

Show-Me Less Plastic Regional Roundtable

Olivette, MO | May 27, 2026

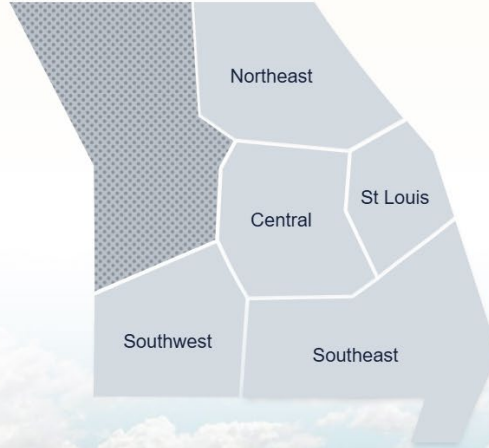


**MIDAMERICA
CLEAN FUTURE**

Olivette
Parks & Recreation



**SHOW-ME LESS
PLASTIC**



**Our 5 service areas include 84
counties and the city of St. Louis**

WHERE WE WORK >



Workshop Objectives

01

Share information about the impact of plastic waste and the challenges it presents to communities.

02

Explore practical solutions and policy options that can help reduce plastic use at the local level.

03

Facilitate collaborative discussions about community-specific strategies for addressing plastic waste.

04

Provide participants with knowledge and actionable steps to support voluntary and policy-driven solutions.



Introductions

- Name
- Affiliation

What today is not about: more plastics recycling



- Plastics recycling has been “sold” as the solution for decades
- Plastics recycling is ineffective at scale
- It’s FAR cheaper to make new plastics
- Plastics recycling places all responsibility on the consumer
- It would require significant investment to become scalable and feasible

