



# Waste Reduction and Diversion Plan

*Comprehensive Engagement Report*  
May 11, 2020



## Engagement Summary

The objective of the Waste Diversion and Reduction Plan is to clarify the City of Saskatoon’s (City) waste management role as a policy maker, service provider and regulator. This will include adding sector specific detail to the waste diversion targets and examining how the City can move beyond diversion to programs and policies that reduce waste and promote a circular economy.

The Waste Diversion and Reduction plan will also help align the strategic focus of related projects; including the Waste Management Master Plan, Multi-Unit Waste Diversion Strategy, ICI Waste Diversion Strategy, Recovery Park, Leading by Example, and existing education programs for recycling, composting and reuse.

The following engagement goals were identified to inform development of the Waste Diversion and Reduction Plan:

- Identify public aspirations and expectations to inform refinement of the vision, values, objectives, targets and priorities for waste reduction and diversion in Saskatoon.
- Refine the vision, mission, values, objectives, targets and priority areas proposed using public input.
- Review and provide feedback on the Waste Diversion and Reduction Plan.

The table below shows the engagement activities selected to inform each goal, the dates the activities occurred and intended audience for each activity.

Engagement Goal	Activity	Intended Audience	Date
<b>Identify Public Aspirations and Expectations</b>	2019 Waste and Recycling Survey	Residents	June 2019
<b>Refine the Vision, Values, Objectives, Targets and Priorities</b>	Waste Reduction and Diversion Workshop	Subject Matter Experts	June 17, 2019
<b>Review Waste Diversion and Reduction Plan</b>	Email Correspondence	Subject Matter Experts	January, 2020

### Public Aspirations, Expectations and Areas for Improvement

Key takeaways from the 2019 Waste and Recycling Survey conducted by Inshtrix Research Inc. are summarized below in terms of resident aspirations and expectations and areas for improvement.

#### Aspirations and Expectations

- Approximately 75% of residents recycle most or all of their recyclable items.
- Knowledge of what can be recycled has improved.
- The number of participants who compost organic waste has increased since 2017
- Residents are supportive of the City creating opportunities to reduce and divert food and yard waste and single-use items from landfills, with younger residents tending to be more supportive than their older counterparts.
- Residents are very supportive of a city-wide organics program, but are unclear about their preference of program funding.

- The large majority of residents support banning recyclable and organic items from residential and non-residential garbage bins. Modest proportions are supportive of the City taking action to reduce most single-use items within the city.

### Areas for Improvement

- Satisfaction with education and informational materials provided by the City has declined.
- The garbage is still the most common disposal method for organic material. Some Green Cart subscribers report using the garbage to dispose of overflow organic waste when green bins are full.
- Almost one half of respondents report having a full or overflowing black cart with bi-weekly collection, which has increased since 2017. This metric drops substantially with weekly collection and for users who subscribe to Green Cart service. Larger households (skewing towards younger aged people) tend to report reaching or exceeding black cart capacity more frequently.
- The majority of respondents visit City of Saskatoon recycling depots infrequently or never. Fabric and plastic bags most commonly end up in the garbage while most other waste that can be accepted at depots is either recycled or upcycled (electronics, appliances, furniture, oil, paint, etc.) with the exception of hazardous waste where four in ten say they place such items in the garbage.
- Satisfaction with waste and recycling options in public locations is moderate. Residents suggest increasing the quantity of recycling bins, improving access to waste disposal bins and improving knowledge for what can and cannot be recycled in these locations.

### Vision, Values, Objectives, Targets and Priorities

Eleven subject matter experts attended the Waste Diversion and Reduction Workshop and informed refinement of the Waste Diversion and Reduction Plan vision, values, objectives, targets and priorities.

**Vision** statement suggestions were not provided by participants, however participant values were considered in refinement of the vision and mission.

Participants believe that for the Waste Reduction and Diversion Plan to be successful, the City must increase participation in waste Reduction and Diversion activities. To increase participation the Waste Reduction and Diversion Plan we must consider the following **Values**:

- Convenience
- Cost Effectiveness
- Education
- Governance
- Increase Confidence of Impact
- Reduce Consumption
- Focus on Moral Obligation
- Personal Accountability
- Success must be Measureable

**Objectives, Targets and Tactics** suggested during the workshop are provided in the tables below.

GOAL: WE WILL MEASURE AND MONITOR CHANGE		
Strategy		Tactics
Objective/Strategy	Target	
<p><b>Accumulate baseline data for credible measurement.</b></p> <ul style="list-style-type: none"> <li>Require voluntary reporting of private waste companies.</li> </ul>	<p><b>Target:</b> TBD</p> <p><b>Indicators:</b></p> <ul style="list-style-type: none"> <li>Should be kg/capita and kg/capita by category.</li> <li>Encourage an innovative culture: # of ideas, # implemented, \$ saved, kg diverted, # of people aware, education.</li> <li>True diversion rates and pathways: what actually gets recovered from our recycling systems, where it goes, what it becomes.</li> </ul>	<ul style="list-style-type: none"> <li>Enforce existing bylaws and require reporting.</li> </ul>

