

Agenda Including Addeds

Advisory Committee on the Environment

2nd Meeting of the Advisory Committee on the Environment

March 3, 2021, 12:15 PM

Advisory Committee Virtual Meeting - during the COVID-19 Emergency

The City of London is committed to making every effort to provide alternate formats and communication supports for Council, Standing or Advisory Committee meetings and information, upon request. To make a request related to this meeting, please contact advisorycommittee@london.ca.

	Pages
1. Call to Order	
1.1. Disclosures of Pecuniary Interest	
2. Scheduled Items	
3. Consent	
3.1. 1st Report of the Advisory Committee on the Environment	2
3.2. Notice of Planning Application - Draft Plan of Subdivision Official Plan and Zoning By-law Amendment - 14 Gideon Drive and 2012 Oxford Street West	4
3.3. Sustainability: Transdisciplinary Theory, Practice, and Action Conference - D. Szoller	11
4. Sub-Committees and Working Groups	
4.1. Waste Sub-Committee Report - ACE's Response to the Green Bin Program - J. Howell	17
5. Items for Discussion	
5.1. Climate Emergency Action Plan	
a. <i>(ADDED) Discussion Primer for the Climate Emergency Action Plan - 2020</i>	18
5.2. Advisory Committee on the Environment Meeting Date and Time	
6. Adjournment	

Advisory Committee on the Environment

Report

The 1st Meeting of the Advisory Committee on the Environment
February 3, 2021
Advisory Committee Virtual Meeting - during the COVID-19 Emergency

Attendance PRESENT: R. Sirois (Chair), N. Beauregard, M. Bloxam, J. Howell, K. May, M. Ross, M.D. Ross, J. Santarelli, D. Szoller and B. Vogel and H. Lysynski (Acting Committee Clerk)
ABSENT: R. Pate, A. Thompson and A. Tipping
ALSO PRESENT: T. Arnos, G. Barrett, M. Fabro, A. Rammeloo, K. Scherr, J. Stanford and B. Westlake-Power

The meeting was called to order at 12:17 PM.

1. Call to Order

1.1 Disclosures of Pecuniary Interest

That it BE NOTED that no pecuniary interests were disclosed.

1.2 Election of Chair and Vice Chair for the remainder of the current term

That it BE NOTED that the Advisory Committee on the Environment elected R. Sirois and M. Ross as Chair and Vice Chair, respectively, until the end of the current term.

2. Scheduled Items

2.1 Service Area Work Plan for 2021

That it BE NOTED that the Service Area Work Plan for 2021 presentation, as appended to the Added Agenda, from K. Scherr, Managing Director, Environmental and Engineering Services and City Engineer, J. Stanford, Director, Environment, Fleet and Solid Waste, A. Rammeloo, Division Manager, Sewer Engineering, G. Barrett, Director of Planning and City Planning and M. Fabro, Manager, Sustainability and Resiliency, was received.

3. Consent

3.1 4th Report of the Advisory Committee on the Environment

That it BE NOTED that the 4th Report of the Advisory Committee on the Environment, from the meeting held on March 4, 2020, was received.

4. Sub-Committees and Working Groups

None.

5. Items for Discussion

5.1 Respectful Workplace Policy

That it BE NOTED that the Respectful Workplace Policy document, as appended to the agenda, was received.

5.2 ACE Terms of Reference

That it BE NOTED that the Advisory Committee on the Environment (ACE) held a general discussion with respect to the ACE Terms of Reference document, as appended to the agenda.

5.3 Advisory Committee Review

That it BE NOTED that the Advisory Committee on the Environment held a general discussion with respect to the ongoing Advisory Committee Review; it being noted that a verbal update from B. Westlake-Power, Deputy City Clerk, with respect to this matter, was received.

5.4 ACE Work Plan

That the Advisory Committee on the Environment (ACE) held a general discussion with respect to its 2020 Work Plan.

6. Adjournment

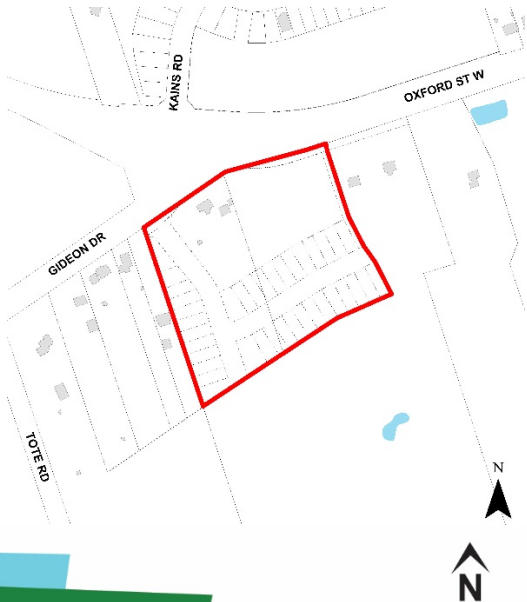
The meeting adjourned at 2:09 PM.



NOTICE OF PLANNING APPLICATION

Draft Plan of Subdivision Official Plan and Zoning By-law Amendment

14 Gideon Drive and 2012 Oxford Street West



File: 39T-21501 / OZ-9295

Applicant: 2515060 & 2539427 Ontario Inc.

What is Proposed?

Draft Plan of Subdivision and Zoning amendments to allow:

- 36 single detached residential lots
- 1 medium density residential blocks
- 1 open space block
- 2 new streets.

LEARN MORE & PROVIDE INPUT

Please provide any comments by **February 26, 2021**

Sean Meksula

smeksula@london.ca

519-661-CITY (2489) ext. 5349

Development Services, City of London, 300 Dufferin Avenue, 6th Floor,
London ON PO BOX 5035 N6A 4L9

File: 39T-21501 / OZ-9295

london.ca/planapps

You may also discuss any concerns you have with your Ward Councillor:

Councillor Anna Hopkins

ahopkins@london.ca 519-661-CITY (2489) ext. 4009

**If you are a landlord, please post a copy of this notice where your tenants can see it.
We want to make sure they have a chance to take part.**

Date of Notice: February 10, 2021

Application Details

Commonly Used Planning Terms are available at london.ca/planapps.

Requested Draft Plan of Subdivision (please refer to attached draft plan)

Consideration of a Draft Plan of Subdivision consisting of 36 single detached lots (Lots 1-36); one (1) medium density residential block (Block 37); one (1) walkway block (Block 38); one (1) open space block (Block 39); two (2) road widening blocks (Blocks 40 and 41); and three (3) reserve blocks (Blocks 42, 43 and 44 new local streets (Street A and Street B).

Requested Official Plan Amendment (please refer to attached map)

Possible Amendments to the (1989) Official Plan:

- Schedule 'A' – Land Use Map to change the land use designations from: “Low Density Residential” to “Multi-Family, Medium Density Residential” for Block 37 on the proposed Draft Plan of Subdivision.

Requested Zoning By-law Amendment

Changes to the currently permitted land uses and development regulations are summarized below. The complete Zoning By-law is available at london.ca/planapps.

Requested Zoning (Please refer to attached map)

Possible Amendment to Zoning By-law Z.-1 to change the zoning from an Urban Reserve UR1 Zone to:

- Residential R1 (R1-2) Zone (Lots 1-36) - to permit single detached dwellings on lots with a minimum lot area of 300 square metres and minimum lot frontage of 9 metres;
- Residential R6/Residential R8 (R6-5/R8-4) Zone (Block 37) – to permit various forms of cluster housing including single detached, semi-detached, duplex, triplex, fourplex, townhouse, and stacked townhouse dwellings up to a maximum density of 35 units per hectare and maximum height of 12 metres; and such uses as apartment buildings, senior citizens apartment buildings, and continuum-of-care facilities up to a maximum density of 75 units;
- Open Space OS1 Zone (Block 39) – to permit such uses as conservation lands, conservation works, golf courses, public and private parks, recreational buildings associated with conservation lands and public parks, campgrounds, and managed forests.

The City may also consider applying holding provisions in the zoning to ensure adequate provision of municipal services, that a subdivision agreement or development agreement is entered into, and to ensure completion of noise assessment reports and implementation of mitigation measures for development in proximity to arterial roads.

Planning Policies

Any change to the Zoning By-law must conform to the policies of the Official Plan, London's long-range planning document. These lands are currently designated as "Low Density Residential".

The subject lands are in the “Neighbourhoods” Place Type in The London Plan (Council adopted, approved by the Ministry with modifications, and the majority of which is in force and effect) permitting a range of housing including single detached, townhouses and low rise apartments, and “Green Space”, permitting a range of public and private open space, parks, recreation, floodplain and conservation uses.

How Can You Participate in the Planning Process?

You have received this Notice because someone has applied for a Draft Plan of Subdivision and to change the zoning of land located within 120 metres of a property you own, or your landlord has posted the notice of application in your building. The City reviews and makes decisions on such planning applications in accordance with the requirements of the *Planning Act*. The ways you can participate in the City's planning review and decision making process are summarized below.

See More Information

You can review additional information and material about this application by:

- contacting the City's Planner listed on the first page of this Notice;

- viewing the application-specific page at london.ca/planapps; or,
- Please note that this application is being circulated during the State of Emergency issued by the Province of Ontario. Opportunities to view any file materials in-person by appointment can be arranged through the file Planner.

Reply to this Notice of Application

We are inviting your comments on the requested changes at this time so that we can consider them as we review the application and prepare a report that will include Development Services staff's recommendation to the City's Planning and Environment Committee. Planning considerations usually include such matters as land use, development intensity, and form of development.

Attend a Future Public Participation Meeting

The Planning and Environment Committee will consider the requested Draft Plan of Subdivision and zoning changes on a date that has not yet been scheduled. The City will send you another notice inviting you to attend this meeting, which is required by the *Planning Act*. You will also be invited to provide your comments at this public participation meeting. A neighbourhood or community association may exist in your area. If it reflects your views on this application, you may wish to select a representative of the association to speak on your behalf at the public participation meeting. Neighbourhood Associations are listed on the Neighbourgood website. The Planning and Environment Committee will make a recommendation to Council, which will make its decision at a future Council meeting. The Council Decision will inform the decision of the Director, Development Services, who is the Approval Authority for Draft Plans of Subdivision.

What Are Your Legal Rights?

Notification of Council and Approval Authority's Decision

If you wish to be notified of the Approval Authority's decision in respect of the proposed draft plan of subdivision, you must make a written request to the Director, Development Services, City of London, 300 Dufferin Ave., P.O. Box 5035, London ON N6A 4L9, or at developmentsservices@london.ca. You will also be notified if you provide written comments, or make a written request to the City of London for conditions of draft approval to be included in the Decision.

If you wish to be notified of the decision of the City of London on the proposed zoning by-law amendment, you must make a written request to the City Clerk, 300 Dufferin Ave., P.O. Box 5035, London, ON, N6A 4L9, or at docservices@london.ca. You will also be notified if you speak to the Planning and Environment Committee at the public meeting about this application and leave your name and address with the Secretary of the Committee

Right to Appeal to the Local Planning Appeal Tribunal

If a person or public body does not make oral submissions at a public meeting, if one is held, or make written submissions to the City of London in respect of the proposed plan of subdivision before the approval authority gives or refuses to give approval to the draft plan of subdivision, the person or public body is not entitled to appeal the decision of the Director, Development Services to the Local Planning Appeal Tribunal.

If a person or public body does not make oral submissions at a public meeting, if one is held, or make written submissions to the City of London in respect of the proposed plan of subdivision before the approval authority gives or refuses to give approval to the draft plan of subdivision, the person or public body may not be added as a party to the hearing of an appeal before the Local Planning Appeal Tribunal unless, in the opinion of the Tribunal, there are reasonable grounds to do so.

If a person or public body would otherwise have an ability to appeal the decision of the Council of the Corporation of the City of London to the Local Planning Appeal Tribunal but the person or public body does not make oral submissions at a public meeting or make written submissions to the City of London before the by-law is passed, the person or public body is not entitled to appeal the decision.

If a person or public body does not make oral submissions at a public meeting or make written submissions to the City of London before the by-law is passed, the person or public body may not be added as a party to the hearing of an appeal before the Local Planning Appeal Tribunal unless, in the opinion of the Tribunal, there are reasonable grounds to do so.

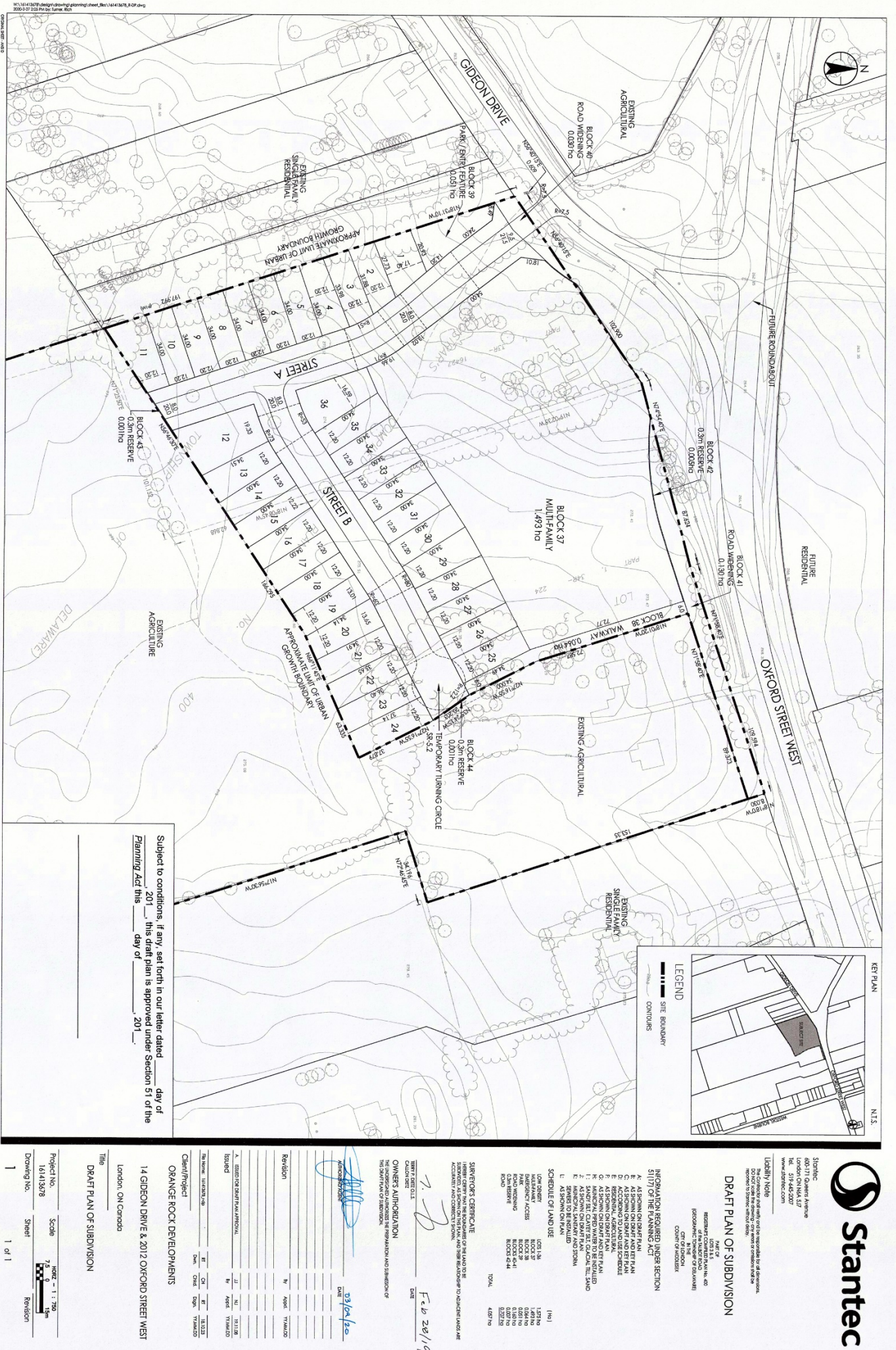
For more information go to <https://olt.gov.on.ca/contact/local-planning-appeal-tribunal/>.

