

Area of Focus 2 - Taking Action Now (Household Actions)

Area of Focus 2	Taking Action Now (Household Actions) Workplan
Purpose of this Workplan	The Taking Action Now Workplan has been developed based on details: • provided during the community engagement; • compiled or recommended from other municipalities, organizations, committees and others specializing in climate change actions; • approved by Council; and/or • recommended by City staff. The purpose of this workplan is to signal to Londoners that action needs to be taken now and support for many of these individual actions is available now or being developed. How the workplan is operationalized will be determined in early 2022. The key actions listed in this workplan are either already underway or represents the next actions that should be looked at to meet the needs of Londoners. Existing actions have a proven track record and are supported by different organizations and businesses. Many of these actions have multiple parts, which are referenced but not fully detailed in this workplan.
Climate Change Expected Results	This workplan has been designed to make progress toward the following expected results: Increased Active Transportation and Transit More Zero Emission Vehicles More Net-zero Buildings Move Towards a Circular Economy More Resilient Buildings and Infrastructure Increased Community Resilience Increased Engagement on Climate Action
Why Does this Matter?	Londoners, living their everyday lives, control the two largest sources of GHG emissions in London, namely personal vehicles and household management decisions. Combined, the choices that Londoners make on the road and at home are responsible for half of all GHG emissions from London.

Area of Focus 2	Taking Action Now (Household Actions) Workplan
	For the average London household living in a single-family home, the breakdown of GHG emission sources can be attributed to the following: • 50% vehicular gasoline emissions; • 40% natural gas burned for home heating and hot water supply; • 7% organic waste sent to the landfill; and • 2% electricity use, including air conditioning. Energy affordability and energy poverty are real issues for many Londoners. Some lower income households will spend over \$1,000 per year more on energy bills than their middle-income neighbours because they cannot afford to invest in energy-saving measures for their home. Climate change will bring warmer, wetter, and wilder weather to London. This increases the risk of riverine/overland flooding, basement flooding, damaged roofs, and power outages. Prolonged heat waves also pose a major health risk for those Londoners who do not have access to air conditioning. It is also important to recognize that the production and transportation of consumer goods and services, made in other parts of Canada or outside of Canada, have an environmental impact. In fact, GHG emissions associated with the manufacturing and delivery of goods and services purchased by the average household is larger than the emissions from the direct use of energy. Therefore, if there is to be meaningful progress in climate action, Londoners need to be motivated to act. To achieve more resiliency across the city, Londoners will need additional assistance to act.
Background – How did we get here?	Starting in the 1950s, private home ownership and property was enabled by rapidly expanding single-family housing tracts that were made accessible by automobiles. As a result, over six decades of automobile-oriented land use planning and transportation planning has led to home ownership and vehicle ownership being priorities for most Londoners. The 1960s brought high-rise multi-family apartment buildings to most larger cities in Canada, including London. However, single-family homes continue to be the dominant form of desirable new housing today.

Area of Focus 2	Taking Action Now (Household Actions) Workplan
	A consumer culture has propagated increased consumption of non-essential goods, the majority of which are made outside of Canada. Manufacturing facilities in countries with less strict labour or environmental standards continue to be predominant. These facilities produce economical goods for the global consumer, all at the cost of higher GHG emissions worldwide. Many properties in London are in the floodplain or could be susceptible to overland flooding, as they were constructed prior to associated land use policies or stormwater management. Many property owners may not be aware that they are at risk of flooding and need to be very aware of the potential impacts of extreme weather events.
What has been done recently?	Londoners have been taking action on climate change in many ways, some of which include support from various levels of government, utilities and community organizations. Some notable recent actions include: • The City of London provides grants for basement flooding protection measures; • The City of London has been providing Project Neutral's carbon footprint calculator for use by Londoners and several community partners, including the London Environmental Network and Climate Action London; • The City of London used Ethelo's eDemocracy tool to provide Londoners with a Climate Action Plan simulator for both education and outreach; • The City of London has used a range of videos for climate change education, including the 'Trouble with Bubbles' GHG emission visualization video; • The City of London offers the Growing Naturally home inspection and consultation program to analyze household water usage with live water usage monitoring to identify leaks and opportunities to save water through behavioural changes, fixture updates, or gardening advice; • The City of London and London Hydro have upgraded the water meter reading capabilities for most customers to provide interval water consumption data down to the hour to assist with the

