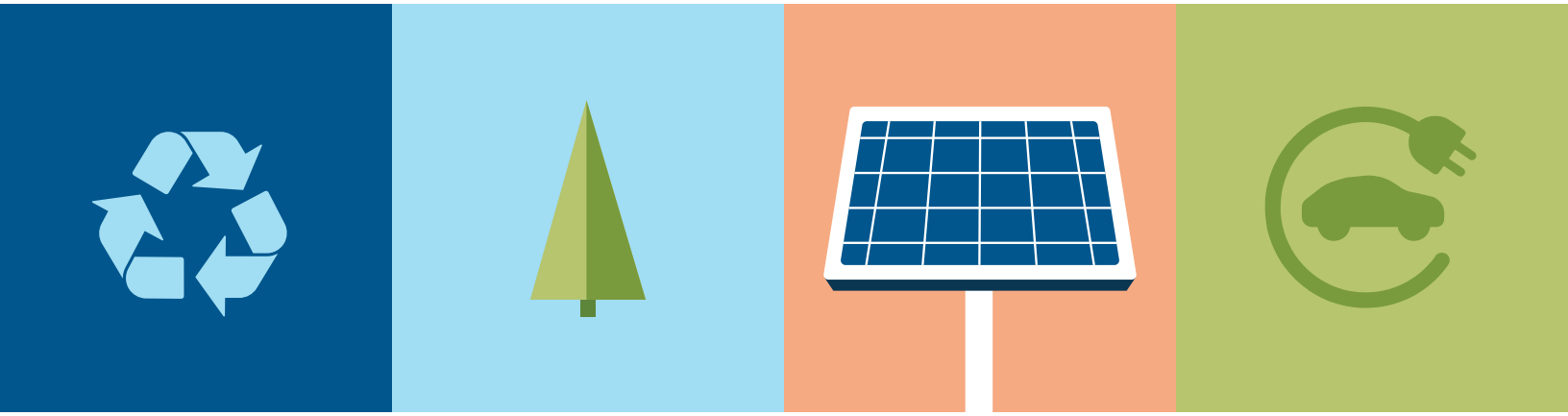
# Climate-Related Financial Disclosures (Unaudited)

## For the year ended March 31, 2025



HALIFAX

# Climate-Related Financial Disclosures

Climate change increases the exposure of municipalities to extreme weather events and more gradual shifts such as rising temperatures and sea-level rise. These changes introduce risks that could affect residents and their livelihoods, critical municipal infrastructure and the delivery of essential services. Effectively managing the risks associated with a changing climate requires an understanding of their causes and their consequences, as well as the integration of climate considerations into all aspects of municipal operations, including financial decision-making and risk management.

HalifACT is the Halifax Regional Municipality's long-term climate action plan. The plan aims to reduce greenhouse gas emissions and strengthen resilience to climate impacts. HalifACT calls for the development and implementation of climate-related financial disclosures aligned with global standards such as the Task Force on Climate-related Financial Disclosures (TCFD). The TCFD is a framework that provides voluntary disclosure recommendations around four pillars (Governance, Strategy, Risk Management and Metrics & Targets) for organizations to communicate the material impact of climate change on their operations.

Although the TCFD was formally disbanded in 2023, its recommendations continue to inform disclosure standards for both the private and public sectors. The municipality began to report climate-related financial disclosures according to the TCFD framework in fiscal year 2023/24. As reporting practices mature, the municipality will continue to monitor developments from the Public Sector Accounting Board (PSAB) for guidance on climate-related disclosures in the public sector.

The report is organized into four sections, each aligned with one of the TCFD pillars.

# Governance

*Disclose the organization's governance around climate-related risks and opportunities.*

*a) Describe the board's oversight of climate-related risks and opportunities.*
*b) Describe management's role in assessing and managing climate-related risks and opportunities.*

## COUNCIL'S ROLE

Halifax Regional Council's oversight of climate-related risks and opportunities is crucial in navigating the complex challenges posed by climate change. As municipalities increasingly recognize the impact of climate-related factors on their operations, finances, local businesses and the lives of residents, the role of Regional Council becomes pivotal.

Regional Council has taken action to ensure the impact of climate change on the municipality is addressed, including:

- Declaring a climate emergency on January 29, 2019, emphasizing that climate change and sea level rise are a serious and urgent threat;
- Endorsing the municipality's climate action plan, HalifACT: Acting on Climate Together (HalifACT), on June 23, 2020, and;
- Approving the implementation of the Climate Action Tax on April 12, 2022, to fund a core group of capital projects focused on decarbonizing municipal operations and enhancing the resilience of municipally owned critical infrastructure against climate risks.

### *HALIFACT: ACTING ON CLIMATE TOGETHER*

HalifACT is the municipality's long-term climate action plan to reduce emissions and help communities adapt to a changing climate. This plan is an update and consolidation of two previous plans aimed at reducing greenhouse gas emissions; the Community Energy Plan and the Corporate Plan to Reduce GHG Emissions 2012-2020. The plan also integrates climate adaptation, which is the preparation of communities and infrastructure against the current and future impacts of climate change.

HalifACT outlines 46 actions required to achieve the municipality's climate action goals. The actions are grouped by three major themes: decarbonized and resilient infrastructure, prepared and connected communities and governance and leadership.

## ENVIRONMENT SELECTED AS STRATEGIC PRIORITY AREA

Regional Council is responsible for setting the strategic direction of the municipality. Informed by organizational strategies and community engagement, a newly-elected Council sets strategic priority areas and related strategic priority outcomes for its four-year mandate. The 2021-2025 Strategic Priorities Plan reflects the municipality's vision, mission and values, and establishes key areas of focus now and into the future. Environment is one of the municipality's 2021-2025 strategic priority areas. The aim of the Environment priority area is to demonstrate leadership in climate change action and environmental protection – both as an organization and a region. The related priority outcomes include net zero emissions, climate resilience and protecting the environment.

Council priorities for 2026-2030 will be determined by the new Regional Council elected in October 2024.