Notice of Collection of Personal Information

Personal information collected and recorded at the Public Participation Meeting, or through written submissions on this subject, is collected under the authority of the *Municipal Act*, 2001, as amended, and the *Planning Act*, 1990 R.S.O. 1990, c.P.13 and will be used by Members of Council and City of London staff in their consideration of this matter. The written submissions, including names and contact information and the associated reports arising from the public participation process, will be made available to the public, including publishing on the City's website. Video recordings of the Public Participation Meeting may also be posted to the City of London's website. Questions about this collection should be referred to Cathy Saunders, City Clerk, 519-661-CITY (2489) ext. 4937.

Accessibility - Alternative accessible formats or communication supports are available upon request. Please contact developmentsservices@london.ca for more information.

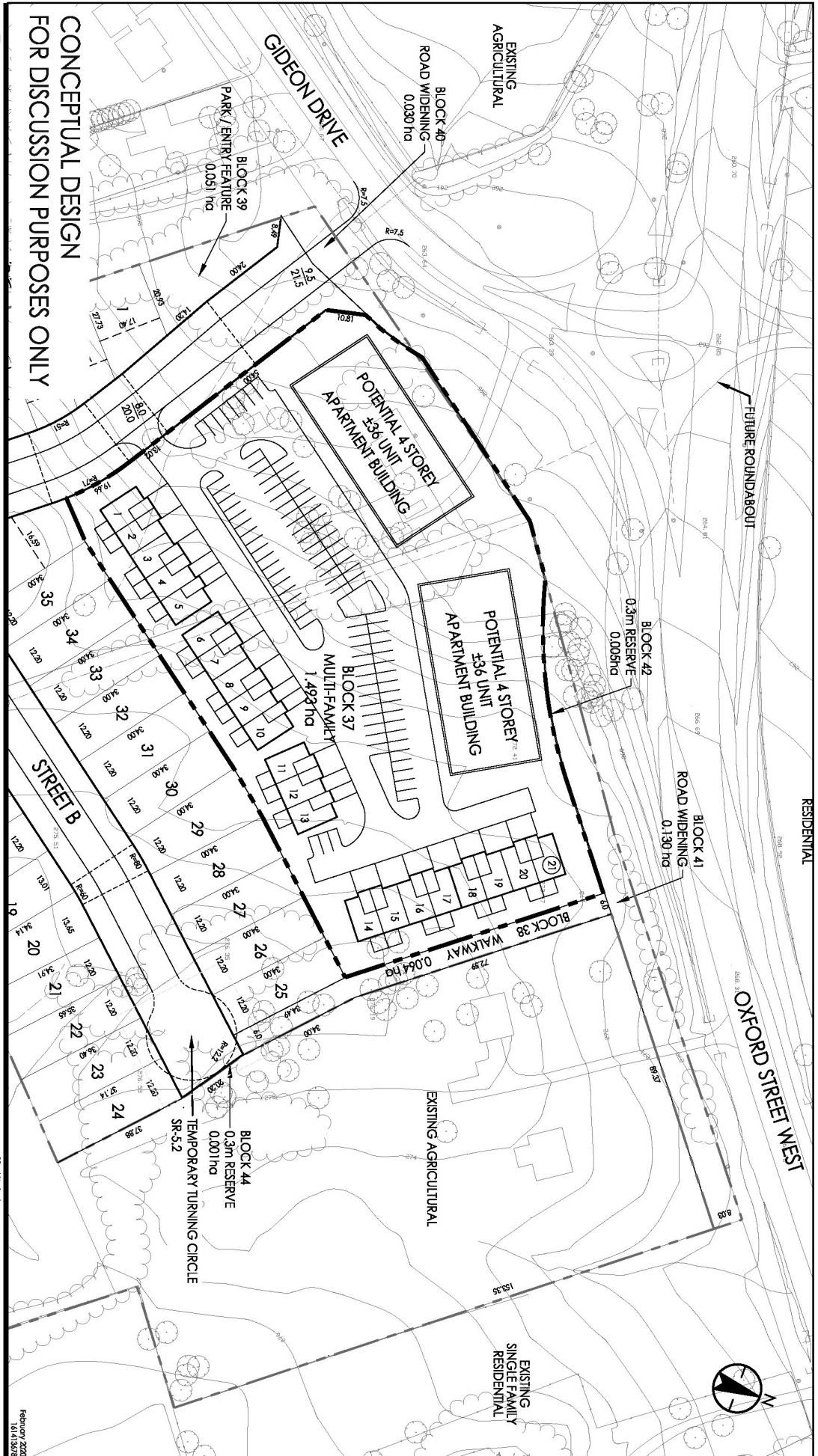
Requested Draft Plan of Subdivision



The above image represents the applicant's proposal as submitted and may change.

Requested Official Plan Designations

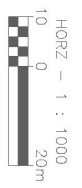
W:\161413678\design\drawing\planning\model_files\Figures\161413678_rsp.dwg
2020-2-18 10:40 AM by: Turner, Rich



**CONCEPTUAL DESIGN
FOR DISCUSSION PURPOSES ONLY**



600-171 Queens Avenue
London ON N6A 5J7
Tel: 519-645-2007
www.stantec.com

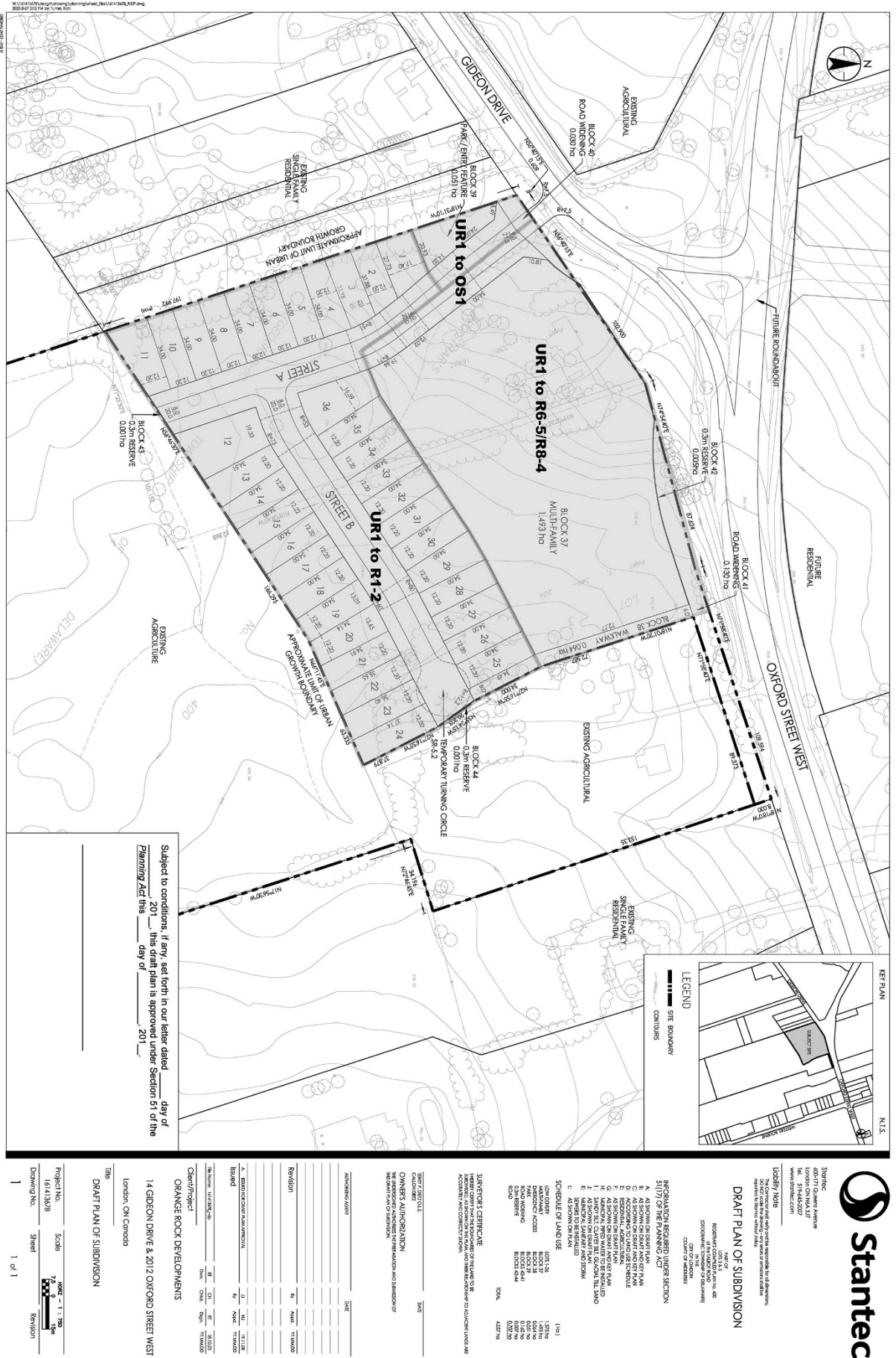


Client/Project
ORANGE ROCK DEVELOPMENTS
14 GIDEON DRIVE & 2012 OXFORD STREET WEST
London, ON Canada
Figure No. 1.0
Title
BLOCK 37
CONCEPTUAL SITE PLAN

February 2020
161413678

The above image represents the applicant's proposal as submitted and may change.

Requested Zoning



The above image represents the applicant's proposal as submitted and may change.

STTPA Conference 2019

attended by Diane Szoller, ACE member

A Sustainability: Transdisciplinary Theory, Practice, and Action conference was held Oct 16-18, 2019 at the University of Toronto Mississauga (UTM) campus.

The STTPA Conference was organized by the Master of Science in Sustainability Management (MScSM) program, part of the Institute for Management & Innovation (IMI) at UTM.

Sustainability is the core challenge of our era. We all have a role to play in the path towards sustainability. The path towards sustainability is possible only through a culture of sustainability that promotes the wellbeing of all generations, maintains healthy ecosystems, and fosters regenerative relations between natural, social, and technological systems. The conference offered a sharing of critical, holistic, and integrative thinking that drew upon traditional academic disciplines (such as natural sciences, social sciences, humanities, management, and engineering), transdisciplinary and emerging academic fields, and areas of specialization as well as through practices and actions. The contributions were on any aspect of sustainability and/or any of the 17 Sustainable Development Goals.

Key points of interest are listed beside each item in the table of contents below. The bottom line is it is difficult – nearly impossible – to give up our reliance entirely, but if we can be conscious about where our products are sourced from, strive to purchase the more sustainable alternatives, and best of all, just consume less of it, we will be part of making proactive change, this should also be combined with proactive protection of all species. A systems thinking approach is needed to understand human health. Microbial life, water systems, soil systems, biodiversity, pollinators, emissions, nutrient management, waste, climate all need to be considered.

Table of Contents AGENDA

Day 1 | October 16, 2019 Opening Ceremony and Plenary Session

K1: Keynote: Fatima and Amna Sultan – Fatima & Amna are 10 and 8-year-old founders of Two Sisters on a Mission and authors of “Anything is Possible”. They have inspired thousands at major conferences and business competitions. Canada’s Youngest Social Entrepreneurs are on a mission to make a real difference. Through their travels, they questioned why no-one was helping individuals in marginalized communities, especially artists. Key learnings – Age is a non-factor in making change. To build a sustainable future, we need to empower the next generation. There is never a perfect time to follow your dreams, today is a perfect day to start.

K1: Keynote: John Holmberg – John encourages radical change for creating sustainability rather than maintaining the status quo. He offered 3 keywords to think about going forward in our sustainability endeavors: transformation, integration and universality. John’s Lighthouse Model of society, economy, and ecology, with the latter the base, and human needs being in the light’s focus, is another way of looking at Triple Bottom Line strategy. Key learnings – Trust fuels

creativity. Be proactive not reactive on climate change. Language is power. Study the past to create the right future. Both management and exploration/reflection needed to make change.

Sub-Plenary Concurrent Panel Sessions (11:00)

P1: Enhancing Sustainability of Public Transportation through Design Excellence – Discussion on Ontario improvements ie Metrolinx rapid transit network, Denmark sustainable infrastructure.

P2: Opportunities, Risks, and Challenges developing RNG Projects in North America – Discussion on Toronto using food waste conversion to natural gas that feeds back into homes.

P3: Committed to GHG Targets: Walking the Talk at U of T – Discussion on their target of 37% below 1990's CO2 level, geothermal, passive building standard, U-Pass, vertical farm, bee farm.

P4: Designing Sustainable Lifelong Learning Communities to Nurture SMART City Ecosystems – Discussion on Erin Mills Connect services for youth, children, Mississauga SMART City plan.

Concurrent Sessions (14:00)

CA1: Transformative Learning and Sustainability – Discussion on curriculum reform needed, ie Taiwan environment education, SDGs in classroom, Ecovillages, STARS university database.

CA2: Representations of the Environment and Sustainability – Discussion on 5 topics/speakers: sustainability in Tourism, Religion, Material Engagement Theory, Petro - Cultures and Hip Hop.

CA3: Towards Improved Understanding of Variability in the Water Cycle Behaviour and Water Resources – Discussion on Credit Valley watershed satellite depth maps, precipitation data sets with hydrological models, stormwater management efficiency, soil moisture in the Great Lakes.

CA4: Geospatial Data and Analysis for Terrestrial Ecosystem Health – Discussion on measuring forest growth/decline through satellite images across suburbanizing spaces, tree inventories.

CA5: Human Health and Wellbeing – Discussion on marijuana used for fabric, food, paper, etc. grown for over 5000 years; sustainability diets, increasing population means more land use, food.

CA6: Mixed Analysis of Sustainability – Discussion on forest diversity/timber market volatility; importance of indigenous knowledge for water use in Sri Lanka; sustainable forest management.

CA7: Sustainable Food System Pedagogy – Discussion on bottom up AND top down methods for food as basic human right, rights approach in Canada (food guide), need for a food policy.

CA8: Animating the Urban: Urban Wildlife between Encounter and Infrastructure – Discussion on wildlife as residents, not pests, species are highly adaptable, ie coyotes, bats, grey squirrels.

Concurrent Sessions (16:30)

CB1: Transformative Learning and Sustainability – Discussion on green prison programs, Challenge Labs, learning sources are infinite, experimental curriculums, microenvironments.

CB2: Sustainability and the Sacred – Discussion on Buddhist Ethics framework, importance of place. We're genetically predisposed to observe issues as entities, vs as an integrated system.

CB3: Behavioural Science and Sustainability – Discussion on stakeholders, behavioural science as tool to 'manipulate' consumers to make sustainable choices. Reframe consumerism, for paradigm shift.

CB4: Social, Economic, Environmental, and Policy Perspectives on Waste – Discussion on version affected by behaviours, perceptions, and attitudes, planetary waste/space debris issues.

CB5: Sustainability at Educational Institutions – Discussion on LEED Science Lab – UTM, U of Utrecht, U of Edinborough, UNAM in Mexico, and curriculum on effects of trauma in children.

CB6: Solution Session: Building Community Resilience with Climate Smart Agriculture – Discussion on problem solving, different communities, traditional knowledge, systems thinking.

CB7: Solution Session: Solving Unprecedented Global Biodiversity Loss: A Systems Approach

– Discussion on: global biodiversity loss is declining, drivers of biodiversity loss accelerating, biodiversity is complex/requires transformative change. These solutions involve leverage points. CB8: Workshop: The Three Real Reasons Businesses Want to Fix Climate Change – Discussion on mitigating risks, capturing opportunities, damage to supply change, reputation or lower asset value.

Training Workshops (18:00)

T1: Eating the Energy Elephant: Tangible Things to Make Energy Management Manageable – Discussion on energy baselines, cost avoidance, energy team, overcoming challenges, next steps.

T2: Designing Social Media Campaign for Sustainability – Discussion on designing a social media campaign to combat consumerism with a specific call to action (specific audiences).

T3: Critical Sustainability Education: The Case for the Alternative Campus Tour – Discussion motivated by a variety of objectives, including student recruitment/retention, often curated with ‘official’ narratives to reinforce institutional self-image and brand. Through a critical pedagogy lens in service of the broader project of critical sustainability education, tours are examined.

