

Recycling Advisory Committee (RAC) Meeting Minutes  
September 9, 2020, 8 am - 9:30 am  
Virtual Meeting  
Minute Taker: Rob Gogan

**Members Present:** Ilana Bebchick, Catrina Damrell, Shirley Elliot, Debby Galef, Rob Gogan, Martha Henry, Sakiko Isomichi, Susy Jones, Debby Knight, Lindsay Levine, Scott MacGrath, Janet Mosley, Audrey Ng, Diane Roseman, Meera Singh, Quinten Steenhuis, Mary Verhage.

**Members Absent:** Leah Beckett, Holden Cookson, Laura Nichols, Richard Nurse, Kristen Watkins, Suzanne Wong

**Staff Present:** Bronwyn Cooke, Dawit Gelaye, Mike Orr

**Public Present:** Helen Snively

### **1. Housekeeping**

August meeting minutes approved with some changes.

Mike provided a brief overview of how to participate in Zoom meetings.

### **2. City Updates**

Mike reported that unfortunately there is nothing new regarding the resumption of curbside organics pickup. The compost drop-off locations have been popular, with good loads at all locations. Meera reported ongoing problems with litter and contamination at the Danehy Park location and asked if DPW could provide better signage or implement a procedure to drop off and empty a litter barrel along with the compost totes.

Short staffing and personal leave issues have made management of all programs difficult.

DPW does not believe it could manage any new programs at this moment. Programs, such as the Simple Recycling pink bag donation program for textiles and other household goods, are on pause for now. Keeping existing programs going, and re-establishing curbside compost pickups, will take the full resources of the team during the COVID-19 era.

### **3. Joint CPAC-RAC committee**

Bronwyn Cooke presented her powerpoint on the CPAC-RAC Advisory Sub-Committee on Consumption. Topics included a brief history of the Cambridge Climate Action Plan; Scope 1, 2 and 3 Greenhouse Gas Emissions tracking; Sector-based and Con-

sumption-based GHG Emissions Inventories; C40 Cities GHG tracking methodologies; and the Committee's goals and objectives for Cambridge. Rob, Mike, Martha and Janet pledged to prepare comments on implications of the Subcommittee's work for RAC to discuss in our October meeting.

#### **4. Subcommittees**

Susy and Mike led a discussion of how to continue our sub-committee work going forward. The March 2020 Minutes list the goals and primary areas of interest for each Committee. Janet will be making a survey listing these areas and asking RAC members to show which topics they would most like to work on this year.

#### **5. Closing**

Election was held for Co-chairs and Secretary. The RAC voted for the slate of Chairs for the next 1 year. The Co-chairs will be Susy Jones and Scott MacGrath. The Secretary will be Debby Galef.

There were no public comments.

Announcements: Mike said that the annual MassRecycle Conference would be virtual this year on October 28 and 29. Details for registration are available here: <https://massrecycle.org/events/calendar/#id=108&wid=801&cid=1565>

Rob announced upcoming virtual Fixit Clinics for which registration information can be found here: <https://www.facebook.com/FixitClinic/events>

#### **Actions:**

- Rob, Mike, Martha and Janet: prepare comments on implications of the CPAC/RAC Subcommittee's work for discussion at October meeting.
- Janet: draft a survey listing the ideas generated in the March brainstorming portion of the meeting; RAC members will be asked to select the topics they want to focus on for next year. No deliverable date identified.

Meeting adjourned at 9:30.

# RAC/CPAC Advisory Sub-Committee on Consumption

Draft Presentation  
for Green Communities

B.Cooke  
Environmental & Transportation Planning Division  
9/2/2020

# Agenda

- Introduce purpose of the committees and the joint sub-committee
- Overview of what we know about waste and community wide emissions
- Developing a framework and action plan for Reducing Scope 3 emissions
- Recommendations
- Discussion

# About the Committees

## **CPAC**

### **Climate Protection Action Committee**

Advisory committee to the City Manager on climate change mitigation and preparedness issues in Cambridge

Reducing emissions

## **RAC**

### **Recycling Advisory Committee**

Advisory committee to the City Manager on recycling, composting, reuse and waste reduction issues in Cambridge

