

BUILDING RESILIENCE

ENVIRONMENTAL HEALTH IN PRINCE EDWARD COUNTY

Presentation to Bay of Quinte Greens Speakers Series

Session: “Precious and Free” Water as a Vital Need and a Basic Commodity in a World of Climate Crisis

Jane Lesslie, Chair, Prince Edward County Environmental Advisory Committee

April 28, 2021

Environmental Advisory Committee Mandate from Council

1. Engage with public to support broadened public environmental awareness in PEC
2. Draw on environmental knowledge and expertise in the community
 - Provide advice and information to Council, Staff as required
3. Receive or initiate deputations from other organizations regarding other specific environmental concerns
4. Co-ordinate with experts and representatives of the public on a voluntary basis to collaborate on initiatives
Advancing environmental aspects of Council's strategic priorities
5. Provide advice and information to Council and the Public through an annual report

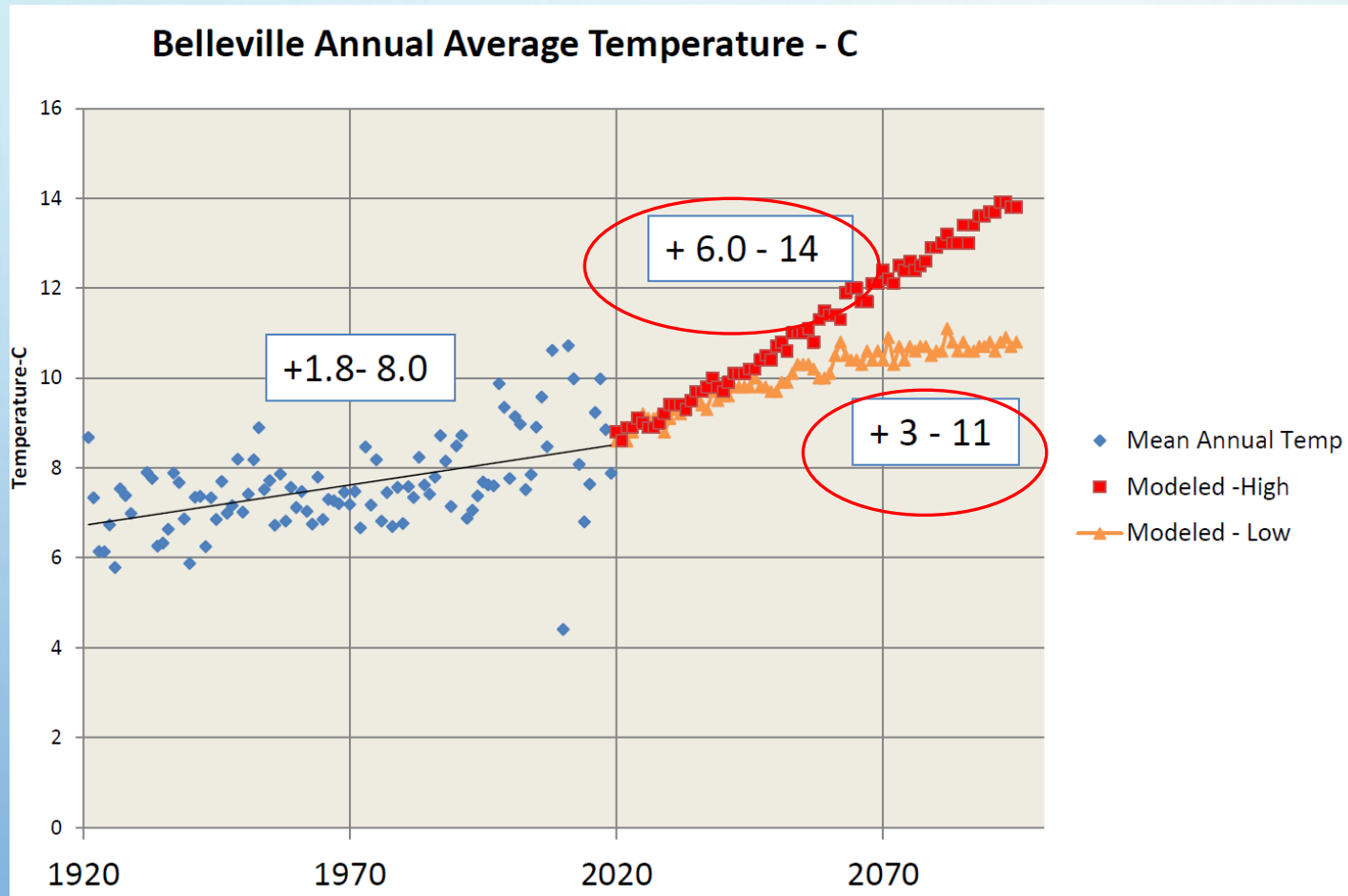
Advance Environmental Aspects of Council's Strategic Priorities