Area of Focus 2	Taking Action Now (Household Actions) Workplan
	identification of leaks and unnecessary water usage; • Enbridge Gas provides incentives for home energy retrofits, including free home weatherization for qualifying households (Home Winterproofing program), for homes heated with natural gas, and rebates up to \$5,000 for various energy saving measures (Home Efficiency Rebate program); • The Independent Electricity System Operator provides incentives for home electricity conservation, including free home weatherization for qualifying households for homes heated with electricity; • London Hydro is running smart grid home pilot projects such as the London-2-London Pilot (distributed energy resources) and the Plus Pilot (peak demand management); • London Hydro and Enbridge Gas are collaborating on a pilot project, launched in 2021 and the first of its kind in Ontario, to determine how effectively electric air-source heat pumps, combined with homeowners' existing high-efficiency gas furnaces, are at reducing greenhouse gas emissions and decreasing energy consumption; • The London Home Builders Association (LHBA) has previously offered energy efficiency training to renovators, as well as provides information for residents about green renovations; • The Government of Canada's new Canada Greener Homes program provides incentives for home energy retrofits, including solar panels; • The Government of Canada provides incentives for purchasing new electric vehicles; • The London Environmental Network has launched a new program, Greener Homes London, offering virtual one-on-one calls with Londoners to help them make their home climate-friendly; and • Climate Action London has hosted a number of initiatives in recent years including climate marches, movie screenings and providing climate action grants.

Area of Focus 2	Taking Action Now (Household Actions) Workplan
Responsible City Service Area(s)	Co-Led by Environment and Infrastructure, Enterprise Supports, Planning and Economic Development, Neighbourhood and Community-Wide Services, and Finance Supports
Key Community Partners and Stakeholders	- Federal and Provincial Government - Energy Utilities (Enbridge Gas, London Hydro, IESO) - Middlesex London Health Unit - Businesses, Institutions and Other Employers - Community Groups (e.g., London Environmental Network, Climate Action London, Urban League of London, ReForest London, Carolinian Canada, Thames Region Ecological Association, Urban Roots London, London Cycle Link, Big Bike Giveaway) - Other organizations (e.g., Middlesex-London Food Policy Council, London Community Foundation)
Key Actions (and Milestones)	Home Energy Retrofits (Timeline: 2022 - 2024) - Work with community partners to engage London homeowners on energy conservation, energy efficiency, and renewable energy climate actions - Work with energy utilities to ensure all residents are aware of existing conservation programs, including options for a 'one window' information source for residents combining information from all local utilities together - Work with energy providers on developing new and innovative energy conservation programs, including fuel-switching opportunities - Finalize and present program design options for an FCM-funded home energy retrofit pilot project for launch in 2023, involving about 50 homes per year for three years, based on similar programs in place in Ottawa, Toronto, and other Ontario cities in 2022. Report back to Committee and Council on final pilot project design to obtain final approval. Reporting would occur at the mid-point of the pilot project and after completion including the next steps based on the findings. Transportation and Mobility (Timeline: 2022 - 2024) - Continue to work with community partners (e.g., MLHU, London Cycle Link, etc.) to engage Londoners on walking,

