Section 04

Waste Management

Currently in Edina:

1.7%
Of City-Wide GHG emissions in 2019

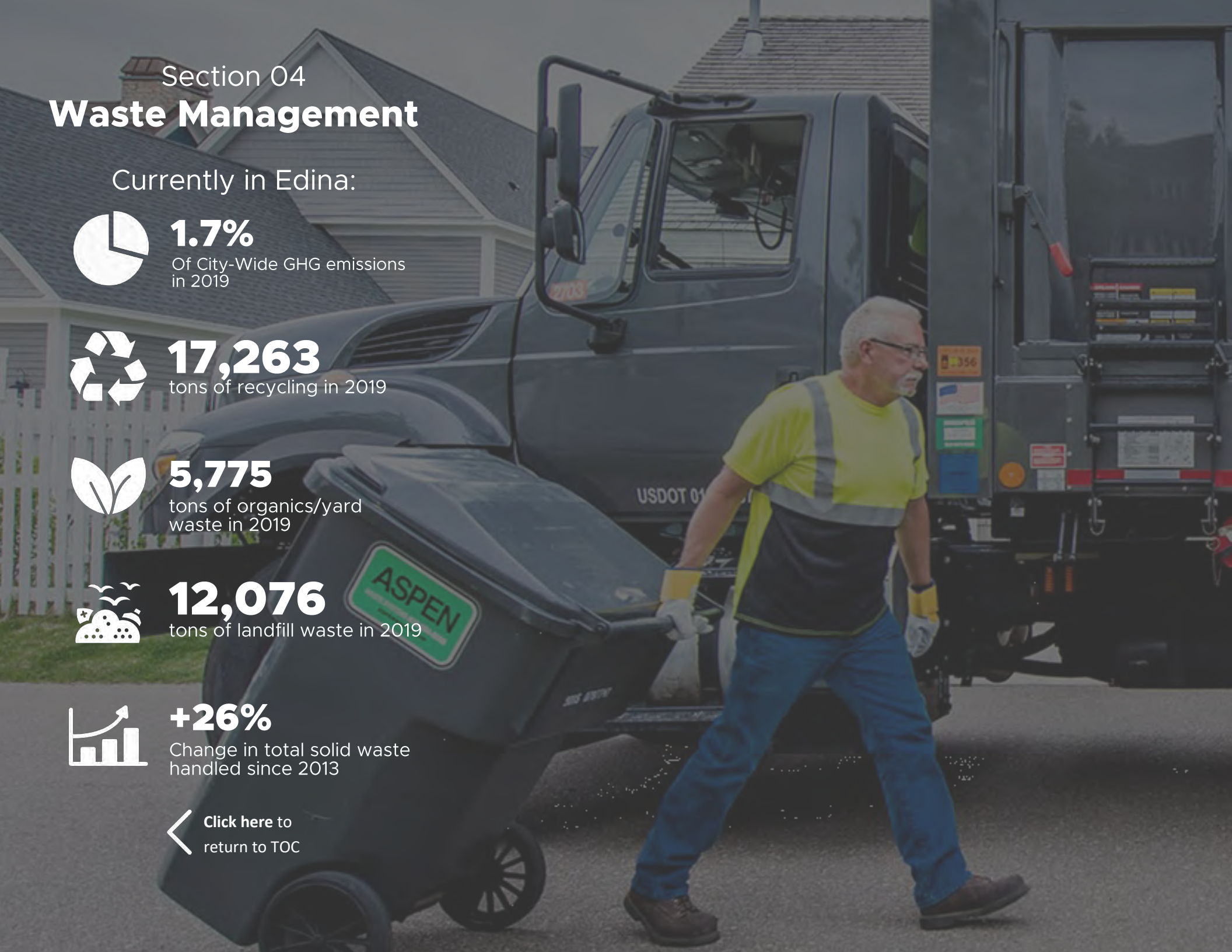
17,263
tons of recycling in 2019

5,775
tons of organics/yard waste in 2019

12,076
tons of landfill waste in 2019

+26%
Change in total solid waste handled since 2013

Click here to return to TOC



Waste Management

Citywide municipal solid waste (MSW) handled has been estimated based on the city's pro-rata share of Hennepin County-wide solid waste collected. In 2019, citywide MSW totaled 54,041 tons. Of the MSW handled an estimated 17,263 tons (31.9% of total) were recycled, 5,775 tons (10.7%) were organics collection, 18,927 tons (35%) were incinerated to produce energy—also known as refuse derived fuel (RDF) - and the remaining 12,076 tons (22.3%) were landfilled.

Edina Solid Waste Per Capita Trends

Based on Hennepin County and State of Minnesota data, total community-wide MSW handled in 2013 was equivalent to 4.83 pounds per person per day with landfilled waste comprising 1.2 pounds (24.8%). By 2019 the community-wide MSW handled increased to 5.6 pounds per person per day due in large part to increased organics and recycling collection, however, landfilled waste share of the total increased to 1.25 pounds per person per day. Though this 2019 landfilled waste share is a lower percentage of the total (22.3% down from 34.8%), the estimated increase in landfilled volume per person indicates a potential trend resulting in increased GHG emissions.

