



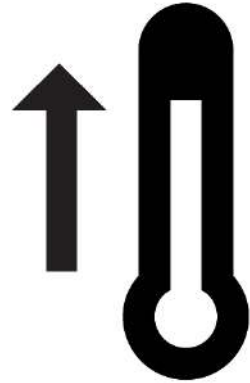
CLIMAtlantic.ca

March 23, 2024

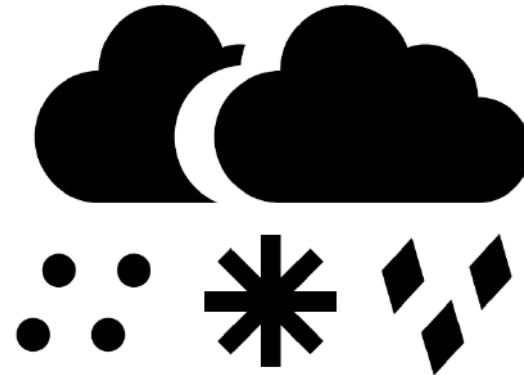


NOVA SCOTIA'S CHANGING CLIMATE

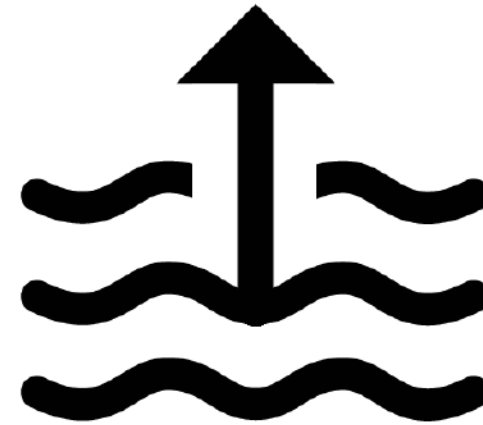
It's getting warmer



Changing precipitation patterns



More frequent and intense storms



Sea levels are rising

It's Getting Warmer

	Recent Past (1981-2010)	Present (2011-2040)	Mid-century (2041-2070)
Mean temperature	7.3°C	8.6°C (+1.3)	10.5°C (+3.2)
Annual hottest day	29.6°C	30.9°C	32.6°C
Days > 29°C	2 days	4 days	11 days
Annual coldest day	-20.0°C	-17.7°C	-14.2°C
Freeze-thaw cycles	74 days	68 days	60 days

- Summer days and nights will be more uncomfortable.
- Winters are warming rapidly: less extreme cold, more days above freezing.
- Increased risks of hazards such as heat waves, wildfires and droughts.