T4: Psycho-Spirituality and Sustainability Management with a Focus on Changing Climate – Discussion on spiritual intelligence and belief systems instrumental in framing the psychological subset of attitudes across cultures, which subsequently determine how sustainability management in society takes place may come through mindfulness, behavioural restraint and positive existential transcendence in order to help manage the earth’s sustainability. Also subconsciously control of materialistic urges leading to ecologically unsustainable growth on one hand and developing positive motivations and emotions towards changing climatic scenario on the other.

Day 2 | October 17, 2019 Plenary Session

7 K1: Keynote: Gregory Cajete – The sense of community: the non-monetary value exchange of care, knowledge, support, perception of belonging and supporting a sense of identity is what Indigenous people heavily use. Indigenous people are like the miner’s canary when cultures and languages disappear; this reflects a profound sickness in our ecology. In NA, climate change has drastically affected indigenous peoples’ hunting, economic infrastructure, water and housing availability, forest and agriculture resources, even their health and well-being. Traditional knowledge is important. Key learning – Point of purchase will equal the point of the problem.

K1: Keynote: Ersilia Serafini – Ersilia, President and CEO of Summerhill Group recommends to take opportunities, whether it be through volunteering, internships, instead of trying so hard to climb that corporate ladder. If you want to promote sustainable behaviour to customers/society, you can’t shame them, guilt them, or force changes. The solution is to incentivize them, trigger their personal needs such as money, discounts, an exchange for something better, because at the end of the day, even if they want to be sustainable/environmentally friendly, they need an incentive. Key learning – to lessen environmental impacts gather an enthusiastic, driven team.

Concurrent Panel Sessions (11:00)

P1: Consuming Sustainability – Discussion on importance of women in the political discussions of food choices, eat meat ethically; local food, green consumerism, social movements needed.

P2: Sustainability Reporting – Trends, Best Practices and New Directions – Discussion on BMO

investments/operational sustainability, Maple Leaf Foods CSR Strategies, reporting disclosures.
P3: Whose Water Is It? Panel Discussion on Nestlé's Water Extraction in Ontario – Discussion on province approves water extraction permits, residents continue to speak, use scientific data.
P4: Sustainability and IT – Discussion on Compugen's Green 4 Good corporate program, HP cartridge/plastics recycling, Cisco helping with social issues, Microsoft's refurbished computers.
P5: Small Scale Mining and SGD's in Sub-Saharan Africa – Discussion if properly supported, the sector may alleviate significant poverty and catalyze economic development region-wide.

Concurrent Sessions (14:00)

CA1: Advancing Sustainable Procurement – Discussion on integration of sustainability into making business services/processes (using circular economy), leads to better decision making.
CA2: Sustainability Reporting – Discussion on study showed Turkey needs to do more, science-based targets, reporting starts with investors, it moves down to retailers and brand processors.
CA3: Sustainability and the Sacred – Discussion on sustainability is integrated into all aspects of life, we can learn a lot from animal behaviours, most religions encourage nature stewardship.
CA4: Some Thoughts about Sustainability – Discussion on how slow humanity is on solutions, education is key, it's a quagmire, reaching tipping point, mass scale change needed, ecolocalism.
CA5: Sustainability Across Sectors – Discussion on preserving habitats and species for present and future generations, carbon offsets, OBERLAND agriscience, healthcare medical waste audit.
CA6: Workshop: Is Corporate Sustainability Broken? If it is, then how did we get here? – Discussion on policy regulations, government, corporate values, need for informed consumers.
CA7: Workshop: Carbon Pricing Across Canada – Discussion on ClearBlue markets, Ontario, EU Emissions trade system, Corsia aviation market, shipping next, Canada, Quebec/CA market.
CA8: Workshop: The People Behind the Product: Why Women are Key to a Food Secure Tomorrow – Discussion on lack of knowledge consumers have on where their food comes from.

Poster Presentation Viewing, Industry Display (15:30) Posters

Plenary Session (17:45) K2: Keynote: Dr. David Suzuki (LIVE via webcast). The Challenge of the 21st Century: Setting the Bottom Line in the Anthropocene

He reminded us with great power comes great responsibility but unfortunately for us and the species of the earth we do not know how to yield our power responsibly. Human activity is the primary cause of the ongoing mass extinction and degradation of the biosphere. The government is controlling the environmental industry. The legal systems are against nature currently. The biggest thing young people can do is educate themselves and then vote. Key learning - Five things that we as humans need to change immediately are:

1. Get environmental damaging activities under control to restore and protect the integrity of earth systems
2. Manage resources crucial to human welfare more critically
3. Stabilize the population
4. Reduce and eventually eliminate poverty
5. Ensure gender equality and give women control over reproduction

Day 3 | October 18, 2019 Plenary Session

K1: Keynote: Scott Frickel – Scott is a Professor of Sociology at the Institute for the Study of Environment and Society. A growing feature of his current research involves developing new approaches/theories to identify and measure socio-environmental change given the interplay of urban demography, industrialization and risk management (which is poorly understood). There is a relentless amount of increasing industrial land across both urban and residential areas thus Scott's interest in the transformation of urban soils. Key learning – we know that as increasing flooding occurs with climate change, there is renewed risk of contaminated movement in developing properties and that the legacy contaminants can be re-exposed, posing more risk.

K1: John Cartwright, President of the Toronto & York Region Labour Council, has led numerous campaigns for social, economic and climate justice. John noted what happens in workplaces contributes largely to greenhouse gas emissions. Yet, current thinking mainly focuses on large industrial emitters. There are many examples of dramatic workplace improvements around energy use, waste reduction and product substitution to lesson toxics in the workplace. There is a lot more to do to adopt net-zero goals and fair and equitable work spaces. Key learning – innovative research and the teaching of best practices, in collaboration with community colleges, and universities, could drive new levels of sustainability in every sector of the economy.

Concurrent Sessions (11:00)

CA1: Panel: Connecting Spirituality and Sustainability – Discussion on the Pope's encyclical, stewardship, our working together to decrease consumerism and emissions, sustainable change.

CA2: Moving Toward More Sustainable Cities through Transdisciplinary Perspectives – Discussion on timber as a sustainable building material, rapid urbanization, water management.

CA3: Eating Green: The Role of Institutions at Multiple Scales – Discussion on food charters, farmer tax credit for donating excess food to food banks, universities/meal plans/local food.

CA4: Far Right Opposition to Environmentalism – Discussion on right-wing populist movement impacts on sustainable policy, self-identity impact on environmentalism, social responsibility.

CA5: Economic Perspectives of Sustainability – Discussion on setting up of new media natural resource intensive oligopolies, greenwashing, industrial symbiosis, Lake Chad's resources.

CA6: Sustainability in Urban Areas – Discussion on peri-urban areas, water management, high rise developments, Sustainable Neighbourhood Action Plans, air quality issues in urban areas.

CA7: Migration, Diversity, and Justice in Sustainable Organizations – Discussion on newcomers discussion forums, reward management of int'l non-government agencies, China's hukou issues.

Concurrent Sessions (13:30)

CB1: Carbon Emissions and Trading Schemes – Discussion on emerging trends, factors in China forestry participation in carbon emission trading, waiting to see approach, Nigeria cook stoves.

CB2: Moving Toward More Sustainable Cities through Transdisciplinary Perspectives – Discussion on community garden land, energy efficiency, greater populations, circular economy.

CB3: Eating Green: Growing a Culture of Sustainable Food – Discussion on plant-based diets, holistic lens, balance, healthy diet, sustainable local food systems, fewer farmers, food guides, consumer education, sustainable parameters, Indigenous theory and ontology, systems thinking.

CB4: Floods, Storms, and Sustainable Management of Water – Discussion on yearly flooding of Ucayali River, droughts, food shortages/coping strategies, hurricane Erika, global water crisis.

CB5: Multiple Dimensions of Global Warming and Sustainability – Discussion on sustainability in the macrocosm, same of microcosm first; Phnom Kulen forests, populations, Anthropocene.
CB6: Sustainable Land Use and Food Systems – Discussion on factors that lead to land cover change, urbanization grows as families access housing, education, lifecycle assessment on farms.
CB7: Diverse Perspectives on Sustainability – Discussion on transdisciplinary collaboration research, road network datasets, Lake Chad soft power, Vietnam economies from wetland parks.

Concurrent Sessions (15:30)

CC1: Humanizing Sustainability: What Can Environmental Humanities Bring to Sustainability Thinking? – Discussion on storytelling, corporate messages not questioned. Sustainability strategies successful only if culture of people it affects, is understood, tailor to community.
CC2: Sustainability and Critical Disaster Studies – Discussion on disaster scientists concerned that they can't define what they're studying, try to find objective definition for subjective topic; hurricane Maria reflects our growing dependency on infrastructure in the technosphere; socially produced disaster vulnerability. Creating sustainability falls on the people who can't afford it.
CC3: Technology, Business, and Sustainability – Discussion on mapping use of energy in homes, Turkey study on sustainability, workplace staff experiences, disaster resiliency efforts.
CC4: Circular Economy or Circular Logic?: Revisiting the Links Between the Economy and the Environment – Discussion on Amazon, consumer approach- ecological viability, circular futures.
CC5: Advancements in Climate Change Law and Policy – Discussion on solar energy policy in Ghana, transition of the urban freight industry in Canada to a low-carbon economy; transfer of clean energy technologies in the Post-Paris international economy; carbon trading mechanisms.
CC6: Workshop: AIESEC – Facilitated by: Mia Nguyen and Wai Chung Lam. AIESEC is the world's largest youth organization creating project opportunities for university students toward the Sustainable Development Goals. Mia's project was in the Philippines focused on financial illiteracy for Filipina mothers and grandmothers who were in a microfinance programme. Wai developed marketing strategies to help an NGO in Brazil promote their community services.

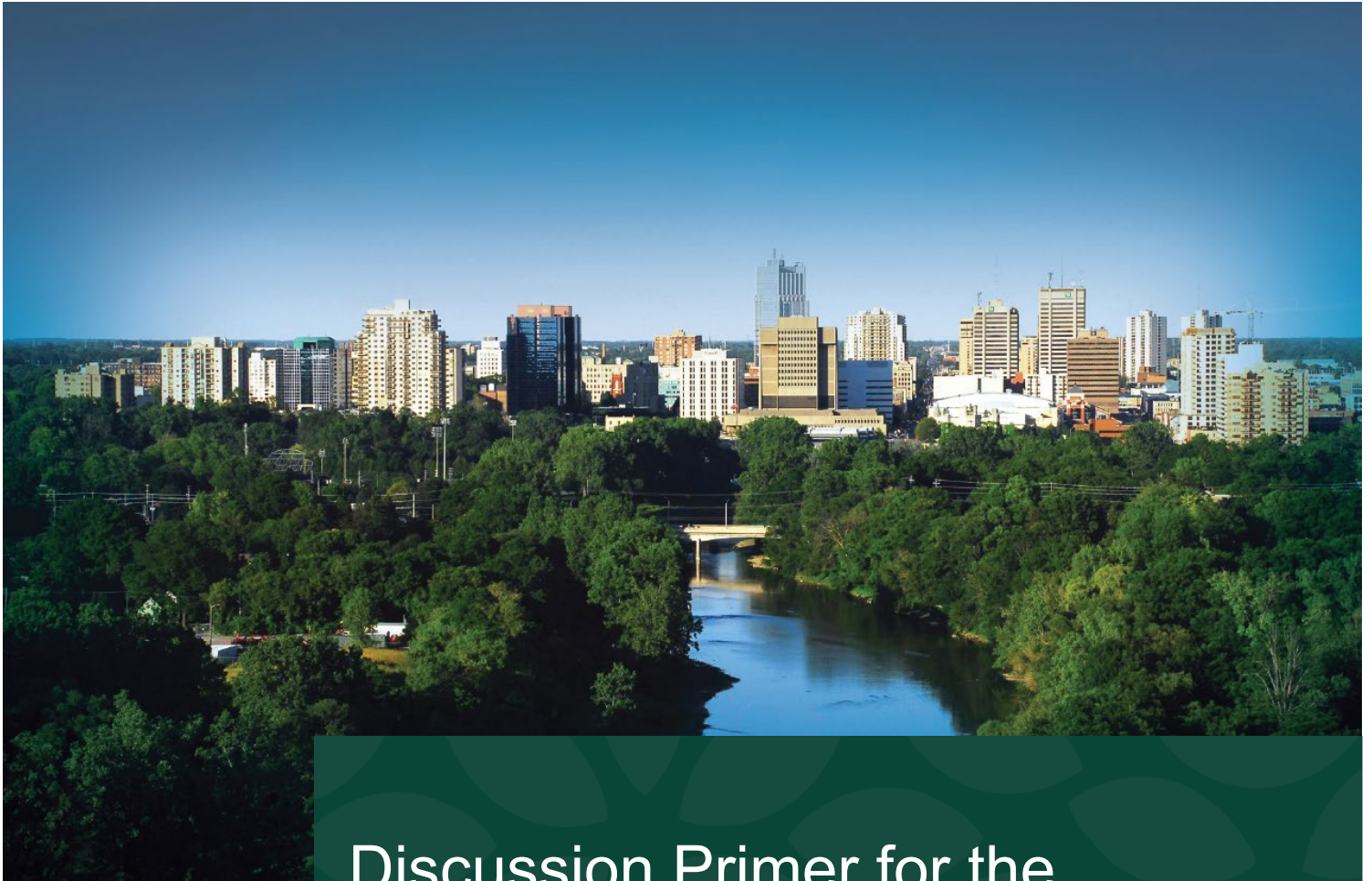
ACE Response to London's Green Bin Program

ACE is highly supportive of the City's move to implement a residential organics collection program as part of the 60% Diversion Action Plan.

ACE values that such a program will have the greatest impact on diverting residential waste from landfill. Organic waste makes up over 40% of residential waste.

ACE appreciates that the City has researched and benefited from experiences of other municipal programs. Such knowledge enables the City to implement strategies that have proven successful. For example, bi-weekly garbage pickup has been proven to increase participation in Green Bin programs.

Lastly, ACE encourages the City to move rapidly with this program, acknowledging that the COVID-19 pandemic has caused delays. As one of the last major municipalities of its size in Ontario to implement a municipal organics collection, London is overdue.



Discussion Primer for the Climate Emergency Action Plan- 2020

Outline of the Discussion Primer (5 Pages plus appendices)

- Background on London's Climate Emergency Action Plan
- Climate Emergency Declaration
- The London Plan – Planning for a Green and Healthy City
- Action Required – How You Can Help
- Appendix 'A' – Part A - What your Organization Does and/or Can Do
- Appendix 'B' – Part B - Development of the Climate Emergency Action Plan including a Focus on Actions for the City of London
- Appendix 'C' – Climate Emergency Action Plan Actions for Discussion

ACTION REQUIRED

Complete Part A - Let us know what actions your organization has already planned to address the Climate Emergency (e.g., climate change mitigation or adaptation plans, sustainability plans, resiliency plans, environmental plans). This includes letting us know if there are any new ideas your organization would be interested in exploring with the City of London and other partners to address the Climate Emergency

Complete Part B - Provide ideas, comments and where your organization can assist in the delivery of actions as part of a Climate Emergency Action Plan

Background on London's Climate Emergency Action Plan

The City of London has been leading and/or collaborating on three major initiatives dealing with increasing energy efficiency, reducing greenhouse gas (GHG) generation and addressing climate change for over 20 years. Recent activities and actions are summarized in the 2014-2018 Community Energy Action Plan, the 2019-2023 Corporate Energy Conservation and Demand Management Plan (and its predecessor covering 2014-2018) and a series of actions addressing climate change adaptation that included the completion of the 2014 Vulnerability Assessment, delivery of the "Flooding Matters Program" from 2015-2018 and others. Addressing climate change is also a key component of London's Official Plan, the London Plan, as is discussed further in this document.

In addition to the City of London and its many agencies, boards & commissions, businesses, institutions, community organizations and members of the community in London have also taken action and assumed a leadership role with respect to climate change. For example, the expertise, knowledge and actions from London Hydro, Enbridge, Upper Thames River Conservation Authority, London District Energy and large energy stakeholders such as Western University, London Health Sciences Centre, Labatt, 3M, Green Economy London, and many others has been very evident. Similarly, numerous community stakeholders provide expertise as individuals through organizations like London Community Foundation, London Environmental Network, Urban League of London, London Cycle Link, Thames Region Ecological Association, Friends of Urban Agriculture, Urban Roots London, etc.

