

THE ENVIRONMENTAL JUSTICE REPORT

CARBON FOOTPRINT

When talking about climate change, people sometimes think in terms of the future of the planet. However, the environmental effects of global climate change are already happening -- glaciers and arctic ice are shrinking, summers are hotter and come earlier, storms are more severe, and these changes are affecting plants, animals, and communities.

What causes climate change? Incoming sunlight passes through the atmosphere, warming the Earth, which then radiates that warmth back into the atmosphere as infrared energy. Molecules of gases like water vapor, carbon dioxide, methane, nitrous oxide, ozone, and some artificial chemicals such as chloro-fluorocarbons and hydrofluorocarbons, capture that energy. When these molecules release this captured energy, some of it is directed back toward the Earth. These “greenhouse gases” act like an insulating blanket, holding heat in the atmosphere.

This process is vital to maintaining the Earth’s temperature, allowing life to exist. However, an excess of greenhouse gases in the atmosphere, mostly because of fossil fuels combustion, deforestation, and the release of certain man-made chemicals, is causing an unnatural warming of our planet. Scientists have warned that continued reliance on fossil fuels, tropical deforestation, and intensive animal farming will cause global temperatures to rise for decades to come.



The effects that scientists had previously predicted would result from global climate change are now occurring: loss of sea ice; accelerated sea level rise; and longer, more intense heat waves. The global climate is projected to continue to change over this century and beyond. While some climate change is to be expected, the overlay of human-induced warming on a naturally varying climate guarantees that temperature rise is not uniform or easily predictable.

New York is taking aggressive actions to address climate change head-on through investments in renewable energy, including offshore wind, solar, and energy storage and efficiency. In addition to these actions to reduce carbon dioxide, New York is also addressing methane emissions. Methane is a potent greenhouse gas that is the second largest contributor to climate change (carbon dioxide is first). The oil and

gas sector, landfills, and farming contribute the majority of methane emissions in the state. New York is addressing methane emissions through specific actions in its comprehensive Methane Reduction Plan (https://www.dec.ny.gov/docs/administration_pdf/mrpfinal.pdf).

While making sweeping global changes is critical to stabilize rising temperatures and mitigate the effects of climate change, we also need to examine our own impacts on the environment and how we can reduce our carbon footprint. This includes paying attention to the waste we generate that ends up in landfills.

WHAT IS A CARBON FOOTPRINT?

A carbon footprint is the total sum of all greenhouse gas emissions for activities in a given time. Activities like driving, purchasing consumer goods, disposing trash, and using electricity all add to your individual climate impact on the planet.



HOW CAN I CALCULATE MY CARBON FOOTPRINT?

Determining your and your family's carbon footprint is a daunting task, but there are several online calculators available to assess how your habits and daily activities affect the planet; Once you know your carbon footprint, you can use this information to identify the best strategies you and your family can follow to reduce your personal contribution to the climate crisis, including waste generation, and set a good example for friends and neighbors.

- <https://www3.epa.gov/carbon-footprint-calculator/>
- <https://www.carbonfootprint.com/calculator.aspx>
- <https://www.conservation.org/carbon-footprint-calculator#/>

COMMUNITY SPOTLIGHT: FINGER LAKES REUSE

We live in a digital world. The availability of digital tools, devices, and technology has never been greater or more accessible. We can locate just about any information with a few clicks and swipes, ask Alexa to share our entire schedules, or use one of the many smart appliances rolling off the shelves to start dinner and a movie, unlock the front door, or feed the dog using a cell phone. We all have a digital footprint.

As with most great innovations, there are some negatives, too. Our digital footprint is closely related to our carbon footprint. The internet commands us to constantly upgrade our clothes, furniture, and appliances. Once our shiny new toys lose their luster, we long for the next new thing and throw away our outdated possessions, which usually end up in a landfill or incinerator.

Finger Lakes ReUse (ReUse), a non-profit organization in Ithaca, is working to find a better solution by educating and encouraging people to donate potentially useful items rather than toss them out. ReUse is working to enhance their community and the environment by redirecting materials from the waste stream into productive new uses. The organization is a recipient of Community Impact Grant funding for its "Material Reuse as a Community Resource of Under-served Populations of Ithaca, NY" project.



The two-year goal of the project is to promote public awareness and provide direct relief to the community by bridging the gap between operating as a reuse facility and serving as a community benefits resource. To advance this effort, ReUse provided \$14,000 of store credit to 88 low-income households. The participants were referred to the program via human services agencies and community programs serving underserved populations.

