Subject:	Corporate Climate Adaptation Plan Project Update Report Q2 2019 – Q1 2022
To:	Committee of the Whole – Community Services & Infrastructure
From:	Public Works Department

Report Number:	PW-23-22
Wards Affected:	All
Date to Committee:	June 29, 2022
Date to Council:	July 11, 2022

Recommendation:

Receive and file Report PW-23-22 Corporate Climate Adaptation Plan Project Update Report Q2 2019 – Q1 2022 as attached as Appendix A.

Purpose:

The purpose of this report is to provide Council with an update of the current climate action initiatives associated with the Corporate Climate Adaptation Plan (CCAP).

Background:

On July 22, 2019 Council passed a resolution supporting the development of a Corporate Climate Adaptation Plan. The purpose of a Corporate Climate Adaptation Plan is to prepare the Town of Lincoln to adapt to anticipated climatic change and extreme weather, thereby minimizing the severity of the resulting impact.

Report:

Further to the declaration of a Climate Crisis, adoption of the Corporate Climate Adaptation Plan (CCAP) and extensive efforts that have been ongoing with Council support, staff continue to implement climate action initiatives. Appendix A provides an update on Town of Lincoln Corporate Climate Adaptation Plan Initiatives between Q2 2019 – Q1 2022 including progress and next steps.

Future updates will be on a biannual basis. The next update report will provide an overview of Q2-Q4 2022 and is anticipated to be brought to Council in January 2023.

Financial, Legal, Staff Considerations:

Financial: N/A

Staffing:

It is anticipated that the Town's communication staff are utilized to prepare materials for public engagement initiatives and to assist with the notifications relating to the implementation of the CCAP's actions. It is anticipated also that as staff continue implementing the actions outlines in the CCAP, that applicable staffing requests will be made on a project-by-project basis. Appropriate departments are responsible for identifying staff.

Legal: N/A

Public Engagement Matters:

Ongoing engagement with residents, businesses, stakeholders, and industry will continue to be an important part of the climate adaptation process. It is anticipated that as staff continue implementation of the actions outlines in the CCAP, that applicable public engagement will be conducted on a project-by-project basis. Planned community engagement and communication will also be facilitated on Speak Up Lincoln.

Conclusion:

The Corporate Climate Adaptation Plan Project Update Report Q2 2019 – Q1 2022 reviews the ongoing progress on the implementation of the Corporate Climate Adaptation Plan.

Respectfully submitted,

Shannon Fernandes
Climate Change Coordinator
905-563-2799 Ext.281

Appendices:

Appendix A: Corporate Climate Adaptation Plan Project Update Report Q2 2019 – Q1 2022

Report Approval:

Report has been reviewed by Director Public Works. Final approval is by the Chief Administrative Officer.

