



## Appendix F:

### Phase 3: Results of Community Engagement December 2018

Draft Zero Waste Master Plan

*City of Cambridge, MA*  
January 25, 2019





## **Appendix F: Results of Community Engagement in December 2018**

### **Statement of Purpose**

In Phase 1 of the ZWMP (as documented in Appendix B) engagement was undertaken with various City representatives and the City's Recycling Advisory Committee (RAC) regarding concepts and ideas that could be considered as part of the ZWMP. Further engagement was recommended following the completion of Phase 2 of the ZWMP process.

This report on the outcome of the public engagement activities undertaken in December 2018 was used to support the recommendations in the draft ZWMP.

This document is a supporting background document for the draft ZWMP, documenting the outcome of one component of Phase 3 of the ZWMP process. No further amendments will be made to this document based on review of the draft ZWMP.



# Memo

Date: Friday, January 25, 2019

Project: City of Cambridge, ZWMP Update and Standardized Trash Barrel Survey

To: Mike Orr, City of Cambridge

From: Janine Ralph and Christine Roarke, HDR

Subject: Results of Community Engagement in December 2018

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A community engagement plan was developed in October 2018, focused on engaging the City's Recycling Advisory Committee (RAC) and interested members of the general community in discussions regarding the draft ZWMP recommendations. A Public Open House was held in the evening of December 18, 2018 from 6 to 8 p.m. at the Main Library at 449 Broadway Avenue. A meeting was held with the Cambridge RAC the following morning on December 19, 2018. The approach used in the engagement process, and the outcome of these sessions is discussed below, and was considered in the development of the draft ZWMP recommendations.

## 1. Public Open House

The Public Open House began with a presentation (see Attachment 1) which provided an overview of the ZWMP process and draft recommendations, forming a background for discussions during the rest of the session. Display panels (see Attachment 2) were set up throughout the area used for the session, to provide attendees with information and to elicit feedback and encourage discussion. City staff and the consultant team, and a number of members of the RAC circulated among the attendees to encourage discussion and to seek feedback on the key issues and questions identified on the panels. 19 members of the community attended the session to provide their input to the ZWMP, many of whom participated in enthusiastic discussion during the entire 2 hour period timeframe.

Attendees were able to provide feedback through direct comment to the team supporting the session, and by providing written suggestions through notes and comments provided directly on the boards set up to support key discussion points.

A substantive part of the feedback provided by the public at the Open House, focused on promotion and education as a critical element of the City's waste diversion programs. The range of suggestions overall as noted by participants in the public open house included:

- More engagement in developing zero waste curriculum in schools
- More opportunities for face-to-face engagement including use of volunteers, community discussions/debates, involvement with neighbors, community events
- Educational programs/initiatives targeting small businesses
- Promotion of community swaps, fixit events
- More tips on how to avoid problem materials (e.g. how do I use less plastic)



Considerable support was also expressed for reduction and reuse options, with over 1/3 of all comments provided focused on options and concepts for reduction and reuse. The range of input provided included:

- Emphasis on promotion and education, particularly communication on current re-use opportunities, promotion of reusables to replace single-use materials, food waste reduction and events/forums to allow for sharing of ideas.
- Support for more fix-it clinics.
- Support for additional ordinances to ban materials (e.g. plastic straws), policies and/or permit requirements to increase waste reduction at events, waste reduction during construction/demolition.

The following table provides a summary of the key areas of discussion and the nature of the feedback provided by participants in the Open House.

General Category of Discussion	Total Number of Comments	Key points / Issues
<b>Education</b>	3	<ul style="list-style-type: none"> <li>• Need for more involvement in ZWMP curriculum development</li> </ul>
<b>General Thoughts</b>	14	<ul style="list-style-type: none"> <li>• Emphasis on need for more promotion and outreach, with a range of approach suggested including more involvement at a neighborhood level</li> <li>• Support for food waste reduction</li> </ul>
<b>Increase Organics Participation</b>	12	<ul style="list-style-type: none"> <li>• Continue to provide organics bags</li> <li>• More assistance/support to address problems (e.g. fruit flies)</li> <li>• Emphasis on need for more promotion and outreach</li> <li>• Mandatory composting</li> </ul>
<b>Reducing Recycling Contamination</b>	25	<ul style="list-style-type: none"> <li>• Emphasis on promotion and education</li> <li>• Enforcement on contaminated carts</li> </ul>
<b>Reduction and Reuse</b>	51	<ul style="list-style-type: none"> <li>• Emphasis on promotion and education programs and community engagement</li> <li>• Support for more Fix-it clinics and other community events to provide more hands-on reuse opportunities</li> <li>• Support for swaps and waste exchanges</li> </ul>



		<ul style="list-style-type: none"> <li>Additional Ordinances / Policies targeting problem materials (plastic straws, mandatory requirements for businesses and building design, requirements for community events to be zero waste)</li> </ul>
<b>Trash Reduction</b>	15	<ul style="list-style-type: none"> <li>Emphasis on promotion and outreach</li> <li>Support for standard trash bin (one comment did not support this concept)</li> </ul>
<b>Reducing Business Waste</b>	20	<ul style="list-style-type: none"> <li>Policy development</li> <li>Emphasis on promotion and outreach including recognition programs</li> <li>Enforce mandatory diversion, ordinances on single use items (e.g. plastic straws, coffee stirrers)</li> </ul>
<b>Other ZWMP Recommendations</b>	5	<ul style="list-style-type: none"> <li>Emphasis on promotion and outreach</li> </ul>

City staff have all of the comments provided by the participants in the Open House for consideration in the ZWMP implementation process.

## 2. Recycling Advisory Committee

The following morning, the same presentation from the Public Open House was made to the RAC. Ten members of the RAC and three members of the public were present at the meeting, along with five City staff and the consultant team. Opportunity was provided for more in-depth discussion with the RAC members regarding the draft ZWMP recommendations. The results of the discussions are documented in the minutes of the December 19<sup>th</sup> meeting posted on the City’s website (<https://www.cambridgema.gov/~media/Files/publicworksdepartment/recyclingandrubbish/racminutes/2018/december2018fullminutes.pdf?la=en>).

General support was expressed by the RAC members for the overall ZWMP recommendations as presented. Feedback provided by the members included:

- Discussion regarding the role of in-sink garbage disposal units.
- The need for more ‘in your face’ messaging and promotion, and use of motivational tactics.
- Support for the concept of mobile recycling depot service.
- Support for ongoing educational programs.

