City of St. Albert’s
Curbside Waste Education Program

2018 SWANA Excellence Award Entry

Education Program Award

Organization:  
City of St. Albert

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St. Albert, Alberta, Canada  
Population: 64,645  
Cost per household for the project: $0.50  
Approximate budget: $10,000
Executive Summary

In 2017, the City of St. Albert noticed continuous improper waste sorting and set out by households, such as using plastic bags in the Green Organics Cart. In addition to traditional communication methods, the City decided to conduct a curbside audit program. The Curbside Waste Education (CWE) Program provided an opportunity to educate households and give specific and direct tips on waste sorting and set out issues. Information was presented in a fun and friendly style, to encourage behaviour change from residents.

The CWE Team visited 1,219 households from August 14 to September 15. 239 “Thank You” stickers were awarded for proper waste sorting and set out, while there were over 727 errors.

The City of St. Albert is applying for the SWANA Education Program Award to seek recognition and share the success of the CWE Program. The CWE Program can be easily replicated in other communities throughout North America to educate their residents about proper sorting and set out of waste.

Research

History

In 2011, the City launched the three-stream curbside waste collection program, along with a comprehensive communications campaign. The campaign educated residents on how to sort and set out the Brown Garbage Cart, Green Organics Cart and Blue Recycling Bag.

The waste collection frequency is as follows:

- Brown Garbage Cart, bi-weekly year round
- Green Organics Cart, weekly in the summer and bi-weekly in the winter
- Blue Recycling Bag, weekly year round

In 2014, the City’s Environmental Master Plan set out goals and targets to reduce solid waste generation. The goals are to:

- Reduce solid waste generation to 105 kilograms or less per person, per year by 2020; and
- Increase diversion rate to 75% by 2020

For the last three years, the Environmental Master Plan targets related to waste generation and diversion have plateaued at approximately 121 kilograms per person, per year and 67%.
It was determined that extra effort would be placed on education and outreach for residents in 2017 to ensure they were fully aware of the City’s waste and diversion programs.

There were also concerns of improper waste sorting and set out by households that the City wanted to correct. For example, residents were using plastic bags in the Green Organics Cart instead of compostable, causing contamination issues during processing or some residents were over stuffing their Brown Garbage Carts.

**Current Practices**

Before the CWE Program was implemented, Collections staff would tag carts and bags with a sticker if there was an error for sorting or set out. However, staff could not write out detailed information due to time constraints and the limited space on the sticker.

In 2017, the City began educating the community through various methods, such as information booths, newspaper advertisements and social media postings. A curbside audit program was explored to determine if this was the best method to reach residents, along with the existing communication methods.

City staff conducted research and spoke to other municipalities who had curbside audit programs. Other municipalities in British Columbia, Alberta and Ontario would leave generic or pre-determined messages on stickers or door hangers that would be left on the carts or bags.

**Planning and Goal Setting**

**Curbside Audit Program?**

For the St. Albert pilot program, it was decided the program materials would be displayed in a fun and friendly style. Staff would write custom messages on “Oops!” paper door hangers that would be placed directly at the household’s door knob or mailbox. Door hangers were also chosen so they could be recycled after the resident read the information.

There were also concerns about leaving generic educational materials on the carts or bags, such as the resident may not notice the hanger or sticker, it may fall off during collections, or the information may be too general.

Just as important as providing corrective education to residents, is recognizing those households that are doing a great job. “Thank You” style stickers were created to be placed on the Green Organics Cart of the households that sort and set out their waste properly. These reward stickers showcased residents that are “Waste Wise” in their neighbourhoods.
When designing and communicating the Program, staff decided to never use the term “audit” as it may have a negative connotation associated. Instead, the term “education” was used to emphasize educating residents. The name of “Curbside Waste Education Program” was established for the curbside audit program.

