. Essentially my business sells the coast as a tourism product. Having a coastal management strategy acknowledges the value of the coast as an asset, and increases pride and awareness among residents, bringing the importance of the coast more into the public consciousness.
In which of the focus areas are you a stakeholder, or do you have significant interests?	All three areas are important to my business.
What is working well at present?	The coast is working well as a tourism product, but more could be done to ensure its long term preservation. The presence of Species At Risk (Piping Plovers) enhances the value for some visitors and we work hard to ensure our homeowners and clients are aware.
What is not working well?	All beaches are poorly signed - there should be signs indicating beach rules (leashed dogs, litter, driving, etc.) and identifying important flora and fauna.
What actions should be considered?	It would be useful to find ways to better quantify and acknowledge the value of the coast for tourism, fishery, ecosystem services. A beach stewardship program including education, social media, school outreach would be useful. Zoning the coast as a separate area, even if no significant restrictions are imposed, would at least identify it as 'different' and make it easy to impose regulations as that became possible. Vegetative buffers are important. Define the characteristics of a sensitive area (e.g. wetland) rather than delineating it on a map.

Dennis Garrett & Peter Green, Nova Scotia Nature Trust

QUESTION	RESPONSES
What input would you like to provide about coastal management and/or development planning in coastal areas?	Nova Scotia Nature Trust focuses on protecting privately owned ecologically significant lands. We are currently undertaking a large GIS project to identify the most important land to protect along the coast in Nova Scotia. We consider the coast to be all lands within 1.5 km of the high water mark.
In which of the focus areas are you a stakeholder, or do you have significant interests?	Primarily Coastal Ecosystems and Habitat.
What is working well at present?	Working with the province on their coastal strategy, and working with them where legislation hinders our objectives. Some municipalities have protected land (e.g. Town of Wolfville water supply) and others have donated funds to help protect land.
What is not working well?	Where there are no development constraints or regulations, lands adjacent to protected lands can be developed in a way that is not negatively impacting the protected lands.
What actions should be considered?	It would be difficult to develop a strategy without detailed topographic information to determine coastal features and sensitive areas. This should be undertaken first in order to prioritize lands and zone, identify areas not ideal for development and preserve natural areas that act as buffers for the effects of storms and sea level rise. Once this is in place setbacks and elevations become more practical.

Jennifer Graham, Ecology Action Centre

QUESTION	RESPONSES
What input would you like to provide about coastal management and/or development planning in coastal areas?	The Ecology Action Centre Coastal Issues Committee strives to promote an integrated approach to coastal and water resource protection and sustainable coastal communities in Nova Scotia. We address threats to coastal and freshwater resources through research, education, engagement, mobilization, and collaboration. Our mission is • to promote and support sound watershed management, coastal planning and policy • to communicate with resource users, the public and government about coastal and water issues • to engage communities in coastal and watershed stewardship to ensure the conservation of coastal and freshwater landscapes, habitats, and species • to advance the conservation of coastal landscapes and aquatic ecosystems • to protect and enhance responsible public access to the coast
In which of the focus areas are you a stakeholder, or do you have significant interests?	From a municipal point of view sea level rise and storm surge may be most important and certainly are connected to the other two focus areas. This area also present the highest potential costs and risks for municipalities. Secondary to this for the EAC would be coastal ecosystems and habitat which are also very important and act as a buffer to absorb water during storms, as well as providing valuable ecosystem services.
What is working well at present?	What has worked best is when municipalities announce their intention to do coastal planning based on community feedback, followed by setting goals and targets which rely upon, but are not trapped by science. Often you must make a regulation based on the best available data, with a provision to change it later as information becomes available. It is also important to include information to explains "why" whenever communicating bylaws and standards - outreach and education is important.
What is not working well?	Where there is policy in place that is not consistently enforced or created without sufficient consultation and education, there can be a backlash from the community. Also if setbacks and elevations are fixed with no possibility of revision based on new data becoming available, that can cause a potential problem. Some municipalities have recently tried to get rid of Environmentally sensitive areas zones and relied solely on Provincial Wetlands Policy - this does not solve any disagreements with developers, simply removes policy that could act to protect. If nothing is done, conditions will continue to change along the coast and municipalities could be held liable for damage and could be subject to public backlash.

QUESTION	RESPONSES
What actions should be considered?	Education is very important and should be a priority. Particularly targeted education for developers and real estate agents, and particularly with information that is tailored to the community. Create a checklist and become a resource for developers and residents to consult with, rather than the rule-enforcer. Kings County has a brochure which summarizes regulations as well as best practices (Developing on a Lake). The Municipality should consider what happens if a structure is damaged in a storm that was grandfathered - would there be a strategy for retreat or would rebuilding be allowed? Coastal zoning may be the most practical but could combine this with consistent setbacks within the buffer zone for particular types of development (similar to the New Brunswick model). Vegetative buffers are important but likely more effective as a best practice than a regulation (hard to enforce). May use minimum setback but with exemptions to get around developments where the economic or public good benefits are great.