1. Mitigate the effects of climate change
2. Encourage water and energy conservation measures
3. Foster waste reduction, reuse and recycling programs
4. Encourage conservation/restoration of natural features and habitats which support the community's unique ecology character and environmental assets
5. Identify new opportunities for business/ employment/ housing that climate change mitigation efforts may offer

Members of the Environmental Advisory Committee – established Feb 2020

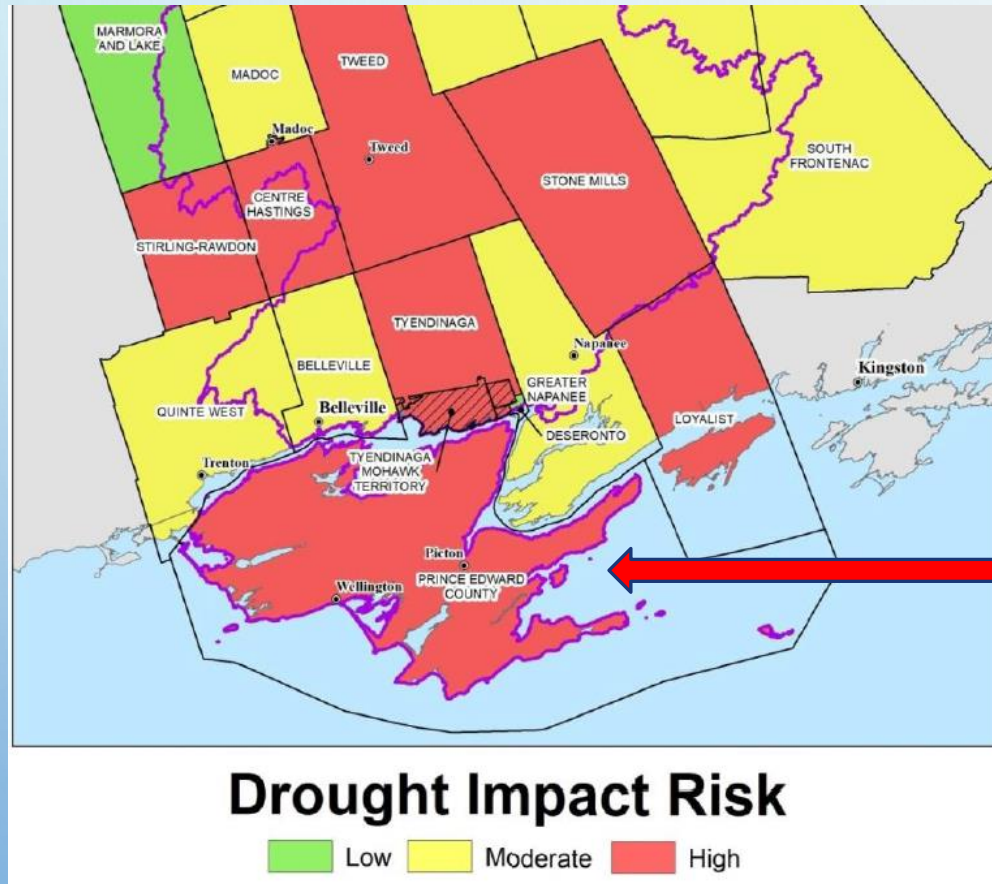


If “all politics are local” – well so is climate



2015 Paris Climate Agreement target 1.5 °

THE PEC ENVIRONMENTAL DOUBLE WHAMMY – FLOODING AND DROUGHT PRONE!



