



City of Salina

ZERO WASTE  
PHILOSOPHY

# Waste Reduction Strategies

Reduce, Reuse, Recycle...Rethink!



City of Salina  
Public Works Department  
Salina, Kansas

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# 1 EXECUTIVE SUMMARY

In 2021 and 2022, the City began formally embracing a philosophy of zero waste which promotes waste reduction, reuse, recycling, conservation programs, and sustainability. The early stages of implementing this philosophy will focus on encouraging a change in behavior and mindset.

This Report identifies eight strategies to promote waste reduction, reuse, recycling, or composting within the City. The strategies are aimed to be reasonable, actional, and measurable. So, while other technologies exist and could be used, what is proposed in this Report was selected for what makes sense for the City at this time with available regional programs and existing infrastructure. The eight strategies are listed below; key activities for each strategy are discussed later in this Report.

1. Waste prevention
2. Promote reuse of materials
3. Evaluate and support environmental sustainability policies and regulations
4. Increase participation in existing diversion programs
5. Develop programs and services to divert organic materials
6. Prioritize cardboard diversion
7. Prioritize glass diversion
8. Obtain waste and recycling program data

The following are a few select initiatives recommended as next steps to move the City towards more sustainably managing assets and resources.

- **Prioritize education** so people understand the value of waste prevention, waste reuse opportunities, and what happens with their waste and recyclables (supports Strategies 1 and 2).
- **Encourage expanded use of existing facilities** to help utilize existing infrastructure, staff, and resources to manage materials (supports Strategy 4).
- **Prepare an online directory**, a robust one-stop website where community members can learn where to manage different types of waste and recyclables, opportunities to divert waste generation and reuse materials (supports Strategies 1, 2, and 4). This could then be used as a platform to help convey information about new programs implemented by the City (supports Strategies 5, 6, and 7) or other regional providers.
- **Review of City management of materials**, including management of waste and material within buildings, procurement contracts, etc. (supports Strategies 1, 2, 3, 4, and 8).
- **Evaluate organics** management options. With food waste, yard waste, and organics being such a large portion of the waste stream, alternative management options for organics will be necessary to support diversion from the landfill (supports Strategy 5). Beginning with yard waste management is a beneficial first step.
- **Collect data** for tracking progress and success of zero waste philosophy impacts (supports Strategy 8).
- **Follow regulatory changes** for knowledge on industry opportunities, changes, and potential funding (supports Strategy 3).



## 2 INTRODUCTION AND PURPOSE

In 2021, the Saline County Solid Waste Management Committee set a goal for Zero Waste by 2050. The City of Salina (City) City Commission then incorporated that goal into the 5-year update of the Solid Waste Management Plan in 2022.



The City has embraced a philosophy of zero waste. As stewards of the community, this philosophy not only promotes reuse, recycling, and conservation programs, but also, and more importantly, emphasizes sustainability by considering the entire lifecycle of products, processes, and systems.

The City retained SCS Engineers to study the waste and recycling streams for the community and evaluate methods to reduce, reuse, and recycle to promote sustainability. This includes reduction of the generation of waste, recycling or diversion opportunities, and decreasing the amount of waste disposed within the City's landfill. These Waste Reduction Strategies (Report) outline strategies and their respective initiatives for the City to begin embracing their Zero Waste Philosophy.

The City is in the early stages of implementing a Zero Waste Philosophy. As such, this Report should be viewed as a starting point for discussion and decision making within the City. The recommendations herein are based off waste generation and disposal information, existing infrastructure, and resources available during the development of this report.

## 3 BACKGROUND

In the early stages of the strategic planning process, background information was obtained to understand the function of the existing solid waste system. This effort consisted of a cursory review of the City's existing programs, assessing data from the 2022 Waste and Recyclables Characterization Study, reviewing regional programs and opportunities, and obtaining public feedback through a variety of means.

### EXISTING PROGRAMS

The City currently supports the following programs:

- **Salina Drive-thru Recycling Center (SDRC) & Recyclops' Curbside Recycling:** The SDRC opened in 2018 and currently accepts over 700 tons of recyclables from 60,000 drop-offs annually. The City does not currently have a curbside recycling program, but City residents can use Recyclops for curbside recycling pickup. Recyclops delivers recyclables to the SDRC. All material collected at the SDRC is taken to a third-party material recovery facility. The material recovery facility then processes and separates the material for sale.
- **Household Hazardous Waste (HHW) Facility:** HHW materials include paint, pesticides, oil, automobile fluids, lithium batteries, and many others. The HHW Facility is open year-round on select days or by appointment. In 2022, the facility collected over 86,000 pounds of HHW materials.



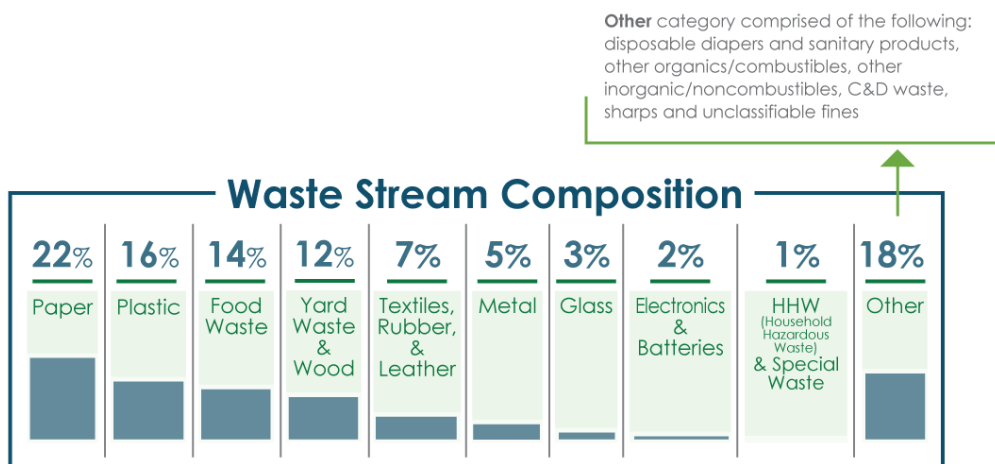
- **E-Waste Collection Events:** E-waste includes electronics, appliances, and almost anything with a cord. Material is collected by an E-Waste Recycler at an annual event.
- **Sharps:** Sharps (i.e. needles) can be turned in at various locations around the City. While this material still goes to the landfill, separate collection helps keep people, particularly the sanitation workers and landfill staff safe.
- **Pharmaceuticals:** Unwanted or unused medication can be turned in at the Sheriff’s Office for proper management.
- **Woody Yard Waste Drop-Off:** Tree limbs take up valuable landfill space. If separated at the source, tree limbs are diverted to a designated drop-off area at the landfill. Currently, this material is burned, but evaluation of alternative options are discussed in this report.
- **Landfill:** The Salina Municipal Solid Waste Landfill accepts approximately 90,000 tons of waste each year. Of that, approximately 65,000 tons is municipal solid waste from residents and commercial and institutional businesses. The remaining approximately 25,000 tons includes other waste streams such as industrial waste and construction/demolition waste.

## 2022 MATERIAL CHARACTERIZATION STUDY

The City conducted a Waste and Recyclables Characterization Study in 2022 (2022 Study) to understand the composition of the disposed waste stream and the recyclables composition of the SDRC. The purpose of the 2022 Study was to provide the City with important information concerning the types of materials being disposed and recycled, and to compare historical waste study results (2004 and 1996-1997) to track possible waste disposal trends.

The 2022 Study results for the municipal solid waste, which includes waste from residents, commercial entities, and institutional entities, is as follows:

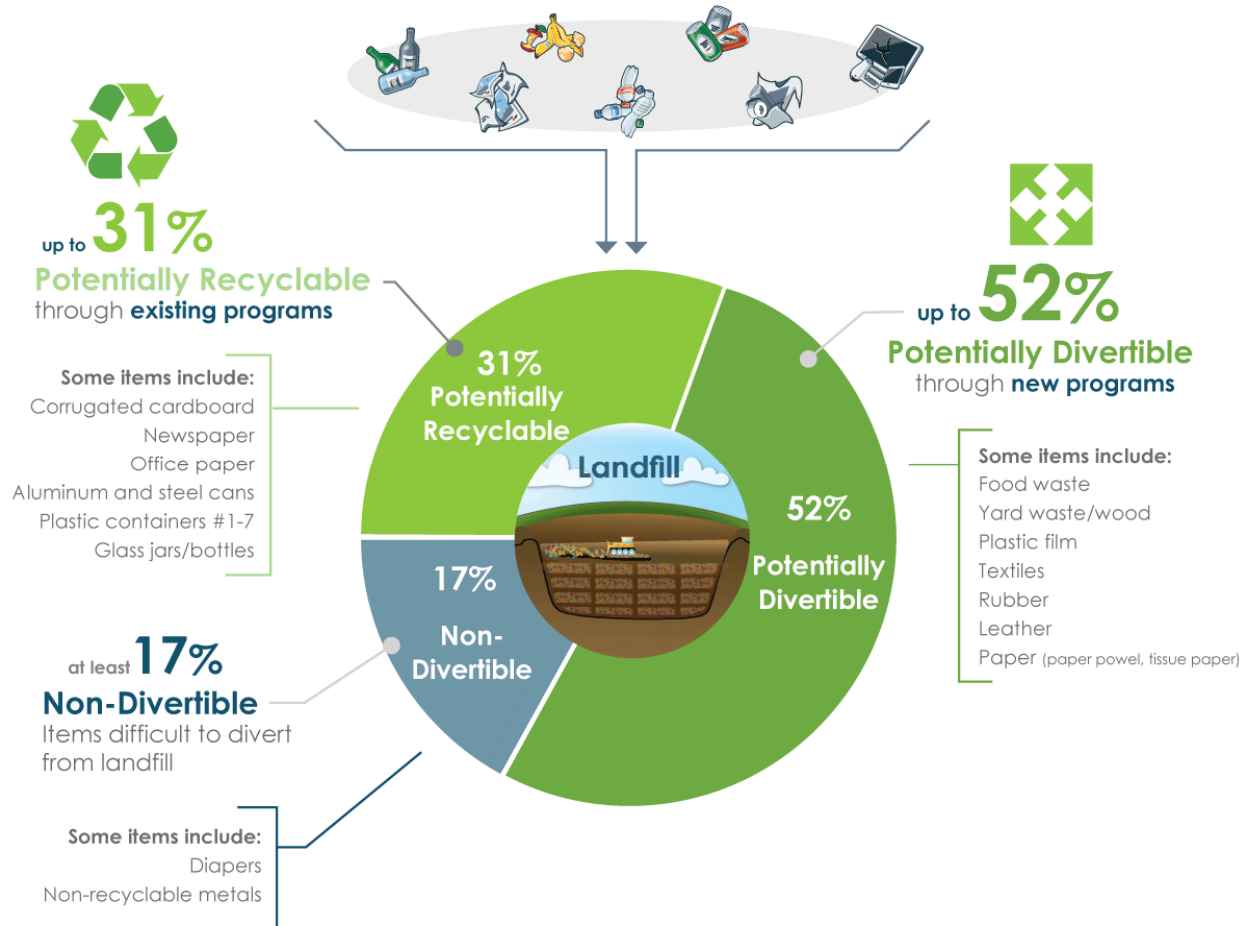
Exhibit 1. Waste Stream Composition from 2022 Study  
(Residential, Commercial, and Institutional Waste Streams)





Since the focus of this report is waste prevention and diversion, the municipal solid waste data for residential, commercial, and institutional entities from the 2022 Study was reviewed and organized into the three categories shown in Exhibit 2 below.

Exhibit 2. Diversion Potential of Existing Waste Stream  
(2022 Study for Residential, Commercial, and Institutional Waste Streams)





## REVIEW OF REGIONAL PROGRAMS AND OPPORTUNITIES

To better understand regional opportunities for waste diversion, over 15 entities were interviewed and even more were researched. These entities include other communities, businesses, material recovery facilities (MRFs), recyclables processors, school districts, and libraries. Key findings from this research include:

- **Yard Waste.** A few other Kansas cities and counties of similar size to Salina and Saline County have a yard waste compost facility. There is a high degree of variability in how these facilities are operated (e.g. curbside vs. drop-off, tipping fees, end use, etc.)
- **Food Waste.** There are no food waste composters of scale local to Salina. Some cities and school districts in the Kansas City region are piloting food waste composting. More commonly in Kansas, communities are focused on upstream programs and efforts to feed hungry people, thereby preventing food from becoming waste.
- **Plastic Film.** A national company was identified that recycles plastic film. This option needs more exploration to understand if it is a viable option for the City.