**Timelines**

<table>
<thead>
<tr>
<th>Timeline</th>
<th>Tasks and Tactics</th>
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| May 2017               | • Conduct research on other municipalities doing curbside waste audit programs  
                        | • Create methodology – e.g. target audience, goals and objectives, data collection process, etc.                                                                                                               |
| June 2017              | • Design and develop program materials – e.g. door hangers and stickers  
                        | • Create spreadsheet for data tracking  
                        | • Create program website with information such as contact information                                                                                                                                         |
| July 2017              | • Determine audit schedule  
                        | • Inform and educate internal stakeholders – e.g. Administrative staff and Collections staff  
                        | • Design and schedule promotions – e.g. newspaper advertisements and social media postings  
                        | • Purchase and assemble equipment required – e.g. personal protective equipment                                                                                                                              |
| August to September 2017 | • Execute Curbside Waste Education (CWE) Program  
                        | • Run newspaper advertisements and social media postings  
                        | • Answer CWE Customer Service Requests from residents                                                                                                                                                      |
| September 2017 to February 2018 | • Create a report with findings  
                        | • Share report and findings with stakeholders – e.g. Council, City staff, Contractors and the community                                                                                                     |

**Target Audience**

With the CWE Program in it’s initial year, households who receive curbside waste collection from the City were eligible to be participants of the Program. Households and streets were selected at random, as staff didn’t want to create a bias by targeting specific areas.

**Goals and Objectives**

By conducting CWE, City staff hoped to:

1. Encourage proper waste sorting by households
2. Encourage proper waste set out of carts and bags at the curb
3. Be available to answer questions from residents in their neighbourhoods on their pick-up days
4. Gather information on common waste questions to improve information provided to residents
Success metrics were measured by:

- Number of “Thank You” stickers given to households who sort and set out their waste properly
- Number of errors households had with waste sorting and set out
- Number of resident interactions and visits conducted
- Comments from residents regarding the CWE Program

Budget Estimation

$10,000 was allocated for the CWE Program. This includes staff time for planning and coordinating the Program and for equipment. It would be approximately $0.50 per household to deliver the CWE Program.

Implementation

Communications

The CWE schedule was shared with the following internal stakeholders:

- Administration, as these staff members answer telephone calls from residents with questions and concerns about waste collection
- Collections staff (both City and Contractor) to delay collection of the specified Brown Garbage Carts, Green Organics Carts and Blue Recycling Bags on their routes

A daily email was sent out to all internal stakeholders when CWE was completed for the day, so they could return to collect the waste. It also reminded which streets were scheduled for the following day.

The schedule was not shared with the public to ensure waste sorting and set out behaviour was unbiased.

For external communications, staff worked with Corporate Communications to develop and design the “Oops!” door hangers and “Thank You” sticker. A sticky note was also created with more information to accompany the “Oops!” door hangers. All materials were designed in-house, using our existing Be Waste Wise brand. CWE Program materials match all other communication materials such as the website, brochures, etc.

Three “Oops!” door hangers were created with the most common waste collection related issues:

- “Oops! What Goes Where?” for sorting issues
- “Oops! Extra Garbage” for overstuffed carts
- “Oops! Curb Your Cart” for carts that are parked, pointed or spaced incorrectly

Supporting materials such as newspaper advertisements, social media posts and a website were also created with more information about the program.
Data Collection with iPads

iPads were used for data collection to streamline the process of data entry and consolidation. The CWE Team created an Excel spreadsheet that outlined the information to be assessed. Blank hard copies of the spreadsheet were printed and included in the equipment kit in case of technical difficulties.

Equipment

CWE equipment was assembled into tote bags for the CWE Team to efficiently carry along their routes. To be able to identify the CWE Team as City of St. Albert staff members, the following were used:

- Car magnets with the City of St. Albert logo to put on vehicles
- Employee identification badges
- Business cards with contact information
- Personal protective equipment (e.g. reflective vests, gloves and safety boots)

Executing the Curbside Waste Education Program

The CWE Team approached households before waste collection trucks arrived, and assessed the following:

1. What waste is set out?
   - Brown Garbage Cart? How many carts?
   - Green Organics Cart? How many carts?
   - Blue Recycling Bag? How many bags?