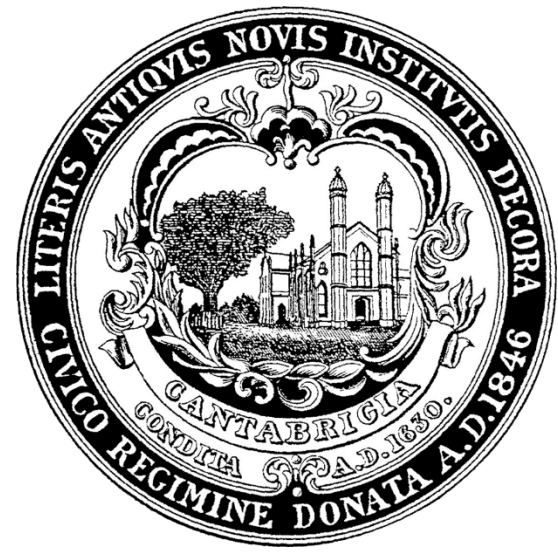
### Attachments:

Attachment 1 – Information Panels on the Draft ZWMP

Attachment 2 – Presentation on the Draft ZWMP

# Zero Waste Master Plan – an Overview

December 18, 2018



# What is Zero Waste?

- “Zero Waste is a goal that envisions...all discarded materials are designed to become resources for others to use.”
- But we must reduce & reuse first

Zero Waste International Alliance

<http://zwia.org/standards/zw-definition/>

# Purpose of the Plan



- Meet City's waste reduction goals
- Continue to maintain high quality public services
- Maximize operational efficiency
- Protect employee health & safety
- Reduce GHG emissions
- Reduce costs



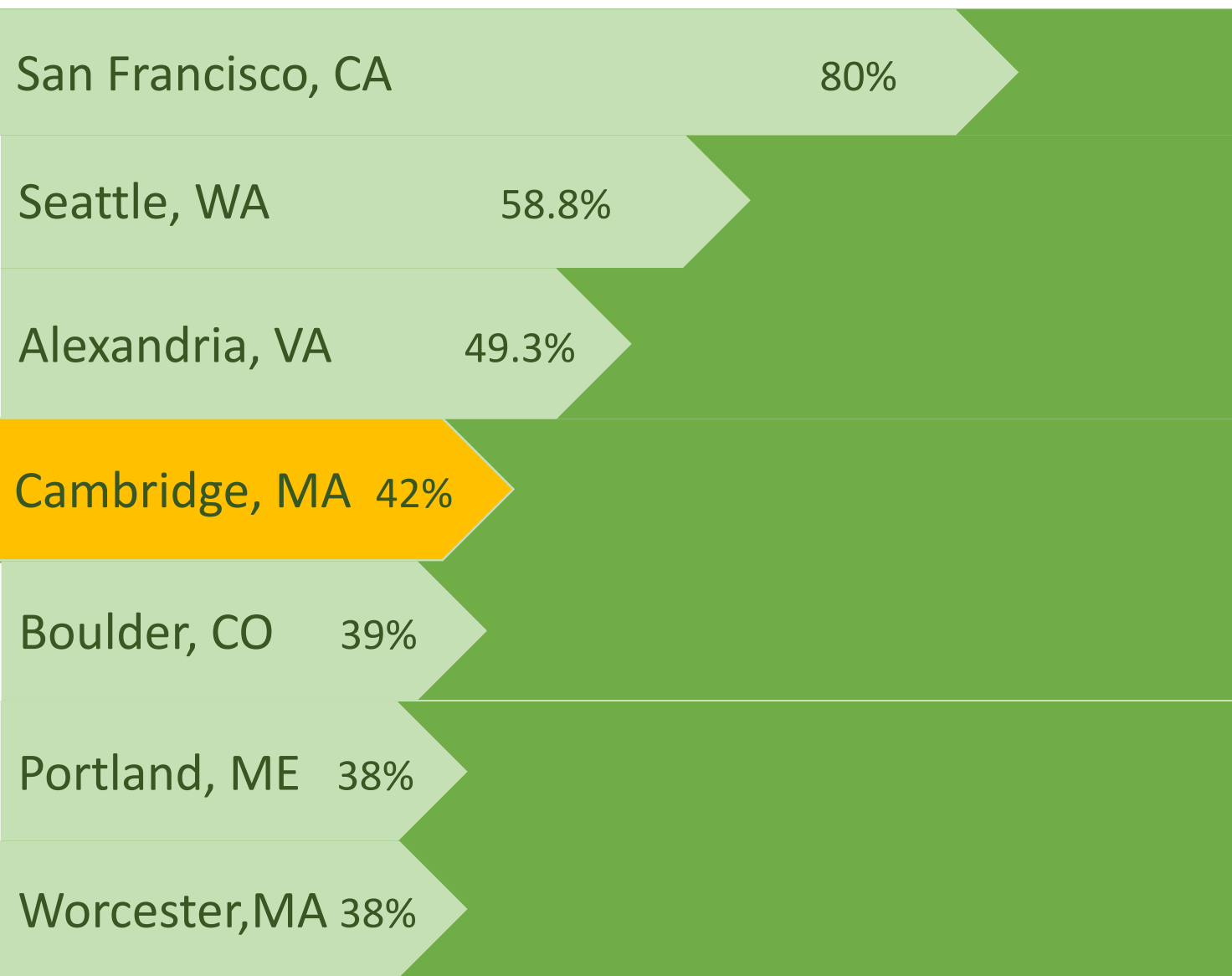
# Current Waste Management System

- Trash
- Recycling
- Yard Waste
- Curbside Organics
- Household Hazardous Waste
- Electronics
- Bulky Waste
- Recycling Center

