The Corporation of the Town of Fort Erie
By-law 101-2025

Being a By-law to Adopt a Climate Change Action Plan for the Town of Fort Erie

Whereas Paragraph 5 of Subsection 11(2) of the *Municipal Act, 2001* authorizes the Town of Fort Erie to pass By-laws respecting the economic, social, and environmental well-being of the municipality, including respecting climate change**;** and

Whereas Council approved report PBBS-60-2025 Proposed Climate Change Action Plan (CCAP), as amended, at the August 11, 2025 Council-in-Committee meeting**;** and

Whereas Council has identified, through it's 2023-2026 Strategic Plan, the need for a Climate Change Action Plan which aims to reduce greenhouse gas emissions and establish initiatives to mitigate the effects of climate change; and

Whereas it is deemed desirable to adopt a Climate Change Action Plan for the Town of Fort Erie;

Now therefore the Municipal Council of The Corporation of the Town of Fort Erie enacts as follows:

1. **That** the Town of Fort Erie Climate Change Action Plan, attached hereto as Schedule "A" to this by-law is hereby adopted.

2. **That** the Clerk of the Town is authorized to affect any minor modifications, corrections or omissions, solely of an administrative, numerical, grammatical, semantical or descriptive nature to this by-law or its schedules after the passage of this by-law.

Read a first, second and third time and finally passed this 15th day of December 2025.

_____
Mayor

_____
Clerk

TOWN OF FORT ERIE
CLIMATE CHANGE ACTION PLAN

1.

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Climate Change Adaptation & Mitigation Action Plan

1. INTRODUCTION

What is Climate Change?

Climate change is the long-term shifts in temperatures and weather patterns that can occur naturally or be influenced by human activity. For the purpose of this plan, focus will be given to climate change shifts that have been increased and influenced by human activity.

Human activities influencing climate change include: the burning of fossil fuels (such as coal and gas), industrial processes, deforestation, livestock farming, transportation, energy production, waste management and landfills to name a few. These activities release greenhouse gasses such as carbon dioxide and methane into the atmosphere, trapping heat and leading to global warming (known as the “greenhouse effect”). The greenhouse effect has significantly increased climate change leading to more frequent and severe weather events such as hurricanes, droughts and heatwaves. The warming of the planet has caused sea levels to rise due to melting glaciers and polar ice which have shifted ecosystems, affected wildlife and biodiversity, increased flooding and storm surges and disrupted weather patterns; posing widespread challenges for global food and water supplies, infrastructure, and public health. Climate change is a pressing issue that affects us all, which is why it is important to adopt Climate Change Action Plans to reduce greenhouse gas emissions and mitigate the existing and ongoing impacts.

Purpose of Climate Change Action Plans

A Climate Change Action Plan (CCAP) is a strategic document that is intended to outline specific actions and goals that a community will pursue in order to mitigate, reduce and address the impacts of climate change. The key objective of a Climate Change Action Plan is to reduce greenhouse gas emissions and establish initiatives to mitigate the effects of climate change. By outlining specific actions and goals, CCAP’s help guide communities to reduce future climate impacts and manage/mitigate the changes already in progress.

Adaptation vs. Mitigation

Adaptation and mitigation are two essential strategies for addressing climate change, each with distinct focuses. Adaptation involves making adjustments to social, economic, and environmental practices to minimize the negative impacts of climate change. This can include building flood defenses, developing drought-resistant crops,

and improving water management systems, all aimed at enhancing resilience and coping with the changes that are already occurring or are anticipated.

On the other hand, mitigation focuses on reducing or preventing the emission of greenhouse gasses to limit the severity of climate change. This includes transitioning to renewable energy sources, increasing energy efficiency, and promoting sustainable land use practices, all with the goal of slowing or reversing the impacts of climate change by addressing its root causes.

In summary, while adaptation seeks to manage the effects of climate change, mitigation aims to tackle the underlying issues, making both strategies crucial for a comprehensive approach to the climate crisis.

Canada's Climate Plan

In 2022, the Government of Canada launched a climate plan to help make the economy more efficient and greener. The plan sets a target to reduce greenhouse gas emissions by 40-45% below 2005 levels by 2030. The plan also includes measures to promote renewable energy, improve energy efficiency, protect natural ecosystems, support clean technology innovations and more.

