

Technical Memo 1

Federal and Provincial Policy and Legislative Review

Niagara Region // December, 2023



Executive Summary

This technical memorandum summarizes key legislative activity at a federal and provincial level. It provides information on existing and proposed regulatory changes, policy and programs applicable to the Regional Municipality of Niagara's (Niagara Region) waste management operations. The information contained in this memo is intended to inform the development of Niagara Region's upcoming Waste Management Strategic Plan and broader decision making by Niagara Region's Waste Management Services Division.

Key Take Aways

Both the federal and provincial governments have been active in developing responses to the broader issue of climate change. Commitments at both levels of government to meet various emissions and sustainability goals are expected to lead to a continued regulatory focus on the waste management industry. Further action to reduce industry related greenhouse gas (GHG) emissions from key emitters like landfills and improve the capture of related sources such as organics can be expected. Indirect impacts can also be expected such as the introduction of new fuel and vehicle emissions related legislation which will drive up service delivery costs. These changes are expected to impact municipal fleet purchases and will impact the cost of purchasing and operating collection fleets and other municipal vehicles.

Global focus on plastic waste entering into the broader environment will continue to put pressure on the federal government to act lock step with European governments to address this key issue. These actions will result in changes to the types and quantities of waste generated by local businesses and residents and the related waste management services offered by municipalities. Government procurement activities will also need to be responsive to the introduction of new legislation dealing with issues like single use plastics, supporting development of circular economies, climate change, and reducing emissions. Changes to municipal purchasing by-laws may be necessary to address these issues.

Continued expansion of Extended Producer Responsibility (EPR) legislation will also have broad impacts on municipal services. Under the new full producer responsibility framework, [Circular Materials Ontario](#) will administer and manage contracts to collect and receive Blue/Grey Box material. Changes to the program and other financial impacts will be budgeted in the 2024 budget for Council's consideration. Niagara Region will maintain collection of curbside garbage, large household items, organics (Green Bin), leaf and yard waste, and all materials from industrial, commercial and some institutional establishments.

Municipalities will need to examine the impacts on affected stakeholders and consider augmenting existing services. Local businesses, for example, may need assistance with managing their materials if they were previously being provided with municipal Blue Box services. Municipalities will also need to look at amending their by-laws to ensure producer led programs do not result in

reduced participation at the curb or other unanticipated consequences. Municipalities will also need to consider their potential continued involvement in supporting producer led programs, particularly for new materials.

Niagara Region has been proactive in managing organic waste generated locally. It is, however, anticipated that further developments related to the Province of Ontario's Food and Organic Waste Policy will need to be assessed for their potential impacts on Niagara Region's waste management system and local businesses.

Birett & Associates

December, 2023

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List of Acronyms

CCME: Canadian Council of Ministers of the Environment's

CEPA: Canadian Environmental Protection Act

ECCC: Environment and Climate Change Canada

EPA: Environmental Protection Act

EPR: Extended Producer Responsibility (The Made-in-Ontario Environment Plan commits to transition Ontario's recycling programs to a new EPR approach)

IC&I: Industrial, Commercial, and Institutional

IPCC: Intergovernmental Panel on Climate Change

IPR: Individual Producer Responsibility (a producer's responsibility for its own products and packaging is extended to the post-consumer stage of the lifecycle of those products and packaging)

GHG: Greenhouse Gas

HSP: Hazardous and Special Products

ITT/AAV: information technology, telecommunications, audio-visual

PCB: Polychlorinated Biphenyls

PCF: Pan-Canadian Framework on Clean Growth and Climate Change

PROs: Producer Responsibility Organizations

SUP: Single Use Plastic

RPRA: Resource Productivity and Recovery Authority

RRCEA: Resource Recovery and Circular Economy Act

UNFCCC: United Nations Framework Convention on Climate Change

WDA: Waste Diversion Act

WDTA: Waste Diversion Transition Act

WEEE: Waste Electrical and Electronic Equipment

WMSP: Waste Management Strategic Plan

WFOA: Waste Free Ontario Act

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1 Introduction

The regulatory environment associated with the management of solid waste has changed significantly in recent years. Governments at all levels are endeavouring to respond to a broad range of environmental concerns covering issues such as climate change, plastics in our waterways, food and organic waste through to evolving principles such as Extended Producer Responsibility (EPR). In addition to being responsive to these trending issues, the Regional Municipality of Niagara's (Niagara Region) waste management system is also subject to a variety of federal and provincial legislative requirements as well as local municipal by-laws and policies. These changes are also expected to directly impact the waste management needs of local residents but also businesses serviced by Niagara Region and Niagara Region's broader corporate operations.

This review includes an overview of significant legislation and policy applicable to Niagara Region's waste management operations. It includes an assessment of the anticipated implications to Niagara Region and its constituents for consideration by Niagara Region as it undertakes development of its Waste Management Strategic Plan (WMSP).

2 Federal Legislation and Policy

At a federal level, waste management is governed primarily through the Canadian Environmental Protection Act (CEPA), Transportation of Dangerous Goods Act, Fisheries Act and Canada Water Act. However, changes to other federal standards for things like vehicle emissions can also have significant indirect impacts on municipal waste management operations.

In addition to the existing legislation, the federal government continues to be particularly active on two files that are relevant to municipal waste management. They include the topics of climate change and plastics in the environment. Much of the federal government's work on these files has followed European Union initiatives and is intended to support Canada's international commitments to agreements such as the Paris Agreement, Copenhagen Accord and the Ocean Plastics Charter.

2.1 Federal Action on Climate Change

In 2016, Canada's First Ministers committed to taking further action on climate change through adoption of the Pan-Canadian Framework on Clean Growth and Climate Change (PCF). The PCF includes more than 50 initiatives that cover all sectors of the

Canadian economy and serves as Canada's overarching plan to achieve its commitment under the Paris Agreement to a greenhouse gas (GHG) emissions reduction target of 30 per cent below 2005 levels by 2030. This target is key to much of the federal government's related actions.