Reducing waste

# Joint Sub-Committee on Consumption

Recycling Action Committee & Climate Protection Action Committee

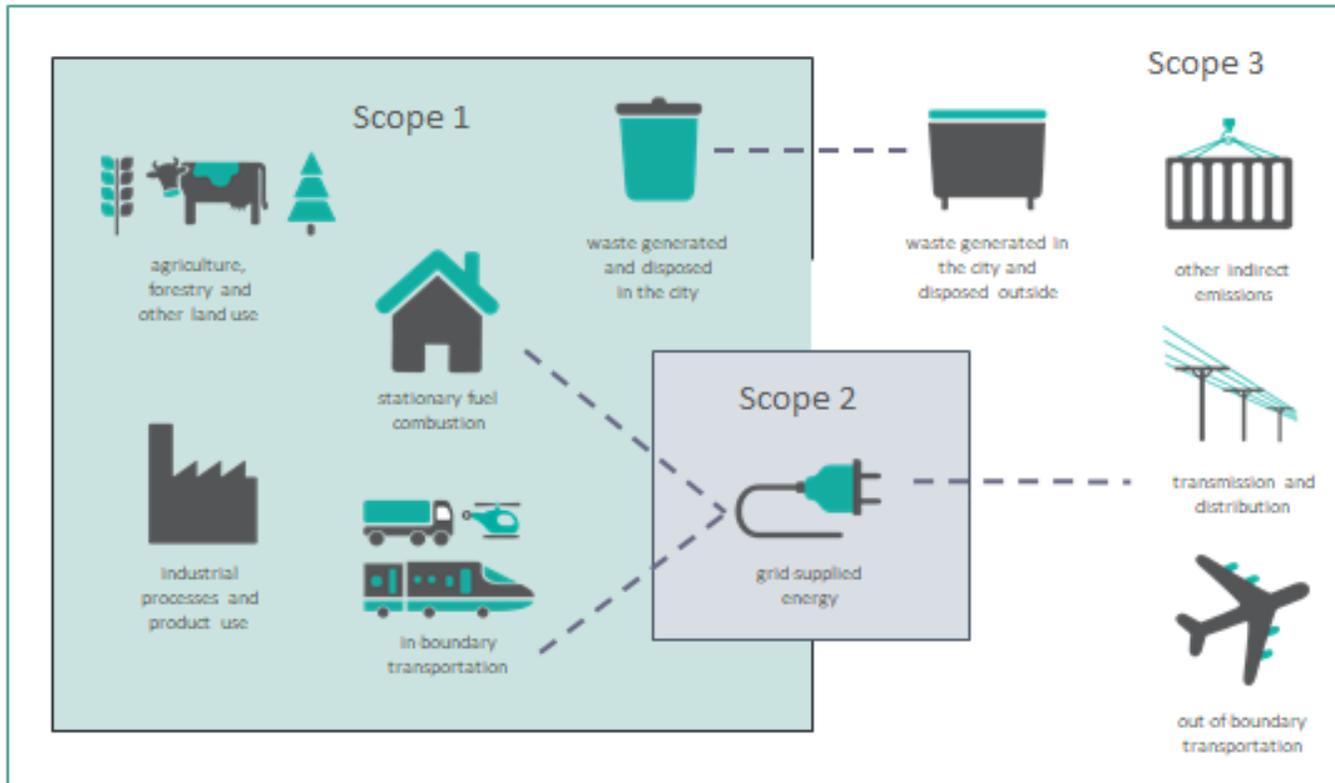
## **Goal**

- Develop a common understanding and an actionable framework for pursuing community-wide actions that reduce the negative impacts of consumption and waste, and take advantage of opportunities to support the circular economy.

## **Objectives**

- Compile and summarize foundational information on emissions, waste and consumption in the City
- Define the desired outcomes related to consumption, waste and circular economy, and possible metrics for measuring outcomes
- Develop a framework for community-wide action to meet the desired outcomes related to consumption, waste and circular economy
- Draft a recommendation for consideration by both committees for possible submission to the City Manager.

# Community GHG Emissions



Cambridge Emissions Inventory includes

- Scope 1
  - All fossil fuels combusted by building in Cambridge, vehicles registered in Cambridge, and the portion of public transit trips made in Cambridge.
- Scope 2
  - Electricity delivered to Cambridge
- Limited Scope 3
  - Emissions calculated from municipal solid waste, and estimated from commercial solid waste