Equity Considerations

- Accessibility to recycling and composting programs may not be equally and readily available to all community residents and may also be impacted by other participation -related barriers, including awareness of programs, user fees, accessibility based on housing type, and language barriers.
- Populations that are situated very close to the landfill or composting facility may experience nuisance issues like bad odors and potential health issues unless mitigation actions are implemented.

Sector Goals

	Total MSW Handled	Organics Diversion	Recycling
			
Today[9]	54,041tons	5,775tons	17,263tons
2030 Targets	**51,000**tons	**10,250**tons	**19,000**tons

Strategies

The strategies on the following pages guide our path in meeting our climate goals for the Waste Management sector. Each strategy is supported by a series of detailed actions to be explored and undertaken in order to carry out the vision and goals.

See Section 10 Implementation for all supporting actions.

Waste Management

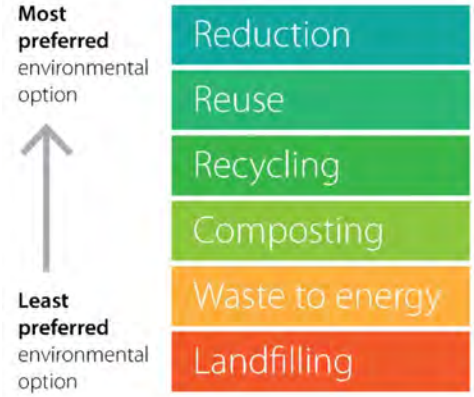
Strategy WM 1

Decrease total per capita municipal solid waste handled 5% by 2030.

The MPCA has established a waste management hierarchy based on the overall environmental impacts of each approach[1]. The hierarchy prioritizes waste reduction, reuse, recycling, and organics recovery. Simply put, the less waste we generate by reducing the materials we consume and discard, the less energy is consumed in making those materials and the less greenhouse gas emissions are generated at the landfill. Homes and businesses that reduce their waste can save hundreds of dollars annually[2,3,4]. Continuing to establish policies and operational refinements to advance meaningful landfill diversion and beneficial use of waste streams represents a significant environmental opportunity for Edina.

See Section 10 Implementation for supporting actions.

State of Minnesota Waste Management Hierarchy

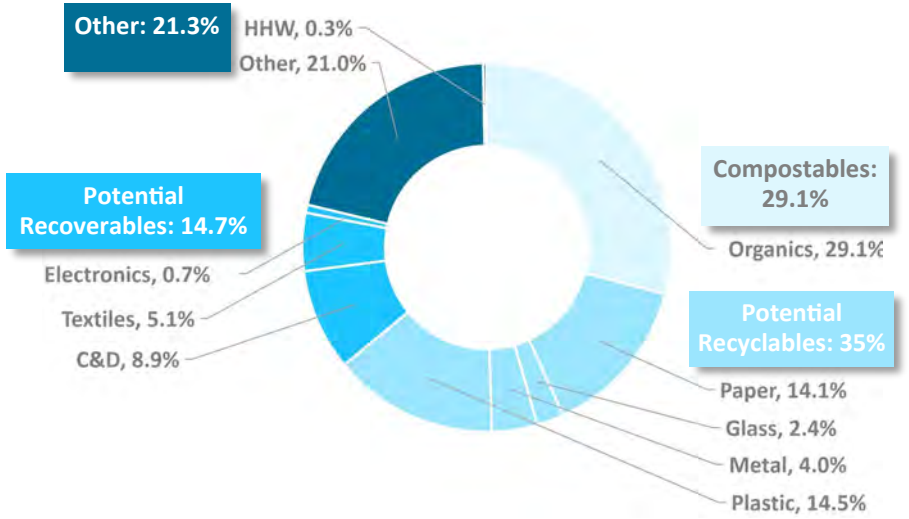


SMSC Organics Recycling Facility , processing location for organics collected in Hennepin County

Waste Management

Hennepin County Waste Characterization Study

In 2015, Hennepin County initiated a comprehensive, quantitative evaluation to understand the make up of the current waste stream (materials not diverted through recycling or organics collection) and how it may be possible to achieve the 75% state-mandated diversion goal. In the graph to the left, the findings of the composition of the waste characterization study are shown. This graph groups the classifications of waste defined in the 2015 study into broad categories based on their diversion potential including: Compostables, Potential Recyclables, Potential Recoverables, and Other.



Waste Diversion Potential

Based on the Hennepin County Waste Characterization Study, there may be waste diversion potential of up to 78.7% in the current landfilled materials (idealized maximum). To the right is the breakdown of the estimated total maximum potential waste diversion (excluding waste reduction).

The three strategies below seek to capture more of this potential.

Strategy WM 2

Achieve 70% organics landfill waste diversion by 2030.

(from 5,775 tons to 10,250 tons diverted)

Decomposition of organic compounds is the largest generator of methane in landfills, and at nearly 1/3rd of mixed waste collection in the County it represents a significant opportunity for Edina[5,6].

