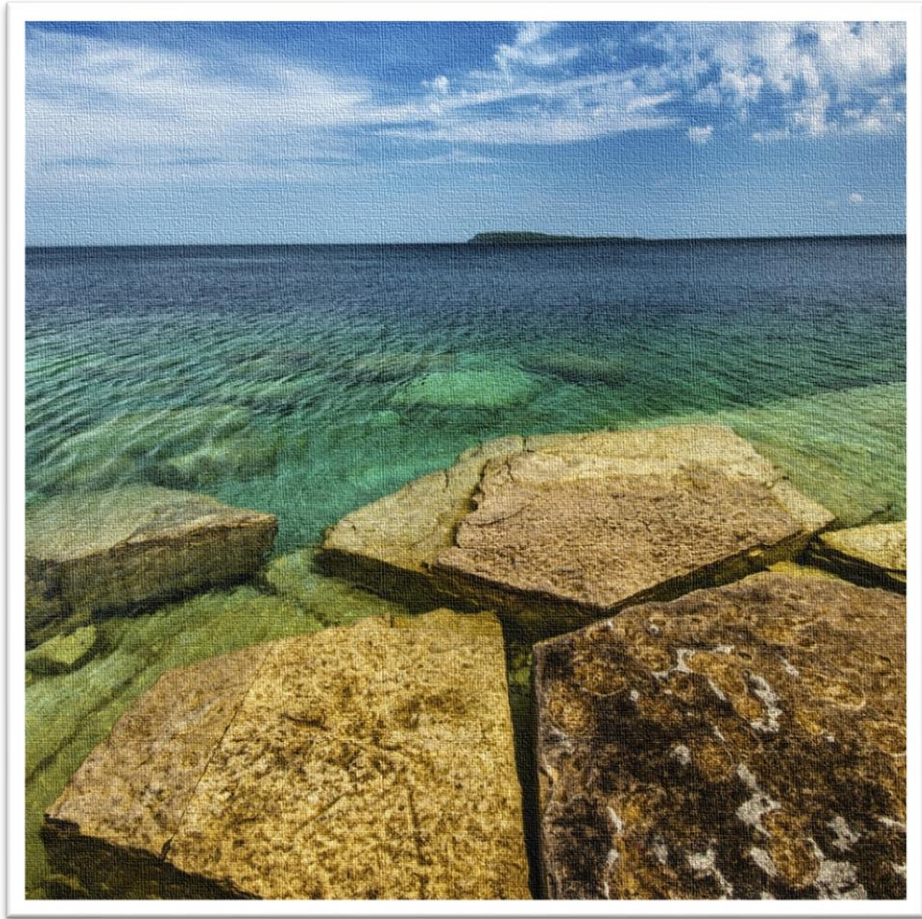


# **Climate Change Adaptation Planning Municipality of Northern Bruce Peninsula**

**Climate Change Committee**

**January 8, 2021**



# Meeting Agenda

- Role of Municipal Climate Change Committee.
- Adaptation and Mitigation.
- Parks Canada Adaptation Framework tool.
- Risks and possible responses in NBP? Public Works' perspective.



# Purpose of Climate Change Committee

- Develop **NBP Climate Change Action Plan** – mitigation and adaptation recommendations.
  - Assist in developing greenhouse gas emissions baseline.
  - Identify opportunities to improve energy efficiency and reduce emissions.
  - Assist with adaptation plan



# Adaptation and Mitigation

## Mitigation

- Reduce greenhouse gas emissions (GHGs):
  - Canada's commitment: 30% below 2005 levels by 2030.
  - Reduce energy use in buildings, convert to using electricity (i.e., e-vehicles, insulation, solar, heat pumps).

## Adaptation

- Take actions to reduce negative impacts of climate change:
  - Climate change is here now - conditions will continue to change based on historic and current GHG loadings.
  - Plan to reduce/adapt to risks – minimize damage to roads, bridges and culverts etc.





Parks  
Canada

Parcs  
Canada

# Parks Canada - Adaptation Framework

- “Strong Foundation” – **Council motion/committee**
- What are current/future NBP **climate conditions**?
- Identify and **prioritize** current/likely climate change **risks and impacts**.
- For each prioritized impact: how likely to occur / consequences / **vulnerability for NBP**.
- Identify, prioritize, budget **adaptation actions**.





