Organics Opportunities Report - Frequently Asked Questions

What is the City's waste diversion goal? How are we doing?

The community set a target of diverting 70% of our waste from the landfill. This means that 70% of our waste will be reused, recycled or composted. In 2016, 22% of the waste handled by the City was diverted from disposal through programs such as the single- and multi-unit residential recycling programs, the subscription Green Cart food and yard waste collection program, the recycling and compost depots, and the Household Hazardous Waste (HHW) drop-off events.

Why is it important that we divert waste?

Our landfill is filling up. Every year we are adding almost 100,000 tonnes of garbage.

Waste diversion directs garbage away from landfills through reuse, recycling, or composting. Diverting waste away from landfills prevents pollution that can harm our health and the environment.

A successful waste diversion program is necessary to extend the life of the landfill. A funding increase is needed in order to sustainably fund waste management, including appropriate transfers to the Landfill Replacement Reserve. The costs to close the existing landfill and establish a new landfill are estimated at $26 million and $100 million respectively.

How much waste could we potential divert with the right programs and policies?

More than 75% could be diverted from the landfill if new programs for diversion are made available.

Why is the City of Saskatoon looking at expanding its organics programs and policies to reduce the amount of food and yard waste going to the landfill?

When organic materials (food and yard waste) end up in the landfill, they are mixed with garbage and quickly buried in an airless environment. But because organics need air to decompose properly, they do not turn into soil or compost. Instead, they release methane gas and create garbage fluids, called leachate. Methane is a greenhouse gas much more potent than carbon dioxide and leachate needs to be managed under strict environmental regulations. Although some of the methane is captured as landfill gas and converted into energy, the system at our landfill only captures approx. 70% of the methane produced by 1/3 of the landfill, while the remainder is released into our atmosphere.

By placing items that are not garbage into the landfill, we fill it up unnecessarily. A new landfill would be very expensive to build and operate, challenging to locate, and would have a large environmental impact. To prevent the need for a new landfill, we all need to do our part to put waste in the right place.

Organic material, when processed properly, can add value by creating compost and/or energy. Valuable resources such as organics do not belong in the landfill.

How much organic material is currently being landfilled?

32% of Saskatoon's total landfilled waste is organics (food and yard waste); this includes 36,600 tonnes from residential sources and 41,700 tonnes from Industrial, Institutional, or Commercial Sources.

58% of single-family residential garbage consists of organics (food and yard waste).

What does an organics program look like? How could it be implemented?

No decisions have been made. The City is exploring numerous options for the collection and processing of food and yard waste, based on feasibility, effectiveness, and best practices from other jurisdictions.

The options currently being considered for collections include:

1. Direct self-haul whereby residents and businesses drop off their organic waste at a facility; or
2. Contracted collection whereby organic waste is collected from the curb, using either bags or carts.

The options currently being considered for processing include:

1. Passively aerated and turned composting;
2. Aerated composting; or
3. Anaerobic digestion and thermal systems.

Depending on the processing option selected, materials may need to be separated by either the source (i.e. by residents, businesses) or by the processor.

A full description and analysis is provided in the Organics Opportunities Report – Attachment 4 – Collections and Processing Options.

How do residents feel about an organics program?

According to preliminary results from the Waste and Recycling survey completed by Insightrix in July 2017, 79% of residents somewhat or strongly support a city-wide food and yard waste collection for all households.

What do you mean by 'organics'?

The term 'organics' is used to describe materials that breakdown naturally through decomposition and can be made into compost, such as food and yard waste. Food does not have to be grown organically in order to be consider an organic waste material.

What other municipalities have organics programs?

Organics programs exist in most cities across Canada. Saskatoon is one of only two cities with no city-wide curbside collection program for yard waste and one of only five without a food waste collection program (out of 30 Canadian cities with populations over 150,000).

Saskatoon and Regina are the only cities without a city-wide curbside yard waste collection program. Saskatoon, Regina, London, Winnipeg, and Quebec City do not have a city-wide curbside food waste collection program.

Saskatoon is the only city in Canada with a subscription program for food and yard waste.

What if we just started with an organics pilot program?

Many municipalities proceed with a pilot in advance of implementing a city-wide Curbside Organics Program. For instance, Calgary, Red Deer, and Region of Waterloo are three recent programs that conducted pilots in advance of a city-wide program.