Provincial Policy Direction

The Government of Ontario provides direction on Climate Change through the Provincial Planning Statement. It states in section 2.9:

Planning authorities shall plan to reduce greenhouse gas emissions and prepare for the impacts of a changing climate through approaches that:

a) support the achievement of compact, transit-supportive, and complete communities;

b) incorporate climate change considerations in planning for and the development of infrastructure, including stormwater management systems, and public service facilities;

c) support energy conservation and efficiency;

d) promote green infrastructure, low impact development, and active transportation, protect the environment and improve air quality; and

e) take into consideration any additional approaches that help reduce greenhouse gas emissions and build community resilience to the impacts of a changing climate

Council Strategic Direction

The Town of Fort Erie articulates the importance of addressing climate change through the Town's Strategic Plan. The Strategic pillars state:

> Environmental and Climate Change Resiliency: A community…that addresses climate change and the impacts to the natural environment by proactive planning and action.
>
> - Review and refine policies that preserve and enhance our natural heritage (i.e. update Tree Preservation By-law and promote planting on public and private lands)
> - Continue to pursue opportunities and secure and preserve waterfront, natural heritage and natural areas through public stewardship and acquisition.
> - Manage wildlife interactions through an increased educational component and development of a strategy to recognize and protect Natural Heritage Corridors.
> - Create, adopt and implement a Climate Change Plan and Policy Framework that incorporate adaptation, resilience and mitigation strategies.
> - Improve resilience of and response to shoreline protection, stormwater management, drainage and flood control through infrastructure investments and maintenance.

Impacts of Climate Change

In Southern Ontario, climate change is having significant and region-specific impacts. Rising temperatures are leading to warmer conditions, with increased heat waves and milder winters, which can affect agriculture, ecosystems, and public health. Several impacts observed from rising temperatures include: algae blooms, shoreline flooding and erosion, decline in lake ice cover which increases lake-effect snow events, stressed ecosystems, reduced agricultural productivity, increased energy demand and wildlife stress to name a few.

Regionally, a rise in the frequency and intensity of extreme weather events has been observed, including heavy rainfall and flooding and extreme lake-effect snow events, which can cause property damage, disrupt transportation, and overwhelm drainage systems. Increased precipitation and rapid snowmelt have also led to more frequent urban flooding, posing risks to infrastructure and public safety.

Additionally, changing temperatures and precipitation patterns are affecting local ecosystems, resulting in shifts in biodiversity as some species migrate while others struggle to adapt. Farmers face challenges related to unpredictable weather patterns, which can impact crop yields and food security.

Water supply and quality are also influenced, as changing precipitation and increased evaporation affect the Great Lakes and surrounding watersheds. Public health risks are rising due to warmer temperatures, leading to an increase in heat-related health issues and the spread of vector-borne diseases, such as Lyme disease.

The economic impacts are felt across various sectors, including agriculture and tourism, with increased costs associated with disaster response and infrastructure repairs straining local economies. Furthermore, vulnerable communities may face greater risks from extreme weather events, raising concerns about social equity and access to support.

Overall, the impacts of climate change are complex and multifaceted, necessitating adaptation strategies and mitigation efforts from all levels of government to effectively address these challenges. There are several actions the Town can take to do our part, which we will explore in this action plan.

Benefits of Climate Action

1. Environmental Preservation: Climate action helps to reduce greenhouse gas emissions, which are the primary drivers of climate change. By limiting these emissions, we can protect vital ecosystems, such as forests, lakes and wetlands. Healthy ecosystems are vital for carbon storage, air and water purification, and providing habitats for a wide range of species. This preservation not only maintains biodiversity but also strengthens the resilience of natural systems against climate impacts.

2. Improved Public Health: Another significant benefit is improved public health. By transitioning to cleaner energy sources and reducing pollution, we can prevent respiratory diseases, heart conditions, and premature deaths caused by air pollution. Additionally, climate action encourages healthier lifestyles, promoting activities such as walking and cycling, which further enhance physical and mental well-being.

3. Economic Opportunities: Shifting to renewable energy and energy-efficient technologies creates new jobs in emerging industries while offering long-term cost savings.

4. Energy Security: Reliance on a small number of energy sources, particularly oil and gas, make nations vulnerable to fluctuations in global energy prices and supply disruptions. By investing in renewable energy sources, such as solar, we can increase our energy independence.

5. Resilience to Extreme Weather: As climate change intensifies, extreme weather events such as heatwaves, flooding, droughts and lake-effect snow events are becoming more prevalent and severe. By investing in resilient infrastructure and adaptive technologies, we can be better prepared to withstand these events. Climate-resilient buildings, flood defenses, and early warning systems can help protect communities from devastating impacts of extreme weather. Strengthening resilience in vulnerable areas ensures that communities can recover quickly and reduce the long-term costs and effects of climate-related disasters.

6. Enhanced Food Security: Climate change poses significant threats to food protection, including shifts in growing seasons, extreme weather events, and the depletion of natural resources. By promoting sustainable agricultural practices, such as crop rotation, organic farming, and agroforestry, climate action helps ensure the stability of food systems. These practices help to conserve soil health, improve water use efficiency, and protect biodiversity. Additionally, reducing food waste and promoting local food systems can help make food more accessible and affordable.