Well Vulnerability	Municipal Sensitivity		
	Low	Medium	High
Low	Low	Low	Moderate
Medium	Low	Moderate	High
High	Moderate	High	High

We Are “In the Red”



Quick!
Which municipality in Canada
has the longest shoreline?



PEC has 500 kilometres of shoreline*

So not surprising we spent
\$1.7 million on flood damage in 2017
and 2019.

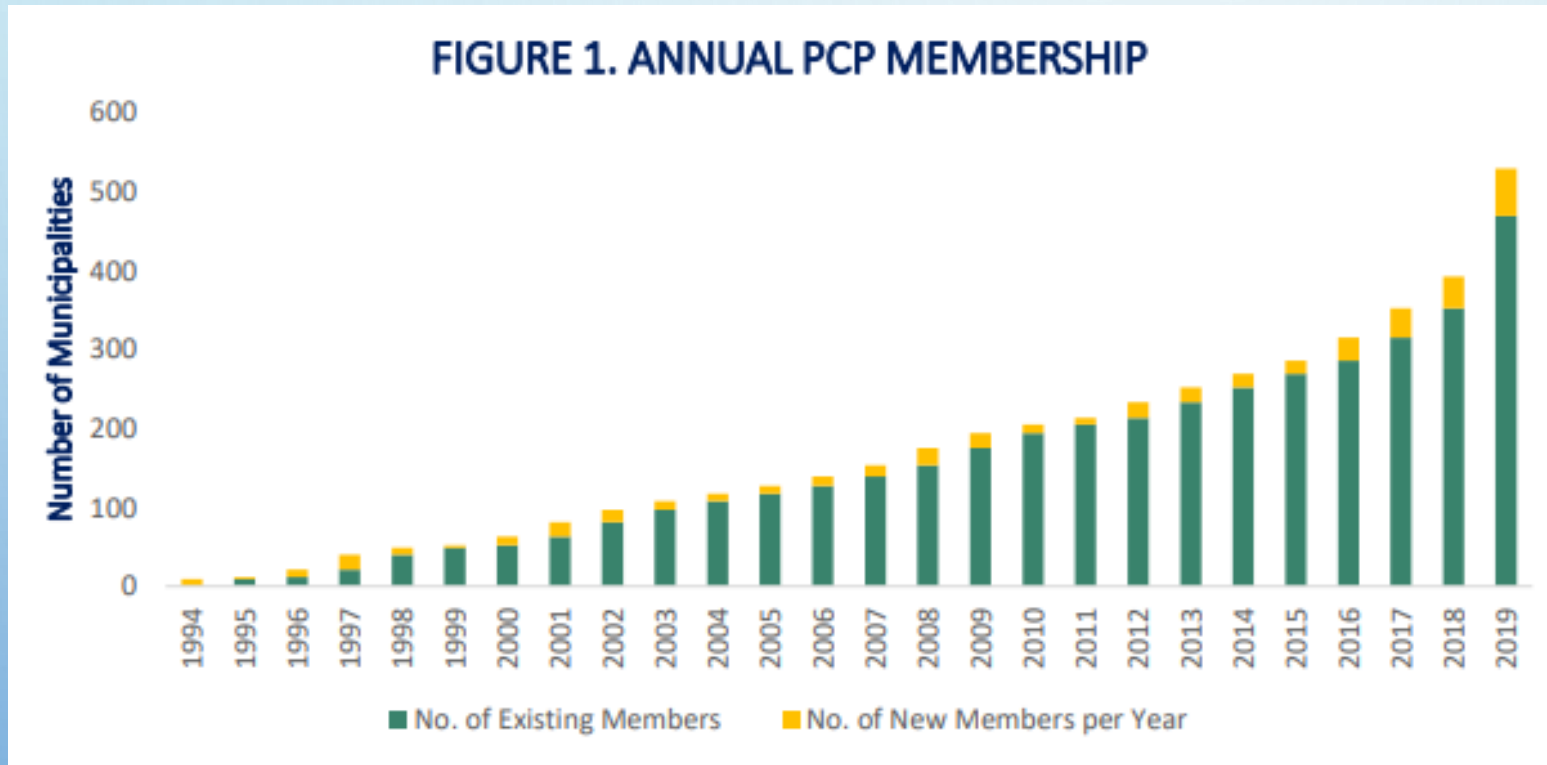
That's about **8.5%** of our 2019 general
spending

I believe that makes us a ...