Town of Lincoln

CORPORATE

Climate Change Adaptation Plan

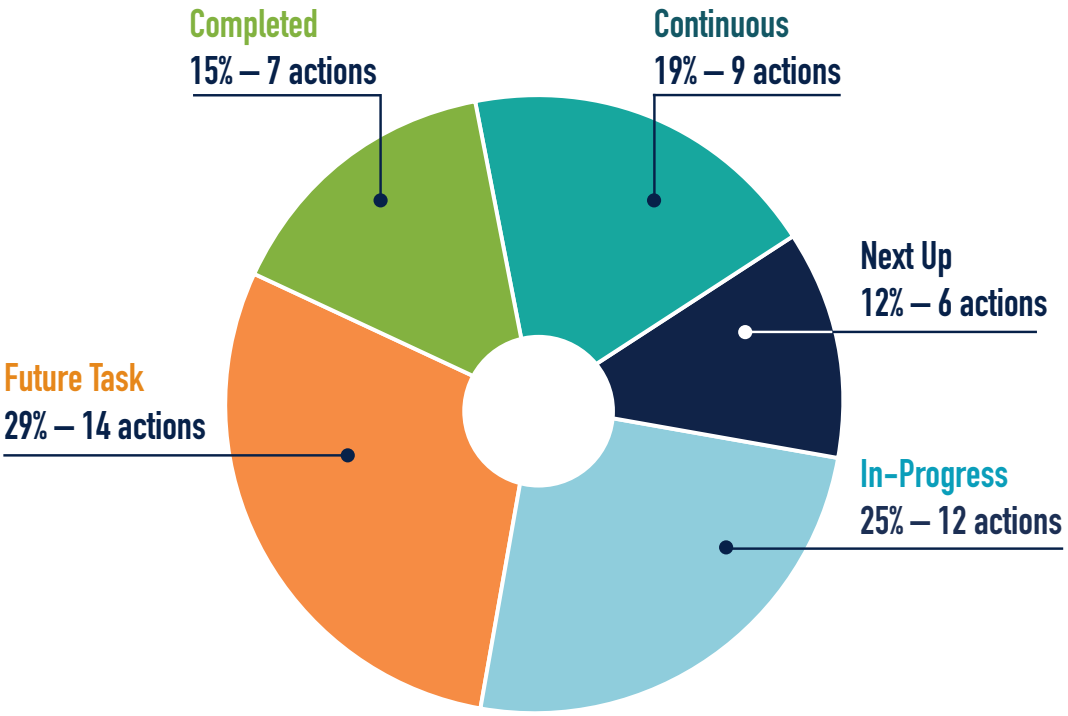
Update: Q2 2019 to Q1 2022



Sustainable LINCOLN

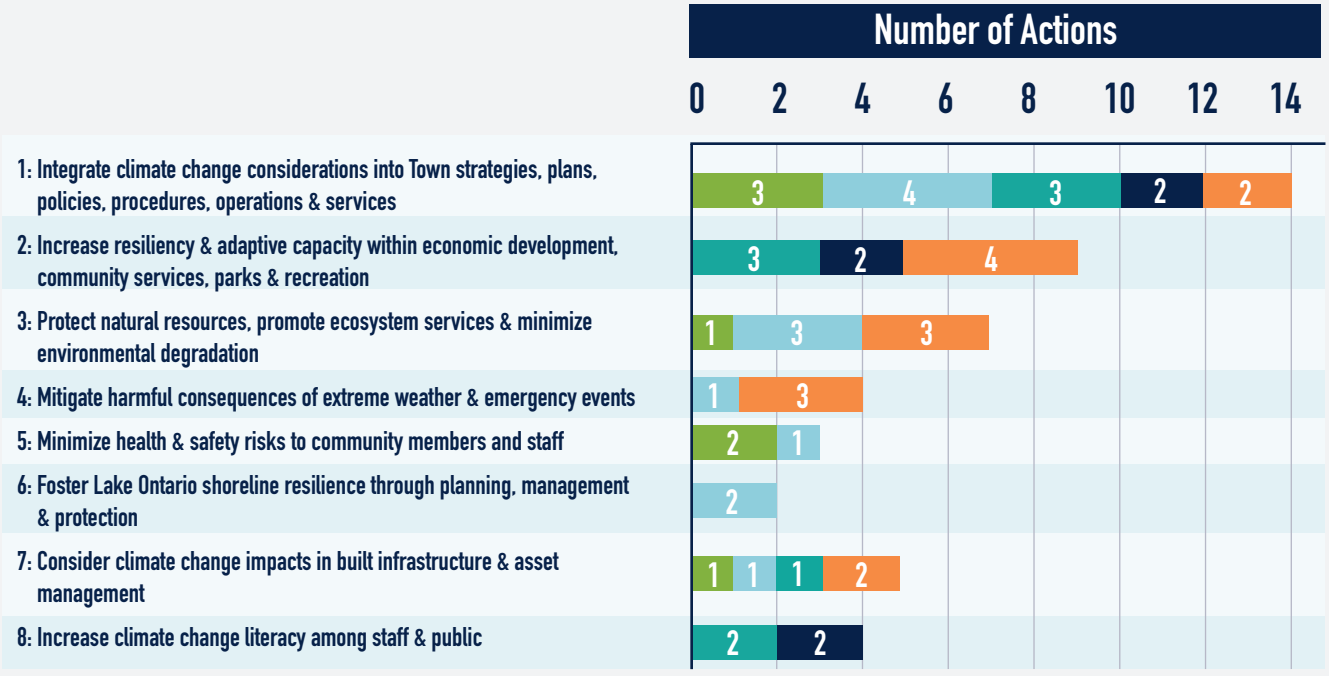
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Overview



