



Climate Change: Community Considerations

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Climate Change: Mitigation & Adaptation

- Mitigation – Actions taken immediately to reduce greenhouse gases generated from burning of fossil fuels and/or land use changes
- Adaptation – Avoiding harm associated with current or projected climate impacts by taking actions now to anticipate and plan for adapting to changes



MENU



MAP



Average value (Days)



Very Hot Days (+30°C)

High Carbon → More climate change • 2021-2050

HELP



TOUR



SHARE



WARMER

CLIMATE CHANGE ⓘ



TIME PERIOD ⓘ



Municipality
LONDON

Projected change in mean
Number of +30 °C days
High Carbon → More climate change

1976-2005 2021-2050
12.3 → 33.1

Up ▲
+20.9

2021-2050

<https://climateatlas.ca/>



Hot Weather



Cold Weather



Temperature



Precipitation



Agriculture

v2.0

MENU

MAP

Average value (Days)

0 25

Heavy Precipitation Days (10 mm)

High Carbon → More climate change • 2021-2050

HELP

TOUR

SHARE

Fr



WETTER

CLIMATE CHANGE ⓘ

TIME PERIOD ⓘ

LESS

MORE

RECENT PAST

2021-2050

2051-2080

2021-2050

Municipality
LONDON

Projected change in mean
Heavy Precipitation Days (10 mm)

High Carbon → More climate change

1976-2005

2021-2050

27.8 → 30.2

Up ▲

+2.4



Hot Weather



Cold Weather



Temperature



Precipitation



Agriculture

v2.0

MENU

MAP

Average value (Days)

Very Cold Days (-30°C)

HELP

TOUR

SHARE

Fr



80



High Carbon → More climate change • 2021-2050



Sarnia

London

London



LESS COLD

CLIMATE CHANGE ⓘ

TIME PERIOD ⓘ

LESS

MORE

RECENT PAST

2021-2050

2051-2080

1976-2005

2021-2050

0.0

→ 0.0

Down ▾

0

2021-2050

<https://climateatlas.ca/>



Hot Weather



Cold Weather



Temperature



Precipitation



Agriculture

v2.0

MENU

MAP

Change (Degree Days)

2000 -2000

Heating Degree Days

High Carbon → More climate change • 2021-2050

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Municipality
LONDON

Projected change in mean
Heating Degree Days
High Carbon → More climate change

1976-2005 2021-2050
3914 → **3358**

Down ▾
-556.1

LESS COLD

CLIMATE CHANGE ⓘ

TIME PERIOD ⓘ

LESS

MORE

RECENT PAST

2021-2050

2051-2080

2021-2050

<https://climateatlas.ca/>



Hot Weather



Cold Weather



Temperature



Precipitation



Agriculture

v2.0

MENU

MAP

Average value (Days)

0 15

Heavy Precipitation Days (20 mm)

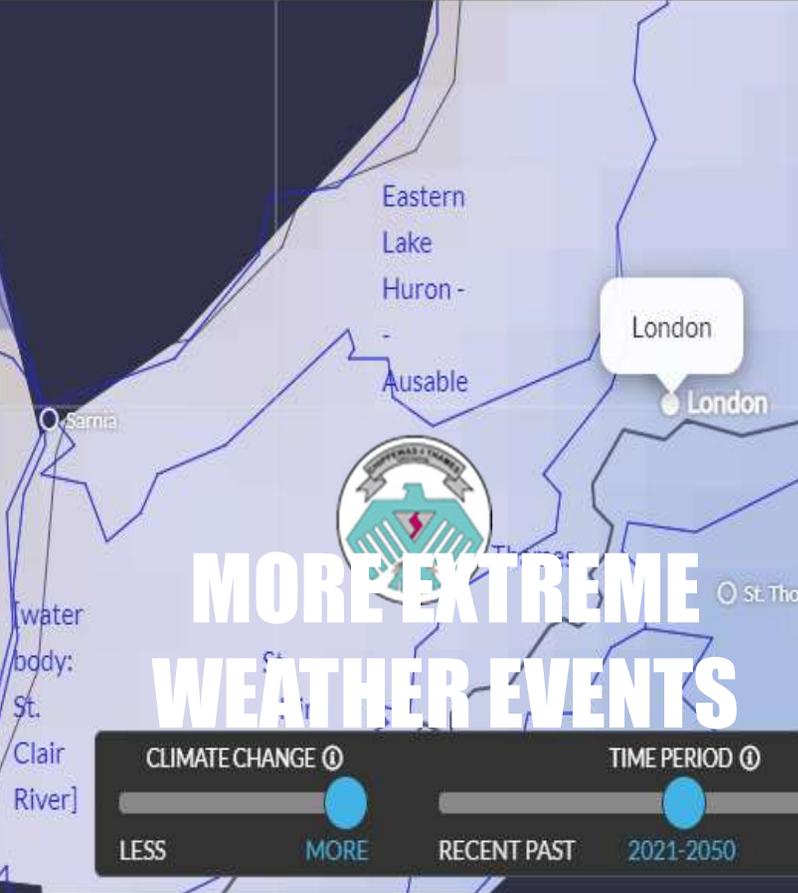
High Carbon → More climate change • 2021-2050

