File #56836: Regulate Distribution of Plastic Straws

Economic Development Committee - 8.21.2019

Issue the Proposed Ordinance is Addressing: Single Use Plastics

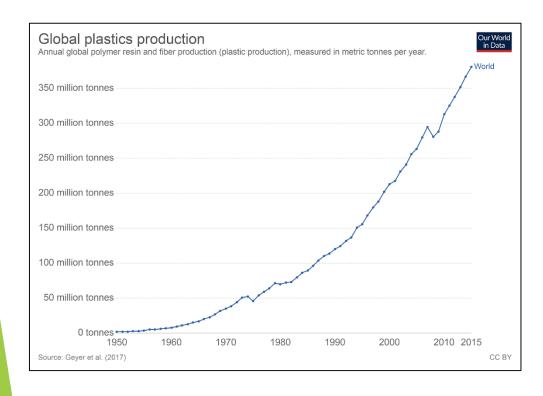








Exponential Growth Plastic Supply



Business

Exxon, Saudis Bet on Plastics Growth in Giant Gulf Coast Plant

Kevin Crowley and Joe Carroll
June 13, 2019, 8:23 AM CDT Updated on June 13, 2019, 11:00 PM CDT

- ▶ Shale basin to provide cheap natural gas to supply new complex
- ► It's Exxon's fourth big Gulf Coast project approval this year

https://www.bloomberg.com/news/articles/2019-06-13/exxon-sabic-greenlight-new-texas-plant-to-process-shale-output



What About Recycling Straws?

Is the city of Madison able to recycle plastic straws?

No, plastic straws would not be recyclable. Their size and shape would make them nearly impossible to pluck out of the recycling stream. (Pellitteri Waste Systems has the contract to sort the city's recyclables, and here's a link to a video that shows what their sorting system looks like.) Plus, you have to consider that straws could also still have the residue inside of them of what people consumed through it - so sugar from pop or chunks of smoothie - which has the potential to cause some problems at the recycling center, depending on how much of the residue leaks out onto other recyclables.

How does the city handle plastic straws when they come through in recycling?

Straws should go into the trash. Straws that are mistakenly placed into the recycling system would either find their way out of the system as trash, or get errantly mixed in with something else. I could see them bouncing through the sorting system like paper, or since they are so thin, I could see them maybe becoming mixed with the glass (especially those small coffee stirrer straws).

Plastic is a Persistent Pollution Problem

"Plastic straws are a major pollution. According to 40cean, plastic straws can take up to 200 years to decompose, — way beyond our lifespans! For a onetime use, they last a very long time as most are not biodegradable. As a result, billions of plastic straws end up in landfills every day. Many of them enter the waste streams while some 8-12 million tons of straws end up in our ocean, threatening our oceans and marine life. Only a tiny portion of plastic straws gets recycled and even when they do, the byproduct of the recycling process still releases toxins into the air that we breathe while the rest enters our crops and animals, eventually penetrating our food chain."



Pile of straws found with other wastes. Photo credit: Greenpeace

https://medium.com/green-zine/plastic-straws-a-single-use-that-lasts-a-lifetime-191f3682c262

Climate & Public Health

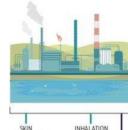
"Between extraction, refining, and waste management, the production and incineration of plastics will add more than 850 million metric tons of greenhouse gases to the atmosphere this year alone - an amount equal to the emissions from 189 500-megawatt coal power plants." - Center for International Environmental Law

https://www.ciel.org/wp-content/uploads/2019/05/Plastic-and-Climate-FINAL-2019.pdf

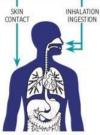
DIRECT EXPOSURE

Extraction & Transport





Refining & Manufacture



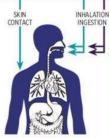


- Exposure: inhalation, ingestion, skin contact (air, water, and soils)
- Health: impacts can include cancers, neurotoxicity, reproductive toxicity, low birth weight, and eye and skin irritation



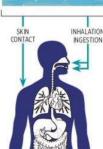
TOXIC RECYCLING

Waste Management



Consumer Use

- Emissions: include heavy metals, POPs, carcinogens, EDCs, and microplastics
- Exposure: inhalation, ingestion, and skin contact
- Health: affects renal, cardiovascular, gastrointestinal, neurological, reproductive, and respiratory systems; impacts include cancers, diabetes, and developmental toxicity



- Emissions: include heavy metals, dioxins and furans, PAHs, toxic recycling
- Exposure: ingestion and inhalation (air, ash, slag)
- Health: impacts include cancers, neurological damages, and damages to immune, reproductive, nervous, and endocrine system

