

**8TH REPORT OF THE**  
**ADVISORY COMMITTEE ON THE ENVIRONMENT**

Meeting held on July 20, 2016, commencing at 12:15 PM, in Committee Room #4, Second Floor, London City Hall.

**PRESENT:** M. Bloxam (Chair), K. Birchall, S. Brooks, S. Hall, M. Hodge, J. Howell, L. Langdon, S. Ratz, G. Sass and D. Szoller and J. Martin (Secretary).

**ALSO PRESENT:** G. Barrett, T. Copeland, J. Stanford and G. Sandler.

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**I. CALL TO ORDER**

1. Disclosures of Pecuniary Interest

That it BE NOTED that no pecuniary interests were disclosed.

**II. SCHEDULED ITEMS**

2. Sustainability

That it BE NOTED that the attached presentations from G. Seaman, Sustainability Officer, Markham, Ontario and J. Stanford, Director, Environment, Fleet and Solid Waste, with respect to sustainability, were received.

**III. CONSENT ITEMS**

3. 7th Report of the Advisory Committee on the Environment

That it BE NOTED that the 7th Report of the Advisory Committee on the Environment from its meeting held on June 1, 2016, was received.

4. 6th and 7th Reports of the Transportation Advisory Committee

That it BE NOTED that the 6th and 7th Reports of the Transportation Advisory Committee from its meetings held on June 7 and July 5, 2016, respectively, were received.

5. 6th and 7th Reports of the Trees and Forests Advisory Committee

That it BE NOTED that the 6th and 7th Reports of the Trees and Forests Advisory Committee from its meetings held on June 1 and June 22, 2016, respectively, were received.

6. 7th Report of the Environmental and Ecological Planning Advisory Committee

That it BE NOTED that the 7th Report of the Environmental and Ecological Planning Advisory Committee from its meeting held on June 16, 2016, was received.

7. Municipal Council Resolution - 7th Report of the Advisory Committee on the Environment

That it BE NOTED that the Municipal Council resolution from its session held on June 23, 2016, with respect to the 7th Report of the Advisory Committee on the Environment, was received; it being noted that T. Copeland, Division Manager, Wastewater and Drainage Engineering, provided a verbal update with respect to the Pollution Prevention Control Plan and will provide annual updates to the ACE.

8. ACE Budget

That it BE NOTED that discussion with respect to the Advisory Committee on the Environment (ACE) budget was deferred to the next meeting of the ACE.

**IV. SUB-COMMITTEES & WORKING GROUPS**

None.

**V. ITEMS FOR DISCUSSION**

9. 2017 Mayor's New Year's Honour List - Nominations Requested

That it BE NOTED that a communication from the City Clerk, dated July 11, 2016, with respect to the 2017 Mayor's New Year's Honour List, was received; it being noted that the members of the Advisory Committee on the Environment are encouraged to submit nominations to its Committee Secretary by September 30, 2016.

10. ACE Work Plan 2016

That it BE NOTED that discussion with respect to the Advisory Committee on the Environment (ACE) 2016 work plan was deferred to the next meeting of the ACE.

**VI. DEFERRED MATTERS/ADDITIONAL BUSINESS**

11. (ADDED) Waste Sub-Committee

That it BE NOTED that the attached minutes from the Waste Sub-Committee from its meeting held on June 22, 2016, were received.

11. (ADDED) Local Improvement Charges

That it BE NOTED that a verbal update was provided by J. Howell and D. Szoller with respect to the April 21, 2016 stakeholder workshop related to Local Improvement Charges for Home Retrofits.

12. (ADDED) Urban Agriculture Symposium

That it BE NOTED that the attached communication and a verbal update from A. Gabor, with respect to the Urban Agriculture Symposium to be held November 19, 2016, was received.

13. (ADDED) Remote Presentations

That consideration BE GIVEN to formalizing procedures to allow presentations to be provided using remote technology, where appropriate and as a cost savings.

