



### DID YOU KNOW?

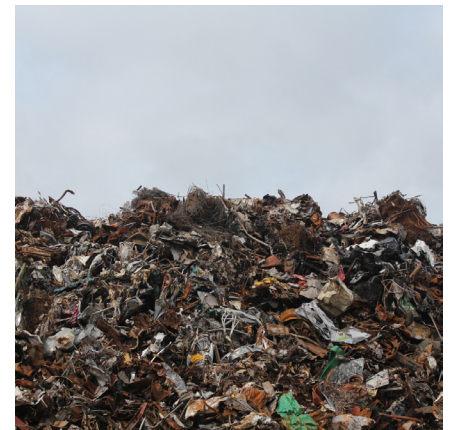
Here is what's already happening:

- **Reliance on plastics:** Humans rely on plastics for many reasons including its cost effectiveness and its versatility. Plastic production accounts for 4–8% of total global oil usage. <sup>1</sup> Refining plastics also emits a large amount of greenhouse gases (GHG's).
- **Burning garbage and plastics:** Incineration of waste can release a long list of harmful chemicals to human and other species' health including dioxins and furans, but there is a large amount of GHG emissions that come with that too, especially when burning plastics.
- **Landfills and food waste:** Methane gas, carbon dioxide, and some other trace gases are released from landfills during the decomposition of organic materials. In Thunder Bay, solid waste and waste water accounts for 4% of community GHG emissions and 37% of total methane emissions. <sup>2</sup> It is estimated that 1/3rd of all food produced for human consumption is wasted, which accounts for much of the organic material ending up in landfills. <sup>3</sup>



Here is what we think will happen if we stay on the current path:

- **Reliance on plastics:** Plastic production is projected to increase to account for as much as 20% of total global oil usage by 2050. As a result, plastic refining emissions are anticipated to increase 34% by 2030. <sup>1</sup>
- **Burning garbage and plastics:** Incineration is expected to increase as a method in plastic waste management due to landfills reaching capacity and this will threaten carbon emission targets worldwide. <sup>4</sup>
- **Landfills and food waste:** It is estimated that 20 Megatonnes of carbon dioxide equivalent are released annually by landfills in Canada and will only increase without intervention. <sup>5</sup>



### WHAT CAN WE DO?

Here is what's currently being done in the Thunder Bay area:

- The City of Thunder Bay has partnered with Synergy North to operate a landfill gas capture system at the Thunder Bay Solid Waste and Recycling Facility, which captures 263 million cubic feet of methane annually, that otherwise would be released into the environment; this gas supplies a generator with enough electricity to power about 2000 houses.
- The City of Thunder Bay Community Energy and Emissions Plan will identify further actions to reduce emissions from solid waste.

- EcoSuperior delivers a home composting program on behalf of the City of Thunder Bay which diverts organic household food waste from entering the landfill. Tips, resources on home composting, public and community group presentations, and a retail store to purchase a subsidized composter are available.
- EcoSuperior delivers a recycling education program on behalf of the City of Thunder Bay which supports proper recycling and reduces contamination in the City's recycling program.
- Local community groups such as Roots to Harvest, Thunder Bay Food Strategy, Indigenous Food Circle, and many more offer programming on how to grow, make, and preserve your own food, which can reduce food waste and empower people to grow their own food.
- Low waste and plastic reduced living is promoted through a variety of EcoSuperior's programming and many local businesses and restaurants are doing great things with waste and plastics reduction.
- EcoSuperior delivers messaging and programming on the harms of burning garbage and plastics.



### Here is what you can do to help:

- Start backyard composting to prevent organics from going to landfill.
- Ensure that you know how to properly use The City of Thunder Bay Recycling program. Reducing the contamination in our recycling streams is the best way to optimize the usable materials to turn into new products and reduce the need for virgin plastics.
- Freeze or preserve your foods to minimize food waste in your own home.
- Buy low waste items to swap out for plastic or single use items.
- Ask local business what they are doing to reduce waste and support businesses already doing great work in the area of waste reduction!
- Advocate for refillable containers and zero-waste options.
- Buy in bulk whenever possible to reduce packaging. Do not purchase more food than you can use before it goes bad or alternatively share with a neighbour or friend.
- Do not burn garbage, especially plastics.



### TAKE ACTION NOW!

- *Communicate about climate change*
- *Encourage decision makers to take action*
- *Get involved with community initiatives*

### REFERENCES:

- 1- Bauman, B. 2019. How plastics contribute to climate change. Yale Climate Connections. <https://yaleclimateconnections.org/2019/08/how-plastics-contribute-to-climate-change/>
- 2- Sustainability Solutions Group. 2020. City of Thunder Bay Community Energy Use and Emissions Plan Baseline Inventory, Business-As-Planned Scenario and Energy Maps (2016 - 2050). [https://www.thunderbay.ca/en/city-hall/resources/Documents/EarthCare/Baseline-Business-As-Planned-Scenario\\_2016-2050.pdf](https://www.thunderbay.ca/en/city-hall/resources/Documents/EarthCare/Baseline-Business-As-Planned-Scenario_2016-2050.pdf)
- 3- Commission for Environmental Cooperation. 2017. Characterization and Management of Food Loss and Waste in North America. <http://www3.cec.org/islandora/en/item/11772-characterization-and-management-food-loss-and-waste-in-north-america-en.pdf>
- 4- Center for International Environmental Law. 2019. Plastic and Climate: The Hidden Cost of a Plastic Planet. <https://www.ciel.org/wp-content/uploads/2019/05/Plastic-and-Climate-Executive-Summary-2019.pdf>
- 5- Community Research Connections Program. 2014. Waste. <https://www.crcresearch.org/solutions-agenda/waste>

### THIS RESOURCE IS BROUGHT TO YOU BY:

- CITIZENS UNITED FOR A SUSTAINABLE PLANET
- EARTHCARE - CITY OF THUNDER BAY
- ECOSUPERIOR ENVIRONMENTAL PROGRAMS
- ENVIRONMENT NORTH
- FRIDAYS FOR FUTURE - THUNDER BAY CHAPTER
- LAKEHEAD REGION CONSERVATION AUTHORITY
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