

# Multi-Unit Organics: Pilot Study Findings

## Executive Summary

The City of Saskatoon (City) is developing a city-wide organics program for the multi-unit sector as part of the implementation of the Solid Waste Reduction and Diversion Plan. A pilot study and targeted engagement plan were completed to inform the options and recommendation for this program. This report provides a summary of the pilot study and engagement findings.

The pilot study took place during 2024 in Ward 5. An effort was made to involve a range of property managers and condo boards in the pilot. Organics service was provided to pilot participants through a competitive request for proposal process and ensuing service agreement with Loraas Disposal North that included providing containers, collection, and processing of material. It assessed collection frequency, cart capacity, and collection location and helped identify what design best meets the need of the multi-unit sector. Education and resources were also looked at to determine what works best for encouraging proper participation. The pilot provided the opportunity to get direct feedback from residents and property managers on specific elements of the organics pilot at their complex.

The pilot showed that successful diversion outcomes for organic material in the multi-unit sector are possible with proper design and engaged residents. Education, signage, and good communication were noted as an important part of setting residents up for success. Residents stated that BPI bags and kitchen pails were important tools for participating in the organics pilot, especially during the launch phase of the service. Regular interactions and good signage were also mentioned as important considerations.

Weekly collection was the collection frequency preference for most pilot participants as every 2-week collection was a bit too infrequent in the spring and summer months. Cart location and layout of the waste area played an important role in the participation rate. A convenient location close to garbage and recycling usually led to a higher participation rate. Carts worked well as valet collection (moving the cart out and returning as part of collection day service) helped with space limitations and finding a suitable location for the green cart. One green cart with weekly collection could service approximately 30 units.

Some types of properties, such as owned multi-unit and senior living complexes had better participation than other properties. Rentals had the most issues with a lack of participation and higher contamination. Plastic was the highest contaminate during the pilot. Some pilot properties had a high amount of yard waste from maintenance (grass cutting, landscaping, maintenance etc.). Yard waste will need to be addressed through the Business Organics Bylaw or a future city-wide organics program.

In terms of engagement findings, 96% of residents that completed the survey stated that they participated in the pilot study at least once. When asked if they supported a city-wide program, 81% stated that they did.

Further details on the pilot study and engagement findings are detailed below.

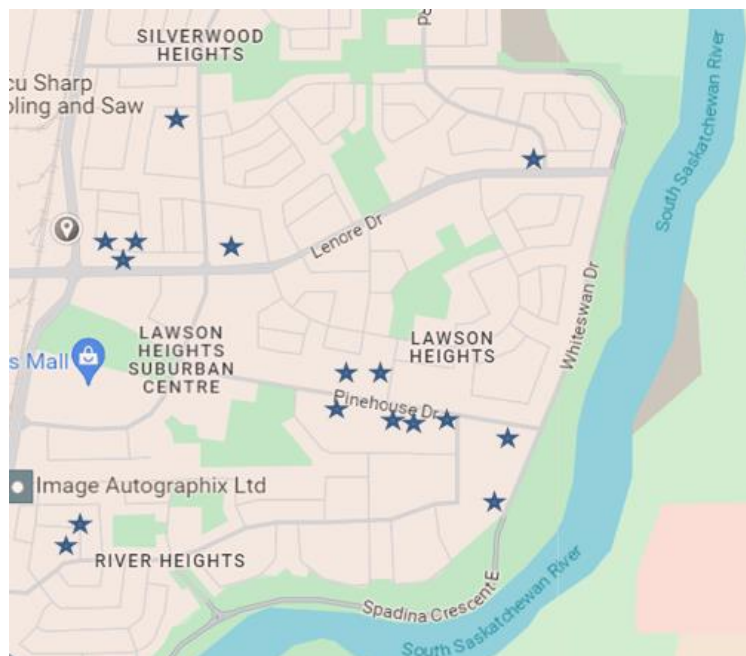
## Pilot Study

### **Pilot Study Area**

The pilot looked at the different components of a program for multi-unit residential organics. It provided the City with the opportunity to get direct feedback from residents on specific elements of the organics pilot at their complex.

The City selected Ward 5 (Lawson Heights, River Heights, Silverwood Heights) as a pilot area as it has a mix of different multi-unit property types. 16 multi-unit properties that included 24 buildings and 3 multi-unit townhouse complexes participated in the pilot. Pilot participants included condos and rentals.

### **Image 1: Map of Pilot Study Area**



### **Notes on limitations of the pilot study**

It should be noted that Ward 5 and the pilot area has a diverse mix of multi-unit property types, but some specific demographics and sizes were not included in the pilot.