# Municipal Solid Waste

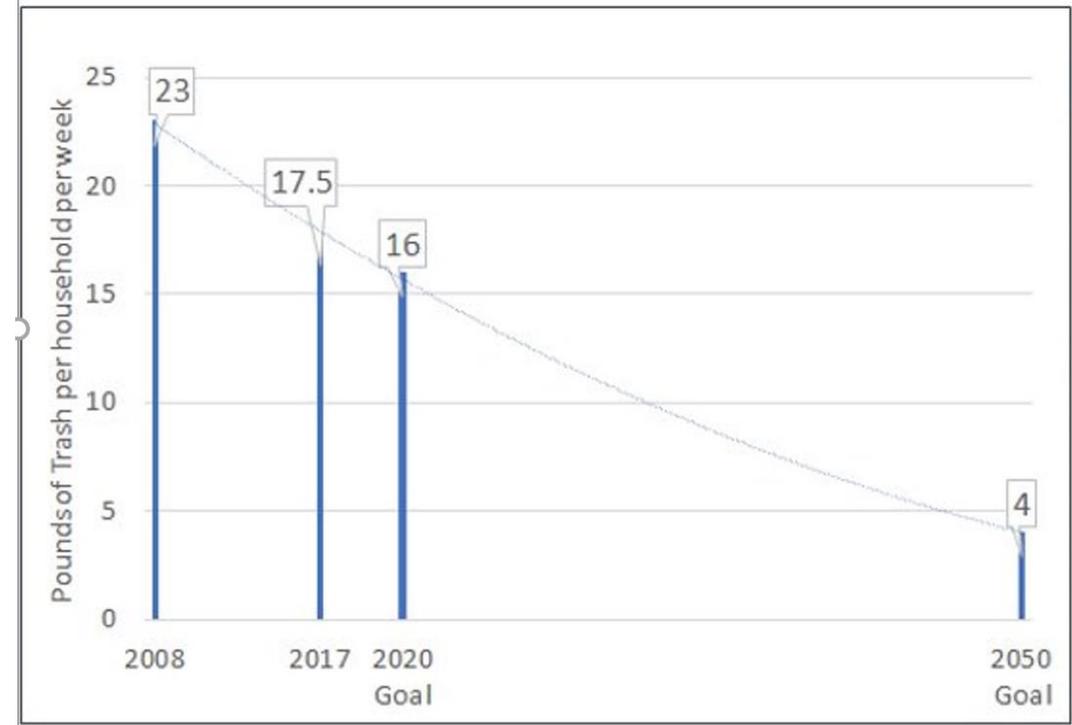
The City's goal is to ...

- Reduce the amount of trash (pounds of trash/household, per week)
- 80% by 2050 (from a 2008 baseline)

As of 2019, trash has been reduced by 32% over 2008.

This has been accomplished by diverting materials into other disposal streams.

- Recycling out of trash and into recycling streams
- Food waste out of trash and into organics collection



This reduces emissions and other environmental impacts of trash disposal

- For example, recycling materials allows them to be re-used in other products. This reduce emissions associated with burning of waste, and emissions associated with extraction of raw or virgin materials to manufacture products.

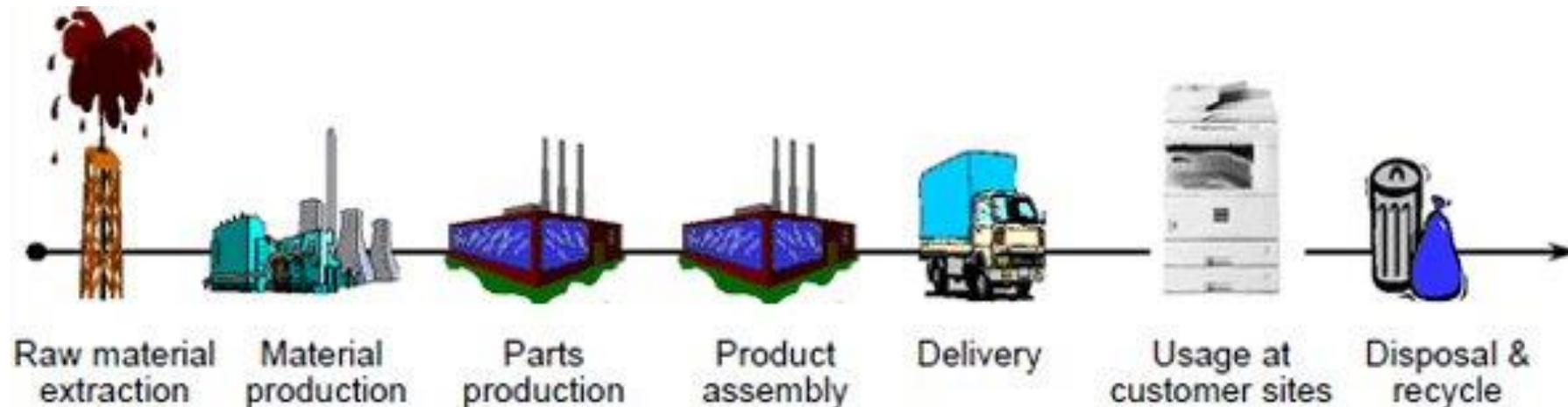
# What is in Cambridge's residential trash?