* Thanks for the heads up Councillor Hirsch!

TRENDS – Canadian Municipalities – Plenty of Great Ideas Out There



As of February 2021

500 Canadian municipalities are taking part in the 25 year old Partners for Climate Protection (PCP) program offered jointly through Federation of Canadian Municipalities and Local Governments for Sustainability (ICLEI) associations.

In 2018 it was 350

“Municipal governments currently have direct or indirect control over approximately 44% of green house gas emissions in Canada”

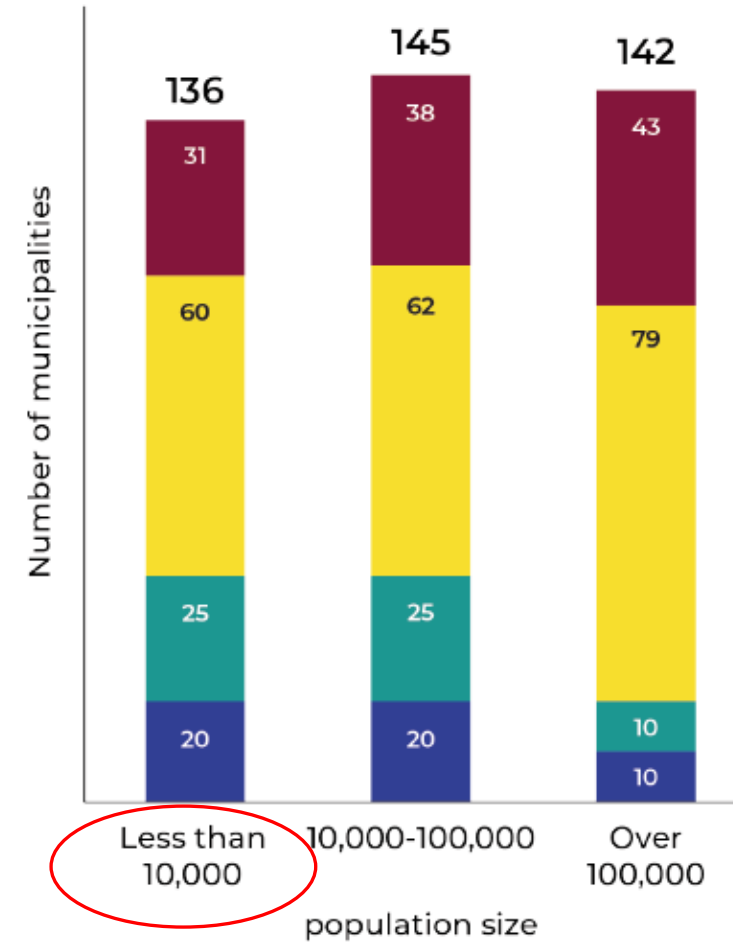
Federation of Canadian Municipalities (FCM)

“Yeah, but these are things only big cities can afford to do?”