7. Social Equity: Climate change disproportionately affects vulnerable communities, including low-income populations. Climate policies that prioritize equity can help reduce these disparities by ensuring that marginalized groups have access to resources for adaptation and are included in the decision-making process.

8. Innovation & Technological Advancement: The push for climate action fosters the development of new technologies that not only reduce emissions but also serve other global challenges. Innovations in renewable energy, such as more efficient solar panels, are making clean energy more affordable and accessible. Advancements in electric vehicles, battery storage, and carbon capture technologies are transforming industries and reducing our reliance on fossil fuels. These technological advancements create new industries and markets, driving economic growth while simultaneously addressing the climate crisis.

9. Legacy for Future Generations: The decisions we make today regarding climate change will have long-lasting impacts on the world future generations inherit. By taking action to reduce emissions, protect ecosystems, and build resilient communities, we ensure a sustainable, livable planet for future generations. This intergenerational responsibility highlights the importance of long-term thinking in policy making, as the benefits of climate action will be felt far beyond our lifetimes.

Current Initiatives

The Town of Fort Erie is committed to maintaining, protecting and enhancing our natural environment and creating a sustainable community for future generations. In that spirit, the Town already engages in a number of initiatives that contribute to Climate Change action that this document can build upon.

Tree By-law

The Town has updated the Tree By-law to protect trees on private property and help to protect our tree canopy within the Urban Boundary. If you live within the Urban Boundary, you will need to apply for a permit to injure or destroy (remove) a tree 30 cm in diameter or greater measured at 1.37 m from the ground. Heritage trees and endangered, threatened, and at-risk species are also protected and may require additional approvals in addition to your tree permit.

The Town's Free Tree Giveaway

To encourage stewardship from local residents, the Town has a Free Tree Giveaway program so that residents can plant a tree on their own property and exponentially increase the number of trees that can be planted throughout Town beyond the capacity of Staff.

Energy Conservation and Demand Management Plan

The report is a strategic plan which provides the basis for the Town to move forward on identifying and implementing improvements to our facilities and operations. The goal of reducing energy consumption and mitigating the environmental effects associated with energy usage.

The plan will assist the Town of Fort Erie in meeting its legislative requirements under the Green Energy Act (2009), which came into effect on January 1, 2012. Under the new regulation, public agencies are required to report annually on energy use and greenhouse gas (GHG) emissions, develop and implement energy management plans and report on the results.

A number of progressive and attainable goals are identified within the plan aimed at improving the environmental performance of the Town of Fort Erie over a 5-year term.

Asset Management Plan (AMP)

The Town of Fort Erie continues to make planned investments in existing infrastructure staying aware of legislative changes, future growth, and adapting to a changing

climate. The implementation of an Asset Management Policy, Strategy and Plan is necessary to adapt to infrastructure challenges as the Town continues to evolve.

The AM Policy articulates the Town's commitments and principles that will be considered in corporate AM planning. It ensures alignment and integration of AM into strategic planning processes.

The purpose of the AM Strategy is to determine the specific approaches that the Town will enact to link infrastructure decisions to the Town's overall priority of effective, sustainable infrastructure.

The overall purpose of the Town's AMP is to provide a comprehensive document that will guide corporate decision making related to the construction, operation, maintenance, replacement, expansion, and disposal of infrastructure assets, while minimizing risk and cost to the Town and its taxpayers and maximizing service delivery.

Natural Asset Management Plan

The State of Infrastructure Report for the Town of Fort Erie provides an evaluation of the municipality's natural assets and their capacity to deliver services. This report offers insights into the registry, condition, risks, level of services, ecosystem service valuations, and replacement costs associated with Fort Erie's natural assets, which include various land covers such as forests, wetlands, and water bodies. This information will help the Town of Fort Erie meet its asset management planning requirements for green infrastructure under Ontario Regulation 588/17. This inventory of natural assets is mapped within the Town's GIS system and included in the Town's asset register.

Energy Conservation Plan

The Town of Fort Erie developed an Energy Conservation and Demand Management Plan. The objective of the comprehensive long-term plan is to improve energy efficiency and reduce energy consumption and greenhouse gas emissions. The plan identifies opportunities for green energy solutions and conservation measures meant to support local economic development and community objectives of energy conservation and waste and greenhouse gas emission reduction. The plan could address such things as energy efficient buildings and neighborhoods, energy efficient transportation systems, efficient energy distribution, clean and renewable energy, and greenhouse gas emissions, in addition to other areas that may be identified through the public consultation process.

A reasonable target may be a 1% reduction in energy use and greenhouse gas emissions (GHGs) per year for Town owned facilities, over the next five years.