	2019 audit	2016 audit
Recyclables	13.2%	16.7%
Organics (food waste + non-food organics)	26.4%	41.5%
Textiles	3.4%	4.2%
Other divertables (scrap metal, electronics)	1.4%	2.8%
Trash	55.6%	34.8%
TOTAL	100%	100%

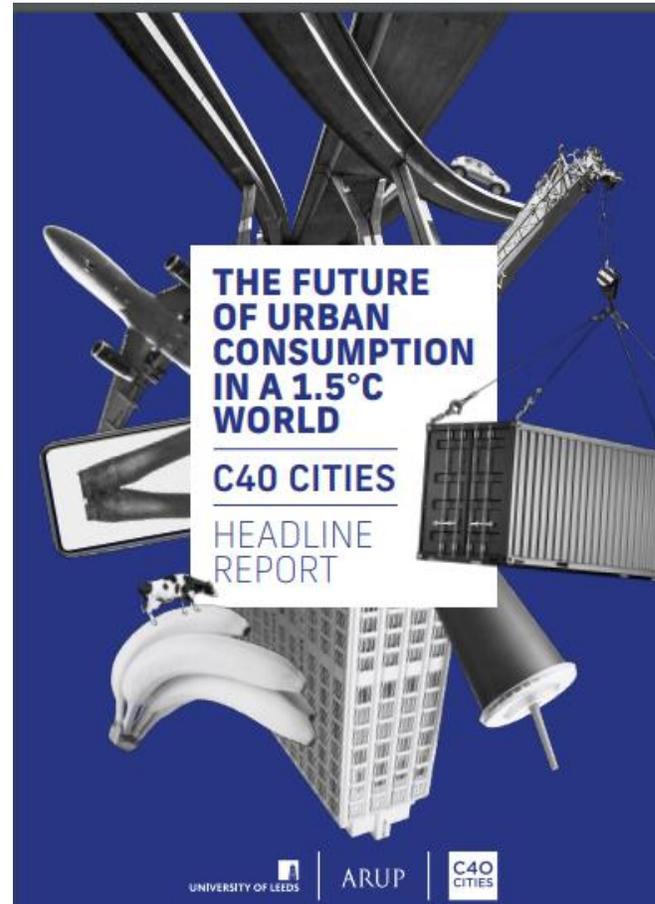
# Cambridge Context on Waste & Consumption

Waste and emissions could be reduced further by generating less of it overall.

- Most of the emissions associated with a product come from the the products life-cycle prior to being disposed of.
- The City has focused its efforts on "end of life" strategies to reduce waste emissions by diverting it away from trash and trash disposal.
- The RAC/CPAC committee is interested in, and is beginning to explore, what role the City can play in reducing waste and emissions in other parts of a products life cycle.