## PUBLIC ENGAGEMENT

The public was engaged throughout the strategic planning process through the following means:

- **Public opinion survey:** The City conducted an online survey seeking input from the public on priorities and initiatives related to waste diversion. The survey was open for approximately four weeks from January 30, 2023 through March 3, 2023. This was promoted through social media, water bill inserts, and press releases. Nearly 600 responses were received. A summary of the responses are included in Appendix A, pages 5 through 7.
- **Public open house:** A public open house was held on March 29, 2023 from 4:00 P.M. to 6:00 P.M. at the Salina Public Library – McKenzie Center. Posters were setup to discuss the purpose of the project, provide a status update, share results of the online survey, outline proposed strategies for waste diversion, and seek comments. Copies of the posters are include in Appendix A.
- **Study sessions with the City Commission:** Updates of the project were shared with City commissioners through study sessions in early 2023.
- **Updates to the Saline County Solid Waste Management Committee:** The committee was updated on the progress of this project at their routine meetings in 2022 and 2023.
- **Involvement with the Zero Waste Initiative (ZWI):** The ZWI is a new community-lead program, independent of the City. This group is comprised of community stakeholders and businesses with a focus on how the community can improve waste diversion. The City shared progress and information updates with the ZWI at a meeting in September 2022 and intends to continue to participate to foster public-private partnerships.



## 4 STRATEGIES

This Report includes eight strategies to promote waste reduction and diversion within the City to help the City implement the zero waste philosophy. The strategies are reasonable, actionable, and measurable. There are a number of technologies and programs the City could implement to act on these strategies, this Report aims to be practical and cost-effective given existing resources, available regional programs and existing infrastructure.



In developing each strategy, the background information was reviewed for an understanding of the City's existing integrated solid waste management system, regional programs and opportunities, and the waste received at the landfill through the 2022 Material Characterization data.

The strategies are listed to align with the United States Environmental Protection Agency's (US EPA) Waste Management Hierarchy and second by diversion potential.

For each strategy, SCS estimated the approximate reduction or diversion potential. This was estimated using data from the 2022 Study and general industry knowledge.

A series of initiatives are outlined to help support and implement each strategy. The initiatives for each strategy are outlined on an evaluation matrix in Appendix B and graded on the five evaluation criteria in Table 1 and grading rubric in Table 2.

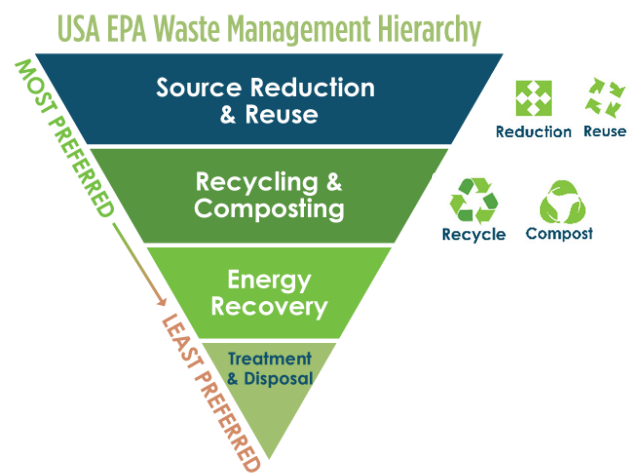


Table 1. Strategy Evaluation Criteria

No.	Evaluation Criteria
1	Public input and expectation alignment
2	Waste reduction or diversion impact
3	Technical / resource needs and implementation requirements
4	Economic impact
5	City's influence on the outcome















Table 2. Strategy Evaluation Matrix Grading Rubric

Ranking	Alignment with Evaluation Criteria
↑↑↑	Strategy is <b>very aligned</b> with evaluation criteria
↑↑	Strategy is <b>aligned</b> with evaluation criteria
↑	Strategy is <b>somewhat aligned</b> with evaluation criteria
--	Strategy is <b>neutral</b> with evaluation criteria
↓	Strategy is <b>somewhat unaligned</b> with evaluation criteria
↓↓	Strategy is <b>unaligned</b> with evaluation criteria
↓↓↓	Strategy is <b>very unaligned</b> with evaluation criteria

The eight strategies selected for the City, in priority order, are shown in Table 3 and discussed in more detail in the following sections.

Table 3. Waste Reduction Strategies

No.	Strategy	Strategy Promotes
1	Waste prevention	 Reduction
2	Promote reuse of materials	 Reuse
3	Evaluate and support environmental sustainability policies and regulations	  Reduction Reuse
4	Increase participation in existing diversion programs	 Recycle
5	Develop programs and services to divert organic materials	  Compost Recycle
6	Prioritize cardboard diversion	 Recycle
7	Prioritize glass diversion	 Recycle
8	Obtain waste and recycling program data	 Recycle



## STRATEGY 1 – WASTE PREVENTION



### Reduction

#### Overview

EPA's waste management hierarchy ranks waste management strategies from most to least preferred based on the impact the management method has on the environment. The hierarchy lists waste prevention as the most preferred strategy. Waste prevention reduces the amount of waste generated and has one of the highest environmental impacts with its potential to decrease resources required to manage waste materials.

The City has successful waste management programs and services which help to divert materials from being disposed. However, the City can also further promote waste prevention strategies through outreach and education campaigns, and by encouraging procurement policies which support waste reduction practices.

SCS estimates implementation of this strategy would have the potential to reduce around 5 to 15 percent (4,500 to 14,000 tons) of waste generated in the City.



#### Key Activities

Promoting waste reduction helps prevent waste materials from being generated and therefore needing to be managed, and also helps support resource conservation. Key activities for the City to consider in facilitating waste prevention include:

- **Education and outreach:** Education can show how small behavior changes can have big impacts on the amount of waste generated by residents and businesses. Consumer choices impact the amount of waste generated and the City can help promote strategies (i.e., buy in bulk, seek materials with reduced packaging, use of reusable materials instead of single use items, purchase quantities needed, etc.) which help reduce waste production. Promoting the positive impacts that waste reduction can have on the environment and how residents and businesses can contribute to these changes is important in encouraging their awareness and involvement.
- **Evaluate City contracts:** The City can review internal procurement policies and contracts to evaluate how they can support and incentivize waste reduction practices. Examples include establishing joint purchase agreements with other City and/or County departments to purchase products in bulk quantities, giving selection preference to vendors that demonstrate waste reduction practices, and establishing policies to evaluate options to eliminate or reduce purchased materials.
- **Encourage others to evaluate their contracts:** With evaluating internal policies and procedures to help promote waste reduction, the City could share lessons learned and successes with the businesses and manufacturing communities. The City could develop a tool-kit of potential strategies and promote the environmental and potential economic benefits of implementing waste reduction policies.



## STRATEGY 2 – PROMOTE REUSE OF MATERIALS



### Overview

Although waste prevention is preferable, reusing materials can reduce environmental impacts more than recycling materials according to the EPA's waste management hierarchy. Reusing materials for their intended purpose, or re-purposing them for another use, provides environmental and economic benefits over recycling. Reusing materials helps keep the resource locally accessible, may be more affordable than purchasing new material, typically requires less resources (i.e., transportation, energy, etc.) to obtain the value of the material compared creating new materials or recycling materials for re-processing. Reusing materials also helps prevent the material from being disposed in landfills.

The City has a successful reuse program that collects household hazardous waste (HHW) and prepares the material for reuse or disposal. This program helps divert some HHW products from disposal and allows materials (i.e., paint, stains, glue, herbicides, etc.) to be made available to residents to use for the products original intended purpose rather than shipped for disposal.



### Key Activities

Promoting reuse of materials not only helps divert materials from disposal, but also supports local repair initiatives, provides access to more affordable materials (compared to new materials), and helps keep resources within the community. Reuse programs often focus on non-traditional recyclable materials and can support existing diversion efforts. Key activities for the City to consider in promoting reuse of materials include:

- **Online Directory:** The City could work to establish and maintain an online directory that provides information about non-profit and other entities that accept materials for reuse and/or repurposing. The community could access this directory to learn more about reuse programs, including who accepts materials, and how they can acquire these materials for their use. It is important to note that maintaining accurate information for the online directory is critical for its continued use. If information isn't accurate, users can become frustrated and no longer view the directory as a valuable resource.
- **Contract Review Services:** The City can work with developers, builders, and contractors to evaluate potential strategies to incentivize the use of reused materials in construction projects. Incentives could include building permit deposits and reimbursements based on established metrics that include the amount of material reused. The City could also evaluate establishing procurement initiatives that would encourage and incentivize bidders to reuse materials in projects.
- **Repair Cafes and Workshops:** Repair cafes and workshops present an opportunity for community members to learn valuable repair skills focused on targeted products (i.e., clothing, shoes, furniture, vacuums, small engines, etc.) The focus of these activities is to educate individuals on repair techniques to prevent the materials/products from being



disposed. These events also provide a community engagement opportunity. The City could facilitate such events or work with partners (i.e., local businesses) to then facilitate targeted workshops.

- **Reuse Center:** The City could establish or support a facility that accepts household materials and/or materials for reuse that are in good condition. Such a facility would be responsible for inspecting and accepting incoming materials, storing and displaying the materials, and facilitating the exchange (i.e., purchase or donation) to the new owner. These programs allow materials and products to be put to their highest and best use, may allow the materials/products to be more affordable than a similar items, and help divert from disposal.



## STRATEGY 3 – EVALUATE AND SUPPORT ENVIRONMENTAL SUSTAINABILITY POLICIES AND REGULATIONS



### Overview

The City's commitment to sustainable solid waste management is reflected in the existing programs operated. This waste diversion strategy also provides a path for the City to implement waste prevention and reuse programs and significantly expand existing waste diversion and recycling activities. Although the City has control over the policies, programs, and services provided to residents, policies and regulations at the state and federal level and can impact the City's success in achieving waste diversion.

The City and County do not have the authority that may be needed to achieve high waste diversion. Sustainability policies and regulations at the state and federal level can complement policies at the City level to achieve sustainable material management. This is particularly key for encouraging manufacturing and business sectors to make changes to how products are produced and packaged.

The City should monitor sustainability legislation and regulations at the state and federal level and support those policies that will help advance the City's zero waste goals. The City may be able to provide support to these initiatives and/or consider aligning the City's waste management goals and policies to be similar to the initiatives.



### Key Activities

National, regional, state, and other local sustainability policies and regulations may help inform future City waste and recycling program decisions. Identifying and monitoring these policies and regulations can provide insight for the City to support the initiatives. Key activities for the City to evaluate and support environmental sustainability policies and regulations include:

- **Develop Annual Legislative Priority Wish List:** To help the City raise awareness of their waste diversion goals, the City may consider developing a document or “wish list” of state or federal policies or initiatives that may help achieve the City's zero waste philosophy. The wish list might include the City's position on product stewardship, container redemption or bottle bills, organics management, and other solid waste activities. This list can be sent to the City's elected state and federal representatives in Topeka and Washington, DC. The list and policy positions and requests can be updated annually as part of the City's effort to keep elected officials updated on the City's progress.
- **Support Sustainable Policies at State and Federal Level:** The City could work with other entities that share similar waste and recycling management goals to identify national and/or state sustainable policy and regulation initiatives to support. The City can support these initiatives by promoting awareness within the industry, the public, and to elected/appointed officials at various levels of government, providing letters of support, and assisting with review and/or development of related language. Being aware of these initiatives may also



help influence the development of policies and regulations for the City and/or assist the City in lobbying for specific items at the state legislature level.

- **Support Extended Producer Responsibility Efforts:** Extended producer responsibility (EPR) programs require producers of targeted products to be responsible for the management of the product after it has been consumed (i.e., post-consumer). EPR programs typically require the producer to provide for the collection and proper management of the product after the post-consumer phase. This shifts traditional post-consumer responsibilities away from municipalities and existing waste and recycling programs to a product dedicated program that is facilitated by the producer. These programs help require, incentivize, and establish funding mechanisms for the proper collection and management of traditionally hard to handle materials (i.e., packaging materials, electronics, paint, needles, pharmaceuticals, mattresses, solar panels, etc.). The City can work with other entities to support these policies and work to evaluate how the City may be able to incorporate similar approaches to their policies.