HELP

TOUR

SHARE

Fr



Municipality
LONDON

Projected change in mean
Heavy Precipitation Days (20 mm)

High Carbon → More climate change

1976-2005 2021-2050

7.4 → **8.6**

Up ▲
+1.2

2021-2050

<https://climateatlas.ca/>



Hot Weather



Cold Weather



Temperature



Precipitation



Agriculture

v2.0

What is Adaptive Capacity?

At the local level the ability to undertake adaptations can be influenced by such factors as managerial ability, access to financial, technological and information resources, infrastructure, the institutional environment within which adaptations occur, political influence, kinship networks, etc.”

p.287



Smit and Wandel, 2006

SOCIAL CAPITAL
NETWORKS
RELATIONSHIPS
ASSOCIATIONS
INSTITUTIONS
CONNECTIONS
+
PHYSICAL ASSETS

Adaptation to...

Climate risk and uncertainty

Increased flooding in watershed areas

Cumulative impacts and effects associated with extreme weather events

Impacts on...

Emergency preparedness and disaster risk reduction

Potable water, health and safety

Upper watershed management practices

Agricultural land management practices

Adaptive capacity building actions for...

Assessing vulnerability, understanding climate risks and impacts, seeking resiliency measures with co-benefits for reducing GHGs, promoting carbon sequestration and biodiversity protection

Nature based solutions to erosion, pollution control & flood risk

Biodiversity and Indigenous land conservation and management practices

Co-benefits approaches to regional climate and biodiversity actions

Land use planning and inter-governmental relationship building

Carbon sequestration, biodiversity protection & forest management

Species at Risk and conservation biology

Truth and reconciliation in the context of climate change adaptation

Enabling Two Eyed Seeing and Ethical Space:
Indigenous Floodplain Mapping & Integrated Watershed Management with Chippewas of the Thames
First Nation & Partners



Crown-Indigenous Relations
and Northern Affairs Canada
Relations Couronne-Autochtones
et Affaires du Nord Canada

FIRST NATION
ADAPT
PROGRAM



Green 
Communities
CANADA

 **Lower Thames**
Conservation



Canadian
Environmental Law
Association
EQUITY. JUSTICE. HEALTH.

5 Part Webinar Series

Integrated Regional Watershed Management

<https://youtu.be/zpiCn0MKKNw>



Deshkan Ziibiing
Chippewas of the Thames
First Nation



**London
Environmental
Network**

Project Supported by:



Natural Resources Canada
Ressources naturelles Canada

Canada

Net Zero Retrofit Pilot Project

Funding and partnership capacity building activities to make improvements that help with energy efficiency and upgrades that will reduce the use of propane.

Upgrades such as: increased insulation, new windows and doors, electric heating and cooling system, electric hot water system, efficient appliances, low flow water fixtures, solar array and more.

Capacity Building & Mentorship Opportunities

- Staff mentorship and training in residential sustainability programming and community outreach
- Community, youth and trades education and skills training in sustainable retrofit technology and building science.
- Demonstration and pilot project of a (near) net zero retrofit
- Online webinars to share with other remote communities
- Next steps plan development for community residential energy efficiency program delivery,
- Professional case studies, mail outs and storytelling

Food waste is responsible for roughly 8 percent of global greenhouse gas emissions.

Methane produced through anaerobic decomposition of organic waste in landfill, has 34 times the greenhouse forcing effect of carbon dioxide.

Landfills are a top source of methane emissions, releasing 12 percent of the world's total.

Ideally, organic wastes would be recycled, composted, or digested. But so long as landfills are piling up, we must manage the methane coming out of them.

<https://drawdown.org/solutions/landfill-methane-capture>

LANDFILL METHANE CAPTURE



Miigwech

London

Image NOAA
Image Landsat / Copernicus



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