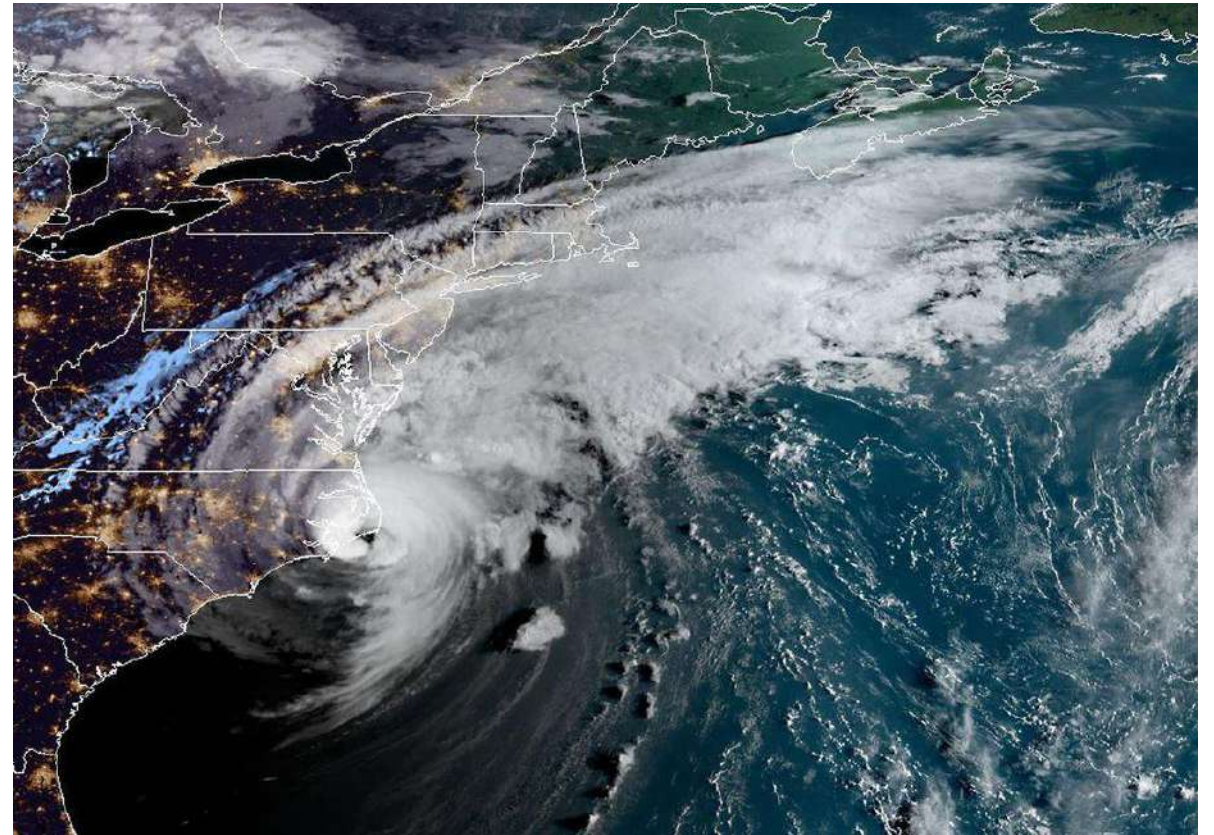
Precipitation Patterns are Changing

	Recent Past (1981-2010)	Present (2011-2040)	Mid-century (2041-2070)
Annual precipitation	1359 mm	1429 (+5%)	1479 (+9%)
Days with rain	109	115	120
Days with snow	33	27	21
Days with > 20 mm	20	21	23
Maximum 1-day total	65 mm	69 mm	74 mm

- More total precipitation, but more of that water will evaporate in warmer air or run off in more intense downpours.
- As temperatures warm, more precipitation will fall as rain instead of snow.
- Trend towards more intense rainfall events, increasing the risk of flooding.