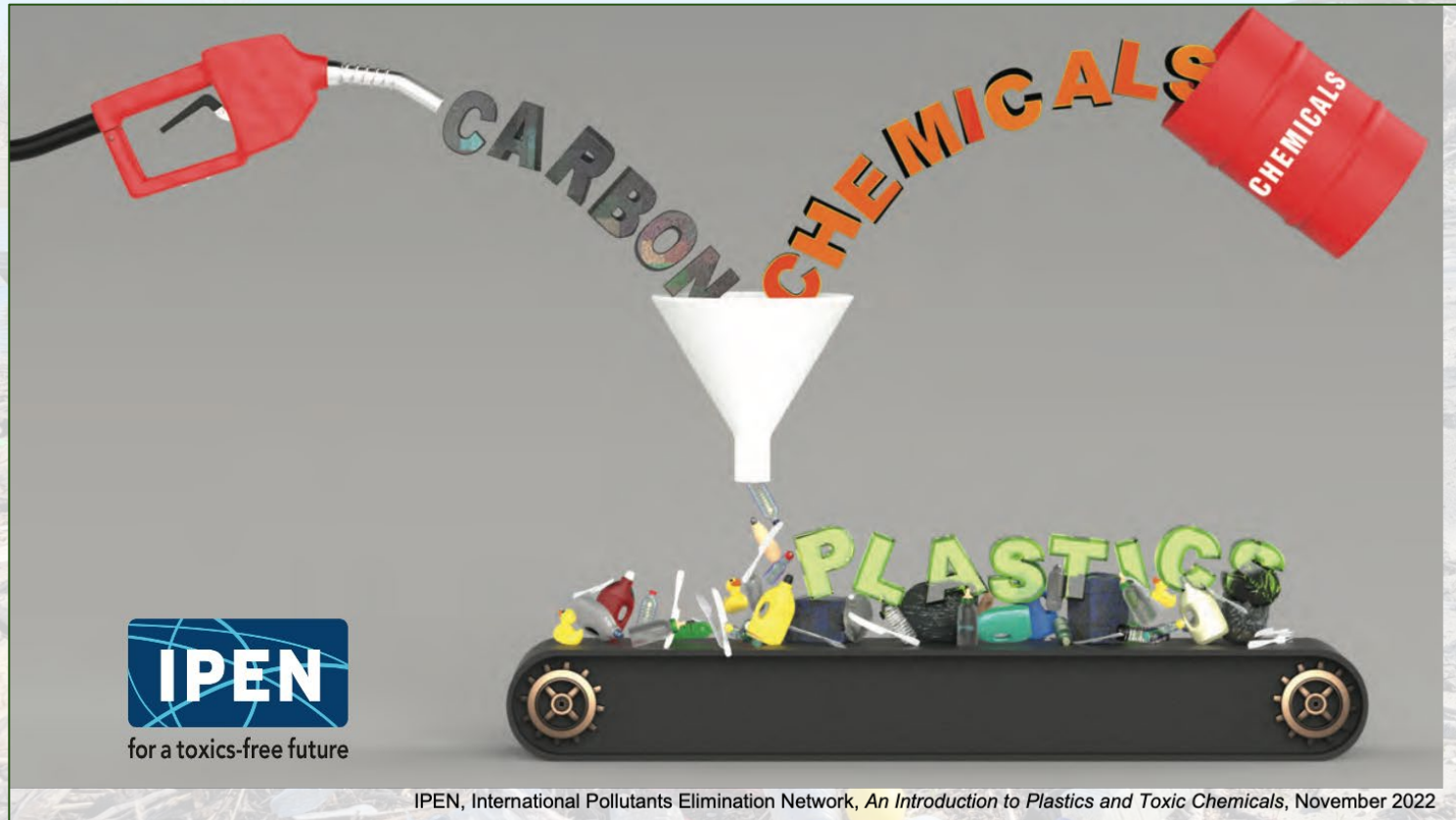


Rethinking Plastic Through Local Change

The History & Impacts of Plastic Pollution

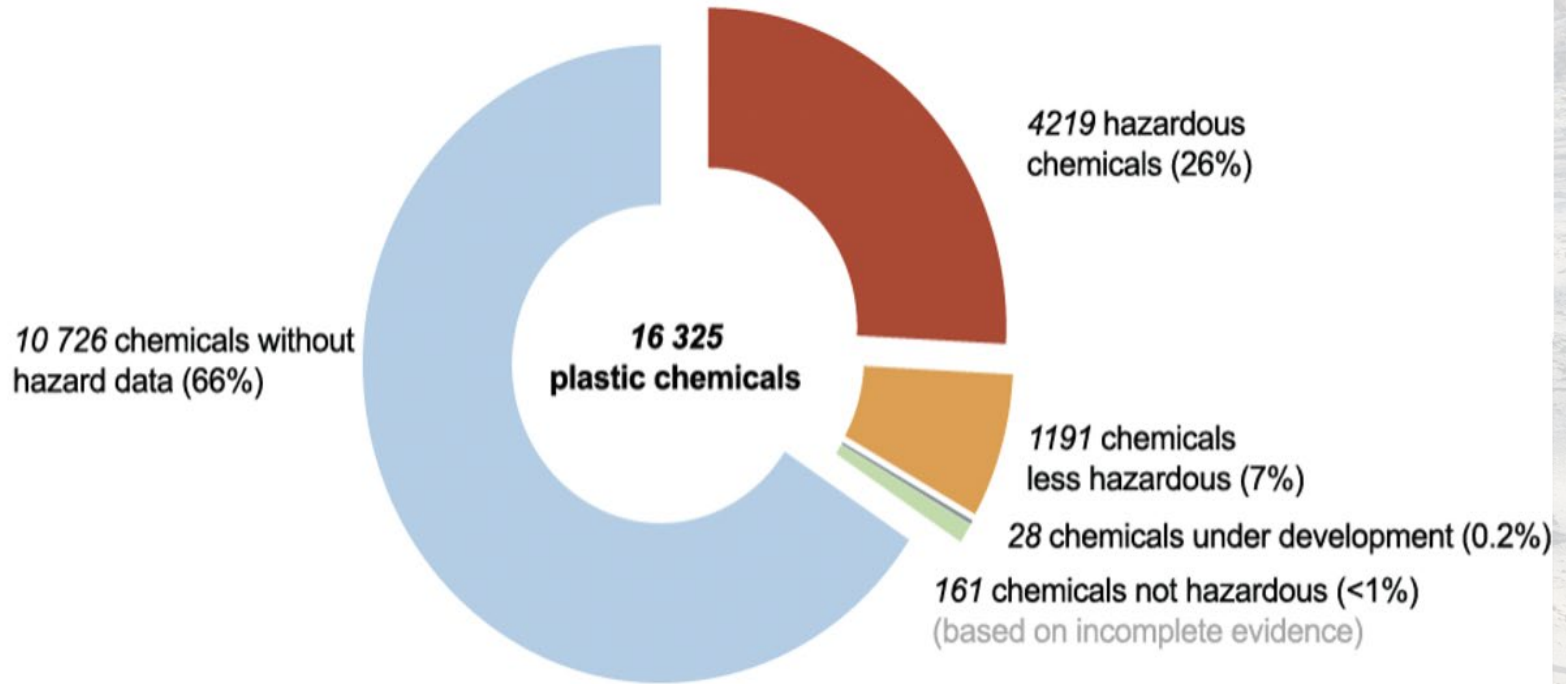


What is plastic?

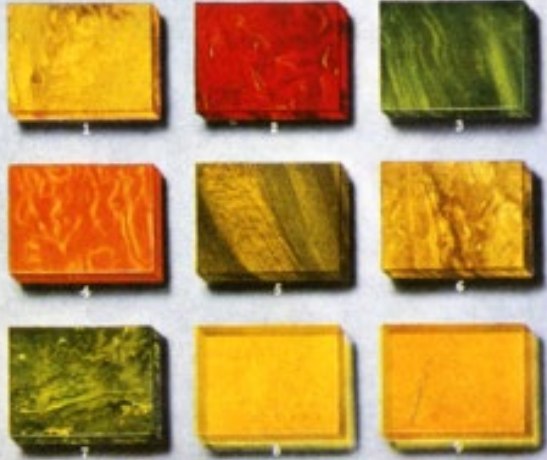


IPEN, International Pollutants Elimination Network, *An Introduction to Plastics and Toxic Chemicals*, November 2022

What is plastic?



NEW BAKELITE JEWEL QUALITY COLORS



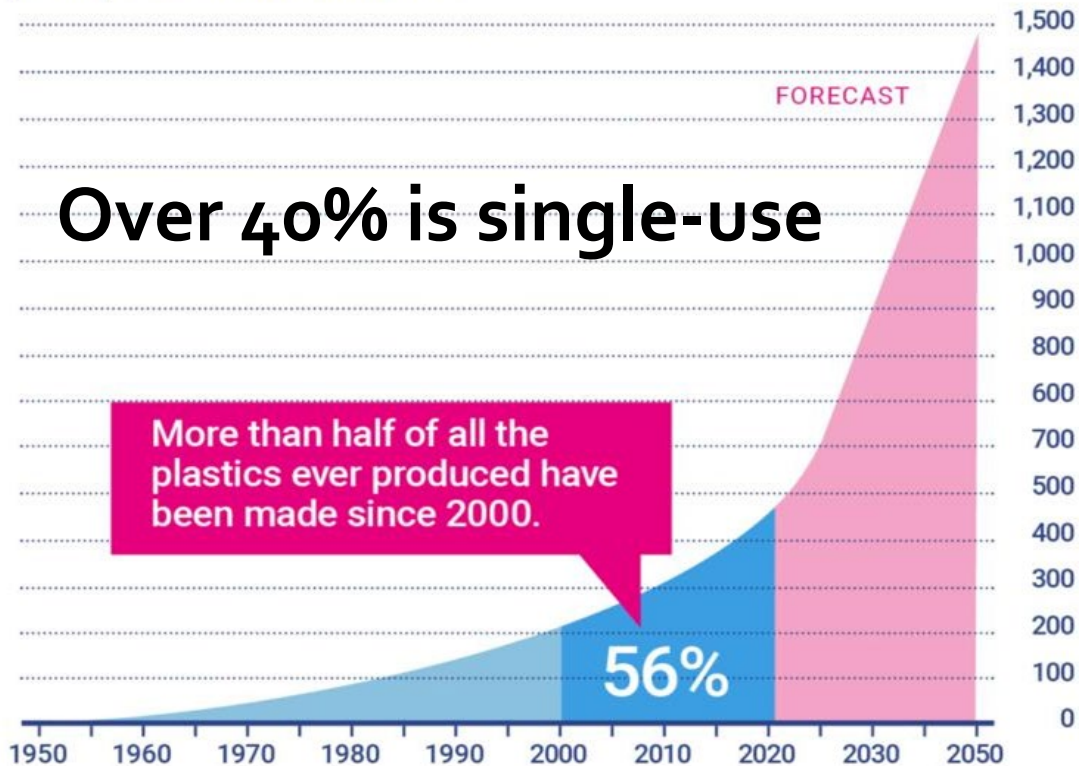
The History of Plastic

PLASTIC RESIN IDENTIFICATION CODES

						
PETE	HDPE	PVC	LDPE	PP	PS	OTHER

PRODUCTION OF PLASTIC

Global annual plastic production in million tonnes.