12. (ADDED) Education and Outreach Joint Discussion of the Advisory Committees

That it BE NOTED that a verbal update from S. Ratz with respect to the Education and Outreach Joint Discussion of the Advisory Committee, was received; it being noted that the ACE deferred additional discussion with respect to this matter to the September meeting.

**VII. ADJOURNMENT**

The meeting adjourned at 2:50 PM.

**NEXT MEETING DATE: September 7, 2016**

# Sustainability in Markham

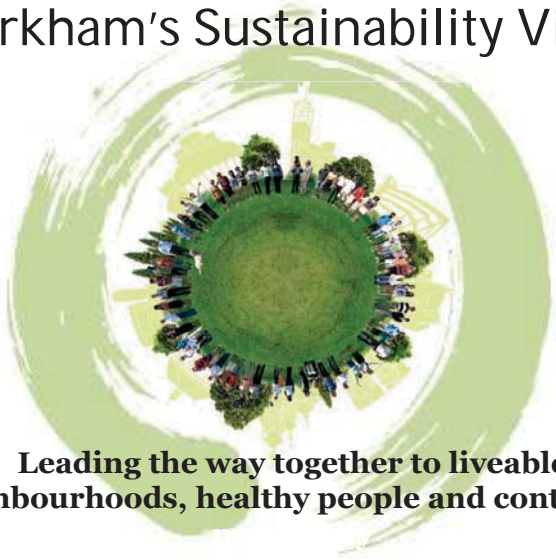
Wednesday, July 20, 2016

Graham Seaman, P. Eng., LEED AP, CEM  
 Director, Sustainability  
 City of Markham  
[gseaman@markham.ca](mailto:gseaman@markham.ca)  
[www.markham.ca/sustainability](http://www.markham.ca/sustainability)

## Agenda

- Overview of Sustainability in Markham
- About the Sustainability Office
- Energy and Climate programs
- Food Security programs
- Outreach
- Reporting

## Markham's Sustainability Vision



Leading the way together to liveable neighbourhoods, healthy people and continuing

## Sustainability Priorities



# Sustainability Objectives

## Social Equity

1. Reduce the impact of household poverty
2. Greater resident involvement in community stewardship
3. Promote greater youth involvement in decision making and participation

## Identity and Culture

4. Promote and celebrate all that makes Markham great

## Individual Health

5. Promote and support the physical and mental health of Markham citizens

## Shelter

6. Develop an Affordable Housing Strategy
7. Regenerate existing neighbourhoods through sensitive evolution
8. Plan, design, and construct high-performance new neighbourhoods

## Food Security

9. Support education and engagement in the local food system
10. Significantly increase food production opportunities
11. Significantly increase the viability of local commercial food growing and processing

## Access and Mobility

12. Create a culture of walking, cycling, and transit usage
13. Create roads for all users
14. Connect communities

## Education and Skills

15. Facilitate lifelong learning and skills development

## Economic Vibrancy

16. Facilitate and support Markham's existing businesses
17. Promote green business development and business greening strategies for existing and new employers

## Materials Management

18. Achieve zero material waste

## Water Efficiency

19. Develop a water systems plan that integrates all water functions

## Ecosystem Integrity

20. Increase biodiversity
21. Reach 30% tree canopy and vegetation coverage Town-wide
22. Develop and support wildlife habitat

## Energy and Climate

23. Net-zero energy, water, waste and emissions by 2050



## About the Sustainability Office

- Established in 2009 to develop the Greenprint, Markham's Community Sustainability Plan
- Shifted to implementation 2011 with its completion
- Team of 8 - Director, four staff, one intern, one summer student, one co-op student
  - Director reports to the Chief Administrative Officer
- Focused on Corporate Energy, Community Energy, Food Security, Sustainability Reporting and Community Outreach
- Partner with other departments, utilities and community groups to move sustainability agenda forward
  - Largely tax funded, but have external funding for Energy Management Coordinator
- Innovative, nimble and entrepreneurial
  - We practice the business of sustainability to ensure projects are good investment for Markham



**\$50,000+**  
in savings

## Angus Glen and Markham Village Arena Lighting Retrofit

65% energy reduction  
50-75% maintenance reduction  
10 - 15% light output increase