On an international level, Canada has been a member of the Intergovernmental Panel on Climate Change (IPCC) since its establishment by the United Nations Environment Programme and the World Meteorological Organization in 1988. The IPCC was created to provide policymakers with regular scientific assessments on climate change, its implications and potential future risks, as well as to put forward adaptation and mitigation options. The current structure of the IPCC includes three working groups and a standing task force. At the 58th Session of the IPCC held in March 2023, the Synthesis Report for the Sixth Assessment Report was finalized. The Synthesis Report integrates the findings of six reports released by IPCC during the cycle which began in 2015. Amongst the findings, the IPCC concluded "...that there is a more than 50 per cent chance that global temperature rise will reach or surpass 1.5 degrees Celsius between 2021 and 2040 across studied scenarios, and under a high-emissions pathway, specifically, the world may hit this threshold even sooner — between 2018 and 2037."¹

The findings of this global collaborative effort highlighted the need for urgent action at all levels of government. The importance of the IPCC's work as it related to the development of the Canadian government's policies was underscored by Minister Guilbeault recently when he stated: "We know that Canada is warming at twice the average global rate, with even higher rates in the north. We've moved from modelling to experiencing devastating real-world consequences on communities and the economy. It is critical that we continue to take rapid and ambitious action to fight climate change. This is the only path to keep people safe and communities strong for today, and to deliver a healthy future for our children."²

The Minister went on to reiterate Canada's commitment to reduce domestic GHG emissions by 40 to 45 per cent below 2005 levels by 2030 as outlined in the federal 2030 Emissions Reduction Plan. He also mentioned the government's continuing commitment of funding through initiatives such as its National Adaptation Strategy and the Government of Canada Adaptation Action Plan, released in 2022. These two

¹ [10 Big Findings from the 2023 IPCC Report on Climate Change](https://www.wri.org/insights/2023-ipcc-ar6-synthesis-report-climate-change-findings)
(<https://www.wri.org/insights/2023-ipcc-ar6-synthesis-report-climate-change-findings>)

² [Minister Guilbeault reiterates Canada's commitment to achieve net-zero targets](https://www.canada.ca/en/environment-climate-change/news/2023/03/minister-guilbeault-reiterates-canadas-commitment-to-achieve-net-zero-targets.html)
(<https://www.canada.ca/en/environment-climate-change/news/2023/03/minister-guilbeault-reiterates-canadas-commitment-to-achieve-net-zero-targets.html>)

documents signal growing federal focus on the importance of climate resilience and is increasingly reflected as an important element of municipal corporate strategic planning.

Niagara Region has already been active in responding to the issue of climate change through actions such as updating its Energy Conservation and Demand Management Plan, including climate related objectives in the Niagara Official Plan and more.³

2.2 Net Zero Emissions Initiatives

One of the more recent initiatives of the federal government has been the creation of the Net-Zero Advisory Body in February 2021 in support of the Canadian Net-Zero Emissions Accountability Act. The Net-Zero Advisory Body's core mandate is to identify pathways to help Canada achieve net-zero emissions by 2050 and provide the federal minister with advice respecting:

- greenhouse gas emissions targets for milestone years;
- greenhouse gas emissions reduction plans by the Government of Canada, including measures and sectoral strategies that the Government of Canada could implement to achieve a greenhouse gas emissions target; and
- any matter referred to it by the Minister.⁴

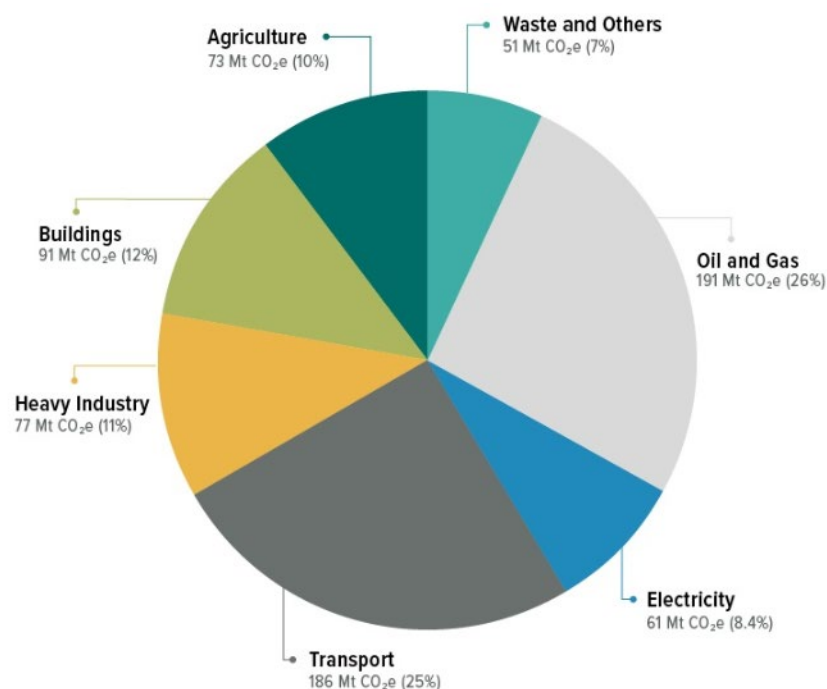
The Net-Zero Advisory Body's first annual report was submitted to the Minister on December 30, 2022. The report is currently under review by Environment and Climate Change Canada (ECCC). The report, coupled with the federal government's 2030 Emissions Reduction Plan (released in June 2022), are expected to be key drivers for federal action on climate change.

As a party to the United Nations Framework Convention on Climate Change (UNFCCC), Canada is required to regularly update and publish a national inventory of human sourced emissions. This work is done through the government of Canada's National Inventory Report, which is updated and submitted to the UNFCCC annually. Waste management related emissions, while improving year over year, continue to be a dominant source of national emissions as shown in Illustration 1 below. Action by the federal government to improve the sector's performance is expected to remain a priority for the foreseeable future.