## ENVIRONMENTAL IMPLICATIONS OF RECOMMENDATIONS TO COUNCIL

All recommendation reports to Regional Council are evaluated for environmental implications. This information is included in reports alongside risk considerations and financial implications to provide balanced decision-making criteria to Regional Council.

Online training has been developed to support staff in completing the Environmental Implications section of recommendation reports. This training provides an overview of the fundamental aspects of climate change, the natural environment and the essential services and benefits that healthy ecosystems provide. It also guides staff in assessing the environmental impacts of proposed initiatives, highlighting both positive and negative effects. The training includes specific examples of how typical municipal projects may influence climate and the environment, helping staff apply these principles more effectively in their evaluations. The training is expected to launch in 2025-26.

## ROLE OF ENVIRONMENT AND SUSTAINABILITY STANDING COMMITTEE

The Environment and Sustainability Standing Committee (ESSC), a permanent committee established by Regional Council, has specific responsibilities relating to climate change mitigation and adaptation. In addition to providing advice to Council, ESSC develops policy related to municipal climate change adaptation and mitigation, promotes community adoption of climate change mitigation and adaptation measures and provides governance oversight of the municipality's climate change risk management strategy. Environment and Climate Change staff provide annual progress reports on the implementation of HalifACT to Regional Council through the Environment and Sustainability Standing Committee.

## MANAGEMENT GOVERNANCE

The Environment & Climate Change (ECC) division's mandate is to provide vision and leadership in climate action and environmental sustainability. Working with both internal and external partners, ECC leads the implementation of HalifACT within the organization and broader community, developing and overseeing projects, policies and programs to progress climate action and environmental sustainability.

The current management structure of ECC and the reporting relationship of the division to the Executive Sponsor of HalifACT, the Chief Administrative Officer, is illustrated below.

The Commissioner of Operations position was created in 2024/25 to enhance the integration and alignment of strategic planning and service delivery across the business units under their responsibility. Alongside the established HalifACT Governance Model Working Groups, this role is expected to support progress on HalifACT by fostering the close collaboration needed across operational business units for effective implementation.

The Director of Environment & Climate Change and the Executive Director of Property, Fleet & Environment meet regularly with the Commissioner of Operations and the Chief Administrative Officer to review HalifACT implementation progress and address any emerging issues or challenges.

**Collective Impact**
The Collective Impact department is responsible for leading and coordinating collective action and change management efforts to implement HalifACT and other sustainability initiatives. This involves strategic engagement with key partners and communities, capacity building and driving transformational change to address climate challenges.

**Climate Governance**
The Climate Governance department is responsible for coordinating the implementation of HalifACT across the organization. The department focuses on oversight of the HalifACT Governance Model, research and policy development and the development of strategic partnerships to drive climate action.

**Environment**
The Environment department is responsible for leading and coordinating efforts across various sectors to ensure environmental sustainability, focusing on ecosystem and watershed management, environmental risk compliance and the promotion of nature-based solutions and public education on environmental issues.

**Clean Energy**
The Clean Energy department oversees the development and implementation of clean energy initiatives, focusing on the design, installation and management of clean energy technologies and programs with the goal of reducing greenhouse gas emissions. This department collaborates with internal and external partners to promote the adoption of sustainable energy solutions across the municipality.

**Climate Adaptation**
The Climate Adaptation department leads the development and implementation of climate adaptation initiatives, focusing on resilient infrastructure and community programs to increase public awareness of climate risks and enhance climate resilience and sustainability.

## HALIFACT GOVERNANCE MODEL

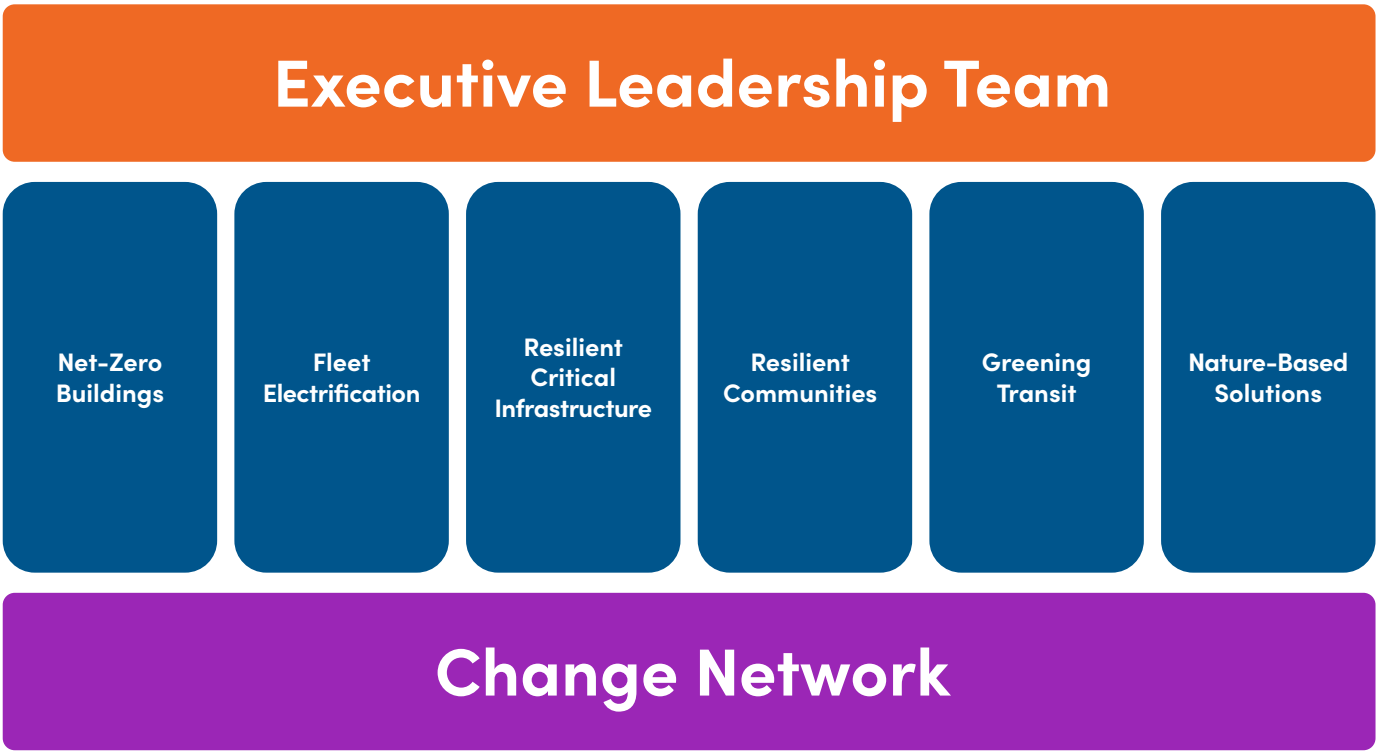
To drive progress on the 46 HalifACT actions, municipal business units have been assigned as Action Leads for each initiative. In February 2024, a governance model was introduced, featuring six Working Groups composed of subject matter experts from across the organization, supported by project and change management leads. The model is designed to incorporate a climate lens into strategic and operational planning, supporting HalifACT's emissions reduction and climate adaptation goals. It also establishes a framework for ongoing monitoring and reporting of progress.

