

## SPPC Committee

**To:** Chair and Members  
SPPC Committee

**From:** Kelly Scherr, P.Eng., MBA, FEC, Managing Director,  
Environmental and Engineering Services and City Engineer,  
and  
George Kotsifas, P.Eng., Managing Director, Development  
and Compliance Services and Chief Building Official

**Subject:** Climate Emergency Action Plan - Update

**Meeting on:** August 11, 2020

## Recommendation

That, on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer and the Managing Director, Development and Compliance Services and Chief Building Official, the attached report with respect to the City's Climate Emergency Action Plan **BE RECEIVED** for information.

## Executive Summary

Council on April 24, 2019 declared a climate emergency for the city of London. On November 26, 2019, Council recommended a series of actions to be taken immediately, to take in the next four months and to take within one year of the meeting.

This report is to inform Committee and Council of staff's progress in meeting the recommended actions related to addressing the climate emergency. The report also suggests adjusted dates for completion of some items due to delays related to the COVID-19 pandemic.

## Council's 2019-2023 Strategic Plan

Municipal Council continues to recognize the importance of climate change mitigation, climate change adaptation, sustainable energy use, related environmental issues and the need for a more sustainable and resilient city in the development of its 2019-2023 - Strategic Plan for the City of London. Specifically, London's efforts in both climate change mitigation and adaptation address the five Areas of Focus, at one level or another:

- Strengthening Our Community
- Building a Sustainable City
- Growing our Economy
- Safe Communities for Women and Girls
- Leading in Public Service

## Context

The Climate Emergency Action Plan (CEAP) will address the City's responsibility to reduce greenhouse gas (GHG) emissions and increase resiliency in the face of climate change. It will also develop, through community and business consultation, actions and timeframes that will be essential for the community and businesses to also undertake in order to make significant contributions towards net zero community GHG emissions by the year 2050. Of equal importance will be identifying the roles, responsibilities and leadership required from senior levels of government necessary to achieve these targets.

Coupled with recent world events, the development of the CEAP and related environmental and community projects are also being considered within the context of emerging and developing community, business and Council actions dealing with:

- Assisting London's social and economic recovery, including current and future plans for addressing local impacts from the pandemic;
- Creating a climate emergency roadmap that helps London “build back better”, with a focus on the economy and reflecting key foundations of social equity and sustainability; and,
- Adopting and investing in climate-friendly strategies that have economic growth potential and the potential to address impacts on the most vulnerable and marginalized segments of our society.

On May 12, 2020 the Federal Government stated that the government will allocate approximately \$3 billion of existing infrastructure funds towards a new COVID-19 funding stream to advance some projects. City staff continue to track and participate in various discussions related to existing and proposed capital and operating spending from senior levels of government.

## 1.0 Analysis

### **COVID-19 Impact on Schedule for Completing the Climate Emergency Action Plan**

Due to the State of Emergency actions required in response to the global pandemic, some of the work required to complete the CEAP had to be put on hold. Staff continued to work on many facets of the Plan and supporting actions, including developing and testing the screening Climate Emergency Evaluation Tool (hereafter referred to as the Climate Emergency Screening Tool, or CEST), engaging with the Corporate Climate Emergency Action Team (Action Team) members still with capacity, working on existing digital engagement tools (e.g., Project Neutral) to use as part of broader CEAP engagement along with potential new engagement tools, participating in knowledge-sharing events hosted by provincial and national climate action-related non-profit groups and associations, and conducting research on actions taken by other municipalities to address the climate emergency.

The City's website includes sections for climate emergency education and engagement, but a thorough consultation process that includes engagement, events and meetings specifically targeting CEAP development has not yet occurred. Physical distancing required by public health officials and the high volume of communications and significant operational adjustments needed to manage the response to the global pandemic created an environment where meaningful engagement on the City's proposed actions to address the climate emergency and developing community and business actions has not been possible.

Following this report, however, Staff will start the process of consulting with the community within the parameters of subsequent stages of the COVID-19 recovery.

### **Proposed Revised Timeline for Completion of the CEAP**

It is proposed that the community engagement process, started in January 2020, will be reinitiated in August and completed by late fall 2020. This date will be re-visited as staff better understand what forms of engagement will be permitted later this summer and into the fall. It is currently proposed that the final CEAP report will be completed for Council's review by early summer 2021, as outlined below.



### Summary of Actions Taken Since November 26<sup>th</sup>, 2019 Council Resolution

The table below contains Council's requested 25 actions from the November 26, 2019 resolution, staff's actions to date/comments and the proposed timeline for completion (if not already complete/ongoing). A summary of the status is as follows:

Status	Number	%
Complete and/or Ongoing	11	44%
In progress (on schedule)	3	12%
In progress (but end date needs to be revised)	11	44%
	25	100%

#### a) Immediate Actions

Council's Recommendation	Staff Actions/Comments	Timing
i) <i>establish a City-wide target for London to achieve net-zero community greenhouse gas (GHG) emissions by the year 2050.</i>	Council's resolution of November 26, 2019 establishes that the City of London's target is net-zero community GHG emissions by the year 2050.	Complete
ii) <i>consistent with the direction of Council's recently adopted Corporate Energy Conservation &amp; Demand Management (CDM) Plan, pursue opportunities to achieve corporate net-zero GHG emissions prior to 2050 with the goal of demonstrating municipal commitment and leadership to Climate Emergency mitigation.</i>	<p>Council's resolution to set a net-zero corporate GHG emission target by 2050 and the continued work on a Climate Emergency Action Plan shows strong leadership by the City to mitigate GHG emissions from its own operations.</p> <p>Since December 2019, the City has been undertaking activities such as:</p> <ul style="list-style-type: none"> <li>• Electrification of the Zamboni fleet</li> <li>• Solar energy feasibility studies</li> <li>• Building automation renewal projects</li> <li>• Optimization of building systems and building insulation projects</li> <li>• Heat recovery and geothermal space heating projects</li> <li>• Commissioning of compressed natural gas garbage packers and maintenance garage upgrades</li> </ul>	Ongoing

Council's Recommendation	Staff Actions/Comments	Timing
<p>iii) <i>establish an internal team, inclusive of representatives from all service areas, to be champions for climate emergency actions within their service area and to help implement climate emergency initiatives.</i></p>	<p>A Corporate Climate Emergency Action Team (Action Team) was established on January 23, 2020, with over 20 representatives from internal services areas of the City. The Action Team is supported by the Corporate Climate Emergency Resource Team (Resource Team) led by Jay Stanford and Gregg Barrett.</p>	<p>Complete</p>
<p>iv) <i>all Service Areas to identify immediate opportunities that can be implemented within existing resources using existing and new tools; deliver an educational program to all service areas to assist them with understanding the climate emergency and possible actions to address it.</i></p>	<p>The Action Team met twice before mid-March. Action Team members have been working in their service areas to identify immediate actions that can be implemented to address the Climate Emergency.</p> <p>Service areas have put forward over 65 potential opportunities for consideration.</p> <p>Due to the COVID-19 emergency declared provincially on March 17, 2020, and locally March 20, 2020 and the subsequent reallocation of corporate priorities, the Action Team work has been suspended. Ongoing discussions are being held to determine when the Action Team will meet again to continue the work it started.</p>	<p>Complete/ Ongoing</p>
<p>v) <i>launch the process to develop a new Climate Emergency Action Plan (CEAP) and incorporate the Community Energy Action Plan into this process.</i></p>	<p>On January 24, 2020, the City launched a <a href="#">Climate Emergency Action Plan Get Involved webpage</a>. The webpage includes survey questions and opportunities for the public to make comments regarding the Climate Emergency Action Plan.</p> <p>City staff attended the London Lifestyle Home Show January 31 to February 2, 2020 with a presentation regarding the City of London's declared Climate Emergency.</p> <p>Staff has also started the process of attending and presenting at various community meetings prior to the March 17<sup>th</sup> COVID-19 emergency declaration.</p>	<p>Complete</p>
<p>vi) <i>develop an interim screening Climate Emergency Evaluation Tool (CEET) [revised to Climate Emergency Screening Tool – CEST).</i></p>	<p>Using best practices and industry/municipal research, the Resource Team has created an interim screening tool, as discussed later in this staff report. The revised name – Climate Emergency Screening Tool - CEST - better reflects the actions required to review projects and programs.</p>	<p>Complete</p>