Lee Keating and Sue Johnson, Residents

QUESTION	RESPONSES
What input would you like to provide about coastal management and/or development planning in coastal areas?	Over the past several years we have noticed large changes, including erosion near our property in Round Bay where 7 metres of land was lost over a period of 5 years. Storm damage and large boulders have also been noted. We are leery of the use of the word management - we can't 'manage' the coast but we can manage human interaction with it. When a building permit is granted the impression is the development is safe, and sanctioned by government, but issuing permits in the absence of regulation is mis-management.
In which of the focus areas are you a stakeholder, or do you have significant interests?	Coastal Development and Coastal Habitats and Ecosystems, although all three are interrelated.
What is working well at present?	Some effective policies may exist at the provincial level, but they are not monitored or enforced (particularly around wetlands).
What is not working well?	Protection and management of wetlands. Permits are given with no regulations in place - people assume development is safe.
What actions should be considered?	Councils should represent the people, and the residents should be consulted for any significant developments (beyond residential) in coastal areas, and in general. Education, particularly around climate change, sea level rise, storm events etc. is needed. The community can learn from one another to better understand impacts and become more aware of the systemic and connected nature of the economy and the environment. Creation of a coastal zone, and a definition of 'what is the coast'? is important.

Sergeant Pragnell, Shelburne RCMP

QUESTION	RESPONSES
What input would you like to provide about coastal management and/or development planning in coastal areas?	The primary concern of the RCMP is the safety of people and damage or the need to respond to homes that are located close to the ocean during a storm or storm surge.
In which of the focus areas are you a stakeholder, or do you have significant interests?	Sea Level Rise and Storm Surge, particularly how that relates to coastal development and people living in vulnerable locations.
What is working well at present?	
What is not working well?	General concern is emergency responders in coastal areas during storms may be in danger.
What actions should be considered?	An elevation based setback would minimize the risk from storm surge and sea level rise an limit danger to residents and emergency responders.

Roger Sullivan, Tri-County Construction

QUESTION	RESPONSES
What input would you like to provide about coastal management and/or development planning in coastal areas?	Permitting process for working in the water or intertidal zone is too onerous, particularly with respect to DFO. Above the high water mark, there should be setbacks and elevations for certain types of development (but not applicable to infrastructure designed to be in close proximity to the water for boat shops, wharves, etc.)
In which of the focus areas are you a stakeholder, or do you have significant interests?	All areas are related and important.
What is working well at present?	Development can be designed to accommodate natural coastal processes - in sandy dunes piles can be used and buildings can achieve the required elevation for safety. Mother nature will take care of most things.
What is not working well?	Overregulation and control by DFO.
What actions should be considered?	Education to get the word out. Creating a coastal zone and prohibiting development in particularly sensitive areas. Establishing setbacks and elevations from the high water mark. Climate change vulnerability assessment is also a necessary step.

Robbie Newell, Eugene Newell & Sons

QUESTION	RESPONSES
What input would you like to provide about coastal management and/or development planning in coastal areas?	Experience in Barrington is that no one really wants to get too close to the ocean and that septic is the main restriction in getting a building permit. Has been involved in some developments where specially designed septic was required. In general if it is OK for septic it is OK to develop.
In which of the focus areas are you a stakeholder, or do you have significant interests?	All areas are important but I am most interested in coastal development.
What is working well at present?	Erosion can be controlled with rocking up above the high water mark with clean, imported rocks. Can cause erosion of neighbouring properties.
What is not working well?	Storms can cause damage. Wetlands are not well defined - what is a wetland can be in the eyes of the beholder. Can be defined by depth of peat, type of vegetation, etc. but no widely used definition at present
What actions should be considered?	Education and outreach to property owners and developers as a priority - perhaps an annual education session shared with other government departments to explain regulations and any changes. Identifying the coastal zone is important. Not just elevation or setback - it depends on shoreline type and whether you are in a protected cove or out on a headland. Also more detailed topographic information - collecting information now so you can understand future changes.

Charles Swansburg

QUESTION	RESPONSES
What input would you like to provide about coastal management and/or development planning in coastal areas?	The most important thing is to get enough elevation to be above flood tides and storm surge. I think all development should be at least 5 feet above ordinary high water.
In which of the focus areas are you a stakeholder, or do you have significant interests?	All areas are important but it is most important to be planning for sea level rise and storm events. There is plenty of good, hard, high land to build on.
What is working well at present?	Working with the building inspector to come up with a plan that works for a particular property.
What is not working well?	Concerned about building in low lying areas, perhaps not enough information available on topography and where to build.
What actions should be considered?	Elevation (5 ft) and setbacks are appropriate. Vegetative buffers and more information on topography and predictions of sea level rise and flood tides.

