

NO: **R072**

COUNCIL DATE: **May 4, 2020**

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## REGULAR COUNCIL

TO: **Mayor & Council**

DATE: **April 30, 2020**

FROM: **General Manager, Engineering**

FILE: **5360-01**

XC: **3900-02**

SUBJECT: **Zero Waste Strategy Development**

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## RECOMMENDATION

The Engineering Department recommends that Council:

1. Receive this report for information; and
2. Endorse the development of a Zero Waste Strategy for Surrey in an attempt to become Canada's first zero waste to landfill community in Canada.

## INTENT

The purpose of this report is to seek Council's endorsement for staff proceeding with the development of a Zero Waste Strategy.

## BACKGROUND

The City has made significant progress towards increasing waste diversion by reducing the amount of waste disposed by landfill. To date, the City's programs and collection services have resulted in the City achieving 70% waste diversion and a decrease in landfill disposal tonnage by 30% in its residential collection services. These accomplishments have been achieved through the initiation and implementation of innovative and sustainable waste collection programs and infrastructure demonstrating the City's leadership in residential municipal waste management. These initiatives include the following:

- Introduction of the Rethink Waste Collection Program, that included weekly residential curbside organic waste (food and yard waste) collection with alternating bi-weekly garbage and recycling services via a fully-automated cart-based collection system that is carried out using a Compressed Natural Gas ("CNG") waste collection fleet;
- Commencement of an organics collection and Large Item Pick-up ("LIPU") Program at apartment buildings in addition to the existing recycling collection program;
- Construction of the Surrey Biofuel Facility which processes 115,000 tonnes of organic waste into renewable natural gas ("RNG") and compost. The RNG produced is used to power the City's waste collection trucks and its growing fleet of service vehicles. The high-quality compost product is used in landscaping, growing food, and other agricultural applications;
- Expansion of the LIPU Program to accept more items; and
- Hosting Reuse and Repair cafes and Pop-Up Junk events.

The City has also implemented the Demolition and New Construction Recyclables Program to increase recycling and reuse of materials generated from related projects in the City. Through this initiative, the City is diverting approximately 86% of demolition waste from landfill.

## DISCUSSION

The City has set an ambitious target to become the first community to achieve zero waste to landfill in Canada. “Zero waste” is defined as all products being designed and managed so that no waste is sent to landfills and incinerators; all end products are reused, recycled or re-integrated into other products. In addition, zero waste emphasizes waste prevention as opposed to waste management, focusing on restructuring production and distribution systems to eliminate waste.

### Zero Waste Strategy

To support the zero waste objective and commitment, it is proposed that the City develop a Zero Waste Strategy (the “Strategy”). The Strategy will be a guiding document that sets out short-term and long-term strategic visions, framework, objectives and targets to transition towards zero waste and a circular economy whereby waste is removed through the improvement in the design of materials, products and business models. The Strategy will guide and support future decisions, directions and investments related to solid waste, and help identify actions, policies, programs, innovation and technologies to achieve zero waste.

The Strategy will help build on the strengths of existing waste management policies, programs and services, but also expand beyond these initiatives by identifying opportunities and best practices to increase waste reduction, reuse, recycling and diversion. It will also incorporate emerging initiatives from climate action, financial, social and environmental perspectives. Additionally, the Strategy will align and integrate with existing Federal and Provincial policies, as well as the Integrated Solid Waste Regional Management Plan, to ensure that they are mutually supportive and successful.

The Strategy will follow the principles of pollution prevention hierarchy of eliminating waste disposed in landfills and transition to a zero waste as follows:

1. Waste Avoidance: Reduce, by as much as possible, the amount of material that enters the solid waste stream and the impact on the environment of producing it in the first place.
2. Maximize Reuse: Ensure that materials or products are used as many times as possible before entering the solid waste stream. Develop a circular economy.
3. Recycle: Recycle as much material as possible.
4. Recover for Energy: Recover as much material and/or energy from the solid waste stream as possible through the application of technology.