Council's Recommendation	Staff Actions/Comments	Timing
<p><i>vii) create a new Climate Emergency area on the City's web site, providing better communication to Londoners on the climate emergency, its implications and how they can assist.</i></p>	<p>On January 28, 2020, the City's website was updated with a new <a href="#">Climate Emergency</a> page.</p> <p>City staff are preparing additional materials for the website. These new materials will include innovative online community engagement tools to assist with prioritizing climate actions in the CEAP.</p>	<p>Complete</p>
<p><i>viii) advocate, as a municipal leader in Canada, for climate emergency action at the provincial and federal government level.</i></p>	<p>The City has continued its commitment and partnerships with the Global Covenant of Mayors and the Federation of Canadian Municipalities (FCM). The City also continues its participation in climate initiatives led by the Clean Air Partnership (CAP) and Regional Public Works Commissioners of Ontario (RPWCO).</p> <p>The City is working with a network of 25 Canadian municipalities in the Showcase Cities pilot project co-sponsored by the Federation of Canadian Municipalities' and the Global Covenant of Mayors to peer review existing climate change work and collaborate on areas needing further work in order to implement best practices for climate change mitigation and adaptation.</p> <p>City staff recently submitted comments to the Association of Municipalities of Ontario (AMO) on April 20, 2020 with respect to next steps for AMO to pursue greater involvement in climate change mitigation and adaptation.</p>	<p>Ongoing</p>
<p><i>ix) advance those actions and strategies identified in Council's strategic plan that will address the Climate Emergency through existing budgets.</i></p>	<p>Council's Strategic Plan (2019-2023) contains more than 30 specific strategies and actions that support climate change mitigation and adaptation. The internal Action Team is fully aware of these items and Council's direction.</p> <p>The Climate Emergency Action Plan business case (5b) was approved by Council on March 2, 2020. Budget constraints resulting from Covid-19 response requirements has delayed some efforts (e.g. bike share, e-scooter policy review, transportation management association feasibility study, etc.).</p>	<p>Ongoing</p>

## b) Action within 4 months

Council Recommendation	Staff Actions/Comments	Timing
<p>i) <i>continue community and key stakeholder engagement on the CEAP process.</i></p>	<p>Due to the COVID-19 emergency, full community participation has not occurred to date. Completion of the community participation is a priority and will be pursued with available City staff resources available and working within protocols from City Administration and/or Council.</p> <p>Staff are continuing to engage with some key stakeholders informally and as capacity exists to advance CEAP development. This includes discussions with Enbridge Gas as well a community environmental groups such as the London Environmental Network (LEN) and Climate Action London.</p> <p>A revised community engagement plan is being prepared that will focus on on-line tools and information versus in-person engagement (at this stage). New web-based tools are being developed for use in the consultation process for the development of the CEAP, as well as for use by community partners such as the London Environmental Network and Green Economy London.</p>	<p>In Progress. Mid July to December; further activities in 2021</p>
<p>ii) <i>complete an initial screen of current major transportation projects using the interim screening CEST.</i></p>	<p>In February 2020, ten projects were identified by Roads and Transportation and feedback from this early application of the tool was used to refine the CEST. Further adjustments and revisions are taking place.</p>	<p>In Progress. Final review to be completed Fall 2020.</p>
<p>iii) <i>complete and formalize a permanent screening CEST and administrative processes through expert review and London-focused risk evaluation.</i></p>	<p>Additional consultation regarding the development of “climate lens” evaluation tools has been conducted with members of the Clean Air Partnership as well as the Federation of Canadian Municipalities. At this point in time, other Canadian municipalities are in a similar (or earlier) stage as the City of London, which means the City’s draft CEST is currently the best-available option for use in London.</p> <p>It is expected that finalization of the CEST will occur by the end of the year. However, given that this work is currently sector-leading, the CEST will remain a living document to be periodically reviewed for applicability as new information and understanding becomes available.</p>	<p>In Progress. Revised end date is end of 2020.</p>

<b>Council Recommendation</b>	<b>Staff Actions/Comments</b>	<b>Timing</b>
iv) <i>include a standard section in all Standing Committee reports that addresses the Climate Emergency Declaration and, where appropriate, applies the screening CEST to the issues that are addressed in each report.</i>	Due to the COVID-19 emergency declared on March 17, 2020, the completion of this action has been delayed. Background work has been completed along with proposed wording, examples and implementation requirements. Next steps include activities with the City Clerk and the Senior Leadership Team and will be coordinated with CEST finalization timing.	In Progress. Revised end date is end of 2020. Will appear in corporate reports starting in 2021
v) <i>seek out opportunities for new funding to support climate emergency initiatives.</i>	The City of London continues to work with FCM through the Building Adaptive and Resilient Communities (BARC) and the Global Covenant of Mayors Showcase Cities projects to explore additional funding opportunities for Climate Emergency initiatives. There are no discussions directly with the Province at this time with respect to climate change.	Ongoing

**c) Action to be taken within 1 Year**

<b>Council Recommendation</b>	<b>Staff Actions/Comments</b>	<b>Timing</b>
i) <i>Work with each Service Area to review all proposed major City projects and master plans (e.g., road widenings, facilities, parks and recreation facility upgrades, wastewater treatment, waste disposal, fleet) within the 10 year capital plan through the screening CEST and, where appropriate, recommend the modification of these projects.</i>	Due to the COVID-19 emergency declared on March 17, 2020, the completion of the CEST has been delayed. It is proposed that the final CEST should be available by year end.  When the CEST is complete, the Action Team will work with Service Areas to screen appropriate projects and make recommendations.	In Progress
ii) <i>Work with each Service Area to review all major existing programs and projects through the screening CEST to determine what should be considered for elimination, what may be changed and what should be started in response to the climate emergency.</i>	Due to the COVID-19 emergency declared on March 17, 2020, the completion of the CEST has been delayed. It is proposed that the final CEST should be available by year end.  When the CEST is complete, the Action Team will work with Service Areas to review major projects.	In Progress