There are additional activities for the City to consider related to supporting environmental sustainability policies and regulations. These opportunities are listed in **Appendix B**.



## STRATEGY 4 – INCREASE PARTICIPATION IN EXISTING DIVERSION PROGRAMS



### Overview

The City has established and operates programs and provides services to divert materials from disposal. These programs and services include a drop-off recycling center, subscription-based curbside collection of recyclable materials through a third-party, electronics collection events, and household hazardous waste collections. Several hundred tons of materials are diverted from disposal annually. This initiative includes increasing and expanding participation in these existing programs by residents to further maximize their use to increase waste diversion.



Despite the success of these programs, data from the City-commissioned material characterization study in 2022 indicated the programs are not being fully utilized by residents. It is estimated that about 30 percent of disposed municipal solid waste, or about 20,000 tons of materials, could have been diverted through an existing City diversion program. Increasing the effectiveness of these existing programs to divert more materials provide an opportunity to significantly increase the City's diversion rate without major investments in new infrastructure and capital.

### Key Activities

While increasing diversion of materials through existing, established programs should not require new capital expenditures, it does require investment in education and outreach. For this initiative to be successful, all residents in the City need to know what programs exist and how to properly use them. Key activities to increase diversion through existing programs include the following:

- **Dedicate Staff Resources to Education and Outreach:** Dedicated staff resources to continually educate and inform the approximately 47,000 residents of Salina on recycling is important for the success of this initiative. This effort requires at least one individual solely focused on developing messages, distributing information, assessing/improving efforts, and identifying constituent groups to confirm all sectors of the City's population have the same and equal access to information about existing recycling programs.
- **Inventory Existing Education and Outreach Efforts:** Increasing usage of the City's programs requires a coordinated effort that uses a variety of media and methods to transmit information. The City should inventory all messages, methods, frequencies, audiences, etc. that are currently part of the City's education program. Once inventoried, City staff should identify gaps and areas of overlap to make the best use of City resources to reach all residents.
- **Develop and Implement Education and Outreach Action Plan:** Effective education and outreach that results in behavior change requires an organized, thoughtful, and targeted approach. This can best be documented and distributed as part of a written education and



outreach plan. The plan would identify key education messages, methods, frequencies, target audiences, and staff activities. This plan would serve as the City's blueprint for education and outreach activities to coordinate and keep City staff apprised of recycling education activities.

There are additional activities for the City to consider to increase usage of the City's existing recycling and waste diversion infrastructure and programs. These opportunities are listed in **Appendix B**.





## STRATEGY 5 – DEVELOP PROGRAMS AND SERVICES TO DIVERT ORGANIC MATERIALS



### Overview

A significant opportunity to reduce the amount of solid waste disposed is to identify and implement programs and policies that divert organic material from disposal. Organic material in the City's disposed waste stream includes yard waste items such as leaves, sticks/branches, grass clippings, plant residue, and other woody material. Additionally, organic material includes both pre- and post-consumer food scraps. Organic materials comprise 25 percent, or 17,000 tons, of the City's disposed municipal solid waste stream.



There are a number of collection methods and processing technologies that facilitate the beneficial reuse of organic materials. Collection methods include residential self-haul drop-off and curbside collection via public or private collection services. Technologies for processing organic materials include chip and grind, aerated turned windrow composting, aerated static pile composting, and anaerobic digestion. Each type of processing technology requires a unique “recipe” to reduce environmental impacts (i.e. odors) and facilitate the decomposition of materials. Processed organic materials can produce valuable products such as mulch, soil amendments, and compost that may be given away or made available for sale.

### Key Activities

The management of organics requires specialized infrastructure, equipment, and skills to create beneficial products. Key activities for the City to consider in finding a sustainable solution for the diversion and management of organics include:

- **Complete an Organics Management Feasibility Study:** Prior to implementing a collection program for organics, it is important for the City to understand the feasible option(s) available for management of the materials. An organics management feasibility study will help the City understand what viable opportunities exist for organics including, technologies, material quantities and sources, infrastructure and operation needs, costs and revenues, product specifications, and end markets. The study may first focus on the opportunities for management of yard waste, with subsequent study on the opportunities for food scraps.
- **Identify Existing Regional Organics Management Infrastructure and Programs:** In conjunction with completing an organics management feasibility study, the City should identify existing regional organics management infrastructure and programs. Information and data to obtain includes capacity restrictions, operation practices, material types and quantities, and potential interest in partnerships. This information will help the City understand opportunities for leveraging existing systems. Entities with infrastructure/programs that express interest in partnering with the City should be incorporated into the organics management feasibility study.



- **Identify Organic Material Large Quantity Generators:** In starting an organics management program, the City should focus on establishing the support and participation of entities that generate large quantities of organic materials such as landscaping companies or food manufacturing facilities. Obtaining the commitment and support for an organics management diversion program from large quantity generators provides reliable and sustained feedstocks with which to establish and operate the new organics program.
- **Eliminate the Practice of Burning Yard Waste:** The City should consider ceasing the burning of yard waste at the landfill. Burning of yard waste is unsustainable and results in air pollution concerns. The City can contract with a vendor to regularly grind yard waste to create wood chips that can then be made available to the public or used in City landscaping and other projects.

Additional organics management activities for the City to consider to establish and operate a program that reduces organic material disposal is provided in **Appendix B**.



## STRATEGY 6 – PRIORITIZE CARDBOARD DIVERSION



### Overview

There are several opportunities for residents and businesses within the City to recycle their cardboard materials. These opportunities include the City’s SDRC which accepts cardboard from residents and private haulers which offer cardboard recycling collection services to residents and businesses. However, despite these opportunities, nearly 9% of the municipal solid waste stream disposed of at the Landfill consists of cardboard. This accounts for approximately 6,000 tons of cardboard materials disposed per year.



### Key Activities

Cardboard is generally easy to separate from other generated waste for recycling collection and historically have a high market value. While the SDRC and private businesses are successfully capturing cardboard for recycling, the characterization study in 2022 shows there is an opportunity to capture even more for recycling. Successfully diverting additional cardboard materials would help conserve landfill disposal capacity and allow this generated material to be captured for re-manufacturing. Key activities to increase cardboard diversion includes the following:

- **Work with Local Businesses to Increase Diversion Opportunities:** The City can work with businesses to develop a tool-kit that provides information on the benefits of participating in cardboard recycling services and how to work with their current service provider to request service cost options. Tool-kit strategies could include how to estimate the size of cardboard recycling container the business may need, how to establish shared cardboard collection services with a neighboring entity to reduce costs, how to navigate City ordinances associated with container placement, and more.
- **Satellite Drop-Off Locations Around the City:** Establishing cardboard drop-off locations would allow residents (with or without curbside collection service access), non-profits, and businesses an opportunity to drop-off their cardboard materials for recycling. The City could work with internal departments and entities to identify potential locations to host recyclable drop-off locations. It is likely that there are existing City ordinances that provide requirements on how such locations need to be sited and potentially permitted. It is preferred that these locations are highly visible to the public, adjacent to well-traveled roads, and accommodate personal mobility requirements. The City may find that businesses are interested in hosting as studies have shown an increase in retail activity at locations that host well maintained drop-off recycling sites. The City would either directly manage or hire a contractor to service and manage the drop-off locations.
- **Collections Study on Curbside Collection of Cardboard:** Collecting recyclables curbside for residents and “alleyway” for businesses (including multi-housing units) offers a lot of convenience to customers and has proven to be successful at increasing volumes of captured materials for recycling. Evaluating the costs associated with providing these



services (i.e., collection fleet, operations and maintenance, labor, containers, supporting infrastructure, etc.) is important to help inform potential future collection service modifications. If curbside recycling collection services were to be performed (by the City or third-party), establishing consistent services will be important to support program outreach and education efforts.

- **Evaluate Transportation and Processers for Possible Improved Cost Efficiencies:** The City currently transports all of the recyclable materials received at the SDRC to the third-party material recovery facility for processing. The material recovery facility accepts single-stream materials and sorts it into material categories for sale to other entities which ultimately processes them for re-manufacturing purposes. It might be financially beneficial for the City to segregate received cardboard materials to deliver segregated loads to the material recovery facility or sell the material directly to re-manufacturing markets.



## STRATEGY 7 – PRIORITIZE GLASS DIVERSION



### Overview

Glass is an infinitely recyclable material meaning that recycled glass can be turned back into the same or similar glass products without loss of product quality. Glass disposed in landfills takes up disposal capacity and the material doesn't decompose which means this capacity is never recaptured.

Based on the 2022 characterization study, glass comprises approximately 2.5% (or 1,600 tons) of the total tons disposed in the Landfill. The City accepts glass at the SDRC where it is currently taken to a third-party material recovery facility.



### Key Activities

Increasing opportunities for residents and businesses to recycle glass would help divert the material from being landfilled and would help support the glass recycling industry. Key activities to increase cardboard diversion includes the following:

- **Work with Local Businesses to Increase Capture of Glass:** The City could work with businesses to develop a glass recycling tool-kit. This tool-kit could include information on the benefits of recycling glass, contacts for companies that collect glass for recycling, and guidance on how to store glass for recycling. The City could also work with businesses and beverage distributors to evaluate the potential for establishing a collection program service for businesses that use a lot of glass beverage containers.
- **Partner with Glass Recycler:** There are regional entities which accept glass for processing and recycling. The City could work with these entities to determine how existing processing and recycling facilities could support the collection of glass within the City. Support could include funding for education and or infrastructure needs (i.e., drop-off containers), guidance in how to setup successful collection programs, or establishing processing and recycling service agreements.
- **Satellite Drop-Off Location(s) Around the City:** Similar to the potential for establishing drop-off collection sites for cardboard recycling, the City could consider providing glass drop-off recycling sites as well. Co-locating these recycling collection sites would provide convenience to residents and businesses using the sites and also to those with responsibilities to maintain and service these sites. The City would either directly manage or hire a contractor to service and manage the drop-off locations.
- **Bunker:** Establishing a separate area either on City property or at the Landfill for glass collection would provide a centralized location for glass received at potential drop-off locations to be tipped and stored. Glass could be placed in a bunker area with barriers (i.e., earthen, jersey barriers, concrete blocks, etc.) for storage until a large enough quantity has been received to load into a vehicle for transportation to a processor for recycling.



## STRATEGY 8 – OBTAIN WASTE AND RECYCLING PROGRAM DATA



### Overview

The City has health and safety responsibilities that include the management of wastes within Salina. While the City does not perform all waste management services within Salina, they have established ordinances, permit requirements, and enforcement responsibilities to help protect the health and safety of the community. The City does play a large role in waste management for the community by performing waste collection services to residents, operating the SDRC, developing and performing education and outreach activities, and owning and operating the landfill.

City leaders and waste and recycling program managers work to evaluate current and future program and service needs for the community to help develop and/or support effective and cost-efficient services. Evaluating community waste and recycling needs requires access to critical program and service data from various City departments as well as private service providers. The better understanding the City has of existing waste and recycling services and programs within the community, the better the City can evaluate and identify potential service or program knowledge gaps, opportunities for improved or expanded services, establish and evaluate program performance metrics, and implement or support potential changes.

While the City currently collects program data for the services it provides and receives required data from permitted third-party service providers, additional data is needed to better understand, evaluate, and plan to help meet current and future waste and recycling management needs of the community.



### Key Activities

Sound and consistent program data helps to inform evaluating, planning, and implementing future program and service decisions. Data can also be used to establish program goals with established metrics to measure performance and identify opportunities for continued improvement. Key activities to obtain waste and recycling program data includes the following:

- **Establish Performance Metrics and Collect Data on Each of the City's Programs/Services:** Developing a performance baseline for existing City waste and recycling programs allows City planners to not only evaluate existing performance, but also to develop performance goals. Developing goals should include establishing metrics using data that are reliable and consistent to measure program performance. The frequency of data collection and performance evaluations may depend on program goals, but should likely occur at least annually.
- **Establish Policies/Protocols for Obtaining Performance Data from Third Party Entities Operating in the City:** The City does not perform all waste and recycling services within Salina. To establish community waste and recycling program goals, information from third-party entities is critical. The City should work to identify program information that is critical for community waste and recycling program planning and work to incorporate data submittal



requirements into existing ordinance and/or permit obligations for third-party service providers. The frequency of data submittal may depend on program goals, but should likely occur at least annually.