Each Working Group operates under terms of reference that define its mandate, roles, responsibilities, and accountability for specific HalifACT actions. These cross-functional groups are responsible for coordinating annual resource and work plans related to their assigned actions and meet regularly to advance key initiatives that drive progress.

Quarterly reports summarizing action progress and risks affecting that progress are submitted to the Executive Leadership Team (ELT) and incorporated into the annual update that ECC prepares for Regional Council, alongside other key updates and information.

An internal change network, open to all staff on a voluntary basis, is planned to support the model by building climate awareness and commitment across the organization.

The model launched in February 2024 with six initial Working Groups.



# Strategy

*Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy and financial planning where such information is material.*

*a) Describe the climate-related risks and opportunities the organization has identified over the short-, medium- and long-term.*

*b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy and financial planning.*

*c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2 C or lower scenario[1].*

## CLIMATE RISKS AND IMPACTS

Localized, downscaled climate projections prepared for Halifax in support of HalifACT indicate the municipality can expect higher annual and seasonal average temperatures, higher maximum or peak temperatures, more heat waves, increased annual precipitation, increases in extreme precipitation and increases in the intensity and frequency of some extreme climate events, including storms, flooding and wildfires. Climate hazards can be either climate-related physical events, such as extreme weather events, or longer-term climate change trends such as increasing average temperatures and sea-level rise. These climate hazards pose risks for people, infrastructure, natural systems and resources, economies, livelihoods and safety. As the climate continues to change, these hazards are projected to increase in variability, frequency and intensity. Climate hazards identified for Halifax include:

- Extreme heat
- Urban flooding
- Coastal flooding (including sea-level rise)
- Coastal erosion
- Hurricanes
- Fire weather (risk of wildfires)
- Extreme wind
- Storms
- Heavy precipitation
- Biodiversity loss

Table 1 represents a high-level summary of climate-related risks and impacts based on modelling conducted in support of HalifACT.

[1] *A 2-degree or lower scenario aims to limit global temperature rise to well below 2 C above pre-industrial levels, as outlined in the Paris Agreement, requiring significant reductions in greenhouse gas emissions and substantial shifts toward renewable energy and sustainable practices.*

*Table 1: Examples of Projected Climate Impacts on Halifax*

| Impacted Areas | Impacts | Timeframe | Impacted Assets/Services |
|---|---|---|---|
| **Buildings & Other Physical Infrastructure** | Damage from extreme weather events such as heavy precipitation, hurricanes/high winds, storms and flooding.<br><br>Damage to coastal infrastructure and property from flooding, saltwater intrusion and coastal erosion due to sea-level rise and storm surges.<br><br>Increased probability of power outages and grid failures.<br><br>Increasing risk of cascading infrastructure failures. | Short- to medium-term | Residential, commercial, institutional premises; public health; emergency management; transportation; public and private assets |
| **Natural Systems** | Reduced water quality and quantity due to changing weather patterns, diminishing snowpack, variable spring runoff, rising temperatures, flooding and saltwater intrusion.<br><br>Threats to crops with lower yields and nutrition, higher food prices, contaminated water and food, more pests and diseases and damage to food supply and distribution from extreme weather.<br><br>Harm to ecosystems reducing their ability to provide natural resources, habitats and cultural activities.<br><br>Declining fish stocks and less productive fisheries due to changing water conditions, ocean acidification, invasive species and pests.<br><br>Declining forest health and timber production due to changing weather, more extreme events, invasive species, pests and increased wildfires. | Short to long-term | Drinking water; biodiversity; food security; urban forest; public health; economy; water supply and sanitation; community and culture |
| **Human Systems** | Adverse effects on physical and mental health from extreme weather, heatwaves, poor air quality and vector-borne pathogens.<br><br>Increased demand on emergency services with less recovery time due to more frequent and concurrent extreme weather events.<br><br>Financial impacts on businesses from damage or interruptions to assets, operations, supply chains, transport and employee safety.<br><br>Risks to government capacity in providing services, managing climate risks and maintaining public trust, along with increased policy and budget obligations. | Short to long-term | Public health; emergency management; employee health; transportation; economy; community and culture |

### EXTREME WEATHER EVENTS

Extreme weather events continue to have significant social and economic consequences across Canada. Halifax did not experience any events during the 2024/25 fiscal year with impacts like Hurricane Fiona in 2022, the Tantallon wildfire in May 2023 or the severe flooding in July 2023. Nonetheless, the costly impact of extreme weather remains a growing concern. In 2024, the estimate of insured damages from severe weather across Canada exceeded $8 billion—nearly three times the total recorded in 2023 and twelve times the annual average between 2001 and 2010.[2]

Nationally, insured damages from extreme weather events now routinely exceed $2 billion annually, with most losses resulting from water-related damage.[3] In Halifax, past extreme weather events—particularly flooding—have had a measurable impact on municipal infrastructure, accelerating wear and reducing asset lifespan. The increasing severity of these events has led to unplanned rehabilitation and replacement, with the municipal road network sustaining the most flood-related damage. Despite ongoing repairs and reinstatement efforts, many assets are expected to have a shorter lifespan than originally projected.