MADE RIGHT HERE MADE RIGHT HERE MADE RIGHT HERE MADE RIGHT HERE MADE RIGHT HERE MADE RIGHT HERE MADE RIGHT HERE MADE RIGHT HERE MADE RIGHT HERE MADE RIGHT HERE

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MADE RIGHT HERE MADE RIGHT HERE MADE RIGHT HERE MADE RIGHT HERE MADE RIGHT HERE EVERYDAY LOW PRICE! EVERYDAY LOW PRICE! EVERYDAY LOW PRICE! EVERYDAY LOW PRICE! EVERYDAY LOW PRICE!



Seafood Variety Pack
..... Just Peel & Serve

Meow simple
Mix cat food **servings**[®]

24 SINGLE SERVE CUPS



8 cups : With **REAL Tuna & Salmon** in sauce

8 cups : With **REAL Tuna, Shrimp & Whitefish** in sauce

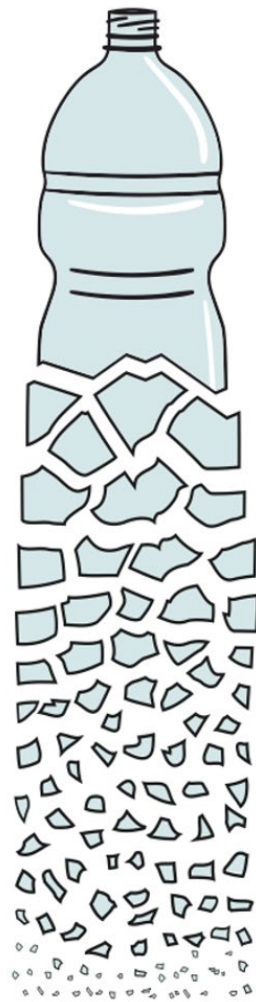
8 cups : With **REAL Tuna & Ocean Whitefish** in sauce

24 - 1.3 OZ (37 g) CUPS TOTAL NET WT 31.2 OZ (885 g)

100% COMPLETE & BALANCED FOR ADULT CATS



Plastics Persist – they don't go away



PLASTIC WASTE

**PLASTIC
BREAKDOWN**

**MACROPLASTICS
>5mm**



**MICROPLASTICS
5mm-0.1 μ m**



**NANOPLASTICS
<0.1 μ m**



**THE
RESULT?**



**Plastics are
everywhere
and in
everything.**





















OIL & GAS
EXTRACTION



PLASTIC &
CHEMICAL
PRODUCTION



PLASTIC
PRODUCTS &
PACKAGING



LANDFILL
& BURNING



ENVIRONMENTAL
& COMMUNITY
POLLUTION

I DIDNT KNOW
PLASTIC WAS
OIL & GAS!



If plastic were a country, it would be the world's fifth largest greenhouse gas emitter.

The U.S. plastics industry is responsible for at least 232 million tons of CO₂e gas emissions per year.

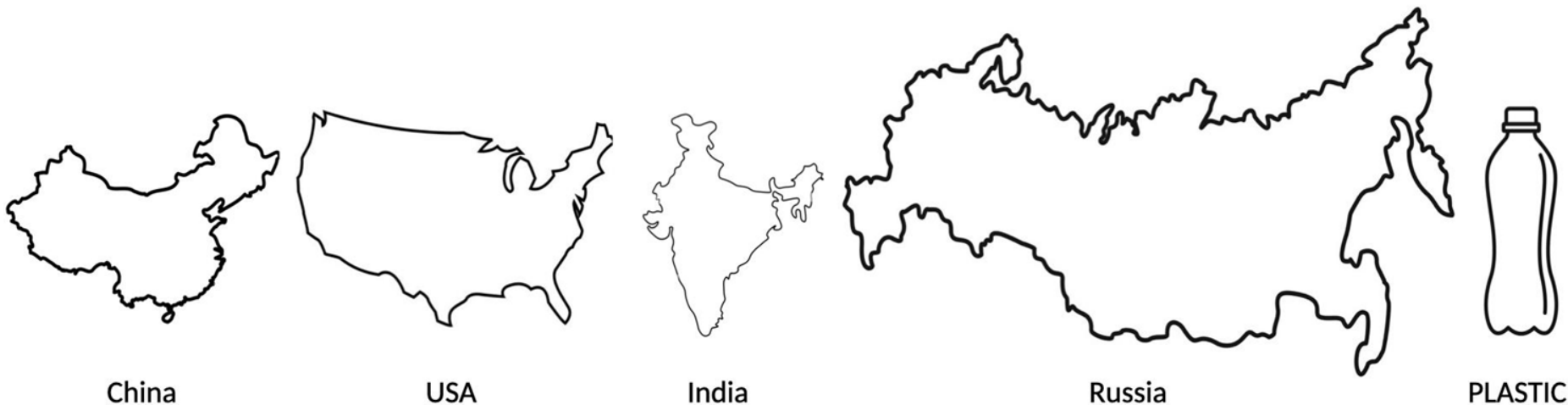
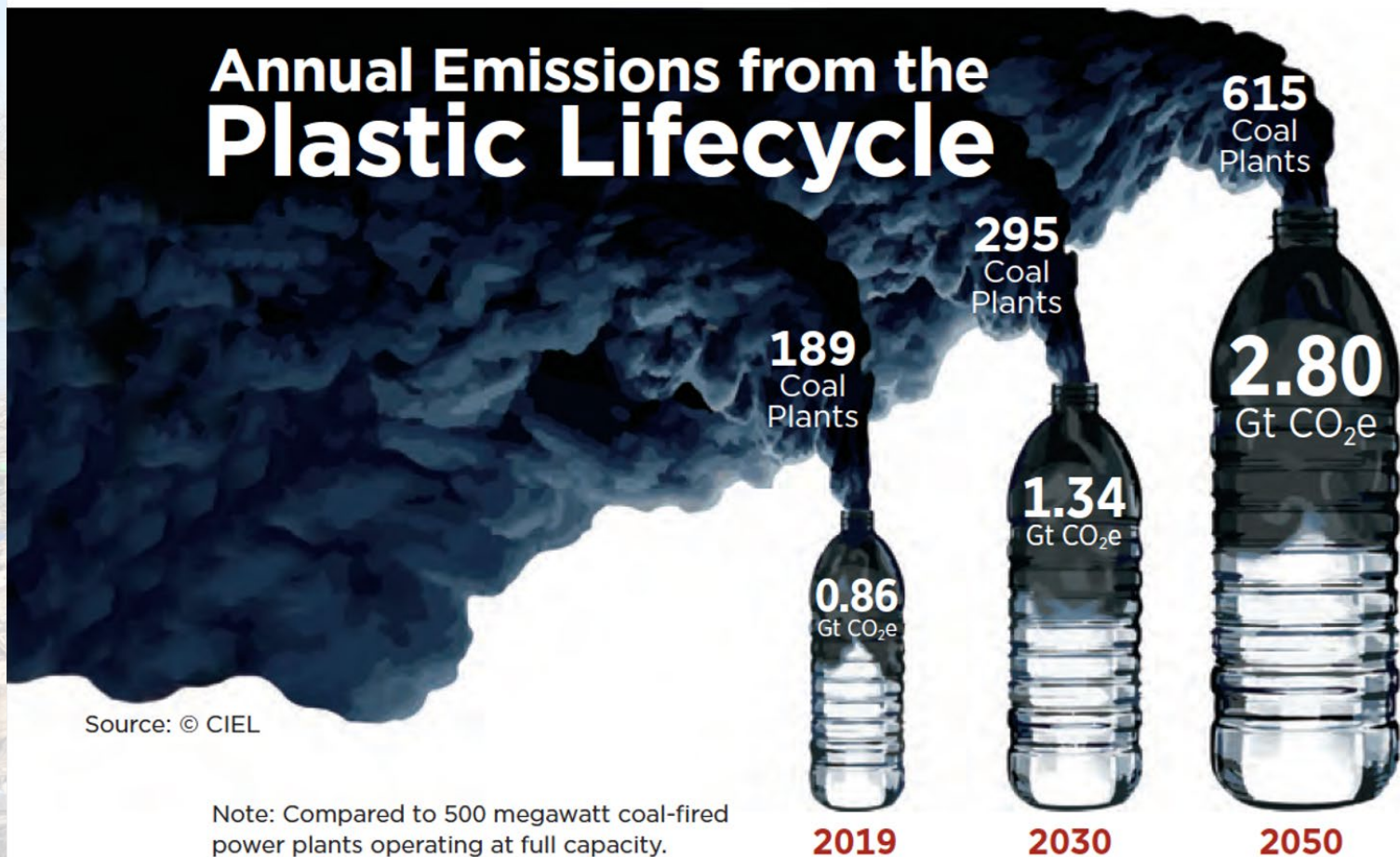