³ [Climate Change in Niagara](https://www.niagararegion.ca/culture-and-environment/climate-change/general/default.aspx) (https://www.niagararegion.ca/culture-and-environment/climate-change/general/default.aspx)

⁴ [Net Zero Advisory Body](https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/net-zero-emissions-2050/advisory-body.html) (https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/net-zero-emissions-2050/advisory-body.html)

Table 1: Breakdown of Canada's Greenhouse Gas Emissions by Economic Sector (2019)⁵



2.3 Landfill Gas Reduction

In October 2021, Canada confirmed its support for the Global Methane Pledge, which aims to reduce global methane emissions by 30 per cent below 2020 levels by 2030 through focused efforts in the energy, agriculture, and waste sectors.⁶ Based on the 2020 government of Canada emissions inventory, emissions from Canadian landfills account for 23 per cent of national methane emissions. Accordingly, the government is expected to continue to focus its efforts on methane emissions reduction by encouraging diversion of organics from landfill and provision of support for biogas and landfill gas recovery projects. Municipalities will need to continue to monitor these developments for potential regulatory impacts and project funding opportunities.

⁵ [2030 Emissions Reduction Plan – Canada's Next Steps for Clean Air and a Strong Economy](https://www.canada.ca/en/environment-climate-change/news/2022/03/2030-emissions-reduction-plan--canadas-next-steps-for-clean-air-and-a-strong-economy.html) (https://www.canada.ca/en/environment-climate-change/news/2022/03/2030-emissions-reduction-plan--canadas-next-steps-for-clean-air-and-a-strong-economy.html)

⁶ [Waste and greenhouse gases: Canada's action](https://www.canada.ca/en/environment-climate-change/services/managing-reducing-waste/municipal-solid/waste-greenhouse-gases-canada-actions.html) (https://www.canada.ca/en/environment-climate-change/services/managing-reducing-waste/municipal-solid/waste-greenhouse-gases-canada-actions.html)

Discussions continue around development of new federal landfill methane regulations as outlined in the ECCC's A Healthy Environment and a Healthy Economy (2020). The government has also been active in development of a national GHG offset credit system under the GHG Offset Credit System Regulations which were established under Part 2 of the GHG Pollution Pricing Act (published in the Canada Gazette, Part II on June 8th, 2022). To date, protocols for landfill gas and refrigeration systems have been published. This new system, combined with funding for Landfill gas capture projects, and the new Clean Fuels Regulation are expected to create opportunities for landfill and organic processing waste system operators to pursue production of alternative fuels and offset credits.

However, requiring methane generation assessments to be completed within ninety (90) days after the regulation comes into effect or by June 1 the year after a landfill becomes subject to the regulation may be an insufficient amount of time to complete the assessment. Even though ECCC has created a relatively simple model, there are a limited number of consultants and subject matter experts which are capable of undertaking such assessments and many municipalities do not have the internal expertise to carry out such work. As a result, the experts relied upon to complete the assessments may be unavailable to complete the assessments during the required time period.

2.4 Clean Fuel Regulation

On June 20, 2022, the final Clean Fuel Regulations were registered under the CEPA and, in turn, brought the current Canadian Clean Fuel Standard into law. The regulations are part of a suite of complementary climate policies intended to support investments in clean energy and encourage adoption of related technologies and processes that use clean energy. In particular, the regulations require suppliers of gasoline and diesel to gradually reduce the carbon intensity of the fuels they produce and sell for use in Canada by approximately 15 per cent (below 2016 levels) by 2030. These requirements are expected to continue to result in municipal fleets moving from diesel to electricity and/or alternative fuels. Further, many larger municipalities are actively looking at the feasibility of the production of alternative fuels from their waste management operations for use in their fleets to support their circular economy goals. It is unlikely Niagara Region generates sufficient quantities of methane through its landfill or wastewater operations, however, ongoing monitoring of these developments is warranted as this technology is developed and funding potentially becomes available.

2.5 Federal Action on Plastic Waste

Federal action on plastic waste has focused on a broad range of issues including single

use plastics (SUPs), marine plastics (e.g., litter and discarded fishing gear), micro-bead exposure and persistent organic pollutants. These actions are supported by the Canadian Council of Ministers of the Environment's (CCME) efforts to implement its Canada-wide Strategy on Zero Plastic Waste and efforts by ECCC to ban harmful SUPs under CEPA. Both CCME and ECCC are actively promoting the concept of EPR as a means of developing a circular economy and ensuring companies that manufacture plastic products or sell items with plastic packaging become responsible for their plastic waste. The two agencies are pursuing development of standards and national performance requirements related to plastics including recycled content targets and standards for bio-plastics and compostable packaging which could impact municipalities' procurement practises. Changes in the types and composition of packaging are expected as a result of this regulatory action. Packaging cost fluctuations can be anticipated along with potential public pressure to develop supporting green procurement goals. Municipalities will need to closely monitor these developments to ensure there are no adverse impacts on their operations. Public education and changes to internal procurement policies may also be required.

One of the most significant actions taken by the Government of Canada in recent years has been the release of the SUP Prohibition Regulations (June 20, 2022) which banned six categories of SUPs including: checkout bags, cutlery, stir sticks, straws, ring carriers for bottles and cans and food service ware. This regulation came on the heels of a previous order given on April 23, 2021 by Canada's Administrator in Council directing that plastic manufactured items immediately be added as a toxic substance on Schedule 1 of CEPA. These actions highlight the government's concerns with the amount of plastic that continues to be disposed and/or otherwise enter the environment as pollution. In its announcement, the government noted that of the estimated 3,268,000 tonnes of plastic generated in Canada in 2016, only 305,000 tonnes, or nine per cent, was recycled.⁷

Increasingly, municipalities across Ontario, Canada and globally have been active in exploring ways to reduce SUP usage in their jurisdictions and internally within their own operations. These changes represent important steps to reduce plastic waste in the environment. There have, however, been some unfortunate side effects such as a proliferation of packaging that is claimed to be compostable but is not compatible in many municipal composting systems. This has led to public confusion and increasing

⁷ [Plan for the Ban: Plastics Classified as "Toxic Substance"](https://mcmillan.ca/insights/plan-for-the-banplastics-classified-as-toxic-substanceunder-canadian-environmental-protection-act/) (<https://mcmillan.ca/insights/plan-for-the-banplastics-classified-as-toxic-substanceunder-canadian-environmental-protection-act/>)

contamination of municipal composting operations. Further work is urgently required by the federal government to improve standards and regulations controlling the labelling and cost of managing of bio-plastics and related packaging. It is recommended that Niagara Region support advocacy efforts through appropriate industry and municipal agencies to encourage this work by the federal government.