GOAL: WE WILL INCREASE PARTICIPATION IN WASTE REDUCTION AND DIVERSION		
Strategy		Tactics
Objective/Strategies	Targets/Indicators	
<p><b>Educate residents and promote waste reduction and diversion.</b></p> <ul style="list-style-type: none"> <li>Educate public and youth on importance of waste reduction.</li> <li>Teach people how to divert waste properly. Messages: <ul style="list-style-type: none"> <li>The City cares about more than just extending life of landfill.</li> <li>Waste reduction is important.</li> <li>Change the perspective – a zero waste culture in the City.</li> <li>Tell the truth of why we need to manage waste better.</li> <li>Do the right thing, manage waste responsibly.</li> </ul> </li> <li>Encourage and support innovation &amp; opportunities.</li> <li>Monumental Shift.</li> <li>Promote and incentivise sharing, reusing and repairing.</li> <li>Promote community compost initiatives.</li> </ul>	<p><b>Target:</b> Waste reduction curriculum created and implemented by 2021.</p>	<ul style="list-style-type: none"> <li>Include "cultural" education for newcomer organizations.</li> <li>Robust education program.</li> <li>Open tours to landfill/recycling.</li> <li>Community recycling ambassadors - recycling coaches (household, ICI), compost coaches.</li> <li>Green Calgary.</li> <li>Public awareness of groundwater impacts at current landfill.</li> <li>Renovation How-To Guide</li> <li>Promote sharing co-ops, repair cafes and businesses that repair.</li> <li>Promote pick-up services and donation outlets for bulky goods disposal in multifamily residences.</li> <li>Promote services that support waste diversion for people dealing with estate sales or moves.</li> <li>Downsizing guide.</li> <li>Create markets for recycled materials.</li> <li>Help citizens understand compostable single use items need to be composted.</li> <li>Work with restaurants to promote patrons bringing reusable containers for leftovers, reusable cutlery, etc.</li> </ul>

GOAL: WE WILL INCREASE PARTICIPATION IN WASTE REDUCTION AND DIVERSION		
Strategy		Tactics
Objective/Strategies	Targets/Indicators	
<p><b>Provide recycling and organics services</b></p> <ul style="list-style-type: none"> <li>• Provide an accessible organics program.</li> <li>• Compost City-wide</li> <li>• Build Recovery Park</li> </ul>		<ul style="list-style-type: none"> <li>• Encourage events/caterers to donate/compost extra food.</li> <li>• Require grocery stores, hotels and restaurants to donate edible leftover food.</li> <li>• City wide yard waste collection.</li> <li>• Mattress and upholstered furniture recycling.</li> <li>• Merge Library of things with Saskatoon public library.</li> </ul>
<p><b>Reduce volume of waste generated</b></p> <ul style="list-style-type: none"> <li>• Regulate materials brought into the city based on the recycling market or how well they can be repaired.</li> <li>• Eliminate single use items.</li> <li>• Focus on Construction, Renovation and Demolition.</li> </ul>		<ul style="list-style-type: none"> <li>• Ban Styrofoam</li> <li>• Ban garburators</li> <li>• Create larger scale “Restore” for construction materials.</li> <li>• Use LEED</li> <li>• Deconstruct</li> <li>• Mandatory reuse requirement for construction materials.</li> </ul>
<p><b>Enhance landfill management and regulations</b></p> <ul style="list-style-type: none"> <li>• Collect all economically viable landfill gas.</li> <li>• Ensure fair and equal regulation of landfills by the Ministry of Environment.</li> <li>• All hazardous material diverted from landfill.</li> </ul>	<p><b>Target:</b> GHG intensity target based upon literature research.</p>	<ul style="list-style-type: none"> <li>• Ban recyclable materials</li> <li>• Require sorting</li> <li>• Allow scavenging</li> </ul>

GOAL: WE WILL DEMONSTRATE ENVIRONMENTAL LEADERSHIP		
Strategy		Tactics
Objective/Strategy	Target	
<p><b>Visibly support waste diversion and reduction initiatives and educate leaders about waste diversion and reduction.</b></p> <ul style="list-style-type: none"> <li>• As a leader we/I must lead by example and visibly support waste diversion initiatives.</li> <li>• Make Councillor’s stewards of the environment through education about sustainability.</li> <li>• That national/ provincial/ civic government needs to champion the way for waste reduction.</li> </ul>	<p><b>Target:</b> All City facilities and events have less than 5% waste.</p>	<ul style="list-style-type: none"> <li>• No single use items used in civic facilities, compostable single use items when required.</li> <li>• Prioritize circular economy products in the bidding and procurement process.</li> <li>• Require mandatory recycled content.</li> </ul>

## Consideration of results

Results from engagement activities directly impacted the content of the Solid Waste Management: Reduction and Diversion Plan.

In 2019, an external subject matter expert workshop was held to refine the vision, mission, and actions for the plan. Participants identified education, municipal leadership, and measurement as key themes for successful waste management. These themes are emphasised in the plan's tools and actions.

Following the stakeholder workshop, subject matter experts at the City and the project steering committee provided feedback and direction on the plan to ensure it was operationally and strategically sound.

An online survey in 2019 verified public support for new actions in the plan such as food waste reduction, single-use items, and banning recyclable items from being placed in the garbage.

Results from this engagement will be carried forward in future solid waste planning initiatives and may influence how solid waste management is discussed in the OCP and Triple Bottom Line policy.

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## 1 Background

In 2015, the City of Saskatoon became a member of the National Zero Waste Council. In 2017, the Administration presented the Waste Diversion Opportunities report which outlined the steps that were necessary to develop a Waste Diversion and Reduction Plan.

The City conducted engagement with Curbside and Multi-Unit residential sectors in 2018 and is currently engaging with the ICI sector (Businesses and Organizations).

The objective of the Waste Diversion and Reduction Plan is to clarify the City's waste management role as a policy maker, service provider and regulator. This will include adding sector specific detail to the waste diversion targets and examining how the City can move beyond diversion to programs and policies that reduce waste and promote a circular economy.