The Canadian Climate Institute estimates that for every dollar spent on adaptation today, $13 to $15 will be returned in both direct and economy-wide benefits in the future.[4] Assessing and protecting critical infrastructure remains a priority for HalifACT. The municipality has committed resources to projects that enhance the resilience of municipally owned assets. The 2024-25 Four-Year Capital Plan identifies a need for $27 million to fund projects that strengthen municipal infrastructure against the impacts of both extreme weather and longer-term climate changes.

## FUNDING CLIMATE ACTION

In June 2020, with the endorsement of HalifACT, Regional Council directed the Chief Administrative Officer to incorporate plans to achieve the HalifACT actions into the municipal budgeting and business planning process. Regional Council accepted in principle the need to adequately resource the plan.

The 2022-23 Capital Plan identified a core group of projects supporting the achievement of HalifACT actions as strategic initiatives. Strategic initiative projects support key municipal strategies and require large levels of investment and additional resources to sustain implementation over multiple years. To contribute to the financing of these projects, with the approval of the 2022/23 municipal budget, Regional Council approved the implementation of the Climate Action Tax. The Climate Action Tax is expected to raise $18 million annually and is anticipated to be collected for at least 10 years subject to Council approval each year.

The 2024/2025 4 Year Capital Plan for these projects is shown in the table below.

[2] *Insurance Bureau of Canada. 2024 shatters record for costliest year for severe weather-related losses in Canadian history at $8.5 billion*

[3] *Insurance Bureau of Canada. Severe Weather in 2023 Caused Over $3.1 Billion in Insured Damage (ibc.ca)*

[4] *Canadian Climate Institute. Damage Control: Reducing Climate Impacts | Canadian Climate Institute*

*HalifACT Climate Action Plan Strategic Initiative Projects – 2024/25 Four-Year Capital Plan*

| Four-Year Plan | | |
|---|---|---|
| **Municipal Building Energy Retrofits** | Enables implementation of net-zero roadmap for corporate buildings. Strategies to net-zero include deep energy retrofits, fuel switching and net-zero new construction. | $65.2 million |
| **Implementation of Electric Vehicle Strategy** | Enables implementation of Municipal Electric Vehicle Strategy including deployment of public charging infrastructure and electrification of light-duty fleet. | $33.5 million |
| **Protection of Critical Infrastructure** | Assessments of municipal-owned and operated critical infrastructure will determine required "future-proofing" against potential climate impacts and this project will provide funding towards identified improvements. | $27.0 million |
| **Small Climate Action Initiatives** | Funding for small climate action projects across the organization. | $6.5 million |

Updates on the progress of project delivery are included in the HalifACT annual updates presented to Regional Council.

The Climate Action Tax contributed approximately $34 million toward the initial phase of electrifying the municipality's transit fleet. This funding supported the expansion of the Ragged Lake Transit Centre to accommodate battery electric buses and future fleet growth, the procurement of 60 replacement battery electric buses and the installation of charging infrastructure and energy efficiency retrofits at the facility. All 60 electric buses were delivered by the end of March 2025, and they will gradually enter passenger service. The retrofit and expansion of the Ragged Lake Transit Centre is anticipated to be completed in the 2025-26 fiscal year.

Additional funding will be required to fully implement these projects. The amount will depend on factors such as the advancement of the specified actions, inflationary pressures and contributions from other levels of government. Additional funding will be requested as needed through the annual municipal budget process in the future and is subject to Council approval.

## CAPITAL PROJECT EVALUATION FRAMEWORK

As part of the annual budget process, all capital projects are evaluated against the criteria of the Capital Prioritization Framework. This framework includes criteria related to the alignment of the project to Council Strategic Priority Areas, including Environment, and requires project managers to conduct a high-level risk assessment for each project based on the impact and likelihood of exposure to future climate change hazards and environmental impacts if the project does not proceed. The prioritization framework ensures recommended projects provide the greatest overall value considering the municipality's long-term goals and financial position. The evaluation results are presented for senior leadership's consideration to make a more valued Capital Plan recommendation to Regional Council.

## SCENARIO ANALYSIS

The HalifACT plan was developed using forecasts of climate conditions Halifax may face in the future. Climate modelling undertaken to support HalifACT used localized downscaled climate projections for temperature and precipitation sourced from the Climate Atlas of Canada. The temperature and precipitation projection data for Halifax is associated with the Representative Concentration Pathway 8.5 scenario, or the "high emissions" scenario. This scenario assumes global greenhouse gas emissions will continue to increase through the end of the century.

Additionally, three different emissions reductions scenarios were modelled to explore the impact of various emission reduction actions across five key areas: buildings, energy supply, transportation, water and wastewater and solid waste. The decarbonizing actions outlined in HalifACT correspond to the most aggressive emissions reduction scenario modelled, aiming to achieve net-zero community-wide emissions by 2050 to align with a global warming target of 1.5°C.

The outcomes of the modeling inform HalifACT's mitigation strategies and provide forecasts of the climatological changes the municipality will encounter despite its emission reduction efforts, to enable the municipality to plan effectively for resilience and adaptation.

## NATURAL ASSETS

Natural assets – such as forests, wetlands and waterways – play a critical role in supporting the delivery of municipal services. They provide a wide range of essential ecosystem services, including provisioning clean water and food, regulating climate and stormwater, improving air quality and contributing to the physical and mental well-being of residents. Despite their significant value, these assets are often excluded from traditional infrastructure planning and absent from financial reporting frameworks. Recognizing and integrating natural assets into municipal decision-making supports more resilient, cost-effective, and sustainable service delivery. To that end, the municipality has begun implementing initiatives to better recognize, value, and integrate natural assets into its planning and decision-making processes.