Smaller apartments: Apartments with 25 or less units make up 49% of the properties currently serviced with multi-unit waste services. Smaller apartments, converted multiplexes, 6-to-12-unit apartments are more common in the central neighborhoods. The smallest unit in the pilot study had 23 units (20 Assiniboine Dr, River Heights).

Invitation process: Involvement in the pilot study was optional. Only those properties that had a willingness or interest in the pilot participated. This may have led to a bias of more positive experiences and feedback.

High Contamination: The pilot area did not include any neighbourhoods with historically high rates of contamination and illegal dumping (as observed from multi-unit recycling and garbage). Based on multi-unit recycling data from 2014 to 2023, Lawson has average contamination rates.

**Table 1: Pilot Property List**

<b>Address</b>	<b>Property Details</b>	<b>Organics</b>	<b>Garbage</b>	<b>Recycling (Cosmo)</b>
255 Russell Rd Silverwood Heights	Large Apartment (6 buildings) 206 units	6 x 360L carts Weekly	4 x 6yd (City service)	2 x 6yd
222 Lenore Dr Silverwood Heights	Townhouse Complex 116 units	3 x 360L carts Weekly	6 x 6yd (Loraas)	4 X 4yd
748 Lenore Silverwood Heights	Medium Apartment 27 units	3 x 360 L carts Weekly	1 x 6yd (City service)	1 X 4 yd
333 Silverwood Rd Silverwood Heights	Medium Apartment 31 units	1 x 360 L cart Every 2 weeks	6yd bin (City service)	1 X 4yd
110 La Ronge Rd Lawson Heights	Large Apartment Complex 276 units	5 x 240L carts 2 x 360L carts Every 2 weeks	2x 4yd (City service) 3 x 6yd (Loraas)	3 X 6yd
201 Cree Pl Lawson Heights	Medium Apartment 35 units	1 x 360 L cart Weekly*	2 x 6yd (City service)	4yd
217 Cree Pl Lawson Heights	Large Apartment (2 buildings) 70 units	2 x 360 L carts	2 x 8yd (City service)	6yd
303 Pinehouse Dr Lawson Heights	Medium Apartment 42 units	2 x 360 L carts Weekly	1 x 4yd (Loraas) Indoor	3yd Indoor
305 Pinehouse Dr Lawson Heights	Medium Apartment 38 units	1 x 360 L cart Weekly*	1 x 4yd (Loraas) Indoor	3yd Indoor
315 Pinehouse Dr Lawson Heights	Medium Apartment 50 units	2 x 360 L carts Weekly	6yd (City service)	4yd
186 Pinehouse Dr Lawson Heights	Large Apartment (3 buildings) 96 units	3 x 360 L carts Weekly	3 x 6yd (Loraas)	6yd
242 Pinehouse Dr Lawson Heights	Large Apartment (3 buildings) 96 units	3 x 360 L carts Every 2 weeks	2 x 8yd (GFL)	6yd
455 Pinehouse Dr Lawson Heights	Townhouse Complex 59 units	3 x 360 L carts Every 2 weeks	4 x 4yd	6yd
111 St. Lawrence Cr River Heights	Large Apartment 123 units	3 x 360 L carts Every 2 weeks	3 x 6yd	3 x 6yd
20 Assiniboine Dr River Heights	Small Apartment 23 units	1 x 360L cart Weekly	1 x 6yd	1 x 6d Shared
145 Sandy Court / 2703 Spadina Cres E River Heights	Townhouse Complex 78 units	2 x 360L Carts Weekly*	3 x 4yd	2 x 3yd

\*Collection frequency was adjusted to weekly during the pilot

## General Engagement Findings

Append 2 - Multi-Unit Organics Pilot (Engagement Report) provides the full results of engagement completed for the multi-unit organics pilot. An effort was made to involve a range of Saskatoon property managers in the pilot, as direct feedback was used for informing the program design.

**Pilot Study Feedback from Residents:** Residents were invited to complete a survey 8 months into the pilot in Aug 2024. The survey had 144 responses from pilot participants. Survey responses indicated that 96% of residents participated in the organic pilot at least once. The survey confirmed that BPI bags, kitchen pails, and post cards were at the start of the pilot were important tools for participation in organics diversion.

81% of survey respondents stated that they supported the City implementing a city-wide multi-unit organics program and 11% said they “somewhat support” a city-wide program. This is slightly higher to what we heard in 2018 engagement<sup>1</sup>.

**Property Feedback:** A representative from each property also provided feedback through an informal interview that collected feedback on organic service approaches, waste funding methods, collection frequency, container type and location, multi-unit garbage and recycling, and education.