## Renewable Energy Generation

A description of any **renewable energy generation** facility operated by the public agency and the amount of energy produced on an annual basis by the facility

City of Markham Installed Solar Projects		
Property Description	Project Type	Annual Production (kWh/year)
Mount Joy Community Centre	Lease to PowerStream Solar	327,000
Angus Glen Community Centre	Lease to PowerStream Solar	272,500
Milliken Mills Community Centre	Lease to PowerStream Solar	109,000
Clatworthy Community Centre	Lease to PowerStream Solar	130,800
Thornhill Community Centre	Lease to PowerStream Solar	381,500
Markham Civic Centre	microFIT	10,454
Fire Station 99	microFIT	10,900
8100 Warden	FIT	272,500
	<b>Total</b>	<b>1,514,654</b>

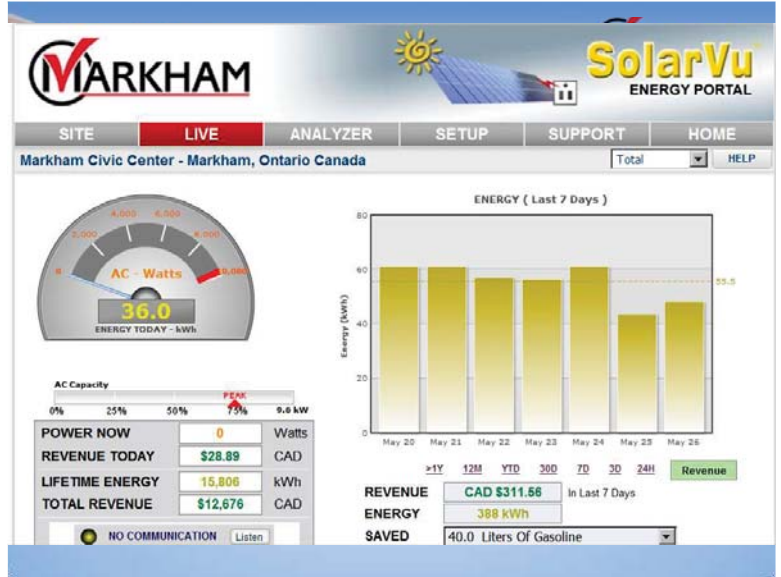
Markham has 1.9MW of roof top solar PV, among the largest in Ontario. These assets generate nearly \$300,000 of non-tax revenue for the City.



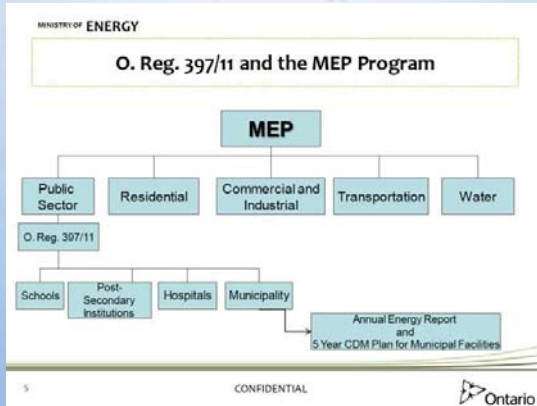




## Live system information



## Corporate Energy Management Plan vs. Municipal Energy Plan



## What is the Purpose of a Municipal Energy Plan (MEP)?

- Long-term citywide energy plan aligned to the Greenprint
- Identifies local energy planning opportunities
- Supports local economic growth and development
- Integrates energy, infrastructure, and land use planning
- Considers the impact of energy in future growth areas
- Incorporates multi-stakeholder engagement throughout the plan development
- Community Energy Plan and Municipal Energy Plan are currently interchangeable terms

## MEP Project Outcomes

- Identify energy and water efficiency and local energy generation and water reuse opportunities to achieve net zero energy, water, waste and emissions by 2050
- Recommend actions, strategies and short to medium term targets and long term milestones
- Set out frequent monitoring and reporting processes to guide implementation
- Integrate Communication & Engagement and Implementation Plans