# C40 Cities Reports on Consumption Emissions

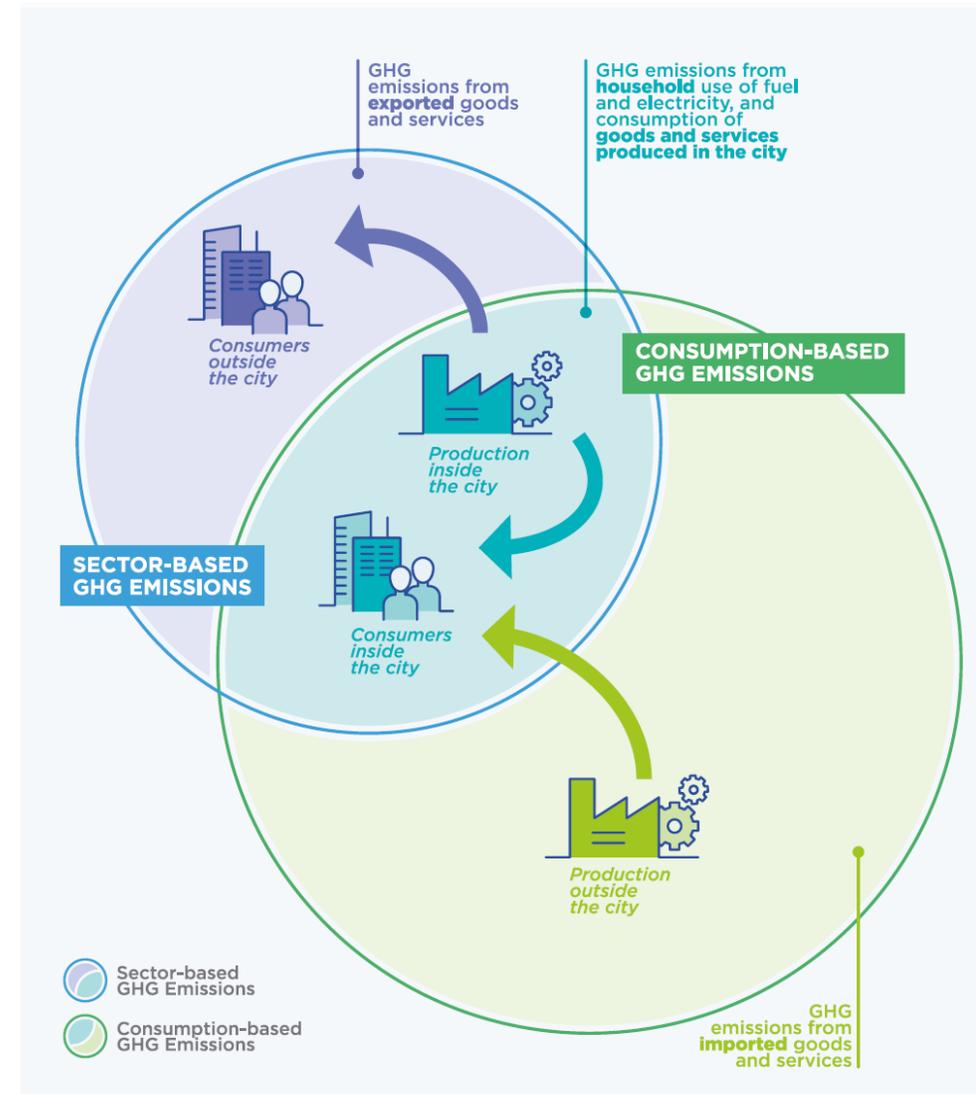


Two reports from C40 Cities were key resources in developing a framework for Consumption Emissions in Cambridge