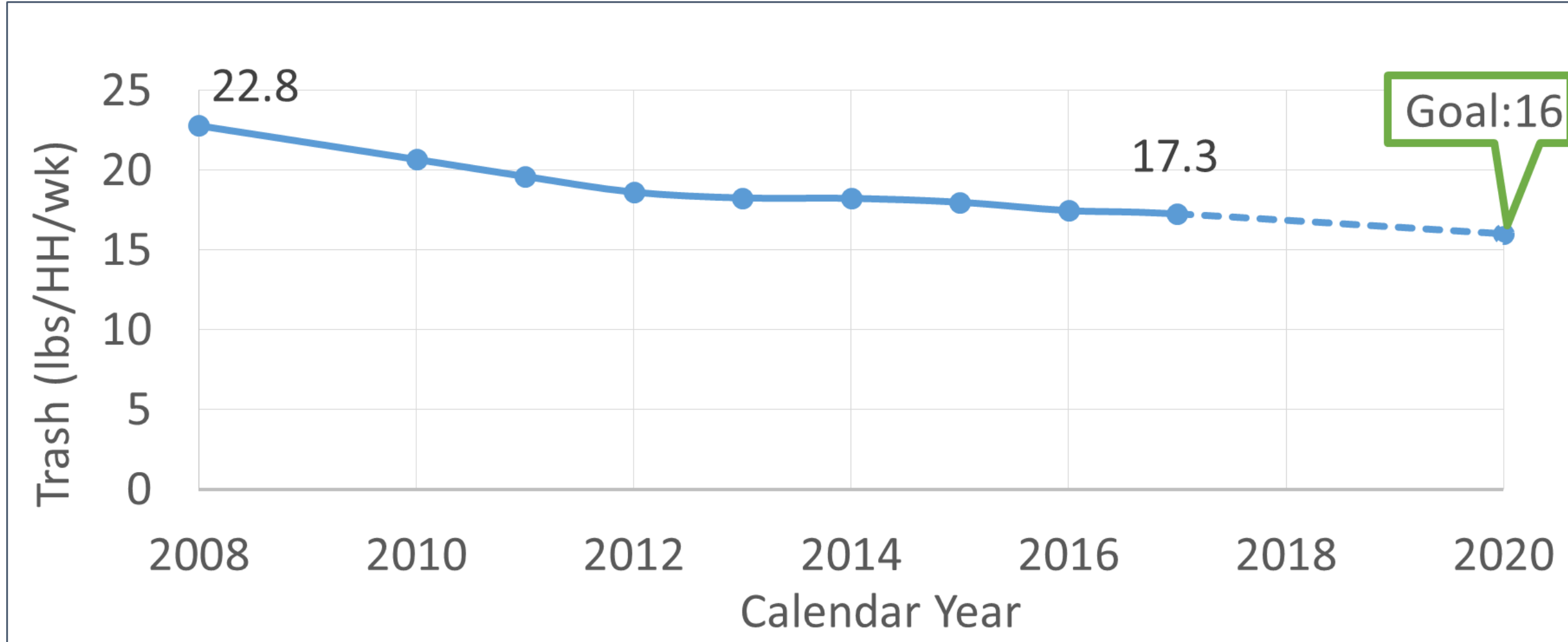


# How are we doing compared to others?

## Recycling Rates among select big cities (2016 data)

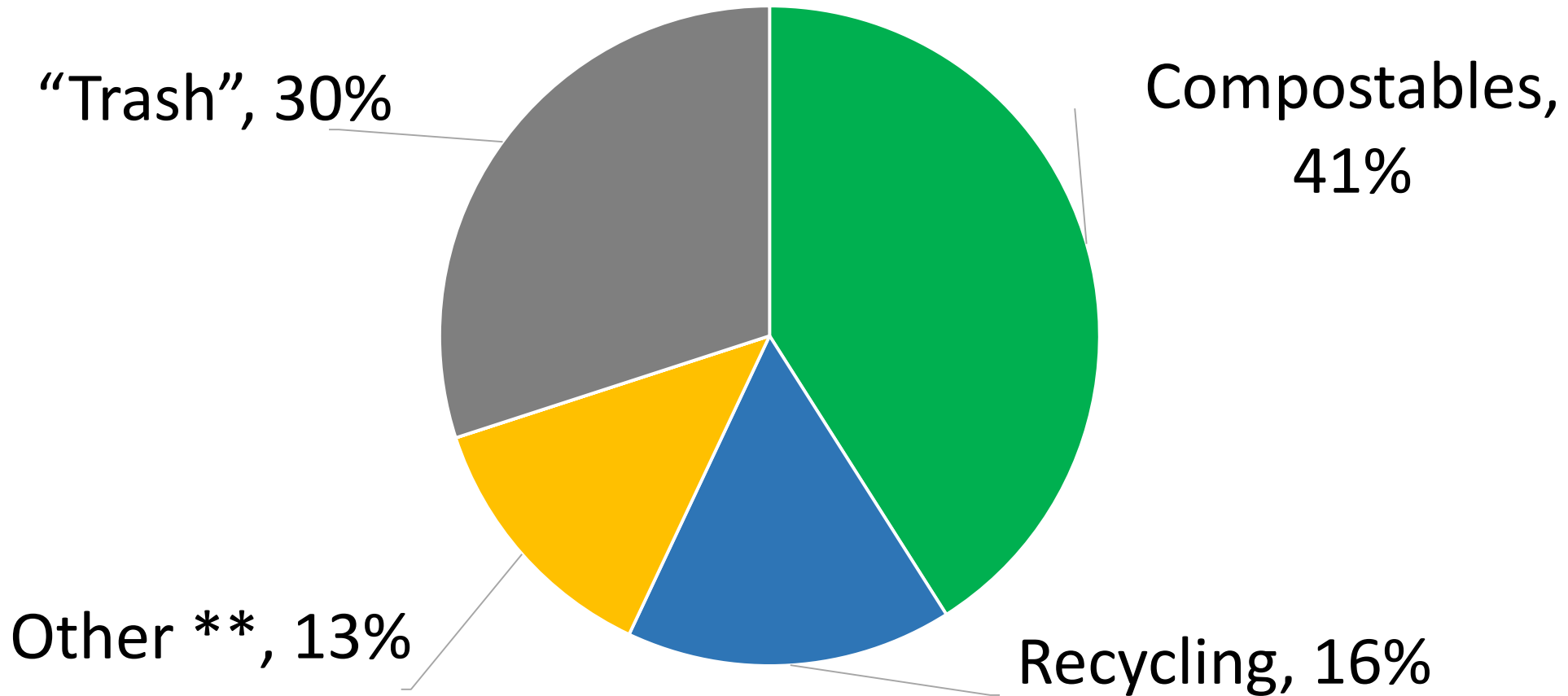


# Trash Generation Rate



2050 Goal: 80% reduction in municipal waste, 4 lbs/HH/wk

# *What's still in our trash barrels?*

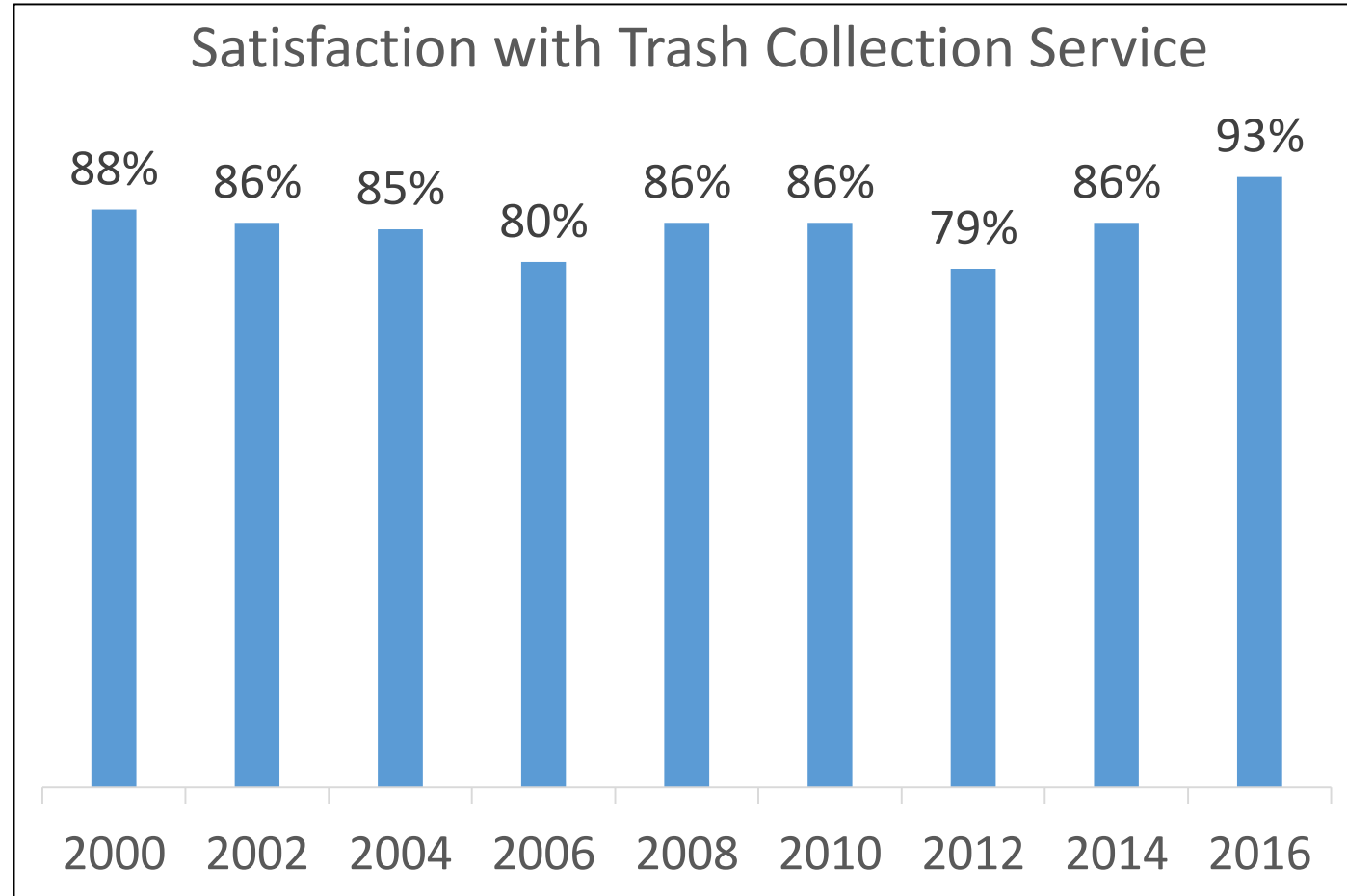


\*\*Other: Textiles, Electronics, Scrap metal

DATA: 2016 waste audit

# Goal – Maintain High Quality Service

- City has consistently high Customer satisfaction