2.6 Canadian Council of Minister's of the Environment

CCME was established in 1964. Membership includes the environment ministers from the federal, provincial and territorial governments and is supported by a permanent secretariat based in Winnipeg, Manitoba. The ministers normally meet at least once a year to discuss national environmental priorities and determine work to be carried out under the auspices of CCME. Deputy ministers and senior officials establish working groups of experts from the federal, provincial, and territorial environmental ministries to work collaboratively to accomplish the minister's directives.

In 2019 CCME approved Phase 1 of their Canada wide Action Plan on Zero Plastic Waste (Action Plan). The Action Plan includes the development of a roadmap to address priority single use and disposable plastics most commonly released into the environment. In 2020, Phase 2 was released and focuses on a broader range of actions to:

- improve awareness to prevent and manage plastic waste responsibly;
- reduce plastic waste and pollution generated by aquatic activities;
- advance plastics science to inform decision making and measure performance over time;
- address plastics in the environment through capture and cleanup; and
- contribute to global action on plastic pollution reduction.

To further support implementation of the Action Plan, CCME subsequently released A Roadmap to Strengthen the Management of Single use and Disposable Plastics (September 2, 2022). The roadmap provides guidance on prioritizing single use and disposable plastic items for targeted management. It also gives guidance on a selection of appropriate management instruments, best practices and voluntary actions for managing SUPs. Municipalities are encouraged to review these documents and consider their applicability to their own operations.

2.7 Federal Action on Transboundary Shipment of Waste

Canada is currently a party to three international agreements involving the

transboundary movement of hazardous and nonhazardous materials. They include the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, the Organization for Economic Co-operation and Development Decision of the Council Concerning the Transboundary Movements of Wastes Destined for Recovery Operations, and the Canada-US Agreement Concerning the Transboundary Movement of Hazardous Wastes.

In February of 2021, the federal government enacted the Cross-border Movement of Hazardous Waste and Hazardous Recyclable Material Regulations under the CEPA, the Canada Shipping Act, 2001, the Impact Assessment Act, and the Environmental Violations Administrative Monetary Penalties Act. These Regulations came into force on October 31, 2021 and replace the Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations, Interprovincial Movement of Hazardous Waste Regulations, and the PCB Waste Export Regulations, 1996. While the majority of current permitting and movement tracking requirements remain unchanged, the new regulations are intended to provide greater clarity and consistency with respect to definitions, permitting and other regulatory requirements. The new regulations, combined with existing obligations under the Transportation of Dangerous Goods Regulations, have implications for the ongoing shipment of batteries, waste electrical and electronic equipment (WEEE), mercury and certain recyclable wastes.

Negative publicity over the years related to the exportation of waste from Canada into the United States, and recyclable waste (paper, plastic, scrap metal, EEE and hazardous) to China, the Philippines, Vietnam and other countries has highlighted the dependence of Canada on overseas markets for disposal of waste and recycling markets. Canadian recycling facilities could generate more revenue as a result of government pro-recycling and environmentally friendly policies, and an expected increase in local and Canadian corresponding markets could result. While this issue is not an immediate priority for the federal government, further action to reduce global shipments of waste is expected. In the interim, municipalities should continue to monitor where their contractors ship materials for recycling and disposal to minimize its risk and political exposure. Municipalities shipping materials domestically and/or overseas are encouraged to continue to exercise due diligence in their contractual relationships with third party service providers and industry Producer Responsibility Organizations (PROs).

2.8 Mercury Management

As a signatory to the Minamata Convention, a global, legally binding treaty under the auspices of the United Nations Environment Programme, Canada has also been active in reducing mercury exposure on a national level. In 2019, ECCC developed a national

strategy for eliminating production and import of mercury containing lamps and ensuring their safe disposal. Under the strategy, ECCC regularly reports on the use of mercury lamps in Canada including key metrics such as sales, diversion activities, disposal rates and public awareness. Municipalities are encouraged to monitor the disposal of mercury containing lamps in their jurisdiction and support their correct disposal.

2.9 Environmental Aspects of Federal Government Budget 2023

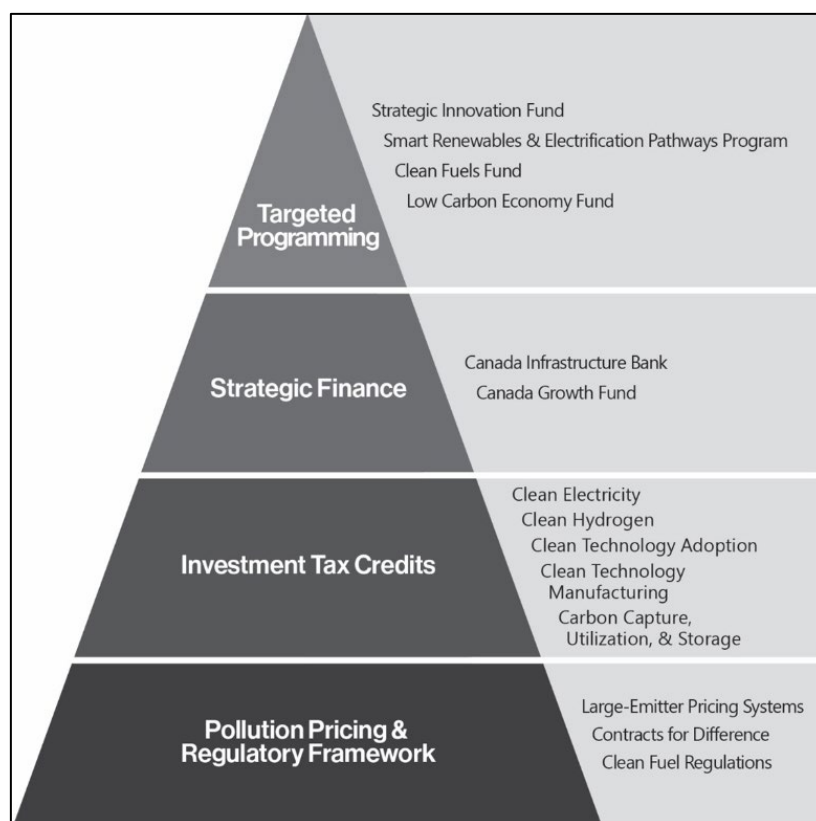
The federal government's Budget 2023: A Made in Canada Plan continues to signal a strong commitment to development of clean energy. Strategic priorities include:⁸