Additionally, ReUse collaborated with 20 local youth via the 4H Urban Outreach summer program to hold a fashion show featuring outfits crafted from donated items. Participants also shared facts and messages about the wasteful and harmful practices of the fast fashion industry.

To learn more about Finger Lakes ReUse, their shop, and their programs, visit <https://ithacareuse.org/>.

To learn more about global sustainability, visit <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>



GIFTS THAT GIVE BACK

The holidays are upon us. While there are many holidays throughout the year, and hundreds of opportunities to implement sustainable celebrations, there is something about this time of year that inspires giving. Giving and sharing are amazing, so let's all try to do so in a way that expresses our affections while having less of an impact on our environment.

In the past, we've touted the benefits of buying second-hand and refurbished goods, upcycling clothing as gifts, getting crafty with old Christmas cards, and making items yourself. We hope these suggestions have been worked into your holiday giving routine.

However, while you are wrapping your locally sourced or handmade gifts in recycled wrapping paper, here are a few online stops for ethical and sustainable gifts.

ETHICAL AND SUSTAINABLE HOLIDAY IDEAS

- If you are in the market for totes, handbags, housewares and spa items all handmade using natural materials by female artisans around the world check out <https://www.thelittlemarket.com>
- If you want your jewelry to make both a statement and an impact, please take a look some of the necklaces, rings, bracelets and earrings sustainably crafted by women survivors of human trafficking at <https://www.purposejewelry.org>

- Make your work place or home office stand out with journals, stationary, clipboards and other unique hand crafted stationary and office items that you won't find anywhere else except <https://www.tenthousandvillages.com/stationery>
- If you have been on the hunt for a shoe that is nice to look at and has a low impact on the planet take a look at <https://www.nativeshoes.com>

*The Department of Environmental Conservation does not endorse the online vendors listed above.

OTHER GIFT IDEAS

If you are looking for a gift that also informs and entertains, DEC's Conservationist magazine is currently on sale. This New York State focused magazine is published six times a year and features educational articles, recreational tips, amazing photography, and so much more. Visit <https://www.dec.ny.gov/pubs/conservationist.html> to read the latest issue and take advantage of the holiday sale.

ON THE FRONT LINES: MARION BUCKLEY

Waste is everywhere. From our homes, workplaces, and schools to restaurants, hotels, and stores, we generate a significant amount of waste. This waste, which is either recycled, placed in a landfill or incinerated, requires proper management to ensure that it's disposed of in a responsible manner.

DEC's Division of Materials Management (DMM) works to protect our environment and public health by encouraging the minimization of waste generation and the maximization of recycled material reuse. In addition to ensuring the appropriate management of commercial, residential, and industrial waste, DMM manages the use of resources like pesticides and radioactive materials through regulations, permitting, inspections, technical assistance, and public outreach.

Outreach and education are key to promoting responsible and sustainable waste management practices. For the past five years, Assistant Environmental Engineer Marion Buckley has been providing outreach and education to solid waste management facilities, municipalities, and the general public on the importance of recycling, how to comply with our environmental laws and regulations, and the DMM's role in protecting public health and the environment.

Growing up in Niagara County, Marion, who studied Environmental Engineering at the University at Buffalo, wanted a job that didn't tie her to a desk. "I knew I would be happiest working in a profession where I was connected to the outdoors through purpose, or where I at least got to spend a lot of time working outdoors."

In her spare time, Marion enjoys painting and participating in the DEC Buffalo office book club. She is excited to be able to use her engineering degree and perform work that inspires her. "I appreciate that I can work on many aspects of solid waste management, recycling and environmental protection in general."

To view Marion's 'On the Front Lines' video and to learn more about DEC programs and the employees who manage them, visit https://www.youtube.com/channel/UC6xirBOO47IWtU_ZZDT702w.

For more information on our Division of Materials Management, visit our <https://www.dec.ny.gov/chemical/292.html>.



WHERE DOES YOUR GARBAGE GO?

It is no secret that many of our basic modern lifestyles contribute to environmental degradation. Whether driving cars that contribute to air pollution, using energy to power our devices, or buying foods with non-recyclable packaging, what is convenient for people is not necessarily convenient for the planet.

ON AVERAGE, AMERICANS GENERATE ABOUT 4.48 POUNDS OF TRASH PER DAY.