Council Recommendation	Staff Actions/Comments	Timing
<p><i>iii) Identify methods for advancing the urban forest strategy more quickly including exploring reforestation of under-utilized agricultural land within London and tree planting on a regional basis.</i></p>	<p>Through the completion of the Climate Emergency Action Plan, urban forestry will be considered and integrated into the final plan.</p>	<p>In Progress. (on schedule)</p>
<p><i>iv) Establish appropriate tools to encourage cool roofs, green roofs, and/or rooftop solar energy systems and other green infrastructure for private developments.</i></p>	<p>Through the completion of the Climate Emergency Action Plan, tools to encourage cool roofs, green roofs and/or rooftop solar systems will be considered and integrated into the final plan.</p>	<p>In Progress. (on schedule)</p>
<p><i>v) Work with relevant Service Areas to apply the screening CEST to review and make any required changes to address the climate emergency in the Design Specifications Manual, Site Plan Control Area By-law, Urban Design Guidelines, Tree Protection by-law, Purchasing By-law, all granting processes and other documents and processes that have an impact on the climate emergency; it being noted that these assessments and amendments will be undertaken in priority, based on the magnitude of their potential impact on the climate emergency and it being further noted that the entirety of this process will be undertaken over a period that extends beyond the one-year timeline.</i></p>	<p>Due to the COVID-19 emergency declared on March 17, 2020, the completion of the CEST has been delayed.</p> <p>When the CEST is complete, the Action Team will work with Service Areas to address climate emergency screening and recommended changes to all granting processes and by-laws.</p> <p>As noted, this process will continue beyond one year.</p>	<p>In Progress. Will continue following the completion of the CEAP in Summer of 2021</p>



**d) Action to be taken within 1 Year**

That the Civic Administration BE DIRECTED to complete the Climate Emergency Action Plan within one year, to include but not be limited to the following components:

<b>Council Recommendation</b>	<b>Staff Actions/Comments</b>	<b>Timing</b>
<i>A clear city-wide net zero community GHG emissions target (no later than 2050, but with the intent of establishing a path to net zero GHG emissions prior to 2050).</i>	City staff continue to review and consult with other municipalities in Canada and select US cities on the development of their responses to the climate emergency and/or climate actions. This will ensure that we are including the most up-to-date municipal information.	In Progress. Completed by summer 2021
<i>A clear Corporate net zero GHG emissions target (no later than 2050, but with the intent of establishing a path to net zero GHG emissions prior to 2050).</i>	See above	See above
<i>A clear strategy and specific actions to achieve the targets established in (i) and (ii), above.</i>	See above	See above
<i>A strategic approach and specific tools for communicating the climate emergency.</i>	The ongoing need for engagement of all segments of London's population on the necessity of taking climate action will be a major component of the implementation of the CEAP. It will also be imperative that different engagement approaches will be required as CEAP is implemented.	In Progress. Completed by summer 2021
<i>Elevate discussions with developers, homebuilders and contractors regarding design and construction techniques to reduce lifecycle GHG emission impacts.</i>	Building upon past work through the Local Energy Efficiency Partnership (LEEP) projects with Natural Resources Canada, discussion with London Development Institute (LDI), London Home Builders Association (LHBA) and contractors will be high priority.  The possible use of a Green Development Standard to reduce GHG emissions will be reviewed.	In Progress. Completed by summer 2021
<i>Explore opportunities for utilizing GHG offsets and establish policy for when this is appropriate.</i>	A clear definition of how "net-zero community GHG emissions" is to be determined will rely upon the potential role of emissions offsets. Through the completion of the CEAP, opportunities for utilizing GHG offsets will be fully vetted.	In Progress. Completed by summer 2021

**Climate Emergency Screening Tool (CEST)**

As noted above, applying a "climate change screen" is a new undertaking for Canadian municipalities, particularly those that have also declared a Climate Emergency. In discussions with several other Canadian municipalities as well as staff at the Clean Air

Partnership (an environmental organization launched in June, 2000 that enables communities to improve air quality, advance active transportation, and take bold climate action. CAP convenes networks, leads research and knowledge transfer, and catalyzes transformative action. Its membership includes municipalities, government agencies, institutions, businesses, etc.) and the Federation of Canadian Municipalities, there are no existing “climate lens” tools being used at the municipal level in Canada.

Based on this gap, the Clean Air Partnership has been developing a high-level [screening tool](#) to be used by its member municipalities, which they are currently testing. However, City staff believe that the current draft CEST, provided in Appendix A, provides a more thorough process for identifying the climate change aspects of municipal activities.

Now that an interim version of the CEST has been created, the Resource Team is developing the procedure for the consistent and appropriate application and use of the CEST, including defining the responsibilities and accountabilities for its use. It is important to note that the CEST will not be applied for every single activity, since many activities undertaken by the City will not have a direct impact and/or influence on GHG emissions, nor will they be impacted and/or influenced by extreme weather events. However, staff will be accountable for decisions made regarding the use of the CEST.

It is important to note that the CEST itself is not intended to function as “stop/go” or “yes/no” decision-making tool, rather it will be a process used to assist project managers and inform decision-making on project/policy/strategy development with respect to climate change considerations and could result in a modified project or program scope.

It is envisioned that the responsibilities for the use of the CEST will depend on the nature of the activity and the level of authority responsible for the activity being evaluated, similar to the existing signing authority outlined for Procurement decisions. Proposed roles and responsibilities are currently being defined and will be part of the next stage in the development of the CEST.

As part of the roll-out of the CEST, the Resource Team will work with the management team at the service area level to help them identify the types of activities that would require the use of the CEST in their area, as well as when follow-up additional analysis and evaluation may be needed to provide decision makers with additional information. Examples of different levels of follow-up evaluations that may be needed include:

- high-level analysis, typically one-to-two paragraphs, carried out by City staff describing aspects such as GHG emissions and/or extreme weather impacts;
- technical memos or reports, carried out by City staff, on aspects such as GHG emissions and/or extreme weather impacts;
- reports or studies commissioned by City staff and carried out by third-party entities, such as consulting firms or industry associations; and,
- a complete Climate Lens assessment, as per Infrastructure Canada guidelines or similar agency guidelines.

Highlighted in the table on the next page is the tentative rollout and use timetable for the CEST from July 2020 until 2023. It is anticipated that all training and implementation process design work with each service area will be completed by the end of 2020. The CEST will then be widely available to be used to assist in the preparation of standard sections addressing the climate emergency in standing committee reports and to assess new spending requests for alignment with the City’s response to the climate emergency in 2021 and beyond. It is intended that the CEST will be well understood and incorporated into normal operations in time to be used to evaluate the business cases and projects in the next multi-year budget as well.

**Overview of Climate Emergency Screening Tool (CEST) Implementation Timetable**

<b>Action</b>	<b>Comments</b>	<b>Completion Date</b>
Develop an interim screening Climate Emergency Evaluation Tool (CEET), now referred to as CEST	Using best practices and industry/municipal research, an interim screening tool has been drafted.	July 2020
Training and refinements of CEST	Involves all City Service Areas, noting that some areas will be more involved than others.	December 2020
Complete an initial screen of current major transportation projects using the interim screening CEST	In progress. A report to Civic Works Committee is planned for late 2020.	December 2020
Complete and formalize a permanent screening CEST and administrative processes through expert review and London-focused risk evaluation	Undertake a review process	December 2020
Include a standard section in all Standing Committee reports that addresses the Climate Emergency Declaration	Adjustments will appear in corporate reports starting in 2021.	December 2020
Apply CEST to applicable projects and program changes	Where appropriate, apply the CEST to the issues that are addressed in each report.	Starting in 2021
Work with each Service Area to review all proposed major City projects and master plans within the 10 year capital plan through the CEST	This will apply to projects such as road widenings, facilities, parks and recreation facility upgrades, wastewater treatment, waste disposal, fleet, etc.	Starting in January 2021 (to be completed in 2022)
Work with each Service Area to review all major existing programs and projects through the CEST	Each Service Area will identify applicable programs and projects and undertake CEST review based on the priority and needs identified by the Managing Director and/or Senior Leadership Team (SLT).	Starting in January 2021 (undertaken over several years)
Work with relevant Service Areas to apply the CEST major guidelines, manuals and by-laws	This will apply to such items as Design Specifications Manual, Site Plan Control Area By-law, Urban Design Guidelines, Tree Protection by-law, Purchasing By-law, all granting processes, etc. Selection based on the priority and needs identified by the Managing Director and/or Senior Leadership Team (SLT).	Starting in July 2021 (undertaken over several years)