## MEP Project Outcomes con't

- Implement a MEP framework for Secondary Plans to meet the requirements for the community energy plan component
- Guide other Markham strategies, plans, policies and actions to increase energy efficiency and overall sustainability, including active transportation
- Seek Council support for the final Municipal Energy Plan
- Seek 2016 and future capital project funding and/or partnerships to start implementation
- Continue engagement with stakeholders to steward MEP implementation

## Bayview Glen SNAP- Emerging Retrofit Themes

1. Bundle of private home and landscape improvements.



3. Demonstrations at local institutions.



2. Grey & green infrastructure improvements in road ROWs



4. Parks revitalization.



5. Sustainability guidelines for infill development.



## Food Security

- 1) Markham Organic Home Gardens
- 2) Community and Allotment Gardens
- 3) Seed Library



## Outreach

- Attended 60 community events and raised awareness, educated or engaged residents to become more sustainable
- Education includes:
  - Bird Friendly guidelines brochure
  - EcoPaks
  - Aim to Sustain – student art contest
  - Milk Bags



### Outreach - Milk Bag Mat Project



### Global Reporting Initiative (GRI): G4

- International standard / best practice
- Flexible framework
- Communication vehicle
- Core/comprehensive
- Balanced reporting



### Organizational report on economic, social and environmental performance

- Report on the Greenprint
- First GRI report was in 2011, integrated in Annual Report
- First and only municipality in Canada to be reporting on sustainability using GRI
- Stakeholder engagement
- Continuous improvement





## Reporting Environmental (Sustainability) Progress



Advisory Committee on the Environment  
July 20, 2016



## Part One Presentation

### NOTE to ACE Members:

- This presentation does not represent complete City of London information due to the limited time available to complete these details.
- It provides a snap shot of some areas and reporting systems.
- A Part Two presentation would be more complete and address specific questions raised by ACE.



## Sustainability reporting over the last 25 years

It has taken many forms:

- Corporate staff reports
- Comprehensive (technical) city-wide reports
- Project specific reports
- Special publications
- Various budget documents
- Webpages
- Collaborative webpages



## Sustainability reporting over the last 25 years

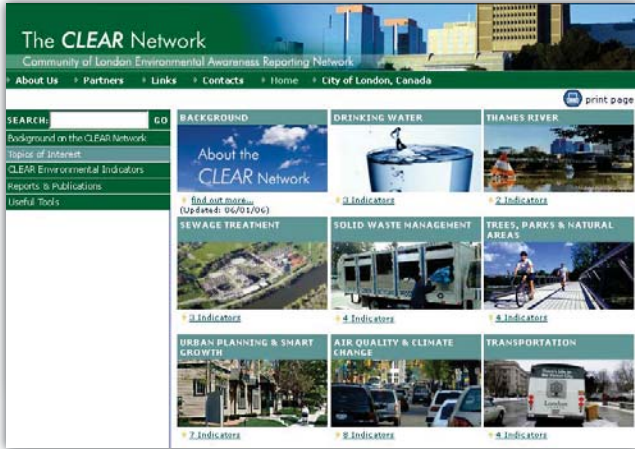




# National award for London



# It was a good idea, but...



- Some metrics hard to measure
- Required commitment from many partners
- Timeliness was critical
- Use was minimal

*Old data is almost worse than no data...*



# Local Issues - Survey



# Local Issues - Survey

Most important local issue  
London



2012  
Community  
Survey

Ipsos Most Important Issues in London – Top Mentions

Since 2013, City of London residents are more likely to focus on development and infrastructure issues, with two-in-ten now saying these are the most important issues facing the City (up 15 points from 2013), including a growing number (one-in-ten) who specifically mention road maintenance/snow removal (up 8 points) and economic issues (down 25 points). Those who specifically mention unemployment/poor job market (down 25 points). Another one-in-ten cite transportation issues, particularly inadequate public transit/transportation, which is up since 2013 (up 6 points). One-in-ten are unable to mention any important issue facing the City.



2013 &  
2015  
Community  
Surveys

Q1. What, in your opinion, is the single most important local problem facing [INSERT MUNICIPALITY] today?