See Section 10 Implementation for supporting actions.

Strategy WM 3

Increase recycling from 32% to 39% of total MSW handled by 2030.

(from 17,263 tons to 19,000 tons diverted)

Edina residents have a high participation rate for recycling. However, the Hennepin County waste sort indicates opportunities for increased capture of paper, plastics, and aluminum[6].

See Section 10 Implementation for supporting actions.

Strategy WM 4

Increase diversion of potential recoverables by 15% by 2030.

(decreasing from 14.7% to 12.5% of city waste)

Diversion of potentially recoverable materials, particularly electronics and textiles offers an opportunity to reduce pollution, energy, and water consumption through the supply chain serving Edina.

See Section 10 Implementation for supporting actions.

Waste Management

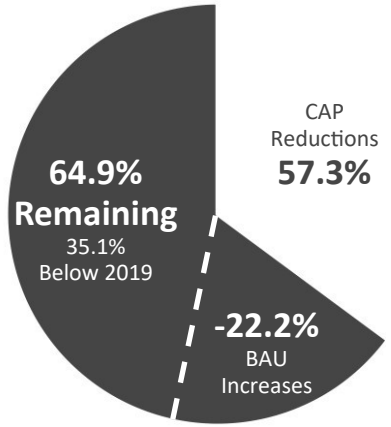
Planned Sector Emission Reductions Through 2030

The strategies and actions included in this section of the Climate Action Plan are projected to reduce the city's annual GHG emissions by 6,900 metric tons (MT) annually by 2030 - a 57.3% reduction over 2019 levels. Changes in business-as-usual impacts driven by projected population growth, however, are anticipated to *increase* 2,669 metric tons. The result is a total community wide Waste Management sector reduction of 35.1% when compared to 2019 levels.

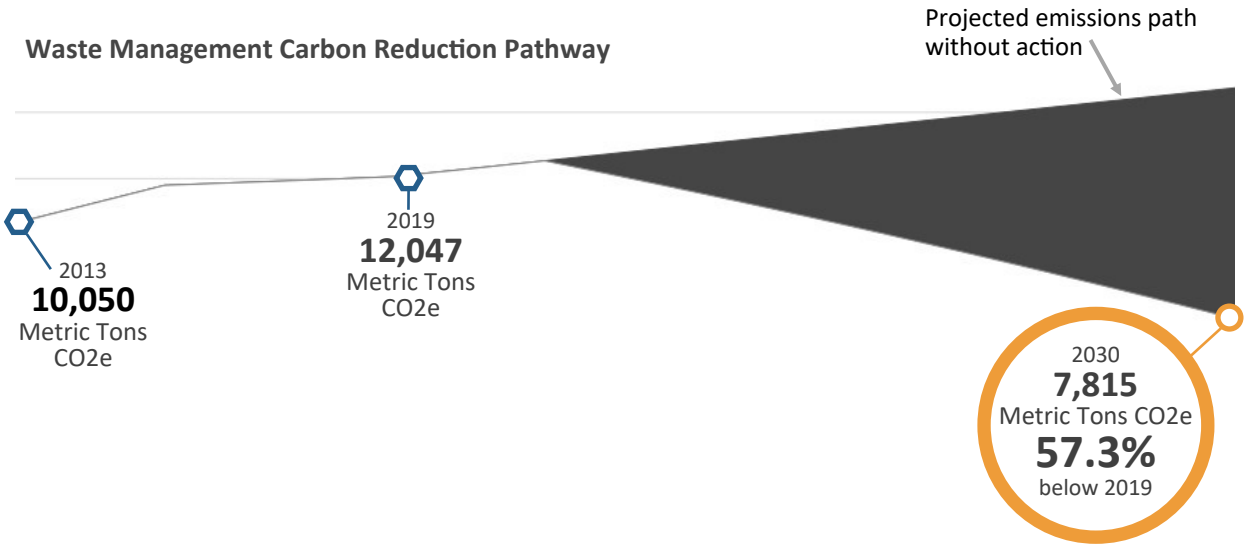
When compared to 2019 emissions, this is equivalent to eliminating 1,501 cars from the road, or **135 million** cubic feet of man-made greenhouse gas atmosphere annually by 2030.

Sector Emissions Reduction below 2019 by 2030

The total change to sector emissions include CAP Plan reductions and business-as-usual (BAU) emission changes as follows:



Waste Management Carbon Reduction Pathway



Estimated Cumulative Economic Savings

Implementing many of the measures in this plan, such as reduction of food and material waste, and overall consumption, can save money for the community. The estimated community savings of the goals for this section include:

Residential Organics/Food Waste Diversion Savings

$21,219,114 +
$951
per household

Commercial/Industrial Waste Reduction Savings

$5,828,145 =
$138
per job

Estimated Cumulative Savings Potential*

$27,047,258*
$511
per capita

* See Appendix for Cumulative Potential Cost Savings Assumptions and data sources.