The Waste Diversion and Reduction plan will also help align the strategic focus of related projects; including the Waste Management Master Plan, Multi-Unit Waste Diversion Strategy, ICI Waste Diversion Strategy, Recovery Park, Leading by Example, and existing education programs for recycling, composting and reuse.

To continue the development of the WDP, five key objectives have been established for 2019:

1. Establish the vision, strategic framework and objectives of a zero-waste future for Saskatoon.
2. Research and community engagement on waste reduction.
3. Expand and clarify waste management Key Performance Indicators (KPIs).
4. Standardize waste management symbols and terminology.
5. Develop a process to continually review and update the plan based on research, public and corporate feedback and changes in the solid waste industry.

### 1.1 Strategic Goals

The Corporate Performance Target of diverting 70% of waste from the landfill measures the City's success in Environmental Leadership. The Waste Reduction and Diversion Plan supports the Environmental Leadership goal in the City's Strategic Plan 2018 – 2021 that solid waste diversion is maximized and landfill operations management and financial sustainability is optimized. It directly addresses the Strategic Plan's action to a long-term funding and program strategy for solid waste management and waste diversion.

### 1.2 Abbreviations

### 1.3 City Project Team

- Ben Brodie, Special Projects Manager, Sustainability
- Pamela Groat, Project Engineer, Sustainability
- Katie Burns, Special Projects Manager, Sustainability
- Michael Dawe, Environmental Coordinator, Sustainability
- Amber Weckworth, Education & Environmental Performance Manager, Sustainability
- Katie Suek, Public Engagement Consultant, Communications & Public Engagement
- Brendan Fehr, Marketing Consultant, Communications & Public Engagement

## 1.4 Executive Project Sponsor

- Angela Gardiner, Utilities and Environment

## 1.5 Steering Committee

- Chelsey Bartlett - Performance Improvement Coordinator, Strategy & Transformation
- Trevor Bell - Acting General Manager, Utilities and Environment
- Carla Figg - Citizen Service Manager, Organizational Strategy Execution
- Mike Jordan - Director, Policy and Government Relations
- Dazawray Landrie-Parker - Community Engagement Manager
- Collen McKee - Communication and Marketing Manager
- Russ Munro - Director, Waste & Waste Operations
- Trista Olszewski - Accounting Coordinator, Finance
- Jo-Anne Richter - Acting Director, Community Standards
- Jill Schneider - Buyer, Corporate Financial Services
- Jeanna South – Director of Sustainability
- Amber Weckworth - Manager, Education and Environmental Performance

## 1.6 Technical Advisory Committee

- Hilary Carlson, Special Projects Manager, Climate Change
- Daniel Mireault, Environmental Coordinator, Curbside Residential Waste Sector
- Hazel Fernandez Project Manager, Waste Management Master Plan
- Kristian Hermann, Project Geoscientist, Recovery Park Project
- Matt Grazier, Bylaw Compliance Manager, Waste Bylaw
- TBD, City Solicitor
- TBD, Social Development

## 1.7 Spokesperson(s)

Jeanna South, Director of Sustainability

## 1.8 Summary of Engagement Strategy

Engagement informed the following goals:

- Identify public aspirations and expectations to inform refinement of the **vision, values, objectives, targets and priorities** for waste reduction and diversion in Saskatoon.
  - Subject matter experts and the technical advisory group will share their aspirations and expectations for the desired future state.
- Review and refine the vision, mission, values, objectives, targets and priority areas proposed using public input.
  - The project team will work with the Technical Advisory Group to review public input and refine the strategy components noted above.
  - The Steering Committee will review the proposed above-mentioned strategy components and will provide feedback to the project team.
  - Subject matter experts will review the proposed waste reduction and diversion plan and provide feedback.

The intended audience, level of participation, objective of engagement, engagement goal and engagement activities are summarized in the table below.

Table 1: Summary of Engagement Strategy

<b>Intended Audience</b>	<b>Level of Participation</b>	<b>Objective</b>	<b>Engagement Goal</b>	<b>Engagement Activity/Component</b>
<b>Residents</b>	Consult	Obtain feedback to help inform a decision.	Identify public aspirations and expectations.	Survey Questionnaire
<b>Subject Matter Experts</b>	Involve	Work with stakeholders to ensure concerns and priorities are understood.	Refine the vision, values, objectives, targets and priorities.	Waste Diversion and Reduction Visioning Workshop
<b>Technical Advisory Group</b>	Involve	Work with stakeholders to ensure concerns and priorities are understood.	Refine the vision, mission, values, objectives, targets and priorities.	Small Group Meetings
<b>Steering Committee</b>	Consult	Obtain feedback to help inform a decision.	Refine the vision, mission, values, objectives, targets and priorities.	Small Group Meetings
<b>Subject Matter Experts</b>	Consult	Obtain feedback to help inform a decision.	Review the Waste Diversion and Reduction Strategy	Email

## 2 Identify Public Aspirations and Expectations

### 2.1 2019 Waste and Recycling Survey

In June of 2019, the City of Saskatoon (the City) contracted Inshixtrix Research Inc. to conduct a quantitative study with its residents to understand waste-related awareness, behaviour and satisfaction, along with feedback on depot usage and potential program changes. Specific objectives include the following:

#### Recycling

- ✓ Awareness, knowledge, attitudes, motivations, behaviours, barriers and program satisfaction
- ✓ Measure if City program goals are being met.