# Consumption Based Emissions Inventory

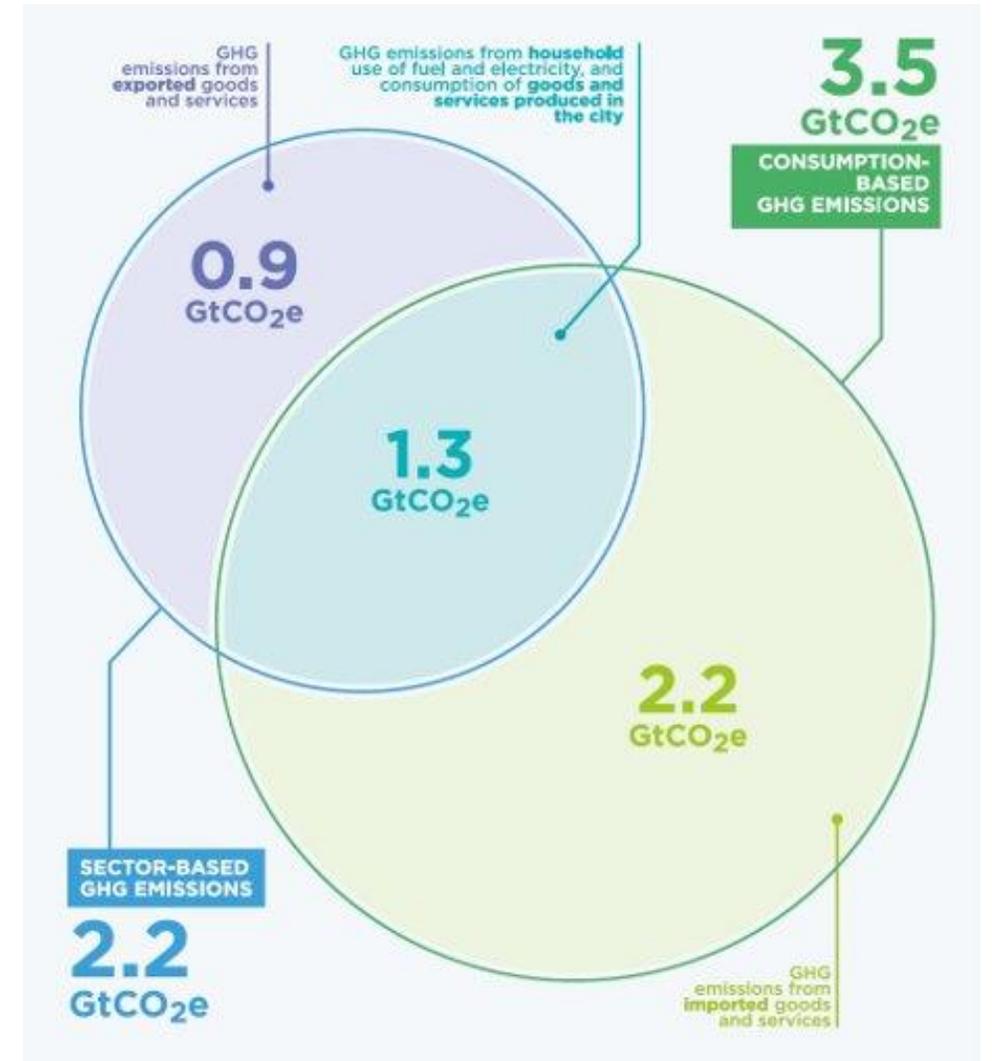


- The Consumption Based Inventory methodology is described as alternative to the Sector based approach that the City currently uses
  - Consumption based emissions include emissions from the goods and services that the City consumes.
  - Sector based emissions include emissions from goods and services that are created within the City but exported.



# Consumption Emissions

- Consumption based emissions for 79 C40 Cities were modeled and compared to their Sector based community GHG emissions
- Consumption based emissions accounting suggests that Cities can be categorized by whether they are "producer" cities, or "consumer" cities.
- Cambridge can be considered a "consumer" City. This is not to say that Cambridge does not produce anything of value. But it does suggest that consumer cities have a significant role to play in reducing emissions associated with the goods and services consumed within the City.



# Reducing Consumption Emissions



- This report explores the type and scale of changes in consumption patterns needed to ensure emissions reductions in line with IPCC

Consumption category	Consumption interventions	Emission reductions per consumption category between 2017 and 2030	Emission reductions per consumption category between 2017 and 2050
	<ul style="list-style-type: none"> <li>• Reduce the number of new clothing items bought every year</li> <li>• Reduce supply chain waste</li> </ul>	<b>39%</b> (Reducing the number of new clothing items alone accounts for 37%)	<b>66%</b> (Reducing the number of new clothing items alone accounts for 64%)
	<ul style="list-style-type: none"> <li>• Dietary change: eat in line with health recommendations and lower meat and dairy consumption</li> <li>• Reduce household waste</li> <li>• Reduce supply chain waste</li> </ul>	<b>36%</b> (Dietary change alone accounts for 27%)	<b>60%</b> (Dietary change alone accounts for 45%)
	<ul style="list-style-type: none"> <li>• Reduce number of flights</li> <li>• Increase adoption of sustainable aviation fuel</li> </ul>	<b>26%</b> (Reducing number of flights alone accounts for 18%)	<b>55%</b> (Reducing number of flights alone accounts for 31%)
	<ul style="list-style-type: none"> <li>• Improve materials efficiency</li> <li>• Enhance building utilisation</li> <li>• Switch to lower carbon materials</li> <li>• Adopt low-carbon cement</li> <li>• Reuse building components</li> </ul>	<b>26%</b> (Improving materials efficiency and enhance building utilisation together account for 18%)	<b>44%</b> (Improving materials efficiency and enhance building utilisation together account for 29%)
	<ul style="list-style-type: none"> <li>• Reduce car ownership</li> <li>• Increase car lifespans</li> <li>• Increase material efficiency</li> </ul>	<b>28%</b> (Reducing car ownership alone accounts for 24%)	<b>39%</b> (Reducing car ownership alone accounts for 31%)
	<ul style="list-style-type: none"> <li>• Optimise lifetimes of IT equipment</li> </ul>	<b>18%</b>	<b>33%</b>

# Reducing Consumption Emissions

C40 Analysis	Clothing & Textiles	Food	Aviation	Buildings & Infrastructure	Transportation	Electronics
Portion of Total C40 Cities Consumption Emissions	4%	13%	2%	11%	8%	3%
Emissions Reduction Potential (2030)	39%	36%	26%	26%	28%	18%

Cambridge Trash Audit	2019 audit
Recyclables	13.2%
Organics (food waste + non-food organics)	26.4%
Textiles	3.4%
Other divertables (scrap metal, electronics)	1.4%
Trash	55.6%
TOTAL	100%