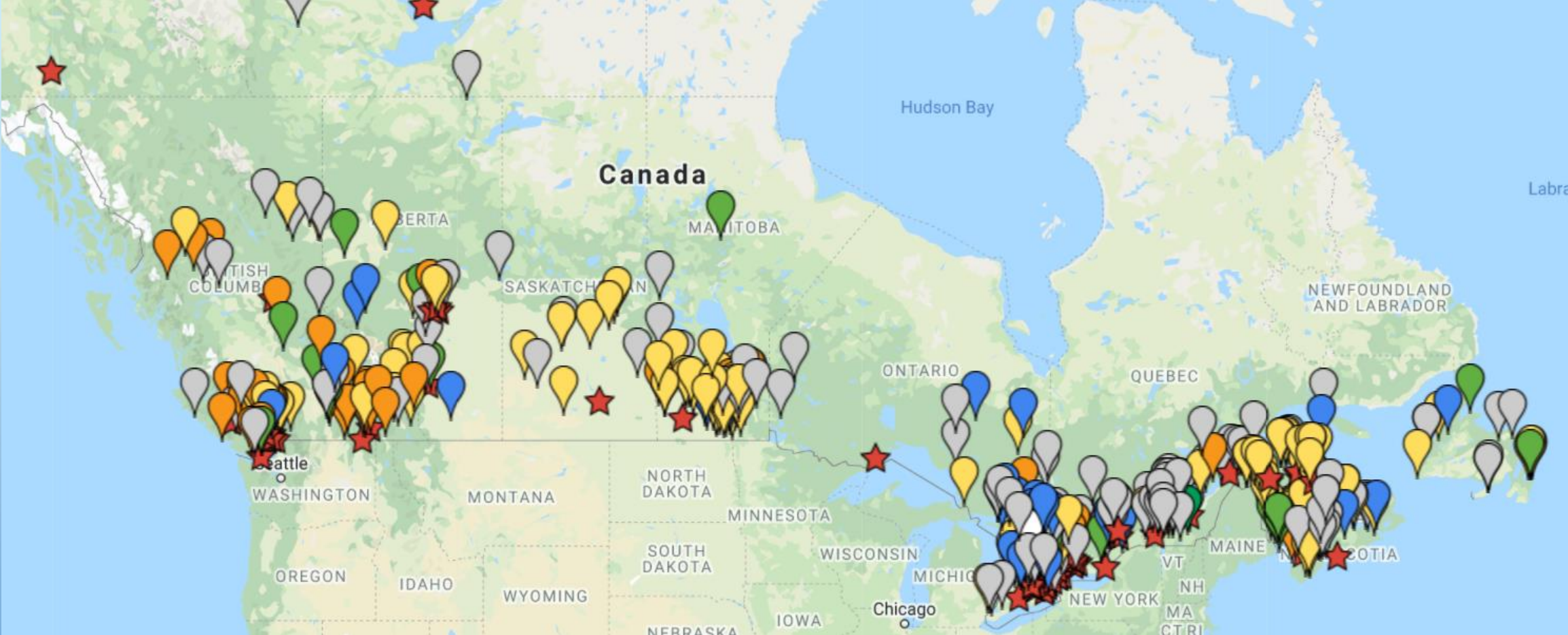
REALLY?

Level of measure implementation by population size

- Design phase
- Ongoing/in-progress
- Planned but not yet implemented
- Completed/adopted