#### Organics

- ✓ Disposal methods, proportion of waste composted and non-composting disposal methods
- ✓ Support for city-wide food and yard waste programs

#### Future Waste Program Development

- ✓ Disposal of non-recyclable items such as furniture, appliances and construction waste
- ✓ Use of depots and interest in depots accepting various types of waste
- ✓ Support for diversion programs, policies and fees such as single-use bans and food waste reduction and reclamation

The Inshixtrix Research Inc. 2019 Waste and Recycling Survey Report is provided in Appendix A and provides a detailed account of audience, analysis and findings. Summaries of these sections are provided below.

#### 2.1.1 Intended Audience

Inshixtrix SaskWatch Research® online consumer panel members were randomly selected to participate in the research as residents of Saskatoon. Quotas were set by gender, age and Suburban Development Area (SDA) in an effort to achieve a representative sample of the population. A total of 1005 residents participated in the survey questionnaire.

#### 2.1.2 Marketing Techniques

N/A

#### 2.1.3 Analysis

Detailed methodology employed by Inshixtrix is discussed in the Survey Report in Appendix A.

#### 2.1.4 Data Limitations

Inshixtrix Research identified the following data limitation:

- *Note that in 2015 and 2017, half of the respondents participated in the survey via telephone and the remaining half did so via the Inshixtrix online panel, SaskWatch Research®. There are inherent mode variances that exist between telephone and online data collection*

*methods. Specifically, online respondents tend to offer slightly lower satisfaction ratings. Declines in satisfaction noted within this report are due in part to the change in methodology, although in some cases, declines are large enough to indicate actual changes in resident opinions. As such, caution is advised when comparing the 2019 results to past waves.*

### 2.1.5 What We Heard

Insightrix Research identified the following in the Summary of Findings in the Survey Report.

#### 2.1.5.1 Recycling

A strong majority (75%) continue to say they recycle most or all of their recyclable items. Residents who report recycling less waste include: those who use communal recycling bins, younger residents and newcomers to Canada.

Resident knowledge of what can be recycled improved this year, although satisfaction in this area and with education and informational materials provided by the City has declined. Satisfaction with other aspects of recycling programs remains generally high, including overall program satisfaction.

Foils remains the area of least knowledge with just one half correctly identifying that this type of waste can be recycled. Additionally, knowledge gaps continue to exist regarding bagged shredded paper, plastic bags, glass, Styrofoam and plastic toys.

On a positive note, most state that if their recycling cart or bin is full, they typically wait until the next collection period rather than placing items in the garbage.

#### 2.1.5.2 Organics

The garbage continues to be the most common disposal method for yard, garden and vegetable/fruit waste. On a positive note, the overall proportion of respondents who do not compost any food or yard waste has decreased since 2017. Green Cart subscribers continue to be the most likely to compost this kind of organic waste although a modest proportion of these subscribers say they put overflow organic waste in the garbage rather than their Green Cart.

#### 2.1.5.3 Garbage

Almost one half of respondents report having a full or overflowing black cart with bi-weekly collection, a number that has increased since 2017. This metric drops substantially with weekly collection and for users who subscribe to Green Cart service. Larger households (skewing towards younger aged people) tend to report reaching or exceeding black cart capacity more frequently.

#### 2.1.5.4 Depots Use for Items not designed for Blue or Black Carts/Bins

The majority of respondents visit City of Saskatoon recycling depots infrequently or never. Fabric and plastic bags most commonly end up in the garbage while most other waste that can be accepted at depots is either recycled or upcycled (electronics, appliances, furniture, oil, paint, etc.) with the exception of hazardous waste where four in ten say they place such items in the garbage.

#### 2.1.5.5 Waste in Public Locations

Satisfaction with waste and recycling options in public locations is moderate. Residents suggest increasing the quantity of recycling bins, improving access to waste disposal bins and improving knowledge for what can and cannot be recycled in these locations.

#### 2.1.5.6 *New Programs*

Residents are supportive of the City creating opportunities to reduce and divert food and yard waste and single-use items from landfills, with younger residents tending to be more supportive than their older counterparts. Residents are very supportive of a city-wide organics program, but are unclear about their preference of program funding. The large majority support banning recyclable and organic items from residential and non-residential garbage bins. Modest proportions are supportive of the City taking action to reduce most single-use items within the city. Items respondents are less willing to live without include takeout containers and utensils.

### 3 Refine the vision, values, objectives, targets and priorities

The City of Saskatoon hosted a Waste Diversion and Reduction Workshop for subject matter experts on June 17, 2019 from 9:00 am to 11:30 am at Cosmo Civic Centre. A total of 11 participants from several organizations were in attendance.

The objective of the Workshop was to build on existing corporate visioning outcomes and identify public aspirations and expectations to inform refinement of the vision, mission, culture (values and beliefs), strategy (goals and objectives) and tactics for waste reduction and diversion in Saskatoon.

To facilitate exploration of these topics, participants were asked to review the information available (described below) and respond to the following questions through a combination of table and station activities:

- Vision/Mission
  - Where do you want to be? What are you trying to accomplish?
- Culture
  - What beliefs and values drive the project?
- Strategy
  - What are your goals and objectives?
  - The City's existing Goals, Targets and Key Performance Indicators were shared with participants. Participants were asked to "connect the dots and fill in the gaps" between the existing goals, targets and key performance indicators by answering the following prompting questions:
    - Do these goals help us achieve the vision and mission? Do we need to add some?
    - Do these targets measure all our goals? Do we need additional targets? Are there aspects of the targets that need to match to a new goal?
    - Do these key performance indicators sufficiently measure our goals and targets? Are there some that don't align? Should some be removed?
- Tactics
  - What specific actions are you going to take to get from present to preferred future?