- **Review and Evaluate Data Collected and Compare to Established Performance Metrics:** Collected program data helps to inform current and future waste and recycling program decisions. Establishing procedures to evaluate collected data is essential in measuring waste and recycling program performance against established goals. Evaluation procedures should assign City staff responsibilities to oversee the collection and evaluation of the data, the frequency for which evaluation should occur, and how the evaluation results should be documented. These evaluation procedures will help inform potential program modifications needed to help maintain or improve program performance.



## 5 SUMMARY AND NEXT STEPS

The City's zero waste philosophy aims to encourage and facilitate a change in behavior and mindset. The City desires for residents, businesses owners, and visitors to embrace a lifestyle that reduces waste and sees waste materials that are produced as raw materials to be incorporated into manufacturing processes. The strategies identified and described in this report align with the City's Zero Waste Philosophy. While more information is found throughout this Report and in the matrix in Appendix B, the following are a few select activities recommended as next steps to move the City towards more sustainably managing solid waste.

- **Prioritize education** so people understand the value of waste prevention, waste reuse opportunities, and what happens with their waste and recyclables (supports Strategies 1 and 2).
- **Encourage expanded use of existing facilities** to help utilize existing infrastructure, staff, and resources to manage materials (supports Strategy 4).
- **Prepare an online directory**, a robust one-stop website where community members can learn where to manage different types of waste and recyclables, opportunities to divert waste generation and reuse materials (supports Strategies 1, 2, and 4). This could then be used as a platform to help convey information about new programs implemented by the City (supports Strategies 5, 6, and 7) or other regional providers.
- **Review of City management of materials**, including management of waste and material within buildings, procurement contracts, etc. (supports Strategies 1, 2, 3, 4, and 8).
- **Evaluate organics** management options. With food waste, yard waste, and organics being such a large portion of the waste stream, alternative management options for organics will be necessary to support diversion from the landfill (supports Strategy 5). Beginning with yard waste management is a beneficial first step.
- **Collect data** for tracking progress and success of zero waste philosophy impacts (supports Strategy 8).
- **Follow regulatory changes** for knowledge on industry opportunities, changes, and potential funding (supports Strategy 3).





## Appendix A

### Open House Posters with Online Survey Results

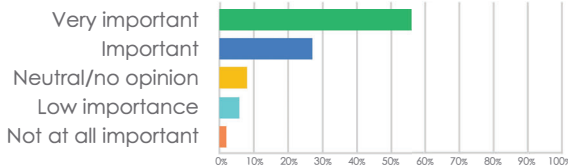
# Online Survey Results



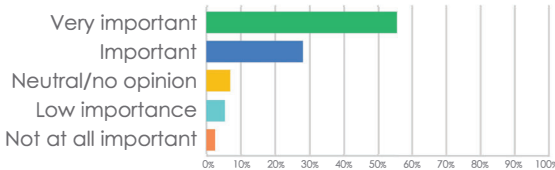
The City conducted a four-week long survey which was promoted through social media, water bill inserts, and press releases. Nearly 600 responses were received.

## What we heard from YOU!

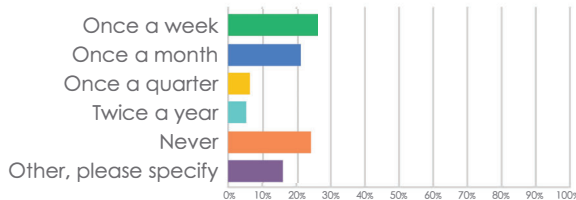
### 1 How important is reuse, recycling, and composting to you? Answered: 589 Skipped: 2



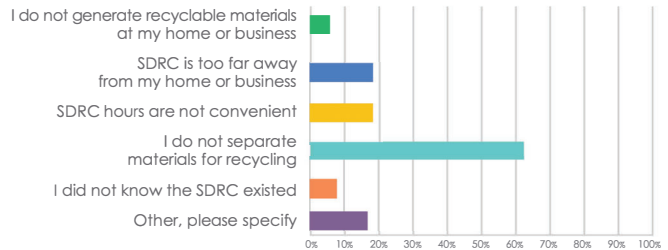
### 2 How important is it for the City of Salina to prioritize waste reduction and recycling efforts that divert materials from landfill disposal? Answered: 587 Skipped: 4



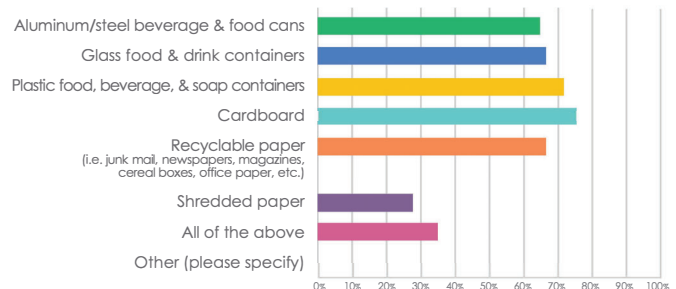
### 3 How frequently do you visit the City's drop-off recycling center, the Salina Drive-thru Recycling Center (SDRC)? Answered: 588 Skipped: 3



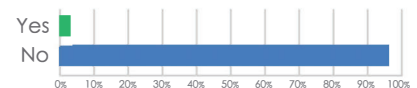
### 4 If you do not use the SDRC, please indicate why. Answered: 136 Skipped: 455



### 5 What recyclable materials do you bring to the SDRC? Answered: 434 Skipped: 157



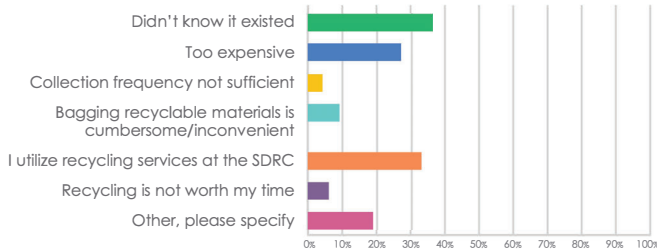
### 6 Do you participate in the curbside recycling program using Recyclops? Answered: 577 Skipped: 14



# Online Survey Results

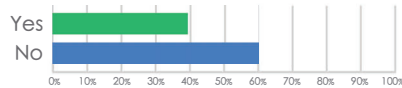
## 7 If you do not participate in the Recyclops curbside recycling program please let us know why?

Answered: 434 Skipped: 157



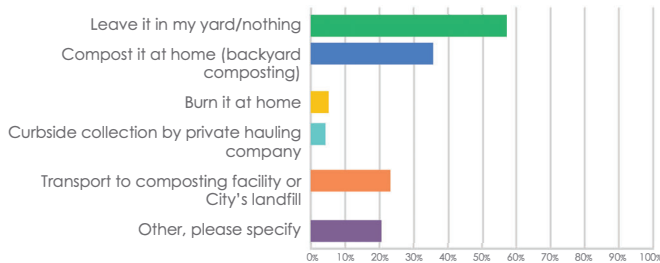
## 8 Do you currently separate your yard waste (i.e. leaves, grass clippings, branches, etc.) from trash?

Answered: 577 Skipped: 14



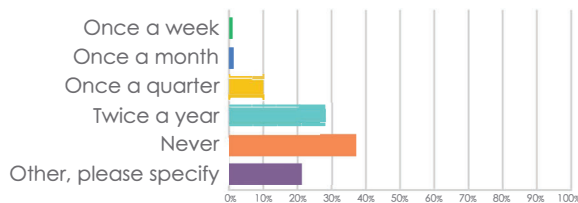
## 9 If so, what do you do with your yard waste?

Answered: 233 Skipped: 368



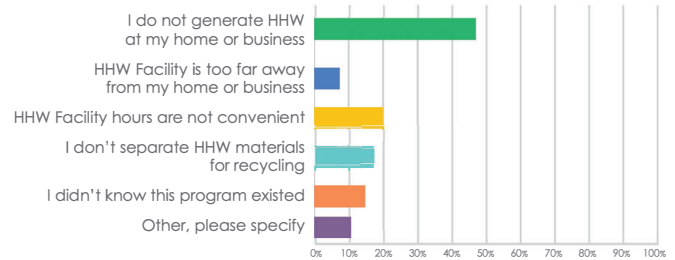
## 10 How frequently do you visit the Salina Household Hazardous Waste (HHW) Facility to drop-off chemicals and other hazardous waste?

Answered: 564 Skipped: 27



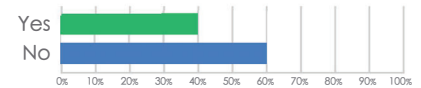
## 11 If you never use the HHW Facility, please share why.

Answered: 203 Skipped: 388



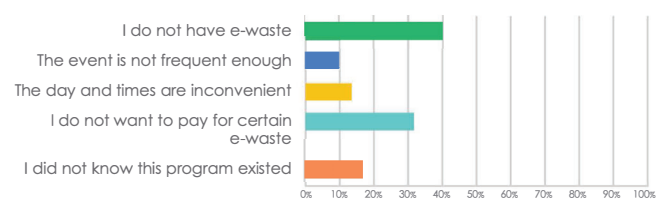
## 12 Do you participate in the annual Salina E-waste (electronic waste) drop-off event? The annual event is typically in early May.

Answered: 559 Skipped: 32



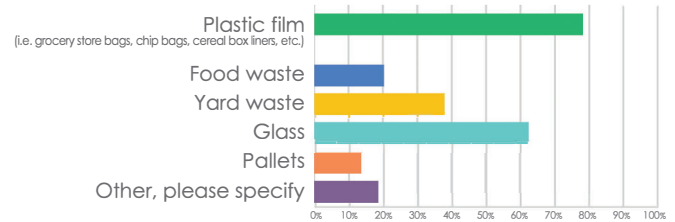
## 13 If no, please share why.

Answered: 330 Skipped: 261



## 14 The City is considering expanding recycling and diversion for additional materials. Would you be willing to separate and transport any of the following materials to a processing facility?

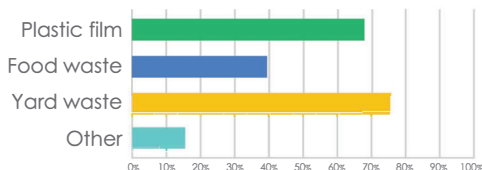
Answered: 418 Skipped: 173



# Online Survey Results

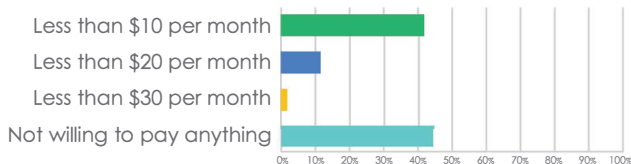
## 15 Would you be willing to separate and place at your curbside any of the following materials for collection?

Answered: 436 Skipped: 155



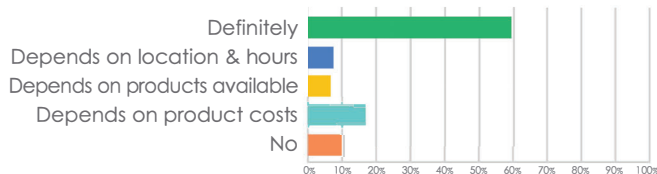
## 16 How much would you be willing to pay for curbside collection services?

Answered: 514 Skipped: 78



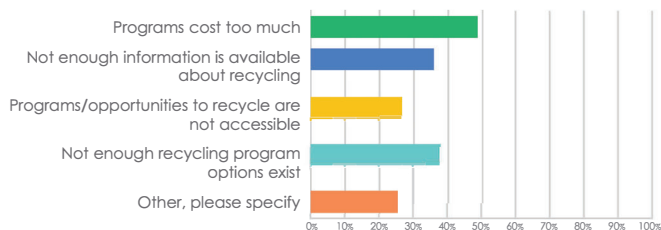
## 17 Would you support the City in evaluating the possibility of developing a reuse center for building materials (wood, wallboard, etc.) and household goods (appliances, cookware, furniture, etc.)?