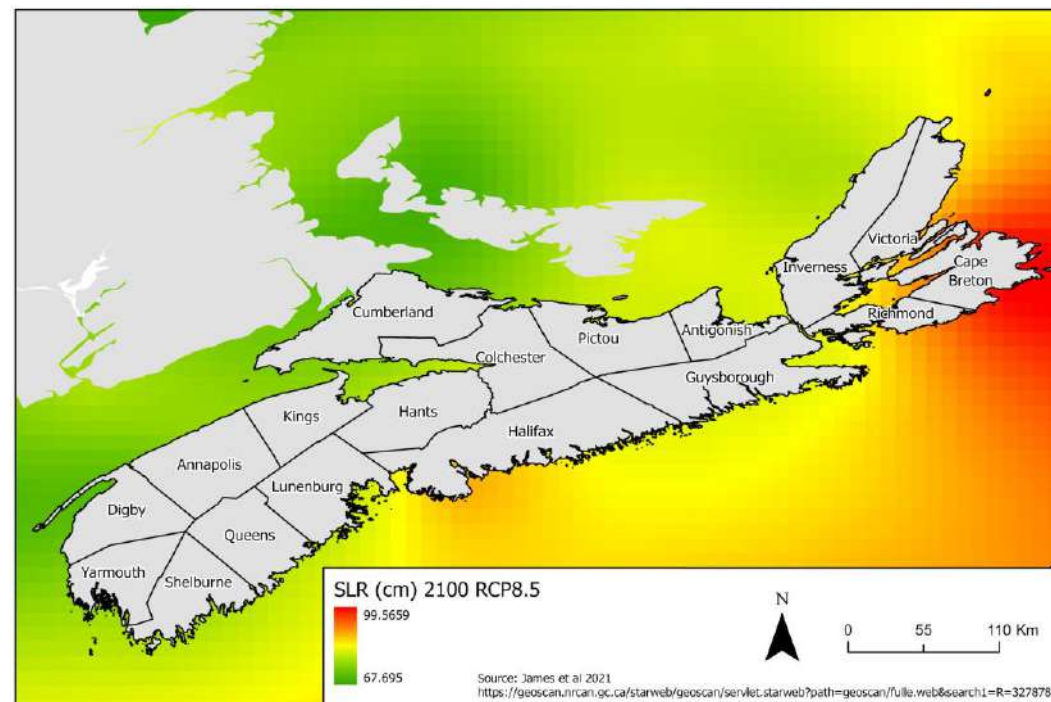
More Frequent and Intense Storms

- Warming oceans will enable tropical storms to travel further north before weakening.
- More intense storms may bring higher peak wind speeds and more powerful storm surge.
- Hazards may include inland or coastal flooding, erosion, wind gusts, landslides.



Sea Level Rise

- 70-100 cm (median) across Nova Scotia by the year 2100.
- Water levels still depend on tides and storm surge.
- Hazards include coastal flooding, saltwater intrusion, damage to coastal ecosystems.



Implications for waste management

- Potential climate change impacts on waste collection, processing, and disposal:
 - **Heat:** personnel and equipment, odour/pest activity, decomposition rates
 - **Flooding:** collection and access routes, leakage or run-off from landfills
 - **Storms:** damage to facilities, waste from storm damage, power outages
 - **Sea level rise:** damage to coastal facilities
- Understanding climate change helps organizations to site or upgrade infrastructure, update work procedures, and budget appropriately for the future

CLIMAtlantic

- Climate services hub for Atlantic Canada.
- Provide free, publicly accessible support for all types of organizations to consider climate change impacts in their decisions.
- Climate services specialists embedded with organizations in each province, plus a central team to coordinate strategic initiatives.
- Goal is to make adaptation accessible.



Enhancing Atlantic Climate Resilience

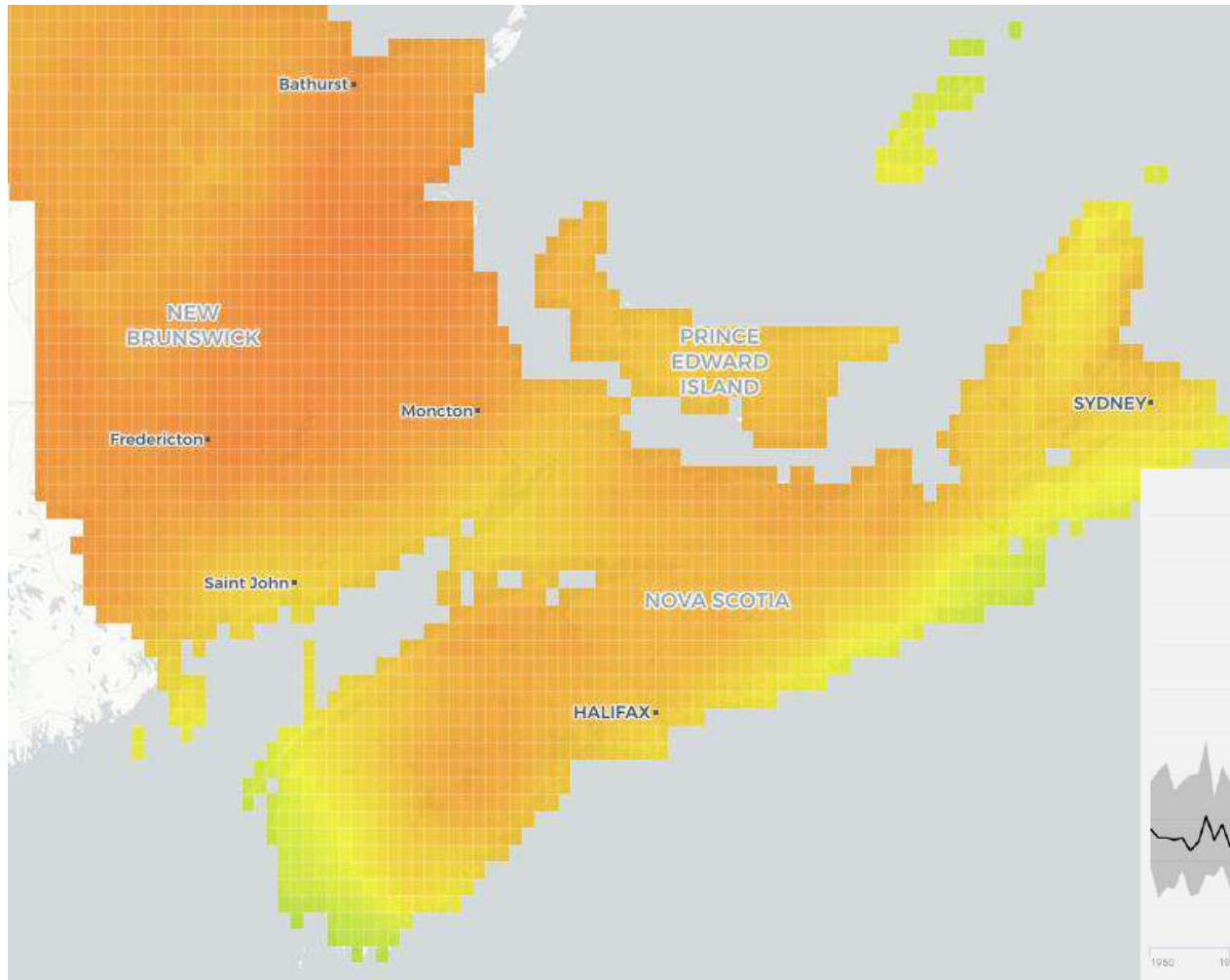
CLIMAtlantic facilitates access to data and information that supports adaptation to climate change in Atlantic Canada through collaboration, networking, and partnerships.