London's strength has also benefited from relationships and partnerships with the Ontario and Federal Government, Association of Municipalities of Ontario (AMO), Federation of Canadian Municipalities (FCM), Quality Urban Energy Systems of Tomorrow (QUEST), Clean Air Partnership (CAP), CDP Cities and the Global Covenant of Mayors for Climate & Energy.

On April 24, 2019, the Declaration of a Climate Emergency was approved by London's City Council "for the purposes of naming, framing, and deepening our commitment to protecting our economy, our ecosystems, and our community from climate change". As of May 2020, London is one of over 1,700 jurisdictions in 30 countries to recognize and declare a climate emergency.

On November 26, 2019 Council received staff's report for further actions to be taken in respect to the City's Climate Emergency Declaration and the next steps to further reduce energy use and increase climate change mitigation and adaptation actions during the next twelve months. These items included establishing a process to create a Climate Emergency Action Plan (CEAP). Council directed that consultation be held with stakeholders, partners, potential partners and citizens of London.

The City of London is working towards a new long-range GHG emissions reduction goal of net-zero GHG emissions in London by the year 2050. Net-zero emissions means that any remaining human-caused GHG emissions from London will need to be removed from the atmosphere by natural means or by technology. This target of net-zero GHG emissions will apply for both municipal operations and the community as a whole to mitigate and adapt to climate change. The City of London will also review its current medium-term goal to be 37 percent below 1990 GHG emissions levels by 2030.

In order to meet the 2050 target of net-zero GHG emissions, changes will be required in all sectors of London and will require significant cooperation and action from everyone. The Corporation of the City of London has direct control over only approximately four (4) percent of London's community GHG emissions (i.e., methane emissions from the W12A landfill, fossil fuel use by municipal operations, etc.). Decisions made by City Council regarding land use and transportation can potentially influence approximately 70 percent of London's community GHG emissions, but the ultimate responsibility for those emissions rests with others. For instance, the combined GHG emissions from personal vehicle use and residential energy use accounts for half of the London's local GHG emissions, and commercial buildings energy use and industrial emissions combine for roughly another quarter.

The City is committed to doing its part and working collaboratively to find the best ways to help others do their part. The CEAP is intended to be a long-term (30 year) roadmap with appropriate milestone dates for the City, businesses, institutions, other organizations and individuals to work together towards our collective goal of net-zero GHG emissions by 2050. In addition to addressing how to reduce GHG emissions, the CEAP will also identify strategies and actions that should be adopted and undertaken to improve London's physical and social resilience to withstand the impacts from our changing climate.

Considering the long time horizon that the CEAP addresses, regular periodic updates of the plan (e.g., every 4 to 5 years) will be required to ensure that it remains applicable and current as technologies, attitudes, priorities of provincial and federal governments and environmental conditions change over the next 30 years.

Climate Emergency Declaration

On April 24, 2019, the following Declaration of a Climate Emergency was approved by Municipal Council:

"Whereas climate change is currently contributing to billions of dollars in property and infrastructure damage worldwide, stressing local and international economies;

Whereas climate change is currently jeopardizing the health and survival of many species and other natural environments worldwide, stressing local and international eco systems;

Whereas climate change is currently harming human populations through rising sea levels and other extraordinary phenomena like intense wildfires worldwide, stressing local and international communities;

Whereas recent international research has indicated a need for massive reduction in carbon emissions in the next 11 years to avoid further and devastating economic, ecological, and societal loss;

Whereas the climate in Canada is warming at twice the rate of the rest of the world, as per Canada's Changing Climate report;

Whereas current initiatives such as the greening of the city's fleet and energy reduction initiatives are not sufficient to meet the targets as defined by the IPCC scientists,

Whereas an emergency can be defined as "an often dangerous situation requiring immediate action";

Whereas municipalities such as Kingston, Vancouver and Hamilton have already declared climate emergencies;

Therefore, a climate emergency BE DECLARED by the City of London for the purposes of naming, framing, and deepening our commitment to protecting our economy, our eco systems, and our community from climate change."

The London Plan – A Green and Healthy City

The London Plan, London's Official Plan, incorporates community energy planning principles within the Green and Healthy City section of City Building Policies, including but not limited to:

- 719_ Green economic sectors and job clusters will be identified and the role that the City may play in facilitating employment growth in the green economy will be explored.
- 722_ Incentives may be used to encourage the regeneration of urban business areas and to support green business practices throughout the city.
- 724_ Green mobility will be promoted by establishing a city structure that supports rapid transit, transit-oriented design, active mobility, transportation demand management, intensification, and cycling infrastructure throughout the city.
- 725_ The City will explore opportunities for collaborative efforts with the development community to achieve excellence in green development.
- 728_ Green development standards will be promoted. The City may establish its own green standards. Low impact development approaches will be used for municipal infrastructure.
- 729_ Wherever possible, new developments will be planned to be “future ready” to accommodate the future use of solar energy, electric vehicles, and (where applicable) district energy systems. Standards may be developed to require that neighbourhoods or individual buildings are developed to meet specific sustainability measures or standards.
- 731_ Bonus zoning may be applied, in conformity with the Bonus Zoning policies in the Our Tools part of this Plan, in favour of incorporating sustainable development forms, technologies and techniques.
- 732_ Financial tools will be explored to promote improvements to the environmental performance of existing buildings through retrofits. Such incentives may include local improvement charges applied by the City to assist private property owners to undertake sustainable improvements to their property.
- 738_ District energy facilities and infrastructure, including expansion of existing district energy systems, will be encouraged for larger-scale redevelopment opportunities within the Primary Transit Area and Industrial Place Types.
- 740_ Opportunities for ground-sourced thermal energy use are encouraged in an effort to reduce overall energy production costs for redevelopment initiatives, including coordinated efforts to retrofit areas of urban neighbourhoods.
- 741_ The City of London will move toward a full fleet of energy-efficient cars and the most efficient medium- and heavy-duty vehicles practical and affordable, including appropriate employee education and training programs, in an effort to reduce the City's carbon footprint, and will encourage other local fleet operators to do the same.
- 1258_ The Waste Management Resource Recovery Area Place Type may permit the following, in conformity with the policies of this Plan: 1. Landfills. 2. Related uses necessary to the function, operation and education of all aspects of waste reduction, re-use, recycling, management, resource recovery, treatment and waste disposal. 3. Eco-Industrial Parks where industries are involved in the processing, fabricating, or manufacturing of products using materials available from the Waste Management Resource Recovery Area, including alternative energy sources.

Action Required – How You Can Help

There are two actions that we would like you to take:

Complete Part A - What your Organization Does and/or Can Do

Let us know what your organization has done or what you are going to do in the future to adapt to the impacts from climate change, reduce GHG emissions and/or become more sustainable and resilient (e.g., climate change mitigation or adaptation plans, sustainability plans, resiliency plans, environmental plans). What barriers are there to taking your climate actions? What can the City of London do to assist you in taking your climate actions? This includes letting us know if there are any new ideas your organization would be interested in exploring with the City of London and other partners to address the Climate Emergency.

Complete Part B - Development of the Climate Emergency Action Plan including a Focus on Actions for the City of London

Provide ideas and comments on the proposed actions provided in Appendix C, including where your organization can assist in the delivery of these actions as part of a Climate Emergency Action Plan. Can your organization lead or co-lead any of these actions? What actions can be added to this list and undertaken by others?

Options for Providing Input for Inclusion in the Draft CEAP

1. Complete Part A and/or Part B forms and send us your response by email.
2. Send a response that meets the needs of your organization and ties back to the Discussion Primer (e.g., a Letter or Statement of Support, a Letter of Commitment, a Statement from your organization outlining what it is planning to do in the near future, etc.).
3. Send reference to an existing, publicly-available document or website that outlines actions that have been taken, progress on new initiatives, and those under consideration by your organization (e.g., your company's sustainability reporting).
4. Send us a paragraph or two from your organization that could be included within the draft CEAP.
5. Request an on-line meeting (e.g., Zoom, Microsoft Teams, etc.) or conference call to ask questions and dialogue with project team members before selecting one or more of the above actions.

We would like to hear back from you by no later than January 15, 2021.

For more information, or to discuss this further, please contact any of the following team members via ClimateAction@london.ca, or directly via:

Mike Fabro
Manager - Sustainability and Resiliency
City of London, City Planning
519-661-2489 ext. 2106
mfabro@london.ca

Craig Smith
Senior Planner- Sustainability and Resiliency
City of London, City Planning
519-661-2489 ext. 4468
crsmith@london.ca

Jamie Skimming
Manager, Community Energy Initiatives
City of London, Environmental Programs
519-661-2489 ext. 5204
jskimmin@london.ca

Patrick Donnelly
Manager, Watershed Programs
City of London, Environmental Programs
519-661-2489 ext. 0418
pdonnelly@london.ca

Gregg Barrett
Director, City Planning and Acting City Planner
City of London, City Planning
519-661-2489 ext. 4652
gbarrett@london.ca

Jay Stanford
Director, Environment, Fleet and Solid Waste
City of London, Environmental and
Engineering Services
519-661-2489 ext. 5411
jstanfor@london.ca

There are a number of other City contacts that are also available including staff from Roads & Transportation, Planning, Building, Neighbourhoods and Investment & Partnerships.

Appendix A: Part A – What your Organization Does and/or Can Do

There have been numerous actions taken by individuals and organizations across London to adapt to the changing climate and reduce GHG emissions. In many cases, these actions are simply in line with good business practices (e.g., reducing costs). In other cases, organizations and businesses have taken actions to support community initiatives, employee relationships, etc. The City is interested in capturing examples of these actions as well as getting a better understanding of the plans or directions already in place at your organization. As a city, London is not just starting on the road to address the climate emergency, so it is important to acknowledge the strong efforts that have been completed and are ongoing to properly inform our CEAP.

Question	What has your organization done, and/or what are you planning to do in the future to adapt to the impacts from climate change (e.g., intense rainfall, high winds or tornados, extreme heat, drought, ice storms)?
Answer	As an advisory committee established by the City, we understand our role on ACE is not so much to DO as it is to provide information and citizen perspectives based on research and personal action carried out by individual members of the committee. That said, there have been a number of initiatives and ideas advanced by ACE that have taken up by the City, not the least of which was the original Climate Emergency Declaration for the City of

Question	What has your organization done, and/or what are you planning to do in the future to reduce GHG emissions (e.g., building energy efficiency & conservation, fleet greening, renewable energy, etc.)?
Answer	ACE endorses and stands ready to assist city council in aligning its priorities and plans with Canada's commitment to the UN Sustainable Development Goals (or SDGs). The SDGs and the Federal Sustainable Development Strategy is the blueprint to achieve a better and more sustainable future for all. They address the global challenges we face, including those related to poverty, inequality, climate change, environmental degradation, peace and justice.

Question	What barriers are there to taking your climate mitigation, adaptation, resiliency, sustainability actions?
Answer	Considering that the top two sources of GHG emissions in London are tied to lifestyle (housing and personal transportation), significant changes in the mindset and behaviour of residents will be required to make a difference. The City has a key leadership role to play and powerful policy and legislative tools it can use to exhort, cajole, compel and incent change. The City is also in a unique position to convene stakeholders on an ongoing basis to develop a common understanding, language and commitment to TAKE ACTION on climate change.

Question	What can the City of London do to assist you in taking these your Climate Emergency Plan actions? This includes letting us know if there are any new ideas your organization would be interested in exploring with the City of London and other partners to address the Climate Emergency (e.g., joint procurement, carpool coordination, etc.).
Answer	The City of London can provide PACE/LIC financing solutions (e.g. integrated CoVid recovery planning, loan loss guarantee reserve funding, one-window financing solutions, support for a 3rd party service provider, capacity building & awareness campaigning etc.) to support inclusive, equitable climate change, sustainability and resiliency solutions for a wide variety of Londoners.

Appendix B: Part B – Development of the Climate Emergency Action Plan including a Focus on Actions for the City of London

The City is requesting that you and your organization review the list of potential actions and supporting actions for inclusion in the CEAP that has been provided in *Appendix C – Climate Emergency Action Plan Actions for Discussion*. Categorized actions with supporting actions have been collected to start discussions around how best to move London toward the goal of net-zero GHG emissions and improved resiliency from climate change.

The actions have been organized into the following pillars, which are borrowed and slightly modified from the extensive community engagement efforts undertaken to inform London’s Official Plan update starting in 2013. The Climate Emergency impacts most parts of life in London, so these categories are meant to be helpful for organizing our thinking during CEAP development:

How We Live	Helping Londoners respond to and prepare for climate change at home
How We Green	Building a greener city by protecting and increasing natural resources in the built and natural environment
How We Move	Supporting low/no emission transportation choices and a transportation network that makes London easy to get around through active transportation and transit and is connected to the region
How We Grow	Ensuring London becomes a mixed-use compact city using green development and redevelopment standards and incentives
How We Prosper	Ensuring a City that is prosperous, innovative and climate change resilient

The City is looking for feedback on:

- The perceived importance or significance of actions and supporting actions (e.g., how significant are these actions to your organization?)
- Supporting actions within the pillars that your organization can play a role in. Proposed roles taken on any of the supporting actions could be one of leadership, co-leadership, partnership or support.
- Other actions and/or supporting actions that your organization or others could support that would strengthen the CEAP.

For quick reference and a high-level summary, the actions provided for discussion are listed here and are further described along with their supporting action details in *Appendix C – Climate Emergency Action Plan Actions for Discussion*.

How We Live: Helping Londoners respond to and prepare for climate change at home

No.	Action
1	Provide ongoing education and engagement on the necessity for community-wide action on the climate emergency.
2	Support and facilitate energy conservation, energy efficiency, renewable energy, and major energy retrofits of residential buildings.
3	Support and develop collaborative approaches to end energy poverty.
4	Support and encourage resource and waste management initiatives for London households.
5	Support and encourage urban agriculture and strengthen local food systems.
6	Assess and establish strategy to improve residential neighbourhood climate resilience.
7	Work with the Middlesex London Health Unit to improve human health resilience to climate change impacts.

How We Green: Building a greener city by protecting and increasing natural resources in the built and natural environment

No.	Action
1	Enhance the natural heritage system's resiliency in urban areas.
2	Enhance the natural heritage system's resiliency in rural areas.
3	Develop a land use carbon sequestration study with targets for conserving and managing natural and agricultural lands to retain and absorb greenhouse gases.
4	Advance the urban forest strategy including exploring reforestation of under-utilized agricultural land within London.
5	Collaborate with First Nations to ecologically restore lands.
6	Advance and enhance current efforts to improve the Thames River watershed health and resiliency.

How We Move: Supporting low/no emission transportation choices and a transportation network that makes London easy to get around through active transportation and transit and is connected to the region.

No.	Action
1	Accelerate the expansion and improvement of active transportation infrastructure.
2	Expand and improve public transit service, including higher-order transit.
3	Encourage and incent increased active transportation, public transit use & transportation demand management.
4	Reduce freight traffic load on secondary and tertiary roads.
5	Advocate for higher frequency and reliable regional transportation services and connections.
6	Encourage and support zero emissions vehicle and electric bicycle (e-bike) adoption.
7	Continue to improve resilience of transportation infrastructure.

How We Grow: Ensuring London becomes a mixed-use compact city using green development and redevelopment standards and incentives

No.	Action
1	Ensure new developments embody complete community attributes such as different forms of housing, opportunities for work and shopping, links to transportation, and green space.
2	Encourage and incentivize climate-friendly, sustainable new development and redevelopment.
3	Ensure long-term growth planning addresses the need for urgent climate change mitigation and adaptation to address the Climate Emergency.
4	Ensure new development is energy-wise & future-ready.
5	Ensure new development is climate emergency resilient.