Action	Comments	Completion Date
Apply to 2022 Budget Amendments	New Budget Amendments considered for annual budget updates will go through the CEST, where applicable.	May to September 2021
Apply to 2023 Budget Amendments	New Budget Amendments considered for annual budget updates will go through the CEST, where applicable.	May to September 2022
CEST is built into 2024-2027 Multi-Year Budget	Preparation of the next Multi-year Budget is tentatively scheduled for 2023. CEST will be part of the budget development process.	May to September 2023

### **Community Engagement – Completed Activities to Date and Next Steps**

At the City of London's information booth at the London Lifestyle Home Show on January 31 to February 2, 2020 a series of feedback questions were made available for input from those that visited the City booth. The number of responses received to the series of questions was 725 (see Appendix B). The feedback from those that responded found that 78% of the respondents were extremely or very concerned with climate change and that 89% of the respondents strongly agreed or agreed that they are willing to make a change in their personal daily lives to address climate change.

Over 60% of the respondents (over 435 respondents) indicated that shopping local, reducing food waste and composting are actions that they are willing to take in their lives to address the climate emergency, but less than 20% indicated that they would be willing to use public transit or carpool. Further, over 25% of respondents indicate that inconvenience and costs were the reason for not taking climate emergency actions. It is important to note that this is not a random survey.

Feedback questions were posted on the City of London Get Involved site for this project. Of the 141 responses, 87% agreed that the Climate Emergency is a result of human activity and that 65% are willing to make changes in their lives to address the Climate Emergency (see Appendix B). As above, this is not a random survey; however it is available to all Londoners (i.e., hard copies can be made available should someone not have on-line access).

COVID-19 has had a significant impact on the community engagement process, namely by eliminating any opportunity to engage Londoners through face-to-face events such as summer festivals, neighbourhood fairs, community meetings, etc.

Starting in August 2020, City staff will be re-launching the community engagement process so that it primarily makes use of on-line engagement activities, including but not limited to:

- resuming social media promotion of the Climate Emergency Get Involved page;
- enhancing Project Neutral, a locally customized carbon calculator designed to assist Londoners with understanding what climate impact means in London. The Project Neutral tool allows Londoners to estimate climate impact (or carbon "footprint") by highlighting how many tonnes of GHG emissions your household produces by activity and how this can be reduced through simple and more complex changes. The tool is being enhanced to attract both new participants but also to reach out to over one thousand London households that have used the tool to date;

- working with eDemocracy Solutions to test the use of a London-scale “climate action simulator” for both educational purposes and determining popular support for actions;
- working with Carolinian Canada Coalition (CCC) and the London Environmental Network (LEN) on a series of climate emergency themed web events as part of the My Wild Green Home on-line exhibition and event series;
- working with the London Public Library on a series of climate emergency themed web events as part of the Environmentalist-in-Residence on-line event series;
- working with the London Public Library and the LEN on a series called Greening in the City which will provide opportunities for climate emergency outreach, discussion and debate; and
- developing a process for engagement with Agencies, Boards and Commissions.

In addition to the on-line processes above, staff are working on creating an Engagement Primer document that will be used as part of the engagement process with a large number of local partners, such as industry associations, community groups, and environmental groups. The Engagement Primer will be presented as an early draft of the Climate Emergency Action Plan’s proposed actions, building upon the previous activities undertaken in the 2014-2018 Community Energy Action Plan as well as recently-published climate action plans developed by other Canadian municipalities. The actions contained in the Engagement Primer are intended to be conversation starters and an indication of where emphasis needs to be placed.

City staff envision these discussions as being a series of one-on-one email and/or web meeting discussions, similar to those that have already started with potential partners such as Enbridge, the London Environmental Network, and Climate Action London. The Engagement Primer will also be posted on the Climate Emergency Get Involved page for individual Londoners to review and comment on.

## 2.0 Conclusion

With the exception of community and business consultation, good progress has been made on all of the actions outlined in Council’s Climate Emergency declaration. This includes the completion of an interim Climate Emergency Screening Tool (CEST formerly referred to as a Climate Emergency Evaluation Tool, or CEET) to be used to evaluate key City programs, projects and policies.

Staff have begun the process of consultation for the Climate Emergency Action Plan (CEAP) within the parameters of Covid-19 protocols, and anticipate the completion of the Climate Emergency Action Plan by early summer 2021.

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July, 2020

### **Appendices**

Appendix A - Interim Climate Emergency Screening Tool (CEST)

Appendix B - Survey Results from London Home Builders Show and Get Involved Site

**Appendix A - Interim Climate Emergency Screening Tool (CEST)**

# Interim Climate Emergency Screening Tool

Incorporating Climate Considerations into Decision-making

Draft Version 6  
June 25, 2020

City of London

## **Introduction**

This Climate Emergency Screening Tool (CEST) was created in order to assist project managers and decision-makers with a consistent approach to incorporate climate change considerations and analysis into decision-making. The series of questions forming the body of this tool are meant to highlight the potential impacts and effects of the project being evaluated (e.g., project, policy, by-law, guideline, etc.) in relation to the climate emergency. It is important to note that the CEST itself is not intended to function as “stop/go” or “yes/no” decision-making tool.

Each Yes/No question has an answer that is consistent with the *best* response (check box highlighted green) to mitigation of, and/or adaptation to, the climate emergency. Each question is followed by space for written discussion to provide an explanation where an answer does not provide for the best response.

It is acknowledged that most activities undertaken by a municipality will have some degree of impact on the natural environment, particularly activities related to essential services like the provision of clean water, waste and resource management and storm water management. The CEST is not meant to be a stand-alone decision making tool. The intent of the CEST is to require decision-makers to apply a climate change lens to evaluate projects alongside conventional criteria (e.g., technical need, other environmental impacts, cost, safety, equity, etc.) and encourage the investigation and consideration of less-impactful alternatives, wherever feasible, desirable or required. Appendix A includes a brief background on climate change and provides an overview of key terms and concepts addressed in this document. Below are two key definitions.

As a supplement to the initial “screening” evaluation that this tool provides, guidance on additional steps to further analyze projects and/or potential alternatives is provided in the “Further Analysis” section, including 4 potential next steps. Examples of the results of a few Further Analysis for past projects are included in Appendix B.

### **Definitions:**

**Project** – the item being evaluated (project, policy, program, guideline, process, activity, etc.)

**GHG** – Greenhouse gases are those gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation at specific wavelengths within the spectrum of thermal infrared radiation emitted by the Earth's surface, the atmosphere itself, and by clouds. This property causes the greenhouse effect. Water vapour (H<sub>2</sub>O), carbon dioxide (CO<sub>2</sub>), nitrous oxide (N<sub>2</sub>O), methane (CH<sub>4</sub>) and ozone (O<sub>3</sub>) are the primary greenhouse gases in the Earth's atmosphere. Beside CO<sub>2</sub>, N<sub>2</sub>O and CH<sub>4</sub>, the Kyoto Protocol deals with the greenhouse gases sulphur hexafluoride (SF<sub>6</sub>), hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs).