FIGURE 1




Emissions from the Plastic Lifecycle

Annual Emissions from the Plastic Lifecycle

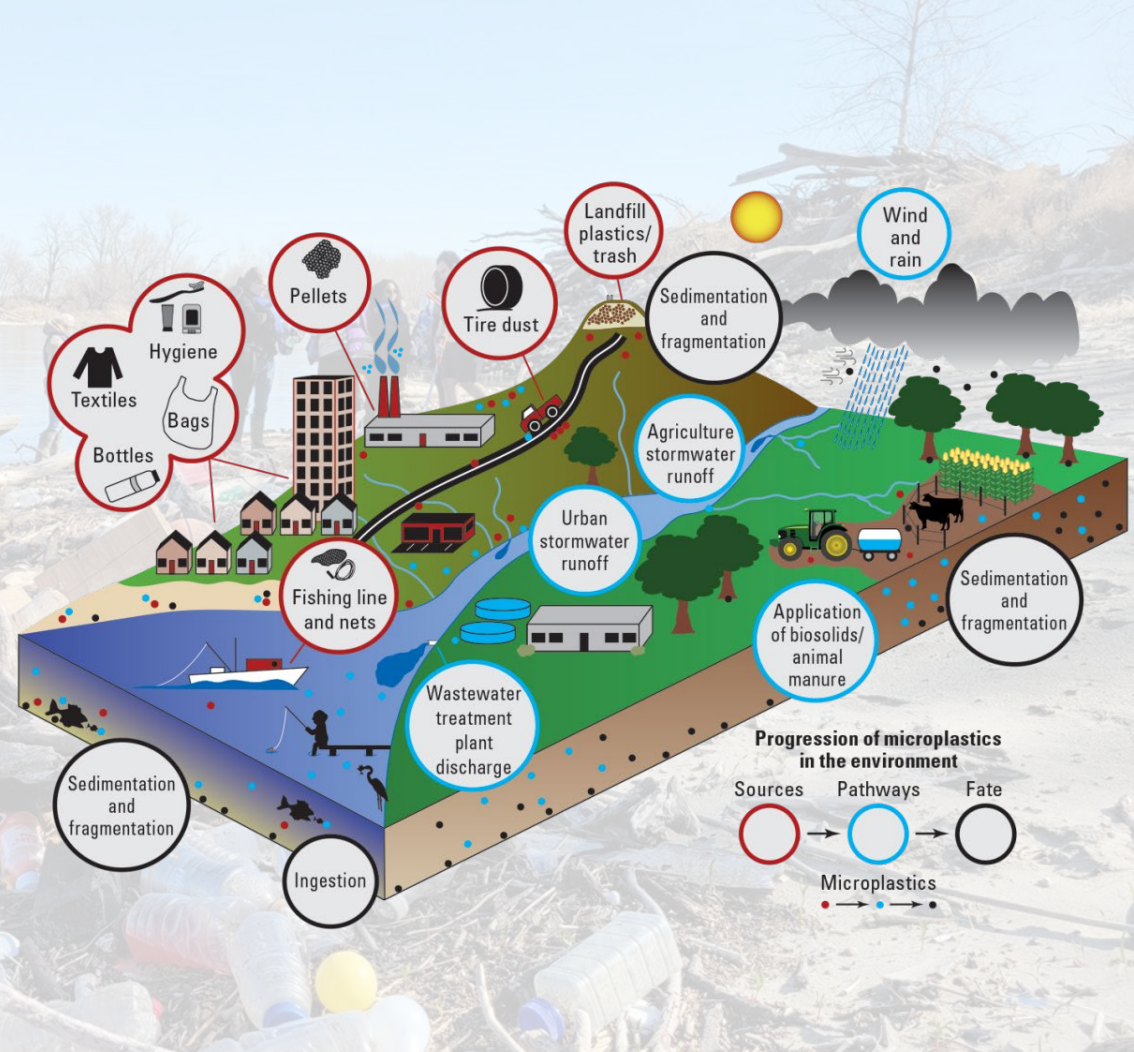




Plastic pollution affects ecosystem processes including community structure and functional traits in large rivers