A pilot, or phased approach, could help build support for the program as it would allow time for residents to get used to the idea if coupled with a communications program. Additionally, a pilot would help build confidence in an organics business plan, program options, and feasibility. Benefits of a pilot allow the City to test operating assumptions (such as route capacity); better understand attitudes/ behaviours; and test different cart options and technology. The major drawback of a pilot is that it's time and resource intensive, although funding options may be available to offset those costs.

Organics Opportunities Report – Attachment 5 provides a discussion on the necessity of a pilot project in Saskatoon.

I already home compost. Why isn't that enough?

Backyard composting is a cost-effective method of reducing waste. Most communities promote home composting, while also providing curbside services to achieve efficient and larger-scale waste diversion. Saskatoon provides home composting support for residents which includes $20 rebates for compost bins as well as the Compost Coach training and education program which includes free workshops, education at trade shows and events, home visits, a compost hotline, online information, videos, and marketing to promote composting. Any city-wide collection program will need to consider the impact it may have on home composters.

According to the Waste and Recycling Survey, 21% of people say they compost their yard waste and 24% say they compost their food waste at home.

If we have a city-wide organics program will the City stop supporting home composting?

No. Promoting home composting will continue to add value to the municipality and community.

Home composting also generates value to the participant. A resident can create up to one yard of compost per year (for free) through home composting. This has a retail value of approximately $150 if the resident makes use of this valuable resource in their own landscaping.

How much waste can be diverted through home composting and how does that compare to a city-wide collections program?

Backyard composting has not been shown to significantly increase waste diversion rates on a community scale, as most people do not choose to voluntarily participate in home composting (less than 25% in Saskatoon in 2017). Home composting can also be limited in terms of the amounts and types of materials that can be processed, as compared to city-wide organics programs. Even successful home composting programs are commonly partnered with curbside collection programs in other jurisdictions.

Don't we have a subscription-based Green Cart Program? Isn't that enough?

The Green Cart Program has grown significantly since 2015 and subscribers now constitute 11% of single-family households. However, it is financially unsustainable as currently designed and is not likely to divert more than 5,000 tonnes of the residential sectors' 36,600 tonnes in the next 10 years.

The current subscription Green Cart Program is limited in its ability to achieve meaningful organics diversion from the residential sector compared to a city-wide program for the following reasons:

- It is voluntary, with only 11% of single family households currently subscribing, approximately 2,500 tonnes was diverted through this program in 2016.

- The financial model is broken, with rates set too low and a number of program design challenges making it extremely difficult to plan operations and expenditures.
- It is inefficient compared to a city-wide program.

Don’t we have compost facilities we can use?

The current Highway 7 composting facility currently accepts food and yard waste. Although it can manage large volumes of yard waste, it can only accept a limited amount of food waste due to increased leachate production and odours. In the past, the estimation was 8,000 Green Cart subscribers as the upper limit in terms of food waste; however, Administration anticipates that the upper limit may be slightly higher (it will be re-evaluated later this season once the impacts of the current 7,400 subscriptions can be assessed). Despite this reassessment, the existing facility would not be able to accommodate a city-wide program based on the current footprint and on-site surface water supply.

Recovery Park contains enough space for a compost facility that could be used to build a facility, either by the City itself or by a private company interested in processing organics on the City’s behalf.

Don't we have a methane capture plant in our landfill?

Yes, some of the methane is captured as landfill gas and converted into energy; however, the system at our landfill only captures approx. 70% of the methane produced by 1/3 of the landfill, while the remainder is released into our atmosphere.

While landfill gas recovery is a method to deal with the organic materials already in landfills, diverting organic materials such as food and yard waste from landfills (using composting technologies) will reduce the production of methane in the first place.

Why don’t you just ban organics from the landfill?

Organics disposal bans are one method for increasing diversion and have been implemented in many places across Canada for both residents and businesses to encourage increased use of existing organics programs (both private and public). Bans are not typically a first step for encouraging residential organic diversion as residents require opportunities to divert their waste (such as a city-wide Green Cart Program) in order to comply. Bans are most effective when used to encourage businesses to use existing organics facilities.

Organics bans are often implemented by a provincial or regional level of government as seen in Metro Vancouver and Nova Scotia, with Ontario and Quebec planning organic bans in the near future. The City of Calgary plans to ban food and yard waste from City landfills by 2019 in conjunction with its new city-wide Green Cart Program; this has required a high level of collaboration between the City and the waste management industry.

City-wide bans of any material can be challenging due to the potential for this material to be taken to other regional landfills not under the direct control of the City, or illegally dumped. In addition, there are administrative, enforcement, and educational implications to be considered in order to enact a successful ban.