**Project Title and Number**

*Provide a brief project title that is used to identify the subject of evaluation*

**Project Description**

*Provide a brief project description that describes the type of project (e.g., infrastructure, policy, guideline, etc.), physical elements (e.g., location, materials, etc.), service(s) involved and any implementation specifics.*

**Policy, Plan and/or Guideline Drivers (Purpose)**

*Provide a brief description of the purpose of the project as it relates to municipal services, plans, guidelines or other drivers.*

**Connection to Council Strategic Plan and/or Corporate Direction**

*Provide a brief description of the linkage to the current Strategic Plan, previous Strategic Plans and/or Corporate direction and/or strategy.*

**Context and Assumptions**

*Provide a brief description of any important contextual data and assumptions that impact the project design and/or purpose, or a reference to any studies or data that are relevant to the project.*

### Climate Emergency Screening

Climate Change Aspect	Yes	No	Maybe/ Uncertain
<b>A. Mitigation</b>			
<b>1. Does the <i>construction or creation</i> of the Project require burning fossil fuels or GHG emissions from other sources?</b>  <i>Example: construction project - Burning diesel fuel in construction equipment = Yes</i>			
Comments/Notes (Discussion addressing "Yes" answer):			
<b>2. Does the <i>operation or use</i> of the Project result in an increase in burning fossil fuels or GHG emissions from other sources?</b>  <i>Example: completed project includes diesel-powered equipment for operation or use = Yes</i>			
Comments/Notes (Discussion addressing "Yes" answer):			
<b>3. Does the <i>construction or creation</i> of the Project require the emission of additional/new GHGs outside of the project area?</b>  <i>Example: emissions from the manufacture and shipment of materials, like steel or concrete = Yes</i>			
Comments/Notes (Discussion addressing "Yes" answer):			
<b>4. Does the <i>operation or use</i> of the Project require or promote additional emissions of GHGs outside of the project area?</b>  <i>Example: project requires additional electricity for continued use/implementation which requires GHG emissions from electricity production to be emitted outside the project area = Yes</i>			
Comments/Notes (Discussion addressing "Yes" answer):			
<b>5. Does the completion of the project result in the reduction of existing GHG emissions?</b>  <i>Examples:</i> <ul style="list-style-type: none"> <li>• <i>replacement of diesel-powered equipment with electrically powered equipment = Yes;</i></li> <li>• <i>change in policy to encourage low-carbon alternative (e.g. active transportation) = Yes;</i></li> <li>• <i>capture &amp; sequestration of otherwise released GHGs = Yes</i></li> </ul>			
Comments/Notes (Discussion addressing "No" answer):			
<b>6. Does the project involve the removal of existing trees or other vegetated land?</b>  <i>Example: Infrastructure expansion to extend into a forested area, requiring the forested area to be reduced = Yes</i>			
Comments/Notes (Discussion addressing "Yes" answer):			

Climate Change Aspect			
B. Adaptation	Yes	No	Maybe/ Uncertain
<p><b>1. (Water) Does the Project create the requirement for additional municipal stormwater management?</b></p> <p><i>Example: creating ground surfaces that do not allow stormwater infiltration = Yes</i></p>			
Comments/Notes (Discussion addressing "Yes" answer):			
<p><b>2. (Water) Does the Project create potential danger for people or property during a severe downpour event?</b></p> <p><i>Example: significant low-lying or contained areas under stormwater control = Yes</i></p>			
Comments/Notes (Discussion addressing "Yes" answer):			
<p><b>3. (Biodiversity) Does the Project require or promote the disconnection of the Natural Heritage System?</b></p> <p><i>Example: planning for disconnected natural areas by inserting gaps of over 20 metres = Yes</i></p>			
Comments/Notes (Discussion addressing "Yes" answer):			
<p><b>4. (Biodiversity) Does the Project incorporate the addition of carbon sinks (e.g. native tree planting, habitat restoration, enhancing the natural heritage system, innovative sources of carbon sequestration)?</b></p> <p><i>Example: portions of an infrastructure development property are intentionally set aside for native species planting where vegetation did not exist prior = Yes</i></p>			
Comments/Notes (Discussion addressing "No" answer):			
<p><b>5. (Heat) Does the Project increase the urban heat island effect?</b></p> <p><i>Example:</i></p> <ul style="list-style-type: none"> <li>• <i>project design blocks prevailing winds or cool air flow from watercourse = Yes;</i></li> <li>• <i>project design adds asphalt or other heat-absorbing surfaces = Yes</i></li> </ul>			
Comments/Notes (Discussion addressing "Yes" answer):			
<p><b>6. (Freeze/Thaw) Does the Project have any specific material or design vulnerabilities regarding freeze-thaw cycles?</b></p> <p><i>Example:</i></p> <ul style="list-style-type: none"> <li>• <i>potential shallow open channel flow ice blockages = Yes;</i></li> <li>• <i>weather-exposed materials chosen that wear faster with freeze/thaw action = Yes</i></li> </ul>			
Comments/Notes (Discussion addressing "Yes" answer):			

**Summary**

**Mitigation**

*Identified new GHG emissions and changes in the capacity of land to sequester GHG emissions (e.g., vegetation removal or addition) as a result of the project should be summarized here. In cases where the net GHG impact of the project is unclear, a quantitative assessment of the project and potential reduction options should be considered (refer to **Further Analysis** section).*

<b>Comments</b>

**Adaptation**

*The evaluation of potential impacts on the project from wetter, wilder and warmer weather and potential creation or increase of existing impacts on the public from wetter, wilder and warmer weather directly related to the project should be summarized here. In cases where the potential impacts from the project or potentially on the completed project in relation to changes in climate are unclear, a risk assessment of the project and potential impacts should be considered (refer to **Further Analysis** section).*

<b>Comments</b>

**Opportunities and Recommendations**

*Through the use of this CEST, opportunities and/or recommendations for improvement may have been identified and should be listed here, along with any recommendations for further assessment of either potential mitigation and/or adaptation issues. This could include mitigative measures to reduce the impact of the project and/or to offset the impact of this project through the implementation of climate change actions elsewhere.*

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Is Further Analysis required? If so, what would be the desired outcome of the Further Analysis?

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## **Further Analysis**

If the initial screening of the project identified significant climate change mitigation and/or adaptation concerns (**identified issues**) or significant uncertainty due to lack of available data and/or understanding (**uncertainty of issues**), additional steps can be taken to provide clarity and/or alternative options analysis. Refer to **Appendix B** for examples of further analyses.

### **Further Analysis – Step 1 – Internal Review (Internal Specialist Panel)**

High-level quantification of climate mitigation aspects and climate adaptation aspects by internal staff can often be completed with minimal additional effort and may provide sufficient clarity to appropriately inform decision-making.

If issues remain following engagement of internal experts on identified issues and/or uncertainties, or if aspects are more complex than can be managed with existing tools and competencies, move on to Step 2 (or Step 3, if the need for targeted external expertise is flagged right away).

For example, staff from Environmental Programs, Facilities, Fleet and/or City Planning may have relevant expertise that can be utilized to perform the required additional analysis (e.g., 2020 Electric Zamboni \$/GHG Emissions reduction analysis to support recommendations).

### **Further Analysis – Step 2 – Detailed Internal Study (Internal Specialist Panel)**

If the issues or uncertainties associated with the project require detailed quantification of climate mitigation aspects and climate adaptation aspects, particularly if new or detailed data analysis beyond the capabilities of existing tools established from previous work is required, a stand-alone report prepared by internal specialists may be required (e.g., 60% Waste Diversion Action Plan, need to reduce idling [report](#)).