Emergency Shelters and Warming/Cooling Stations

As the Regional Housing provider, Niagara Region funds emergency shelters to provide temporary support for individuals experiencing homelessness while they find suitable housing. The goal is to have the experience with homelessness be as short as possible and not happen again. Most of these facilities are located in St. Catharines or Niagara Falls.

During extreme cold weather events, the Town has identified The Fort Erie Leisureplex Banquet Hall as a warming centre. During extreme heat events, the Town has identified the libraries and Leisureplex as cooling centres during regular office hours.

Early Warning Systems and Disaster Preparedness Plan

The Town of Fort Erie is addressing climate-related emergencies by implementing early warning systems and a comprehensive disaster preparedness plan. Local radio stations, which are a key early warning system, provide timely information and instructions during emergencies such as flooding, winter storms, and power outages. These stations ensure residents stay informed and can respond effectively to potential risks.

The 72-hour Preparedness Plan equips residents with the tools and knowledge needed to survive for at least three days during an emergency. The plan emphasizes the importance of developing home escape plans, assembling emergency kits with essential supplies like water, food, and first aid items, and keeping important emergency contact numbers handy. It also encourages families to designate an out-of-town contact and practice evacuation drills to ensure everyone is familiar with emergency procedures. Through these measures, the Town is helping to ensure that residents are not only informed but also ready to act when faced with the increasing risks posed by climate change.

Vulnerability Assessment

The Natural Assets Management Plan identifies the range of hazards that have the potential to adversely affect the natural assets owned and managed by the Town of Fort Erie:

- Invasive species
- Pests and disease
- During construction impacts
- Unauthorized edge encroachments / disturbances
- Flooding
- Erosion
- Extreme wind
- Ice storm / freezing rain
- Extreme Heat and Drought
- Contamination / Pollution
- Fire
- Poor management practices
- Sedimentation

The report concluded that the vast majority of Fort Erie's assets face moderate risk of being negatively impacted by hazards. This action plan will take a closer look at how we can address some of these vulnerabilities.

2. GOALS AND OBJECTIVES

Adaptation Goals

Goal	Timing	Responsible Department	Key Performance Indicator
1. Engaging and Educating the Community	Short-term	Planning, Building, By-law Services	Increase in community led initiatives
2. Encouraging Grassroots Initiatives and Citizen Science	Short-term	Planning, Building, By-law Services	Increase in community led initiatives
3. Strengthening Partnerships and Regional Contribution	Short-term	Planning, Building, By-law Services and the Niagara Region	Number of initiatives with Climate Action with the Niagara Region
4. By-law Amendment for Naturalized Gardens	Short-term	Planning, Building, By-law Services	Adoption of By-law
5. Encouraging Biodiversity and Community Engagement	Short-term	Planning, Building, By-law Services	Increase in native plants on residential properties
6. Integrating Climate Adaptation into Planning Policies	Short-term	Planning, Building, By-law Services	New policies in the Town's Official Plan
7. Early Warning Systems and Emergency Preparedness Plan	Medium-term	Fire and Emergency Services	Less incidents during extreme weather events
8. Stormwater Management Improvement	Long-term	Infrastructure Services (Engineering Division)	Less CRM complaints regarding flooding

9.Infrastructure Resilience	Long-term	Infrastructure Services (Engineering Division) and Canadian Niagara Power	Less power outages and less damage to new walkways along the shoreline

Adaption Goals Summary

1. **Engaging and Educating the Community**

Partnering with local school boards to integrate environmental education into the public curriculum is an important step in building a foundation of climate awareness from an early age. By offering workshops, hands-on nature exploration, and ecological experiments, students can gain a deeper understanding of climate science and stewardship, fostering greater mindfulness about their environmental impact. Additionally, community projects that engage people of all ages can strengthen the connection between residents and the local landscape, while instilling a shared sense of responsibility for climate resilience.

Establishing a dedicated climate engagement hub within an accessible community space can serve as a central resource for residents seeking climate information, resources, and event details. The hub can provide a variety of educational materials, alongside workshops on topics such as composting, native gardening, energy efficiency, and shoreline resilience. To maintain ongoing engagement, these activities will be supported by online resources and social media platforms, offering easy access to information. Tailored outreach initiatives, such as educational sessions for waterfront homeowners, can address specific community needs and empower residents to take climate action in their own homes.

The Town's Environmental Advisory Group can play a key role in developing and sharing educational content. This can be distributed through workshops led by staff and the Environmental Advisory Committee, as well as online resources and printed pamphlets available at the front desk. Collaborating with the Niagara Peninsula Conservation Authority (NPCA) will provide valuable expertise on planting wildflower gardens and promoting native species. Additionally, incorporating insights from the Ontario Invasive Species Council will help address the removal of invasive species like Buckthorn and Phragmites, which are common in the Fort Erie area.