The U.S. is the third largest producer of waste per capita in the world. According to the U.S. Environmental Protection Agency, in 2015, about 321 million people produced 262.4 million tons of municipal solid waste (MSW), an increase of 3.5 million tons from 2014. That is enough trash to fill around 63,000 garbage trucks. Of that waste, paper and cardboard make up the largest portion at nearly 26 percent of all MSW, followed by food waste at 15 percent, yard trimmings at 13 percent, and plastics at 13 percent.

The good news is that 67.8 tons of MSW were recycled and 23.4 million tons were composted, an improvement from previous years. However, more than half of our collective waste was simply tossed out. In 2015, 33.57 million tons of MSW went to incinerators and 137.7 million tons found its way into landfills, including an increase of 3.1 million tons of plastic products from 2010 to 2015. This does not include industrial waste, construction debris, or municipal wastewater.

When we throw away our trash, we also have to consider the impact on communities closest to landfills and incinerators, even those outside of New York State. In 2014-2016, 16 percent of the garbage generated in New York was transported to other states for disposal, with most of this garbage going to Ohio, Pennsylvania, and Virginia. The remaining 84 percent of the garbage generated was disposed of at combustion facilities and landfills in New York. Statistically, landfills and incinerators are more likely to be located near environmental justice communities.

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Although New York State encourages reduction, reuse, recycling, and energy recovery through waste combustion as preferred methods to manage wastes, landfills remain one of the most common ways to dispose of waste. State regulations that control the way landfills are built help ensure environmental impacts from landfilling are minimized. In New York, landfills must be built using a “double composite liner” system, in which materials like clay are combined with plastic liners to create low-flow liners that keep wastes and liquids from finding their way into the environment.

Each landfill has two of these liners, so even if liquids escape the first liner, they would be captured by the second. Landfill liquids and, in many cases, air emissions are collected on-site and treated to minimize their effects to people and the environment, but it’s clear that not creating or expanding landfills is better for everyone. (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5005946/>).

To further reduce waste impacts on communities and the environment, we should all remember to reduce waste generation (i.e., use reusable bags for groceries), reuse what we can, participate in food donation programs, and compost organic waste before we toss anything in the trash.

We should also make sure to avoid “wish-cycling”, which is the act of placing seemingly recyclable items like pizza boxes, cellophane wrapping, and beverage caps, into recycling bins in the hopes that they will be recycled. These non-recyclable items can contaminate actual recyclables, rendering the entire batch unusable, and damage processing equipment.

To educate New Yorkers on proper recycling methods, the Recycle Right NY campaign was established. The campaign informs the public on items that should be recycled by focusing on one item per month that should either be “in” a recycling bin due to its value in recovery or “out” because it is either a contaminant to the recycling stream or appropriately recycled elsewhere.

To learn more about this program visit <https://www.dec.ny.gov/chemical/116113.html>.

To learn more about how DEC is working to improve waste management, visit our website at <https://www.dec.ny.gov/chemical/294.html>



RETURN FILM PLASTICS TO THE STORE



#RecycleRightNY



Film plastics should be returned to a retail location near you to be recycled. Look for the special recycling bin.

DON'T CONTAMINATE

REUSE, UPCYCLE OR DONATE!

When it comes to glass, only glass bottles and jars belong in recycling. Consider donating gently used glass items to thrift stores, consignment shops, and charitable organizations or repurposing glass items.



Habitat ReStore in the Capital District



#RecycleRightNY

Got Leftover Medications?

Ask at the Pharmacy counter for the official drug collection location.



APPLY FOR FUNDING

Are you a community-based organization looking to fund a project? OEJ offers grants to not-for-profit organizations to address environmental harms in low income and environmental justice communities. For additional information on OEJ grants and a complete list of previous project awardees, please visit our web-site: www.dec.ny.gov/public/31226.html.

WE CAN'T DO IT WITHOUT YOU

Do you have concerns about the environment where you live? Do you want to make your voice heard? Do you want to stay informed about the different environmental issues affecting the state of New York?

JOIN OUR ENVIRONMENTAL JUSTICE LISTSERV

Go to: www.dec.ny.gov/public/65855.html and sign up to receive regular updates from the Office of Environmental Justice. Stay current on the issues that are important to you. As always, you can contact the Office of Environmental Justice with any concerns by sending an e-mail to: justice@dec.ny.gov.

Please include:

- Your location/address
- City, town, village or borough
- The environmental concerns you wish to address
- List the potential source if you know
- How or whether you wish to be contacted

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