  - 90%+ of residents rate recycling and trash collection as “excellent or good”



City collects trash from +/- 32,000 HH/week

# Goal – Maximize Operational Efficiency

- Example: Expansion of curbside organics program increased DPW fleet by 1 truck, not 2 trucks.
- Route Optimization





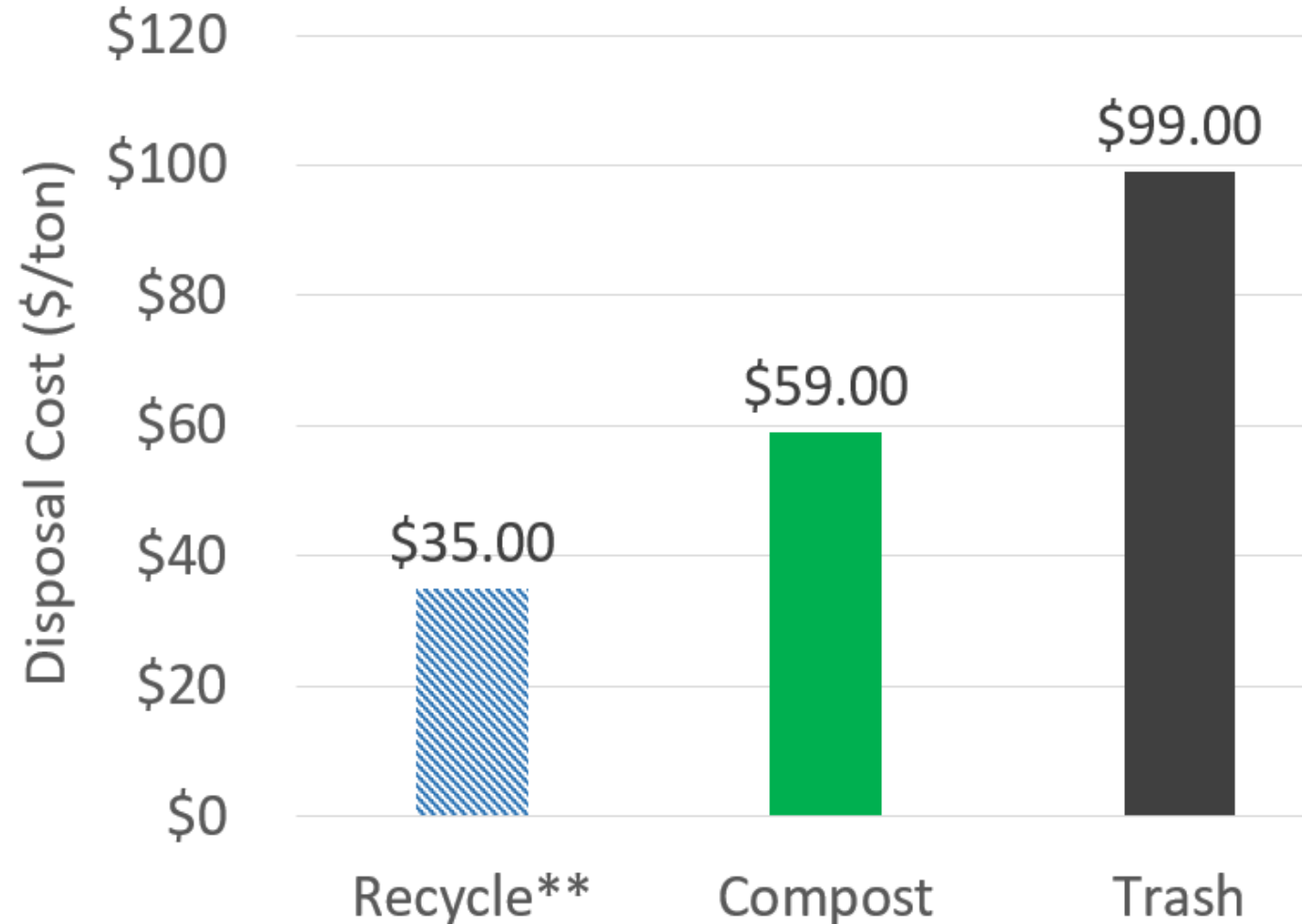
## Goal – Protect Employee Health & Safety

- Example: reduce lifting impacts with semi-automated curbside trash collection

# Goal – Evaluate Costs

- Reduce costs by diverting materials from trash
- Reduce contamination in recycling

