



A Zero Waste and Culture of Reuse Rationale

Plastics pollution, environmental justice, toxics, litter and climate change

- The MN Office of the Legislative Auditor Recycling and Waste Reduction (February 2015) finds: “Minnesota’s approach to managing waste focuses too narrowly on recycling, rather than on the full range of waste management activities. Recommends establishment of reduction and reuse goals and that incentivize the waste hierarchy.ⁱ
- Race is the number one indicator for the placement of toxic facilities in this country. Communities of color and low-income communities are often the hardest hit by climate change.ⁱⁱ
- Plastics fragments contaminate the tallest mountains across the globe. Lab analysis found water from remote Colorado mountain sites contaminated with blue, red, silver, purple and green fragments from the breakdown of larger pieces of plastic.^{iii iv}
- A greater than 50% reduction in bag related global warming emissions can be achieved through a switch from single use bags to reusable carry-out bags.^v
- Plastic production is slated to increase by nearly 40% over the next 10 years. Greenhouse gas emissions associated with plastics will be nearly four times greater by mid-century, when they are projected to account for nearly one-sixth of global emissions.^{vi}
- According to the recent IPCC and National Climate Assessment we have eleven years to stem catastrophic climate change.^{vii}
- Plastics emit the potent greenhouse gases methane and ethylene, when they are exposed to sunlight and degrade.^{viii}
- All major medical and nursing organizations declare climate change a health emergency^{ix}
- Over 20 million pounds of plastics enter the Great Lakes annually.^x
- Plastic fragments are now found in the waters of St. Louis River and off Park Point.^{xi}
- Fish are now preferentially eating plastic particles, killing them.^{xii}
- Duluth beer contains micro plastics^{xiii}
- Studies demonstrate that bag fees result in 70– 90% reduction in single bag use.^{xiv}
- An average Duluth grocery stores gives out approximately 1.5 million single use carry out bags per year. This amount of money is equivalent to the cost of purchasing 15 reusable grocery bags for every citizen of Duluth every year.^{xv}
- Our demand for free single use bags carry out bags costs an average grocery store about \$60,000 per year.^{xvi}
- Americans use 1.6 straws per person a day — most of them ending up in our waterways.^{xvii}
- Straws, plastic bags and Styrofoam tm to go containers are all on the top ten coastal contaminants.^{xviii}

- Less than 5% of standard HDPE plastic bags are recycled in the US, and Styrofoam is not recyclable.^{xix}
- The American Academy of Pediatrics issued a recommendation to avoid Styrofoam plastics.^{xx}
- City of Duluth storm water infrastructure requires regular cleaning and maintenance because of plastic bag obstructions.^{xxi}
- The Duluth City Council has adopted numerous resolutions pledging to support the environment but taken no action^{xxii}

ⁱ <https://www.pca.state.mn.us/sites/default/files/lrw-sw-1sy15.pdf> p 15

ⁱⁱ <https://www.usccr.gov/pubs/envjust/ch2.htm>

ⁱⁱⁱ <https://www.denverpost.com/2019/08/16/raining-plastic-colorado/>

^{iv} <https://www.smithsonianmag.com/smart-news/microplastics-found-in-remote-region-frances-pyrenees-180971973/>

^v Franklin Associates, Ltd, Resource and Environmental Profile Analysis of Polyethylene and Unbleached Paper Grocery Sacks.

<http://plastics.americanchemistry.com/Analysis-of-Polyethylene-and-Unbleached-Paper-Grocery-Sacks>

^{vi} <http://www.environmentalintegrity.org/wp-content/uploads/2019/05/Plastic-and-Climate-FINAL.pdf>

^{vii} <https://www.un.org/press/en/2019/ga12131.doc.htm>

^{viii} <https://www.sciencedaily.com/releases/2018/08/180801182009.htm>

^{ix} <https://climatehealthaction.org/cta/climate-health-equity-policy/>

^x <http://www.duluthnewstribune.com/news/4184733-great-lakes-get-22-million-pounds-plastics-annually>

^{xi} Conversation with researcher Dr. Lorena Mendoza

^{xii} <http://science.sciencemag.org/content/352/6290/1213>

^{xiii} <https://www.duluthnewstribune.com/news/4443774-plastic-most-great-lakes-tap-water-beer>

^{xiv} <https://www.npr.org/2019/08/01/747238169/plastic-bag-sales-fell-by-90-at-englands-large-retailers-in-past-4-years>

^{xv} Conversation with grocery store manager. Calculations available at www.bagitduluth.org

^{xvi} Calculations available at www.bagitduluth.org

^{xvii} <https://www.nytimes.com/2018/07/19/business/plastic-straws-ban-fact-check-nyt.html>

^{xviii} <https://oceanconservancy.org/trash-free-seas/international-coastal-cleanup/>

^{xix} Bring Your Own Bag” Ordinance - City of Minneapolis 2016 www.minneapolismn.gov/meetings/legislation/WCMSP-175657

^{xx} <https://www.aappublications.org/news/2018/07/23/additives072318>

^{xxi} Conversations with City staff, photos and Regional Stormwater Task Force support for Bag it Duluth

^{xxii} **City of Duluth Resolutions** [Resolution 98-0480 Principles to Consider Environment](#) , [Resolution 01-0350 Pledge to Reduce GHG Emissions](#) ,[Resolution 06-0368 Guidelines for Planning a Sustainable Community](#)