Kitchen pails and City-led education were highly supported by all interviewees. 13 of the 15 interviewees stated that they preferred a city-provided service for a future multi-unit organics program, as they did not like having to setup and manage service contracts. All interviewees were comfortable with a service fee for multi-unit organics but stressed that knowing the exact costs in advance (at least a year) was important for financial planning.

## Property Type Information

Property type and property configuration is a unique consideration for the multi-unit sector. The following findings were made during the pilot specific to property types.

**Condo Apartments:** Strata properties, such as condominiums or townhouses, with owners living in the building, tended to have higher participation rates than rentals. Communication with each unit was generally easier as condo boards often had an email list or method of notifying each unit.

**Townhouses:** There were three townhouse complexes that participated in the pilot study. Location of carts was an important aspect of participation. Yard waste was higher at properties with areas for gardening.

**Senior Living:** Engagement was high at senior living complexes that participated in the pilot study. Most condo boards were very involved with waste services at their building and were willing to help implement changes to encourage diversion. Convenience of recycling and organics compared to garbage was a challenge as garbage was usually the most convenient/accessible container.

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<sup>1</sup> [Saskatoon Talks Trash: Multi-Unit \(Community Engagement Results\)](#)

**Rentals:** Properties that were strictly rentals had the lowest participation of the property types. Contamination was the highest of all property types. Illegal dumping and parking issues were more common around waste areas than at non-rental properties.

## Program Design Findings and Considerations

### **Cart Capacity and Location**

The pilot used mostly 360L (96 gal) rollout carts. One property used a smaller size (240L) cart for indoor use. Carts were placed close to recycling or garbage containers where possible. Capacity analysis found that one 360L green cart can comfortably service about 30 units with weekly collection. Several residents noted that the 360L green cart was hard to move once it gets to ½ full as food waste is heavy. The 240L green cart may be an easier size to move as it is smaller and still provides a reasonable capacity. Properties with more yard and garden waste preferred the 360L during spring and fall during peak times of yard cleanup.

Carts were serviced with a rear loader truck that required each cart to be rolled to the back of the truck to be tipped. The cart was wheeled back following collection. This collection method (valet collection) helped with space limitations and finding a suitable location for the green cart.

### **Collection Frequency**

The pilot trialed weekly, every 2 weeks, and 2 times per week collection frequency. Weekly was the preferred frequency by pilot participants. Collection every 2 weeks led to odour issues in the warmer months. 2 times per week worked well at several properties but it depended on location, property size, and preference. Properties with weekly collection liked having fewer carts than they may need with every second week as it saved space.

### **Education**

Education and outreach were important aspects of encouraging residents to participate in the pilot. Kitchen pails, BPI bags (10-pack), and information post cards were given out to most properties during deployment. It was found that kitchen pails were a great prompt for getting residents to divert food waste. The two properties that only gave kitchen pails to units that requested them had low participation compared to other pilot properties.

### **Image 2: Postcard for pilot study launch**



Poor signage was identified by several properties as a concern early in the pilot and an effort was made to improve signage on the green carts, green cart area, and garbage container. Several garbage containers in the pilot were green in colour which added to confusion.

**Image 3 and Image 4 show some of the signage developed for the pilot study (May 2024)**



### **Yard Waste**

Most pilot participants stated that they had little or no yard waste, as landscape services are hired out as part of a service contract and material is hauled away. Audits in April 2024 showed that several properties have large quantities of yard waste ending up in their garbage stream and going to landfill.

Landscaping service providers are responsible for ensuring all organic waste is placed in separate labelled containers and ensuring organic waste is removed and taken to an appropriate facility. Yard waste can be handled through education and enforcement of the organics bylaw but there also may be opportunities to include yard waste needs in the design of future multi-unit organics program. Through engagement we heard that the main concern is finding the option that is most cost effective.

### **How to provide the program design?**

The following section explores the different decisions required to achieve the multi-unit organic program design described above.

#### **Program Funding**

The City has recently made changes to curbside waste services that move the funding model for services to a pay for service model. The first step was the launch of curbside recycling that was funded as a utility program. Curbside Organics followed the same utility funding model. The final change for curbside residents was the launch of the curbside waste utility that saw waste fees moved from property tax to a utility. A pay for service model increases transparency for service costs and funding.

Multi-unit garbage is currently funded through property tax. Most property managers and condo boards (87%) that participated in the pilot were supportive of moving multi-unit garbage to a utility. All property managers and condo boards in the pilot were supportive of a utility model for a future multi-unit organics program.

Some of the common feedback specific to billing, included:

- provide advanced notice of rates to plan for annual budget process.
- have all solid waste services (garbage, recycling, and organics) on the same invoice if possible so it is convenient.