\*Other contains a number of responses of one person or less.

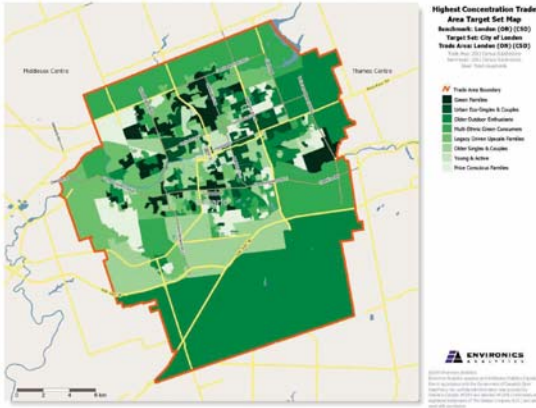
Q1. To begin, in your view, what are the most important issues facing the City of London that should receive the greatest attention from City Council?

Base: All respondents 2013 (n=503), 2015 (n=500).

Source: Ipsos Reid Survey of London Residents. Not shown on graph.



## How Green is London? (February 2015)



Source: Analyzing Environmental Perceptions, Attitudes and Actions of Londoners



## Environment is enshrined in strategic City documents



### Building a Sustainable City

- Robust infrastructure
- Convenient and connected mobility choices
- Strong and healthy environment
- Beautiful places and spaces
- Responsible growth
- Heritage conservation



## Environment is enshrined in strategic City documents



### Green City Strategy

- Green Jobs
- Green Mobility
- Green Development
- Green Infrastructure
- Green Energy & Clean Air
- Healthy Watershed
- Clean Water & Water Conservation
- Managing Our Waste



## How environmental sustainability is reported today

1. Strategic Plan Reporting
2. Annual Budget and Business Plans
3. Project and Program Reports
4. Internal and External audit reports
5. Corporate (staff) reports to Council Committees
6. Ontario public reporting systems such as:
  - OMBI/MBNC; Waste Diversion DataCall
7. Other reporting systems such as:
  - CDP Cities (Climate Disclosure Project)
  - Green Score City Index





## City areas reporting environmental sustainability metrics & indicators

1. Environmental & Engineering Services
2. Planning
3. Neighbourhood, Children & Fire Services
4. Parks & Recreation
5. Corporate Services (Facilities)
6. Development & Compliance Services



## Strategic Plan – Progress Report

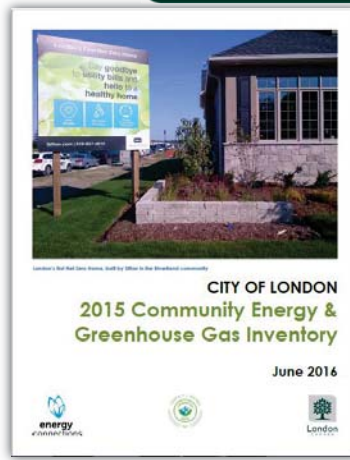


## Five examples of reporting

Program	Frequency	Reporting to/how:
1. Energy Use & GHG Inventory	Annual	<ul style="list-style-type: none"> <li>• CWC to Council</li> <li>• Submitted to CDP, others</li> <li>• Webpage</li> </ul>
2. Community Energy Action Plan (focus on City actions)	Annual	<ul style="list-style-type: none"> <li>• CWC to Council</li> <li>• Shared locally with partners</li> <li>• Webpages</li> </ul>
3. Water	Annual & Updates	<ul style="list-style-type: none"> <li>• CWC to Council</li> <li>• Shared locally with partners</li> <li>• Webpages</li> </ul>
4. Solid Waste Management	Annual & Updates	<ul style="list-style-type: none"> <li>• CWC to Council</li> <li>• Project webpage (Road Map)</li> <li>• Webpages</li> </ul>
5. CityGreen (community outreach)	Ongoing	<ul style="list-style-type: none"> <li>• Community events</li> <li>• Webpage</li> </ul>



