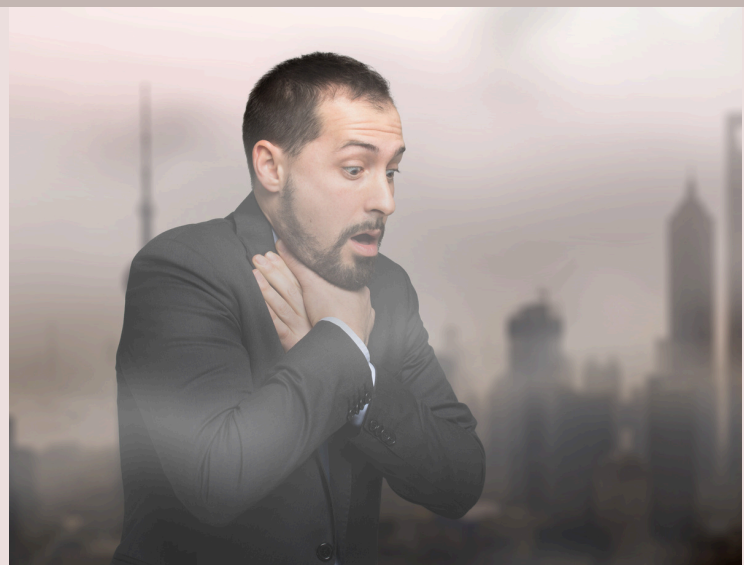


NOVEMBER

HUMAN NATURE PROJECTS NEWSLETTER

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Welcome to the November edition of Human Nature Projects (HNP) Ontario's revamped newsletter, where the stories are as compelling as ever!

Our feature articles will be shorter in length to enhance engagement. We have provided further links containing more information on the topics of the feature articles. In addition, there is a section with extra links to browse through on recent environmental news.

Feature Articles: Smog: What you need to know & Carbon Tax: What you need to know

Spotlight: Community Clean up Recap

Stay informed, engaged and empowered---together, let's make a difference!

SMOG: WHAT YOU NEED TO KNOW

Unlike any other air pollution, smog formulates through a mixture of toxic pollutants by both “natural and human induced processes” (JMKC, 2024). Out of the several chemicals one can find in smog, some common ones are nitrogen oxides (NO_x), sulphur oxides (SO_x), carbon monoxide (CO), and volatile organic compounds (VOCs), although the two main components are particulate matter (PM) and ground-level ozone (O_3) (JMKC, 2024).



There are two kinds of smog: normal smog and photochemical smog. Normal smog is produced due to excessive levels of coal burning, while photochemical smog is a, “more modern phenomena commonly produced by vehicle emissions in contact with sunlight—mostly from burning gasoline and diesel” (JMKC, 2024).

A country currently suffering from high smog levels is China, where “the PM2.5 concentration of $29 \mu\text{g}/\text{m}^3$ still falls short of the WHO standard of $5 \mu\text{g}/\text{m}^3$,” the increase attributed to industrial activity in China’s provincial capitals, including Beijing (Huang, 2024).

CARBON TAX: WHAT YOU NEED TO KNOW

Canada's Carbon Pricing program, often called the carbon tax, is a federal program that is designed to put a price on carbon emissions and discourage greenhouse gas emissions. This system will levy a certain amount per tonne of carbon emitted for consumers, as well as a separate, provincially dependant, amount for industrial polluters ("Canada's Carbon Pricing," n.d.). The carbon tax has been subject to much opposition, especially from Pierre Poilievre's Conservative Party due to concerns over financial burdens (Cecco, 2024).



Despite common misconceptions, economists agree that, "[carbon] pricing is not a significant driver in the rising cost of living" (Shingler, 2024). An important part of the carbon tax is the federal Carbon Rebate. This program gives households a standardized amount of money, depending on province and household size. The amount given by the rebate does not depend on the amount paid by through the carbon tax, and is intended to offset the financial loss incurred by consumers through their carbon tax payments (Robertson, 2024).





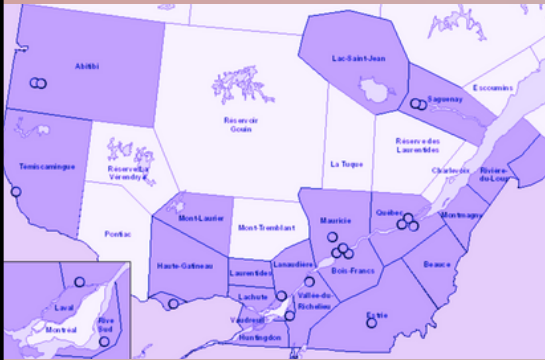
FOR FURTHER READING



PHOTOCHEMICAL SMOG



01



Explore Real-Time Air Quality Across Canada

[CLICK TO READ MORE](#)

02



The History of Smog and Why It Was Originally Called 'London Smog'

[CLICK TO READ MORE](#)

03



Climate Action Paradox: Reducing Smog, Increasing Ocean Warming

[CLICK TO READ MORE](#)



01 Understanding Carbon Pricing: The Federal Debate and Its Complexities

[CLICK TO READ MORE](#)



02 Ontario and the Carbon Tax: An Economist's Perspective

[CLICK TO READ MORE](#)



03 Six Key Arguments in Support of Carbon Taxation

[CLICK TO READ MORE](#)



FOR FURTHER READING



Recent Environmental News



01

Spanish Floods Heavily Impacted By Climate Change

- Though difficult to pinpoint a single cause for natural disasters like floods, scientists note that climate change has had a significant impact in the severity of the floods.
- Climate change, through increasing rainfall deposits, had a significant role in the overwhelming amounts of precipitation that hit Spain.