If further issues remain, or if aspects are still complicated beyond the capabilities of internal staff, move on to Step 3 (or Step 4, if aspects are extremely complicated).

### **Further Analysis – Step 3 – Engage External Qualified Specialists for Specific Aspect**

For circumstances where decision-making needs require the assessment of a project aspect that is outside the areas of expertise of internal staff, the need to engage an external qualified specialist may be identified. Specific issues or aspects may require external expertise to procure existing relevant data, conduct primary data collection, conduct data analysis and interpretation, prepare detailed modeling and/or assess risk to address specific aspects outside of internal staff expertise. Such external assistance in this step would be limited to the analysis of one or more specific aspects, but not a fulsome review of the entire project (e.g., engage a consultant for traffic emission models that would then go in to a staff report – i.e., \$10,000-\$25,000 level of effort).

### **Further Analysis – Step 4 – Consultant-Driven Climate Lens Assessment**

Recognizing that internal specialists may not be able to dedicate the amount of time required to fully assess all aspects of a very large and complex project (or may not have extensive enough expertise), a consultant-driven detailed climate lens assessment may be warranted. Such projects are likely to be those significantly large infrastructure projects that may also be subject to the Government of Canada requirement to complete a GHG Mitigation Assessment and, in many cases, a Climate Change Resilience Assessment ([link](#)). These assessments are anticipated to require significant investment from the City and involve detailed and extensive modeling, data analysis and comparative evaluation of feasible options.

## **Appendix A: Background**

According to the majority of scientists, the current climate emergency was caused by the simultaneous unsustainable increase in emissions of GHGs to the atmosphere and reduction of the Earth's capacity to remove GHGs from the atmosphere. The observed and modelled impact on London's climate include, but are not limited to, an overall increase in ambient air temperatures, increase in discrete hot days and nights, increase in severe storm events, and the shifting of habitable zones for many species resulting in increased disease and pest prevalence.

A project's impacts (positive and negative) on and/or from the climate emergency may be related to mitigation or adaptation (and often both):

**A. Mitigation** – GHG emissions from human activities and the reduction of the landscape's ability to naturally sequester (remove and store) carbon are driving the changing climate:

- Burning fossil fuels such as natural gas, diesel, and gasoline creates GHG emissions, primarily carbon dioxide (CO<sub>2</sub>).
- Disposal of organic waste to landfills generates methane emissions – a potent GHG with 25 times the global warming potential of CO<sub>2</sub>.
- Leaks from refrigeration systems can release hydrofluorocarbons (HFCs) which are potent GHGs with global warming potentials ranging from 100 to over 10,000 times that of CO<sub>2</sub>.
- Removing vegetation (i.e., healthy & mature trees) reduces capacity to sequester CO<sub>2</sub> from the atmosphere through the natural carbon cycle.

Reducing existing emissions of GHGs, protecting and increasing natural ecosystems' ability to remove CO<sub>2</sub> and potentially creating active (non-natural) carbon capture and storage are considered positive mitigation activities.

**B. Adaptation** – The future of London's climate can be summarized simply as “warmer, wilder, and wetter weather”, even if we were to initiate coordinated and extreme mitigation efforts. As such, the best response to the climate emergency includes the incorporation of adaptation efforts to ensure that the project promotes physical, social and economic resilience and does not create the potential for additional harm considering the effects of the changing climate. When designing or implementing projects, specific consideration for how the project may be impacted by or increase impacts from extreme heat, increased precipitation (overall and the effects of intense, short duration storms), vector-borne diseases and biodiversity loss are considered positive adaptation considerations.

## **Appendix B: Further Analysis Examples**

### **Step 1 – Internal Review (Internal Specialist Panel) Examples**

#### **Example 1 – Excerpt from Civic Works Committee Staff Report Request for Proposals (RFP 20-04 Award – Supply & Delivery of Electric Ice Resurfacers**

##### **GHG Emissions Reductions and Environmental Considerations**

The transition to battery electric engines eliminates the GHG produced from burning fossil fuels and eliminates the harmful chemicals produced from unburned fuel. Each unit converted to battery electric will result in a savings of 19 tonnes of GHGs annually (Table B-1). Following the conversion of the entire fleet to battery electric, operational units will mitigate 212 tonnes of GHG emissions annually and contribute to about 25% of the Corporation’s overall GHG curtailment target of 900 tonnes annually, 85% of Green Fleet’s GHG curtailment target of 250 tonnes annually and avoiding 579 tonnes of cumulative GHG emissions by 2023.

**Table B-1 Operational GHG Savings Per Contract Year**

Year	Number of Units Switched to Electric	Accumulated (Estimated) GHG Savings (tonnes/year)	% of CDM Target (900 Tonnes GHG Annually)
2020	3	58	6%
2021	3	114	13%
2022	4	190	21%
2023	4	212	24%

Furthermore, the move to battery electric powered equipment will enable the City to move to renewable energy sources such as solar PV. This concept is in alignment with a renewable energy feasibility study that is already underway as part of the City’s ongoing energy management program in City Facilities – which includes some arenas. If a renewable energy project is ultimately paired with and sized to meet the use associated with the eventual electrification of the City’s ice resurfacer fleet, London would create one of the few “Net-Zero” fleet of ice resurfacers in North America. By 2023 London will be one of the first in North America to have a fleet of near zero emission ice resurfacers.

The replacement of 14 natural gas-powered pieces of equipment with battery electric units over four years is a significant step forward toward the Corporate targets in the 2019-2023 CDM Plan.

#### **Example 2 – Excerpt from Civic Works Committee Staff Report Request for Proposals (RFP) 19-47 Award – Supply & Delivery of Light Duty Fleet Vehicles**

##### **GHG Emissions Reductions and Environmental Considerations**

For the purpose of this exercise, the focus was looking for vehicle replacements that would generate greater fuel efficiency, the ability to switch to electric where possible, and have increased emission control. Using the inventory list of vehicles requiring replacements, target replacements vehicles over the contract where period were identified (Table B-2). Based on the results of the RFP, it estimated that this would reduce GHG emissions from the City fleet by 23 tonnes per year, about 0.3% of the annual emissions from fleet vehicles. Between 2022 and 2025 the GHG decreases will be larger for light duty vehicles based on further Green Fleet Reviews (in 2020 and 2021) and subsequent replacements.

**Table B-2: Forecasted Replacement Schedule**

<b>Light Vehicles Up for Replacement 2020 and 2021</b>	<b>Targeted Replacements pending CEET Assessment and Available Support Funding</b>
10 Gasoline Compact Cars	Hybrid, PHEV, or Electric Compact Cars
4 Hybrid Compact Cars	Hybrid, PHEV, or Electric Compact Cars
1 Plug in Electric Car	Plug in Electric Car
11 Gasoline SUV's	Hybrid SUVs
1 Hybrid SUV	Hybrid SUV
6 Gasoline Passenger and Cargo Vans	Right sized Gasoline Passenger and Cargo Vans
13 Gasoline ½ ton ¾ ton Pick-ups	Right sized Gasoline ½ ton ¾ ton Pick- ups
3 Diesel Heavy and Super Duty Work Trucks	Right sized diesel Heavy and Super duty trucks with auto shut down if available and emission control systems (SCR)

Based on the proposed vehicles from the RFP, a comparison of fuel economy of current fleet vehicles against the stated fuel economy of the recommended vehicles is identified in Table B-3.