#### 3.1.1 Intended Audience

External Subject Matter Experts including key residents, businesses and organizations in Saskatoon who advocate for and apply zero waste initiatives in their daily operations.

#### 3.1.2 Marketing Techniques

Members of the intended audience were invited by email to attend the workshop.

#### 3.1.3 Analysis

During the workshop, participants provided feedback and ideas in response to each component separately. Responses submitted that did not align with the definition of each component were shifted to appropriate components for analysis. Participant comments were analysed for emergent themes, summarized, formatted and organized in a way that provided linkages between values, goals, objective/strategies, targets/indicators and tactics and identifies missed connections that need to be filled (targets for example).

### 3.1.4 Data limitations

In evaluation forms, respondents identified participation challenges related to use of unclear terminology and activity instructions. This may have resulted in data limitations due to inhibited ability to participate fully.

Thirty-six stakeholder groups were invited to participate in the workshop, 11 of which were in attendance. While participants did identify the small group size as something that worked well during the workshop, several unique perspectives were missing from the data set.

### 3.1.5 What We Heard

#### 3.1.5.1 Culture: Beliefs and Values

Workshop participant responses suggest there is an unwillingness to participate in waste diversion/reduction initiatives that must be addressed for the project to be successful. Participants believe that for the Waste Reduction and Diversion Plan to be successful, the City must increase participation in waste Reduction and Diversion activities. To increase participation the Waste Reduction and Diversion Plan, we must consider the following Values:

- **Convenience:** Participants used terms like “simple”, “clear”, “easy” and “accessible” to describe things that work well in waste diversion and explained that waste diversion initiatives need to be more convenient than alternative waste disposal approaches in order to promote participation.
- **Cost Effectiveness:** For a waste diversion initiative to be effective, it must be more cost effective to divert or reduce waste than it is to dispose of it in the landfill.
- **Education:** Where programs or initiatives cannot be adjusted (recyclable materials accepted, for example), education can help the public feel as though the task of waste diversion is not as inconvenient or costly as they originally assumed. Education should aim to motivate residents and information should be shared that makes diversion options more convenient and accessible.
- **Governance:** Waste Diversion leaders must lead by example, be accountable for their own waste and support waste diversion initiatives. A regulatory backdrop is required to affect change.
- **Increase Confidence of Impact:** Residents may choose not to participate in waste Reduction and Diversion initiatives because they don’t believe in or understand the impact of their personal actions on waste diversion, climate change and resource conservation. Some residents feel that the waste reduction and diversion push is just a fad and not a long term solution or need.
- **Reduce Consumption:** There is value in reducing waste by reducing consumption.
- **Focus on Moral Obligation:** Residents have a moral obligation to divert and reduce waste as it shows “capacity to care” and is the “right thing to do”.
- **Personal Accountability:** Participants indicated that there is value in establishing a standard for personal accountability in waste diversion and reduction. They explained that while it is not a priority for everyone, every resident must take personal responsibility for waste reduction and diversion activities and must be informed of how their actions or inactions impact the larger community.
- **Success must be Measureable:** Participants felt that for waste reduction and diversion initiatives to be successful they must be measurable. In order to be measurable, accurate baseline data must be accessible now and data must be accessible going forward.



3.1.5.2 Objective, Targets and Tactics

Each table in this section includes the strategy and tactics identified to address a unique goal. All suggestions were provided by participants, however it was the author that connected and organized the responses into this format.

Table 2: We Will Demonstrate Environmental Leadership

GOAL: WE WILL DEMONSTRATE ENVIRONMENTAL LEADERSHIP		
Strategy		Tactics
Objective/Strategy	Target	
<p><b>Visibly support waste diversion and reduction initiatives and educate leaders about waste diversion and reduction.</b></p> <ul style="list-style-type: none"> <li>As a leader we/I must lead by example and visibly support waste diversion initiatives.</li> <li>Make Councillors stewards of the environment through education about sustainability.</li> <li>That national/ provincial/ civic government needs to champion the way for waste reduction.</li> </ul>	<p><b>Target:</b> All City facilities and events have less than 5% waste.</p>	<ul style="list-style-type: none"> <li>No single use items used in civic facilities, compostable single use items when required.</li> <li>Prioritize circular economy products in the bidding and procurement process.</li> <li>Require mandatory recycled content.</li> </ul>

Table 3: We Will Measure and Monitor Change

GOAL: WE WILL MEASURE AND MONITOR CHANGE		
Strategy		Tactics
Objective/Strategy	Target	
<p><b>Accumulate baseline data for credible measurement.</b></p> <ul style="list-style-type: none"> <li>Require voluntary reporting of private waste companies.</li> </ul>	<p><b>Target:</b> TBD</p> <p><b>Indicators:</b></p> <ul style="list-style-type: none"> <li>Should be kg/capita and kg/capita by category.</li> <li>Encourage an innovative culture: # of ideas, # implemented, \$ saved, kg diverted, # of people aware, education.</li> <li>True diversion rates and pathways: what actually gets recovered from our recycling systems, where it goes, what it becomes.</li> </ul>	<ul style="list-style-type: none"> <li>Enforce existing bylaws and require reporting.</li> </ul>

