

THE FUTURE OF NOVA SCOTIA'S COASTLINE

A plan to protect people, homes and nature from climate change





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Nova Scotia's coastline offers stunning views, reminding us every day of how lucky we are to live here. People have been drawn to the ocean since time began. It nurtures our bodies, our minds and our souls. In many ways, the ocean is the soul of our province.

We also know that nature shapes our coast. Our beaches, dunes, and other natural areas along the ocean are ever-changing. They are continuously being shaped by the ebb and flow of tides, waves, storms, wind and the earth's changing climate. And the facts are clear – parts of our coast will look very different 25, 50, 100 years from now. Climbing global temperatures mean rising sea levels and more frequent and intense storms. Sea level rise - when combined with storm surge at high time - will intensify flooding and erosion in coastal regions in every corner of the world.

The coast is an essential part of our shared identity as Nova Scotians. We have lived by our shores for generations. But we need to rethink how, and where, we live and build along our coast, especially as our province grows and as we face greater risks related to climate change.

If you live by the coast now, or plan to one day, the threats to people, homes and our environment can be concerning. However, it doesn't have to be. Each of us can – and must – embrace a new approach to coastal living, one that considers our changing climate. It starts with information and tools that help us identify hazards and risks, and understand how to reduce or eliminate them.

Building or renovating can be complicated. And building by the ocean in the face of climate change risks can be especially complex. Whether you are building your dream home or cottage, or are living in or renovating your existing property, knowing and understanding the hazards and risks of coastal living is the first step in safeguarding your investment.

Nova Scotia is a leader in climate change action – and now we have a strong plan to tackle the challenges. In 2021, our Government introduced the Environmental Goals and Climate Change Reduction Act which lays out the legislative framework to help Nova Scotians respond to climate change. We followed that up with Our Climate, Our Future: Nova Scotia's Climate Change Plan, including actions to help Nova Scotians mitigate climate change and adapt to how it is changing our province, including along the coast.

Over the past two and a half years we have legislated the strongest greenhouse gas (GHG) reductions in the country. We are transforming how we produce and use energy and we are greening our grid. We are empowering community-led action through programs like the Sustainable Communities Challenge Fund. We have a Climate Plan, which lays out what we are doing to reduce GHG emissions and respond to climate change impacts.

We are taking action to protect 20 per cent of our land and water, including along the coast. Right now, about 13.1 per cent of Nova Scotia's coastline is protected from development inside provincial parks, wilderness areas, nature reserves, national parks, national wildlife areas and in land owned and managed by conservation land trusts, including Mi'kmaq organizations – and as we continue our work to achieve our goal of protecting 20 per cent of our land and water, this number will grow. In fact, the Parks and Protected Areas Plan contains additional coastal sites committed for protection and our recently released Collaborative Protected Areas strategy commits to expanding the network of protected and conserved areas, some of which will be identified along the coast.

To further our leadership and action on this critical issue, we now have our plan to protect our coasts – and our people, homes and nature – from climate change. It builds on the actions laid out in our legislation and in the Climate Plan. It will help our coastal property owners understand the possible risks of living on the coastline, and it will give Nova Scotians the tools and information they need to make informed decisions to protect property, people, and the natural areas along our coast.





Climate action is our shared responsibility. When you build a home or cottage, you need to understand and adapt to the impacts of climate change. If you are a coastal property owner, this Action Plan will help you understand and plan for the climate risks that come with living on the coast – whether your home was built 50 years ago or is still in the planning stages. At the same time, this plan will ensure that the human and financial resources the Province has dedicated to coastal protection are appropriately and equitably supporting Nova Scotians.

Municipal action is key. Municipalities know their communities best and can plan a response to their unique needs. This plan depends on strong municipal leadership to help us create climate-resilient communities. It provides guidance, information and support to municipalities as they carry out this important work.

Nova Scotians know the landscape and their own properties best. And no two properties are the same. That's why we are giving coastal property owners the information and tools they need to make informed decisions that are customized to their property. Property owners have made an investment in their futures, and it's crucial to take the right steps to protect it. We need to empower and trust them to do just that.

The Honourable Timothy Halman, Minister, Nova Scotia Environment and Climate Change





A PLAN TO PROTECT PEOPLE HOMES AND NATURE FROM CLIMATE CHANGE

Nova Scotians know that the coast is a complex and constantly changing environment. We are familiar with its natural rhythms, like the tides, but also the kinds of damage that big storms and hurricanes can bring.