- Electrification
- Clean Energy
- Clean Manufacturing
- Emissions Reduction
- Critical Minerals
- Infrastructure
- Electric Vehicles & Batteries
- Major Projects

The associated strategy and tools included in the budget are outlined in Illustration 2.

⁸ [Budget 2023 – A Made-in-Canada Plan](https://www.budget.canada.ca/2023/pdf/budget-2023-en.pdf) (<https://www.budget.canada.ca/2023/pdf/budget-2023-en.pdf>)

Table 2: Associated Strategy and Tools Supporting Federal 2023 Budget Initiatives



In support of the federal government's goal of achieving net zero emissions by 2050, Budget 2023 proposes to, amongst other things:

- Introduce a 15 per cent refundable tax credit for eligible investments in non emitting electricity generation systems, abated natural gas electricity fired electricity generation, stationary electricity storage systems, and equipment for the transmission of electricity between provinces and territories;
- Provide details on the federal government's Clean Hydrogen Investment Tax Credit announced in the 2022 Fall Economic Statement, with the levels of support varying between 15 and 40 per cent of eligible project costs;
- Provide at least \$20 billion through Canada Infrastructure Bank to support the building of major clean electricity and clean growth infrastructure projects;
- Expand eligibility for the refundable Clean Technology Investment Tax Credit to include eligible geothermal energy systems; and

- Provide \$500 million over 10 years to the Strategic Innovation Fund to attract and spur high quality business investments to support the development and application of clean technologies in Canada.

These tools combined with the \$15 billion new Canada Growth Fund announced in Budget 2022 are intended to help attract private capital to build Canada's clean economy.⁹ Municipalities are encouraged to continue to monitor the federal budget for funding opportunities for climate change initiatives such as landfill gas controls and other GHG emitting assets.

3 Provincial Legislation and Policy

At a provincial level, waste management is regulated, primarily, through the Waste Free Ontario Act (WFOA), Resource Recovery and Circular Economy Act (RRCEA), Waste Diversion Transition Act (WDTA), Environmental Protection Act (EPA), Environmental Assessment Act, Nutrient Management Act, Food and Organic Waste Policy Statement, Dangerous Goods Transportation Act and, to a lesser extent, the Ontario Water Resources Act and Planning Act.

3.1 Ontario's Environmental Protection Act

The Environmental Protection Act (EPA) is the principal pollutant control statute in Ontario. The EPA establishes ministerial authorities, pollutant discharge and waste handling prohibitions, licensing requirements, enforcement mechanisms and protocols and liabilities amongst other things. It sets out broad requirements and should be read in conjunction with its subordinate regulations where application of the Act is outlined in detail. Amongst other things, it regulates the collection, management and disposal of waste including associated approvals. It includes no less than 70 regulations of which several pertain to solid waste including:

- Landfill design standards under O. Reg. 232
- Standards for disposal sites, the management, tracking and disposal of hazardous and liquid industrial waste under O. Reg. 347
- Requirements for landfill gas collection under O. Reg. 217
- Requirements for municipal Blue Box programs under O. Reg. 101/94

⁹ [Canada Growth Fund Inc. Innovative funding to help accelerate Canada's decarbonization strategy](https://cdev.gc.ca/canada-growth-fund-inc/) (https://cdev.gc.ca/canada-growth-fund-inc/)

- Requirements for Industrial, Commercial and Institutional (IC&I) sector to reduce waste and recover resources under 3Rs regulations: O. Reg. 101/94, O. Reg. 101/97, O. Reg. 102/94, O. Reg. 103/94 and O. Reg. 104/94
- Requirements for producers of pharmaceuticals and sharps to establish free collection locations across Ontario for pharmaceuticals and sharps they no longer need under O. Reg. 298/12
- Ontario Compost Quality Standards under O. Reg. 347 and Guidelines for the Production of Compost

Ontario Regulations 101, 102, 103 and 104 are commonly known as the ‘3Rs Regulations’. Chief amongst these is O. Reg. 101/94 which, until recently, outlined the requirements of municipalities to provide Blue Box and leaf and yard waste diversion services. In June 2021, O. Reg. 101/94 was amended to recognize that municipal obligations to provide Blue Box services will cease upon transition of the Blue Box Program as described in additional detail below. O. Reg. 102, 103 and 104 establish waste diversion requirements specific to ICI sectors. They include requirements for local businesses of specified sizes to undertake waste composition studies and develop source separation programs. The Provincial government is responsible for monitoring waste activities within these sectors and enforcing the associated regulations.

Over the last five years, however, the Province of Ontario (the Province) has signalled its intention to pursue broader goals consistent with global trends by setting aspirational goals of achieving zero waste and zero GHG emission from the waste sector and signalling its desire to support development of a circular economy (i.e., a model of production driven by design to eliminate waste and pollution, circulate products and materials at their highest values). These actions have resulted in significant change in the provincial regulatory framework including the introduction and repeal of several pieces of legislation which have had, and will continue to have, a direct impact on municipal and private sector waste management activities.

3.2 The Waste-Free Ontario Act

In 2016, the Province passed the WFOA which repealed the Waste Diversion Act (WDA) and replaced Waste Diversion Ontario with the Resource Productivity and Recovery Authority (RPRA). Notwithstanding the replacement of the WDA by the WFOA, regulations enacted under the WDA remain in force under the WFOA unless otherwise amended or repealed. Of significance, the WFOA includes two scheduled statutes known as the Resource Recovery and Circular Economy Act and Waste Diversion Transition Act. The WFOA was created to enact the details within those two statutes. The WFOA provides further detail on the responsibility of corporation holders

that design, produce and market products or packaging to sell in Ontario, including that of convenience packaging and waste generated from the transportation of goods.