Table 4: We Will Increase Participation in Waste Reduction and Diversion

<b>GOAL: WE WILL INCREASE PARTICIPATION IN WASTE REDUCTION AND DIVERSION</b>		
<b>Strategy</b>		<b>Tactics</b>
Objective/Strategies	Targets/Indicators	
<p><b>Educate residents and promote waste reduction and diversion.</b></p> <ul style="list-style-type: none"> <li>• Educate public and youth on importance of waste reduction.</li> <li>• Teach people how to divert waste properly. Messages:               <ul style="list-style-type: none"> <li>• The City cares about more than just extending life of landfill.</li> <li>• Waste reduction is important.</li> <li>• Change the perspective – a zero waste culture in the City.</li> <li>• Tell the truth of why we need to manage waste better.</li> <li>• Do the right thing, manage waste responsibly.</li> </ul> </li> <li>• Encourage and support innovation &amp; opportunities.</li> <li>• Monumental Shift.</li> <li>• Promote and incentivise sharing, reusing and repairing.</li> <li>• Promote community compost initiatives.</li> </ul>	<p><b>Target:</b> Waste reduction curriculum created and implemented by 2021.</p>	<ul style="list-style-type: none"> <li>• Include "cultural" education for newcomer organizations.</li> <li>• Robust education program.</li> <li>• Open tours to landfill/recycling.</li> <li>• Community recycling ambassadors - recycling coaches (household, ICI), compost coaches.</li> <li>• Green Calgary.</li> <li>• Public awareness of groundwater impacts at current landfill.</li> <li>• Renovation How-To Guide.</li> <li>• Promote sharing co-ops, repair cafes and businesses that repair.</li> <li>• Promote pick-up services and donation outlets for bulky goods disposal in multifamily residences.</li> <li>• Promote services that support waste diversion for people dealing with estate sales or moves.</li> <li>• Downsizing guide</li> <li>• Create markets for recycled materials.</li> <li>• Help citizens understand compostable single use items need to be composted.</li> <li>• Work with restaurants to promote patrons bringing reusable containers for leftovers, reusable cutlery, etc.</li> </ul>

Table 5: We Will Increase Participation in Waste Reduction and Diversion

<b>GOAL: WE WILL INCREASE PARTICIPATION IN WASTE REDUCTION AND DIVERSION</b>		
<b>Strategy</b>		<b>Tactics</b>
Objective/Strategies	Targets/Indicators	
<p><b>Provide recycling and organics services</b></p> <ul style="list-style-type: none"> <li>• Provide an accessible organics program.</li> <li>• Compost City-wide.</li> <li>• Build Recovery Park.</li> </ul>		<ul style="list-style-type: none"> <li>• Encourage events/caterers to donate/compost extra food.</li> <li>• Require grocery stores, hotels and restaurants to donate edible leftover food.</li> <li>• City wide yard waste collection.</li> <li>• Mattress and upholstered furniture recycling.</li> <li>• Merge Library of things with Saskatoon public library.</li> </ul>
<p><b>Reduce volume of waste generated</b></p> <ul style="list-style-type: none"> <li>• Regulate materials brought into the city based on the recycling market or how well they can be repaired.</li> <li>• Eliminate single use items.</li> <li>• Focus on Construction, Renovation and Demolition.</li> </ul>		<ul style="list-style-type: none"> <li>• Ban Styrofoam</li> <li>• Ban garburators</li> <li>• Create larger scale “Restore” for construction materials.</li> <li>• Use LEED</li> <li>• Deconstruct</li> <li>• Mandatory reuse requirement for construction materials.</li> </ul>
<p><b>Enhance landfill management and regulations</b></p> <ul style="list-style-type: none"> <li>• Collect all economically viable landfill gas.</li> <li>• Ensure fair and equal regulation of landfills by the Ministry of Environment.</li> <li>• All hazardous material diverted from landfill.</li> </ul>	<p><b>Target:</b> GHG intensity target based upon literature research.</p>	<ul style="list-style-type: none"> <li>• Ban recyclable materials.</li> <li>• Require sorting</li> <li>• Allow scavenging</li> </ul>

## 4 Evaluation

Evaluation activities include analysis of participant feedback forms, debrief meeting with the project team and any other conversational feedback that may arise. Evaluation feedback is reviewed and opportunities for improvement are identified.

### 4.1 Participant Evaluation Results

A total of eleven workshop participants completed evaluation forms. Participants were asked to choose from a scale of emoticons representing very satisfied, somewhat satisfied, neutral, somewhat unsatisfied, and very unsatisfied response that best described their engagement experience. Results from the feedback forms are provided below.

Table 6: Participant Evaluation Results

Statement	% of participants satisfied
<b>Overall, how was your experience?</b>	100%
<b>This was a valuable use of my time and energy.</b>	100%
<b>It was easy for me to participate in the process.</b>	100%
<b>The information was clear and understandable.</b>	82%
<b>I understood what was expected of me as a participant.</b>	91%
<b>The facilitator kept us engaged and focused.</b>	91%
<b>All participants were given the opportunity to contribute.</b>	100%
<b>I believe that my voice mattered in this conversation</b>	91%
<b>I understand how my input will be used.</b>	73%

More than 70% of participants identified that they were satisfied with their engagement experience in response to all statements. All participants were satisfied with their overall engagement experience.

Participants were invited to provide feedback about what went well, what didn't work and how the engagement experience could be improved. Responses are summarized below.

Participants identified the following aspect of the event that went well:

- Open ended questions;
- Openness to making changes to existing policies and plans based on public input;
- Sharing and brainstorming;
- Good discussion and casual atmosphere; and
- Great group of people.

Participant identified the following event aspects that didn't work:

- Unclear how all the preprinted material flowed together;
- Subject matter was very broad;
- Faulty sticky notes;
- Could have been better organized; and
- Activities were complicated and confusing.

Participants offered the following suggestions for how we may improve the engagement experience:

- Provide information in advance of the event to help participants prepare;
- Use larger size font for presentation slides; and
- Add clarity around the definition of goals, targets and indicators by using examples.