Area of Focus 2	Taking Action Now (Household Actions) Workplan
	cycling, transportation choices such as carpooling, transit use, and intercity bus/rail travel 3. Zero Emission Vehicles and Equipment (Timeline: 2022 - 2024) a. Work with community partners to promote existing provincial and/or federal programs that engage Londoners on adopting electric vehicles b. Review and provide options to reduce, restrict, or phase out fossil fuel consuming equipment (e.g., lawnmowers, trimmers, leaf blowers) by completing a study of emerging best practices, applicable legislation and jurisdiction, costs and benefits, potential incentive programs, and other factors (report back in 2023) 4. Addressing Energy Poverty (Timeline: 2022 - 2024) a. Work with community partners to assist lower income Londoners with existing household energy conservation and efficiency measures (e.g., energy utility low-income support programs) and mobility (e.g., bicycle donation programs) b. Work with community partners to develop new programs that assist lower income Londoners with household energy conservation and efficiency measures (e.g., additional home energy retrofits) and mobility (e.g., discounted micromobility service fees) 5. Waste Reduction and Diversion (Timeline: 2022 - 2024) a. Continue to work with community partners to implement waste reduction and diversion initiatives for households. 6. Urban Agriculture (Timeline: 2022) a. Continue and grow the work of the Urban Agriculture Strategy to develop tools and resources to help Londoners grow their own food through community gardens or at-home gardening programs. b. Promote, support and help grow Middlesex London Health Unit, Middlesex-London Food Policy Council, and community

Area of Focus 2	Taking Action Now (Household Actions) Workplan
	partners encouraging climate-friendly diets and food choices (e.g., buying foods grown or produced locally) 7. Climate Resilience (Timeline: 2022 – 2024) a. Continue to promote on-property stormwater management improvements for homeowners (e.g., property grading, placement of sheds, decks, and pools, minimizing hard surfaces, maximizing tree cover, rain gardens, etc.) b. Review effectiveness of existing City sump pump & sewer backflow valve incentive fund programs for homeowners. c. Promote climate resilience improvements for homeowners (e.g., hurricane clips, basement window well upgrades, grade adjustment for drainage, etc.) d. Work with energy utilities to promote low/zero emission backup power and/or energy storage systems to power essential services for residents to shelter-in-place in the event of loss of power from the electricity grid. e. Increase public awareness of flood risk and evacuation protocols for properties within the floodplain or flood-prone areas to support emergency preparedness.
Examples of Measuring Progress	Some of these progress measures are exclusive to this workplan and others are duplicated in other workplans. More Net-zero Buildings • Number of existing programs and activities • Number of new programs and activities • Average natural gas use per residential customer (m³/year) • Residential sector GHG emissions per person (tonnes/year) Increased Active Transportation and Transit • Number of existing programs and activities • Number of new programs and activities • % of in-town trips in London taken by active transportation and transit • % of trips to/from London taken by bus or rail • Number of registered vehicles per person

Area of Focus 2	Taking Action Now (Household Actions) Workplan
	More Zero Emission Vehicles • Number of existing programs and activities • Number of new programs and activities • % of new model year light-duty vehicles registered that are ZEV • % of all light-duty vehicles registered that are ZEV • Retail sales of fossil fuel (litres) per person per year • Retail sales of fossil fuel (litres) per registered vehicle per year More Resilient Buildings and Infrastructure • Number of existing programs and activities • Number of new programs and activities • Number of participants in basement flooding programs • Number of households with low/zero emission back-up power Increased Community Resilience • Number of existing programs and activities • Number of new programs and activities • % of households with indoor air cooling (e.g., air conditioning) • % of households experiencing energy poverty in London • Number of households provided with education materials about living in a floodplain or lot-level stormwater management best practices Move Towards a Circular Economy • Average amount of curbside waste disposed per households (kg/year) • % of curbside materials diverted from landfill • Number of participants in community gardens Increased Engagement on Climate Action • Number of participants by action These measures are intended to evolve through the consultation and in process to ensure they are adding value to the progress of the CEAP.
Resources	CEAP Supporting Documents Project Neutral carbon footprint calculator Enbridge Gas Distribution conservation programs Independent Electricity System Operator conservation programs London Hydro programs (smart grid, net-metered solar power) Plug'n Drive website for information on electric vehicles in Canada

Area of Focus 2	Taking Action Now (Household Actions) Workplan
	Accelerating Home Energy Efficiency Retrofits Through Local Improvement Charge Programs (Clean Air Partnership and Federation of Canadian Municipalities)