## FY19 Disposal Costs (Tip fee only)



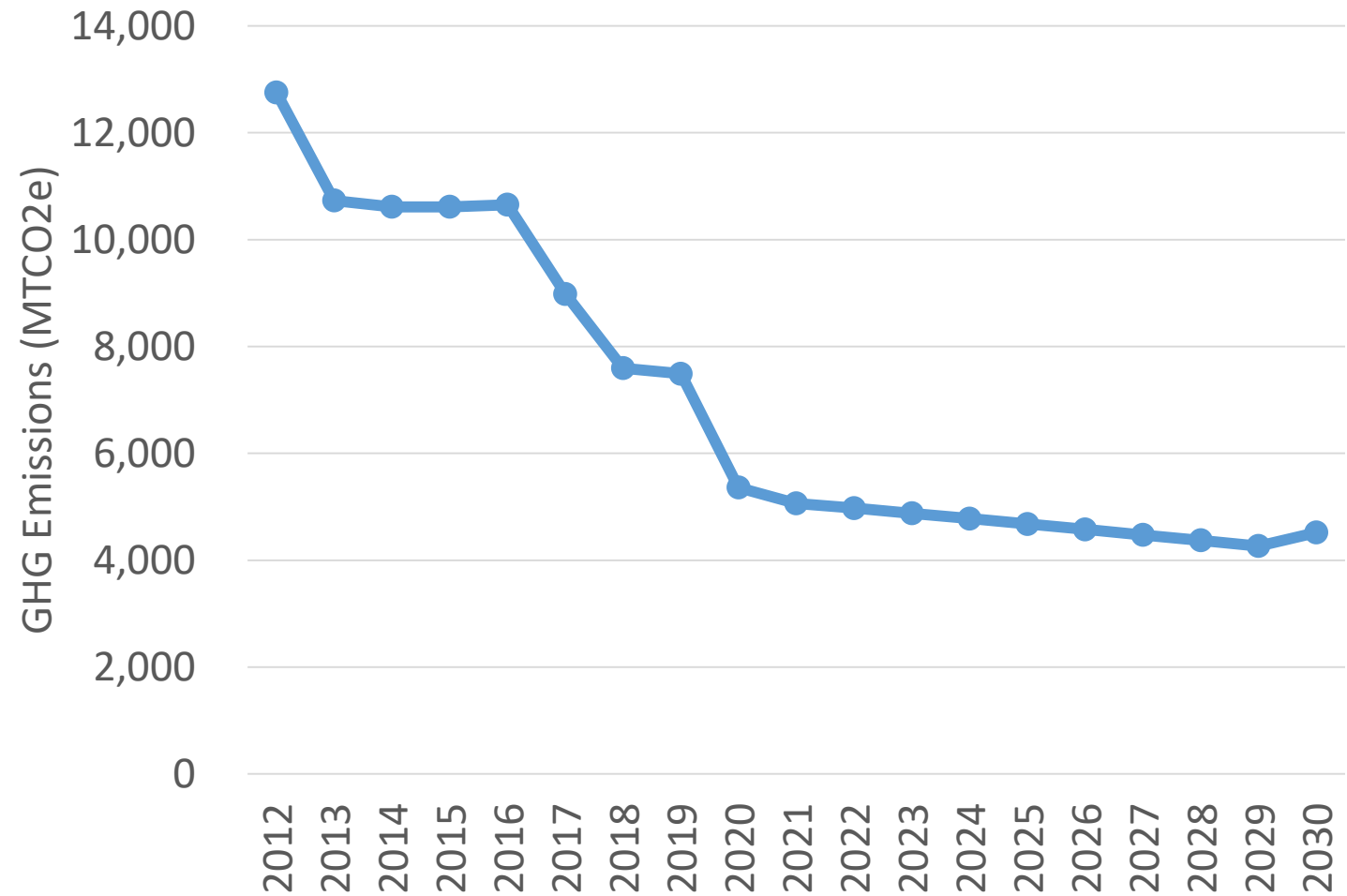
\*\*Currently pay \$70/ton to recycle due to excessive contamination.



# Goal – Evaluate Impact of GHG Emissions

- Most of the emissions come from disposal, not transportation
- Waste reduction and diversion have potential to significantly decrease CO<sub>2</sub> emissions from waste operations

Estimated Changes in GHG Emissions



**ZERO**  
**WASTE**  
CAMBRIDGE

# Master Plan Recommendations



# Expand Curbside Organics

## Early Implementation

April  
2014:

- 600 HH
- 6 tons/month

Oct  
2015:

- 5,200 HH
- 30 tons/month

April  
2018:

- 25,000 HH
- 140 tons/month

## Moving Forward - Recommendations

- Expand to 13+ units: fall 2019 to fall 2020
- Continue evaluating options for disposal sites of food waste
- Evaluate ordinances to increase diversion
- Potential to reduce trash disposal by 4 to 5 lbs/HH/week

# Expand Curbside Organics

An audit this Fall found that the set out rate for organics was less than 60%.

What do you think would increase participation in the program?

- Providing more compost bags periodically?
- More guidance on how to use the program?
- More peer-to-peer education about reducing trash?
- Mandatory composting ordinance?
- All of the above?
- Other actions?



***Curbside Organics  
August 2018 Survey:  
1300 respondents, over  
90% approval rating***

# Expand Curbside Organics

## Processing Organics

- Contract to implement program (expires April 1, 2021)
- Current program focus is to increase quantity of organics diverted
- Increase in state-wide permitted processing capacity offers new options



*CORe in Charlestown pre-processes food scraps into a slurry sent to Greater Lawrence Sanitary District in North Andover*

# Evaluate Trash Disposal and Collection

## Early Implementation

- Decreased trash truck fleet from 7 to 6 in April 2018
- Route optimization



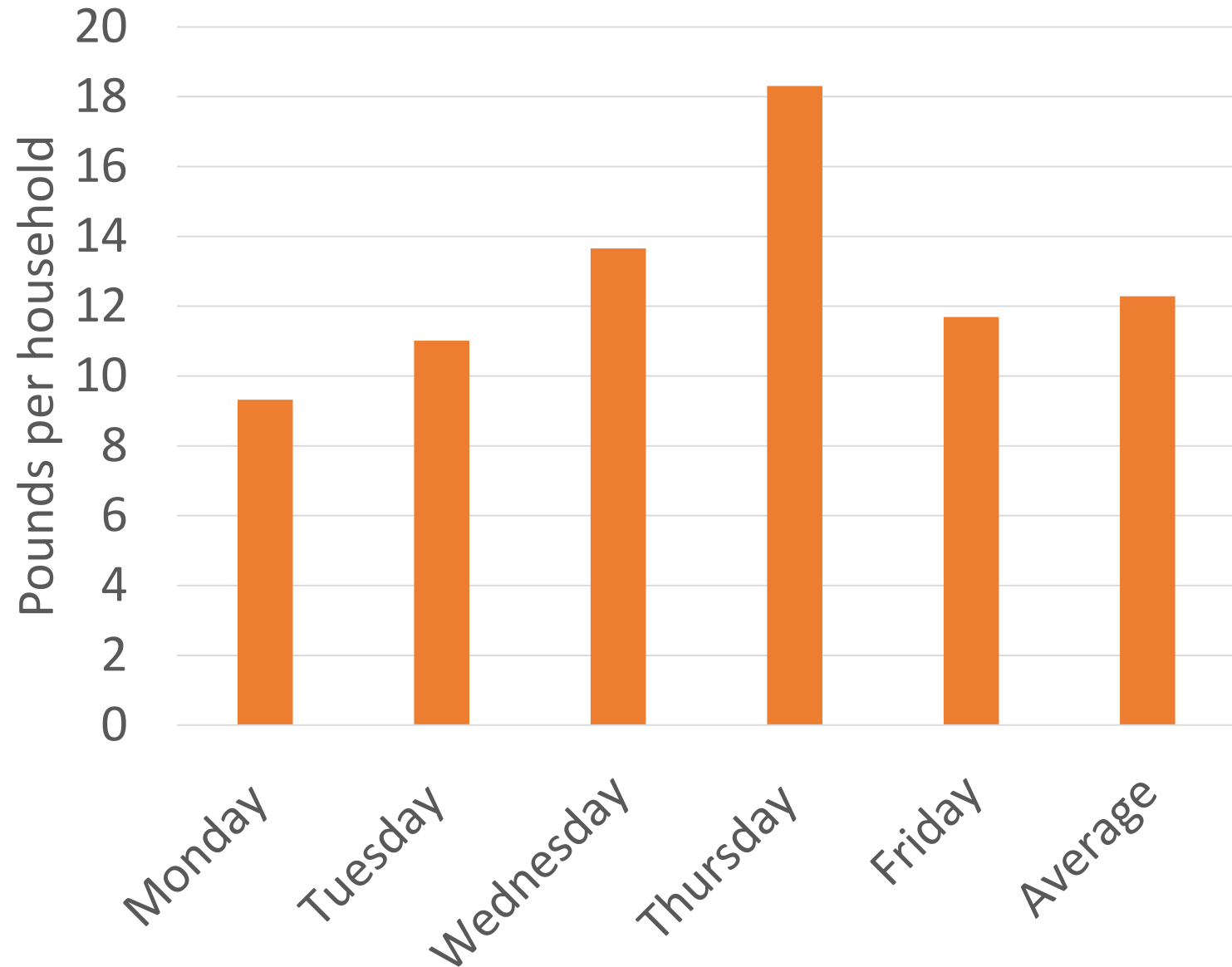
## Moving Forward - Recommendations

### Standard Trash Container

- Semi-automated collection, reduces lifting impacts
- Reinforced plastic helps rodent control
- Improved sidewalk accessibility
- Less trash spills
- Increased diversion