2. What is the size of the Brown Garbage Cart? Small (80 L), Medium (120 L) or Large (240 L)

3. Is set out correct? If no, are carts parked incorrectly? Pointing the wrong way? Spaced incorrectly?

4. Are carts overfilled/is there additional waste?

5. Open cart lid(s) and assess how full is the Brown Garbage Cart? Green Organics Cart? Less than 25% full, 26-50% full, 51-75% full, 76-100% full or overfilled?

6. Are unacceptable materials in the Brown Garbage Cart? (e.g. hazardous waste, electronics, etc.) What are the unacceptable materials?

7. Are unacceptable materials in the Green Organics Cart? (e.g. plastic bags) What are the unacceptable materials?
8. Are unacceptable materials in the Blue Recycling Bag? (e.g. plastic bags, Styrofoam, garbage, etc.) What are the unacceptable materials?

The steps were repeated for each household on the scheduled streets.

Below are the “Thank You” stickers, informational stickie, and “Oops!” door hangers used to communicate with residents.

The "Thank You" sticker for households that sorted and set out their waste correctly.

The Curbside Waste Education Team is out in St. Albert neighbourhoods this summer doing quick checks on waste pick-up days.

By conducting curbside waste education, the Team hopes to:

- Encourage proper waste set out of carts and bags at the curb
- Encourage proper waste sorting by households
- Be available to answer questions from residents in their neighbourhoods on their pick-up days
- Gather information on common waste questions to improve information provided to residents

This door hanger provides some helpful tips for your household.

For more information, visit stalbert.ca/waste

This sticky note accompanied the “Oops!” door hangers to explain the CWE Program.

The “Oops! What Goes Where?” door hanger for households who did not sort properly. The CWE Team could write specific notes for the household so they knew what the error was for.
Budget Review
The following was approximately spent to execute the CWE Program. All costs are in Canadian dollars.

<table>
<thead>
<tr>
<th>Task</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>CWE Team – Planning and Coordinating</td>
<td>$4,500</td>
</tr>
<tr>
<td>Communications – Design CWE materials such as door hangers, stickers, etc.</td>
<td>$700</td>
</tr>
<tr>
<td>Equipment – Printing door hangers, stickers, personal protective equipment, etc.</td>
<td>$3,800</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$9,000</strong></td>
</tr>
</tbody>
</table>

It was $1,000 less than budgeted to execute the Program. It was approximately $0.45 per household to deliver the CWE Program. Program costs related to equipment will be less in future years, as the City printed a bulk quantity of door hangers and stickers for future use.
Results

Between August 14 and September 15, 2017, the CWE Team visited 1,219 households, leaving behind 239 “Thank You” stickers. All three waste streams (garbage, organics and recycling) had to be sorted and set out correctly to receive the “Thank You” sticker. There were households that sorted and set out their waste correctly, but only had one or two waste streams out for collection.

The CWE team spoke with 59 residents at the curb and numerous others at other City events, such as information booths.

Below is a summary of the 727 errors that were seen during CWE. Please be aware a household could have more than one waste stream error on the “Oops! What Goes Where?” door hanger.

<table>
<thead>
<tr>
<th>“Oops!” Door Hanger</th>
<th>Number of Errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Oops! What Goes Where?”</td>
<td>Total: 597</td>
</tr>
<tr>
<td>• Unacceptable waste in Brown Garbage Cart</td>
<td>72</td>
</tr>
<tr>
<td>• Unacceptable waste in Green Organics Cart</td>
<td>81</td>
</tr>
<tr>
<td>• Unacceptable waste in Blue Recycling Bag</td>
<td>444</td>
</tr>
<tr>
<td>“Oops! Extra Garbage”</td>
<td>Total: 97</td>
</tr>
<tr>
<td>• Overfilled Brown Garbage Cart or extra bagged garbage</td>
<td>81</td>
</tr>
<tr>
<td>• Overfilled Green Organics Cart or extra bagged yard waste</td>
<td>16</td>
</tr>
<tr>
<td>“Oops! Curb Your Cart”</td>
<td>Total: 33</td>
</tr>
<tr>
<td>• Parked wrong</td>
<td>3</td>
</tr>
<tr>
<td>• Pointed wrong</td>
<td>2</td>
</tr>
<tr>
<td>• Spaced wrong</td>
<td>28</td>
</tr>
</tbody>
</table>

Example of a household that received their “Thank You” sticker for proper sorting and set out of waste.
Waste Sorting Results

For the Brown Garbage Cart, the most common sorting errors were households placing newspapers, cardboard and hazardous waste inside the cart. Please note that most households bag their garbage, so the CWE Team couldn’t see all the contents.