STATUS LEGEND

- Completed
- In-Progress
- Continuous
- Next Up (2022 - 2023)
- Future Task (2023 forward)



Actions by Status

1: Integrate climate change considerations into Town strategies, plans, policies, procedures, operations & services

Completed

1.2 Declare a climate emergency.

1.3 Establish a Corporate Environmental Committee.

1.5 Ensure climate change impacts & risks are considered as part of Project & Risk Management frameworks.

In-Progress

1.10 Develop & implement a Single-use Plastics Ban.

1.4 Develop & implement a Resiliency Lens & a database to track corporate plans, policies, & procedures that have been reviewed.

1.7 Initiate a Corporate Mitigation Plan.

1.8 Initiate a Community Low-Carbon Resiliency Plan.

Next Up (2022 – 2023)

1.12 Establish a process for reviewing localized climate projections at regular time intervals.

1.6 Identify corporate champion(s) to help lead implementation of adaptation actions.

Continuous

1.1 Review plans, policies, & procedures for alignment with adaptation goals and update where appropriate.

1.13 Continue to lobby provincial and federal governments to support adaptation initiatives at the municipal level.

1.14 Continue to identify and take advantage of external funding opportunities.

Future Task (2023 forward)

1.9 Establish a Sustainability Advisory Committee.

1.11 Incorporate a Green Decision-Making Lens into current Procurement Policy.

2: Increase resiliency & adaptive capacity within economic development, community services, parks & recreation

Continuous

2.2 Investigate opportunities for more indoor programming.

2.4 Improve resilience of public & active transportation infrastructure/assets.

2.9 Choose landscaping for drought tolerance and ensure diversity and native plants in plantings for new development and on Town property.

Next Up (2022 – 2023)

2.5 Develop a business resilience framework & toolkit.

2.8 Explore the feasibility of initiating a program to encourage and support climate action among key stakeholders, including local businesses and youth groups.

Future Task (2023 forward)

2.1 Continue to expand & improve Shop Lincoln.

2.3 Develop a database for climate adaptation financial resources (ex. grants, incentives, rebates).

2.6 Investigate climate proofed standards for design, construction, M&O of parks & facilities.

2.7 Investigate the feasibility of adapted crops and varieties, insurance as a risk management tool, agro-forestry, agro-technology and crop diversification.

3: Protect natural resources, promote ecosystem services & minimize environmental degradation

Completed

3.3 Develop & implement a Tree By-law.

In-Progress

3.1 Conduct a Natural Assets Inventory (NAI) & an Ecosystem Services Assessment (ESA).

3.5 Review and update procedures on Invasive Species (ex. Phragmites, Gypsy Moth, Emerald Ash Borer).

3.7 Review winter control practices to ensure climate change impacts are considered and to identify opportunities for improvement.

Future Task (2023 forward)

3.2 Conduct a Tree Inventory, develop & implement canopy cover targets and an action plan.

3.4 Consider initiatives that takes municipal owned lands unfit for agriculture back to forest with trees that are climate change resistant species.

3.6 Strengthen community tree & garden planting networks.

4: Mitigate harmful consequences of extreme weather & emergency events

In-Progress

4.3 Investigate the feasibility of community stormwater management programs.

Future Task (2023 forward)

4.1 Review and update the Emergency Circumstances (annual), Extreme Weather Policy (as needed) and the Thermal Stress Procedure (as needed) to account for climate change impacts.