The Province also has broad discretion through the WFOA to create policies that support specific provincial interests outlined in the Act. Obligations described under the Food and Organic Waste Framework's Policy Statement, outlined in further detail below, highlight the fact that the RRCEA can, in some cases, override obligations under other Acts. Municipalities can, as is the case with the noted Policy Statement, be required to amend official plans, zoning by-laws and other by-laws to be consistent with the policy statements contained within the RRCEA.

3.3 The Resource Recovery and Circular Economy Act

The RRCEA replaced the previous EPR model developed under the now repealed WDA with a new Individual Producer Responsibility (IPR) framework for waste diversion and resource recovery. Under an IPR model individual producers (i.e., a person or entity that supplies packaging, paper products or packaging like products comprised of paper, glass, metal or plastic, or a combination thereof to consumers in Ontario) are now individually accountable and financially responsible for their products and packaging once consumers dispose of them. Under EPR models producers collectively share responsibility for meeting financial and regulatory obligations. The RRCEA provides the basis for development of regulations, establishment of performance outcomes and operating standards. Like its predecessor, the aim of the act is to decrease the need for waste disposal through various methods such as recycling programs, extended product life cycle, decreased packaging and reduction of hazardous/toxic substances in products/packaging.

A key element of this legislation is that municipalities no longer have an obligation to manage the designated materials. Municipalities may opt to continue to be involved as service providers to producers and may still need to operate parallel systems to manage related materials from other sources and/or materials that are not captured under the current legislation. Careful consideration of service levels and resident expectations as well as operational and financial implications will all need to be considered as these programs are developed through regulation and evolve over time.

3.4 The Waste Diversion Transition Act

By comparison, the WDTA outlines the legislative framework for winding up and transitioning the existing waste diversion programs for tires, WEEE, household special waste and Blue Box recyclables to the new IPR framework. It also provides guidance for the operation of waste diversion programs, as well as outlines available funding. To

date, the tire program operated by Ontario Tire Stewardship, WEEE program operated by Ontario Electronic Stewardship and the Municipal Hazardous or Special Waste program operated by Stewardship Ontario have been transitioned as follows:

- Tires Regulation came into effect on January 1, 2019;
- Batteries Regulation came into effect on July 1, 2020;
- WEEE Regulation: obligations for information technology, telecommunications, audio-visual (ITT/AV) equipment came into effect on January 1, 2021, obligations for lighting came into effect on January 1, 2023; and
- HSP Regulation came into effect on October 1, 2021.

3.5 Blue Box Transition

Arguably, the most significant legislative change, related to municipal waste management, has been the Province's announcement on June 3, 2021 that it had finalized O. Reg. 391/21 Blue Box (gazetted June 19, 2021). This new regulation triggered the transition of Ontario's Blue Box Program to an IPR model for the management of printed paper and packaging-like products. Under the new model, municipalities will no longer be responsible for provision of Blue Box recycling services and the current funding system will end. Instead, producers will operate the new system to manage this designated waste. The new regulation includes a three year transition of the Blue Box Program to the new model between July of 2023 and year-end 2025 inclusive.

The regulation will have direct impacts on municipal waste management services. Municipalities will need to prepare to, amongst other things, break or revise collection and processing contracts for existing Blue Box recycling programs and potentially configure how they collect the waste they remain responsible for and effectively communicate the changes to residents. It is also important to understand that producers have not made their post transition system public and further change is expected to optimize program costs, standardize service levels, and improve diversion rates.

3.6 Ontario's Food and Organic Waste Framework

Ontario's Food and Organic Waste Framework (Framework) was developed as a key component of the Province's Strategy for a Waste Free Ontario. The Framework is structured in two parts including the Food and Organic Waste Framework Action Plan (Action Plan), and the Food and Organic Waste Policy Statement (Policy Statement). As implied by its title, the Action Plan lays out a series of 17 proposed initiatives intended to:

- Reduce food and organic waste;
- Recover resources from food and organic waste;
- Support resource recovery infrastructure; and
- Promote beneficial uses of recovered organic resources.

The majority of the action items focused on immediate opportunities (i.e., to be implemented between 2018 and 2020) to work with federal and provincial partners to facilitate the goals of the framework.

Longer term objectives of significance included commitments to:

- amend the 3Rs Regulations to include food and organic waste to increase recovery from the IC&I sector;
- ban food and organic waste from disposal sites;
- support recovery from multi-unit residential buildings;
- promote on and off farm, end use soil amendments from recovered organic resources; and
- support development of renewable natural gas including consideration for linkages to food and organic waste.

The associated Policy Statement issued pursuant to Section 11 of the RRCEA, 2016, supports the provincial vision of a circular economy and is an important tool to help move the Province towards its aspirational climate change goals. Section 2 of the Policy Statement sets out specific obligations and targets for the diversion of food and organic waste from various persons or entities including certain municipalities, industrial and commercial facilities, multi unit residential buildings, educational institutions, and hospitals. Of particular note, policy 4.1 requires:

Municipalities that, as of the effective date, provide curbside collection of source separated food and organic waste shall maintain or expand these services to ensure residents have access to convenient and accessible collection services.

- i. In addition to curbside collection of source separated food and organic waste food and organic waste, other collection methods, such as directing disposal streams to mixed waste processing, may be used to support collection of additional food and organic waste.

Moreover, municipalities subject to Policy 4.1 are required to achieve a target of 70 per cent waste reduction and resource recovery of food and organic waste generated by single family dwellings in urban settlement areas by 2023. The Policy Statement requires that the target be achieved through waste reduction and resource recovery activities relating to one or more of the following:

- i. The prevention or reduction of food and organic waste at the source;
- ii. The safe rescue and redirection of surplus food before it becomes waste; and
- iii. The recovery of food and organic waste to develop end products for a beneficial use.