Veronica Nava ^a, Barbara Leoni ^a, , Monica M. Arienzo ^b, Zeb S. Hogan ^c, Isabella Gandolfi ^a,
 Valeria Tatangelo ^a, Emily Carlson ^c, Seila Chea ^d, Savoern Soum ^e, Rachel Kozloski ^b, Sudeep
 Chandra ^c  

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03-06-2025

Microplastics are creating tiny microbial battlegrounds in farm soil



Environmental Pollution
Volume 292, Part B, 1 January 2022, 118420



Phytotoxic effects of plastic pollution in crops: what is the size of the problem? ☆

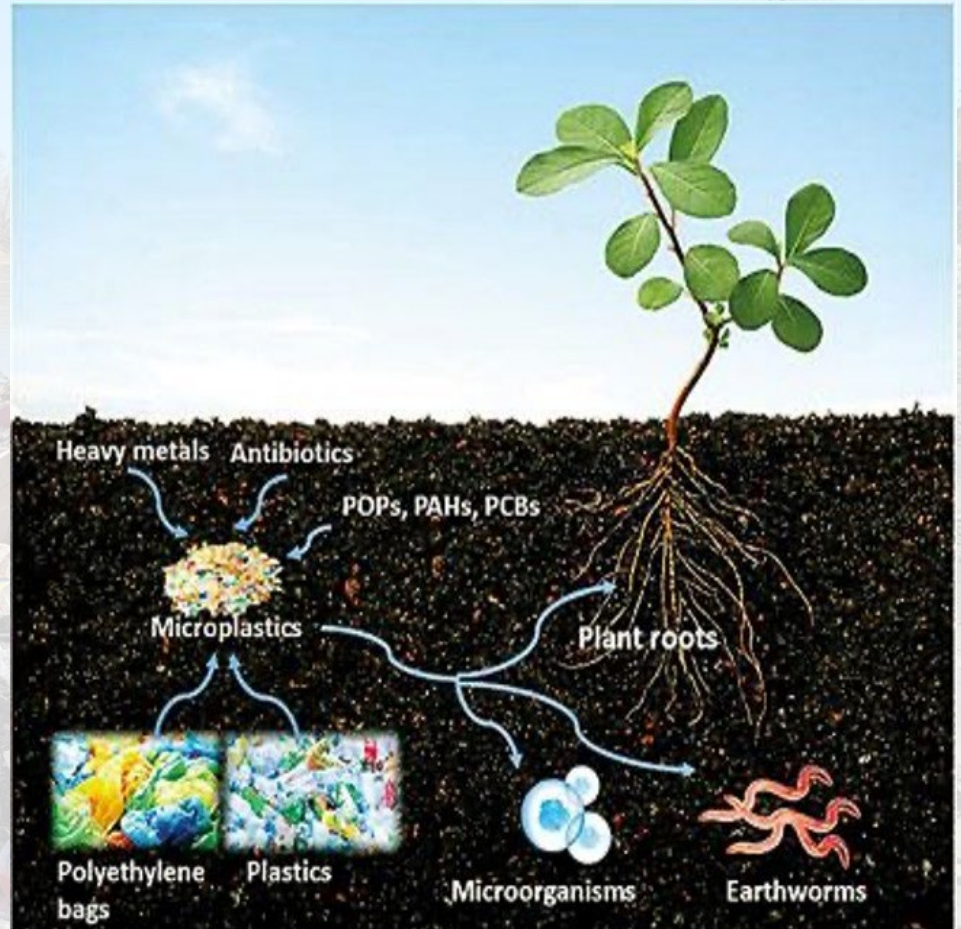
Gustavo Führ Hartmann^a, Felipe Klein Ricachenevsky^b, Neidiquele Maria Silveira^c, Alice Pita-Barbosa^{a,d,e} ✉

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<https://doi.org/10.1016/j.envpol.2021.118420>

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Plastic Bags Are Killing Horses And Cows Across The State. What's Texas To Do?

KERA | By Lara Korte / The Texas Tribune
Published August 14, 2019 at 10:11 AM CDT



Callie Richmond / The Texas Tribune

Kristie West, who owns a ranch and bed and breakfast in Pleasanton, has worked to raise awareness about the fatal impact plastic bags have on livestock.



adstream via Fotogram - CC BY-NC-ND

NOVEMBER 26, 2025

Microplastics disrupt gut microbiome and fermentation in farm animals, study reveals

by University of Helsinki

edited by Gaby Clark, reviewed by Robert Egan

Editors' notes

The GIST

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Tiny plastic particles pervasive in agricultural environments, interact with and disrupt the microbial ecos...

Review > Animals (Basel). 2023 Mar 23;13(7):1132. doi: 10.3390/ani13071132.

Impact of Microplastics and Nanoplastics on Livestock Health: An Emerging Risk for Reproductive Efficiency

Susy Urli ¹, Francesca Corte Pause ¹, Martina Crociati ^{2 3}, Anja Baufeld ⁴, Maurizio Monaci ^{2 3}, Giuseppe Stradaoli ¹

Affiliations + expand

PMID: 37048387 PMCID: PMC10093235 DOI: 10.3390/ani13071132

Environmental Quality Management



RESEARCH ARTICLE

Potential Economic Losses From Microplastics in the Livestock Sector: A Study on Selected Animals

Adi Sutanto ✉, Iswahyudi Iswahyudi, Imbang Dwi Rahayu, Asmah Hidayati, Marchel Putra Garfansa, Yusnita Wahyuni Silitonga, Rafiqah Amanda Lubis, Mukhlis Mukhlis ... See all authors ↓

First published: 21 July 2025 | <https://doi.org/10.1002/tqem.70130> | [VIEW METRICS](#)



Review

Riverine microplastics and their interaction with freshwater fish

Badiozaman Sulaiman ^{a b c}  , Jamie C. Woodward ^a  , Holly A. Shiels ^b

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<https://doi.org/10.1016/j.watbs.2023.100192> 