4.2 Map areas vulnerable to heat extremes and use mapping to inform planning and programming initiatives.

4.4 Update drought Responses and Risk Reduction - Fire and water conservation, water restrictions and consumption cuts specifically for rural areas.

5: Minimize health & safety risks to community members and staff

Completed

5.1 Carry out outreach activities that target vulnerable populations during extreme heat and cold events.

5.2 Review and update public 72-hour Emergency Preparedness and Response Guide.

In-Progress

5.3 Develop a Residential Flood Preparation and Recovery Guide.

6: Foster Lake Ontario shoreline resilience through planning, management & protection

In-Progress

6.1 Increase community communications around shoreline protection.

6.2 Review alternatives through an Environmental Assessment (EA) for resiliency of municipal infrastructure along shoreline.

7: Consider climate change impacts in built infrastructure & asset management

Completed

7.2 Develop Green Infrastructure/Low-Impact Development Design Guidelines.

In-Progress

7.4 Ensure the consideration of climate impacts in asset management.

Continuous

7.1 Reduce inflow and infiltration (I/I).

Future Task (2023 forward)

7.3 Review & update engineering & development standards with consideration for climate change mitigation & adaptation to increase Green Infrastructure/Low-Impact Development implementation on public property and opportunities for permeable surfaces.

7.5 Review & update Hazard Identification and Risk Assessments to include climate change considerations.

8: Increase climate change literacy among staff & public

Next Up (2022 – 2023)

8.2 Investigate the feasibility of a corporate intranet.

8.4 Establish a public Green Infrastructure/Low-Impact Development education program.

Continuous

8.1 Continue reviewing & updating internal & external communication processes related to climate change and extreme weather.

8.3 Develop communication strategy to showcase municipal initiatives to the community that are related to adaptation and resilience.

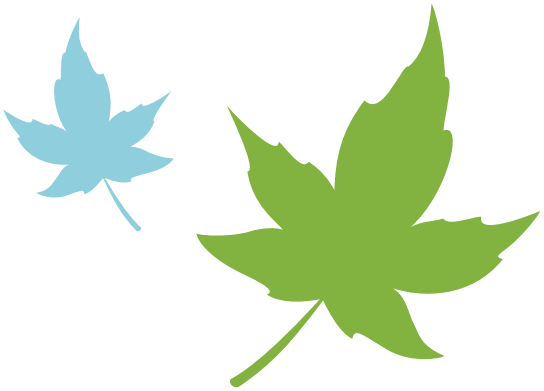
Current Actions

1: Integrate climate change considerations into Town strategies, plans, policies, procedures, operations & services

Status	Overview	Progress	Next Steps
In-Progress	**ACTION 1.10 – Develop & implement a Single-use Plastics Ban**		
	• Single-use plastics are defined as designed to be thrown away after being used only once. A Corporate Single-Use Plastics Reduction Strategy and a Community Single-Use Plastics Reduction Strategy will reduce pollution and associated negative environmental, social, and financial impacts. • LEAD DEPARMTMENT: Climate Change Coordinator	• Established an inter-departmental Steering Committee comprised of key staff representing Community Services, Economic Development and Communication, By-law, and Public Works. • Developed a project outline and estimated timeline. • Conducted a staff survey to identify corporate single-use plastic use. • Conducted a pilot study in the Moses F. Rittenhouse Library Branch and waste audits in the Fleming Centre and Town Hall. • Ongoing public survey to identify community single-use plastic use and reduction opportunities.	• Develop corporate single-use plastics reduction strategies. • Develop community single-use plastics reduction strategies. • Community engagement. • Review and evaluate long list of action alternatives.
	ACTION 1.4 – Develop & implement a Resiliency Lens & a database to track corporate plans, policies, & procedures that have been reviewed		
	• The aim of a Resilience Lens is to identify and advance opportunities to align decision-making and project planning with Council priorities. The Lens will incorporate climate change and health equity considerations in order to reduce the overall vulnerability of the community to future social, environmental, and financial impacts (ex. extreme weather events, COVID-19). • LEAD DEPARTMENT: Climate Change Coordinator	• SMT & Council introduction to health equity. • First lens draft. • Stakeholder consultations. • Departmental information sessions.	• Second lens draft. • Develop resource/education tool(s) for staff and Council. • Department pilots.