By implementing a combination of educational, grassroots, and engagement programs, Fort Erie can empower its residents to actively participate in environmental stewardship and climate action. Tailoring these programs to the unique needs of the community and involving all age groups will help foster a culture of shared responsibility and inspire a deeper commitment to climate resilience.

2. **Encouraging Grassroots Initiatives and Citizen Science**

Empowering residents to take ownership of climate action through grassroots initiatives and citizen science programs will foster a strong, community-driven approach to resilience. A series of sustainable outdoor events—organized in partnership with local environmental organizations—will introduce community members to practices such as rainwater harvesting, pollinator gardening, and shoreline protection. At these events, residents can also learn about participating in citizen science projects, such as tracking local wildlife or monitoring weather patterns, which engage them directly in climate observation and action.

To support these initiatives, Fort Erie can provide funding through a local grant program aimed at grassroots projects. Residents, community groups, and local organizations can apply for funding to start or expand projects that contribute to the community's climate goals, from neighborhood clean-ups to creating pollinator-friendly spaces. This approach enhances both social capital and the community's overall capacity for resilience.

3. **Strengthening Partnerships and Regional Collaboration**

Fort Erie's resilience efforts will benefit from collaborations with regional partners such as the Niagara Climate Change Action Network. Working together, Fort Erie and neighboring communities can share resources, ideas, and best practices for addressing climate challenges across the region.

4. **By-law Amendment for Naturalized Gardens**

Fort Erie can enhance local biodiversity and resilience to climate impacts by amending municipal by-laws to allow for naturalized gardens. Naturalized gardens, featuring native plants and minimal maintenance practices, support pollinators, improve soil health, reduce water runoff, and require fewer resources than conventional lawns. By making it easier for residents to create and maintain these types of gardens, Fort Erie can promote sustainable landscaping that benefits the entire community.

5. Encouraging Biodiversity and Community Engagement

Through this by-law amendment, Fort Erie can encourage homeowners to replace traditional lawns with native plants, wildflowers, and grasses that are naturally adapted to local conditions. These plants require less water and provide food and shelter for pollinators like bees and butterflies, enhancing biodiversity and ecological resilience. To complement this amendment, the climate engagement hub could offer workshops, resources, and incentives that educate homeowners about the benefits and best practices of naturalized gardening.

6. Integrating Climate Adaptation into Planning Policies

Through the Town's Official Plan update, policies pertaining to climate change adaptation and mitigation will be added. These policies will help guide sustainable development in order to build community resilience to climate impacts and encourage adaptive measures to address climate risks. The Official Plan will set a framework for the municipality's long-term goals pertaining to climate action.

7. Early Warning Systems and Emergency Preparedness Plan

The CCAP will build on the Towns existing emergency preparedness plan by integrating and addressing climate-specific risks and going further by applying adaptation and mitigation strategies to measure and reduce future risks. While the Town's emergency plan focuses on disaster response, the action plan will focus on identifying the climate specific risks for public awareness and education. Through the community engagement and education efforts listed above, staff strive to inform the public about how the emergency preparedness plan will be carried out and affect them during emergency events.

8. Stormwater Management Improvement

Climate change is expected to increase the intensity and volume of extreme rainfall events in southern Ontario, as supported by the TRCA's Climate Projections for Niagara Region (2022). This includes projections that current storm return periods will effectively halve (e.g., a 100-year storm may become a 50-year storm). Consequently, adopting less frequent return periods designs for stormwater infrastructure may improve performance and resilience.

To address these challenges, it is recommended that the Town periodically review and update its Intensity-Duration (IDF) curves, a practice already implemented by other municipalities. A 5-year review cycle is suggested to align with industry standards and ensure storm sewer systems are designed to meet the demands of a changing climate.

Low Impact Development (LID) is a stormwater management approach that minimizes runoff and stormwater pollution by managing water near its source. It incorporates site design strategies and small-scale structural practices that mimic natural hydrology through infiltration, evapotranspiration, harvesting, filtration, and detention. LID effectively reduces stormwater volume and intensity while removing contaminants like nutrients, pathogens, and metals.

LID practices can serve multiple functions, such as pre-treatment, treatment, infiltration, or storage for flood and erosion control. A “Treatment Train” is a series of LID practices working together to meet stormwater management goals, combining lot-level, conveyance, and end-of-pipe controls. Examples include enhanced grass swales, vegetated swales, and bioretention areas. Additionally, soil cells are increasingly being used in the Treatment Train process to support the growth and protection of urban trees, while preventing compaction of the tree roots. The soil cells play a role in capturing excess runoff water, similar to a bioretention facility.