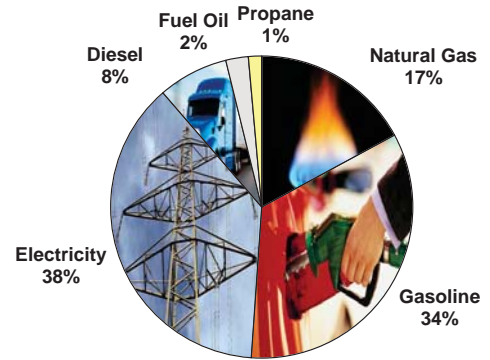
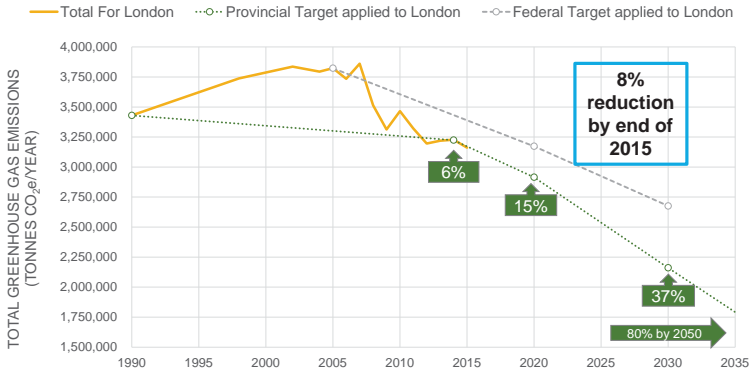
## Annual energy & GHG inventory reportings



1. Total GHG emissions are 8% below 1990 levels
2. Per person, Londoners & London businesses released 25% fewer GHGs than they did in 1990



# GHG emission trend vs targets (2015)



# Addressing Climate Change

**CITY OF LONDON**  
**Community Energy Action Plan (2014 – 2018)**  
*Collaborative - Engaging - Affordable - Practical*  
 Part of London's Community Energy Action Program  
 July 2014

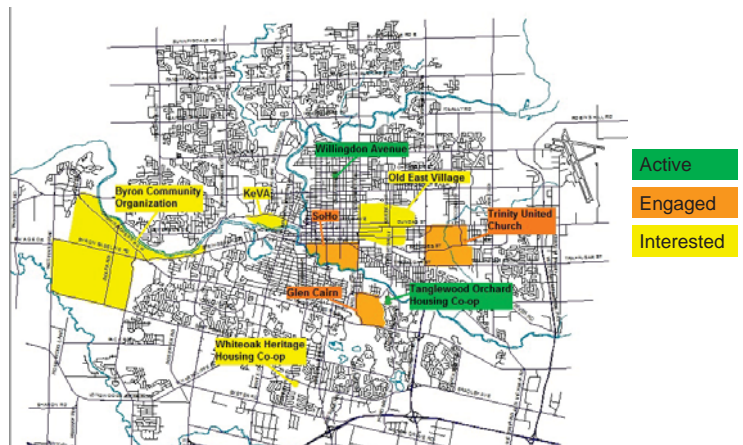
## COMMUNITY ENERGY CONNECTIONS PROGRAM



energy connections



# Active & Green Communities Engagement





# Peer benchmarking of carbon footprint

## YOUR ACTIVE AND GREEN COMMUNITIES REPORT

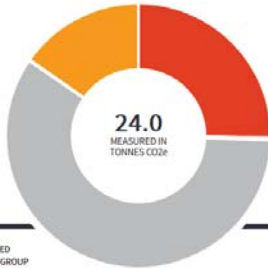
Thank you for completing the Project Neutral Survey! For our Annual Reports, please see our [Reports Section](#).

Your results as measured in tonnes CO2e are:

### 2014

London - Other area in London

- ENERGY 25%
- WATER < 1%
- TRANSPORTATION 59%
- WASTE < 1%
- FOOD 15%



# TOTAL AFTER ANY CARBON OFFSETS

## 23.96

**You're on your way**

Top 30% Footprint is **11.6**

Average Footprint is **27.3**

For all participating detached single family homes Measured in tonnes CO2e.