Answered: 525 Skipped: 67



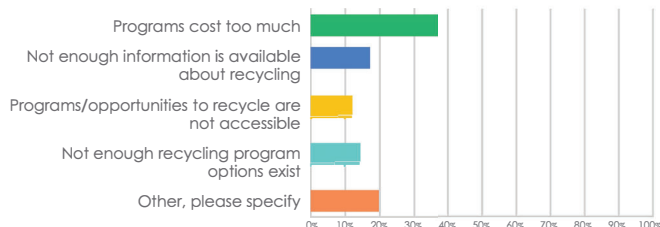
## 18 What barriers do you think exist to recycling in the City of Salina?

Answered: 479 Skipped: 113



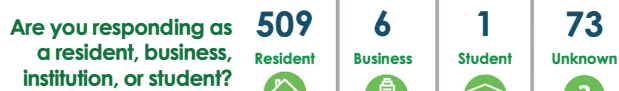
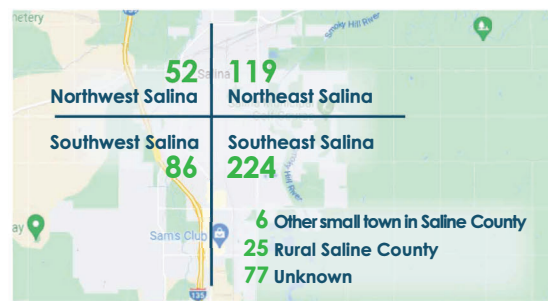
## 19 What do you think is the most significant barrier to recycling in the City of Salina?

Answered: 490 Skipped: 102



### DEMOGRAPHICS

#### What quadrant of the City is your home or business located?



### THEMES OF OPEN-ENDED COMMENTS:



#### General Comments:



#### Other Comment Themes:





## Appendix B

### Waste Reduction Strategy Evaluation Matrix

### Salina Waste Reduction Strategy Evaluation Matrix

Initiative	Possible Example Implementation Ideas, Steps, or Needs	Evaluation Criteria				
		Public Input & Expectation Alignment	Waste Reduction or Diversion Impact	Technical / Resource Needs & Implementation Requirements	Economic Impact	City's Influence on Outcome
<b>Strategy 1: Waste Prevention</b>						
<b>Education and outreach</b>	<ul style="list-style-type: none"> <li>Encourage and focus on behavior changes</li> <li>Education program/campaign for local schools (e.g. talks, presentation, demos)</li> <li>Tool kit "how to" for business owners, churches, schools, etc.</li> <li>Website or game application focused on how to reduce, reuse, recycle, rethink</li> <li>Public tours of existing facilities (landfill, SDRC, and HHW)</li> </ul>	↑↑↑	↑↑	↑↑	--	--
<b>Evaluate City procurement contracts</b>	<ul style="list-style-type: none"> <li>Review existing procurement contracts</li> <li>Establish procedures for contract selection to incentivize reuse, reduction, recycling</li> <li>Evaluate cooperative procurement policies</li> </ul>	↑↑	↑	↑↑	↑	↑↑↑
<b>Encourage others to evaluate their contracts</b>	<ul style="list-style-type: none"> <li>Provide toolkit or examples for businesses, organizations, schools on how to evaluate existing procurement contracts and acceptance requirements</li> <li>Show benefit and impacts of this on their business (reduction of waste, reduction of management, etc.)</li> </ul>	↑↑	↑	↑↑	↑	↓↓↓

**Legend:**

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- Description**  
 Strategy is **very aligned** with evaluation criteria  
 Strategy is **aligned** with evaluation criteria  
 Strategy is **somewhat aligned** with evaluation criteria  
 Strategy is **neutral** with evaluation criteria

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- Description**  
 Strategy is **somewhat unaligned** with evaluation criteria  
 Strategy is **unaligned** with evaluation criteria  
 Strategy is **very unaligned** with evaluation criteria

**Salina Waste Reduction Strategy  
Evaluation Matrix**

Initiative	Possible Example Implementation Ideas, Steps, or Needs	{ Evaluation Criteria }							
		Public Input & Expectation Alignment	Waste Reduction or Diversion Impact	Technical / Resource Needs & Implementation Requirements	Economic Impact	City's Influence on Outcome			
<b>Strategy 2: Promote Reuse of Materials</b>									
<b>Online directory of where to donate</b>	<ul style="list-style-type: none"> <li>Dedicated website on City's page</li> <li>Include directory of region with locations that have opportunities for reuse (Habitat for Humanity, churches, shelters, Goodwill, Salvation Army, etc.)</li> <li>Examples of type of materials and alternative outlets (i.e. fabric too worn for goodwill could go to animal shelters)</li> </ul>	↑↑↑	<ul style="list-style-type: none"> <li>Would contribute to landfill diversion goals</li> <li>Difficult to quantify impact</li> </ul>	↑↑	<ul style="list-style-type: none"> <li>Dedicated staff assigned to compiling donation options and frequently updating directory</li> <li>Collaboration with webmaster</li> <li>No legislative or regulatory changes</li> <li>No land, siting, or permitting requirements</li> </ul>	↑↑	<ul style="list-style-type: none"> <li>Minimal cost would be associated with developing, maintaining, and promoting directory</li> <li>Cost would depend on scale and details of directory</li> </ul>	--	<ul style="list-style-type: none"> <li>Ultimately, it is still up to constituents to use or seek out this resource</li> </ul>
<b>Contract review for builders or deconstruction permits to encourage reuse of materials</b>	<ul style="list-style-type: none"> <li>Incorporate incentives or deposits into construction permits (ex: reduced fee or rebate for reuse or salvaged items with appropriate documentation)</li> <li>For City contracts, could include opportunities for reuse or diversion as contract ranking where appropriate</li> <li>City could request documentation on diversion quantities</li> </ul>	--	<ul style="list-style-type: none"> <li>May have minimal contribution toward landfill diversion goals, likely to be seen more with impact of C&amp;D waste</li> <li>May require local or regional material markets</li> <li>Difficult to quantify impact</li> </ul>	↑↑	<ul style="list-style-type: none"> <li>Changing permit language may be challenging</li> <li>Could start with just reviewing City contracts and using reuse as a consideration in contractor selection</li> <li>No land, siting, or permitting requirements</li> </ul>	↑	<ul style="list-style-type: none"> <li>Some internal cost to review contracts/application fees and revise permit application</li> <li>Incentives could have minimal costs</li> <li>Bids with material reuse may not be the cheapest options</li> </ul>	↑↑↑	<ul style="list-style-type: none"> <li>City has some discretion on contractor selection</li> <li>City has control over permit requirements</li> </ul>
<b>Repair cafes and workshops</b>	<ul style="list-style-type: none"> <li>City host repair workshops or events</li> <li>City to find workshop location and invite/partner with local businesses to provide skills</li> <li>Provides opportunity for people to bring items to have repaired and extend their useful life</li> <li>Provide opportunity to donate or alternative recycling options if cannot be repaired</li> </ul>	↑↑	<ul style="list-style-type: none"> <li>May have negligible impact on landfill diversion goals if impact is limited to participants</li> <li>Difficult to quantify impact</li> </ul>	↑↑	<ul style="list-style-type: none"> <li>Space requirements, staffing time, and advertising for events</li> <li>No legislative or regulatory changes</li> <li>No land, siting, or permitting requirements</li> </ul>	↑	<ul style="list-style-type: none"> <li>Costs depends on the format</li> <li>Minimal costs, such as potential supplies for repair activities or repair services</li> </ul>	↑	<ul style="list-style-type: none"> <li>Partnering with other organizations increases potential participation rates</li> <li>Uncertainty as to whether businesses would participate</li> </ul>

**Legend:**

Icon	Description
↑↑↑	Strategy is <b>very aligned</b> with evaluation criteria
↑↑	Strategy is <b>aligned</b> with evaluation criteria
↑	Strategy is <b>somewhat aligned</b> with evaluation criteria
--	Strategy is <b>neutral</b> with evaluation criteria

Icon	Description
↓	Strategy is <b>somewhat unaligned</b> with evaluation criteria
↓↓	Strategy is <b>unaligned</b> with evaluation criteria
↓↓↓	Strategy is <b>very unaligned</b> with evaluation criteria

**Salina Waste Reduction Strategy  
Evaluation Matrix**

Initiative	Possible Example Implementation Ideas, Steps, or Needs	{ Evaluation Criteria }				
		Public Input & Expectation Alignment	Waste Reduction or Diversion Impact	Technical / Resource Needs & Implementation Requirements	Economic Impact	City's Influence on Outcome
<b>Strategy 2: Promote Reuse of Materials</b>						
<b>Reuse center for household items and materials</b>	<ul style="list-style-type: none"> <li>• Location for community member to deliver or swap items for future reuse by others</li> <li>• Specify which types of materials are accepted</li> <li>• Advertise on City's directory and other means</li> <li>• Potentially co-locate with another facility</li> <li>• Revenue could be generated by sale of items donated</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>• Strong support in online survey feedback</li> <li>• Socially and politically acceptable</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>• Diversion can be quantified</li> <li>• Potential to capture bulky items (e.g. furniture)</li> </ul>	<p align="center">↓↓</p> <ul style="list-style-type: none"> <li>• No existing facility</li> <li>• Long-term commitment by City required</li> <li>• Would require dedicated staff and ongoing operations of program</li> <li>• Would not require legislative or regulatory changes</li> <li>• May take time to implement</li> <li>• Would require a permanent location for facility space and/or land</li> </ul>	<p align="center">↓↓</p> <ul style="list-style-type: none"> <li>• Capital and operating expenses</li> <li>• Position funding (i.e. City FTE or grant funded)</li> <li>• Could create jobs, but relatively low-paying</li> <li>• Requires additional staff, cost is staff salary and benefit expenses</li> <li>• Minimal revenue generated from selling materials</li> </ul>	<p align="center">↑↑</p> <ul style="list-style-type: none"> <li>• City would have direct control over operations</li> <li>• Would require ongoing promotion of facility to generate usage by community</li> </ul>

**Legend:**

Icon	Description
↑↑↑	Strategy is <b>very aligned</b> with evaluation criteria
↑↑	Strategy is <b>aligned</b> with evaluation criteria
↑	Strategy is <b>somewhat aligned</b> with evaluation criteria
--	Strategy is <b>neutral</b> with evaluation criteria

Icon	Description
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↓↓	Strategy is <b>unaligned</b> with evaluation criteria
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**Salina Waste Reduction Strategy  
Evaluation Matrix**

Initiative	Possible Example Implementation Ideas, Steps, or Needs	{ Evaluation Criteria }				
		Public Input & Expectation Alignment	Waste Reduction or Diversion Impact	Technical / Resource Needs & Implementation Requirements	Economic Impact	City's Influence on Outcome
<b>Strategy 3: Evaluate and Support Environmental Sustainability Policies and Regulations</b>						
<b>Support sustainable policies at state/federal level</b>	<ul style="list-style-type: none"> <li>City to support legislation and lobbying for sustainable policies as they align with City goals.</li> <li>City could review current policy or create new policy to support this.</li> </ul>	↓	↓	↑↑	↑↑↑	↓↓↓
<ul style="list-style-type: none"> <li>Public feedback on these policies is likely mixed and politically charged</li> <li>Depends on the policies, likely minimal impact in short term</li> </ul>	<ul style="list-style-type: none"> <li>Options to track policies could include use of existing/dedicated staff, partnership with communities, or membership to specific organizations/groups that track legislation</li> </ul>	<ul style="list-style-type: none"> <li>Minimal, staffing likely could be handled through existing staff</li> <li>If chose to membership to specific organization, membership fees likely reasonable</li> </ul>	<ul style="list-style-type: none"> <li>City can provide support, but unlikely to control much of the political agenda at the state/federal level</li> </ul>			
<b>Support Extended Producer Responsibility efforts</b>	<ul style="list-style-type: none"> <li>City to support legislation and lobbying for having producers be more involved with where their products end up.</li> <li>City could review current policy or create new policy to support this.</li> </ul>	↓	↓	↑↑	↑↑↑	↓↓↓
<ul style="list-style-type: none"> <li>Public feedback on these policies is likely mixed and politically charged</li> <li>Some industries may dislike this effort</li> <li>Depends on the policies, likely minimal impact in short term</li> </ul>	<ul style="list-style-type: none"> <li>Options to track policies could include use of existing/dedicated staff, partnership with communities, or membership to specific organizations/groups that track legislation</li> </ul>	<ul style="list-style-type: none"> <li>Minimal, staffing likely could be handled through existing staff</li> </ul>	<ul style="list-style-type: none"> <li>City can provide support, but unlikely to control much of the political agenda at the state/federal level</li> </ul>			
<b>Establish new plans to support waste reduction goals</b>	<ul style="list-style-type: none"> <li>Create City plans for supporting environmental sustainability (food system plans, climate action plans, etc.)</li> </ul>	↑	--	↑↑	↑	↑↑
<ul style="list-style-type: none"> <li>Sets focused goals and ideas for general public and businesses</li> <li>Plans are generally less visible/meaningful to public than actions</li> <li>Likely minimal in the short term</li> <li>Can be used to help guide behavior change</li> </ul>	<ul style="list-style-type: none"> <li>Decisions and goal making to occur within City existing staff</li> <li>Development of plan could be done in-house or contracted to third party</li> <li>Education campaign for information distribution</li> </ul>	<ul style="list-style-type: none"> <li>Require time and staff support and potentially outside support from consultant</li> <li>Depending on the goals, cost to develop web presence and education campaign</li> </ul>	<ul style="list-style-type: none"> <li>City can help establish this goal for the community.</li> <li>Involvement with local groups will increase acceptance</li> <li>Education campaign will help</li> </ul>			

