Environment and Climate Review

The Waste Reduction Roadmap for 2026 - 2030 (Roadmap '30) is a comprehensive and forward-looking implementation work plan designed to reduce 20 per cent of residential waste per person below the 2019 baseline by 2044. Roadmap '30 introduces 14 actions organized in five focus areas. These actions if implemented through identified programs, projects and outreach activities will:

- Support environmental sustainability goals through the principles of Circular Economy.
- Support climate change mitigation by avoiding the landfilling of food waste, which would reduce the production of greenhouse gasses (GHG) such as methane at the landfill and subsequently reducing per person GHG emissions envisioned in the Greener as We Grow goal of The City Plan.

The table below gives more details on these two areas of interactions between the City Plan directives and the Roadmap '30 and indicates additional considerations to add robustness where applicable.

Support environmental sustainability goals through the principles of Circular Economy	
Five actions on ensuring sharing and donating of goods is easier for Edmontonians.	One key principle of a circular economy is to extend a product's lifecycle as long as possible by keeping the products and materials in use. This reduces resource extraction for processing/manufacturing to replace these products, which also reduces the consumption of energy for manufacturing and distribution.[1] Environmental sustainability is achieved through minimized extraction and increased stewardship through reusing the various everyday consumer goods instead of discarding them. The actions identified in Roadmap '30 under the focus area of 'make sharing and donating easier' support this principle. There are still policy gaps that impede full reuse and donation, especially surrounding the need for monitoring sites of donation and for quality control to reduce littering. Investing and supporting policies that can optimize reuse and donation will facilitate even greater changes that will advance waste reduction for

[1]The National Zero Waste Council (An Initiative of Metro Vancouver). (2021). Waste Prevention: The Environmental and Economic Benefits for Canada. Accessed from: https://nzwc.ca/Documents/NZWC-WastePreventionReport.pdf

	Edmontonians. Roadmap '30 could also explore how proposed actions in this focus area can create economic opportunities for Edmontonians, like job creation. While waste services are a core municipal function, scalable waste reduction requires aligning with citizen behavior change and pro-environmental sentiments. Research in waste reduction has demonstrated that economic incentives promote pro-environmental behaviors.[2] Additional analysis could be completed on job creation as an economic incentive that promotes greater waste reduction.
Six actions to encourage residents and businesses to choose reusable foodware; support waste reduction at public events; and on reducing waste from City facilities and operations.	Waste production is directly related to an individual's consumption of goods and services, as indicated by the tracked and calculated waste metrics per person. Investing and supporting programming, projects and awareness of waste in public spaces especially during events support environmental sustainability and stewardship efforts related to pollution reduction as well. Event venues may have well supplied waste disposal and recycling receptacles, but waste may still be discarded and eventually cause litter and environmental impacts such as affecting wildlife health. For instance, if animals accidentally get stuck in plastic food containers that are discarded, they can suffer from overheating, suffocation, dehydration, starvation and may die.[3] Waste pollution in riverine systems such as the North Saskatchewan River can have long term impacts even after the mismanagement of waste is stopped, thus requiring ongoing local upstream interventions to reduce pollution.[4] Roadmap '30 has considered well-rounded multi-prong

[2]Wilson BM, Delmas MA and Rajagopal D.(2025). Behavioral interventions for waste reduction: a systematic review of experimental studies. Front. Psychol. 16:1561467. doi: 10.3389/fpsyg.2025.1561467

[3]The Detrimental Impacts of Plastic Pollution on Animals. (May 2022). Article from Earth.Org. Accessed from: https://earth.org/plastic-pollution-animals/

[4]United Nations Environmental Program (UNEP).(No Date).Technical Highlights: Riverine Plastic Pollution. Accessed from:https://www.unep.org/interactives/wwqa/technical-highlights/riverine-plastic-pollution#:~:text=The%20observed%20amounts%20of%20plastic,plastic%20waste%20(Jambeck%20et%20al.

	options for reducing waste in public spaces and at events, which would minimize the potential of causing environmental pollution. More so, Roadmap '30 highlights areas where the City can further reduce waste in its facilities and operations, demonstrating how it acts as a sustainable consumer of goods and services. All of the actions in this focus area should be implemented to accelerate waste reduction in practice.
One action on increasing grant offerings to support community waste reduction efforts.	The City has a successful Waste Reduction and Reuse Grant[5] for individuals and organizations. The Community Clean Up Grant supports event organizers and community leagues to better manage waste and to support waste reduction efforts as well. The Roadmap '30 identified more opportunities to provide grants for waste prevention, supporting programs that develop training materials for sharing, swapping, repairing and donating, as well as in-person education, all of which will extend the use of materials and avoid premature discarding of useful items. Ensuring grants opportunities are increased will accelerate efforts to prevent waste and support circular economy principles.[1]
Climate change mitigation to reduce GHG emissions from landfill	
Two actions to prevent food waste.	The 2021 National Inventory of GHG sinks and sources in Canada indicate that methane from landfills contributes up to 23 per cent of methane emissions in Canada.[6] Managing methane across Canada is important to meet the Global Methane Pledge that Canada supports. The pledge aims to reduce global methane emissions by 30

[5] City of Edmonton. (No date). Waste Reduction. Accessed from: https://www.edmonton.ca/programs_services/garbage_waste/waste-reduction#anchor120664

[6]Government of Canada (2022). Reducing methane emissions from Canada's municipal solid waste landfills: Discussion paper.

	per cent below 2020 levels by 2030.[6] The Annual Carbon Budget update to the 2023 - 26 Carbon Budget[7] indicates that efforts which are able to reduce a carbon footprint with GHG emissions upwards of 10,000 tonnes CO2e are classified as high impact and should be considered as important actions to reduce the current (2024 assessment) Community GHG emissions of 15.2 million tonnes of CO2e. Avoidable food waste is everything we could eat that is discarded instead. From 2022-24, Edmontonians disposed of an average of 47,000 tonnes of avoidable food waste, with 32,000 tonnes being sent to landfill and 14,000 tonnes sent for composting. This avoidable food waste represents approximately 26,000 tonnes of CO2e[8] annually, showing the opportunity to reduce avoidable food waste are of high impact in terms of GHG management. Facilitating actions that focus on reducing avoidable food waste, which if landfilled decomposes in a state of limited oxygen to produce methane, support climate change mitigation and help Edmontonians transition to a low-carbon future and reach carbon neutrality by 2050.

Linkages to the City Plan:
1.4.1.4 Avoid waste at its source, improve diversion rates and reuse and recover resources.
5.3.1.6 Partner and strategize to reduce waste from the food system.

[7]City of Edmonton. (December 1, 2025). Council Report - FCS03160: Fall 2025 Carbon Budget Fall 2025 Update.
[8] These estimates were prepared by using the US EPA's Emissions Factor Hub and estimated weight of avoidable food waste generated in Edmonton from 2022-24.