The Policy Statement also encourages municipalities to support residential resource recovery through other means by requiring that:

- i. Municipalities and other planning authorities should pursue regional approaches to facilitate the efficient and effective collection of food and organic waste from urban settlement areas;
- ii. Municipalities, working with municipal associations, shall provide promotion and education materials to residents that support and increase participation in resource recovery efforts available to residents of their community;
- iii. Municipalities and other planning authorities should ensure that their official plans, zoning by-laws, plan of subdivision approvals and site plan approvals support the resource recovery of food and organic waste for their residents; and
- iv. Municipalities shall develop and implement their own promotion and education programs aimed at preventing food waste. The focus of the education program should primarily be on reaching consumers directly through information that will assist consumers in preventing and reducing food waste.

It is also important to note that Section 14 of the RRCEA requires that municipalities and other planning authorities ensure that official plans are consistent with the Policy Statement with amendment of official plans occurring within the next scheduled update. Municipal zoning by-laws must also be amended within three years after the related official plan amendment. By-laws made under other acts related to waste reduction and resource recovery, as well as relevant prescribed instruments, must also be made consistent with the Policy Statement within two years of the Policy Statement coming into effect. The Policy Statement places considerable emphasis on the development of supporting infrastructure and highlights the role of municipalities in planning approvals and infrastructure development.

The Policy Statement also places specific expectations of multi unit property owners and local businesses. Policy 4.10 states that: “Multi-unit residential buildings shall provide collection of food and organic waste to their residents.”

Additionally, Policy 2.1 of the Policy Statement requires that such buildings achieve a “50 per cent waste reduction and resource recovery of food and organic waste generated at the building by 2025.” While Policy 4.11 sets a preference for collection of source separated food and organic waste for such dwellings, it does permit alternatives that can be demonstrated to achieve the waste reduction and recovery targets efficiently and effectively. Multi unit residential buildings are also encouraged to implement best practices that support convenient access to resource recovery efforts. At a minimum, they are required to provide promotion and education materials to residents to support and increase participation in resource recovery efforts.

Similarly, local businesses with industrial and commercial sectors have specific obligations including:

- i. All retail shopping establishments, retail shopping complexes, office buildings, restaurants, hotels and motels and large manufacturing establishments that generate 300 kilograms or more of food and organic waste per week and are subject to O.Reg 103/94 shall source separate food and organic waste and achieve a 70 per cent food and organic waste reduction and resource recovery target within the building by 2025;
- ii. All retail shopping establishments, retail shopping complexes, office buildings, restaurants, hotels and motels and large manufacturing establishments that generate 300 kilograms or more of food and organic waste per week but are not subject to O. Reg 103/94 shall source separate food and organic waste and achieve a 50 per cent food and organic waste reduction and resource recovery target within the building by 2025;
- iii. All retail shopping establishments, retail shopping complexes, office buildings, restaurants, hotels and motels, and large manufacturing establishments that generate less than 300 kilograms of food and organic waste per week should source separate food and organic waste; and
- iv. All retail shopping establishments, retail shopping complexes, office buildings, restaurants, hotels and motels, and large manufacturing establishments shall provide users of these facilities promotion and education materials that support and increase participation in resource recovery efforts;
- v. Retail shopping establishments and retail shopping complexes that generate food waste, restaurants and food processors that are large manufacturing

establishments shall develop and implement their own education programs aimed at preventing and reducing consumer food waste. The focus of the promotion and education program should primarily be on reaching consumers directly through information that will assist consumers in preventing and reducing food waste; and

- vi. Retail shopping establishments and retail shopping complexes that generate food waste, hotels and motels and food processors that are large manufacturing establishments shall, in partnership with their industry associations, provide sector-based promotion and education to promote operational best practices that can prevent and reduce food waste; and
- vii. Retail shopping establishments, retail shopping complexes, restaurants, hotels and motels and food processors that are large manufacturing establishments should:
 - a. Develop relationships or partnerships with food rescue organizations in order to facilitate the safe distribution of surplus food in a timely and effective manner.
 - b. Explore the use of technology to help improve logistics and safely direct surplus food to distribution points more effectively.

Additionally, educational institutions and hospitals, subject to O. Reg. 103/94 under the EPA, that generate 150 kilograms or more of food and organic waste per week shall source separate food and organic waste. They must also achieve a 70 per cent food and organic waste reduction and recovery target by 2025 within their facility.

The Policy Statement goes on to set expectations of operators of resource recovery systems. It requires them to take steps to minimize contamination, maximize recovery including energy capture and promote effective and efficient resource recovery. The Policy Statement also signals an intent to expand capture of compostable packaging and encourages the involvement of all parties to engage in this growing field of packaging development.

It should be noted that the Policy Statement is not a regulation but can be enforced through the provisions of the RRCEA, 2016.

3.7 The ‘Made-in-Ontario Environment Plan’

The Made-in-Ontario Environment Plan was announced by the Province in 2018 to supersede the former government’s Waste-Free Ontario Strategy. The plan outlined the government’s overarching approach to protecting the Province’s land, air and water, lower GHG emissions, and ensuring a safe, healthy, and clean environment. In addition

to supporting the goals of achieving zero waste and GHG emissions reduction, the plan places particular emphasis on moving to a circular economy, addressing litter, reducing plastic waste and preparing for climate change. Since its release, the government has taken steps to, amongst other things, update the Strategy for a Waste-Free Ontario. In December 2022 (updated March 1, 2023) the government published a progress report on the Strategy for a Waste-Free Ontario: Building the Circular Economy, as required under the RRCEA. The progress report outlines much of the government's progress to date on development of EPR strategies for designated waste and work to support development of a circular economy and food recovery infrastructure in Ontario through the Surplus Food Redistribution Infrastructure program.

4 Risk Assessment and Recommendations

Long term planning of waste management services requires a good understanding of the regulatory compliance and long-term policy trends. The following section summarizes implications of the previously noted issues to Niagara Region.

4.1 Implications of Federal Initiatives

Further action by the federal government to pursue its climate change, circular economy and plastics reduction initiatives is expected to have broad implications to Niagara Region's waste management plans. Local businesses and municipalities can be expected to face mounting pressure to address plastic packaging waste, show action in developing a circular economy and progress towards achieving net zero emissions.