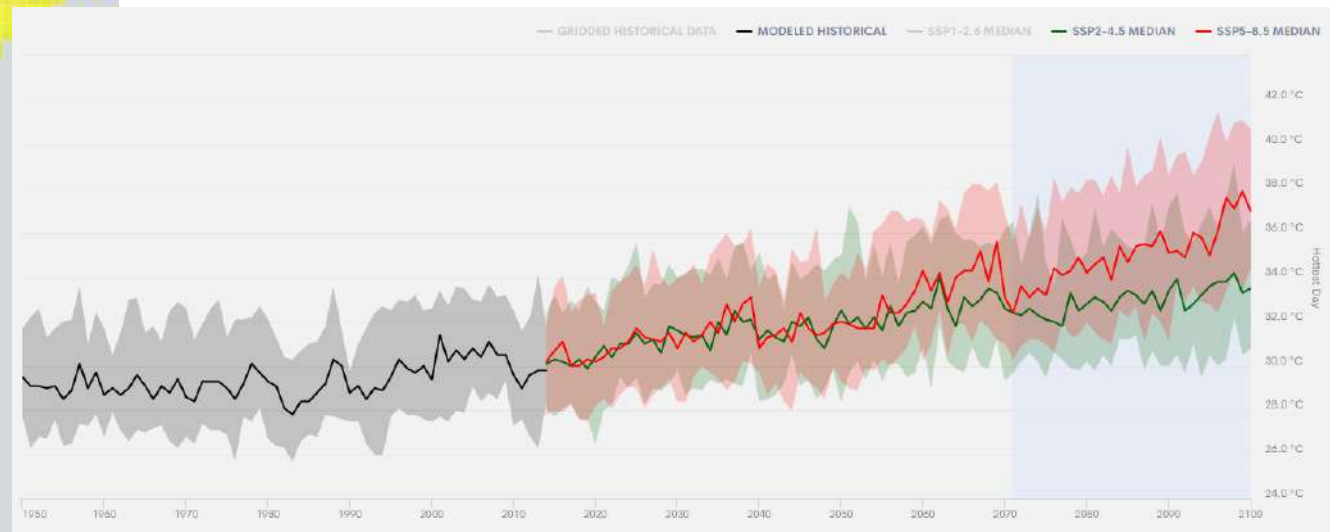
CLIMAtlantic Services

- Support for accessing and understanding information
- Connecting people with resources and expertise
- Developing and sharing tools
- Addressing knowledge and research gaps
- Delivering training
- Communication and engagement

Climate data



- Support with accessing and understanding historical and projected climate change data.
- Training on using data portals.
- Guidance on what types of information to consider in decision-making.