What are the environmental implications of an organics program?

Diverting organic waste from the landfill offers several environmental benefits in terms of land, air, and water quality. Through the use of compost as a soil amendment in gardens or landscapes, nutrients that

would normally be locked up in a landfill are recycled into the ecosystem where they are available to plants. Compost added to soils also improves moisture retention properties so rainfall run-off is reduced.

Organic material that is buried in a landfill environment will produce methane which is often released into the atmosphere. Methane is a significant component of Greenhouse Gas (GHG) emissions which contribute to climate change. Diverting 78,000 tonnes of food and yard waste from the Saskatoon landfill is estimated to reduce between 85,000 and 120,600 tonnes of carbon dioxide equivalents.

What are the benefits of compost?

Adding compost to soil in lawns, gardens, and other landscaping improves the ability of the soil to retain moisture, resist erosion, retain nutrients, and optimize fertility for plants to help with drought resistance. Studies have also found that compost can suppress weed growth and the development of diseases. Use of compost in landscaping may also allow for reduced use of chemical fertilizers and pesticides, which rely on greenhouse gas producing fossil fuels for production.

What about mice? Won't composting cause problems with rodents?

Composting systems can be managed in ways that discourage pests, such as rodents.

Many pests are attracted to food scraps and wet yard waste. To reduce pests, keep these materials covered and enclosed, use a more animal-resistant compost bin, avoid adding foods that attract animals (such as meat, bones, and dairy products), and/or use methods such as trench composting.

For more information on home composting and troubleshooting, please contact the Compost Hotline at 306-931-3249 or compost@swrc.ca.

How does this support our strategic directions?

This report supports the Strategic Goal of Environmental Leadership including the four-year priority to promote and facilitate city-wide composting and recycling and the long-term strategy to eliminate the need for a new landfill and to reduce greenhouse gas (GHG) emissions tied to City operations. In addition it supports the Waste Diversion Performance Target to divert 70% of waste by 2023.

How does an Organics program fit into the City's plan on waste diversion?

As outlined in the Waste Diversion Plan, introducing an Organics program is the **community's single biggest opportunity for diversion**. Other components such as a Waste Utility and an Industrial, Commercial, and Institution (ICI) waste program will be explored further in the coming months.

How do you plan to consult with the community on this?

Organics is one component of a larger plan for achieving the Performance Target to divert 70% by 2023. Many of the topics within the Waste Diversion Plan being developed to achieve this objective will require community conversations and engagement. As a result, the Administration is developing a Waste Diversion Engagement Strategy and Framework to guide implementation and to ensure interactions with the community are meaningful, consistent, relevant, and effective. A report outlining details of the proposed Strategy and Framework (including organics) will be presented to the Standing Policy Committee on Environment, Utilities and Corporate Services in September.

The City periodically measures attitudes and awareness related to waste and recycling as part of its contractual obligations to the contracted recycling service providers. According to the Waste and Recycling survey completed by Insightrix in July 2017, 78% of residents somewhat or strongly support a city-wide food and yard waste collection for all households.

How do you plan to communicate this?

A detailed communications plan would be developed to help the community learn about the options and benefits of a potential organics program. Building on existing communications materials from the subscription green cart and home composting programs, tactics could include developing a web page; social media content and outreach; videos and other advertising opportunities.

In the meantime, Administration is implementing a Waste Diversion Communications Campaign that includes social and traditional media campaigns and a waste challenge to provide the community with information on the importance of waste diversion in Saskatoon. This Waste Diversion Communications campaign will coincide with and support an engagement plan for waste diversion and organics. Information about the campaign will be presented to Committee in September.

I'm not waiting, how can I subscribe to the Green Cart program?

www.saskatoon.ca/greencart

www.saskatoon.ca/homecomposting

How does the Green Cart program work?

The program offers bi-weekly pick up of food and yard waste, and runs from early May to early November.

On your collection days, simply place your green cart at the front curb by 7:00am, keeping it four feet from all obstacles. Then return your green cart to your yard or garage within 24 hours after pick-up. All materials collected will be composted at the Highway 7 Compost Depot.

More information is available at: www.saskatoon.ca/greencart

What would the compost generated through this program be used for?

Compost from our compost depots has been used to keep Saskatoon parks and community gardens healthy and beautiful. As more compost is generated, more uses and opportunities to sell the material become possible.

Where can I find out more information about composting?

More information can be found at www.Saskatoon.ca/composting