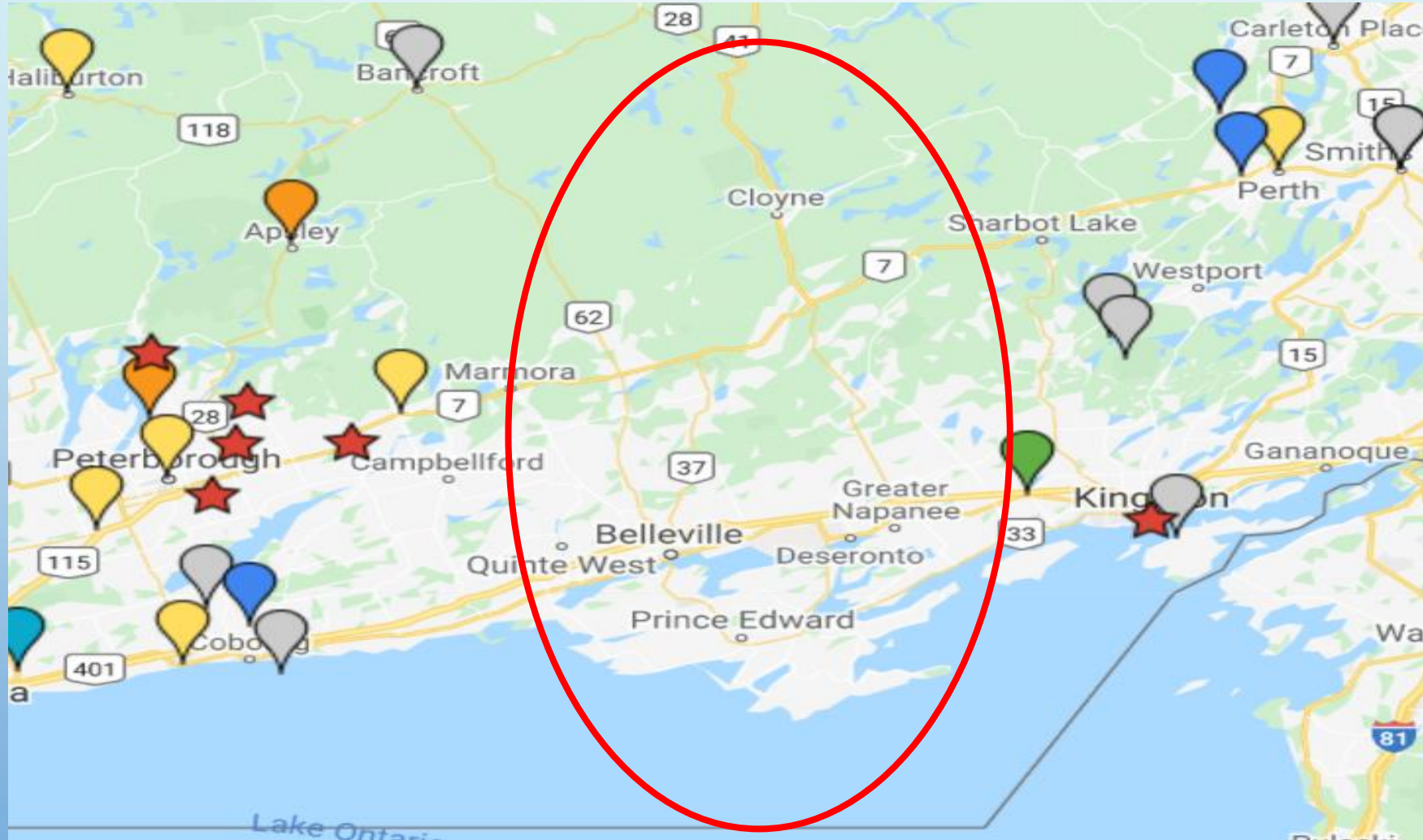


National Snapshot – Partners for Climate Protection Partner Municipalities



Partners for Climate Protection, Federation of Canadian Municipalities

NOW CLOSER STILL.....WE ARE IN A "DEAD ZONE"



PROFILE OF PCP INITIATIVES

KEY TAKEAWAYS

65 PCP member municipalities reported 420 initiatives to reduce emissions across six sectors:



HOW ABOUT A LITTLE HEALTHY COMPETITION WITH THE NEIGHBOURS?

Kingston

City initiatives to reduce greenhouse gas emissions

BUILDINGS
Solar panels on **12** buildings and counting. Targeting **430** tonnes reduction in GHG 2020-2023.
21% reduction in GHG since 2011 through energy conservation in City facilities.
Developing a retrofit program for homeowners. Plan in progress to incentivize **net-zero** buildings in our community.

TRANSPORTATION
48 Public EV charging stations. **4** express transit routes with more to come. **36** hybrid and electric vehicles in City and Utilities Kingston fleet. Developing **4** city-wide cycling routes.
41.6km new active transportation infrastructure and 19 intersection upgrades by 2023.
91.2% growth in transit ridership, 2011-2018.
2 electric buses. Purchasing **2** electric buses. Community bike-share program.

COMMUNITY PLANNING
Now creating **2020 to 2040** Climate Change Management Strategy to guide local climate action.
1st in Ontario to declare a Climate Change Emergency.
Density by Design connects land use decisions to carbon reduction.
Will develop a charitable fund for climate action.
Joined the Global Covenant of Mayors for Climate & Energy.

PARTNERSHIPS
Avoided **200,000** tonnes GHG via community green economy program since 2018.
City and Sustainable Kingston Co-host annual Climate Change Symposium.
Working Group on Climate Action identified low cost measures to reduce GHG in the industrial, commercial and institutional sector.

WASTE AND WATER
Residential green bins program diverts **40,200** tonnes of organic waste from landfill, 8,250 tonnes of GHG avoided since 2010.
Exploring turning organic waste into renewable energy.
Increasing participation of the Green Bin and Recycling Cart programs at multi-residential homes and now offering free Green Bins to schools.
The Grand Theatre becomes the first City facility to remove single-use plastics.
Renewable natural gas powers Ravensview Wastewater Treatment Facility.
Utilities team.