**Legend:**

Icon	Description
↑↑↑	Strategy is <b>very aligned</b> with evaluation criteria
↑↑	Strategy is <b>aligned</b> with evaluation criteria
↑	Strategy is <b>somewhat aligned</b> with evaluation criteria
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**Salina Waste Reduction Strategy  
Evaluation Matrix**

Initiative	Possible Example Implementation Ideas, Steps, or Needs	{ Evaluation Criteria }				
		Public Input & Expectation Alignment	Waste Reduction or Diversion Impact	Technical / Resource Needs & Implementation Requirements	Economic Impact	City's Influence on Outcome
<b>Strategy 3: Evaluate and Support Environmental Sustainability Policies and Regulations</b>						
<b>Foster public/private partnerships with other entities</b>	<ul style="list-style-type: none"> <li>Look for opportunities to partner with private entities to support initiatives (i.e., shared infrastructure development costs, lease operations/land for operations, etc.)</li> <li>City to provide examples of how to reduce costs or alternative resource management options</li> </ul>	<p align="center">↑↑</p> <ul style="list-style-type: none"> <li>Businesses and entities with an interest in waste reduction may be willing to partner with City</li> <li>ZWI participants may be a starting place for potential partnerships</li> </ul>	<p align="center">--</p> <ul style="list-style-type: none"> <li>Important in shifting behavior change</li> <li>Partnerships will broaden potential impact</li> </ul>	<p align="center">↑↑</p> <ul style="list-style-type: none"> <li>Existing staff</li> <li>Education campaign</li> <li>Evaluate how the City would like to be involved</li> <li>Participate in local stakeholder groups</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>Minimal, staffing likely could be handled through existing staff</li> </ul>	<p align="center">↑</p> <ul style="list-style-type: none"> <li>City has ability to work towards Public/private partnership opportunities</li> <li>Need private partnerships willing to participate</li> </ul>
<b>Evaluate existing City policies for alignment with waste diversion and reduction</b>	<ul style="list-style-type: none"> <li>Review validity of "Free Landfill Day"</li> <li>Review policy on yard waste disposal in landfill</li> <li>Review policy of burning yard waste at the landfill</li> <li>Review policy on plastic bags</li> </ul>	<p align="center">--</p> <ul style="list-style-type: none"> <li>Policies are highly visible</li> <li>Likely some resistance during transitional period</li> </ul>	<p align="center">↑↑</p> <ul style="list-style-type: none"> <li>Bans can be highly effective</li> <li>Some policies may be difficult to enforce</li> </ul>	<p align="center">↑↑</p> <ul style="list-style-type: none"> <li>May require legal review</li> <li>May require specific collection criteria</li> <li>May require evaluation of suitability for alternatives</li> </ul>	<p align="center">--</p> <ul style="list-style-type: none"> <li>Some policies may require funding</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>City has direct influence over policies</li> </ul>

**Legend:**

Icon	Description
↑↑↑	Strategy is <b>very aligned</b> with evaluation criteria
↑↑	Strategy is <b>aligned</b> with evaluation criteria
↑	Strategy is <b>somewhat aligned</b> with evaluation criteria
--	Strategy is <b>neutral</b> with evaluation criteria
↓	Strategy is <b>somewhat unaligned</b> with evaluation criteria
↓↓	Strategy is <b>unaligned</b> with evaluation criteria
↓↓↓	Strategy is <b>very unaligned</b> with evaluation criteria

**Salina Waste Reduction Strategy  
Evaluation Matrix**

Initiative	Possible Example Implementation Ideas, Steps, or Needs	{ Evaluation Criteria }				
		Public Input & Expectation Alignment	Waste Reduction or Diversion Impact	Technical / Resource Needs & Implementation Requirements	Economic Impact	City's Influence on Outcome
<b>Strategy 4: Increase Participation in Existing Diversion Programs</b>						
<b>Evaluate/inventory existing education and outreach activities and identify gaps</b>	<ul style="list-style-type: none"> <li>Identify and describe existing education and outreach activities</li> <li>Identify target audiences</li> <li>Evaluate existing program for gaps or opportunities for improvement</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>Survey results indicate there is a segment of the population that does not know about City programs</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>Up to 31% of disposed waste stream is material that could be diverted through existing programs</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>Can be done internally with City staff; may hire a consultant to help assess gaps and identify opportunities</li> </ul>	<p align="center">↑↑</p> <ul style="list-style-type: none"> <li>Main cost is staff salary and benefit expenses; can use existing staff</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>City likely to maintain control over education and outreach activities</li> </ul>
<b>Dedicate staff resources for education and outreach</b>	<ul style="list-style-type: none"> <li>Allocate existing staff or hire new personnel to devote 100% of their time to education and outreach</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>Survey results indicate a segment of the population does not know about City programs</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>Up to 31% of disposed waste stream is material that could be diverted through existing programs</li> </ul>	<p align="center">↑↑</p> <ul style="list-style-type: none"> <li>Need dedicated staff to promote and educate the public on diversion programs and proper material management</li> </ul>	<p align="center">--</p> <ul style="list-style-type: none"> <li>Effective outreach campaign could be expensive</li> <li>Main cost is staff salary and benefit expenses; can use existing staff (E3 Coordinator)</li> <li>Position funding (i.e. City FTE or grant funded)</li> <li>Significant funds already spent on media, broadcasting, radio, &amp; event center</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>City likely to maintain control over education and outreach activities</li> </ul>
<b>Develop education and outreach action plan</b>	<ul style="list-style-type: none"> <li>Draft an education and outreach plan that includes annual recurring activities and larger goals to guide the City's education and outreach activities</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>Survey results indicate there is a segment of the population that does not know about City programs</li> <li>Plan would be an internal document guiding education and outreach efforts</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>Up to 31% of disposed waste stream is material that could be diverted through existing programs</li> </ul>	<p align="center">↑↑</p> <ul style="list-style-type: none"> <li>Dedicated City education and outreach staff to prepare plan or consultant can be hired to prepare the plan</li> </ul>	<p align="center">↑</p> <ul style="list-style-type: none"> <li>Require time and staff support and potentially outside support from consultant</li> <li>Depending on the goals, cost to develop web presence and education campaign</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>City to set the direction for the plan and as an internal document would have control/influence over its implementation</li> </ul>

**Legend:**

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**Description**

- Strategy is **very aligned** with evaluation criteria  
 Strategy is **aligned** with evaluation criteria  
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- Strategy is **somewhat unaligned** with evaluation criteria  
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**Salina Waste Reduction Strategy  
Evaluation Matrix**

Initiative	Possible Example Implementation Ideas, Steps, or Needs	{ Evaluation Criteria }				
		Public Input & Expectation Alignment	Waste Reduction or Diversion Impact	Technical / Resource Needs & Implementation Requirements	Economic Impact	City's Influence on Outcome
<b>Strategy 4: Increase Participation in Existing Diversion Programs</b>						
<b>Implement education and outreach plan</b>	<ul style="list-style-type: none"> <li>Implement education and outreach plan</li> <li>Document activities and impacts</li> <li>Track results</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>Survey results indicate there is a segment of the population that does not know about City programs</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>Up to 31% of disposed waste stream is material that could be diverted through existing programs</li> </ul>	<p align="center">↑↑</p> <ul style="list-style-type: none"> <li>Plan implementation is expected to be led by City staff</li> <li>Support may be needed from consultants or media services to execute the plan</li> </ul>	<p align="center">↑</p> <ul style="list-style-type: none"> <li>Main cost is staff salary and benefit expenses</li> <li>Additional expenses might include vendors or service providers to implement the plan or media services to broadcast messages</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>How the City implements the plan will impact its outcome</li> <li>City will also have opportunities to adjust the plan and activities to facilitate different or more desired outcomes</li> </ul>
<b>Measure current program participation and establish target goals for increasing participation</b>	<ul style="list-style-type: none"> <li>Estimate/measure current program participation and explore ways to increase participation in the City's waste diversion programs</li> <li>Establish incremental goals to increase participation</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>Survey results indicate there is a segment of the population that does not know about City programs</li> <li>Information from site visits in late March 2023 indicate City is tracking some of this data</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>Up to 31% of disposed waste stream is material that could be diverted through existing programs</li> <li>Tracking participation in programs will give the City information how many residents/households support the City's programs</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>Requires City staff to measure and establish goals</li> </ul>	<p align="center">↑↑</p> <ul style="list-style-type: none"> <li>Main cost is staff salary and benefit expenses; can use existing staff</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>City expected to have control over this activity</li> <li>Participation levels (i.e. outcomes) will be impacted by the City's education and outreach strategy</li> </ul>
<b>Consider incentives for residents and/or businesses to increase diversion</b>	<ul style="list-style-type: none"> <li>Identify and evaluate opportunities to incentivize residents and business owners to participate in diversion programs (i.e. profiles on social media, recognition in newsletter, etc.)</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>Survey results indicate there is a segment of the population that does not know about City programs</li> <li>Public generally supports incentives/recognition for desired behaviors</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>Up to 31% of disposed waste stream is material that could be diverted through existing programs</li> <li>Incentives can be impactful to increase diversion, especially if they are monetary</li> </ul>	<p align="center">↑↑</p> <ul style="list-style-type: none"> <li>Incentive program would need to be developed</li> <li>Many existing communities have incentive or recognition programs in place that can be emulated in the City</li> </ul>	<p align="center">↑↑</p> <ul style="list-style-type: none"> <li>Main cost is staff salary and benefit expenses to develop/support the program</li> <li>Financial incentives may increase the cost of this activity</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>City expected to design and implement an incentive program</li> <li>Will need to consider impacts if financial incentives are considered</li> </ul>

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**Description**

- Strategy is **very aligned** with evaluation criteria  
 Strategy is **aligned** with evaluation criteria  
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- Strategy is **somewhat unaligned** with evaluation criteria  
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**Salina Waste Reduction Strategy  
Evaluation Matrix**

Initiative	Possible Example Implementation Ideas, Steps, or Needs	{ Evaluation Criteria }				
		Public Input & Expectation Alignment	Waste Reduction or Diversion Impact	Technical / Resource Needs & Implementation Requirements	Economic Impact	City's Influence on Outcome
<b>Strategy 4: Increase Participation in Existing Diversion Programs</b>						
<p><b>Establish committee to brainstorm ideas on how program information can best be distributed and/or communicated</b></p>	<ul style="list-style-type: none"> <li>Recruit residents and business owners/operators to help identify ways the City can be more effective in communicating about existing programs and diversion opportunities</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>Community involvement and input on how the City can best communicate/educate actively engages the public in this process</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>Up to 31% of disposed waste stream is material that could be diverted through existing programs</li> </ul>	<p align="center">↑↑</p> <ul style="list-style-type: none"> <li>Requires support and leadership of City staff</li> </ul>	<p align="center">↑↑</p> <ul style="list-style-type: none"> <li>Main cost is staff salary and benefit expenses; can use existing staff</li> </ul>	<p align="center">↑</p> <ul style="list-style-type: none"> <li>City to oversee committee work</li> <li>Community members may have strong ideas for what the City should be doing</li> </ul>
<p><b>Co-locate environmental programs</b></p>	<ul style="list-style-type: none"> <li>For example, a sustainability center or eco-park</li> <li>Could co-locate HHW facility, recycling drop-off, reuse center, etc.</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>Socially &amp; politically acceptable</li> <li>Convenience for customers</li> </ul>	<p align="center">↑↑</p> <ul style="list-style-type: none"> <li>Diversion can be quantified</li> <li>Potential to capture large amount of items in one location</li> </ul>	<p align="center">↓↓↓</p> <ul style="list-style-type: none"> <li>Would have to expand existing facilities or construct new facility</li> <li>Would require additional land</li> <li>Long-term commitment by City required</li> <li>Would require dedicated staff and ongoing operations of program</li> <li>Would not require legislative or regulatory changes</li> <li>May take time to implement</li> </ul>	<p align="center">↓↓↓</p> <ul style="list-style-type: none"> <li>Capital and operating expenses</li> <li>Main cost is staff salary and benefit expenses; can use existing staff (E3 Coordinator)</li> <li>Could create jobs, but relatively low paying</li> </ul>	<p align="center">↑↑</p> <ul style="list-style-type: none"> <li>City would have direct control over operations</li> <li>Would require ongoing promotion of facility to generate usage by community</li> </ul>