# Curbside Audit Results

- Over 75% of households set out less than 32 gallons of trash that week
- Monday route example of mature organics program



# Waste Reduction & Diversion

## Early Implementation

- Recycle Right Campaign
- Small Business Recycling Pilot (Nov 2018 launch)

## Moving Forward- Recommendations

- Mattress Recycling
- Examine existing recycling center, 2020
- Textile recycling strategy, 2020/2021
- Continue support for food waste reduction, sharing libraries, reuse events
- Potential to reduce trash by 2 to 3 lbs/HH/week





# Improving Recycling

40% of recycle carts had moderate to major contamination. What do you think would help people reduce contamination?

- More guidance on how to use the program?
- Notices on the carts when contamination is present?
- Not emptying cart with contaminated material?
- All of the above?
- Other actions?



# Evaluate Existing City Policies

## Early Implementation

- BYOB and Polystyrene Ordinances, 2016 (50 to 80% reduction in single-use bag consumption)
- Mandatory Recycling Ordinance

## Moving Forward- Recommendations

- Reduction in Trash Setout (from 150 gallons/HH to one standard trash container)

What are your thoughts on goals and objectives for the Zero Waste Master Plan Recommendations?



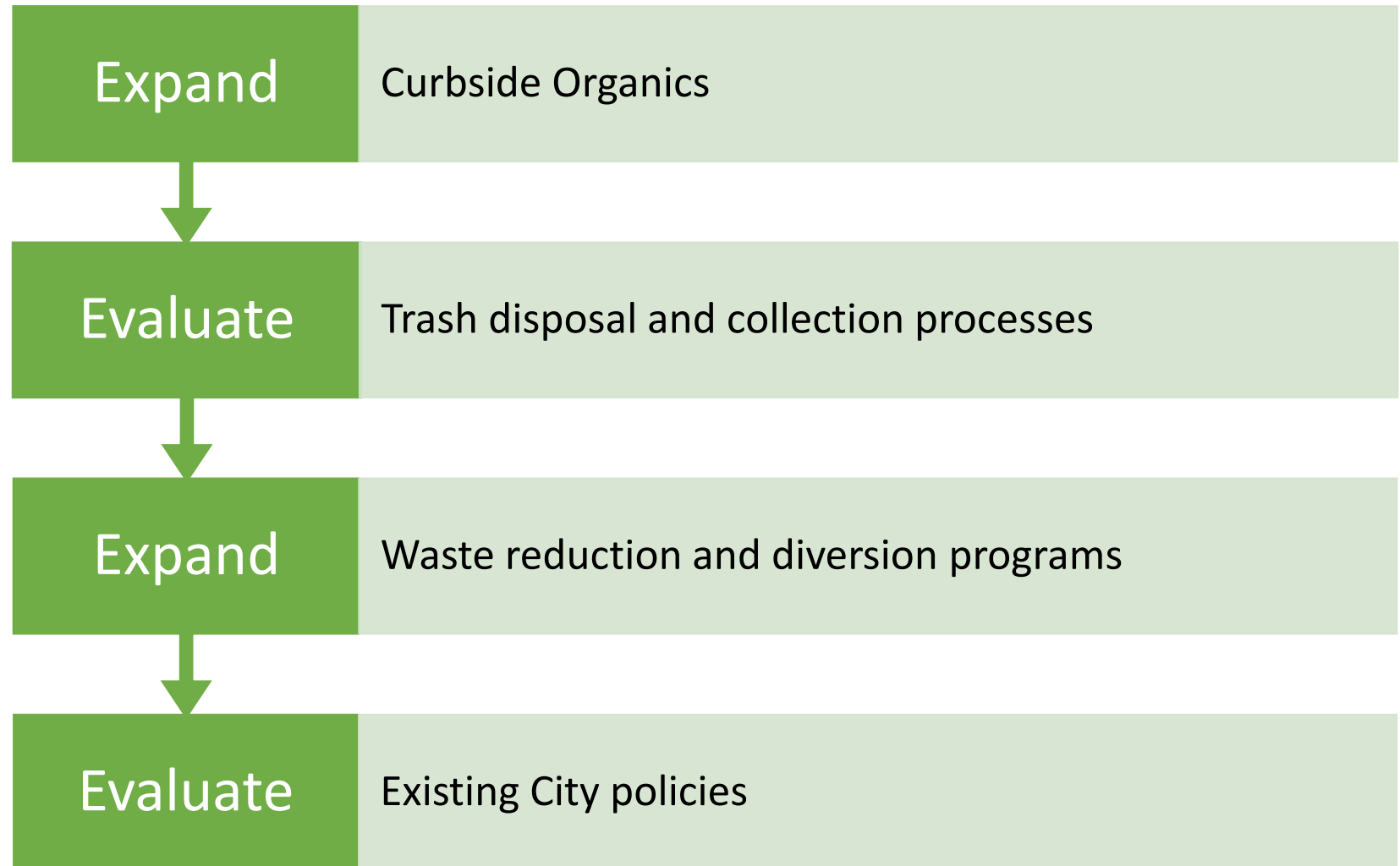
Visit [CambridgeMA.Gov/ZWMP](https://CambridgeMA.Gov/ZWMP)  
Email [Recycle@cambridgema.gov](mailto:Recycle@cambridgema.gov) to comment

# PURPOSE OF THE PLAN



- **Meet City's waste reduction goals**
- **Continue to maintain high quality public services**
- **Maximize operational efficiency**
- **Protect employee health & safety**
- **Reduce GHG emissions**
- **Reduce costs**