### NATURAL ASSETS INVENTORY

In 2021, the municipality partnered with the Natural Assets Initiative (NAI) to complete a preliminary natural asset inventory. The inventory identified 54,357 assets covering 558,736 hectares, with forests, inland water, and wetlands as the largest asset classes. Approximately 82% of these assets (456,000 hectares) were assessed as being in good condition, although conditions varied by asset type. This inventory marks a key first step in managing the natural assets that provide the municipality with essential services, including water filtration, stormwater management, recreation opportunities, and health and cultural benefits.

The municipality has also engaged NAI to conduct a pilot study on the Nine Mile River watershed, one of fifty watersheds in the municipality. The study aims to assess the ecosystem services provided by natural systems within the watershed and estimate the economic value of these services.

## NATURAL ASSET MANAGEMENT

Natural asset management is included as a strategic initiative in the municipality's 2024-25 Budget and Business Plan, supporting the Priority Outcome "Protected and Sustainable Environment."

This initiative aims to incorporate natural assets into corporate asset management, recognizing the benefits provided by the natural environment to the municipality.

Adopted by Regional Council in June 2024, the Corporate Asset Management Policy includes natural assets within its scope, defining a natural asset as, "a natural feature, resource or ecosystem that is relied upon, managed, or could be managed by a municipality for the provision of one or more municipal services." Adopting this policy demonstrates the municipality's commitment to asset management as a business model, promoting continuous improvement in effectively managing municipal assets, including natural assets.

To further advance natural asset management, the municipality is participating in the NAI Roadmap Program. Collaboratively developed by staff from across municipal business units, this high-level roadmap will outline short- to medium-term actions for integrating natural assets into municipal asset management practices. The process of developing the roadmap will also build awareness of natural asset management across the organization and lead to an enhanced understanding of how natural assets contribute to planning and service delivery. Completion of the roadmap is anticipated in 2025-26.

# Risk Management

*Disclose how the organization identifies, assesses and manages climate-related risks:*

*a) Describe the organization's processes for identifying and assessing climate-related risks.*

*b) Describe the organization's processes for managing climate-related risks.*

*c) Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organization's overall risk management.*

## IDENTIFYING, ASSESSING AND MANAGING CLIMATE-RELATED RISKS

In support of HalifACT, an Adaptation Baseline Report was prepared which identified, at a high-level, risks and impacts to Halifax from a changing climate. This report, which includes detailed historical climate data and projections for the timeframes 2021-2050 and 2051-2080, along with the municipality's Hazard Risk and Vulnerability Assessment (2015), provided baseline information to inform the actions and priorities identified in HalifACT. The Climate Adaptation team, in collaboration with Emergency Management and Planning & Development, continues to advance a range of projects aimed at deepening the municipality's understanding of the risks and impacts to the municipality of identified climate hazards.

### HAZARD, RISK AND VULNERABILITY ASSESSMENT

The municipality is undertaking an update to its Hazard, Risk, and Vulnerability Assessment (HRVA). An HRVA is a process that supports governments and communities in making risk-based decisions to address vulnerabilities, mitigate hazards, and prepare for, respond to, and recover from emergency events. This updated HRVA will consider all natural, technological, and human-induced hazards that may occur within the municipality. It will also incorporate social vulnerability factors and climate change considerations.

Findings from the HRVA will be used to update the Comprehensive Emergency Management Plan (CEMP), support the advancement of HalifACT action items, inform risk management discussions, and enhance resiliency planning. The updated HRVA is planned to be completed in 2025/26.

### CRITICAL INFRASTRUCTURE CLIMATE CHANGE VULNERABILITY AND RISK ASSESSMENT

In 2024, the municipality initiated a Climate Change Vulnerability and Risk Assessment (CCVRA) to identify critical municipally-owned infrastructure and evaluate its vulnerability to climate hazards. Led by the Resilient Critical Infrastructure Working Group, this high-level assessment will help the municipality prioritize site-level investigations and guide additional data collection efforts. These findings will support future policy development and identification of targeted adaptation investments to mitigate climate risks and enhance the resilience of critical infrastructure and services.

The CCVRA follows a structured, industry-aligned approach, incorporating ISO 31000[5], ISO 14090[6], and the Public Infrastructure Engineering Vulnerability Committee (PIEVC) Protocol[7]. A staggered approach is being used, starting with vertical infrastructure (buildings), followed by linear infrastructure (roads), then greenspaces, natural areas, and watercourses, and finally, supporting critical infrastructure.

The assessment consists of six key phases:

1. ***Scoping and Hazard Identification:*** Interviews are conducted with municipal staff knowledgeable about each asset type to collect locally relevant insights, document past incidents, and identify effective adaptation measures. Interview input will support the verification of spatial data, inform risk quantification, and facilitate the integration of CCVRA results into existing processes and plans.

2. ***Criticality Analysis:*** Assets are evaluated against criticality indicators specific to each asset type to identify those essential for the municipality to sustainably deliver acceptable levels of service. This approach emphasizes assets required for maintaining daily operations and service standards, including those prioritized for their role in emergency response.

3. ***Exposure Analysis***: Assets are assessed for exposure to identified climate hazards. This assessment is supported by baseline climate hazard exposure maps developed in 2022-23 for extreme heat, meteorological drought, extreme rainfall, extreme snowfall, extreme wind and changing winter temperatures, as well as coastal, pluvial, and fluvial flood hazard maps completed in 2024-25. Additional data sets will be considered as they become available.

4. ***Vulnerability Analysis:*** Assets are evaluated against vulnerability indicators specific to each asset type to determine an asset's resilience to climate hazards.

5. ***Risk Analysis:*** The results of the above analyses are combined to determine a risk score for each asset. Scores are categorized as low, moderate, or high, guiding appropriate next steps ranging from ongoing monitoring to prioritization for site-level investigations.

6. ***Adaptation Planning:*** A framework will be developed to ensure CCVRA results are effectively communicated to asset stewards and owners for integration into municipal asset management practices and capital investment planning.