Parks  
Canada

Parcs  
Canada

# Climate Projections for NBP (Parker, 2019)

## **Air Temperature Increase of 2 Degrees from 2021 - 2050**

- warmer winters / hotter, drier summers / increase in growing season

## **Water Temperature Increased 3 degrees from 2071 -2100**

- Impact on water chemistry / aquatic ecosystems / swimming 😊

## **Ice-Free Period Increased 45-62 days from 2071-2100**

- Shoreline damage from winter storms, more evaporation

## **Precipitation Increase**

- More rain than snow in winter, summer droughts, violent storms

## **Wildfire Season Increase**

- 20-40 days by 2040-70; more lightning strikes and wildfire incidents

# What are Vulnerabilities and Risks in NBP?

## Areas to consider:

### **Municipal assets**

Roads, bridges and culverts  
Water treatment and supply infrastructure  
Sewers in Tobermory and Lakewood  
Marinas  
Landfill sites and recycling depots  
Buildings  
Vehicles  
Machinery and equipment

### **Infrastructure and services**

Fire department  
Road operations  
Waste collection  
Landfill operation  
Recreational services  
Snow removal

### **Administration and Planning**

Emergency Plans  
Invasive species control  
Communication and education  
regarding climate change risks  
Protecting health, safety and  
productivity of outdoor workers

# What actions are currently being taken?

## What future options exist?

Consider areas from previous slide, for example:

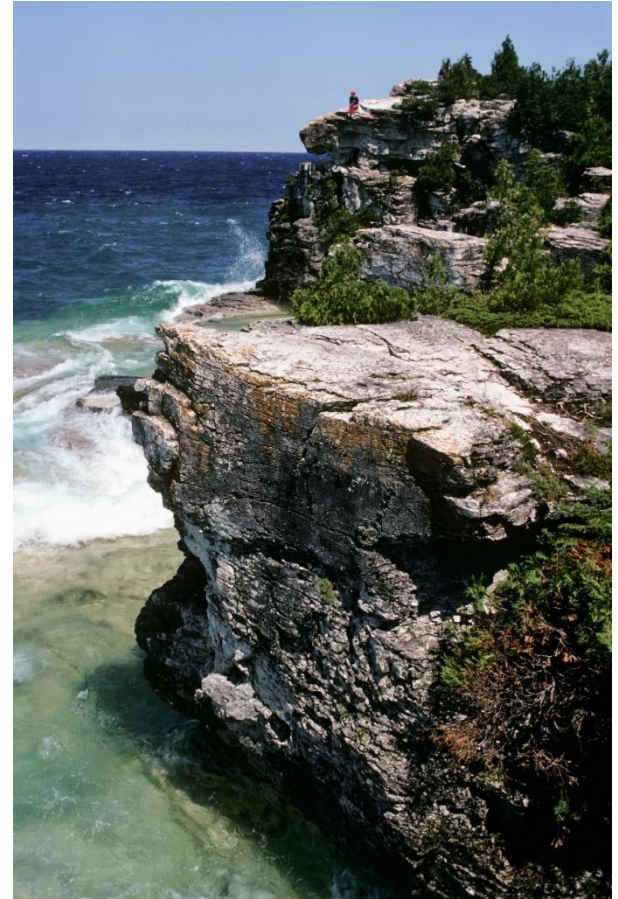
- Current actions – i.e., emergency plans, Lions Head lighthouse.
- Future options - building energy retrofits, larger culverts, shoreline protection.
- Inspire community to take action through advancing education.






# Learning from Others

- FCM/ICLEI Partners in Climate Protection (PCP). Learnings from towns across the country.
- FCM Climate Innovation Program – Climate Adaptation Maturity Scale tool.
- Public Works colleagues.





An aerial photograph showing a large body of water, likely a lake or a series of connected ponds, surrounded by a dense, lush green forest. The forest covers the majority of the foreground and middle ground, with various shades of green indicating different types of trees. The water is a deep blue, and the sky above is a clear, light blue. The text "Next Steps?" is overlaid in the center of the image in a white, sans-serif font.

Next  
Steps?