## 4.2 Internal Evaluation

The project team held a short debrief discussion following the workshop event. Overall, the team felt that the workshop went well, participants were engaged and contributing and many ideas were shared during activities. It was noted however that, at times, participants expressed confusion regarding some of the activities and definitions and the event could have benefited from some clear language and examples.

## 4.3 Opportunities for Improvement

In the future for similar visioning exercises, materials will be revised to incorporate clear definitions and examples. Where possible, content will be sent out in advance to allow participants time to process and prepare for the event. Tools like presentations and sticky notes will be tested in advance of events to ensure they will function well.

## 5 Next Steps

The Waste Reduction and Diversion Plan will be recirculated to internal and external stakeholders in early 2020 for final comments prior to being presented to City Council.

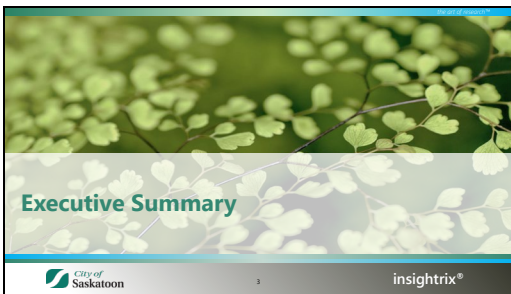
The Waste Reduction and Diversion Plan will be presented to City Council in early 2020.

## Appendix A

### City of Saskatoon 2019 Waste & Recycling Survey



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### Summary of Findings

**Organics**  
The garbage continues to be the most common disposal method for yard, garden and vegetable/fruit waste. On a positive note, the overall proportion of respondents who do not compost any food or yard waste has decreased since 2017. Green Cart subscribers continue to be the most likely to compost this kind of organic waste although a modest proportion of these subscribers say they put overflow organic waste in the garbage rather than their Green Cart.

**Garbage**  
Almost one half of respondents report having a full or overflowing black cart with bi-weekly collection, a number that has increased since 2017. This metric drops substantially with weekly collection and for users who subscribe to Green Cart service. Larger households (skewing towards younger aged people) tend to report reaching or exceeding black cart capacity more frequently.

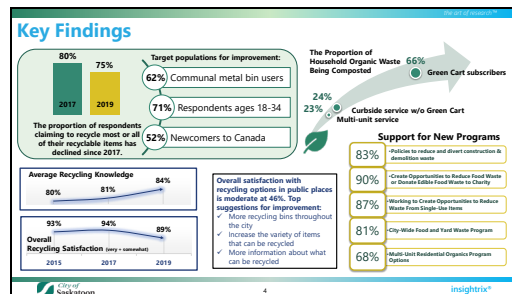
### Summary of Findings

**Recycling**  
A strong majority (75%) continue to say they recycle most or all of their recyclable items. Residents who report recycling less waste include: those who use communal recycling bins, younger residents and newcomers to Canada.

Resident knowledge of what can be recycled improves this year, although satisfaction in this area and with education and informational materials provided by the City has declined. Satisfaction with other aspects of recycling programs remains generally high, including overall program satisfaction.

Foils remains the area of least knowledge with just one half correctly identifying that this type of waste can be recycled. Additionally, knowledge gaps continue to exist regarding bagged shredded paper, plastic bags, glass, Styrofoam and plastic toys.

On a positive note, most state that if their recycling cart or bin is full, they typically wait until the next collection period rather than placing items in the garbage.



### Summary of Findings

**Depots Use for Items not Designed for Blue or Black Carts/Bins**  
The majority of respondents visit City of Saskatoon recycling depots infrequently or never. Fabric and plastic bags most commonly end up in the garbage while most other waste that can be accepted at depots is either recycled or upcycled (electronics, appliances, furniture, oil, paint, etc.) with the exception of hazardous waste where four in ten say they place such items in the garbage.

**Waste in Public Locations**  
Satisfaction with waste and recycling options in public locations is moderate. Residents suggest increasing the quantity of recycling bins, improving access to waste disposal bins and improving knowledge for what can and cannot be recycled in these locations.

**New Programs**  
Residents are supportive of the City creating opportunities to reduce and divert food and yard waste and single-use items from landfills, with younger residents tending to be more supportive than their older counterparts. Residents are very supportive of a city-wide organics program, but are unclear about their preference of program funding. The large majority support banning recyclable and organic items from residential and non-residential garbage bins. Modest proportions are supportive of the City taking action to reduce most single-use items within the city. Items respondents are less willing to live without include takeout containers and utensils.

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### Conclusions

- Recycling knowledge remains a key barrier and potential frustration point for residents. Continue communication of what can and cannot be placed in recycling carts or bins is advised to ensure program satisfaction and resident compliance. This is especially important when changes are implemented such as recent adjustments to the disposal of glass and plastic bags.
- Efforts to increase recycling should be directed toward communal bin users, younger residents, and newcomers to Canada.
- Residents are highly receptive to most potential policy changes and new programs the City is looking to implement, such as a city-wide food and yard waste program, donations of edible food waste and imposing fees or bans on garbage from single-use items. Continued engagement with residents is advised as these initiatives evolve.
- Some resistance may be met with reducing or eliminating access to certain single-use items. Potentially a staged implementation can help residents adapt to changes, beginning with items that individuals are more willing to forego such as stir sticks and straws.
- Satisfaction remains moderately weak on garbage and recycling services in public areas of the city. Continued efforts to enhance service levels is advised.
- While most residents are disposing of waste not designed for black or blue carts/bins in proper manners, in select areas items are entering the garbage stream with a higher frequency, suggesting important communication is needed. Most notably, this includes hazardous waste, plastic bags, and to a lesser extent, appliances and electronics.