The first iteration of the CCVRA will take approximately 12 to 24 months to complete. In 2024-25, criticality scoring was completed for vertical infrastructure (buildings) and scoping and hazard identification began for linear infrastructure (roads). As an iterative process, the CCVRA will be updated over time to incorporate new data, improved methodologies and emerging climate information.

[5] *ISO 31000:2018 - Risk management — Guidelines*

[6] *ISO 14090:2019 - Adaptation to climate change*

[7] *PIEVC Program*

### RESILIENCE TO EXTREME HEAT

The municipality is currently developing a corporate Heat Action Plan as part of a broader heat response strategy to proactively prepare for and respond to extreme heat events. In summer 2024, more than 50 interviews were conducted with staff to better understand how extreme heat affects employees, particularly those working outdoors and with vulnerable populations. Insights from these interviews have informed a vulnerability and risk assessment, with further development of the plan scheduled for 2025-26. To complement this work, the municipality is also expanding its understanding of the urban heat island (UHI) effect in areas of the municipality– where built-up areas experience higher temperatures than surrounding rural regions – by leveraging AI for the Resilient City, a data visualization tool developed by Evergreen. This tool will enable municipal staff to identify areas of elevated heat exposure and vulnerability, compare heat data across time periods, and assess metrics to support analysis and decision-making.

### CLIMATE RESILIENCE SCREENING

The municipality is increasingly making use of spatial data to support the integration of climate resilience considerations into adaptation investment decision-making. Staff have developed a climate hazard mapping application that integrates climate hazard data with community socio-economic attributes and municipal infrastructure information to support climate resilience screening within capital planning processes. In 2024-25, the tool was used to identify opportunities to incorporate shade features that provide relief from rising temperatures and extreme heat during the development of the 2025-26 Parks Recapitalization workplan.

## ENTERPRISE RISK MANAGEMENT

In 2024-25, the municipality initiated an update of its Enterprise Risk Management (ERM) Framework to support more effective, consistent, and coordinated risk management practices across the organization. As part of this work, a Corporate Enterprise Risk Management Policy is being developed, along with new processes for managing both strategic and operational risks. These components will provide a structured foundation for integrating risk awareness into decision-making, clarifying accountabilities, and strengthening alignment between risk management and organizational priorities.

The HRVA, CCVRA, and any future hazard mapping initiatives offer resources that Business Units can use to assess how climate-related hazards could affect future service delivery and operations. These assessments can support the identification of potential risks and inform appropriate mitigation strategies within the operational risk management process.

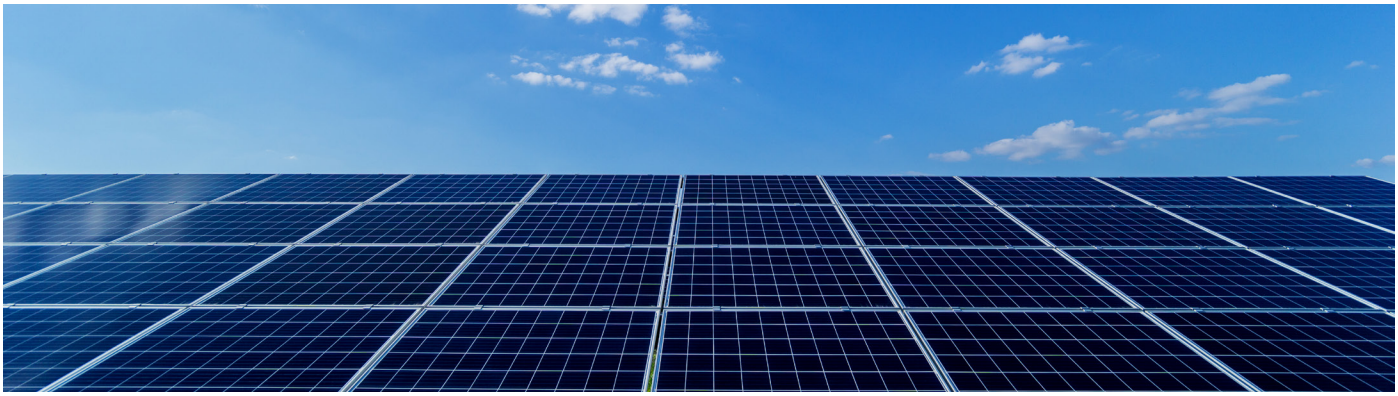
# Metrics and Targets

*Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.*

*a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.*

*b) Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks.*

*c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.*



## GREENHOUSE GAS (GHG) EMISSIONS

HalifACT establishes a corporate target of net-zero emissions by 2030, a community-wide target of a 75 per cent emission reduction from the baseline year of 2016 by 2030 and net-zero community-wide emissions by 2050. Emissions inventories are calculated using the Global Protocol for Community-Scale Greenhouse Gas Emissions Inventories (GPC) reported in the Global Covenant of Mayors (GCoM) Common Reporting Framework (CRF) and include Scope 1 and Scope 2 emissions.

- Scope 1 Emissions: Direct GHG emissions from sources operating within the municipality's geographic boundary. These include emissions from the on-site combustion of fuels such as gasoline or diesel used in vehicles or natural gas burned for space or water heating in buildings.

- Scope 2 Emissions: Indirect GHG emissions from the generation of purchased energy consumed within the municipality's geographic boundary. For example, emissions resulting from electricity purchased from the grid to power buildings, lighting or equipment.

Corporate and community emissions inventories are reported annually to Council. Halifax also includes a detailed emissions inventory in its annual reporting to CDP (formerly known as the Carbon Disclosure Project), a not-for-profit charity that runs a global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts.

Corporate emissions are a direct result of energy use related to buildings, street lighting and vehicles (public works, fleet, rentals) owned and operated by the municipality as well as contracted residential solid waste collection vehicles. It excludes public transit and solid waste emissions associated with landfill gases. From 2022 to 2023, corporate emissions have decreased approximately 10.6 per cent. Since the baseline year of 2016, emissions have decreased by approximately 31 per cent.