[CLICK TO READ MORE](#)

02

AI Companies Move To Nuclear Technology

- The massive energy requirements for generative AI have pressured various technology companies to secure deals with nuclear energy suppliers.
- Some view the embrace of nuclear technology as an environmental win, citing the lack of greenhouse gases emitted by other means of energy production.

[CLICK TO READ MORE](#)





03

Major Carbon Capture Program Will Not Face Provincial Assessment

- A \$16 billion carbon capture program by Pathways Alliance, a group of large oil sands companies, will not be subject to an environmental assessment by the Albertan government.
- Concerns have been raised by landowners, environmental groups, and First Nations group over the project, which seeks to “bury 10 to 12 megatonnes of carbon dioxide deep underground each year” (Riley & Meyer, 2024).

[**CLICK TO READ MORE**](#)



04

High-Speed Rail To Be Built Between Quebec City and Toronto.

- The Trudeau government will initiate the construction of a high-speed train allowing for quick transport from Quebec City to Toronto.
- The rail would use an electrified track and offer an environmentally cleaner, and faster, alternative to cars.

[**CLICK TO READ MORE**](#)

COMMUNITY CLEAN-UP RECAP

TERAMOTO PARK, BRAMPTON

OCTOBER 27, 2024

WHAT WE DID

- Helped **reduce pollution**.
- **Support** our local ecosystem.
- **Connected** with nature.
- **Collaborated** with various like-minded peers.



WHY TERAMOTO PARK?

- Named after **Mitsuko Shirley Teramoto**, one of the first Japanese settlers in Brampton.
- Known for being riddled with **large amounts of garbage**.
- Home to the **first full sized, LED-lit cricket field in Canada**.

ACHIEVEMENTS

- Presented with a **certificate of recognition** on behalf of the Brampton City Council.
- Approximately **160 volunteers** in attendance.
- **115+ pounds of garbage** collected.
- The **executive assistant of Counsellor Rowena Santos**, of Wards 1 and 5, was in attendance.





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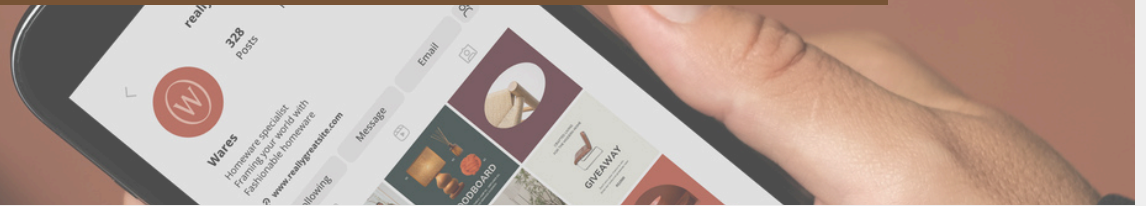


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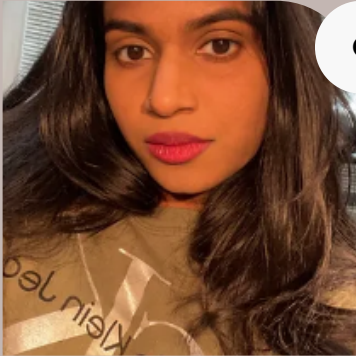
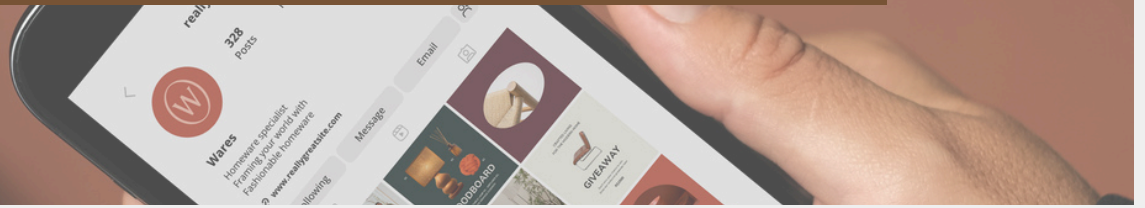
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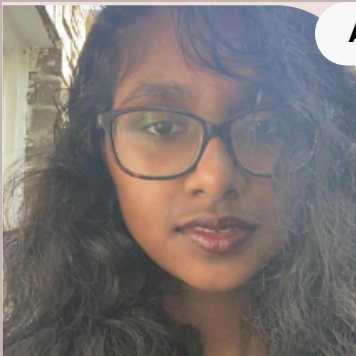
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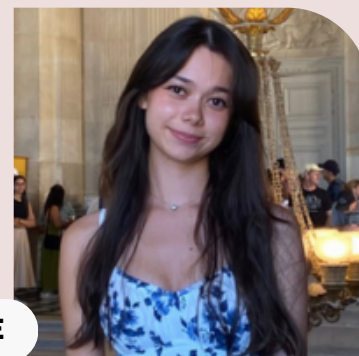
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