**Legend:**

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**Description**

- Strategy is **very aligned** with evaluation criteria
- Strategy is **aligned** with evaluation criteria
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**Salina Waste Reduction Strategy  
Evaluation Matrix**

Initiative	Possible Example Implementation Ideas, Steps, or Needs	{ Evaluation Criteria }				
		Public Input & Expectation Alignment	Waste Reduction or Diversion Impact	Technical / Resource Needs & Implementation Requirements	Economic Impact	City's Influence on Outcome
<b>Strategy 5: Develop Programs and Services to Divert Organic Materials</b>						
<b>Composting feasibility study and facility</b>	<ul style="list-style-type: none"> <li>Study the feasibility of establishing a composting facility for organics management and processing</li> <li>Study to include identifying and assessing compost product end markets</li> <li>If feasibility study shows a City owned and operated facility is viable, assumes City will construct facility</li> </ul>	↑↑↑  • Survey respondents support prioritizing waste diversion activities	↑↑↑  • Organics comprises over a fifth of the disposed waste stream, but diversion will not occur without regionally available facility to take organics	↓↓  • Will likely require substantial new infrastructure and additional programs and services provided to residents	↓↓  • Organic management infrastructure is likely to be costly • Different composting methods have varying levels of capital costs	↑↑↑  • The City has an opportunity to influence the success of this strategy by designing facilities, programs, and services that impact the community
<b>Expand composting feasibility study to evaluate other management technologies and material streams</b>	<ul style="list-style-type: none"> <li>Expand study to look at alternative processing technologies (i.e. anaerobic digestion) and material streams (i.e. food scraps)</li> <li>Study to include identifying and assessing end markets for processed organics</li> </ul>	↑↑↑  • Survey respondents support prioritizing waste diversion activities	↑↑↑  • Study alone will not increase diversion • Organics comprises over a fifth of the disposed waste stream, but diversion will not occur without regionally available facility to take organics	↓↓  • Will likely require substantial new infrastructure and additional programs and services provided to residents	↓↓↓  • Organic management infrastructure is likely to be costly; alternative organics management methods are generally higher cost than window composting	↑↑↑  • The City has an opportunity to influence the success of this strategy by designing facilities, programs, and services that impact the community
<b>Identify existing organics management infrastructure and programs</b>	<ul style="list-style-type: none"> <li>Research local and regional organics management facilities and explore potential partnerships</li> </ul>	↑↑↑  • Survey respondents support prioritizing waste diversion activities	↑↑↑  • Organics comprises over a fifth of the disposed waste stream	↑↑↑  • Partnering with another entity or utilizing regional resources has the potential to reduce the City's cost	↑↑  • Minimal, staffing likely could be handled through existing staff	--  • City may have limited say/input on organics management if partnering with other entities that have established programs

**Legend:**

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Evaluation Matrix**

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<b>Strategy 5: Develop Programs and Services to Divert Organic Materials</b>						
<b>Identify organic material large quantity generators and support businesses interested in organics diversion</b>	<ul style="list-style-type: none"> <li>Identify and meet with businesses, industries, etc. generating large quantities of organic materials to request support/participation in a potential organics management diversion program</li> <li>Identify businesses that are diverting organics or have an interest in doing so and provide support/technical assistance</li> </ul>	<p align="center">↑</p> <ul style="list-style-type: none"> <li>ZWI has identified community stakeholders that may be interested in participating in organics diversion programs</li> <li>Some businesses and industries may be unwilling to change organics management procedures, or unwilling to share how those materials are currently managed</li> </ul>	<p align="center">↑↑</p> <ul style="list-style-type: none"> <li>Organics comprises over a fifth of the disposed waste stream</li> <li>Impact potential greatly varies with participation</li> </ul>	<p align="center">↑</p> <ul style="list-style-type: none"> <li>Requires the City to take a leadership role in establishing opportunities for businesses to divert organics</li> </ul>	<p align="center">↑↑</p> <ul style="list-style-type: none"> <li>Minimal, staffing likely could be handled through existing staff</li> </ul>	<p align="center">↑</p> <ul style="list-style-type: none"> <li>Business/industry support/receptiveness to organics diversion will indicate the success level of this activity</li> </ul>
<b>Evaluate organics collection methods</b>	<ul style="list-style-type: none"> <li>Study collection methods for organics with consideration towards initially establishing drop-off sites with expansion to curbside collection</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>Survey respondents support prioritizing waste diversion activities</li> <li>Survey respondents had varied responses based on the type of organics and method of collection</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>Organics comprises over a fifth of the disposed waste stream</li> <li>Collection of organics has large potential for waste diversion impact</li> </ul>	<p align="center">--</p> <ul style="list-style-type: none"> <li>Evaluating collection methods should lead to the development of a collection program; will require new programs and services</li> </ul>	<p align="center">↓↓↓</p> <ul style="list-style-type: none"> <li>Material collection is generally the most significant cost aspect of a program; costs vary depending on collection method</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>City can maintain control of material collection whether or not it is provided with City staff/equipment or a vendor</li> </ul>
<b>Conduct education and outreach activities</b>	<ul style="list-style-type: none"> <li>Devote education and outreach resources to informing the public on organic waste reduction, managing it on their properties, and opportunities for diversion (when developed)</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>Survey respondents support prioritizing waste diversion activities</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>Organics comprises over a fifth of the disposed waste stream</li> </ul>	<p align="center">↑↑</p> <ul style="list-style-type: none"> <li>Staff and media resources are needed</li> </ul>	<p align="center">--</p> <ul style="list-style-type: none"> <li>Effective outreach campaign could be expensive</li> <li>Main staff salary and benefit expenses; may use existing staff (E3 Coordinator) for portion, depending on scale of campaign</li> <li>Position funding (i.e. City FTE or grant funded)</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>City will control messaging and establish education activities</li> </ul>

**Legend:**

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**Description**

- Strategy is **very aligned** with evaluation criteria
- Strategy is **aligned** with evaluation criteria
- Strategy is **somewhat aligned** with evaluation criteria
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- Strategy is **somewhat unaligned** with evaluation criteria
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**Salina Waste Reduction Strategy  
Evaluation Matrix**

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<b>Strategy 5: Develop Programs and Services to Divert Organic Materials</b>						
<b>Promote/facilitate edible food recovery</b>	<ul style="list-style-type: none"> <li>Facilitate connections between food sources (e.g. grocery stores, restaurants, etc.) and food need suppliers (e.g. food bank, shelters, churches, etc.)</li> <li>Use food recovery apps</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>Survey respondents support prioritizing waste diversion activities</li> <li>Politically and socially acceptable and encouraged</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>Organics comprises over a fifth of the disposed waste stream</li> </ul>	<p align="center">↑↑</p> <ul style="list-style-type: none"> <li>Resources include media services, software/app fees, staff time for program; it is not expected the City will run the program and purchase equipment to manage or move edible food throughout the community</li> </ul>	<p align="center">--</p> <ul style="list-style-type: none"> <li>Costs include staff salaries and outside media services</li> <li>No vehicles or storage facilities are expected to be purchased by the City</li> <li>Costs could increase if City opts to contribute funding or help provide support to find funding for transportation or cold storage</li> </ul>	<p align="center">↑</p> <ul style="list-style-type: none"> <li>City is expected to promote program and help facilitate connections, but the recovery of edible food is will be up to third party entities</li> </ul>
<b>Phase out the burning of yard waste</b>	<ul style="list-style-type: none"> <li>Procure vendor to chip and grind material until composting/yard waste processing program can be implemented</li> <li>Use wood chips internally or make them available to the public</li> <li>Assumes if burning is phased out, there is an alternative management option besides disposal in the landfill</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>Survey respondents support prioritizing waste diversion activities</li> </ul>	<p align="center">↑↑</p> <ul style="list-style-type: none"> <li>Burning of yard waste is not considered a viable method for material diversion and should not be counted towards the City's diversion rate</li> <li>Only has a positive impact on diversion if there is an alternative management option besides disposal in landfill</li> </ul>	<p align="center">--</p> <ul style="list-style-type: none"> <li>Requires vendor or City staff/equipment support to temporarily process material until permant management program can be implemented</li> <li>May require permitting (e.g. air permitting for equipment), depending on operations</li> </ul>	<p align="center">↓↓↓</p> <ul style="list-style-type: none"> <li>Processing material will cost more than burning the material, but is essential for moving towards a more sustainable program</li> <li>Costs will depend on whether conducted by City or by hired third party</li> <li>City may need to purchase equipment</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>The City currently controls this material and has direct impact on how it is managed</li> </ul>

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**Description**

Strategy is **very aligned** with evaluation criteria  
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Strategy is **somewhat unaligned** with evaluation criteria  
 Strategy is **unaligned** with evaluation criteria  
 Strategy is **very unaligned** with evaluation criteria



**Salina Waste Reduction Strategy  
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		Public Input & Expectation Alignment	Waste Reduction or Diversion Impact	Technical / Resource Needs & Implementation Requirements	Economic Impact	City's Influence on Outcome
<b>Strategy 6: Prioritize Cardboard Diversion</b>						
<b>Work with local businesses to increase diversion opportunities</b>	<ul style="list-style-type: none"> <li>City could prepare toolkit for businesses to utilize to understand the value this brings to their business</li> <li>Opportunity for partnership with local businesses (e.g. promotions, drop-off locations)</li> </ul>	<p align="center">↑</p> <ul style="list-style-type: none"> <li>ZWI has identified community stakeholders that may be interested in participating in cardboard diversion programs</li> <li>Some businesses and industries may be unwilling to change cardboard management procedures, or unwilling to share how those materials are currently managed</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>Cardboard is a large component of the waste stream (~9% of MSW waste stream)</li> <li>Businesses generate this material and do not have access to the same opportunities as residents</li> </ul>	<p align="center">↑↑</p> <ul style="list-style-type: none"> <li>Communication with local businesses</li> <li>Develop plan for implementation to support businesses</li> <li>Education component for consistent messaging</li> </ul>	<p align="center">↑↑</p> <ul style="list-style-type: none"> <li>If using existing staff, no new positions required</li> <li>Actual cost will depend on level of involvement/support City wants to provide (i.e. tool kits for local businesses)</li> </ul>	<p align="center">--</p> <ul style="list-style-type: none"> <li>Behavior change for businesses will not be within City's control</li> <li>Businesses with a drive to improve waste diversion may be more receptive to City input or assistance</li> </ul>
<b>Satellite drop-off location(s) around City</b>	<ul style="list-style-type: none"> <li>Select locations for drop off location</li> <li>Potential partnership with local businesses for locations</li> <li>Determine pickup schedule, transportation, baled vs. loose, and contamination control measures</li> <li>Permitting needs</li> <li>City could self perform or contract with third-party</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>Expands options for cardboard recycling besides the SDRC</li> <li>Survey respondents generally seemed in favor of waste diversion</li> <li>Adds convenience</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>Cardboard is a large component of the waste stream (~9% of MSW waste stream)</li> <li>Expanded program may encourage additional participation</li> <li>Unstaffed locations have potential for higher contamination</li> </ul>	<p align="center">↓↓</p> <ul style="list-style-type: none"> <li>Establish locations for drop-off areas around City</li> <li>Potential for partnership with local businesses/organizations for locations</li> <li>Containers, locks, and other infrastructure for drop-off location</li> <li>Education and outreach regarding new program</li> <li>Transportation needs to remove containers and hauling to recycler</li> </ul>	<p align="center">↓↓</p> <ul style="list-style-type: none"> <li>Operation could be City run or contracted through third-party</li> <li>Third-party costs would likely be higher</li> <li>Funds will need to be established for operations, contaminate management, and transportation</li> <li>Education and outreach to promote new locations and expectations</li> </ul>	<p align="center">↑</p> <ul style="list-style-type: none"> <li>City has the ability to establish location and program</li> <li>Location and hours would impact public participation</li> <li>Education campaign to in</li> <li>City does not have control over contamination, unless full-time staffed</li> </ul>