ADAPTATION AND GREENSPACE
More than **37,000** trees planted on City properties since 2015.
Discount program for residents to buy trees coming in 2020.
Parks are changing with new types of trees, increased shade, and naturalized landscapes, drainage, and infrastructure.
\$50.5M from City and Federal Government for climate change adaptation projects such as shoreline protection.

Our Greenhouse gases (GHG) contribute to the climate change crisis. The City has set ambitious targets to reduce them.
Achieve 15% reduction in GHG emissions from 2018 levels by **2022**.
Achieve carbon neutrality by **2040**.

CityofKingston.ca/Change-for-Climate

Change for climate now

KINGSTON

Mohawks of the Bay of Quinte

DILLON CONSULTING

MOHAWKS OF THE BAY OF QUINTE

Climate Change Adaptation Plan

CLIMATE CHANGE ADAPTATION PLAN

The results of the Climate Change Assessment, was a prioritized list of risks for the community and help guide the planning process. Adaptation planning was a collaborative process whereby MBQ staff was brought together within a facilitated workshop to first validate the prioritized list of risks and then to identify potential adaptation options (facility upgrades, educational materials, etc.). The assessment is to be revisited as new data becomes available. The Adaptation Plan included a Cost-Benefit Analysis.

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AGENDA ITEM #7.1

Water Specific Initiatives

Sackville
NEW BRUNSWICK

Corporate Climate Change Adaptation Plan 2016

Executive Summary

Sackville, New Brunswick, located on the Chignecto Isthmus, is one of the most vulnerable regions to climate change impacts, in particular both freshwater and coastal flooding. Due to these well-known vulnerabilities, the Town of Sackville has taken a series of actions to adapt to climate changes already including adopting an updated flood risk map, the use of Sentinel (a public emergency alert system), an inventory of privately owned flat bottom boats that is regularly updated, and a series of public information sessions on adaptation issues in partnership with local researchers, planners, government and non-profits.

Sackville NB, **Population 5,300**




Corporate Climate Change Adaptation Plan

Sackville, New
Brunswick

Water Specific Initiatives

Campbell River “Rising Seas” initiative is the 2020 winner in the climate change category FCM Sustainable Communities Awards

Campbell River BC, **Population 35,000**



The image shows a screenshot of a news article from the Campbell River Mirror. At the top, there is a navigation bar with a hamburger menu icon, social media icons for Facebook, Twitter, and Instagram, and the site title "CAMPBELL RIVER MIRROR". Below this is a red navigation bar with links for "Newsletter", "Today's Home", "Autos", "Contests", "Cannabis 19+", "Jobs", "Trending Now", "Business", "Good News", and "Contact Us". The main content area features a photograph of several workbooks. The most prominent workbook has a blue cover with a white band across the middle. The text on the cover reads: "SEA LEVEL RISE PRIMER PART III LOCAL ADAPTATION OPTIONS AND EVALUATION PROCESS CAMPBELL RIVER RISING SEAS". To the right of the workbooks, a portion of another document is visible with the heading "WORKBOOK PUBLIC WORKSHOP ON EVALUATING ADAPTATION OPTIONS FOR RISING SEAS". Below the photograph, the article text begins: "Participants were asked to work through a workbook about the issue of sea level rise. Photo, Mike Chouinard/Campbell River Mirror". The article title is "Campbell River takes steps to plan for long-term sea level rise" and the sub-headline is "Event at Maritim Heritage Centre was second of three public input events". At the bottom, the byline reads "MIKE CHOUINARD / Mar. 20, 2019 12:30 p.m. / LOCAL NEWS / NEWS".