In terms of cost, a price of \$1.50 - \$3.50 per unit per month was considered reasonable for the service received in the pilot. Multi-Unit recycling (2024 rate) is \$4.10 per unit per month. An important consideration for pricing is multi-unit garbage costs and cleanup costs required to address illegal dumping. Other concerns related to cost included lane maintenance costs and bin maintenance costs.

### ***Key Decisions - Service Approach***

The options for providing a city-wide multi-unit organics program are using a bylaw approach, a city-provided service, or a hybrid of these approaches.

A bylaw approach uses a waste bylaw to ensure each property has a separate container for organics (source separation) and a method to ensure organic waste is removed and taken to an appropriate facility. This approach is similar to the requirement in the new bylaw regulation included in The Waste Bylaw<sup>2</sup> being used for business organics.

A City-provided program means that the City can provide or contract out service for all multi-unit properties. The City determines the service provider, sets the service level(s), and all properties are included as part of the program design.

A hybrid approach involves aspects of a bylaw approach and a City-provided service. In this scenario, the City provides an optional service or acts like a private service provider. All options would be regulated through The Waste Bylaw so there is a regulation that can be enforced.

## **Diversion Potential**

Waste audits and weights were taken during the pilot to determine how much organic material was being collected and how the garbage material composition changed with the introduction of organics. Weight collected (per unit average) during the pilot varied significantly across the different pilot properties. On average, early audits in Spring 2024 showed lower overall tonnage than those completed in July and September 2024.

Visual audits with pictures and documentation were completed throughout the pilot. In April and July, weighted audits were completed to determine average weight diverted through the pilot.

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<sup>2</sup> [Bylaw 9844 – The Waste Bylaw, 2022](#)

**Image 5 and Image 6 show sample images from visual audit (July 2024)**



A floor scale was used on site to weigh material at pilot properties right before their collection day. A standard tare weight was used depending on the green cart manufacture (IPL = 17.45, Toter=16.20). As some properties stored containers indoors, it was not always possible to get access to the green cart.

The audit in April weighed green carts at 12 different pilot properties on their collection day. The goal sample size was 700 habitable units. The weekly rate of organic material was 500kg which is about 0.5 kg per unit per week. For the comparison below, the 745 units that were accessible in April and July are used.

**Table 2 – Audit 1 Weights (April 2024)**

Sample	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12
Weight	48	50	27	13	19	63	2	53	45	8	4	42
# Units	78	59	96	96	35	70	27	42	38	31	50	123

Total Weight (kg)	411
Number of Units	745
<b>Avg per unit/ per week</b>	<b>0.55kg</b>

The audit in July weighed green carts at the same 12 properties on their collection day. These properties had a combined count of 745 habitable units. The weekly rate of organic material was 500kg which is about 1kg per unit per week.

**Table 3 – Audit 2 Weights (July 2024)**

Sample	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12
Weight	138	109	41	47.45	20	86	7	58	47	16	64	102
# Units	78	59	96	96	35	70	27	42	38	31	50	123

Total Weight (kg)	736
Number of Units	745
<b>Avg per unit/ per week</b>	<b>0.99kg</b>



The increase in diverted organic waste from April to July can likely be attributed to increased education. Door-to-door material (handout, magnet, 10-pack of BPI bags) were distributed to most habitable units participating in the pilot in June. 3 properties had dispenser units installed so that BPI bags were available next to the green cart location. Signage at many of the properties was also improved in May/June for garbage and the green cart area. Seasonality also likely contributed to the increase in usage as people were more likely to go outside in the warmer weather and garden waste increases during the summer months.

If we take the audit results above and apply them to a city-wide estimate, a refined model suggests that 2059 tonnes of organic material could be diverted annually. That equates to a 29% capture rate of the organic material currently going to landfill from the multi-unit sector.

**Table 4 - Business Case Estimates (2023)**

Capture rate of total organics	Overall Waste Diversion Contribution %	Tonnes/ per year	Scenario possibility	Probability
10%	4%	700	<i>Low – minimum diversion</i>	Low/ Medium
15%	6%	1,050	<i>Low – estimate</i>	Medium
25%	10%	1,750	<i>Low/Medium range diversion</i>	High
50%	20%	3,500	<i>Medium range diversion</i>	High
75%	30%	5,250	<i>High range diversion</i>	Low/ Medium
100%	40%	7,000	<i>High – maximum</i>	Low

## Additional Images from Pilot Study

*Dispenser unit at pilot property, July 2024*



*Multi-unit garbage decals added during pilot study, July 2024*