9. Infrastructure Resilience

Similarly to the increased demand on stormwater infrastructure, global warming and climate change add increased stress to additional infrastructure systems such as roads, bridges, ditches, street-lighting, utility services and communication networks. Infrastructure resilience focuses on designing or improving systems to withstand disasters and extreme weather events such as floods and storms and the ability for them to recover quickly.

Mitigation Goals

Goal	Timing	Responsible Department	Key Performance Indicators
1. Tree Planting Plan	Short-term	Planning, Building, By-law Services	Number of new trees planted
2. Encourage climate-friendly gardening	Short-term	Planning, Building, By-law Services	Number of new community gardens

3. Monitor Pilot Municipal Electric Vehicle Program for potential expansion of Municipal Fleet	Short-term	Planning, Building, By-law Services and Infrastructure Services (Roads/Fleet Division)	Report on the performance of the EV program
4. Public Transportation	Short-term	Planning, Building, By-law Services	Identify Garrison Road as a future frequent transit corridor
5. Waste Reduction - E-waste for Batteries and Cell Phones	Short-term	Planning, Building, By-law Services	Implementation of E-waste program at Town Hall
6. Battery energy storage systems	Short-term	Planning, Building, By-law Services	New policies in the Town's Official Plan
7. Active Transportation Plan	Medium-term	Planning, Building, By-law Services and Infrastructure Services (Engineering Division)	Change in mode share
8. Green Development Standards Checklist	Medium-term	Planning, Building, By-law Services	Introduce a checklist for all development applications
9. Investigate Town owned Solar Panels	Medium-term	Infrastructure Services (Parks & Facilities)	Solar Panels on Town owned facilities
10. Shoreline Resiliency Plan	Medium-term	Planning, Building, By-law Services and Infrastructure Services	Armouring of the Lake Erie shoreline, exploring nature based solutions.

Mitigation Goals Summary

1. **Tree Planting Plan**

Community Planning has started an initiative to establish a sustainable tree planting program, focusing primarily on public lands. Due to capacity constraints, the work will be contracted out on a seasonal basis. The department is also exploring a partnership with local school boards to create an annual tree planting initiative for students or classes, with discussions currently underway. Once the existing backlog is addressed, the program will be supported through ongoing tree permit funds and continued consent funds to ensure its longevity.

2. **Encourage Climate Friendly Gardening**

Encouraging climate friendly gardening, especially through the establishment of community gardens, is an effective way to promote sustainable practices that benefit both individuals and the environment. Community gardens provide an opportunity for people to come together to share knowledge, resources, and experiences while working towards a common goal of growing healthy, locally sourced food. These gardens can help reduce the carbon footprint associated with transporting food, improve local biodiversity, and create green spaces that contribute to better air quality and overall community well-being. Additionally, they promote climate resilience by fostering soil health, conserving water, and offering educational opportunities for people to learn about sustainable gardening practices, composting, and natural pest management. By working collectively, community members can also enhance social cohesion, support local food security, and take direct action in response to the challenges posed by climate change.

3. **Monitor Pilot Municipal Electric Vehicle Program for potential expansion of Municipal Fleet**

Council has approved the acquisition of an electric vehicle (EV) as a pilot project to assess the potential for transitioning part of the municipal fleet to electric power in the future. This initiative aims to evaluate the operational benefits, cost savings, and environmental advantages of electrification. As part of the project, staff will actively seek funding opportunities to support further fleet electrification and will provide an annual report to Council detailing the progress, benefits, and challenges associated with the EV. To complement this effort, municipal parking lots currently under renovation are being designed with the infrastructure and capacity to accommodate future EVs, ensuring that the Town is prepared for a broader adoption of electric vehicles in the years ahead.

4. **Public Transportation**

Reducing greenhouse gas emissions from transportation will likely require a broad range of strategies, including increasing vehicle efficiency, lowering the carbon content of fuels, and reducing vehicle miles of travel. Public transportation can be one part of the solution.

The Provincial Planning Statement (PPS) 2024 recognizes frequent transit corridors as a new category of strategic growth area. The PPS defines a frequent transit as a public transit service that runs at least every 15 minutes in both directions throughout the day and into the evening. The Town's new Official Plan can identify Garrison Road as a potential future transit corridor and encourage intensification along this corridor to make frequent transit viable.

5. **Waste Reduction - E-waste for Batteries & Cellphones**

Currently the Town has a program that allows employees at the arena (Leisureplex) and within Town Hall to dispose of unneeded cellphones and old batteries. This program can be expanded to encourage employee and public participation by creating brochures and notices on the town website to provide education on product lifespans, looking for environmentally friendly labels, limiting the amount of electronics you own, teaching kids about e-waste and recycling and lastly security issues.