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**Salina Waste Reduction Strategy  
Evaluation Matrix**

Initiative	Possible Example Implementation Ideas, Steps, or Needs	{ Evaluation Criteria }				
		Public Input & Expectation Alignment	Waste Reduction or Diversion Impact	Technical / Resource Needs & Implementation Requirements	Economic Impact	City's Influence on Outcome
<b>Strategy 6: Prioritize Cardboard Diversion</b>						
<b>Collections study on curbside pickup of cardboard</b>	<ul style="list-style-type: none"> <li>Conduct a collections study evaluation for potential option for curbside pickup for businesses and residents</li> <li>If study seems viable, determine if City would do collection or if would contract separate hauler</li> <li>Decide program specifics and if containers will be provided to program participants</li> <li>Education campaign about program</li> </ul>	<p align="center">↑</p> <ul style="list-style-type: none"> <li>Survey indicated select areas of public may be interested</li> <li>Would expand options for cardboard recycling besides the SDRC</li> <li>Based on survey responses, public likely does not want to pay extra for this service</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>Cardboard is a large component of the waste stream (~9% of MSW waste stream)</li> <li>Expanded program may encourage additional participation</li> <li>Businesses would be more likely to participate if minimal cost to staff and current resources</li> </ul>	<p align="center">↓↓↓</p> <ul style="list-style-type: none"> <li>If study results in viable option, determine how the program would be setup (City run or contracted)</li> <li>If City run, may need staff / labor, trucks, equipment and containers (if provided to program participants)</li> </ul>	<p align="center">↓↓↓</p> <ul style="list-style-type: none"> <li>Additional staff would be required</li> <li>Low paying position, may be difficult to keep filled</li> <li>Additional trucks and/or routes would need to be established</li> <li>Community may not want to pay for this program as an add-on</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>City has the ability to establish program</li> <li>Participation in program would depend on cost structure</li> <li>Education campaign to increase awareness</li> </ul>
<b>Evaluate transportation and processors for possible improved cost efficiencies</b>	<ul style="list-style-type: none"> <li>Evaluate opportunities for processors looking for source separated cardboard</li> <li>Determine is additional processing would be required (e.g. baling)</li> </ul>	<p align="center">--</p> <ul style="list-style-type: none"> <li>Not as visible to the public eye</li> </ul>	<p align="center">--</p> <ul style="list-style-type: none"> <li>Ability for processor to accept material directly impacts material diversion</li> <li>Source separated cardboard may have different market and rates</li> </ul>	<p align="center">--</p> <ul style="list-style-type: none"> <li>Determine needs for transportation and hauling of material</li> <li>If City to transport determine need for additional staff and trucks</li> <li>Depending on the recycler, may have requirements for material to be baled</li> </ul>	<p align="center">↑</p> <ul style="list-style-type: none"> <li>Evaluation of options can be done with existing staff</li> <li>May find better rates for source separated cardboard</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>City has high ability to evaluate source separated cardboard markets with processors</li> </ul>

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- Strategy is **very aligned** with evaluation criteria  
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**Salina Waste Reduction Strategy  
Evaluation Matrix**

Initiative	Possible Example Implementation Ideas, Steps, or Needs	Evaluation Criteria				
		Public Input & Expectation Alignment	Waste Reduction or Diversion Impact	Technical / Resource Needs & Implementation Requirements	Economic Impact	City's Influence on Outcome
<b>Strategy 7: Prioritize Glass Diversion</b>						
<b>Work with local businesses to increase capture of glass</b>	<ul style="list-style-type: none"> <li>City could prepare toolkit for businesses to utilize to understand the value this brings to their business</li> <li>Opportunity for partnership with local businesses, particularly restaurants and bars (e.g. promotions, drop-off locations)</li> </ul>	<p align="center">↑</p> <ul style="list-style-type: none"> <li>ZWI has identified community stakeholders that may be interested in participating in glass diversion programs</li> <li>Some businesses and industries may be unwilling to change glass management procedures, or unwilling to share how those materials are currently managed</li> <li>Limited options for businesses for ease of disposal, particularly for larger generators</li> </ul>	<p align="center">↑↑</p> <ul style="list-style-type: none"> <li>Glass is a smaller component of the total waste stream (~2.5% of MSW waste stream)</li> <li>Select Businesses generate this material (such as restaurants) and could be targeted</li> </ul>	<p align="center">↑↑</p> <ul style="list-style-type: none"> <li>Communication with local businesses</li> <li>Develop plan for implementation to support businesses</li> <li>Education component for consistent messaging</li> </ul>	<p align="center">↑↑</p> <ul style="list-style-type: none"> <li>If using existing staff, no new positions required</li> <li>Actual cost will depend on level of involvement/support City wants to provide (tool kits for local businesses)</li> </ul>	<p align="center">--</p> <ul style="list-style-type: none"> <li>Behavior change for businesses will not be within City's control</li> <li>Businesses with a drive to improve waste diversion may be more receptive to City input</li> </ul>
<b>Partner with glass recycler</b>	<ul style="list-style-type: none"> <li>Potential partnership with local businesses for locations</li> <li>Determine pickup schedule, transportation, and contamination control measures</li> <li>Permitting needs</li> <li>City could self perform or contract with third-party</li> </ul>	<p align="center">--</p> <ul style="list-style-type: none"> <li>Not as visible to the public eye</li> </ul>	<p align="center">--</p> <ul style="list-style-type: none"> <li>Smaller percentage of waste stream (~2.5% of MSW waste stream)</li> <li>Ability for processor to accept material directly impacts material diversion</li> <li>Source separated glass may have different market rates</li> </ul>	<p align="center">↑</p> <ul style="list-style-type: none"> <li>Determine needs for transportation and hauling of material</li> <li>If City to transport determine need for additional staff and trucks</li> <li>Depending on recycler, may help with containers or infrastructure for source separated glass</li> </ul>	<p align="center">↑↑</p> <ul style="list-style-type: none"> <li>Minimal, staffing likely could be handled through existing staff</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>City has the ability to evaluate comingled and source separated glass markets with recyclers</li> </ul>

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		Public Input & Expectation Alignment	Waste Reduction or Diversion Impact	Technical / Resource Needs & Implementation Requirements	Economic Impact	City's Influence on Outcome
<b>Strategy 7: Prioritize Glass Diversion</b>						
<b>Satellite drop-off location(s) around City</b>	<ul style="list-style-type: none"> <li>Select locations for drop off location</li> <li>Potential partnership with local businesses for locations</li> <li>Determine pickup schedule, transportation, and contamination control measures</li> <li>Address health and safety needs and how to manage contamination</li> <li>Permitting needs</li> <li>City could self perform or contract with third-party</li> </ul>	<p align="center">↑↑↑</p> <ul style="list-style-type: none"> <li>Expands options for glass recycling besides the SDRC</li> <li>Survey respondents generally seemed in favor of waste diversion</li> <li>Adds convenience</li> </ul>	<p align="center">↑↑</p> <ul style="list-style-type: none"> <li>May be easier than SDRC for select participants</li> <li>Will select a specific demographic, likely similar to SDRC participants, but wider range</li> </ul>	<p align="center">↓↓</p> <ul style="list-style-type: none"> <li>Establish locations for drop-off areas around City</li> <li>Potential for partnership with local businesses/organizations for locations</li> <li>Containers, locks, and other infrastructure for drop-off location</li> <li>Education and outreach regarding new program</li> <li>Transportation needs to remove containers and hauling to recycler</li> </ul>	<p align="center">↓↓↓</p> <ul style="list-style-type: none"> <li>Operation could be City run or contracted through third-party</li> <li>Third-party costs would likely be higher</li> <li>Funds will need to be established for operations, contaminate management, and transportation</li> <li>Education and outreach to promote new locations and expectations</li> </ul>	<p align="center">↑</p> <ul style="list-style-type: none"> <li>City has the ability to establish location and program</li> <li>Location and hours would impact public participation</li> <li>Education campaign to in</li> <li>City does not have control over contamination, unless full-time staffed</li> </ul>
<b>Glass bunker at landfill</b>	<ul style="list-style-type: none"> <li>Bunker at landfill for customers to drop-off source-separated glass</li> <li>Glass bunker would be serviced by third-party for recycling</li> </ul>	<p align="center">↓</p> <ul style="list-style-type: none"> <li>Likely less convenient for customers than the SDRC due to location</li> </ul>	<p align="center">--</p> <ul style="list-style-type: none"> <li>May have different demographic from SDRC</li> <li>Location out of town may decrease participation from residents</li> </ul>	<p align="center">↓↓↓</p> <ul style="list-style-type: none"> <li>Bunker location and configuration would need to be designed and constructed</li> <li>Equipment to manage glass, load into trucks, or other operations</li> <li>Determine City's need for additional labor or equipment</li> </ul>	<p align="center">↓</p> <ul style="list-style-type: none"> <li>Some recyclers may help provide bunker design</li> <li>Equipment and space to store glass prior to transfer to recycler</li> <li>Depends on the glass recyclers and how rates are established</li> </ul>	<p align="center">↑</p> <ul style="list-style-type: none"> <li>City has the ability to establish location and program</li> <li>Location and hours would impact public participation</li> <li>Education campaign to in</li> <li>City does not have control over contamination, unless full-time staffed</li> </ul>
<b>Glass bunker located on City property</b>	<ul style="list-style-type: none"> <li>Bunker located on City property for customers to drop-off source-separated glass</li> <li>Glass bunker would be serviced by third-party for recycling</li> </ul>	<p align="center">--</p> <ul style="list-style-type: none"> <li>Convenience would widely depend on location</li> </ul>	<p align="center">--</p> <ul style="list-style-type: none"> <li>Location may influence demographic and participation</li> </ul>	<p align="center">↓↓↓</p> <ul style="list-style-type: none"> <li>Bunker location and configuration would need to be designed and constructed</li> <li>Equipment to manage glass, load into trucks, or other operations</li> <li>Determine City's need for additional labor or equipment</li> </ul>	<p align="center">↓</p> <ul style="list-style-type: none"> <li>Some recyclers may help provide bunker design</li> <li>Equipment and space to store glass prior to transfer to recycler</li> <li>Depends on the glass recyclers and how rates are established</li> </ul>	<p align="center">↑</p> <ul style="list-style-type: none"> <li>City has the ability to establish location and program</li> <li>Location and hours would impact public participation</li> <li>Education campaign to in</li> <li>City does not have control over contamination, unless full-time staffed</li> </ul>

**Icon**      **Description**

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Evaluation Matrix**

Initiative	Possible Example Implementation Ideas, Steps, or Needs	{ Evaluation Criteria }				
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<b>Strategy 8: Obtain Waste and Recycling Program Data</b>						
<b>Establish performance metrics and collect data on each of City's program/service</b>	<ul style="list-style-type: none"> <li>Identify key performance metrics for each solid waste program/service provided and collect data on each metric; this activity includes documenting the City's current baseline for each program/service for subsequent measurement</li> <li>Data could be collected/aggregated annually, or more frequently</li> </ul>	↑↑↑	↑	↑↑	↑↑	↑↑↑
<b>Establish policies/protocols for obtaining performance data from third party entities operating in the City</b>	<ul style="list-style-type: none"> <li>Require entities providing solid waste services in the City to provide program/service data to City annually (at a minimum)</li> </ul>	↑	↑	↑↑	↑	↑↑
<b>Review and evaluate data collected and compare to established performance metrics</b>	<ul style="list-style-type: none"> <li>Review collected data to confirm results/trends align with the City's waste diversion goals; adjust programs/services as necessary to achieve desired results</li> </ul>	↑↑↑	↑	↑↑	↑↑	↑↑↑

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