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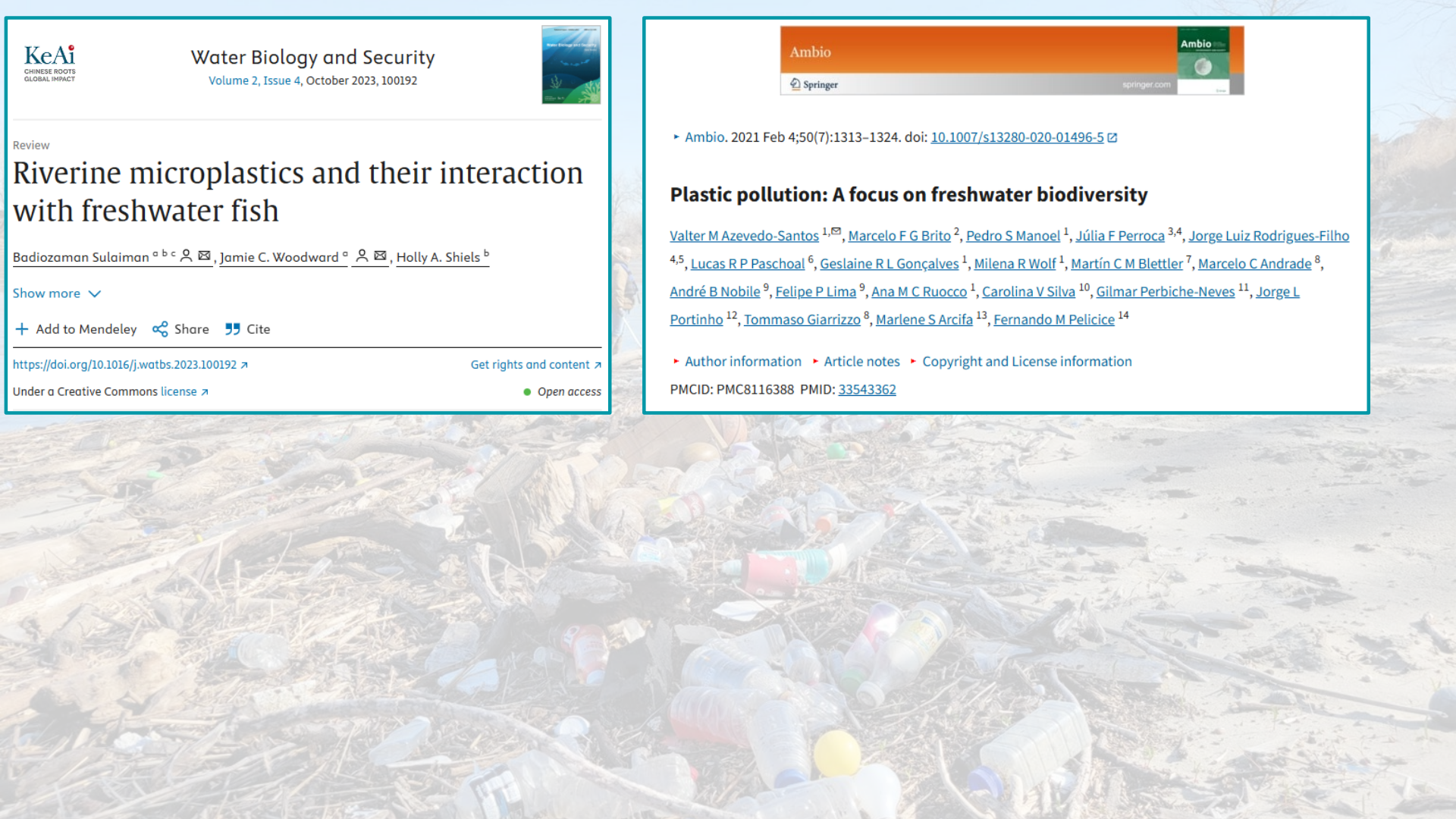
► Ambio. 2021 Feb 4;50(7):1313–1324. doi: [10.1007/s13280-020-01496-5](https://doi.org/10.1007/s13280-020-01496-5) 

Plastic pollution: A focus on freshwater biodiversity

[Valter M Azevedo-Santos](#) ^{1,✉}, [Marcelo F G Brito](#) ², [Pedro S Manoel](#) ¹, [Júlia F Perroca](#) ^{3,4}, [Jorge Luiz Rodrigues-Filho](#) ^{4,5}, [Lucas R P Paschoal](#) ⁶, [Geslaine R L Gonçalves](#) ¹, [Milena R Wolf](#) ¹, [Martín C M Blettler](#) ⁷, [Marcelo C Andrade](#) ⁸, [André B Nobile](#) ⁹, [Felipe P Lima](#) ⁹, [Ana M C Ruocco](#) ¹, [Carolina V Silva](#) ¹⁰, [Gilmar Perbiche-Neves](#) ¹¹, [Jorge L Portinho](#) ¹², [Tommaso Giarrizzo](#) ⁸, [Marlene S Arcifa](#) ¹³, [Fernando M Pelicice](#) ¹⁴

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PMCID: PMC8116388 PMID: [33543362](https://pubmed.ncbi.nlm.nih.gov/33543362/)





Environmental Pollution

Volume 264, September 2020, 114633



Microplastic accumulation in the gastrointestinal tracts in birds of prey in central Florida, USA ☆

Julia Carlin ^a ✉, Casey Craig ^a, Samantha Little ^b, Melinda Donnelly ^a, David Fox ^c, Lei Zhai ^c, Linda Walters ^a

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<https://doi.org/10.1016/j.envpol.2020.114633>

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CLIMATE · 5 MIN READ

The birds on this tiny, remote island are so full of plastic their bellies crunch

19 Nov 23, 2025

By Laura Piekobon



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The birds on this tiny, remote island are so full of plastic their bellies crunch

MAY 23, 2025

By Laura Peadarson



Provided to the PMC COVID-19 Collection by

Springer Nature

► [Environ Sci Pollut Res Int.](#) 2023 Mar 27;30(20):57759–57770. doi: [10.1007/s11356-023-26617-x](#)

Terrestrial mammals of the Americas and their interactions with plastic waste

[Félix Ayala](#)^{1,2,✉}, [Martín Zeta-Flores](#)³, [Sonia Ramos-Baldarrago](#)⁴, [Juan Tume-Ruiz](#)⁵, [Antia Rangel-Vega](#)⁵, [Eddy Reyes](#)⁵, [Edgardo Quinde](#)⁵, [Gabriel Enrique De-la-Torre](#)⁶, [Leticia Lajo-Salazar](#)⁷, [Susana Cárdenas-Alayza](#)^{1,8}