Status	Overview	Progress	Next Steps
In-Progress	**ACTION 1.7 – Initiate a Corporate Mitigation Plan**		
	• A CCMP will address the GHG emissions from the Town's infrastructure, assets, operations, and services. • LEAD DEPARTMENT; Climate Change Coordinator	• Council approved 2022 Budget, including item 202485 – Climate Resiliency Program. • In Winter 2022, Council passed a resolution to join the Partners for Climate Protection (PCP) Program with the goal of reducing GHG emissions, through municipal operations and community-based initiatives. • Ongoing public survey to understand perspectives on high-level climate actions, gather GHG reduction action ideas, set reduction targets, and develop a vision and principles to guide the planning process.	• Facility energy audits. • Corporate greenhouse gas emissions inventory. • Set a corporate emissions reductions target.
	ACTION 1.8 – Initiate a Community Low-Carbon Resiliency Plan		
	• A CLCRP will evaluate both adaptation and mitigation strategies, as well as identify other co-benefit opportunities from community driven climate action. The purpose of the plan is to develop a set of LCR actions that will be accomplished in partnership with residents, public and private sectors, and local stakeholders. • LEAD DEPARTMENT; Climate Change Coordinator	• Council approved 2022 Budget, including item 202485 – Climate Resiliency Program. • In Winter 2022, Council passed a resolution to join the Partners for Climate Protection (PCP) Program with the goal of reducing GHG emissions, through municipal operations and community-based initiatives. • Ongoing public survey to understand perspectives on high-level climate actions, gather GHG reduction action ideas, set reduction targets, and develop a vision and principles to guide the planning process.	• Community greenhouse gas emissions inventory. • Set a community emissions reduction target.

Status	
Continuous	**ACTION 1.8 – Review plans, policies, & procedures for alignment with adaptation goals and update where appropriate** • Ensure that adaptation and mitigation considerations, alignment with the CCAP goals, and advances in climate science are considered in the review and revision of Town/Department/Program plans, policies, & procedures. • LEAD DEPARTMENT; All
	ACTION 1.13 – Continue to lobby provincial and federal governments to support adaptation initiatives at the municipal level • Ongoing advocacy for project proposals submitted to the federal and provincial government swill continue on a project-by-project basis. • LEAD DEPARTMENT; Communications & Economic Development
	ACTION 1.14 – Continue to identify and take advantage of external funding opportunities • External funding is vital to ensure the implementation and success of climate change action at the Town and community levels. Investments in adaptation and mitigation initiatives often result in co-benefits and savings due to increased social, environmental, and economical resilience. • LEAD DEPARTMENT; Communications & Economic Development



2: Increase resiliency & adaptive capacity within economic development, community services, parks & recreation

Status	
Continuous	**ACTION 2.2 – Investigate opportunities for more indoor programming** • Flexible indoor/outdoor/virtual programming increases the Town's capacity to adapt to emergency, public health, and climate change related concerns. • LEAD DEPARTMENT: Community Services **ACTION 2.4 – Improve resilience of public & active transportation infrastructure/assets** • Ongoing initiatives that improve the resiliency of design, operations, and construction: annual provincial and industry updates, considering current and future site plan conditions, upgrading assets, and preparing for the needs and impacts of new developments. • LEAD DEPARTMENT: Planning & Development & Public Works **ACTION 2.9 – Choose landscaping for drought tolerance and ensure diversity and native plants in plantings for new development and on Town property** • Staff will continue landscaping for drought tolerance and ensure diversity and native plants in plantings for new development and on Town property. • LEAD DEPARTMENT: Community Services

3: Protect natural resources, promote ecosystem services & minimize environmental degradation