# Deep Dive - Food Sector

Sub-committee brainstormed actions within a strategy type

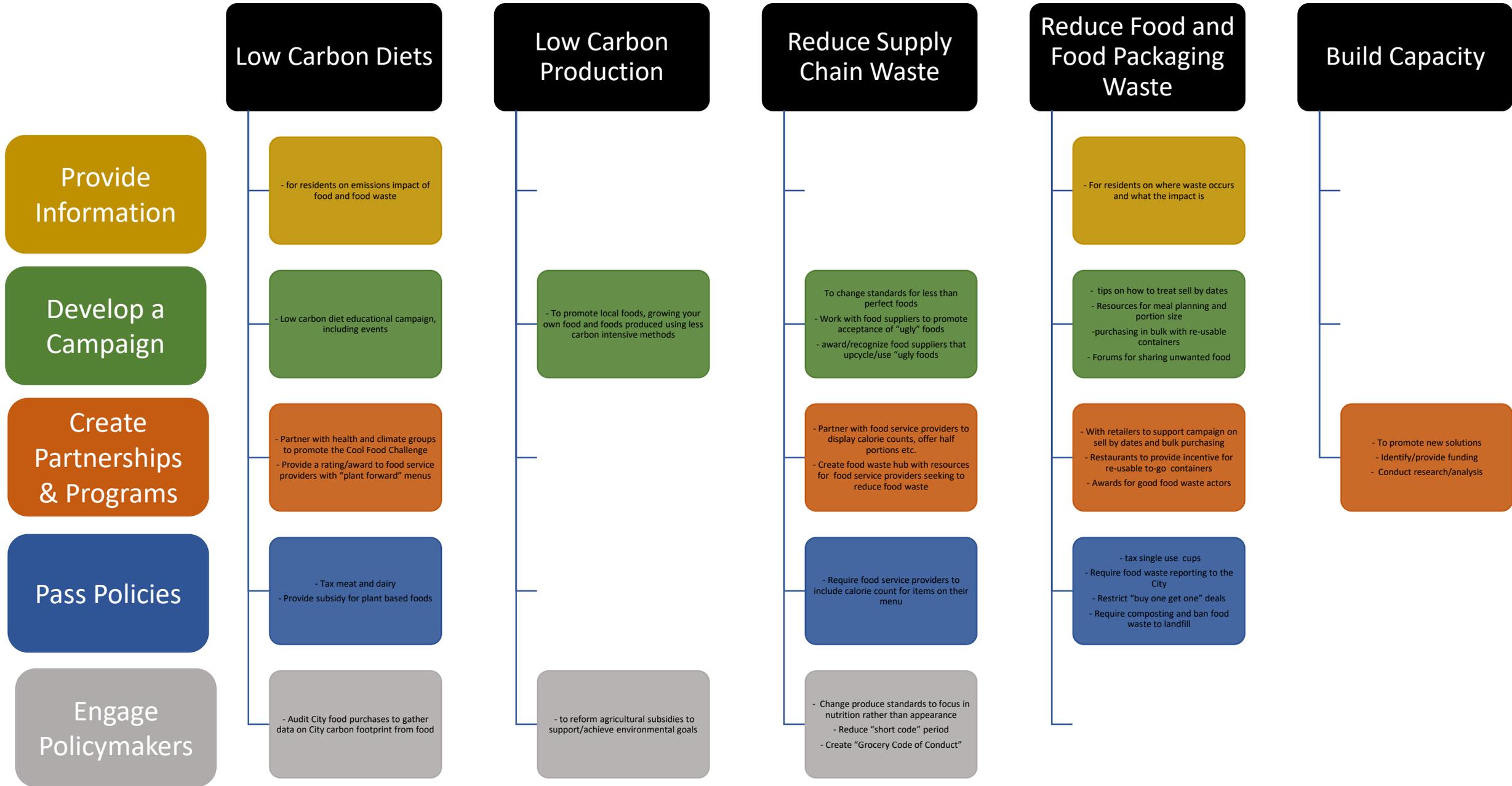
Consumption Strategies			
Change <u>In</u> Carbon Intensity of End Products		Change in Expenditure	
lower carbon production methods	avoided production	shift expenditure to lower carbon product	avoid/reduce expenditure
<i>Reduce carbon intensity of the food product's production</i>	<i>Reduce household and supply chain food waste</i>	<i>Reduce spend on high carbon food products (meat and dairy) and increase spend on lower carbon food products (plants)</i>	<i>Reduce total spending on food by not purchasing more than needed</i>

# Deep Dive - Food Sector

Actions were further classified by lever type and key stakeholder

Levers
Education
Programs & Partnerships
Policy & Regulation
Advocacy in State & Federal Regulation

Key Stakeholder Groups
City Government
Residents
Food Service Providers
Civil Society
Regulators



Low Carbon Diets

Reduce Food  
and Food Packaging Waste

Build Capacity

Provide  
Information

The city should provide information about the emissions impacts of food and food waste, where most food waste is generated, and other health, environmental, economic and societal impacts of food waste.

Develop a  
Campaign

The City should develop a campaign that encourages residents to reduce the carbon footprint and other negative impacts of our food supply system. The campaign should include user friendly tools and resources, as well as community events, focused on what residents can do.