6. **Battery energy storage systems (BESS)**

According to Independent Electricity System Operator (IESO), after years of stable supply, Ontario is entering a period of need with demand expected to increase by 2 per cent per year over the next twenty years due to electrification, decarbonization and economic growth. Energy storage is well positioned to help support this need, providing a reliable and flexible form of electricity supply that can underpin the energy transformation of the future.

Storage is unique among electricity types in that it can act as a form of both supply and demand, drawing energy from the grid during off-peak hours when demand is low and injecting that energy back into the grid when it is needed most. Storage is particularly useful in supporting the wide-scale integration of renewable resources, like wind and solar, because it can help smooth out changes in energy output caused by unpredictable weather.

Ontario already has one of the cleanest electricity systems in North America, getting most of our power from hydro and nuclear generation. Energy storage can help

leverage these existing assets while helping to enable more renewables to ensure clean, reliable and affordable electricity for Ontario's homes and businesses.

The Town will explore incorporating appropriate encouragement policies into the new Official Plan.

7. Implementing Active Transportation Plan (Master Plan)

The Town has divided the implementation into three phases: short-term (0-5 years), medium-term (6-15 years), and long-term (15+ years). The short-term phase will prioritize high-impact, low-cost projects that connect key communities, while the medium- and long-term phases will focus on larger investments and more complex routes, including rural connections and areas involving privately owned lands.

The strategy emphasizes the importance of policy consistency across municipal departments, with regular progress reviews through monitoring and evaluation systems. Budgeting for implementation will be integrated into the Town's annual capital and operating budgets. Additionally, the Town will seek provincial and regional funding, as well as partnerships with public and private stakeholders to help offset costs.

As many of the identified linkages involve road widening for additional lanes, it is recommended that these implementations coincide with road improvement projects. Off-road trails, such as the rail corridor from Stevensville to Bridgeburg, will require coordination between the Town and CN, with cost considerations factored into the capital budget.

8. Green Development Checklist

The Town may consider developing a set of Green Development Standards with the support of a consultant.

Green Development Standards (GDS) are voluntary or mandatory measures created by municipalities to encourage design that is environmentally, socially, and economically sustainable. GDS are comprehensive principles to guide development at a level of planning and design that focuses on the community as a whole. These standards are integrated into the planning approvals process, where development applications are asked to meet certain criteria in the GDS.

The Clean Air Partnership, in collaboration with Federation of Canadian Municipalities have created toolkit that Municipalities in Ontario can follow to develop their own set of Green Development Standards: https://www.cleanairpartnership.org/wp-content/uploads/2020/10/GDS-toolkit.pdf

The following Municipalities have developed their own GDS based off of the Clean Air Partnership toolkit:

- Town of Whitby
- City of Vaughan
- Municipality of Clarington
- Town of Caledon
- City of Guelph
- Town of Halton Hills
- City of Ottawa
- City of Toronto

The Cities of Hamilton and Mississauga are currently in the process of developing their own GDS, as well.

9. Investigate Town Owned Solar Panels

The Parks and Facilities team has agreed to investigate the possibility of incorporating solar panels into public buildings, with the Crystal Ridge Arena being considered as a potential starting point. Further solar modifications could be investigated at a later timeline.

10. Shoreline Resiliency Plan

Shoreline Protection and Reduction of Lake Pollution

Currently the Town of Fort Erie is developing a Master Plan for the Shoreline area. This is a necessary activity to ensure the responsible management of the Lake Erie shoreline. A component of this Master Plan is to ensure that there are opportunities to improve coastal processes through nature based solutions. Restoring unrestricted movement of sediment, the restoration of dunes along the coast, and establishing the longshore current are objectives. Ensuring Fort Erie's shoreline is adequately armoured for the severe storms that occur frequently, and that the specific unique needs of the Lake Erie shoreline are addressed.

Algae Accumulation

In addition to these efforts, a secondary issue is the accumulation of Cladaphora algae at Waverly Beach. Some of this accumulation may be mitigated by undertaking a sediment transport and beach morphology study to inform which structures will provide the most benefit for removal, and if a pipe should be placed through the existing

swimming pool structure to assist with restoring the longshore current. Another consideration will be how the town can best utilize the existing crumbling infrastructure to create fish habitat. Shorter term action items will be to engage with the local Conservation Authority to discuss what data is available for municipal drains and if there is any monitoring information available, if not discussing opportunities to work together to create a monitoring plan. Town staff are intending to apply for the Great Lakes Freshwater Ecosystem Initiative Fund to assist with resources to fund the proposed sediment transport and beach morphology study.

Public Awareness and Education

Examining the source of where nutrient runoff may be occurring is important, however it is not the only piece. Education and outreach to OMAFRA and the local farming community to discuss ways to mitigate phosphorus and nitrogen runoff into adjacent drains and watercourses is key. Staff led workshops and online resources are ways that public outreach can provide information to the intended audience.