For the Green Organics Cart, the most common sorting errors were households placing plastic bags and wrappers, garbage, recycling, food packaging and construction and demolition materials inside the cart.
For the Blue Recycling Bag, the most common sorting errors were households placing plastic bags and wrappers, Styrofoam, paper towels and tissues, straws and shredded paper inside the bag. Plastic bags and wrappers included items such as shopping bags, Ziploc bags, chip bags, produce bags, granola bar wrappers, etc.

![Examples of the improper sorting in the Green Organics Carts.](image)

### Most Common Errors in the Blue Recycling Bag

<table>
<thead>
<tr>
<th>Error Description</th>
<th># of Errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plastic Bags &amp; Wrappers</td>
<td>333</td>
</tr>
<tr>
<td>Styrofoam</td>
<td>39</td>
</tr>
<tr>
<td>Paper Towels &amp; Tissues</td>
<td>27</td>
</tr>
<tr>
<td>Straws</td>
<td>21</td>
</tr>
<tr>
<td>Shredded Paper</td>
<td>18</td>
</tr>
</tbody>
</table>

# of Errors
During the planning stages of the Program, it was anticipated that the Green Organics Cart would have the most contamination inside. However, based on the data collected, it was determined that the Blue Recycling Bags had the most sorting errors.

**Waste Set-Out Results**

For waste set out, the CWE Team observed what type of waste (garbage, organics and recycling) was set out, how full were the carts or how many bags were out.

The following was observed from the 1,219 households:

- 87% of households (1,063) set out their Brown Garbage Cart for collection
- 70% of households (854) set out their Green Organics Cart for collection
- 63% of households (762) set out a Blue Recycling Bag for collection
- 8% of households (100) did not set out a Brown Garbage Cart, Green Organics Cart or Blue Recycling Bag while the CWE Team did their checks. Waste could have been set out after the visit or the house may be unoccupied

97 households overstuffed their carts or left additional waste outside of the carts. 33 households parked, pointed or spaced their carts out incorrectly.
Please be aware, there were five occasions where the waste was accidently collected before CWE was completed for the day. This affects the Blue Recycling Bag set out information, and the data for how full the Brown Garbage Cart and Green Organics Cart were.

**Evaluation**

The following lessons were learned from the pilot CWE Program:

**Data Collection with iPads**

iPads proved to be an invaluable tool in expediting data entry and consolidation for the CWE Program. Two iPads with wireless capabilities were used to edit Microsoft Excel spreadsheets as the CWE Team conducted inspections.

The Excel spreadsheet had drop-down options for data for distinct categories. This streamlined data collection as it reduced the amount of typing required. After learning which items are most commonly mis-sorted, the spreadsheet will be updated for 2018 to include drop-down functions to reduce typing. E.g. Plastic Bags? Yes or No?

The iPads also offered the opportunity to take photos during the checks, and to show the City’s waste website to residents during the curbside interactions.

**Loss of Data Due to Collection**

There were five occasions where Collections staff accidently collected the waste before CWE was completed for the day. A friendly email reminder was sent to all internal stakeholders to communicate which streets were being completed the following day to reduce loss of data.

**Hazardous Waste and Excessive Contamination**

On a few occasions, the checks resulted in seeing hazardous waste or excessive contamination. In the case of hazardous waste (e.g. pressurized helium canister, fluorescent light bulbs or aerosol cans), if possible, the item was removed from the cart and placed back on the curb or driveway with a “Oops! What Goes Where?” door hanger explaining proper disposal.