**The campaign should include and focus on the health and economic benefits associated with the recommended actions that individuals can take in their food choices.**

Create  
Partnerships  
& Programs

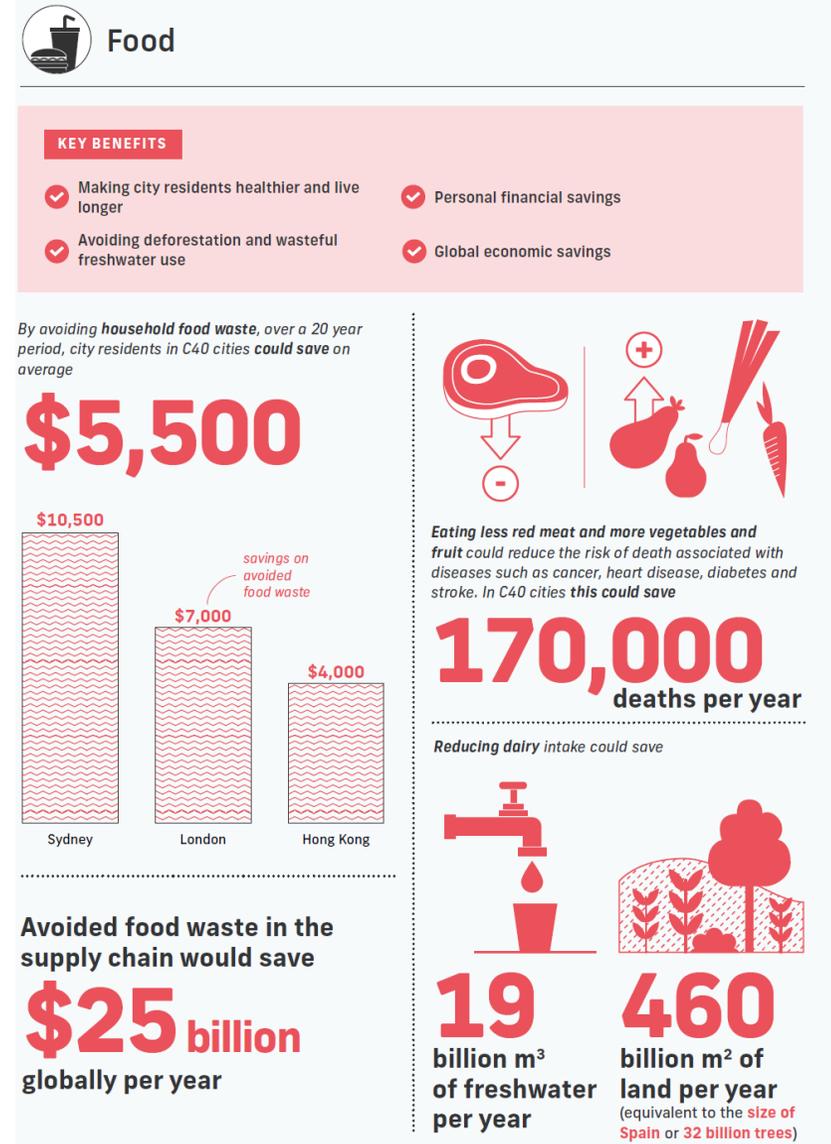
The City should develop partnerships and programs with local food service providers and health organizations to reinforce the campaign messages and provide opportunities for residents to sample what a low carbon diet tastes like.

Engage  
Policymakers

City leadership is critical in advancing the goals of these strategies. The City should demonstrate its commitment to reducing the carbon footprint and realizing health benefits by auditing City food purchases to gather baseline data on the carbon footprint of municipal food purchases. This would be a good first step towards a food purchasing policy that encourages low carbon diets.

# Deep Dive - Food Sector

- Explore other non-emissions benefits
  - Health
  - Economic
  - Social
  - Environmental
- Evaluate actions from other lenses
  - Equity opportunities/challenges
  - Food security
  - Cultural food norms and dietary needs



# Next Steps

	August	September	October	November	December	January
<b>White Paper</b>	[Yellow bar]					
<b>Present Work to Date to Full Committees</b>		[Yellow bar]				
<b>RAC/CPAC speaker series</b>						
<i>Bonnie- May (circular economy)</i>			[Yellow bar]			
<i>TBD</i>				[Yellow bar]		
<i>TBD</i>					[Yellow bar]	
<i>TBD</i>						[Yellow bar]
<b>Interdepartmental Socialization ( "Roadshow" meetings)</b>						
<i>Health Department</i>		[Yellow bar]				
<i>Economic Development Division</i>		[Yellow bar]				
<b>New Sector</b>						
<i>Textiles</i>						
<b>Recommendations on Food Consumption to CM</b>					[Yellow bar]	