And we are feeling the impacts of climate change – stronger and more frequent storms, wildfires, flooding, warmer summers, historic snowfalls, less rain and more.

The 13,000 kilometres of our province's coastline are the front lines of climate change. Communities, people and homes close to the coastline are at higher risk for erosion, flooding, storm surge and rising sea levels. While this is concerning, we can make good decisions and take action together.

A plan to protect people, homes and nature from climate impacts on our coast builds off our existing commitments to climate action.



In 2021, Government passed the Environmental Goals and Climate Change Reduction Act. It legislates six principles and 28 goals that are a map for sustainable prosperity and climate action in Nova Scotia.

Two of the goals under this legislation are to complete a province-wide climate change risk assessment and a climate change plan.

In 2022, Government released its climate change risk assessment, Weathering What's Ahead. This informed Nova Scotia's climate change plan Our Climate, Our Future.

Through Our Climate, Our Future, Government is committed to climate action, including coastal protection and adaptation. The Future of Nova Scotia's Coastline: A plan to protect people, homes and nature from climate change is a three-year plan that will:

- Support informed decision making and empower coastal property owners.
- Support municipal leadership and help municipalities manage their jurisdiction with consideration for coastal protection.
- Align resources with coastal protection to ensure the Province's human and financial resources appropriately and equitably support coastal protection and support Nova Scotians.

Taking action on climate change requires all hands on deck. That's why the actions in this plan are for everyone.



SUPPORTING INFORMED DECISION MAKING (ACTIONS 1-7)

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We know the landscape of our province and our properties best. And no two properties are the same. Actions 1-7 support and empower Nova Scotians with information they need to make informed decisions about protecting and developing their property.

INTERACTIVE ON-LINE MAPPING TOOL

- 1. Make the Coastal Hazard Map (and a user guide) available to all Nova Scotians. This online mapping tool will help property owners understand the impacts of coastal hazards.
- The Coastal Hazard Map shows the worst-case scenario of what sea level rise and storm surges could look like during a high tide in the year 2100. This information is shown for up to 100 metres inland along the province's coast, where impacts will be felt the most. Find it at novascotia.ca/coastal-climate-change
- This is Phase One. More data layers and information will be released over the coming months (for example, projections for the year 2050).
- 2. Enhance the Coastal Hazard Map with Coastal Hazard Assessment Reports that users can generate on-demand.
- These reports will provide further information to property owners, describing the flooding and erosion hazards facing their property under a range of future conditions.

SUPPORT USING THE COASTAL HAZARD MAP

- 3. Create a Navigator Service to help Nova Scotians use the Coastal Hazard Map, understand the information and navigate support materials.
- A team of Navigators will help Nova Scotians use the Coastal Hazard Map and understand their results. The Navigator Service will also point to additional resources on coastal hazards and potential options to address them, and support new information rolled out through the Coastal Hazard Map.

PUBLIC EDUCATION

- **4.** Create a comprehensive resource guide for coastal property owners that helps people to understand the issues, alternatives, and actions they can take.
- Safeguarding Your Coastal Property: A guide to protecting your property and promoting healthy coastlines in the face of climate change shares important information about sea level rise, coastal hazards, and the actions property owners can take to help keep their properties safe from these risks. Find it at novascotia.ca/coastal-climate-change
- **5.** Install signs indicating provincial government infrastructure that is susceptible to flooding.
- Warning signs on roads, bridges, and other provincial infrastructure that regularly experience coastal flooding will provide Nova Scotians with a better understanding of at-risk roads and bridges. This supports traveller safety and helps everyone consider safer routes to use in emergency situations.



- 6. Engage the Nova Scotia Real Estate Commission to increase awareness and encourage consideration of hazards for coastal real estate through education and potential changes to Property Disclosure Statements.
- Purchasing a home or property, or doing work to an existing home, is a big financial commitment. Increasing awareness and understanding of coastal hazards will help Nova Scotians make informed decisions about their property and home investments.
- 7. Leverage CLIMAtlantic's services and extend its reach to help more Nova Scotians. This includes increasing support for coastal adaption using the Coastal Adaptation Toolkit.
- CLIMAtlantic is the hub for climate services in Atlantic Canada. They provide climate change information and support for people when making decisions. Their Coastal Adaptation Toolkit can help Nova Scotians and communities identify appropriate engineering and land use planning strategies to reduce coastal flooding and erosion concerns at specific sites.





SUPPORTING MUNICIPAL LEADERSHIP (ACTIONS 8-12)

Municipalities know their communities – and their unique needs – best. Municipal leadership is key for helping communities manage and adapt to coastal hazards from climate change. Actions 8-12 support municipalities and their leadership on this important work.