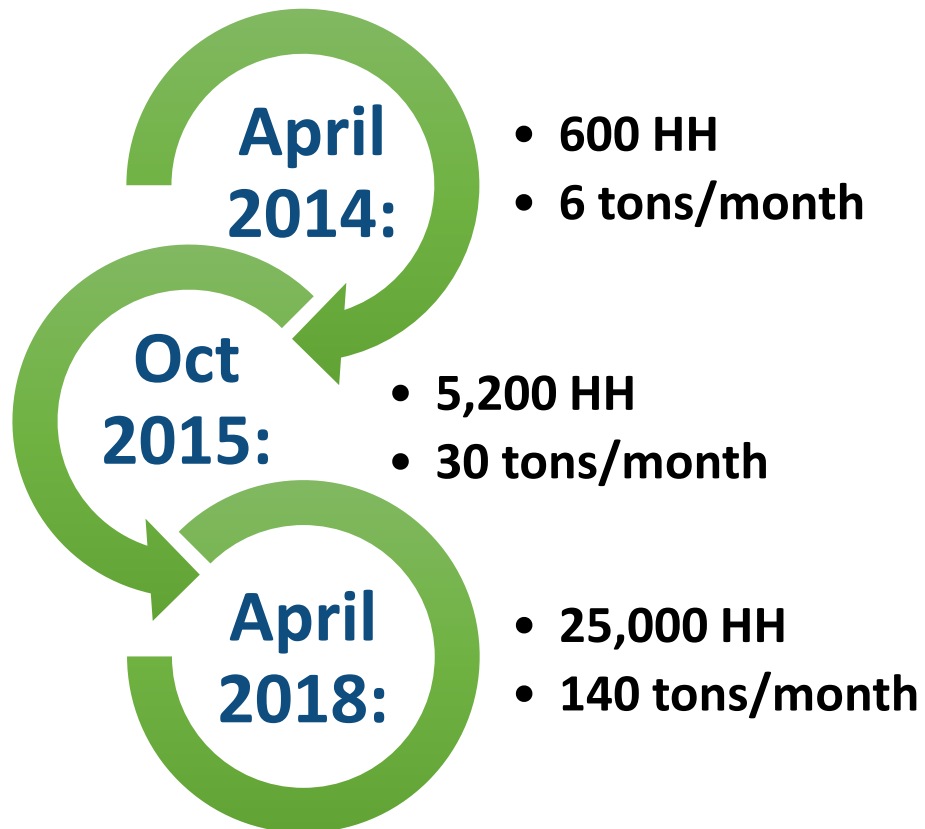
# MASTER PLAN RECOMMENDATIONS



# EXPAND CURBSIDE ORGANICS

## Early Implementation

## Moving Forward - Recommendations



- Expand to 13+ units: fall 2019 to fall 2020
- Continue evaluating options for disposal sites of food waste
- Evaluate ordinances to increase diversion
- Potential to reduce trash disposal by 4 to 5 lbs/HH/week



**An audit in fall 2018 found that participation in curbside organics was less than 60%.**

What do you think would increase participation in the City's organics program?

Please place a sticker beside those options you support below

- **Provide more compost bags periodically**
- **More guidance on how to use the program**
- **More peer-to-peer education on reducing trash**
- **Make composting mandatory**
- **Other actions**

# EVALUATE TRASH DISPOSAL AND COLLECTION

## Early Implementation

- Decreased trash truck fleet from 7 to 6 in April 2018
- Route optimization



## Moving Forward - Recommendations

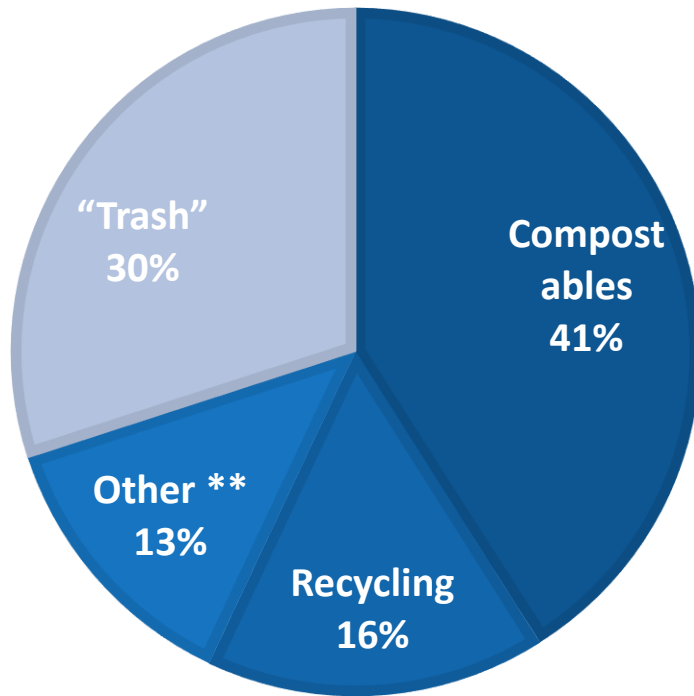
- Standard Trash Container
- Semi-automated collection, reduces lifting impacts
- Reinforced plastic helps rodent control
- Improved sidewalk accessibility
- Less trash spills
- Increased diversion



# What's still in our trash barrels?

## How can we reduce the amount of trash disposed?

Please place a sticker beside those options you support below



\*\*Other: Textiles, Electronics, Scrap metal

- **Compost more**
- **Recycle more**
- **More education on how to recycle and/or compost**
- **Divert more, such as mattresses and textiles**
- **Reduce the amount of trash allowed**
- **Enforcement**

# EXPAND WASTE REDUCTION & DIVERSION

## Early Implementation

- Recycle Right Campaign
- Small Business Recycling Pilot (Nov 2018 launch)

## Moving Forward - Recommendations

- Mattress Recycling
- Examine existing recycling center, 2020
- Textile recycling strategy, 2020/2021
- Continue support for food waste reduction, sharing libraries, reuse events
- Potential to reduce trash by 2 to 3 lbs/HH/week



Mobile Recycling Centers

# WASTE REDUCTION AND REUSE

What type of reduce or reuse programs/ initiatives should the City prioritize?

Please place a sticker beside those options you support below



2018 Fix-It Clinic at Main Library (449 Broadway)

## Reduction

- Host more Fix-it/ Repair clinics
- Ways to reduce food waste

## Reuse – How can the City encourage reuse?

- Promotion of online sites such as Craigslist, NextDoor.com, or Buy Nothing Cambridge Facebook group
- Supporting reuse events such as clothing swaps

## Others?

# EVALUATE EXISTING CITY POLICIES

## Early Implementation

- BYOB and Polystyrene Ordinances, 2016 (50 to 80% reduction in single-use bag consumption)
- Mandatory Recycling Ordinance

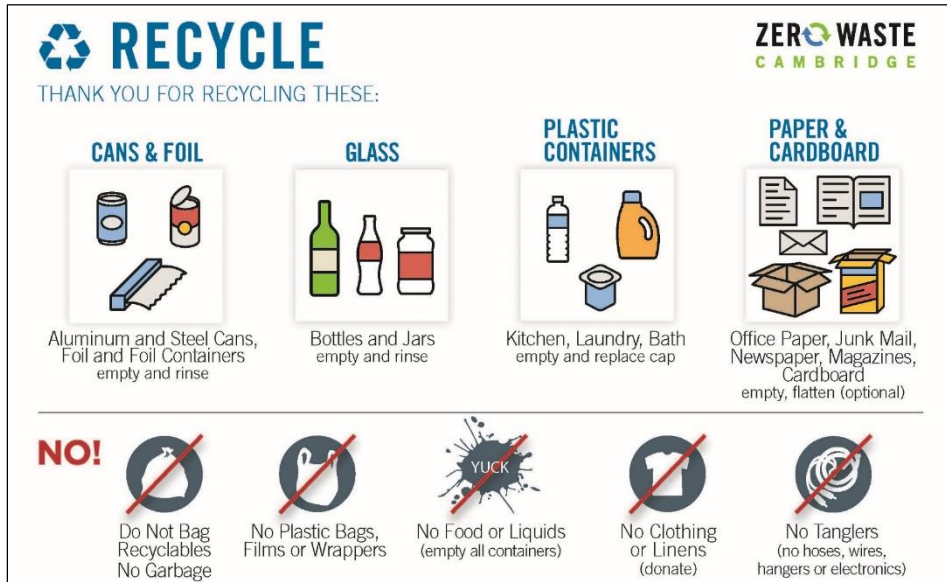
## Moving Forward - Recommendations

- Reduction in Trash Setout (from 150 gallons/HH to one standard trash container)