The 2023 federal budget highlights the government's ongoing commitment to support for various climate change mitigation and adaptation initiatives. It is possible that several of the initiatives under consideration in Niagara Region's WMSP for future years may be eligible for funding under one or more federal programs. It is recommended that the WMSP make note of these priorities and commit to continued exploration of new opportunities to divert waste and support its corporate policies. Particular attention will need to be paid to opportunities to reduce Greenhouse Gas (GHG) emissions from its waste management operations (e.g., maximizing emissions capture from landfill and composting operations, moving Niagara Region's collection fleet towards electrical and/or alternative fuels).

One of the most immediate impacts of the federal initiatives outlined above is the implications of the Clean Fuel Regulations on municipal fleets and the costs of waste management operations. Continued action by the federal government to reduce emissions from landfills and waste management systems (e.g., anaerobic digestion and composting operations) can also be anticipated. Municipalities will need to consider

emissions profiles from such operations in their climate change and waste management planning.

The federal government's efforts, and those of the global community, to adopt strategies to address climate change resilience and address plastic waste are expected to have broader long term implications for municipalities. Many municipalities, like Niagara Region, are already building climate change resilience strategies into their corporate policies. Municipalities are encouraged to continue closely monitoring trends in packaging design to better understand the implications to their waste management services and long term needs and look at ways to reduce their dependency on plastics in their operations. Changes to procurement by-laws and purchasing practices and public education programs may need to be reviewed and amended as required.

4.2 Implications of Provincial Initiatives

At a provincial level, the impending transition of the provincial Blue Box Program remains top of mind for most municipalities and other affected parties. During the three year transition period municipalities will need to, amongst other things:

- Assess and address service level impacts on residents and local businesses;
- Rethink collection services to account for elimination of Blue Box materials;
- Assess the impact on their diversion strategies;
- Consider how they will communicate the changes to residents and local businesses;
- Consider the final disposition of associated program assets;
- Review and plan for the implications to capital and operating budgets;
- Timing for the wind down of residential services; and
- Review their policies, procedures, by-laws and other enforcement strategies.

Of equal, and perhaps greater, importance is the implications of the Food and Organic Waste Framework on Niagara Region's waste management system. The broad multi sector requirements of the Framework and associated Policy Statement are far reaching. In addition to the obligations that directly affect municipalities, many are also considering the role(s) they might play in supporting local businesses and institutions in addressing their obligations. This will be particularly true if the Province pursues their plans to ban organics from landfill as proposed. Municipalities, like Niagara Region, will need to amend their landfill and waste collection by-laws, develop supporting education

and enforcement programs and potentially develop waste diversion strategies to support affected customers.

Fortunately, Niagara Region has been proactive in responding to legislative changes and is well positioned to address upcoming changes. Niagara Region has proactively earmarked funds in future budgets to comply with known legislative obligations related to landfill gas regulations. Ongoing monitoring of federal and provincial obligations related to landfill operations is, however, recommended in light of the two governments' focus on this GHG source. The WMSP process will provide an ideal opportunity to solicit public input into discussions of service levels related to transition of Niagara Region's Blue Box program.

Consideration should also be given to soliciting public feedback on the need for Niagara Region to provide services associated with other designated materials, such as tires and electronics that are managed through the new IPR programs. There are also recognized performance issues with many of the current programs such as inability to meet diversion targets or accessibility issues. The new Blue Box regulation also fails to address provision of services to local businesses and other agencies. In many instances municipalities have had to supplement producer run programs to address these issues. Municipalities are encouraged to support advocacy efforts through appropriate industry and municipal agencies to encourage the provincial government to address these issues.

As noted above, the Region will need to examine its official plan and zoning by-laws to ensure they are consistent with the Food and Organic Waste Framework Policy Statement. A review of Niagara Region's waste collection by-law and other potential enforcement strategies is also recommended to ensure Niagara Region can address challenges arising from the new IPR programs. Consideration should also be given to reviewing Niagara Region's site plan approval process to ensure they are capable of accommodating the impending changes associated with these new programs. For example, consideration will need to be given to how organics would be managed in multi residential environments if they are banned from landfill. Similarly, planning requirements may need to be considered to ensure the effective separation of residential and commercial Blue Box recyclables in new mixed use (i.e., residential and commercial) developments.

In response, other municipalities are actively exploring initiatives to inventory and reduce emissions associated with their waste management operations as a key element of their corporate sustainability strategies. Several are considering the feasibility of producing alternative fuels from landfill gas collection systems and anaerobic digestion systems for use in their fleets in support of their circular economy and climate change

strategies. Others are considering electrification of collection fleets in response to the federal legislation. This change in technology will need to be studied and approached with caution as this is still considered an emerging technology.

Consideration should also be given at the earliest opportunity to amending Niagara Region's official plan, zoning, site approval guidelines and waste management by-laws to ensure they are reflective of the Policy Statement and new IPR related initiatives. Similarly, it is recognized that amendments to Niagara Region's facility environmental compliance approvals may be required if the Province pursues initiatives such as banning organic waste.

5 Conclusions

Further change is expected at a federal and provincial level as both senior governments seek to advance their waste management and climate change related goals. However, at this time there are no other known regulatory obligations that the Region will need to prepare for that have not already been addressed through its current initiatives. As Niagara Region develops its WMSP, consideration should be given to the potential role, if any, Niagara Region could play in supporting local businesses as they seek to comply with new legislation and policy requirements related to organics diversion and management of packaging waste. Niagara Region may also consider development of additional initiatives in support of the senior government's waste management and climate change goals as part of its corporate climate change activities and procurement practices. Municipalities are encouraged to review available resources such as the CCME, A Roadmap to Strengthen the Management of Single-use and Disposable Plastics and consider their applicability to their own operations. Review and consideration of available resources such as active involvement of Niagara Region in advocating for continued action by both the federal and provincial governments to address issues such as standards for bio plastics and biodegradable packaging and deficiencies in EPR programs is also recommended.