**Table B-3: Fuel Economy Comparison (Assuming Hybrid Light-Duty Vehicles)**

<b>Existing Fleet Vehicle</b>	<b>Fuel Economy NRCan City Rating (L/100km)</b>	<b>2020-2021 Replacement</b>	<b>Fuel Economy NRCan City Rating (L/100km)</b>	<b>Estimated Fuel Savings (per 100 km)</b>
Dodge Ram 1500	16.3	Ford F150	12.3	25%
Ford C-Max Hybrid	5.5	Toyota Corolla Hybrid	4.4	20%
Ford E250	18.3	Ram Promaster	14.3	22%
Ford Escape	10.4	Toyota RAV4 Hybrid	5.7	45%
Ford Escape Hybrid	6.9	Toyota RAV4 Hybrid	5.7	17%
Ford Escape XLT	11.4	Toyota RAV4 Hybrid	5.7	50%
Ford F150	14.5	Ford F150	12.3	15%
Ford F250 4x4	22.1	Ford F250	22.1	0%
Ford F350	24.3	Ford F350	24.3	0%
Ford Focus Electric	n/a	Toyota Prius Prime	n/a	n/a
Ford Focus	10.2	Toyota Corolla Hybrid	4.4	57%
Ford Transit Connect	10.6	Ram Promaster City	11.2	-6%
Honda Civic Hybrid	5.8	Toyota Corolla Hybrid	4.4	24%



## **Step 2 – Detailed Internal Study (Internal Specialist Panel) Examples**

### **Example 1 - Report: Environmental Statement on the Need to Reduce Idling in London, May 2008**

Link: [https://www.london.ca/residents/Environment/Air-Quality/Documents/Report\\_on\\_Idling\\_08.pdf](https://www.london.ca/residents/Environment/Air-Quality/Documents/Report_on_Idling_08.pdf)

Using *The Idling Impact Calculator* found on the Natural Resources Canada website ([www.oeenrcan.gc.ca](http://www.oeenrcan.gc.ca)), environmental impacts and financial impact data specific to London were calculated based on various assumptions. It was determined that the following annual benefits would be realized if every driver of a light-duty vehicle in London reduced their amount of idling by 20 percent per year (or about one minute per day):

- 1,548,000 litres of fuel, a non-renewable resource, would be saved.
- Almost \$1.9 million would be saved by London drivers every year.
- 3,760 tonnes of greenhouse gas would not be produced (enough GHG to fill over 2,200 NHL-sized hockey rinks).
- 22,580 trees would have to be planted to have the same benefit.
- 2,670 vehicles would have to be taken off the road to have the same benefit.

## **Step 3 – Engage External Qualified Specialists for Specific Aspect Example**

### **Example 1 - ORGANIC MATERIALS: Maximizing Resource Recovery from Waste Through Biogas and RNG Production** (tables on next page)

In 2017, the City of London, with funding support from the Federation of Canadian Municipalities Green Municipal Fund, worked with the Canadian Biogas Association, Union Gas, and supporting consulting firms (Viking Strategies and (S&T)2 Consultants Inc.) to assess the economic feasibility and environmental benefits of producing biogas by anaerobically digesting the organic fraction of the City of London's (City) residential waste stream, and subsequently converting the biogas to renewable natural gas (RNG) for use in compressed natural gas (CNG) vehicles.

The City undertook this work as part of its investigation of options for the management of the organic fraction of its residential waste. In this report, two scenarios were considered:

1. collecting and anaerobically digesting source-separated organic (SSO) materials, or
2. anaerobically digesting organic materials separated from a mixed waste stream at a processing facility (facility-separated organics (FSO)).

The following two tables from the report summarized the GHG reduction benefits and the organic waste processing cost reduction benefits for the two scenarios.

**TABLE 12: WELL-TO-WHEEL GREENHOUSE GAS REDUCTIONS FOR BOTH FLEETS BY SCENARIO**

<b>Well-to-Wheel Greenhouse Gas Emission Reductions</b>	<b>Scenario 1: SSO</b>	<b>Scenario 2: FSO</b>
Available RNG (m <sup>3</sup> /year)	1,900,000	3,200,000
<b>City Waste Collection Fleet</b>		
Current B5 diesel fuel needs (L/year)	600,000	
GHG emissions from B5 diesel use (tonnes/year)	1,800	
Diesel as equivalent CNG volume (m <sup>3</sup> )	675,000	
GHG emissions from RNG use (tonnes/year)	340	280
GHG reduction (tonnes/year)	1,700	1,770
GHG reduction	83%	86%
<b>City Transit Fleet</b>		
Current diesel fuel needs (L/year)	7,200,000	
GHG emissions from diesel use (tonnes/year)	25,500	
Diesel as equivalent CNG volume (m <sup>3</sup> )	8,340,000	
Remaining RNG available (m <sup>3</sup> )	1,230,000	2,530,000
RNG blend within CNG	15%	30%
GHG emissions from RNG use (tonnes/year)	22,300	18,800
GHG reduction (tonnes/year)	3,200	6,700
GHG reduction	13%	26%
<b>Total GHG reduction (tonnes CO<sub>2</sub>eq/year)</b>	<b>4,900</b>	<b>8,500</b>

**TABLE 13: SUMMARY OF COSTS, REVENUES AND SAVINGS BY SCENARIO**

Component		Units	SSO Scenario		FSO Scenario	
			Low	High	Low	High
Costs and Savings	SSO and Garbage Collection Costs <sup>1</sup>	\$/tonne	\$170		-	
	Total Facility Costs <sup>2</sup>	\$/tonne	\$90	\$160	\$100	\$120
	Avoided Disposal Savings <sup>3</sup>	\$/tonne	\$18		\$7	
	Overall City Cost Excluding RNG Revenue & Offset Credit	\$/tonne <sup>4</sup> (processed)	\$240	\$310	\$90	\$110
		\$/year <sup>5</sup>	\$3,400,000	\$4,300,000	\$8,100,000	\$9,900,000
RNG Revenue & Offset Credits	Offset Credit from Diversion	\$/tonne (processed)	\$24		\$12	
	Revenue from RNG as Fuel <sup>6</sup>	\$/tonne (processed)	\$20		\$10	
	Revenue from RNG as Fuel <sup>6</sup> (With Carbon Pricing <sup>7</sup> )	\$/tonne (processed)	\$29		\$15	
Net Cost for City	Net Cost for City (Without Diversion Offset Credit and Carbon Pricing)	\$/tonne <sup>4</sup> (processed)	\$220	\$290	\$80	\$100
		\$/year <sup>5</sup>	\$3,100,000	\$4,100,000	\$7,200,000	\$9,000,000
Net Cost for City	Net Cost for City (With Diversion Offset Credit and Carbon Pricing)	\$/tonne <sup>4</sup> (processed)	\$190	\$260	\$60	\$80
		\$/year <sup>5</sup>	\$2,700,000	\$3,600,000	\$5,400,000	\$7,200,000

#### **Step 4 – Consultant-Driven Climate Lens Assessment**

##### **Example 1 – Infrastructure Canada Climate Lens**

“The Climate Lens will provide meaningful insight into the climate impacts of individual projects, encourage improved choices by project planners consistent with shared federal, provincial, and territorial objectives articulated in the Pan-Canadian Framework for Clean Growth and Climate Change-including a commitment to reduce Canada's GHG emissions by 30% below 2005 levels by 2030-and provides a substantive eligibility test for projects funded through the Climate Change Mitigation and Adaptation, Resilience and Disaster Mitigation sub-streams of the Investing in Canada Infrastructure Program.”