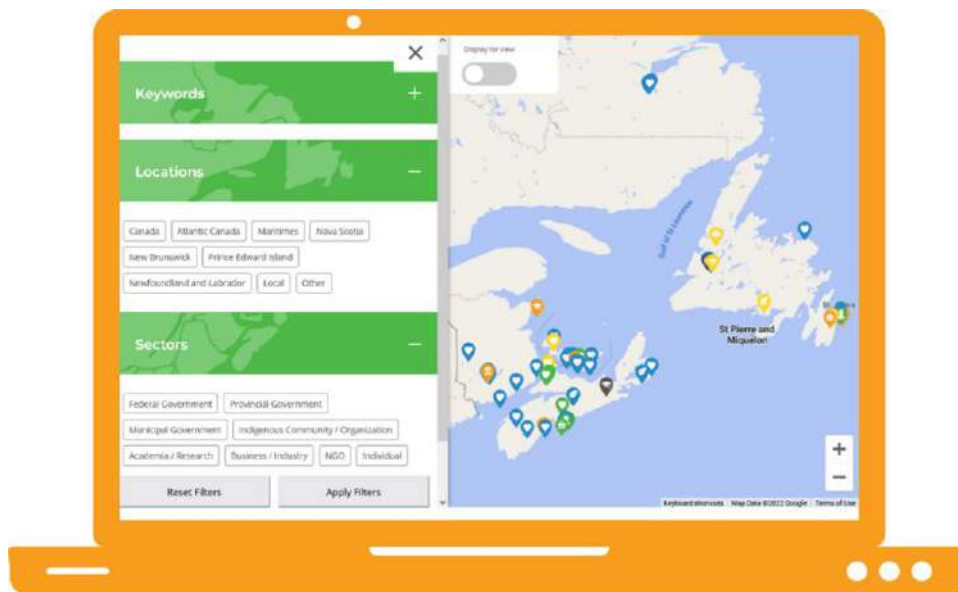


NETWORKING MAP



Strengthening Atlantic Canada's ability to respond and adapt to a changing climate.

Use this map to find and connect with individuals and organizations working on climate adaptation.



- Resource to help Atlantic Canadians find the climate adaptation services they require.
- Filter by specialty, location, and sector to easily search for and connect with individuals and organizations working on climate adaptation.

COASTAL ADAPTATION TOOLKIT

Adapting to Climate Change in Coastal Communities of Atlantic Canada

Explore this toolkit for advice on how to best prepare for coastal climate impacts

- Online decision support tool to inform adaptation to coastal flooding and erosion.
- Evaluates what coastal interventions and land use planning tools may be appropriate for specific sites.
- Community and property-scale versions.

3.1. What types of natural features or engineered structures are currently protecting this site?

(Select all that apply. Click on an image once to select it. Click again to deselect.)



Dunes, barriers islands, spits, natural armouring.

These naturally accumulated mounds of sediment (e.g., sand, cobble) have a buffering effect that can protect the upland from flooding and inland bays from erosion.

ADAPTATION LIBRARY

A collection of publicly accessible and searchable climate adaptation documents, tools, and products.

Connect with information related to climate change adaptation relevant to Atlantic Canada.

Filter By:

Region

NS

Climate Issue / Hazard

Extreme Events Flooding

Remove all

Primary Focus Areas

Climate Projections

- Collection of hundreds of reports, videos, infographics, and more on climate adaptation in Atlantic Canada.
- All resources have been reviewed by our team to ensure accuracy and categorized appropriately.
- Filter by region, climate issue, focus area, type of product, publication date, and language.

FUNDING OPPORTUNITIES

NATIONAL PROGRAMS

Natural Infrastructure Fund

Annual: Closed

[MORE INFO](#)

Nature Smart Climate Solutions Fund

Annual: Closed

[MORE INFO](#)

EcoAction Community Funding Program

Annual: Open

[MORE INFO](#)

Canada-Community-Building Fund (CCFB)

[MORE INFO](#)

Climate-Resilient Coastal Communities Program

Fixed Term: Closed

[MORE INFO](#)

Climate Change Adaptation Program

Fixed Term: Closed

[MORE INFO](#)

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Questions?