How We Prosper: Ensuring a City that is prosperous, innovative and climate change resilient

No.	Action
1	Increase and encourage the installation of distributed renewable energy assets.
2	Improve City preparedness for dealing with extreme climate events.
3	Implement policies to improve data collection and use for improved climate monitoring, emergency response and optimization of electricity generation and distribution.
4	Advance more sustainable farming practices and increased local product consumption.
5	Continue to work with business community partners to advance sustainable business practices.
6	Work with the private sector to identify opportunities to leverage City assets and/or funds to activate private capital for climate action in the public and private sector.
7	Support and encourage resource and waste management initiatives for London businesses.

The following pages provide space to comment on each of the actions within the pillars and also provide room for additional actions and/or supporting actions to be added.

How We Live: Helping Londoners respond to and prepare for climate change at home

No.	Action			
1	Provide ongoing education and engagement on the necessity for community-wide action on the climate emergency			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input type="checkbox"/>	Important <input type="checkbox"/>	Very Important <input checked="" type="checkbox"/>
How can you support this?	The London Poverty Research Centre and the London Environmental Network, with logistical support from Western University, have partnered on pilot project titled "Developing Inclusive Green Economies through Property Assessed Clean Energy Incentives (PACE)". The pilot project includes the development of an online educational resource directory to educate Londoners about available programs and ideas related to home energy efficiency and conservation. This web resource is hosted by LEN. https://www.londonenvironment.net/home_retrofits			
2	Support and facilitate energy conservation, energy efficiency, renewable energy, and major energy retrofits of residential buildings			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input type="checkbox"/>	Important <input type="checkbox"/>	Very Important <input checked="" type="checkbox"/>
How can you support this?	Action Type: Pilot Study ACE committee member Dr. Brennan Vogel (& research team collaborators from the community) are currently investigating policy and program design features to support inclusive green building retrofits. One portion of this pilot project is focusing on Property Assessed Clean Energy (PACE or LIC) financing to provide accessible and inclusive financing to support residential energy efficiency and renewable energy retrofits at the			
3	Support and develop collaborative approaches to end energy poverty			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input type="checkbox"/>	Important <input type="checkbox"/>	Very Important <input checked="" type="checkbox"/>
How can you support this?	Action Type: Pilot Study This pilot study also focuses on the implementation of PACE programs to help to reduce energy poverty. The study aims to determine options and best practices for the policy and program designs that will allow targeted PACE programs to increase opportunities for low-income households and social housing projects to improve energy efficiency and lower energy costs, while improving energy savings and lowering GHG emissions. For more information: https://institute.smartprosperity.ca/			
4	Support and encourage resource and waste management initiatives for London households			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input type="checkbox"/>	Important <input type="checkbox"/>	Very Important <input checked="" type="checkbox"/>
How can you support this?	Collaborate with community organizations like Thames Regional Ecological Association (TREA) and Reimagine Co to help Londoners to live more sustainable and connected lives, through workshops, demonstrations, experiments and shared learning (1)(2). (1). Thames Regional Ecological Association, (TREA). (2021). https://www.trea.ca/how-to-workshops-2/ (2). Reimagine Co. (2021). https://reimagineco.ca/pages/about-us			

5	Support and encourage urban agriculture and strengthen local food systems			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input type="checkbox"/>	Important <input checked="" type="checkbox"/>	Very Important <input type="checkbox"/>
How can you support this?	<p>Educate and encourage Londoner's to make meals more climate-friendly; to reduce meat consumption, to purchase only sustainably caught fish, to use organic and local produce, to compost, to establish and grow vegetable gardens and community gardens, and to plant native species. The City of London's Urban Agriculture Steering Committee (UASC) can collaborate with groups like Friends of Urban Agriculture, Middlesex London Food Policy Council, Forage City London, TREA and many more community organizations.</p>			
6	Assess and establish strategy to improve residential neighbourhood climate resilience			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input type="checkbox"/>	Important <input checked="" type="checkbox"/>	Very Important <input type="checkbox"/>
How can you support this?	<p>Partner with Climate Action London and Reforest London to encourage the increased naturalization of neighbourhoods, such as the planting of more trees and pollinator gardens. The ability of trees and gardens to absorb water leads to greater flood resilience and the shading qualities of trees adds to reduced urban heat island effect during the summer. Support the Pollinator Pathways Project to create gardens across the city to allow pollinators easy movement and sanctuary, as well as to provide everyone with the resources and knowledge to create their own gardens.</p>			
7	Work with the Middlesex London Health Unit to improve human health resilience to climate change impacts			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input checked="" type="checkbox"/>	Important <input type="checkbox"/>	Very Important <input type="checkbox"/>
How can you support this?	<p>The city can support the Middlesex London Health Unit by educating residents about their personal protection against air borne pathogens like the West Nile Virus, Eastern Equine Encephalitis (EEE) and other mosquito-borne viruses and the things that residents can do to prevent mosquitoes bites.</p> <p>Government of Canada. (2016, April 8). Prevention of West Nile virus. Retrieved from https://www.canada.ca/en/public-health/services/diseases/west-nile-virus/prevention-west-nile-virus.html</p>			

Are there any additional actions that you think would strengthen the CEAP related to the “How We Live” pillar? If so, please provide your input here:

ACE encourages the City to take an integrated and strategic approach for considering the long-term resilience investment potential for the solutions proposed through the LCRN work with the development and rollout of London’s CEAP priorities.

Municipalities can enable the flow of private capital for PACE program rollouts through the issuance of green bonds for private equity investors - attracted by municipal loan loss guarantees and long-term returns on retrofit paybacks affixed to property taxes for commercial building operators and home owners engaged in energy & cost savings and emissions reductions through building retrofitting activities.

PACE financing models offer a proven mechanism for unlocking large amounts of private capital for green retrofitting, as well as potentially supporting a wide range of other sustainability / resilience investments that can bolster the sustainability of the local economy while reducing emissions. In the US, PACE is worth over 8 billion dollars with securitized loans being publicly traded on the stock market in multi-million dollar bundles; yet it hardly even exists in Canada, outside of Toronto, BC and NS at small scales.

A strategic PACE policy/planning approach and working with stakeholders to develop a new green bond investment program to attract private equity stakeholders (such as TechAlliance, Libro Credit Union, the Sifton Foundation etc.) and/or stacking retrofit funding from senior levels of government can enable climate actions for municipal stakeholders.

A broader approach to leveraging PACE opportunities through supporting the development of third party administration and a private capital investment strategy, also offers larger potential for a PACE program to also address a wide range of other community funding needs for sustainability and resiliency (renewable energy, efficiency, resilience, urban ag, forestry etc.). Third party, one-window administrators may offer greater program efficiency and other administration benefits for municipalities.

Building retrofitting is a key solution to deal with environmental issues related to climate change as nearly half of London’s carbon footprint relates to emissions from buildings. More critically, municipal leadership to create and provide financing pathways for inclusive, equitable building retrofitting can help to frame climate actions as broader means to strategically address the deeper social and economic malaise that plagues London (among the highest working age unemployment and poverty rates in Canada).

The municipality can play a pivotal leadership role to support the release of financial capacity for building retrofitting through a targeted effort to develop an inclusive, equitably designed financing strategy to facilitate the implementation of an PACE program that can provide low/no interest loan guarantees for a wide variety of building operators and homeowners to participate in energy efficiency/conservation activities, spurred on through the mobilization of private investment capital for social good.

Yukon has a LIC/PACE program, but it is only used for installing renewable energy, and both BC and Quebec ran LIC/PACE pilot programs without enabling legislation. When comparing between provinces, Alberta’s regulations provide the greatest level of guidance to program administrators, while Nova Scotia simply allows PACE programs, and Ontario falls between the two extremes. To meet the requirements of the Ontario regulations for LIC/PACE loans (O. Reg. 586/06), the applicant must meet the following criteria: (1) The applicant is the homeowner of the property, (2) All property owners consent to participation in the program; and (3) The property is located in the applicable municipality. Since their first introduction in 2008, residential PACE programs have been growing rapidly across the United States (1).

As of May 2018, US residential PACE programs have enabled 220,000 home upgrades, worth a total of over \$5 billion USD. A large portion of these investments, 58%, were for energy efficiency measures, with the remainder being investments in renewable energy.

How We Green: Building a greener city by protecting and increasing natural resources in

No.	Action			
1	Enhance the natural heritage system’s resiliency in urban areas.			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input type="checkbox"/>	Important <input checked="" type="checkbox"/>	Very Important <input type="checkbox"/>
How can you support this?	<p>Improve flood control by providing incentives/mandates for green roofs, rain gardens, and permeable pavement.</p> <p>Green roofs reduce flooding by capturing rainwater to reduce the amount of flow in stormwater systems. They provide cooling that reduces the heat island effect, increase the life of the roofs and increase property value.</p> <p>Green roofs can generate employment, space for food production, reduce air pollution, and support biodiversity.</p> <p>A rain garden is a garden of native shrubs, perennials, and flowers planted in a small depression, which is generally formed on a natural slope. It is designed to temporarily hold and soak in rain water runoff that flows from roofs, driveways, patios or lawns. (1). Building parking lots, driveways and roads using permeable pavement helps to restore natural infiltration functions to the landscape and reduce impacts to watercourses</p>			
2	Enhance the natural heritage system’s resiliency in rural areas.			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input type="checkbox"/>	Important <input type="checkbox"/>	Very Important <input checked="" type="checkbox"/>
How can you support this?	<p>The City must commit to building up, not building out. Put an end to urban sprawl.</p> <p>Zoning policies that limit density can stimulate urban sprawl, which can depress productivity, contribute to local air pollution and encroach on surrounding ecosystems. Removing land use and building regulations that prohibit denser, mixed-use urban development can stimulate markets to make better use of land and increase the supply of housing, reducing costs and enhancing the productivity (1). Partner with local organizations and associations to preserve the City of London’s cultural heritage.</p> <p>(1).Climate Emergency, Urban Opportunity. Coalition for Urban Transitions. (September 19, 2019). https://urbantransitions.ca/blog/publication/climate-emergency-urban-opportunity</p>			
3	Develop a land use carbon sequestration study with targets for conserving and managing natural and agricultural lands to retain and absorb greenhouse gases.			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input type="checkbox"/>	Important <input checked="" type="checkbox"/>	Very Important <input type="checkbox"/>
How can you support this?	<p>This would seem to be a project led by other agencies on which the City would partner.</p> <p>Partner with organizations that help farmers produce ecosystem services on their land. These include cleaner air, cleaner water, flood mitigation, carbon sequestration, species at risk habitat and support for native bees and pollinators. The “Alternative Land Use Services” ALUS Middlesex program aims to help address environmental issues affecting water quality in the Great Lakes, re-establish tallgrass prairie, improve buffer areas, manage wetlands and establish other projects providing ecosystem services such as flood mitigation, carbon sequestration and pollinator support. ALUS Canada supports tens of thousands of acres of wildlife habitat, pollinator meadows, carbon capture, clean air, clean</p>			

4	Advance the urban forest strategy including exploring reforestation of under-utilized agricultural land within London			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input type="checkbox"/>	Important <input checked="" type="checkbox"/>	Very Important <input type="checkbox"/>
How can you support this?	<p>One million species risk extinction within decades. Urban forests can provide wildlife corridors for songbirds. School playgrounds and spaces alongside roads can be local natural forests with native species planted closely together. The young open structure allows sunlight to reach smaller plants and attracts local pollinators, butterflies, snails, and amphibians. Nature based solutions to climate change are an inexpensive way to lock carbon into soil.</p> <p>These Tiny Urban Forests Could be a Secret Weapon Against Climate Change, 1t.org. (2021). https://www.1t.org/resources</p> <p>Partner with the Upper Thames River Conservation Authority, Nature</p>			
5	Collaborate with First Nations to ecologically restore lands.			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input type="checkbox"/>	Important <input type="checkbox"/>	Very Important <input checked="" type="checkbox"/>
How can you support this?	<p>Partner with the Chippewa of the Thames First Nation, the Oneida Nation, and the Munsee-Delaware Nation to share Indigenous knowledge and practices to ecologically restore shared local lands, including local organizations like the Thames River Clear Water Revival (TRCWR). https://www.thamesrevival.ca/</p>			
6	Advance and enhance current efforts to improve the Thames River watershed health and resiliency			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input type="checkbox"/>	Important <input checked="" type="checkbox"/>	Very Important <input type="checkbox"/>
How can you support this?	<p>Important partnership projects.</p> <p>Partner with the Thames River Clear Water Revival (TRCWR) to work with developers, conservation authorities and others to promote and support the use of green infrastructure and Low Impact Development (LID) systems for stormwater management, including clarifying and enhancing policies as well as developing green standards. Ontario's draft stormwater LID guidance manual is aimed at helping proponents implement LID and green infrastructure.</p> <p>The Thames River (Deshkan Ziibi) Shared Waters Approach to Water Quality and Quantity, Thames River Clear Water Revival (TRCWR). (2021). https://www.thamesrevival.ca/wp-content/uploads/2020/05/SharedWaters</p>			

Are there any additional actions that you think would strengthen the CEAP related to the “How We Green” pillar? If so, please provide your input here:

Integrated regional planning to protect local watersheds and adjacent, undeveloped wildlands and agricultural land will be a critical long-term objective to reduce the level of GHG emissions associated with urban sprawl, while simultaneously using and supporting nature-based solutions to support adaptation and co-benefits outcomes.

How We Move: Supporting low/no emission transportation choices and a transportation network that makes London easy to get around through active transportation and transit and is connected to the region.

No.	Action			
1	Accelerate the expansion and improvement of active transportation infrastructure			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input type="checkbox"/>	Important <input type="checkbox"/>	Very Important <input checked="" type="checkbox"/>
How can you support this?	Support the use of green infrastructure and Low Impact Development (LID) systems to expand and improve the City of London's active transportation infrastructure using narrower streets, slimmer sidewalks, smaller cul-de-sacs, shorter driveways, and smaller parking lots. Green infrastructure elements are a fundamental approach to rainwater management that protects, restores, or mimics the natural water cycle while delivering environmental, social, and economic benefits. The installation of secure bike lockers at various locations throughout the city			
2	Expand and improve public transit service, including higher-order transit			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input checked="" type="checkbox"/>	Important <input type="checkbox"/>	Very Important <input type="checkbox"/>
How can you support this?	The City of London is centrally located in Southwestern Ontario along highway 401, an ideal location to establish Hydrogen Fuel Cell technology and infrastructure. The use of hydrogen as an energy carrier has the potential to reduce dependence on petroleum, diversify domestic energy sources, and decrease pollution and greenhouse gas emissions. Newflyer Xcelsior CHARGE H2™ is a battery-electric vehicle that uses compressed hydrogen as an energy source. Fuel cell electric technology is a unique and innovative way to obtain extended range operation similar			
3	Encourage and incent increased active transportation, public transit use & transportation demand management			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input type="checkbox"/>	Important <input type="checkbox"/>	Very Important <input checked="" type="checkbox"/>
How can you support this?	Offer incentives to encourage businesses and individuals to walk, bike, carpool, to use electric buses that replace diesel; add bicycle parking, bike-share with bikes available at the train and bus stations, secure bike parking at destination locations; malls, grocery stores, etc. Encourage active transportation in any form of human-powered transportation, including walking, cycling, travelling on mobility devices, rollerblading, skating, skateboarding, cross-country skiing and more. Reduce the need for cars on the roads; reducing the maintenance required to maintain			
4	Reduce freight traffic load on secondary and tertiary roads			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input checked="" type="checkbox"/>	Important <input type="checkbox"/>	Very Important <input type="checkbox"/>
How can you support this?	Local municipalities with responsibilities for providing the infrastructure that services goods movement transportation hubs are examining their land-use planning and transportation master plans to find ways to better facilitate movement of goods via all modes. Nevertheless, truck transportation remains the main mode of freight transportation used in this region. Road Transportation, Transport Canada			

5	Advocate for higher frequency and reliable regional transportation services and connections			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input type="checkbox"/>	Important <input checked="" type="checkbox"/>	Very Important <input type="checkbox"/>
How can you support this?	<p>Provide incentives for use of electric bicycles, motorcycles, buses and fuel cell vehicles and infrastructure. Study the use of hydrogen as an energy carrier and the potential to reduce reliance on fossil fuels, diversify local energy sources, and decrease pollution and greenhouse gas emissions.</p> <p>Many jurisdictions are beginning to investigate or consider alternative means of financing public infrastructure, including roads and highways, such as tolls, other user charges and public-private partnerships.</p>			
6	Encourage and support zero emissions vehicle and electric bicycle (e-bike) adoption			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input type="checkbox"/>	Important <input checked="" type="checkbox"/>	Very Important <input type="checkbox"/>
How can you support this?	<p>ACE supports the City providing incentives and education to encourage the electrification of personal vehicles. The City could promote this by working with businesses and dealerships.</p> <p>In addition, advancing the electrification of local companies' fleet vehicles would reduce GHG emissions as well as the costs to the businesses.</p>			
7	Continue to improve resilience of transportation infrastructure			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input checked="" type="checkbox"/>	Important <input type="checkbox"/>	Very Important <input type="checkbox"/>
How can you support this?	<p>For affordable, clean and reliable vehicles and infrastructure, replace and expand the current fossil fuel fleet with new, zero-emission buses, along with new charging stations and solar power generation retrofits, leading to a reduction in greenhouse gas emissions.</p> <p>Study the use of wildlife corridors to connect fragmented areas of habitat for isolated animal populations to mix and migrate. Engage farmers, landowners, and gardeners to plant native flowers to benefit bees and butterflies.</p> <p>These Clever 'Wildlife Protecting' Corridors are Protecting Animals, 1t.org.</p>			

Are there any additional actions that you think would strengthen the CEAP related to the “How We Move” pillar? If so, please provide your input here:

While the City of London has Idling Control By-law - PH-15 for the control of idling vehicles, and the preamble includes references that the City of London is supportive of initiatives to reduce emissions that ... contribute to climate change and poor air quality; the bylaw is an underused tool to advance emissions reductions through improved motor vehicle operation habits.