If excessive contamination was found within Green Organics Carts, the CWE Team notified the Collection staff by email of the offending address and requested that their cart not be collected. Collection staff would follow regular protocol and sticker the cart as well.
Weather and Program Timeframes

CWE ended earlier than anticipated due to the arrival of morning dew and frost in mid-September. Moving forward, the CWE Program will be done in July and August to ensure warm weather and appropriate daylight for the visits. This will impact the Program budget as it will be longer than the one-month pilot.

Feedback from Residents

Overall, feedback from residents indicated the CWE Program was very well received. Residents viewed receiving the “Thank You” sticker as a source of pride. At the curb, many residents would approach the CWE Team to ask if they were sorting their waste properly.

On several occasions residents at information booths shared that they were the recipients of “Thank You” stickers or expressed their desire to have their street visited by the CWE Team so they could hopefully receive a sticker.

There were three formal complaints of the CWE Program. Complaints focused on privacy concerns and how residents should be able to dispose of waste without rules or restrictions.

Opportunity to Self Elect for CWE

Through conversations with residents, there are households that want to be inspected. Starting in 2018, the City will allow residents to self elect their household and street to be possibly chosen for the CWE Program. An online submission form will be created on the CWE Program website. This will get residents more involved and prove if their household is “Waste Wise”.

A resident who received a “Thank You” sticker during the CWE program shared their excitement on their Twitter account.

The City of St. Albert’s Mayor, Cathy Heron shared the CWE information with her Facebook followers.
Media Coverage

The local newspaper, the St. Albert Gazette highlighted the CWE Program with an article in the August 26, 2017 edition. This resulted in recognition from residents both at the curb and at information booths. Inquiries about the newspaper article led to valuable conversations with residents about the CWE Program and its goals. The CWE Team recommends updating the St. Albert Gazette about the Program, to show progress and to keep residents informed.

Here is the link to the article: https://www.stalbertgazette.com/article/waste-wise-trash-inquisition-coming-street-20170826

Conclusion

The pilot CWE Program was a valuable project to see how households were sorting and setting out their waste. Staff collected data to help determine how the current curbside collection program was being utilized and what households may be having issues with. Reviewing the success metrics:

- 239 “Thank You” stickers were given to households who sort and set out their waste properly
- 727 errors households had with waste sorting and set out
- 59 resident interactions at curb, while visiting 1,219 households
The most common sorting errors occurred in the Blue Recycling Bag. Households were putting in non-recyclable materials such as plastic bags and wrappers, Styrofoam, tissues and straws.

Data and information from the pilot CWE Program has been used to improve the City’s education and outreach programs. New key messages and topics have been developed for 2018 to ensure households are sorting and setting out their waste correctly. This will also assist in reducing contamination in the recycling, due to the instability of the current China recycling markets.

The CWE Program will be an on-going summer initiative in St. Albert to continue educating residents on the City’s waste and diversion programs. Residents enjoyed the specific and direct tips on how to sort and set out their waste. They also enjoyed being recognized for being “Waste Wise” with the “Thank You” sticker on their Green Organics Cart.

The City of St. Albert's CWE Program can be easily replicated in other communities. Regardless of waste collection (bag, box or cart) method, education of proper sorting and set out is important.

Suggestions for other municipalities include:

- Present the curbside audit program as a fun, friendly education campaign. Don’t call it an audit
- Create program materials such as paper door hangers, where staff can write direct and specific tips for the household
- Utilize technology such as iPads to collect your data. Pen and paper can be cumbersome and inefficient
- Take lots of photos! Staff will visit many households during the program, so taking photos can be helpful to recall issues or be shown as examples
- Remember to reward households that are doing a great job! A simple “Thank You” sticker can go a long way
- Learn what items your community are improperly sorting! Create future education and outreach campaigns from what you see during your curbside audit program
- Share your findings and observations with all stakeholders – Council, City staff, Contractors and the community

For more information about the City of St. Albert’s waste and diversion programs, visit stalbert.ca/waste