Status	Overview	Progress	Next Steps
In-Progress	**ACTION 3.1 – Conduct a Natural Assets Inventory (NAI) & an Ecosystem Services Assessment (ESA)**		
	• Healthy natural assets – forests, wetlands and rivers, provide core infrastructure services such as stormwater management and flood control, regulating water quality and quantity and managing rising temperatures. Natural assets can often provide the same level of service as engineered assets and higher resiliency and adaptability to climate changes at lower capital, operating, maintenance and renewal costs. • LEAD DEPARTMENT: Community Services	• Completion of a Natural Assets Inventory in partnership with the Municipal Natural Asset Initiative (MNAI).	• Finalization of Natural Assets Inventory. • Implementation of Natural Assets Inventory Report recommendations.
	ACTION 3.5 – Review and update procedures on Invasive Species (ex. Phragmites, Gypsy Moth, Emerald Ash Borer)		
	• Invasive Species are defined as non-native species, whose introduction or spread negatively impacts native biodiversity, the economy and or society, including human health. The Town of Lincoln is responsible for the management and education of invasive species. • LEAD DEPARTMENT; Community Services & Public Works	• Phragmites growth is mostly limited to areas in and around stormwater management (SWM) ponds. Resources have been shared with staff and staff have increased maintenance of SWM facilities to mitigate future growth.	• Best management practices resources will be shared with the community to further support mitigation and management of Phragmites on private properties.

Status	Overview	Progress	Next Steps
	ACTION 3.7 – Review winter control practices to ensure climate change impacts are considered and to identify opportunities for improvement		
In-Progress	• Through a process of community engagement and public input the Town will develop a winter maintenance program that will ensure all members of the community have access to the transportation network year around. Utilizing varying levels of service, the program will be customized to provide service where and when it is required most, at a cost that is sustainable for the community. • LEAD DEPARTMENT: PW – Transportation & Operations	• Investigation of management practices such as: Salt and Winter Maintenance Guide/Standards, route and equipment review and optimization, live snow fences. • Community engagement.	• Ongoing community engagement. • Program development and finalization.



4: Mitigate harmful consequences of extreme weather & emergency events

Status	Overview	Progress	Next Steps
	ACTION 4.3 – Investigate the feasibility of community stormwater management programs		
In-Progress	• The Town of Lincoln conducted a Tree Giveaway/Rain Barrel Subsidy pilot and provide 500 free trees and 324 subsidized rain barrels to residents. The program supports urban tree canopy by providing native trees to be planted on private property, while the rain barrel program promotes rainwater harvesting and disconnection of downspouts to the storm or sanitary systems. • LEAD DEPARTMENT: Public Works	• Event held in May 2022. Event will be hosted again in Fall 2022.	• Prepare for Fall 2022 Tree Giveaway and Rain Barrel Sale.

5: Minimize health & safety risks to community members and staff

Status	Overview	Progress	Next Steps
In-Progress	**ACTION 5.3 – Develop a Residential Flood Preparation and Recovery Guide**		
	• To address the identified flood hazards, the Town is proposing the development of a mitigation plan that will include: 1. An Environmental Assessment (EA). 2. Residential Flood Preparation and Recovery Guide to inform residents about flood prone areas and ways residents can minimize risk on their property. Information will include: types of flooding and flooding prevention, what to do during and after a flood, health considerations, repairing your home, grant and subsidy programs, and a flooding checklist. • LEAD DEPARTMENT: Public Works	• In collaboration with the Consultant, SpeakUpLincoln.ca has been used to inform and engage with residents and stakeholders. • Consultant has been retained to develop the guide.	• Ongoing community engagement.