To support the reduction of corporate greenhouse gas emissions, the municipality is investing in energy retrofits of its buildings and electrifying its light-duty fleet. In 2024-25, the municipality also signed an agreement with Renewall Energy to receive renewable wind energy from the company's Mersey River Wind farm once it becomes operational. This partnership advances the municipality's commitment to sustainable energy and contributes to achieving its climate action goals by transitioning a portion of its energy use to renewable sources.

Community emissions are a result of all energy use within the boundaries of the Halifax Regional Municipality. This includes all corporate emissions, public transportation, private commuter vehicles, heavy transport, industrial processes, energy generation and buildings. Since the baseline year of 2016, emissions have decreased approximately 17.9 per cent.

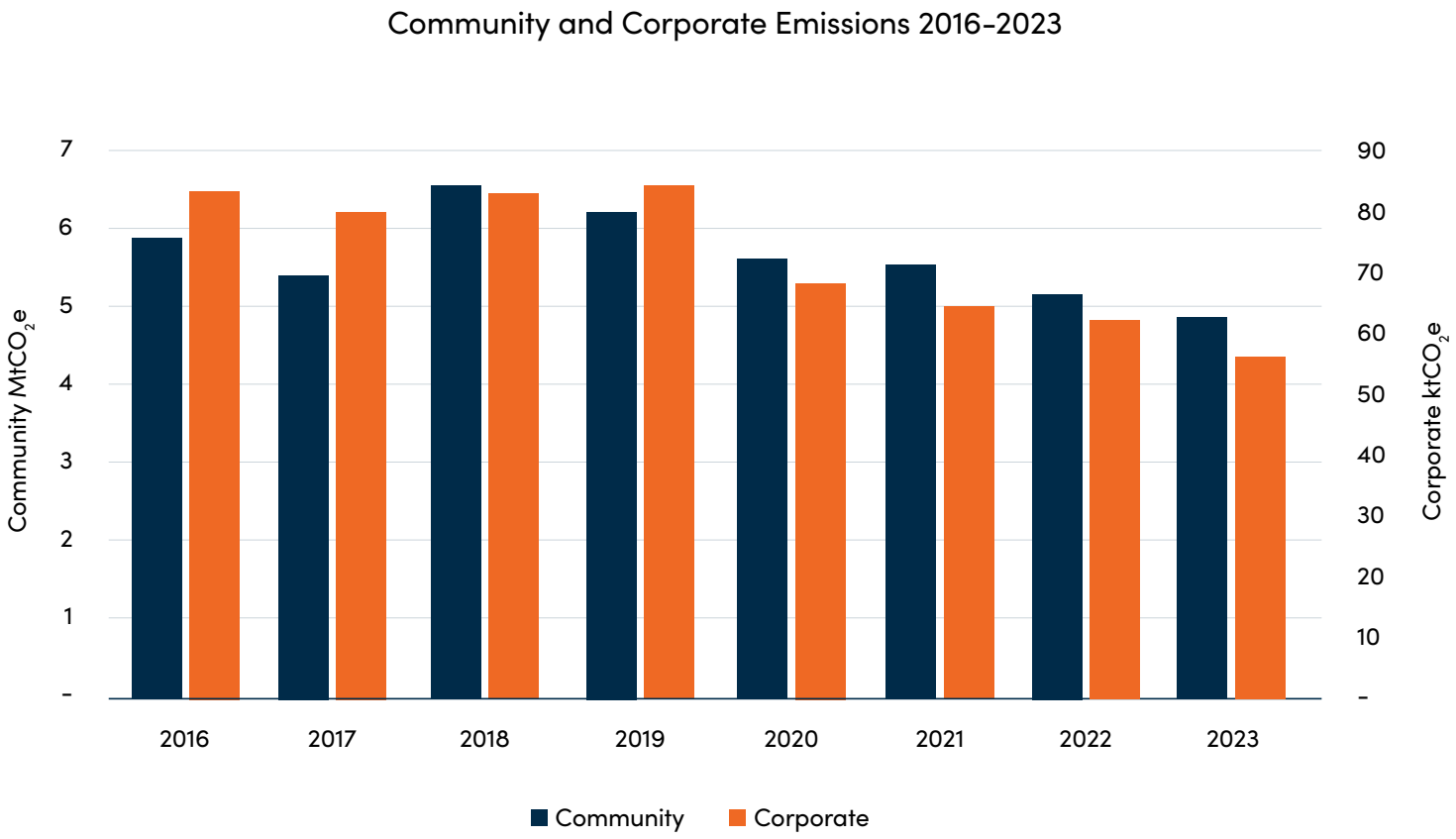
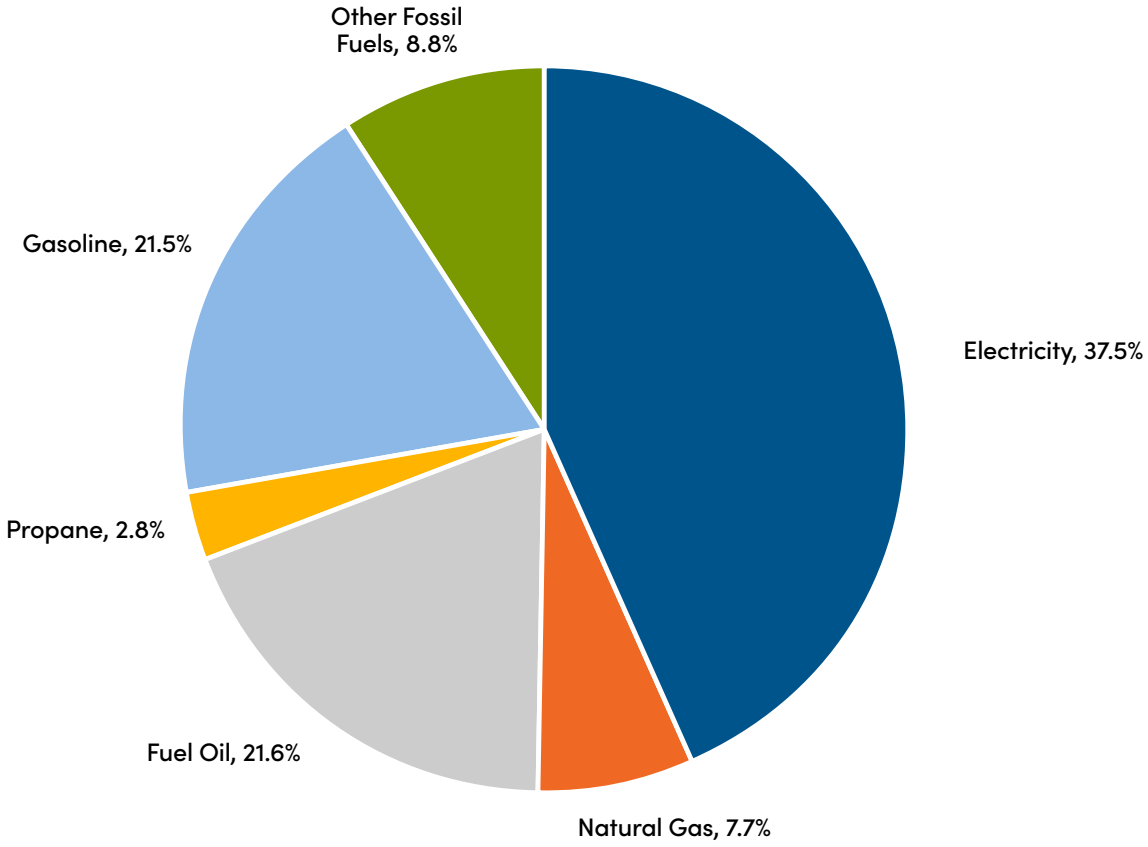