## **Project Activities**

The Strategy will include working with various stakeholders, including the Environmental Sustainability Advisory Committee (“ESAC”), to develop various City and community-led recommendations, actions and initiatives. As part of the Strategy development, a gap analysis will be completed to identify these opportunities and key actions to transition to a zero waste and circular economy. The Strategy will align and integrate with the City’s Plastic Bag and Single-Use Items initiative and the Integrated Solid Waste Regional Management Plan. In addition, the Strategy will also focus on establishing zero waste targets with specific milestone dates.

The scope of work will include the below.

### Data and Program Review

- Review and assess current programs and practices.

### Best Practice Models

- Review and recommendation of best practice models that will transition towards zero waste and circular economy.

### Assessment and Analysis of Options

- Reuse, reduce and recycling programs for various material categories;
- Circular economy opportunities and approaches;
- Waste reduction or diversion technologies;
- Short-term and long-term targets and priority actions;
- Curbside waste collection services;
- Waste and recycling drop-off options;
- Public street waste diversion;
- Enforcement and penalties;
- Demolition and new construction programs; and
- Community awareness and education programs.

## **Stakeholder and Public Engagement**

Public engagement will be an important component in developing the Strategy. As part of the Strategy development, staff will undertake a public engagement process in the Fall of 2020 with Surrey residents and other key stakeholders. Any engagement process will be completed through online and digital avenues during the COVID-19 pandemic. The consultation process should not be affected with developing a long-term Strategy, as staff are gathering feedback on key priority actions, targets, programs, policies, and innovation while identifying current challenges and barriers with existing services. In addition, the City will receive valuable input and/or lessons learned on sustainable waste management practices from stakeholders from this pandemic. The feedback received and information gathered from various community stakeholders and ESAC will serve in the development of the Strategy.

## Plan Delivery and Timelines

The proposed Strategy development includes assessing existing programs and policies, researching and investigating zero waste programs, best practice models, innovation and technologies, both at a local and global scale. Following the research phase, staff will identify and evaluate options, establish targets, complete a public engagement and consultation campaign, and finalize the Strategy. These various actions that will be undertaken by staff throughout 2020 and 2021 with milestone dates are presented below.:

<b>Next Step</b>	<b>Anticipated Timeline</b>
Research and Development Phase	June to August 2020
Evaluate Options, Targets	August to October 2020
Public Engagement and Consultation	November 2020 to January 2021
Finalize Strategy	February to April 2021
Report to Council	May 2021

## SUSTAINABILITY CONSIDERATIONS

This initiative supports the objectives of the City's Sustainability Charter 2.0. In particular, this initiative supports the Sustainability Charter 2.0 theme of Infrastructure. Specifically, it supports the following Desired Outcomes ("DO") and Strategic Directions ("SD"):

- Materials and Waste DO<sub>19</sub>: Residents and businesses are conscious of their consumer choices and reuse existing materials first;
- Materials and Waste DO<sub>20</sub>: Materials and resources are used efficiently, sourced locally where feasible, and repurposed or recycled at the end of their life cycle;
- Materials and Waste DO<sub>21</sub>: The City is moving toward a zero-waste target, in line with regional waste diversion goals;
- Materials and Waste SD<sub>13</sub>: Work with local businesses and organizations to maximize the recovery and reuse of local materials and waste products as part of the circular economy; and
- Materials and Waste SD<sub>14</sub>: Provide tools and educational resources that support residents and businesses to reduce consumption.

## CONCLUSION

Developing the Strategy will set out short-term and long-term strategic vision, framework, objectives and targets to transition towards zero waste and a circular economy. The Strategy will also guide and support future decisions, directions and investments relating to solid waste, in order to identify actions, policies, programs, innovation and technologies to move towards zero waste.

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RK/HJ/cc