Participants were asked to work through a workbook about the issue of sea level rise. Photo, Mike Chouinard/Campbell River Mirror

Campbell River takes steps to plan for long-term sea level rise

Event at Maritim Heritage Centre was second of three public input events

MIKE CHOUINARD / Mar. 20, 2019 12:30 p.m. / LOCAL NEWS / NEWS

ENVIRONMENTAL SUCCESSSES IN THE COUNTY 2020

- LED STREET LIGHT INSTALLATION COMMENCES

REDUCES GREEN HOUSE GAS EMISSIONS BY 25 METRIC TONNES, SAVES TAXPAYERS \$217,000

- NEW TREE POLICY

THANK YOU AD HOC TREE ADVISORY COMMITTEE! – AFFECTS MUNICIPAL PROPERTY AND DEVELOPMENT PROJECTS

- NEW ANTI IDLING BYLAW

- NICOLE STORMS OF MOHAWKS OF BAY OF QUINTE JOINS EAC AS NEW TECHNICAL ADVISOR

ENVIRONMENTAL SERVICES COORDINATOR FOR MBQ WHO HAVE ALREADY UNDERTAKEN A CLIMATE CHANGE AUDIT AND DEVELOPED PROGRAMS TO RESPOND
GREAT OPPORTUNITY TO LEARN FROM THEIR EXPERIENCE, SHARE COMMON INITIATIVES.

- COUNCIL APPROVES DRAFT OFFICIAL PLAN

INCLUDES **SPECIFIC WRITTEN COMMON STANDARDS FOR ALL ENVIRONMENTAL IMPACT STUDIES (EIS)** FOR PROPOSED MAJOR DEVELOPMENTS
AMONG THE GUIDING PRINCIPLES SET OUT – **COUNTY WILL DEMONSTRATE ENVIRONMENTAL LEADERSHIP IN WATER RESOURCE MANAGEMENT**
COUNTY **WILL PROMOTE CLIMATE CHANGE MITIGATION**

50 METRE SETBACK ESTABLISHED FOR **ALL WETLANDS**, **120 METRES** FOR **PROVINCIALY SIGNIFICANT WETLANDS**

DEVELOPMENT CHARGES CAN BE ADJUSTED FOR **BUILDERS ADOPTING GREEN BUILDING TECHNIQUES**

MANAGER, PLANNING RECOMMENDED **A BIOLOGIST ON RETAINER TO ASSIST IN WEIGHING COMPETING ARGUMENTS FROM DEVELOPMENT PROPONENTS AND OPPONENTS**

INCREASED DENSITY FOR SETTLEMENT AREAS – IMPROVES ACTIVE TRANSPORTATION PROSPECTS.

ENVIRONMENTAL SUCCESSES IN THE COUNTY – COMING UP

- **SUSTAINABILITY SUPERVISOR AND SUSTAINABILITY TECHNICIAN BEING HIRED.**
- **ADOPT A TREE PROGRAM** – WILL INCREASE TREE CANOPY, REDUCE MAINTENANCE COSTS
- OPERATIONS AND RECREATION DEPARTMENTS TO **WORK WITH** NATURAL COVER GROUP ON NATURAL COVER OPPORTUNITIES TO IMPROVE COUNTY RESILIENCE – EG. SUPPORT BIO DIVERSITY, SUPPORT POLLINATORS ETC.
- **PROPOSED SURVEY OF RESIDENTS - FLOOD AND EXTREME WEATHER DAMAGE 2017-2019**
- PROJECT WITH STUDENTS AT FLEMING COLLEGE **ANALYZING PEC URBAN TREE COVER**

CLIMATE CHANGE “**CHANGES**” EVERYTHING

- “THE MOST SERIOUS IMPACTS OF CLIMATE CHANGE ARE EXPECTED TO BE THE **CHANGES** IN CLIMATE **EXTREMES**” ¹
- INCREASING “**NINJA**” **STORMS**/RAINFALL EVENTS: EXTREME RAINFALL OVER SHORT PERIODS OF TIME – NOT FORECASTABLE ¹
- FLOODING MORE PREVALENT AND **SWINGS FROM WET TO DRY MORE VOLATILE** MAKING FLOODING HAZARD MORE PRONOUNCED ¹
- MORE **ICE**, MORE **DROUGHT**, MORE **EXTREME HEAT**

¹ Independent review of the 2019 flood events in Ontario

Report by Douglas McNeil, P.Eng. On behalf of John Yakabuski, Minister of Natural Resources and Forestry, Ont.

PEC has great beaches,
but **THIS** is NOT a strategy



Thank You!