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Environmental Pollution

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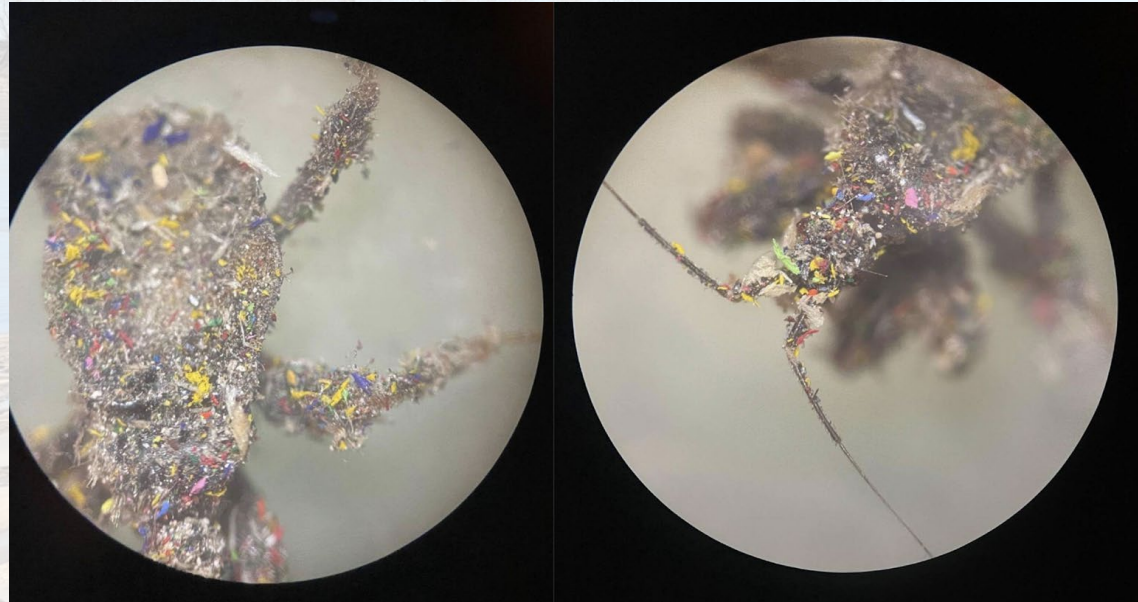
The Detrimental Impacts of Plastic Pollution on Animals

BY OLIVIA LAI

GLOBAL COMMONS | MAY 4TH 2022 | 5 MINS

📌 EARTH.ORG IS POWERED BY OVER 150 CONTRIBUTING WRITERS









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DID YOU KNOW? Plastic particles have been found in:

Arteries
Blood
Blood vessels
Bone
Bone marrow
Brain
Breast milk
Cartilage
Cells
Colon
Elbow joints
Feces
Heart tissue
Intervertebral discs
Kidney
Knee joints
Liver
Lung
Lymph node tissues
Meconium
Olfactory bulb
Placenta
Saliva
Semen
Spleen
Sputum
Stomach
Testicles
Urine
Veins

... and research continues

See sources 2-3,10,13-22, 28

► [Sci Total Environ.](#) 2023 Jun 15:877:162713. doi: 10.1016/j.scitotenv.2023.162713. Epub 2023 Mar 21.

Detection and characterization of microplastics in the human testis and semen

Qiancheng Zhao ¹, Long Zhu ², Jiaming Weng ¹, Zirun Jin ¹, Yalei Cao ¹, Hui Jiang ³, Zhe Zhang ⁴

Affiliations + expand

PMID: 36948312 DOI: 10.1016/j.scitotenv.2023.162713

nature medicine

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[nature](#) > [nature medicine](#) > [brief communications](#) > article

Brief Communication | [Open access](#) | Published: 03 February 2025

Bioaccumulation of microplastics in decedent human brains

[Alexander J. Nihart](#), [Marcus A. Garcia](#), [Eliane El Hayek](#), [Rui Liu](#), [Marian Olewine](#), [Josiah D. Kingston](#), [Eliseo F. Castillo](#), [Rama R. Gullapalli](#), [Tamara Howard](#), [Barry Bleske](#), [Justin Scott](#), [Jorge Gonzalez-Estrella](#), [Jessica M. Gross](#), [Michael Spilde](#), [Natalie L. Adolph](#), [Daniel F. Gallego](#), [Heather S. Jarrell](#), [Gabrielle Dvorscak](#), [Maria E. Zuluaga-Ruiz](#), [Andrew B. West](#) & [Matthew J. Campen](#) ✉

[Nature Medicine](#) **31**, 1114–1119 (2025) | [Cite this article](#)

727k Accesses | 619 Citations | 6496 Altmetric | [Metrics](#)

Plastics

Microplastics found in human blood for first time

Exclusive: The discovery shows the particles can travel around the body and may lodge in organs

Damian Carrington
Environment
editor

✉ @dpcarrington
► Thu 24 Mar 2022 07:00
EDT



Microplastics cause damage to human cells in the laboratory. Photograph: David Kelly/Photograph David Kelly



Environment International

Volume 146, January 2021, 106274



Plasticenta: First evidence of microplastics in human placenta

[Antonio Ragusa](#) ^a, [Alessandro Svelato](#) ^a, ✉, [Criselda Santacroce](#) ^b, [Piera Catalano](#) ^b, [Valentina Notarstefano](#) ^c, [Oliana Carnevali](#) ^c, [Fabrizio Papa](#) ^b, [Mauro Ciro Antonio Rongioletti](#) ^b, [Federico Baiocco](#) ^a, [Simonetta Draghi](#) ^a, [Elisabetta D'Amore](#) ^a, [Denise Rinaldo](#) ^a, [Maria Matta](#) ^a, [Elisabetta Giorgini](#) ^c

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Micro- and nano-plastics induce inflammation and cell death in human cells

Brandon Bishop^{1†}, William S. Webber^{2†}, Shaikh M. Atif³, Ashley Ley¹, Karl A. Pankratz², Rachael Kostelecky⁴, Sean P. Colgan⁴, Charles A. Dinarello², Wei Zhang^{1*} and Suzhao Li^{2*}

¹Department of Chemistry, University of Colorado Boulder, Boulder, CO, United States, ²Department of Medicine, University of Colorado Denver Anschutz Medical Campus, Aurora, CO, United States,