GUIDANCE FOR INCORPORATING COASTAL PROTECTION INTO LAND USE BY-LAWS

- **8.** Support municipalities with example land use by-law content they could use to regulate coastal protection in their communities.
- By providing example land use by-law text, we can offer municipalities the flexibility to take the best approach to coastal protection for their communities, with measures that reflect the concerns of their residents.

PROVINCE-WIDE EROSION RISK ASSESSMENT

- 9. Conduct a province-wide erosion risk assessment by capturing aerial video of coastal areas to assess geology and inventory coastal risks. Municipalities can use the information to inform zoning.
- We know different types of geology are found along our coastline and they erode differently. Conducting a province-wide erosion risk assessment creates a consistent assessment of erosion across the province's coast. Municipalities can use this information for developing zoning that recognizes erosion risks.

CREATING INFORMATION MUNICIPALITIES CAN USE

- 10. Continue to invest and leverage funds to support and enhance the Municipal Flood Line Mapping Program. This will provide information to residents and municipalities to help them better understand flood hazards.
- To manage the growing risk of flooding, the Province is developing flood maps throughout Nova Scotia. These maps provide high-resolution information that can help municipalities to zone land to reduce flood hazards both on the coast and inland.

MORE SUPPORTS FOR FLOOD PLANNING

- 11. Support practical municipal leadership by expanding the responsibilities of Environment and Climate Change's new Flood Management and Adaptation Lead and Stormwater Engineer positions.
- The responsibilities of these roles are being expanded to include:
 - Outreach to municipalities to understand the supports needed.
 - 2. Supporting access to provincial data needed to assess risks and develop policies.
 - 3. Expand the joint efforts underway by the cross-departmental Flood Planning Working Group to provide coordinated information and related supports for flood management and adaptation planning.

SUPPORT COASTAL PROTECTION THROUGH THE SUSTAINABLE COMMUNITIES CHALLENGE FUND

- 12. Promote the power of community-led solutions to achieve coastal protection by sharing success stories funded through the Sustainable Communities Challenge Fund.
- The Sustainable Communities Challenge Fund is a provincial grant program that supports action on climate change. It will continue to fund coastal adaptation projects and the Province will promote the stories of the coastal adaptation projects that have been funded so far to inspire other communities to take action as well.



ALIGNING RESOURCES WITH COASTAL PROTECTION (ACTIONS 13-15)

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Climate action is a shared responsibility. The Province has a responsibility to ensure the human and financial resources dedicated to coastal protection are appropriately and equitably supporting Nova Scotians. Actions 13 – 15 align government resources with coastal protection.

PROVINCE OF NOVA SCOTIA DEPARTMENTAL ADAPTATION STRATEGIES

13. Continue creating adaptation strategies for provincial departments that create a clear path for them – and the Nova Scotians they serve – to become more resilient to the impacts of climate change.

 Adaptation strategies help departments better understand, plan for, and take action on climate adaptation. This helps them carry out their mandate, sustain operations and continue to serve Nova Scotians in the face of the risks brought about by climate change.

EQUITABLE AND REASONABLE DISTRIBUTION OF DISASTER RELIEF FUNDING

14. Re-evaluate the cap on disaster relief funding to discourage rebuilding repeatedly in at-risk areas, while considering income, hardship, and equity.

 Re-evaluating the cap on disaster relief funding will encourage Nova Scotians to weigh their options from a financial perspective and take adaptation action to protect their properties.

CONSIDERATION OF COASTAL HAZARD INFORMATION AS QUALIFIER FOR FUNDING

15. Require municipalities to consider coastal hazard information as a condition for qualifying for provincial funding.

 In addition to sharing information through actions listed above, requiring municipalities to consider coastal hazard information as a condition for qualifying for provincial funding will help ensure that public infrastructure investments consider coastal climate risks. This helps to protect property, the safety and longevity of infrastructure and the safety of Nova Scotians.





OUR COAST, OUR FUTURE.

Our coastlines are an essential part of our shared identity as Nova Scotians, and we are all experiencing the impacts of climate change along our coast. As we adapt to these changes, we need to come together and rethink how and where we build and live by the coast.

We are proud of our province's leadership on climate change, and we will continue to lead by taking action to protect our coasts. With information, leadership from municipalities, and resources needed to support coastal adaptation, the actions in this plan will allow us to continue enjoying everything the coast offers us today, and for generations to come.