The ACE recommends an evergreen “idle-free | drive smart” education and awareness campaign combined with enforcement of the bylaw in order to link and underscore that idling (and more broadly poor driving habits such as speeding and jack-rabbit starts in the city) contribute to London’s largest source of greenhouse gas emissions: personal vehicles; that the community’s largest energy expense is gasoline, and that London’s fourth largest source of emissions is from freight and fleet vehicles.

As suggested in the 2005 Primer for Canadian Municipalities on Developing and Enforcing Idling Control Bylaws (1), public education and bylaw enforcement work best in tandem in building public understanding and support, and in turn changing behaviours. ACE recognizes that the City may have limited resources for bylaw enforcement. The primer cited below outlines the elements for an effective public education and enforcement strategy.

(1)

<https://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/oeef/pdf/communities-government/transportation/municipal-communities/reports/cracking-down-e.pdf>

How We Grow: Ensuring London becomes a mixed-use compact city using green development and redevelopment standards and incentives

No.	Action			
1	Ensure new developments embody complete community attributes such as different forms of housing, opportunities for work and shopping, links to transportation, and green space.			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input type="checkbox"/>	Important <input checked="" type="checkbox"/>	Very Important <input type="checkbox"/>
How can you support this?	Develop financing tools for credit enhancements and repayment mechanisms like PACE to encourage new construction and development to include passive house, net-zero new building construction and renovations. Passive house is the most inexpensive option based on all reasonable life cycle assumptions and provides specific performance outcomes and benefits. All new developments must preserve existing natural wildlife habitat to protect biodiversity.			
2	Encourage and incentivize climate-friendly, sustainable new development and redevelopment			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input type="checkbox"/>	Important <input checked="" type="checkbox"/>	Very Important <input checked="" type="checkbox"/>
How can you support this?	Promoting and developing inward, upward growth with the enforcement of the London Plan to curb urban sprawl requires encouragement and incentives for re-development and new developments in the municipality.			
3	Ensure long-term growth planning addresses the need for urgent climate change mitigation and adaptation to address the Climate Emergency			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input type="checkbox"/>	Important <input checked="" type="checkbox"/>	Very Important <input checked="" type="checkbox"/>
How can you support this?	Integration of the LCRN recommendations with the CEAP priorities can support long-term growth planning that is climate saavy, sustainable and resilient.			
4	Ensure new development is energy-wise & future-ready			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input type="checkbox"/>	Important <input type="checkbox"/>	Very Important <input checked="" type="checkbox"/>
How can you support this?	Consider climate change and extreme events in long-lived infrastructure investments, including retrofits and upgrades, and investing in traditional and natural infrastructure solutions can help communities build resilience, reduce disaster risks, and save costs over the long term. Moudrak, N.; Feltmate, B. 2019. Weathering the Storm: Developing a Canadian Standard for Flood-Resilient Existing Communities. Prepared for Standards Council of Canada and National Research			

5	Ensure new development is climate emergency resilient			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input type="checkbox"/>	Important <input type="checkbox"/>	Very Important <input checked="" type="checkbox"/>
How can you support this?	Establish policy and financing to encourage green roofs, rooftop and groundmount solar thermal hot water for pools and domestic hot water, including solar thermal with radiant floor heat for space heating, solar wall air heating, rooftop and groundmount solar photovoltaic systems, small wind and industrial size wind turbine systems with appropriate location regulations, geothermal, air source heat pumps, and green infrastructure and Low Impact Development (LID) for private developments. Establish bylaws for all development of new			

Are there any additional actions that you think would strengthen the CEAP related to the “How We Grow” pillar? If so, please provide your input here:

The City of London can send an important policy signal to the construction industry by adopting a green demolition bylaw such as is in use in metro Vancouver (cities of Vancouver, Burnaby and Surrey). The Vancouver bylaw originally targeted homes built before 1940, capturing about 40 per cent of home demolitions, or about 275 each year. The pre-1940 rule requires 75 per cent of the materials be recycled and currently diverts about 10,000 tonnes of waste away from the landfill each year.

The bylaw was updated and came into force January 1 2019 and now extends to homes built pre-1950, which covers about 70 per cent of home demolitions. That is expected to increase the amount of diverted material to 18,000 tonnes a year. In 2020, the Vancouver Economic Commission published a study that delves further into the business case for deconstruction (1). It provides recommendations on how to grow the deconstruction industry beyond contractors to include home recyclers, waste haulers, trades people and others to create a circular value chain related to new home construction and renovation.

(1)
<https://www.vancouvereconomic.com/research/the-business-case-for-deconstruction/>

How We Prosper: Ensuring a City that is prosperous, innovative and climate change resilient

No.	Action			
1	Increase and encourage the installation of distributed renewable energy assets			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input type="checkbox"/>	Important <input checked="" type="checkbox"/>	Very Important <input type="checkbox"/>
How can you support this?	Encourage local distributed renewable energy generation of wind turbines, solar hot water (HW), solar photovoltaic (PV) and battery storage, geothermal, surplus power-to-gas hydrogen generation, Proton Exchange Membrane (PEM) hydrogen fuel cell power generation, and hydrogen fuelling transportation infrastructure. Install solar photovoltaic systems (PV) on all available municipal sites, including building rooftops on city hall, schools, police/fire, community centers, transit depots, carports and other structures. Ground mount solar PV on appropriate			
2	Improve City preparedness for dealing with extreme climate events			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input type="checkbox"/>	Important <input checked="" type="checkbox"/>	Very Important <input type="checkbox"/>
How can you support this?	Building retrofits provide a significant return on investment by energy savings over the life of the building and building systems that greatly exceed their upfront costs through operational savings. When compared to the long-run costs of new energy supplies, energy efficiency and carbon reduction are often far less costly. They increase the quality of our building stock and create more comfortable and healthier homes. They reduce energy costs for residents, create local good quality jobs that aren't vulnerable to outsourcing, result in local economic			
3	Implement policies to improve data collection and use for improved climate monitoring, emergency response and optimization of electricity generation and distribution			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input type="checkbox"/>	Important <input checked="" type="checkbox"/>	Very Important <input type="checkbox"/>
How can you support this?	Smart city systems can assist in making municipal services operate more effectively, provided their uses are focused, with well-understood, and democratically approved, constraints on their consumption of various forms of urban and individual data. Smart cities will be cleaner, accessible, even more democratic, proponents say, but governments adopting new tech must contend with risks, too. John Lorinc, Atkinson Fellow. (January 4, 2021). https://www.thestar.com/news/atkinsonseries/2021/01/04/smart-cities-wil			
4	Advance more sustainable farming practices and increased local product consumption			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input type="checkbox"/>	Important <input checked="" type="checkbox"/>	Very Important <input type="checkbox"/>
How can you support this?	Home gardens are one of the most reliable, efficient and democratic ways of producing food ever invented. Agriculture has repeatedly degraded its natural resource base and collapsed many societies in the past. Modern, industrial agriculture is not suited to these changing times and is liable to increasing breakdown within the next decade (1). The Urban League and member organizations want to help grow neighbourhood connections, and offer packages of vegetable or wildflower seeds to people starting neighbourhood pods (2). Collaborate			

5	Continue to work with business community partners to advance sustainable business practices			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input type="checkbox"/>	Important <input type="checkbox"/>	Very Important <input checked="" type="checkbox"/>
How can you support this?	<p>Significant cost reductions can result from improving operational efficiency through better management of natural resources like water and energy, as well as minimizing waste. Sustainable businesses are redefining the corporate ecosystem by designing models that create value for all stakeholders, including employees, shareholders, supply chains, civil society, and the planet.</p> <p>The Comprehensive Business Case for Sustainability, Tensie Whelan and Cathie Fink (October 24, 2019)</p>			
6	Work with the private sector to identify opportunities to leverage City assets and/or funds to activate private capital for climate action in the public and private sector			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input type="checkbox"/>	Important <input checked="" type="checkbox"/>	Very Important <input checked="" type="checkbox"/>
How can you support this?	<p>Private sector leverage and City integration of the LCRN recommendations with the CEAP priorities can support long-term growth planning that is economically viable, climate saavy, sustainable and resilient.</p>			
7	Support and encourage resource and waste management initiatives for London businesses			
Perceived Significance:	Not Important <input type="checkbox"/>	Somewhat Important <input type="checkbox"/>	Important <input checked="" type="checkbox"/>	Very Important <input type="checkbox"/>
How can you support this?	<p>Implement the city-wide green bin program to collect compost, and the orange bag program to collect difficult to recycle plastics, as soon as possible.</p> <p>Considering the nutrient cycle of all food consumption and ensuring that the mechanisms are in place to transform food waste into soil will ensure the long term productivity of urban lands and reduce demand for landfill space (1).</p> <p>Formal cooperation with Urban Districts to support compost resources for</p>			

Are there any additional actions that you think would strengthen the CEAP related to the “How We Prosper” pillar? If so, please provide your input here:

Ensure affordable, reliable and universal access to modern energy services; increase substantially the share of renewable energy in the energy mix; and double the global rate of improvement in energy efficiency. Renewable energy can supply two-thirds of the total global energy demand, and contribute to the bulk of the greenhouse gas emissions reduction that is needed between now and 2050 for limiting average global surface temperature increase below 2 degrees Celsius. Enabling policy and regulatory frameworks will need to be adjusted to mobilise the six-fold acceleration of renewables growth that is needed, with the highest growth estimated for wind and solar PV technologies, complemented by a high level of energy efficiency (1).

Increasingly, scientists are talking about a global carbon budget; an amount of greenhouse gases that can be emitted over a particular time while still achieving a target. Carbon budgets guide planning by providing clear and readily understandable goals that proceed incrementally towards the final emissions reduction goals. Carbon budgets foster accountability by forcing decision-makers to develop clear plans for progress towards emission reduction goals, allowing for ongoing evaluation of the success or failure of the plans (2).

The total carbon budget between the beginning of 2019 and the end of 2050 for the City of Edmonton is 155 Mtonnes CO₂ equivalent (MtCO₂eq). With a carbon budget superimposed over a city’s projected emissions, the impact of delaying reductions in emissions becomes very clear. This makes a carbon budget a useful tool for encouraging municipal governments, which are often more agile in deploying programs than other levels of government, to act quickly. At the current rate the city will exhaust its carbon budget in 2028 (3).

Toronto's share of global emissions is 0.05% so the emissions-share of the global carbon budget is 260 MtCO₂e and will be exceeded by 2042 (4).

(1). The role of Renewable Energy in the Global Energy Transformation, Science Direct Energy Strategy Reviews. (2019).

[https://reader.elsevier.com/reader/sd/pii/S2211467X19300082?](https://reader.elsevier.com/reader/sd/pii/S2211467X19300082?token=4C1DFAE98E2FDE4C2EAA8CBBB09C3A447015413E8687906C8E55B7BEE87B040C0D791E1579BA96FBD2B1CE2970CA0B1E)

[token=4C1DFAE98E2FDE4C2EAA8CBBB09C3A447015413E8687906C8E55B7BEE87B040C0D791E1579BA96FBD2B1CE2970CA0B1E](https://reader.elsevier.com/reader/sd/pii/S2211467X19300082?token=4C1DFAE98E2FDE4C2EAA8CBBB09C3A447015413E8687906C8E55B7BEE87B040C0D791E1579BA96FBD2B1CE2970CA0B1E)

(2). A Carbon Budget for Canada, Andrew Gage, West Coast Environmental Law.

(December 2015). [https://www.wcel.org/sites/default/files/publications/CarbonBudget%20\(Web\)_0.pdf](https://www.wcel.org/sites/default/files/publications/CarbonBudget%20(Web)_0.pdf)

(3). Carbon Budget and Accounting Brief, City of Edmonton. (2019).

https://www.edmonton.ca/city_government/documents/PDF/CarbonBudgetandAccountingInformation-PolicyBrief-2019-11.pdf

(4). Climate Action Now. (2021). <https://climateactionnow.ca/torontos-targets>

General Comments:

We welcome all comments and feedback on both the content and process of developing the CEAP. Do you have an idea for an event or outreach campaign to increase participation in the development of this plan? Please let us know!

As recommended by ACE, on April 24, 2019, the Declaration of a Climate Emergency was approved by London's City Council that includes, "Whereas recent international research has indicated a need for massive reduction in carbon emissions in the next 11 years to avoid further and devastating economic, ecological, and societal loss;" ACE now suggests the City increase its ambition to accomplish the needed massive reduction in greenhouse gas emissions required to meet these goals.

Proposed New Targets for the City of London:

All new developments will preserve existing natural habitats by 2021

No new road locations to be built after 2022

All existing road maintenance and repair using low-impact development stormwater management practices by 2022

Provide support for scooter/bike share by 2022

At least 50% of new light-duty vehicles sold in London are electric, all new buildings provide charging stations for electric vehicles and bikes by 2024

At least 45% of new development is infill development and at least 50% of new development is medium-to-high density by 2025

Selling and purchasing of locally created carbon offsets used to support the preservation and restoration of biodiversity is a common practice by 2025

20% increase in CO2 sequestered and GHG emissions avoided due to conservation and management of natural and agricultural lands, 30% tree cover within the urban area by 2030

All new developments including new multi-family residential buildings will be net-zero energy, meaning: the building produces as much renewable energy as it uses, or positive energy, meaning: the building produces more energy than it uses or positive energy, and built with Low Impact Development (LID) features by 2030

All new multi-family residential buildings will have "shelter-in-place" capabilities (back-up power, shelter space, etc.) by 2030

Convert 20% of LTC's bus fleet to zero-emission vehicles by 2025 and convert 100% of LTC's bus fleet to zero-emission vehicles by 2030

At least 50% of London's electricity needs are provided by local 100% renewable generation by 2040

All buildings will be net-zero energy, meaning: the building produces as much renewable

Appendix C – Climate Emergency Action Plan Actions for Discussion

Action Types

Potential Actions and Supporting Actions are categorized based on the following action types:

- **Study or Studies:** To conduct research or strategic planning projects to establish direction on new or emerging areas of interest.
- **Policies:** To establish or update rules and regulations or to provide direction for projects, initiatives, or programs.
- **Procedures:** To develop and implement new ways of doing business or adapt existing practices and procedures to reduce GHG emission or build resiliencies.
- **Programs:** To continue or enhance ongoing activities in a core service area to reduce GHG emission or build resiliencies.
- **Projects:** To propose a one-time action to achieve specific outcomes to reduce GHG emissions or build resiliencies.
- **Pilot Projects:** To develop a “trial run” of an action, typically preceded by a feasibility study, that has the potential to become a future program for the City of London, but needs to be tested on a smaller scale.
- **Partnerships:** To collaborate with stakeholders (both internal and external) to advance climate action for the Corporation and in the community and advocate on behalf of the City to other levels of government to advance and support local climate action.

