LONDON COMMUNITY FOUNDATION

LONDON'S **Vital**Signs

Be Green

#WhatLdnCanBe

Be Green

A Note About the Data

Taking our community's pulse is a collaborative effort and we rely on a number of community partners for insight and local data. Mindful of our theme of belonging, we wanted to ensure a range of diverse voices and experiences were represented in this report. With the Foundation's commitment to reconciliation, the plan for the this Vital Signs report included more information about the Indigenous population living in the city. Unfortunately, not as much local and recent data was available as we had hoped. We are committed to working with all of our partners to increase access to this important information and are aiming to publish additional material on this topic in the coming months.

Transportation

Average Commuting Times

In London (CMA), the average commuting time was 21.9 minutes in 2016, 0.8 minutes higher than in 2011 (21.1 minutes). The national average in 2016 was 26.2 minutes, and the provincial average was 28.8 minutes.*

Region	2011	2016	Time Change 2011-2016 (Minutes)
Canada	25.4	26.2	0.8
Ontario	27.6	28.8	1.2
London CMA	21.1	21.9	0.8

*(Statistics Canada)

Modes of Transportation

In 2016 in London (CITY) 82.7% of people rode in a vehicle to work, an increase from 84.6% in 2006. In 2016, 9.2% of people took public transit, an increase from 8.6% in 2006. In 2016, 7.2% of people walked or biked, a decrease from 8.2% in 2006. The national average in 2016 was 79.5% for vehicles, 14.6% for public transit, and 6.5 for walking/biking.*

*(Statistics Canada)

Air Quality

Average ambient fine particulate matter concentration (micrograms per cubic metre)

The average ambient concentration of fine particulate matter in London (CMA) was 8.7 micrograms per cubic metre in 2014. The 2013 to 2014 average was 8.9 micrograms per cubic metre. The national average in 2014 was 7.7 micrograms per cubic metre.*

Region	2013	2014
Canada	7.4	7.7
London CMA	9.1	8.7

*(Environment Canada)

Composting

Percent of Households Who Composted Kitchen and Yard Waste

In London (CMA), 51% of households composted kitchen waste in 2015, 18% higher than 2011 (33%). The national average in 2015 was 52%, and the provincial average was 63%.*

In London (CMA), 69% of households composted yard waste in 2015, 14% lower than 2011 (83%). The national average in 2015 was 55%, and the provincial average was 72%.*

Region	% Kitchen Waste	% point change	% Yard Waste	% point change
Canada	**2011 –** 45.0 **2015 –** 52.0	7.0	**2011 –** 68.0 **2015 –** 55.0	-13.0
Ontario	**2011 –** 62.0 **2015 –** 63.2	1.2	**2011 –** 82.0 **2015 –** 71.5	-10.5
London CMA	**2011 –** 33.0 **2015 –** 50.9	17.9	**2011 –** 83.0 **2015 –** 68.8	-14.2

*(Statistics Canada)

Precipitation

Average Monthly Precipitation (cm) – London 2018

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Precipitation	7.4	6	7.8	8.2	8.3	8.7	8.2	8.5	9.8	7.8	9.1	8.9

(London Economic Development Corporation

Temperature

Monthly Temperature (°C) – London 2018

Temp	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Average Low	-10.1	-9.7	-4.7	1	7	12.1	14.6	13.7	9.6	4	-0.7	-6.5
Average High	-2.4	-1.4	4.2	11.6	19	23.8	26.3	25.2	20.9	14	6.9	0.6

(London Economic Development Corporation)

Water Quality

- Approximate replacement value of drinking water system - $2,800,000,000*
- Number of pumping stations – 8*
- Number of fire hydrants – 9,273*
- Number of watermain valves – 13,473*
- Total number of water services – 116,283*
- Length of watermain – 1,588km*
- Number of watermain breaks – 86*
- Number of water service leaks – 228*
- January 2017 monthly max:*
    - Elgin pumpage (m3) – 24,876
    - Arva pumpage (m3) – 118,811
    - Total London consumption (m3) – 126,287
- January 2017 monthly average:*
    - Elgin pumpage (m3) – 22,809
    - Arva pumpage (m3) – 96,000
    - Total London consumption (m3) – 118,944
- The total water budget for 2017 was $75.9 million (includes long term infrastructure renewal and replacement plans)*
- London has 10 locations throughout the city where continuous in-line sampling of chlorine residual and pH is monitored. There are 4,000 additional chlorine tests annually related to construction and maintenance activities.*