YOU HAVE 4 PEOPLE LIVING IN A DETACHED SINGLE FAMILY HOME IN LONDON. YOUR GROUP IS OTHER AREA IN LONDON.



# We think more people may care about money



## How You Compare to Your Neighbours...

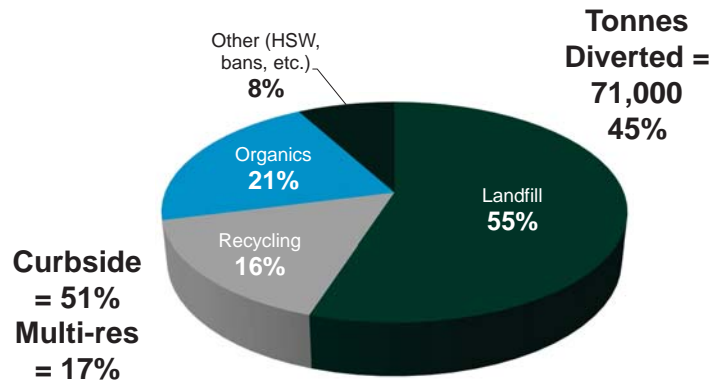
	YOUR HOUSEHOLD ANNUAL CONSUMPTION DATA	COMMUNITY AVERAGE ANNUAL CONSUMPTION DATA	HOUSEHOLD BENEFIT COMPARED TO YOUR COMMUNITY
<b>Saving Money</b>			
Gas	\$1,035	\$1,901	\$866+
Electricity	\$1,736	\$3,127	\$1,391+
Water	\$818	\$1,411	\$593+
Personal Vehicle Use	\$3,360	\$3,216	\$153-
<b>Your household's annual savings are... (compared to the average)</b>			<b>\$2,697</b>



# Water – one of the most regulated areas in Ontario

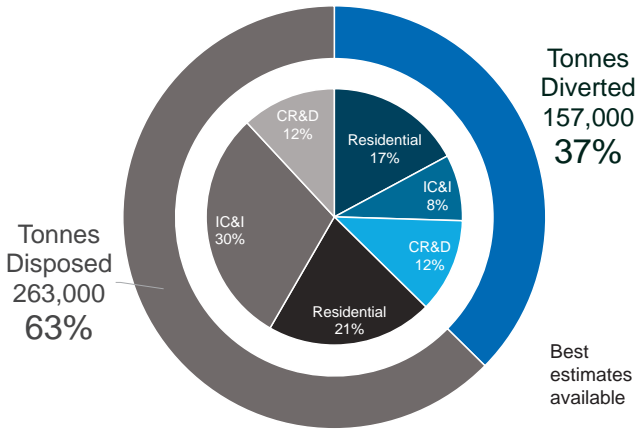


# Waste management – what is the London's residential waste diversion rate?





## Waste management – what is London’s overall waste diversion rate?



## CityGreen – reporting progress at events



## CityGreen – reporting progress at events



## Summary - Presentation

1. Sustainability in cities is a focus in North America but not well understood or easy to compare.
2. City of London has taken a collaborative sustainability approach (shared responsibility).
3. Council continues to make it a Focus Area.
4. Many Service Areas (if not all) have (environmental) sustainability as a foundation for projects and programs.
5. Metrics and indicators of (environmental) sustainability are reported and new ones developed.





## Next Steps – Part Two Presentation??

1. Reminder – this Part One presentation provided a high level peak at some areas of the CoL in the broad area of the environmental sustainability.
2. Understanding what ACE is trying to examine/achieve would permit more complete information to be made available by technical specialists in the appropriate areas.

## **Advisory Committee on the Environment Waste Sub-Committee Report**

**Meeting Date/Place:** Wednesday, June 22, 2016, home of Janice Howell

**In Attendance:** Mary Ann Hodge, Tom Arnos, Carrie Warring, Janice Howell  
Guest: City Councillor Stephen Turner

**Unable to Attend:** Mike Bloxam, Ken Birchall

### **Organic Waste Diversion (#1 on work plan)**

It was noted that 45% of residential waste is organic, London is the only large city in Ontario without an organic waste diversion program or a Green Bin (GB) program and W12A landfill has approximately 10 years remaining.