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### Background & Methodology

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### Background

In June of 2019, the City of Saskatoon (the City) contracted Insightrix Research Inc. to conduct a quantitative study with its residents to understand waste-related awareness, behaviour and satisfaction, along with feedback on depot usage and potential program changes. Specific objectives include the following:

**Recycling**

- ✓ Awareness, knowledge, attitudes, motivations, behaviours, barriers and program satisfaction
- ✓ Measure if City program goals are being met.

**Organics**

- ✓ Disposal methods, proportion of waste composted and non-composting disposal methods
- ✓ Support for city-wide food and yard waste programs

**Future Waste Program Development**

- ✓ Disposal of non-recyclable items such as furniture, appliances and construction waste
- ✓ Use of depots and interest in depots accepting various types of waste
- ✓ Support for diversion programs, policies and fees such as single-use bans and food waste reduction and reclamation

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### Methodology

**Methodology:** Online survey with Saskatoon residents.

**Questionnaire:** Similar studies were conducted in 2015 and 2017, forming the basis of the 2019 questionnaire, with changes and additions incorporated to address current City research objectives.

**Sample Source:** Insightrix SaskWatch Research® online consumer panel (used for previous studies).

**Sample Plan:** Panel members randomly selected to participate in the research. Quotas were set by gender, age and Suburban Development Area (SDA) in an effort to achieve a representative sample of the population (see below).

**Data Collection:** In total, 1,005 Saskatoon residents participated in the study online between July 4 and July 20, 2019, for an overall response rate of 30%.

**Data Weighting:** Given that the final demographic distribution varies somewhat from the initial quotas set, data have been weighted by gender and age to match the distribution of the Saskatoon population.

	Male			Female			Total						
	Count	Percent	Count	Percent	Count	Percent	Count	Percent					
18 - 34	114	11%	188	19%	302	30%	18 - 34	168	17%	173	17%	341	34%
35 - 54	185	18%	201	20%	386	38%	35 - 54	186	18%	193	16%	379	38%
55 or older	139	14%	178	18%	317	32%	55 or older	127	13%	159	16%	286	28%
Total	438	43%	627	62%	1,065	100%	Total	462	48%	525	52%	1,005	100%

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### Reporting Notes

- Note that in 2015 and 2017, half of the respondents participated in the survey via telephone and the remaining half did so via the insightrix online panel, SaskWatch Research®. There are inherent mode variances that exist between telephone and online data collection methods. Specifically, online respondents tend to offer slightly lower satisfaction ratings. Declines in satisfaction noted within this report are due in part to the change in methodology, although in some cases, declines are large enough to indicate actual changes in resident opinions. As such, caution is advised when comparing the 2019 results to past waves.
- Data have been rounded to zero decimal places; therefore, percentages may not add up precisely to 100% on some graphs.
- Open-ended questions have been themed and coded into categories. The percentages from individual codes could total more than 100%, as comments from each respondent could be relevant to more than one code.
- Questions that have multiple response options will result in percentages that could add up to more than 100%.
- Each survey question was analyzed by appropriate demographic variables, such as region, age, gender, etc. Significant differences have been highlighted in this report with ▲ or ▼. A standard alpha value of less than 0.05 is considered statistically significant. This means there is less than a 5% chance the results would have occurred by chance.
- In some cases, themes have been organized into 'Net themes' based on overarching commonalities in the content of responses (i.e., positive or negative mentions). The percentages of individual codes will add up to more than the Net total, as multiple comments from each respondent are possible within each Net.
- Data have been weighted to match the distribution of the adult general population of Saskatoon. In this particular study, answers from male respondents (ages 18 to 34 years and 35 to 54 years) have been weighted up to more closely match the actual proportion of that cohort while responses from females in all age groups have been weighted down. This is a common research technique used to ensure results are representative of the general population.
- Due to the fact that this study was completed online, margins of error are not applicable. This does not negatively impact the accuracy of results.

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## Respondent Profile

### Respondent Profile

**Number of People in Household**

1	18%
2	40%
3	18%
4+	24%
Prefer not to say	1%

**Rent or Own Home**

Own	71%
Rent	27%
Another arrangement	2%

**Suburban Development Area (SDA)**

**Household Income**

Less than \$50,000	28%
\$50,000 to just under \$100,000	33%
\$100,000 or more	28%
Prefer not to say	11%

**Minority Group**

Indigenous	8%
New to Canada	4%

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Three out of four respondents use an individual blue cart vs a communal recycling bin. This proportion increases with household income and the number of people living in the home. Nearly two in ten are green cart subscribers.

**Type of Recycling Service**

Individual blue cart	77%
Communal recycling bin	22%

**Type of Recycling Service by Household Income**

Less than \$50,000	65%	35%
\$50,000 to just under \$100,000	73%	27%
\$100,000 or more	85%	15%

**Green Cart Subscribers**

2019	17%
2017	15%

**Type of Recycling Service by Number of People Living in Home**

1	52%	48%
2	70%	30%
3	82%	18%
4+	85%	15%

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## Study Results

## Recycling Knowledge, Usage & Satisfaction

### Proportion of Recyclable Items Recycled

Three in four claim to recycle all or most of their recyclable items, down slightly from 2017.

	<b>All or nearly all &amp; most 75%</b>				
<b>2019</b>	36%	39%	20%	5%	
<b>2017</b>	39%	41%	15%	5%	

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