Ability to Implement

The estimated ability to implement each action has been characterized as either straightforward, reasonable or ambitious. These categories are intended to demonstrate the overall complexity involved with implementing each action at a high level.

Any action’s categorization doesn’t imply that all conditions of the category are met, but that the balance of issues surrounding the ability to implement place the action in the category (e.g. an action categorized as ambitious may require significant coordination across senior levels of government and significant disruptive change, but may not require significant or new investment; an action categorized as straightforward may have a strong investment payback and little individual behaviour change, but may require little technology change).

Ability to Implement	Description
Ambitious (A)	Significant Additional or New Investment No investment payback Significant Disruptive Change Significant Technology Change High level of coordination with Senior Governments Significant business behaviour change Significant Individual behaviour change
Reasonable (R)	Moderate Additional or New Investment Moderate investment payback

	Moderate Disruptive Change Moderate Technology Change Moderate coordination required with Senior Government Moderate business behaviour change Moderate individual behaviour change
Straightforward (S)	Little Additional or New Investment Strong investment payback Little Disruptive Change Little or No Technology Change Little coordination required with Senior Government Little business behaviour change Little individual behaviour change







Timing

The estimated timing for starting actions is identified as short-, medium-, or long-term and/or recurring as follows:

Icon/Text	Description	Detail
	Short Term	(1-3 years)
	Medium Term	(4-7 years)
	Long Term	(7+ years)
Recurring	Actions which happen on an ongoing basis	N/A

Potential Outcomes

In the tables below, the potential of GHG reduction actions and potential resiliency enhancement is identified as follows:

-  Lower potential for GHG reductions (<1,000 tonnes per year)
-  Medium potential of GHG reductions (1,000 to 10,000 tonnes per year)
-  High potential for GHG reductions (> 10,000 tonnes per year)
-  Lower potential for resiliency enhancement (e.g., lowers or avoids localized property damage or personal injuries)
-  Medium potential for resiliency enhancement (e.g., lowers or avoids widespread property damage or personal injuries)
-  High potential for resiliency enhancement (e.g., lowers or avoids widespread property destruction or loss of life)







How We Live: Helping Londoners respond to and prepare for climate change at home.

The following table provides a high-level summary of the types of actions and outcomes likely required for London to achieve net-zero emissions by 2050 and to be resilient to future extreme weather events.

By 2030	By 2040	By 2050
<p>Replacement heating systems will be net-zero energy/emission</p> <p>At least 10% of existing housing will be net-zero energy/emission</p> <p>At least 10% of existing housing will have extreme weather resiliency</p> <p>At least 50% of existing multi-family buildings will have "shelter-in-place" capabilities</p> <p>75% diversion and recovery rate from landfill for household waste</p>	<p>At least 50% of existing housing will be net-zero energy/emission</p> <p>At least 50% of existing housing will have extreme weather resiliency</p> <p>All multi-family buildings will have "shelter-in-place" capabilities</p> <p>80% diversion and recovery rate from landfill for household waste</p>	<p>All housing will be net-zero energy/emission buildings</p> <p>All housing will have extreme weather resiliency</p> <p>90% diversion and recovery rate from landfill for household waste</p>

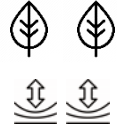

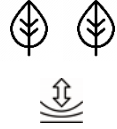



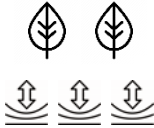

How We Live: Helping Londoners respond to and prepare for climate change at home

Action #1: Provide ongoing education and engagement on the necessity for community-wide action on the climate emergency.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Supporter
1-1	Continue to provide Londoners with the latest information on local greenhouse gas emissions and the expected impacts of climate change	Program	 	■□□	S	City	
1-2	Work with community partners to develop tools and resources to help Londoners and London businesses identify their contributions to greenhouse gas emissions and prepare for extreme weather events	Partnerships	 	■□□	S	City	City
1-3	Work with community partners to develop means to recognize those Londoners and London businesses who are providing local leadership on climate action	Partnerships	 	■□□	S	City	City

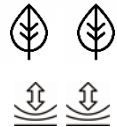








How We Live: Helping Londoners respond to and prepare for climate change at home.

Action #2: Support and facilitate energy conservation, energy efficiency, renewable energy, and major energy retrofits of residential buildings.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Supporter
2-1	Work with community partners to develop programs that engage London homeowners on energy conservation, energy efficiency, and renewable energy climate actions	Partnerships			R	City	
2-2	Work with energy utilities on promoting existing and innovative new energy conservation programs, including fuel-switching opportunities	Partnerships			R	City	
2-3	Develop and test a program for the use of Local Improvement Charges for funding major energy retrofits and climate adaptation measures for single family properties as well as multi-family buildings	Pilot Project			R	City	
2.4	Work with energy utilities to promote low/zero emission backup power and/or energy storage systems to power essential services for residential buildings so they may act as a safe haven for residents to shelter-in-place in the event of loss of power from the electricity grid.	Partnerships			A	City	





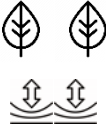



How We Live: Helping Londoners respond to and prepare for climate change at home.

Action #3: Support and develop collaborative approaches to end energy poverty.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Support
3-1	Work with community partners to develop programs that promote and encourage existing and new energy utility low income support programs	Partnerships	 		R		City
3-2	Explore municipal options for establishing minimum energy efficiency requirements for rental properties	Study	 		S	City	
3-3	Develop and test a program for the targeted use of local improvement charges (LICs) and/or Community Improvement Plans (CIPs) for funding major energy retrofits and climate adaptation measures for lower-income single family properties as well as multi-family buildings	Pilot Project	 		R	City	

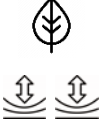

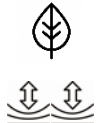



How We Live: Helping Londoners respond to and prepare for climate change at home.

Action #4: Support and encourage resource and waste management initiatives for London households.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Support
4-1	Implement waste diversion and minimization activities as per the 60% Waste Diversion Action Plan	Plan			R	City	
4-2	Continue to work with community partners to implement food waste reduction initiatives	Partnerships			S	City	
4-3	Work with partners to develop tools and resources to help Londoners reduce their resource and material consumption and move towards a circular economy versus waste disposal (e.g., focus on local economy, projects such as the London Waste to Resources Innovation Centre)	Partnerships			R	City	
4-4	Explore opportunities to support equipment share co-op and shared ownership models for common equipment in residential communities	Partnerships			S	City	
















How We Live: Helping Londoners respond to and prepare for climate change at home.

Action #5: Support and encourage urban agriculture and strengthen local food systems.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Support
5-1	Work with partners to develop tools and resources to help Londoners grow their own food	Partnerships			S		City
5-2	Continue to implement and promote the Urban Agriculture Strategy	Partnerships			S/R	City	
5-3	Promote and support Middlesex London Health Unit and community partners championing climate-friendly diets	Partnerships			S		City

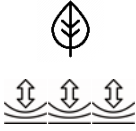

How We Live: Helping Londoners respond to and prepare for climate change at home.

Action #6: Assess and establish strategy to improve residential neighbourhood climate resilience.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Support
6-1	Work with partners to develop, design and promote the benefits of neighbourhood climate resilience including how to prepare for extreme weather events	Partnerships	 		R	City	
6-2	Review and expand existing City downspout disconnection, sump pump & sewer backflow valve programs	Programs, Projects, Pilot Projects	   		R	City	
6-3	Identify, communicate and promote homeowner-lead climate resilience improvements (e.g., hurricane clips, basement window well upgrades, grade adjustment for drainage, etc.)	Procedure	  		S	City	
6-4	Revise the Vital Services Bylaw to address changed heating and cooling requirements in apartment buildings due to the changing climate	Procedure	 		R/A	City	

How We Live: Helping Londoners respond to and prepare for climate change at home.

Action #7: Work with the Middlesex London Health Unit to improve human health resilience to climate change impacts.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Support
7-1	Support the Middlesex London Health Unit in implementing recommendations from the <i>Assessment of Vulnerability to the Health Impacts of Climate Change in Middlesex-London</i> report (2014)	Partnerships		---□	S		City
7-2	Work with the Middlesex London Health Unit to review and update the human health impacts of climate change	Partnerships		---□	S		City

How We Green: Building a greener city by protecting and increasing natural resources in the built and natural environment.

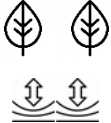



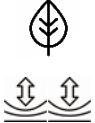

The following table provides a high-level summary of the types of actions and outcomes likely required in order for London to achieve net-zero emissions by 2050 and to be resilient to future extreme weather events.

By 2030	By 2040	By 2050
10% increase in CO ₂ sequestered & GHG emissions avoided due to conservation and management of natural and agricultural lands 28% tree cover within the urban area Steady improvements in subwatershed health categories* (i.e. water quality, forest condition, land perviousness)	20% increase in CO ₂ sequestered & GHG emissions avoided due to conservation and management of natural and agricultural lands 30% tree cover within the urban area Improve subwatershed water quality score* by one grade (e.g. D to C, C to B)	30% increase in CO ₂ sequestered & GHG emissions avoided due to conservation and management of natural and agricultural lands 32% tree cover within the urban area Improve all subwatershed health categories* by one grade

*Using criteria from the 2017 UTRCA Watershed Report Card baseline report for the London subwatersheds with a minimum 50% subwatershed area within London

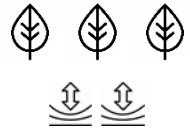

How We Green: Building a greener city by protecting and increasing natural resources in the built and natural environment.

Action #1: Enhance the natural heritage system’s resiliency in urban areas.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Support
1-1	Review City property for potential tree-planting and natural habitat improvement opportunities	Study			S	City	
1-2	Review natural heritage connection / corridor requirements for new development	Policies			R	City	
1-3	Assess the need, opportunity and implementation of septic system phase-out within urban boundary to improve water quality	Study			S	City	


How We Green: Building a greener city by protecting and increasing natural resources in the built and natural environment.

Action #2: Enhance the natural heritage system’s resiliency in rural areas.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Support
2-1	Create and implement protection and “set-aside” programs (ecological reserves, forests, woodlots, shelterbelts and wetlands) to increase the carbon component of land and encourage natural pest control near agricultural lands	Policies			R	City	

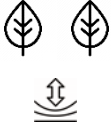



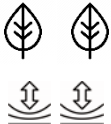

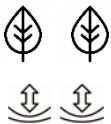

How We Green: Building a greener city by protecting and increasing natural resources in the built and natural environment.

Action #3: Develop a land use carbon sequestration study with targets for conserving and managing natural and agricultural lands to retain and absorb greenhouse gases (GHGs).

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Support
3-1	Create and regularly update estimates for carbon sequestration rates from trees, environmentally significant areas and other natural areas, and agricultural lands on both public and private land for inclusion in the community GHG emissions inventory	Procedure	N/A	■■■□	R	City	
3-2	Assess through measurement connectivity, ecosystem health and area of the natural heritage system	Study	N/A	■□□	S	City	
3-3	Assess, track and improve the permeability of urban lands through Low Impact Development (LID) and de-paving initiatives	Study		■□□	S	City	

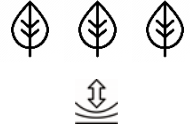

How We Green: Building a greener city by protecting and increasing natural resources in the built and natural environment.

Action #4: Advance the urban forest strategy including exploring reforestation of under-utilized agricultural land within London.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Support
4-1	Increase tree planting targets for the City's TreeMe program	Program			R	City	
4-2	Reduce frequency and area of lands being mowed, and restore with native species	Procedure			S	City	
4-3	Enhance the resiliency and connectivity of the natural heritage System through ecological restoration with a focus on potential naturalization areas (including those identified on London Plan Map 5 - Natural Heritage)	Procedure			S/R	City	
4-4	Work with partners to develop and test the reforestation of under-utilized agricultural land, or portions thereof, outside of the urban growth boundary.	Pilot Project			S	City	

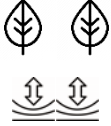
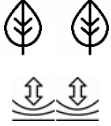



How We Green: Building a greener city by protecting and increasing natural resources in the built and natural environment.

Action #5: Collaborate with First Nations to ecologically restore lands.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Support
5-1	Consult with First Nations and Indigenous Partners to investigate the potential use of Traditional Ecological Knowledge and practices in developing and implementing restoration plans	Partnership			S/R		

How We Green: Building a greener city by protecting and increasing natural resources in the built and natural environment.

Action #6: Advance and enhance current efforts to improve the Thames River watershed health and resiliency.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Support
6-1	Improve watershed health and resiliency by implementing recommendations regarding watershed health (e.g., forest cover, groundwater and surface water) as identified in Watershed Studies, Strategies and Report Cards	Partnerships		---□	A	City	
6-2	Implement recommendations from the River Management Plan (One River EA), the Shared Waters Approach (Thames River Clear Water Revival) and the Thames Valley Corridor Action Plan	Procedure		---□	R/A	City	
6-3	Advance the management of priority invasive species with a focus on the Thames River corridor	Procedure		---□	S/R	City	
6-4	Improve water quality in the Thames River by continuing implementation of recommendations of the Pollution Prevention and Control Master Plan and Combined Sewer Separation Program	Procedure		---□	R/A	City	
6-5	Improve water quality in the Thames River (and Kettle Creek) and reduce carbon emissions by increasing uptake of no till and cover crop farming practices	Procedure		---□	R		

















How We Move: Supporting low/no emission transportation choices and a transportation network that makes London easy to get around through active transportation and transit

The following table provides a high-level summary of the types of actions and outcomes likely required in order for London to achieve net-zero emissions by 2050 and to be resilient to future extreme weather events.

By 2030	By 2040	By 2050
<p>At least 50% of new light-duty vehicles sold in London are electric</p> <p>All new buildings provide charging stations for electric vehicles and bikes</p> <p>At least 10% fewer personal vehicles per capita than 2020</p> <p>At least 20% of daily trips made by transit</p> <p>At least 15% of daily trips made by walking & biking</p> <p>No more than 60% of daily trips made by personal vehicles</p> <p>All transit vehicles are zero-emission vehicles</p> <p>All vehicles-for-hire are zero-emission vehicles</p> <p>At least 25% of heavy-duty vehicles and off-road equipment are zero-emission</p> <p>At least 5% of inter-urban trips made by passenger rail or bus</p> <p>All new roads built using low-impact development stormwater management practices</p>	<p>All new light-duty vehicles sold in London are electric</p> <p>At least 30% fewer personal vehicles per capita than 2020</p> <p>At least 30% of daily trips made by transit</p> <p>At least 25% of daily trips made by walking & biking</p> <p>No more than 40% of daily trips made by personal vehicles</p> <p>At least 50% of heavy-duty vehicles and off-road equipment are zero-emission</p> <p>At least 25% of inter-urban trips made by passenger rail or bus</p> <p>At least 50% of existing roads built using low-impact development stormwater management practices.</p>	<p>All light-duty vehicles in London are electric</p> <p>At least 50% fewer personal vehicles per capita than 2020</p> <p>At least 40% of daily trips made by transit</p> <p>At least 35% of daily trips made by walking & biking</p> <p>No more than 20% of daily trips made by personal vehicles</p> <p>All heavy-duty vehicles and off-road equipment are zero-emission</p> <p>At least 50% of inter-urban trips made by passenger rail or bus</p> <p>All existing roads built using low-impact development stormwater management practices</p>













How We Move: Supporting low/no emission transportation choices and a transportation network that makes London easy to get around through active transportation and transit

Action #1: Accelerate the expansion and improvement of active transportation infrastructure.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Support
1-1	Accelerate the expansion of the City-wide shared use off-road pathway system (e.g., Thames Valley Parkway) system	Partnerships	 		R/A	City	
1-2	Develop and deploy publicly accessible secure bike storage facilities in major destinations (e.g., Downtown London, Old East Village, and along the higher-order transit corridors, etc.)	Program, Projects, Pilot Projects			R	City	
1-3	Establish requirements for new commercial and multi-family buildings to provide secure bike storage facilities for their tenants	Procedure			R	City	
1-4	Accelerate completion of a connected, city-wide all ages & abilities (AAA) cycling network as provided in the City's Cycling Master Plan.	Programs and Projects	  		R/A	City	
1-5	Ensure that all residential streets have dual-side sidewalks, as required for street (re)development (as per LP349), in a manner that preserves existing street boulevard trees	Procedure, Programs and Projects	 		S/R	City	
1-6	Revise winter maintenance practices to place a higher service level for snow and ice clearing on sidewalks, transit stops, and AAA cycling infrastructure	Procedure	 		R/A	City	














How We Move: Supporting low/no emission transportation choices and a transportation network that makes London easy to get around through active transportation and transit and is connected to the region.