Currently the most effective way to divert residential waste from landfill, with the greatest impact, is an organic waste or GB program:

- it is very costly to implement
- it was voted down by City Council and will likely not be initiated before the next 4 year budget cycle.

It was noted that new legislation such as Waste-Free Ontario Act (Bill 151), and the Climate Change Mitigation and Low-Carbon Economy Act (Bill 172) will have a major impact on options/directions for municipalities.

### **Goals of the sub-committee**

- continue research/exploration into a GB program for the next budget (4 years)
- examine other cities' highly successful GB programs (ie. Toronto, Halton)
- review the new Ontario Acts and legislation and how they will affect the City's direction
- research the leading edge technologies for **total** residential waste diversion including costs, benefits and limitations (ie. Edmonton, HRO in Europe)
- focus on a sustainable system environmentally and financially. Examine waste flow in a circular economy model while continuing to promote the principles of reduce, reuse and recycle.
- Prioritize waste management systems that have a net zero environmental effect
- Focus on **waste as a resource technology** where 'waste of today can be the commodity of tomorrow" (Biogas, Anaerobic Digester facility, landfill gas recovery i.e. Edmonton Waste Management Centre of Excellence)
- Follow the progress of City staff and electorate regarding development of a resource recovery centre.

## Urban Agriculture Conference: “Urban Agriculture: London's Food Future”

### Aims of this event:

- To raise awareness on the current state and future potential of Urban Agriculture in the City of London
- To serve as a forum for public engagement and empowerment to move the agenda of Urban Agriculture forward

### Conference themes:

- Urban Agriculture Policy for Municipalities
- Food Security through Urban Agriculture
- The Economics of Urban Agriculture
- Appropriate Technology for Urban Agriculture
- The Role of Fruit and Nut Trees in Urban Agriculture
- The Role of Animals in Urban Agriculture

**Date:** November 19<sup>th</sup>, Saturday, 10am to 3pm.

**Space:** Wolf Hall, Stevenson Hunt room, Hallways

**Organizing committee:** Sarah Brooks (ACE), Skylar Franke (AAC), Susan Hall (ACE), Gabor Sass (ACE), Diane Szoller (ACE), Patsy Morgan (London Public Library)

### Schedule: (10 to 3 pm)

- 10:00 introductions (overview of London`s commitment to Urban Ag) Tanya Park, Ward 13 Councillor for City of London & John Fleming, City of London Chief Planner
- 10:15-10:45 plenary speaker (Big picture comments on Urban Ag) Lauren Baker, Toronto Food Policy Council
- 10:45-11 break
- 11-12 breakout sessions (3 sessions, each with two speakers and a facilitator)
  - Urban Agriculture Policy for Municipalities (Lauren Baker, Toronto Food Policy Council & Ellen Lakusiak, London Food Policy Council)
  - Appropriate Technology for Urban Agriculture (Gary Wozniak, Recovery Park Detroit & Terry Nother, Local Sustainability Entrepreneur)
  - The Role of Fruit and Nut Trees in Urban Agriculture (Suzan Poizner, Orchard People Toronto & Jessie Robertson, Wildcraft Permaculture)
- 12-1 lunch (in foyer and in Organic Oscars)
- 1-2 breakout session (3 sessions, each with two speakers and a facilitator)
  - Food Security through Urban Agriculture (Angela ElzingaCheng, FoodShare Toronto & Becky Ellis, EarthMagic Permaculture)
  - The Role of Animals in Urban Agriculture (Lorraine Johnson, Edible City Toronto & Celeste Lemire, Urban gardener)
  - The Economics of Urban Agriculture (Robert Orland, Backyard Bounty Guelph & Jeff Pastorius, On the Move Organics)
- 2-3 Call to Action! – Public Engagement and Networking (Wes Kinghorn, Urban League of London)
- 3:30 – 5:30 Pints and Agriculture – Continuing the dialogue at Fox and Fiddle.