ENVIRONMENTAL EXPOSURE

- Microplastics (e.g. tire dust and textile fibers) and toxic additives: including POPs, EDCs, carcinogens, and heavy metals
- Exposure: inhalation and ingestion (air, water, and food chain)

VOCs, and 170+ toxic

chemicals in fracking fluid

Exposure: inhalation and

· Heath: affects the immune

system, sensory organs, liver,

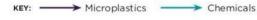
and kidney, impacts include

and developmental toxicity

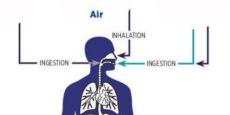
cancers, neuro-, reproductive,

ingestion (air and water)

 Health: affects cardiovascular, renal, gastrointestinal, neurological, reproductive, and respiratory systems, impacts include cancers, diabetes, neuro-, reproductive, and developmental toxicity

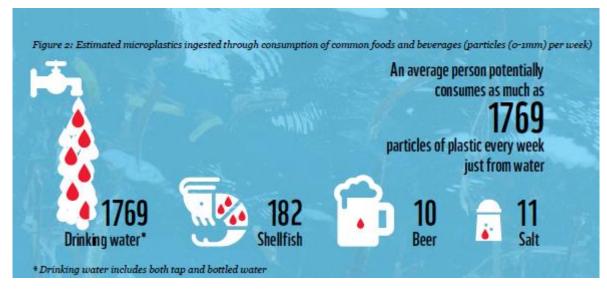


Source: @ CIEL/NonprofitDesign.com



www.ciel.org/plasticandhealth

Bioaccumulation



http://awsassets.panda.org/downloads/plastic_ingestion_press_singles.pdf

More than 22 million pounds of plastic pollution end up in the Great Lakes every year, according to the Rochester Institute of Technology. And, it never really goes away. Instead, it just breaks down into smaller and smaller pieces known as "microplastics."

Researchers have found stunningly high amounts of tiny plastic pieces in all five Great Lakes, which provide drinking water for 40 million people. They've found microscopic pieces of plastic in drinking water, and even beer.

https://greatlakes.org/great-lakes-plastic-pollution-fighting-for-plastic-free-water/

More Plastic than Fish in the Ocean by 2050: Report Offers Blueprint for Change

Each year, at least 8 million tonnes of plastics leak into the ocean - which is equivalent to dumping the contents of one garbage truck into the ocean every minute.

If no action is taken, this is expected to increase to two per minute by 2030 and four per minute by 2050.

The best research currently available estimates that there are over 150 million tonnes of plastics in the ocean today.

In a business-as-usual scenario, the ocean is expected to contain 1 tonne of plastic for every 3 tonnes of fish by 2025, and by 2050, more plastics than fish (by weight)

Source: http://www3.weforum.org/docs/WEF_The_New_Plastics_Economy.pdf

Proposed Ordinance

Fiscal Note

The monetary penalty for a restaurant violating any provision of this proposed ordinance will be a fine of \$200 for a first-time offense.

Title

Creating Section 23.61 and amending Section 1.08(3)(a) of the Madison General Ordinances to regulate the distribution of plastic straws in the City of Madison and establish a bail deposit for violation thereof.

Body

DRAFTER'S ANALYSIS: This ordinance regulates the distribution of plastic beverage straws in the City of Madison. Under this ordinance, restaurants shall be prohibited from providing plastic beverage straws to dine-in customers unless the dine-in customer requests a plastic beverage straw. Under this ordinance, restaurants may still provide plastic beverage straws to take-out customers, including those using a drive-thru window.

Sustainability



Economic:

Cafe Hollander stopped providing straws for every drink and used more sustainable straws, the restaurant decreased the number of straws used per year from 30,000 to 9,000 — a decrease of more than 20,000 straws. This saved the company about \$1,500.

<u>Environmental:</u> Madison Sustainability Plan (Adopted 2012) GOAL 6: Prevent Solid Waste from Entering Landfill (<u>link</u>)

City-wide, Madison will divert 75% of its waste from landfill sites by the year 2020, through promoting programs for reducing, reusing and recycling of materials, with continued progress towards the goal of Zero Waste by 2050.

Equity: - Eight out of ten incinerators in the U.S. are in communities that are either poorer or have fewer white people than the rest of the country. (link)

Final Thoughts - Q&A - Thank You!





https://www.epa.gov/smm/sustainable-materials-management-basics#needsRCRApermit