3. IMPLEMENTATION

The Climate Change action plan table (Appendix 1) outlines the prioritization of goals, roles and responsibilities and key performance indicators for each goal. Short term goals will be started within 2 years, medium term goals will be started within 3 - 5 years and long term goals will generally start after 5 years from the date of endorsement of this document.

Staff will endeavor to leverage partnerships with local stakeholders such as the NPCA, Region of Niagara, Great Lakes Advocacy and Friends of Fort Erie. Engaging stakeholders is crucial for the success of the climate change action plan in order to ensure the plan is comprehensive and inclusive as stakeholders are more likely to support initiatives they helped shape. These partnerships also leverage resources and expertise, streamlining the implementation of the climate action initiatives. Stakeholders can provide data and innovative ideas that strengthen the plan’s effectiveness.

4. MONITORING, EVALUATION AND LEARNING

Regular evaluation of progress and effectiveness is crucial for ensuring that the climate change adaptation and mitigation plan remains relevant and achieves its intended outcomes. Continuous monitoring allows for the assessment of both short-term and

long-term goals, identifying challenges and opportunities for improvement. It involves gathering data on key performance indicators, such as emission reductions, energy efficiency, and resilience improvements in vulnerable communities. This data should be analyzed periodically to determine whether strategies are working as expected and to adjust actions as necessary. Regular reviews also foster accountability, ensure stakeholder engagement, and provide an opportunity to integrate new scientific findings and technological advancements into the plan. By establishing clear evaluation processes and timelines, the plan can be adapted to meet emerging climate risks and evolving policy frameworks, ultimately supporting sustainable progress towards climate goals.

Grants

The Town of Fort Erie will explore available government grant funding to support the initiatives outlined herein. This process will involve identifying and applying for grants from federal and provincial programs, as well as other funding sources designed to support climate mitigation, adaptation and sustainability goals. The focus will be on securing financial resources to implement key projects, such as energy efficient upgrades, sustainable infrastructure improvements, electric vehicle initiatives, and community education and engagement.

5. COMMUNICATION AND STAKEHOLDER ENGAGEMENT

Action Item	**Description**	**Target Audience**	**Timeline/ Deliverables**
Public Awareness Campaign	Launch an advertisement and social media strategy to inform the public	General public, media outlets	Q1-2025 Summary of CCAP initiative
Education Initiatives	Organize workshops and informational materials to educate communities on energy-saving practices such as upgrading to energy-efficient	Homeowners, businesses, schools, energy consumers	Q2 & Q3-2025 Informational handouts, guidelines and materials Open house and powerpoint presentation

	appliances, reducing heating/cooling needs, and using renewable energy sources.		
Land Stewardship & Sustainable Practices	Promote sustainable land management and climate-resilient practices (e.g., conservation farming, sustainable forestry, urban green spaces). Provide resources and expert consultations to implement these practices.	Farmers, landowners	Q3-2025 Referencing guidelines established by organizations such as OMAFRA and NPCA to provide informational directives to farmers and landowners
Retrofit Grant Information Sessions	Promote awareness of available retrofit grants and incentives for homeowners and businesses to upgrade their properties to be more energy-efficient and resilient to climate impacts.	Homeowners, property managers, building contractors	Q2 & Q3 2025
Homeowner Climate Action Brochure	Develop and distribute a brochure with practical steps homeowners can take to reduce their carbon footprint, improve home energy efficiency,	Homeowners, renters, property managers	Q1 2025 Informational brochure will be developed to provide homeowners, renters, and property managers

	and access local resources for climate action (e.g., grants, tools, services).		with practical steps they can take to reduce their carbon footprint and improve home energy efficiency. The brochure will include information on energy-saving tips, renewable energy options, and available local resources such as grants, tools, and services for climate action. It will have ongoing distribution and will be updated annually to reflect new resources and strategies, ensuring homeowners have up-to-date information on how to make their homes more sustainable.
Feedback and Community Dialogues	Hold regular community meetings to collect feedback, discuss concerns, and share progress on adaptation and mitigation efforts. These will also serve as forums for generating new ideas and refining strategies.	Local Community Members	Conduct regular meetings to gather community input on climate adaptation and mitigation efforts. These meetings will be promoted through local media and online channels to encourage participation.

6. CONCLUSION

This document proposes a variety of mitigation and adaptation strategies that can assist in responding to climate change. These climate actions will require the support of the Town as a whole but are achievable. Other levels of government and community partners are needed to make a larger impact but this action plan provides a road map for the Town of Fort Erie to make a significant contribution to Climate action.

This Climate Change Action Plan is a living document. The Town is committed to continuous learning and improvement as new approaches to tackling Climate Change emerge.

7. APPENDICES

Appendix 1 - Climate Change Action Plan Table