6: Foster Lake Ontario shoreline resilience through planning, management & protection

Status	Overview	Progress	Next Steps
In-Progress	**ACTION 6.1 – Increase community communications around shoreline protection**		
	• To address the identified flood hazards, the Town is proposing the development of a mitigation plan that will include: 1. An Environmental Assessment (EA) to identify and analyze possible flood mitigation measures, discuss best practices, and recommend measures to reduce flood risks for the lakeshore/shoreline roads. It will also review land acquisition requirements. 2. Residential Flood Preparation and Recovery Guide. • LEAD DEPARTMENT: Public Works	• In collaboration with the Consultant, SpeakUpLincoln.ca, three Public Information Centres, and Continuous correspondence (telephone, email, one-on-one meetings) have been used to inform and engage with residents and stakeholders.	• Ongoing community engagement and the development of a Residential Flood Preparation and Recovery Guide.
	ACTION 6.2 – Review alternatives through an Environmental Assessment (EA) for resiliency of municipal infrastructure along shoreline		
	• Two in-Progress Environmental Assessments (EAs) will identify and evaluate alternative solutions and also determine a recommended plan for the shoreline roads, identify and analyze possible flood mitigation measures, discuss best practices, and recommend measures to reduce flood risks for the lakeshore/shoreline roads. • LEAD DEPARTMENT: Public Works	• In collaboration with the Consultant, SpeakUpLincoln.ca, three Public Information Centres, and ongoing correspondence (telephone, email, one-on-one meetings) have been used to inform and engage with residents and stakeholders.	• Ongoing community engagement and the implementation of the EA recommended alternatives.

7: Consider climate change impacts in built infrastructure & asset management

Status	Overview	Progress	Next Steps
In-Progress	**ACTION 7.1 – Reduce inflow and infiltration (I/I)**		
	• Inflow and infiltration (I/I) are components of flow in sewers that are generated from rainwater and groundwater. Inflow refers to the direct flow of rainwater into sewers from surface runoff. Infiltration refers to the groundwater flow sources entering the sewer through cracks in the pipes, manhole defects, or other sources. There are both private and public sources of I/I and reducing I/I flows provides a number of benefits including cost savings and improvements to the environment. • LEAD DEPARTMENT: Public Works	• In July 2018 the Town completed smoke testing in Jordan Station area. • In Fall 2018 and Spring 2019 the Town completed the Campden and Jordan Station Downspout Disconnection Pilot Program. • In 2019 GMBP completed the initial foundation drain/sump pump investigation. • In 2020, the Town completed a sanitary system rehabilitation program to address sources of extraneous flow within the public portion of the sanitary sewer system. • In 2022, Council approved Council approved the Jordan Station Sump Pump and Foundation Drain Disconnection Pilot Program and associated subsidies.	• Public Information Centre and community engagement. • Resident enrollment in investigations and private side disconnections. • Program Implementation.
	ACTION 7.4 – Ensure the consideration of climate impacts in asset management		
	• Ensure considerations such as extreme temperatures, weather events, and variable lake levels are considered in design or construction activities are captured in the risk framework. Incorporate the asset's total life-cycle costs (capital, operational, maintenance) to aid decision-making. • LEAD DEPARTMENT; Finance & Administration	• It is anticipated that the asset management plan will be finalized by January 2022, for "core" infrastructure (includes water, wastewater and stormwater management) and July 2024 for all other infrastructure (including green infrastructure assets).	• Ongoing asset management planning and implementation.

8: Increase climate change literacy among staff & public

Status	
Continuous	**ACTION 8.1 – Continue reviewing & updating internal & external communication processes related to climate change and extreme weather** • Improving the communication of climate science, risks, road conditions, emergency works, extreme weather events, power outages, loss of service etc. to Council, staff, and the public is vital to ensuring: health and safety, efficient responses to and recovery from disruptions to service, resilience, community engagement, and adaptive capacity. Additionally, through diversifying communication strategies to ensure community members across all demographic groups are informed. • LEAD DEPARTMENT: Communications & Fire & Emergency Services **ACTION 8.3 – Develop communication strategy to showcase municipal initiatives to the community that are related to adaptation and resilience** • In order to successfully implement the CCAP, it is important to build internal and community awareness of climate change and build capacity to take meaningful and sustainable climate action. Normalizing climate considerations, increasing climate literacy, and effectively communicating climate science will be key to the Town's ability to prepare for and adapt to climate change. • LEAD DEPARTMENT: Communications & Economic Development

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GROW

a place to
PROSPER

a place to
BELONG

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