*Figure 1 summarizes the progress to date for corporate and community targets, respectively.*

## Community Emmisions by Fuel Type 2023

*Figure 2 shows 2023 community emissions by fuel type.*




The primary energy sources responsible for the community's GHG emissions include electricity, fuel oil and gasoline. Electricity is used across the residential, institutional, commercial and industrial sectors. Fuel oil is used almost exclusively in the residential sector for home heating, while gasoline powers on-road transportation. Together, these sources accounted for 80.7 per cent of the community's emissions in 2023.

Although emissions have decreased since 2016, they are not falling at the pace and scale necessary to meet the reduction targets established in HalifACT. In 2023, emissions exceeded those forecasted in the business-as-usual (BAU) scenario from the HalifACT Low-Carbon Technical Report. The BAU scenario forecasts the emissions expected from population and employment growth in the Halifax region, assuming no additional policies, actions, or strategies to reduce emissions are implemented between 2019 and 2050. Actual emissions have exceeded those projected in the BAU scenario primarily because the population grew more than expected and electricity emissions were higher than anticipated.

As the population increases, prompt action becomes increasingly important. The HalifACT plan relies on various key partners, including utilities and other levels of government, to meet their respective climate targets. The rate of decarbonization of Nova Scotia's electrical grid significantly influences HalifACT's emissions forecasts and the municipality's ability to achieve its community-wide emissions targets.

## STRATEGIC PERFORMANCE SNAPSHOT

The Strategic Priorities Plan Progress Report is provided to Council at the end of the fiscal year and provides an annual summary of progress on individual strategic initiatives in support of the Strategic Priorities Plan. In the fall, in advance of budget and business planning, Key Performance Indicators (KPIs) developed to monitor progress towards the achievement of the Priority Outcomes are updated in the municipality's online Strategic Performance Snapshot dashboard.

The 2023-24 Strategic Performance Report, presented to Council January 14, 2025, provides a high-level analysis of advancement towards the municipality's strategic priorities and outcomes. Both annual progress and a three-year trend are presented.

While the strategic KPIs associated with the Environment priority outcomes net zero emissions and protected and sustainable environment show adequate progress, efforts toward climate resilience remain difficult to assess due to insufficient information, highlighting the need to develop effective metrics for evaluation.

## REPORTING PROGRESS ON HALIFACT ACTIONS

Progress on HalifACT actions is reported annually to Regional Council. Lead business units provide annual updates on these actions to the Environment & Climate Change division. The division then assigns a progress indicator based on the activities undertaken that year and the forecasted trajectory of the action. As of the 2023-24 HalifACT Annual progress report, 37 per cent of the actions were rated on track. While the implementation of HalifACT continues to progress, many actions are not achieving the momentum necessary to reach established targets.

## VIRTUAL HUB PROJECT

A climate dashboard for Halifax is currently under development. The goal of this virtual space is to engage residents by clearly communicating the progress of actions the municipality is taking to enhance the environment, reduce emissions and prepare for climate impacts. The dashboard will feature climate-related information and data specific to Halifax, including updates on the actions outlined in the HalifACT plan. It will also present the HalifACT vision for 2030 and 2050, a calendar of events and important dates, enable partner organizations to share updates with Halifax and collect feedback from users. The hub is planned to launch fall 2025.

# Next Steps

The municipality is committed to the continuous improvement of our sustainability reporting. This includes refining our approach to climate-related financial disclosures and staying informed of evolving global standards and frameworks, including those focused on nature. In 2025-26, staff will review the requirements of the recently issued International Public Sector Accounting Standards Board (IPSASB) inaugural Sustainability Reporting Standards Exposure Draft 1: Climate-related Disclosures (SRS ED 1). This draft standard aligns public sector reporting with global best practices, building on other international sustainability standards including the recommendations of the Task Force on Climate-related Financial Disclosures. By engaging with this guidance, the municipality aims to align its practices with emerging best practices for transparency and accountability in climate-related reporting.

**Forward-Looking Statements Disclaimer**

*This report includes forward-looking statements related to climate-related risks and opportunities, based on current expectations and assumptions. These statements involve risks and uncertainties that may cause actual results to differ materially. The municipality will not update any forward-looking statements within this report. Readers should not place undue reliance on them.*

*This report is not a Council-approved policy and should not be interpreted as setting future Council direction. Future budgetary expenditures are subject to Council approval and the fiscal budgetary process.*