Walt MacDonald (Real Estate Agent)

QUESTION	RESPONSES
What input would you like to provide about coastal management and/or development planning in coastal areas?	It is important to keep in mind that the more restriction placed on land the harder it is to sell and also the values go down.
In which of the focus areas are you a stakeholder, or do you have significant interests?	I have interest in all three areas as it affects the sale of property.
What is working well at present?	It is my opinion that land owners use good sense and are interested in protecting their land and buildings and that more restrictions are not needed.
What is not working well?	I do not think that the present system needs changing
What actions should be considered?	(See below)

	I do not support this action	High priority	Medium Priority	Low Priority
Education and Outreach program to coastal landowners about stewardship and development best practices		X		
Establish setbacks and/or minimum elevation requirements from the high water mark.				X
Collect detailed topographic information to predict risk from coastal hazards.				X
Create a coastal zone that delineates sensitive coastal areas, and control or prohibit development in these areas.	X			
Complete a climate change vulnerability assessment in coastal areas.	X			
Preserve natural vegetative buffers between structures and watercourses.	X			
Compile and distribute a coastal development best practices guide regarding land stewardship best practices (vegetation, monitoring, armouring, etc.)				X

One other comment.Is the municipality of Shelburne prepared to compensate property owners for restrictions on their land & will their taxes be reduced accordingly ?

Robert Stork, Resident

QUESTION	RESPONSES
What input would you like to provide about coastal management and/or development planning in coastal areas?	The coastline is the most valuable asset of the province, bar none. It's preservation is paramount but must be balanced with residents' need to access it. That should be the overriding sentiment when considering any policy initiatives.
In which of the focus areas are you a stakeholder, or do you have significant interests?	As a home owner with water frontage, I have interests in all of the above, though I favor education and incentives over legislation and regulation.
What is working well at present?	Building codes seem adequate, especially as regards septic systems.
What is not working well?	Not sure what current limitations exist on waterfront subdivision, but that could be an area worth scrutiny.
What actions should be considered?	(See below)

	I do not support this action	High priority	Medium Priority	Low Priority
Education and Outreach program to coastal landowners about stewardship and development best practices		X		
Establish setbacks and/or minimum elevation requirements from the high water mark.	X			
Collect detailed topographic information to predict risk from coastal hazards.		X		
Create a coastal zone that delineates sensitive coastal areas, and control or prohibit development in these areas.		X		
Complete a climate change vulnerability assessment in coastal areas.		X		
Preserve natural vegetative buffers between structures and watercourses.	X			
Compile and distribute a coastal development best practices guide regarding land stewardship best practices (vegetation, monitoring, armouring, etc.)		X		

John Foss, Real Estate Agent

QUESTION	RESPONSES
What input would you like to provide about coastal management and/or development planning in coastal areas?	No response
In which of the focus areas are you a stake-holder, or do you have significant interests?	all three
What is working well at present?	I'm not sure, there does not seem to be a lot being done? It could be I am just very unobservant.
What is not working well?	No response
What actions should be considered?	(See below)

	I do not support this action	High priority	Medium Priority	Low Priority
Education and Outreach program to coastal landowners about stewardship and development best practices		X		
Establish setbacks and/or minimum elevation requirements from the high water mark.			X	
Collect detailed topographic information to predict risk from coastal hazards.		X		
Create a coastal zone that delineates sensitive coastal areas, and control or prohibit development in these areas.		X		
Complete a climate change vulnerability assessment in coastal areas.		X		
Preserve natural vegetative buffers between structures and watercourses.		X		
Compile and distribute a coastal development best practices guide regarding land stewardship best practices (vegetation, monitoring, armouring, etc.)		X		

Charlene Harris, Real Estate Agent

QUESTION	RESPONSES
What input would you like to provide about coastal management and/or development planning in coastal areas?	I feel there has to be areas that are protected, designated for development and sensitive areas...
In which of the focus areas are you a stakeholder, or do you have significant interests?	I am not a stakeholder that owns coastal property but I own a tourism business that is impacted by the natural settings in our coastal areas for visitors and I would like to see our beaches and ecosystems protected for my grandchildren.
What is working well at present?	I am not aware of any coastal management other than set backs for septic & wells.....
What is not working well?	People are building too close to the coast putting themselves in the elements and some locals do not see or understand the damage they do when they go 4-wheeling on the beach. Need more education and ways to monitor
What actions should be considered?	(See below)

	I do not support this action	High priority	Medium Priority	Low Priority
Education and Outreach program to coastal landowners about stewardship and development best practices		X		
Establish setbacks and/or minimum elevation requirements from the high water mark.		X		
Collect detailed topographic information to predict risk from coastal hazards.		X		
Create a coastal zone that delineates sensitive coastal areas, and control or prohibit development in these areas.		X		
Complete a climate change vulnerability assessment in coastal areas.		X		
Preserve natural vegetative buffers between structures and watercourses.		X		
Compile and distribute a coastal development best practices guide regarding land stewardship best practices (vegetation, monitoring, armouring, etc.)		X		