Action #2: Expand and improve public transit service, including higher-order transit.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Support
2.1	Convert 100% of LTC's bus fleet to zero-emission vehicles (based on study results, LTC approval and City approval)	Study Partnerships	 		R/A	LTC	
2-2	Implement a network of higher-order transit and high-frequency express bus routes as envisioned as part of the City's Transportation Master Plan	Program	 		R/A	City LTC	
2-3	Establish transit priority lanes and other on-road prioritization measures to support higher-order transit and high-frequency express bus routes	Program	 		R/A	City	
2-4	Identify and implement first/last mile connectivity solutions for under-served areas, with a focus on active transportation	Pilot Project	 		R	City LTC	






How We Move: Supporting low/no emission transportation choices and a transportation network that makes London easy to get around through active transportation and transit and is connected to the region.

Action #3: Encourage and incent increased active transportation, public transit use & transportation demand management as envisioned by the City’s Transportation Master Plan and Cycling Plan.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Support
3-1	Provide support for micro-mobility (e.g., e-scooter/bike share) service(s)	Partnerships	 	---□	R	City	
3-2	Establish a Transportation Management Association(s) for London employers to promote telework, bike/walk to work, transit, carpooling	Programs	   	---□	S/R	City	
3-3	Develop programs to attract new riders to public transit	Programs	  	---□	R	LTC	City
3-4	Support implementation of gateway parking and transit connection(s)	Partnerships	 	---□	R	City	
3-5	Explore the use of time-specified car-free periods in high-volume pedestrian areas such as Dundas Place and/or school zones	Pilot Project	 	---□	S	City	

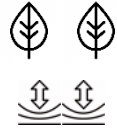
How We Move: Supporting low/no emission transportation choices and a transportation network that makes London easy to get around through active transportation and transit and is connected to the region.

Action #4: Reduce freight traffic load on secondary and tertiary roads.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Support
4-1	Create a Goods Movement Strategy to foster a safe, convenient, efficient, multi-modal, sustainable, and integrated goods movement transportation system	Study Partnerships	 		R/A		
4-2	Encourage and support the use of zero-emission delivery services	Partnerships			S		










How We Move: Supporting low/no emission transportation choices and a transportation network that makes London easy to get around through active transportation and transit and is connected to the region.

Action #5: Advocate for higher frequency and reliable regional transportation connections.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Support
5-1	Advocate for a regional transportation system that supports London as a regional transit hub and provides frequent and reliable connections to the Greater Toronto Area, Waterloo Region and Windsor-Detroit	Partnerships		---	A		



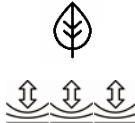

How We Move: Supporting low/no emission transportation choices and a transportation network that makes London easy to get around through active transportation and transit and is connected to the region.

Action #6: Encourage and support zero emissions vehicle and electric bicycle (e-bike) adoption.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Support
6-1	Revise the Vehicle-for-Hire By-Law to mandate the use of hybrid, electric, or other zero-emission vehicles	Procedure	 		R	City	
6-2	Provide public electric vehicle and e-bike charging at major community facilities	Program	 		R	City	
6-3	Establish minimum electric vehicle and e-bike charging requirements for new multi-family and commercial buildings	Policy	 		R	City	

How We Move: Supporting low/no emission transportation choices and a transportation network that makes London easy to get around through active transportation and transit and is connected to the region.

Action #7: Improve resilience of transportation infrastructure.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Support
7-1	Explore the use of roadway construction materials and practices that are more sustainable and tolerant to climatic conditions as well as reduce the urban heat island effect	Study		▬▬▬	S	City	
7-2	Explore the use of technical reviews and assessments for major projects to ensure that infrastructure is built to be resilient and sustainable over its lifespan	Procedures		▬▬▬	S/R	City	
7-3	Increase incentives for the adoption of LIDs and permeable materials (public and private lands) for improved stormwater management of transportation infrastructure (e.g. changes to the stormwater rate structure)	Procedures		▬▬▬	R/A	City	
7-4	Review flooding potential on roads (slope and topography) with a focus on primary roads and emergency routes	Study		▬▬▬	S	City	

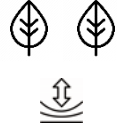

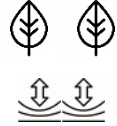

How We Grow: Ensuring London becomes a mixed-use compact city using green development and redevelopment standards and incentives.

The following table provides a high-level summary of the types of actions and outcomes likely required in order for London to achieve net-zero emissions by 2050 and to be resilient to future extreme weather events.

By 2030	By 2040	By 2050
<p>All new housing will be net-zero energy/emission or net-zero ready</p> <p>The majority of new multi-family residential buildings will have “shelter-in-place” capabilities (back-up power, shelter space, etc.)</p> <p>All new developments will be net zero energy/emissions or net-zero ready</p> <p>The majority of new developments built with Low Impact Development features</p> <p>All new developments will preserve existing natural habitats</p> <p>At least 35% of new development is infill development</p> <p>At least 35% of new development is medium-to-high density</p>	<p>All new housing will be net-zero energy/emission</p> <p>All new multi-family residential buildings will have “shelter-in-place” capabilities (back-up power, shelter space, etc.)</p> <p>All new developments will be net zero energy/emissions</p> <p>All new developments built with Low Impact Development features</p> <p>At least 45% of new development is infill development</p> <p>At least 50% of new development is medium-to-high density</p>	<p>At least 60% of new development is infill development</p> <p>At least 75% of new development is medium-to-high density</p>

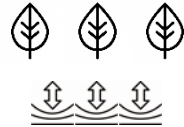

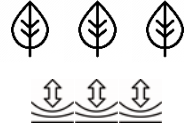



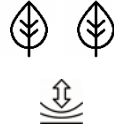

How We Grow: Ensuring London becomes a mixed-use compact city using green development and redevelopment standards and incentives.

Action #1: Ensure new developments embody complete community attributes such as different forms of housing, opportunities for work and shopping, links to transportation, and green space.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Contribute
1-1	Require a development-specific transportation demand management plan with any new development application, with level of effort based upon size of the development being proposed	Policy			R	City	
1-2	Provide guideline documents to assist with the implement of the mixed-use development requirements	Procedure			S	City	

How We Grow: Ensuring London becomes a mixed-use compact city using green development and redevelopment standards and incentives.

Action #2: Encourage and incentivize climate-friendly, sustainable new development and redevelopment.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Support
2-1	Create Green Development Standards, an implementation checklist, and establish administrative triggers for Standards application	Policy			R/A	City	
2-2	Explore and test potential financial & administrative incentives to promote adoption of Green Development Standards	Pilot Project			R	City	
2-3	Engage with local real estate stakeholders to encourage adoption of the EnerGuide home energy rating system in real estate listings	Partnerships			S		City
2-4	Explore area rating development charges to incent 'inward and upward' development (denser, and more compact)	Study			S	City	

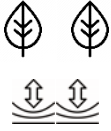
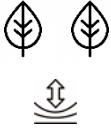
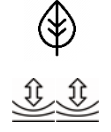
How We Grow: Ensuring London becomes a mixed-use compact city using green development and redevelopment standards and incentives.

Action #3: Ensure long-term growth planning addresses the need for urgent climate change mitigation and adaptation to address the Climate Emergency.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Support
3-1	Update the London Plan’s analysis of growth scenarios to reflect climate emergency mitigation and adaptation considerations	Study	N/A	■■■□	S	City	
3-2	Increase intensification target (35% intensification by 2030, increasing thereafter)	Policy	🌿 🌿	■■■□	R/A	City	
3-3	Maintain urban growth boundary to protect agricultural lands	Policy	🌿	■■■□	R/A	City	

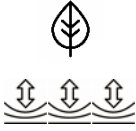
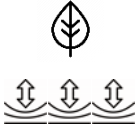
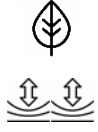
How We Grow: Ensuring London becomes a mixed-use compact city using green development and redevelopment standards and incentives.

Action #4: Ensure new development is energy-wise & future-ready.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Support
4-1	Establish requirements for a development-specific energy management plan with any new development application and compliance with Green Development Standards	Policy		---□	R/A	City	
4-2	Create guideline for satisfying development-specific energy management planning requirement	Study		---□	S	City	
4-3	Create policies for new developments to include EV charging and renewable energy generation (future-ready)	Policy		---□	R	City	

How We Grow: Ensuring London becomes a mixed-use compact city using green development and redevelopment standards and incentives.

Action #5: Ensure new development is climate emergency resilient.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Support
5-1	Create guidelines to encourage severe weather-resilient building construction (e.g., roof hurricane clips, sewer back-up valves, prohibition on downspout connection to municipal sewers, etc.)	Policy		---□	S/R		
5-2	Incorporate on-site infiltration and/or storage and use of stormwater (e.g., Low Impact Development) in Site Plan Design Manual	Procedure		---□	R/A		
5-3	Maximize retention and enhancement of existing natural heritage features for their ecological goods and services	Policy		---	S		

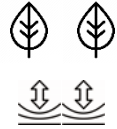
How We Prosper: Ensuring a City that is prosperous, innovative and climate change resilient

The following table provides a high-level summary of the types of actions and outcomes likely required in order for London to achieve net-zero emissions by 2050 and to be resilient to future extreme weather events.

By 2030	By 2040	By 2050
<p>At least 10% of London’s electricity needs provided by local renewable generation</p> <p>At least 5% of London’s natural gas needs provided by “green gas” (e.g., biomethane, hydrogen)</p> <p>“Smart grid” technology used by marketplace leaders</p> <p>Zero-emission Connected & Automated Vehicle (CAV) service providers in pilot phase</p> <p>Local pilot projects for creating and selling carbon offsets from local projects</p> <p>Local pilot projects for engineered carbon capture and storage</p> <p>60% diversion rate from landfill for business waste (e.g., London Waste to Resources Innovation Centre)</p> <p>Larger-scale urban food production in pilot phase</p> <p>Food rescue programs from grocery stores and restaurants is common practice</p> <p>Opportunities for other local environmental investments and levels of recognition and reward</p>	<p>At least 30% of London’s electricity needs provided by local renewable generation</p> <p>At least 15% of London’s natural gas needs provided by “green gas” (e.g., biomethane, hydrogen)</p> <p>“Smart grid” technology use is widespread</p> <p>Zero-emission CAV service providers integral part of London’s public transportation network</p> <p>Selling and purchasing of locally created carbon offsets is a common practice</p> <p>Engineered carbon capture and storage used by some large local users of natural gas</p> <p>75% diversion rate from landfill for business waste</p> <p>Circular economy is integral part of London’s economy (e.g., London Waste to Resources Innovation Centre)</p> <p>Urban food production is common</p> <p>Food rescue programs from grocery stores and restaurants is widespread</p>	<p>At least 50% of London’s electricity needs provided by local renewable generation</p> <p>At least 50% of London’s natural gas needs provided by “green gas” (e.g., biomethane, hydrogen)</p> <p>Residual use of natural gas is offset by a mix of local and global carbon sequestration and/or carbon capture and storage projects</p> <p>Urban food production is widespread</p> <p>90% diversion rate from landfill for business waste</p>

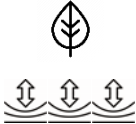

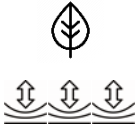

How We Prosper: Ensuring a City that is prosperous, innovative and climate change resilient

Action #1: Increase and encourage the installation of distributed renewable energy assets.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Support
1-1	Review London’s electricity distribution system to identify areas with capacity for additional renewable electricity generation.	Study	N/A	▬▬▬▬	S/R		City
1-2	Review London’s gas distribution system to identify areas with capacity for additional “green gas” (i.e., biomethane and/or hydrogen) gas injection.	Study	N/A	▬▬▬▬	S/R		City
1-3	Explore programs to encourage distributed renewable electricity generation and green gas investment in areas with system capacity.	Pilot Project		▬▬▬▬	S/R		



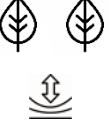

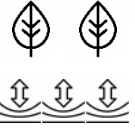

How We Prosper: Ensuring a City that is prosperous, innovative and climate change resilient

Action #2: Improve City preparedness for dealing with extreme climate events.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Support
2-1	Explore potential for formal neighbourhood-scale emergency preparedness and response group support	Partnerships			S/R	City	
2-2	Review readiness of City emergency response process to address extreme weather emergencies	Procedures			S	City	







How We Prosper: Ensuring a City that is prosperous, innovative and climate change resilient

Action #3: Implement policies to improve data collection and use for improved climate monitoring, emergency response and optimization of electricity generation and distribution.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Support
3-1	Advance a data collection and use strategy for London that incorporates climate change mitigation and adaptation actions.	Plan			S	City	
3-2	Complete strategy for connected and automated vehicles that discourages single-occupancy use, encourages shared ownership/service models, complements London’s public transportation system, prioritizes pedestrian and cyclist road users, and employs zero-emission vehicles	Plan			S	City	
3-3	Work with energy utilities to implement smart grid strategies to support climate resiliency, such as EV-to-grid connectivity, solar PV and battery storage, surplus power-to-gas hydrogen generation	Pilot Projects			S		City

How We Prosper: Ensuring a City that is prosperous, innovative and climate change resilient

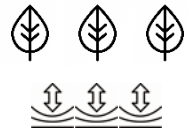

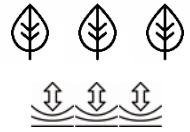

Action #4: Advance more sustainable farming practices and increased local product consumption.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Support
4-1	Review & revise zoning by-law Z-1 to ensure smaller, family-run farms are not discouraged	Policy	 		S	City	
4-2	Engage regional stakeholders to review food processing infrastructure and potential needs for increased agricultural development	Study	 		S		City

* Refer also to How We Green Actions 2-1, 4-4 and 6-5

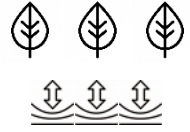

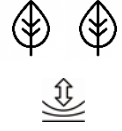

How We Prosper: Ensuring a City that is prosperous, innovative and climate change resilient

Action #5: Continue to work with business community partners to advance sustainable business practices.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Support
5-1	Continued promotion and advancement of Green Economy London and other environmental initiatives for businesses	Procedure			S		City
5-2	Define and encourage the growth of employment in the green products and services sector in London	Partnership			S		City





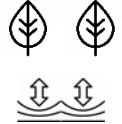



How We Prosper: Ensuring a City that is prosperous, innovative and climate change resilient

Action #6: Work with the private sector to identify opportunities to leverage City assets and/or funds to activate private capital for climate action in the public and private sector.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Support
6-1	Explore green bonds and green revolving funds as potential financing options for increased investment in climate-resilient infrastructure and CEAP initiatives	Study			S		
6-2	Explore the feasibility of creating and facilitating local carbon offset projects to provide funding support	Partnerships			R	City	

How We Prosper: Ensuring a City that is prosperous, innovative and climate change resilient

Action #7: Support and encourage resource and waste management initiatives for London businesses.

Supporting Actions		Action Type	Potential Impacts	Timeline	Ability to Implement	Responsibilities	
						Lead/Co-lead	Partner/Support
7-1	Implement waste diversion and minimization activities that support the 60% Waste Diversion Action Plan	Plan			R/A	City	
7-2	Continue to work with community business partners to implement food waste reduction initiatives at grocery stores and restaurants	Partnerships			S	City	
7-3	Work with partners to develop tools and resources to help London businesses reduce their use of packaging	Partnerships			S	City	
7-4	Support and promote London businesses playing a role in developing local circular economy solutions (e.g., London Waste to Resources Innovation Centre)	Partnerships			S	City	