Guidance available: <https://www.infrastructure.gc.ca/pub/other-autre/cl-occ-eng.html>

**Appendix B - Survey Results from London Home Builders Show (sample size 725) and Get Involved Site (141)**

**Feedback Results from those that attended the City booth at the London Home Builder’s Association (LHBA) Lifestyle Home Show (January 31 to February 2, 2020)**

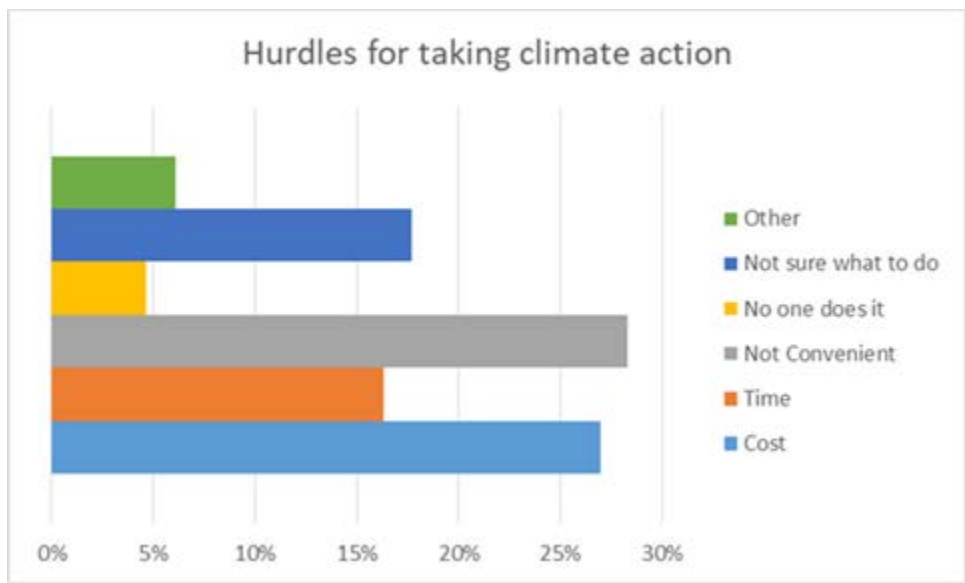
**Responses = 725**

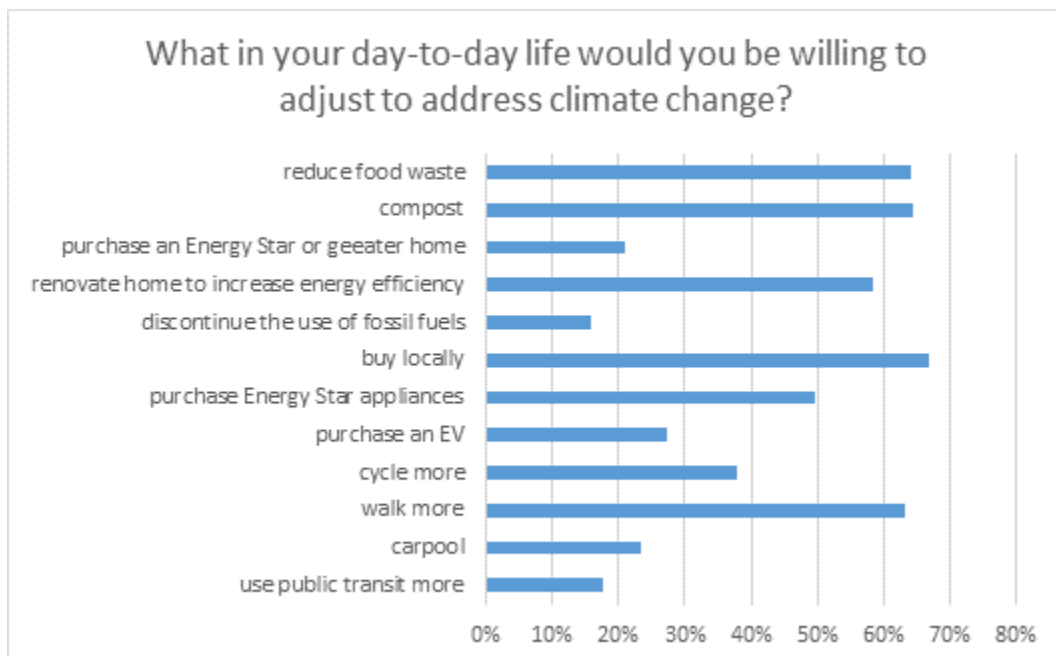
**How concerned are you with the climate change?**

Extremely 44%  
 Very 34%  
 Somewhat 17%  
 Not really 5%

**As a Londoner I am willing to make personal changes to my daily life to address climate change**

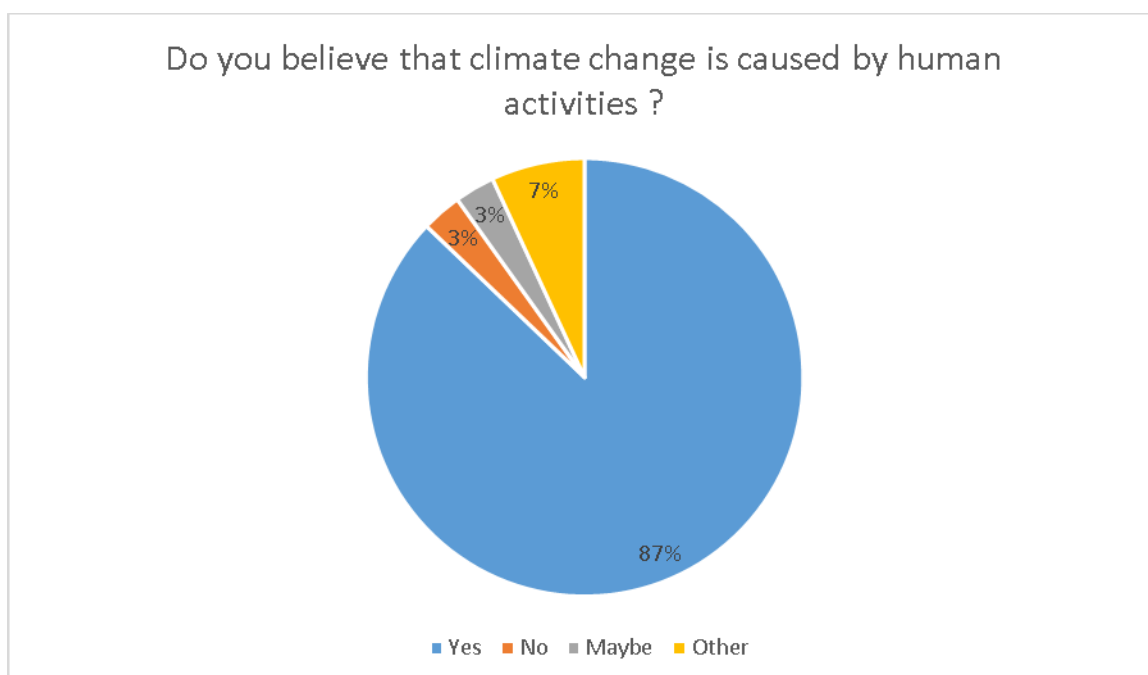
Strongly Agree 54%  
 Agree 35%  
 No Opinion 7%  
 Disagree 1%  
 Strongly Disagree 3%





**Feedback questions posted on the City of London Get Involved site for this project**

Responses = 141



Do you believe that you have the ability to influence climate change and take action?