*(City of London, 2017)

2017 Upper Thames River Watershed Report Card

- From 2000 to 2006, 570 ha of forest were removed across the Upper Thames watershed and around 147 ha of forest were planted. In total, between 2000 to 2010 nearly 800 ha of forest were removed and 324 ha were planted under UTRCA programs.*
- Watersheds in London and Middlesex region have poor quality. Our watersheds do not meet the Provincial water quality objectives for phosphorus (contributes to algae blooms we see in streams and lakes) or E.Coli (fecal bacteria). They all received a grade of C or D.*

- Since the 2012 report cards, overall water quality scores improved in 2 watersheds, stayed steady in 26, and declined in none.*

(Upper Thames River Conservation Authority)

Forest Cover

Forests play a vital role in our community's health but London's forest cover is declining, including among the majority of the regions' watersheds. In the last 10 years, over 800 hectares of forest was lost with just 324 hectares planted. To be truly healthy, our region should be at least 30% forest or natural coverage, but the Forks of the Thames has only an 8% forest cover.*

*(Upper Thames River Conservation Authority)

383,068 Trees were planted by Londoners through the Million Tree Challenge at the end of 2017 since the Challenge began, nearly surpassing the City of London's population.*

(ReForest London)

Waste Management

- In London, over one tonne of waste is produced annually per person, which includes waste generated at home and waste generated by the industrial, commercial, and institutional (IC&I) sectors.*
- The overall waste diversion rate for London is between 30% and 35%. The household diversion rate is 45% (i.e. recycling, composting, reusing, etc.)*
- In July 2018, the City of London released the goal of achieving 60% waste diversion between 2019 and 2022 through various action plans.*
- Currently, the estimated capital cost of implementing a Green Bin program is $12 million, estimated at $3.5 to $5.0 million annually depending on the type of system implemented.*

*(City of London)

Community Energy and Greenhouse Gas Inventory

    - In 2017, the City of London was able to reduce total greenhouse gas emissions to levels that were 17% below 1990 levels.*
    - Greenhouse gas emissions from Ontario's electricity grid have been reduced by 90% over the last 10 years.*
- London's energy use by sector:*
    - Industrial, commercial, and institutional buildings and facilities – 40%
    - Transportation, primarily cars and trucks on London's roads – 37%
    - Single-family residential homes – 23%
- Energy use in London accounted for 95% of community greenhouse gas emissions, while the remaining 5% came from methane emissions from landfills and nitrous oxide emissions from sewage sludge incineration.*

- Londoner's and London's businesses used 11% less energy overall between 2007 and 2017.*
- Improved energy efficiency avoided $150 million in energy costs between 2010 and 2017.*
- Per person, Londoners release 34% fewer greenhouse gas emissions in 2017 compared to 1990, as well as reductions in air pollution emissions.*
- From 1990 to 2017:*
    - Energy use per person for transportation decreased by 7%
    - Energy use per single family residential households decreased by 20%
    - Energy use per person for industrial, commercial, and institutional buildings decreased by 11%
    - London's annual greenhouse gas emissions (estimated at over 2.7 million tonnes) has decreased by 17%
- Overall, London spent nearly $1.5 billion on energy in 2017 (which demonstrates an increase of 5% since 2016). Nearly 90% of this money leaves London's local economy.*
- Gasoline costs have increased by 13% in 2017.*
- Electricity costs decreased by 9%, due to both lower consumption levels and lower prices.*
- Transportation fuel demonstrates one area with little improvement in London. The volume of fuel sold has continually increased annually between 2011 and 2016. However, between 2016 and 2017 there was a 3% decrease.*
- Vehicle ownership has increased by 32% since 2011 (essentially 5% annually). From 2011 to 2017, there was an increase of nearly 68,000 light-duty vehicles registered in London. However, the average annual fuel use per registered vehicle decreased by 15% from 2011 to 2017.*
- On average, a typical single-family household spends about $430 on energy per month. About $240 of this is spent on gasoline, electricity accounts for $100, and natural gas accounts for about $80 per month.*
- The average household emits 10 tonnes of greenhouse gas emissions per year. 55% of this comes from burning gasoline, and natural gas used for space and water heating accounts for 38% of emissions.*
- Every percentage that Londoners and London's businesses reduce energy use keeps nearly $13 million from leaving the local economy.*

(City of London)