# What would help reduce contamination in recycling?

Please place a sticker beside those options you support below



- **More guidance on how to use the program**
- **Notices on the carts when contamination is present**
- **Not emptying cart with contaminated material**

Contaminant	Plastic Bags, Film, Wrappers	Plastic Bagged Recycling	Paper Towels, Tissues, Napkins	Excessive Food & Liquid	Paper Plates, Take-out containers	Clothing & Textiles	Trash	Tanglers, Cords, Hoses	Straws, Utensils	Wood, Metal, Electronics
% of carts	52%	21%	20%	14%	14%	10%	5%	4%	4%	3%

# SMALL BUSINESS RECYCLING

In November 2018, the City launched the Small Business Recycle Pilot

How can Cambridge help reduce waste at businesses?

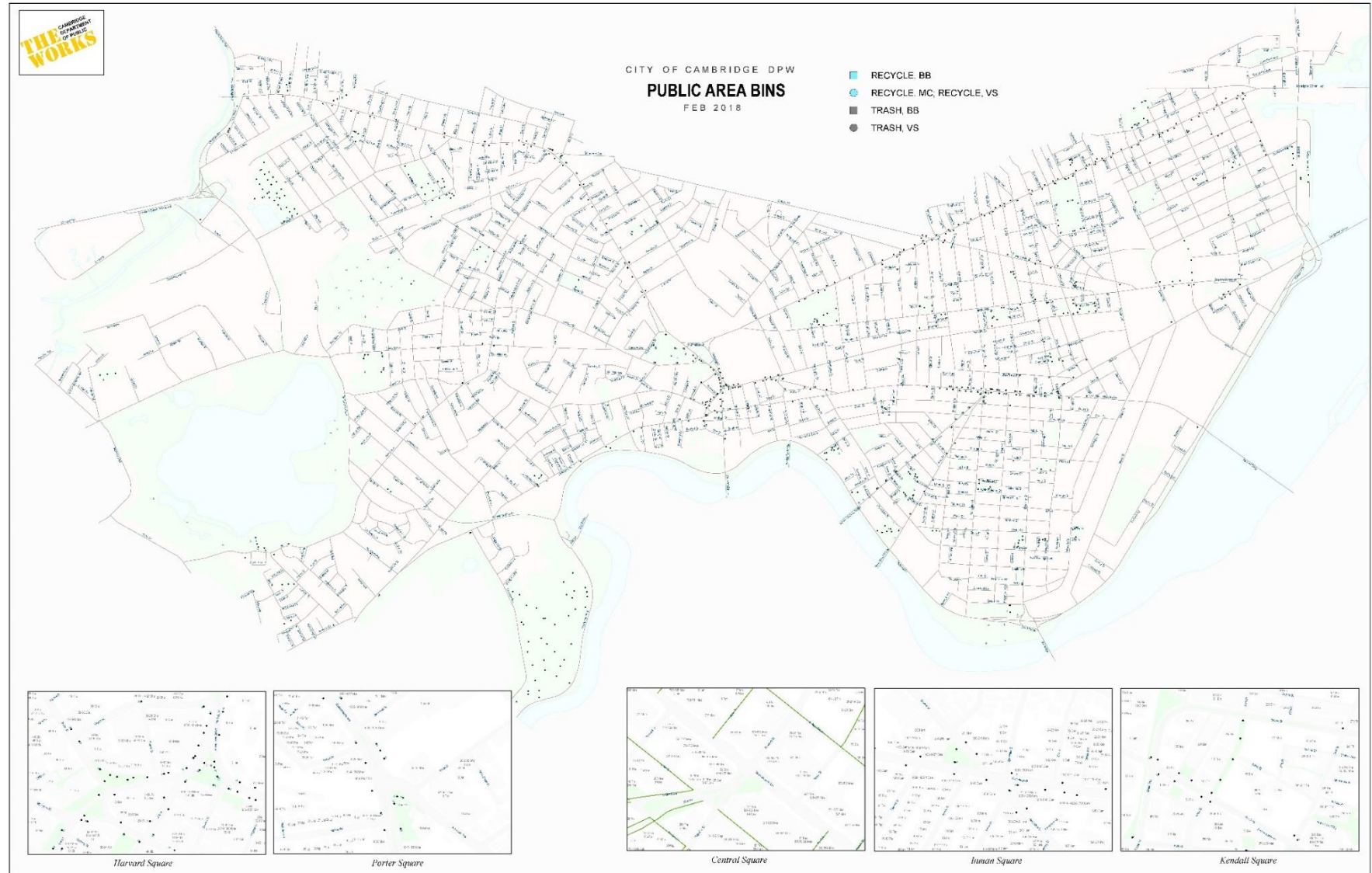
Please place a sticker beside those options you support below



- **Provide information on reducing single-use products**
- **Promote reusable containers**
- **More recycling and compost bins at businesses**
- **Other**

# THE CITY IS GETTING NEW PUBLIC AREA RECYCLING BINS WHERE SHOULD THEY BE PLACED?

Please place a pin where you would like to see a recycling bin.



# GOALS AND OBJECTIVES OF ZERO WASTE MASTER PLAN

## What are your thoughts on the Zero Waste Master Plan Recommendations?

Please place a sticker beside those options you support below

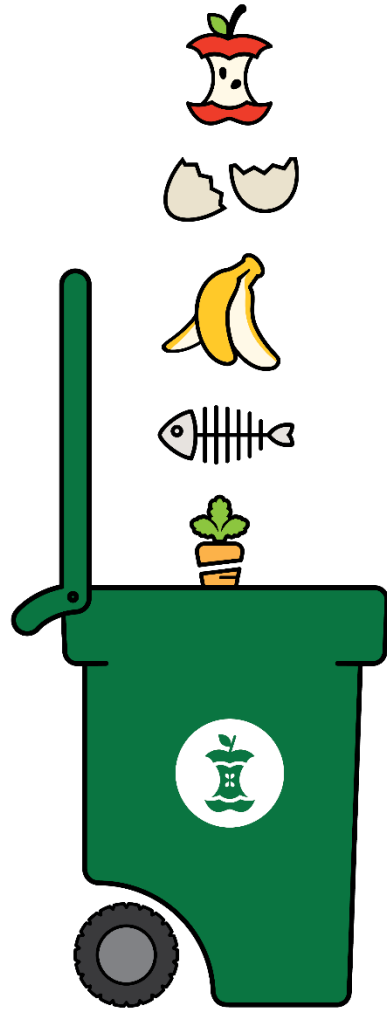


- **Reduce waste to disposal**
- **Reduce Greenhouse Gas emissions related to waste**
- **Increase diversion of food scraps**
- **Expand curbside food scraps program to large apartments/condos**
- **Reduce trash allowance to encourage diversion**
- **Recycle more materials such as mattresses, textiles**
- **Continue support for waste reduction and reuse**



COMPOST  
MORE

TRASH  
LESS



RECYCLE MORE

TRASH LESS

Any other thoughts you would like to share?