³Division of Allergy and Clinical Immunology, Department of Medicine, University of Colorado Denver Anschutz Medical Campus, Aurora, CO, United States, ⁴Mucosal Inflammation Program, Division of Gastroenterology and Hepatology, Department of Medicine, University of Colorado Anschutz Medical Campus, Aurora, CO, United States





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ORIGINAL ARTICLE



Microplastics and Nanoplastics in Atheromas and Cardiovascular Events

Authors: Raffaele Marfella, M.D., Ph.D. , Francesco Prattichizzo, Ph.D., Celestino Sardu, M.D., Ph.D., Gianluca Fulgenzi, Ph.D., Laura Graciotti, Ph.D., Tatiana Spadoni, Ph.D., Nunzia D'Onofrio, Ph.D.,  +35, and Giuseppe Paolisso, M.D. [Author Info & Affiliations](#)

Published March 6, 2024 | N Engl J Med 2024;390:900-910 | DOI: 10.1056/NEJMoa2309822 | [VOL. 390 NO. 10](#)

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antioxidants



Review

Microplastics and Oxidative Stress—Current Problems and Prospects

Kornelia Kadac-Czapska , Justyna Oško , Eliza Knez  and Małgorzata Grembecka 

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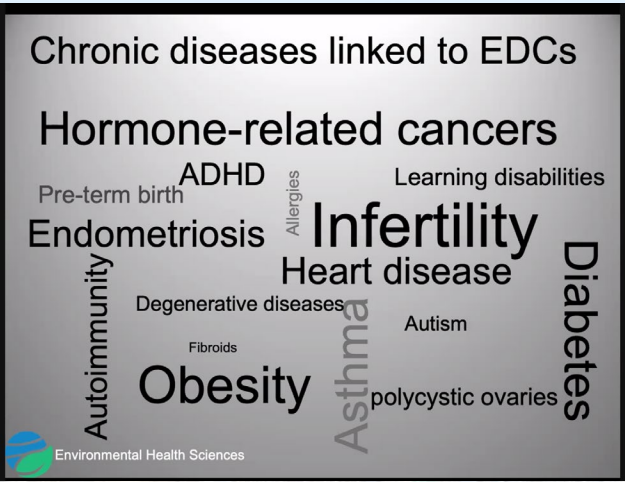
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PRESS RELEASE

Plastics pose threat to human health

Washington, DC | December 15, 2020

Authoritative report shows plastic, microplastics are pervasive sources of exposure to dangerous endocrine-disrupting chemicals



eClinicalMedicine
 Available online 31 March 2026, 103842
[In Press, Corrected Proof](#) [What's this?](#)



Articles

Preterm birth attributable to exposure to chemicals used in plastic materials: a global estimate

Sara Hyman ^a, Jonathan Acevedo ^a, Leonardo Trasande ^{a b c}

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<https://doi.org/10.1016/j.eclim.2026.103842>

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Plastic Food Packaging Can Contain Hundreds of Chemicals That Cause Cancer, Infertility: Study

BY SIMONA KITANOVSKA, ZENGER NEWS ON 6/7/22 AT 3:06 PM EDT



[Toxics](#). 2026 Mar 16;14(3):257. doi: 10.3390/toxics14030257.

Targeting Plastic Exposure in Infertile Couples: A Pilot Intervention Study

Jenna Hua ¹, Johanna R Rochester ¹, Jayne M Foley ¹, Lindsay B Hahn ¹, Mia Yan Min ², Stacey A Kenfield ³, James F Smith ^{3 4}, Shanna H Swan ⁵

Affiliations [+ expand](#)

PMID: 41893525
 PMCID: [PMC13030407](#)
 DOI: [10.3390/toxics14030257](#)

A NETFLIX DOCUMENTARY



THE PLASTIC DETOX

ONLY ON **NETFLIX** | MARCH 16

[Toxics](#). 2026 Mar 16;14(3):257. doi: 10.3390/toxics14030257.

Targeting Plastic Exposure in Infertile Couples: A Pilot Intervention Study

Jenna Hua ¹, Johanna R Rochester ¹, Jayne M Foley ¹, Lindsay B Hahn ¹, Mia Yan Min ²,
Stacey A Kenfield ³, James F Smith ^{3 4}, Shanna H Swan ⁵

Affiliations + expand

PMID: 41893525 PMID: PMC13030407 DOI: 10.3390/toxics14030257 [↗](#)

Waste Management

Tourism

Livelihood and Local Industry

Health Care



The Social Cost of Plastic to the United States

Nancy Lauer, Tibor Vegh, Michelle Nowlin, John Virdin, and Jason Somarelli



Rethinking Plastic Through Local Change

Tangible Actions





Awareness and Education



Individual Actions

REMEMBER: individual action alone is not going to solve the problem – community action is the *real* solution for long-term change.

- **Audit your plastic use** at home and identify opportunities to switch to non-plastic alternatives.
- **Avoid eating or drinking from plastic or polystyrene foam** (Styrofoam™), especially hot, fatty, or acidic foods and beverages.
- **Avoid microwaving** food or drinks in plastic.
- **Replace plastic kitchen items** with wooden, glass, ceramic, or metal alternatives.
- Choose food, household, and personal care products with **minimal plastic packaging** whenever possible.

Organizational Actions

- Conduct an organizational plastic audit
- Stop buying single-use bottled water
- Encourage employees to use their own reusable water bottles and coffee cups
- Switch to compostable paper products or reusable dishware
- Supply durable, reusable utensils
- Choose bulk snacks or beverages instead of individually wrapped items
- Avoid single-use plastic swag or giveaways at events
- Partner with caterers to minimize plastic packaging and service ware for events





Community Actions

Ordinance & Management Strategy Examples



Polystyrene Ordinance

- **Scope:** Prevents distribution of polystyrene foam products, most often food service ware (clamshells, bowls, plates, cups, etc.)
- **Examples:**
 - **Cordova, AK** – Prohibits food vendors from using polystyrene foam disposable food service ware.
 - **Gainesville, FL** – Prohibits the distribution of prepackaged food and beverages in polystyrene foam food containers *on city property and rights-of-way*.
 - **St. Louis Park, MN** – Requires that all single-use food packaging used by licensed food establishments be recyclable or compostable.
 - **Arcadia Lakes, SC** – Prohibits retailers from distributing polystyrene foam items, such as coolers, cups and food containers, to customers.

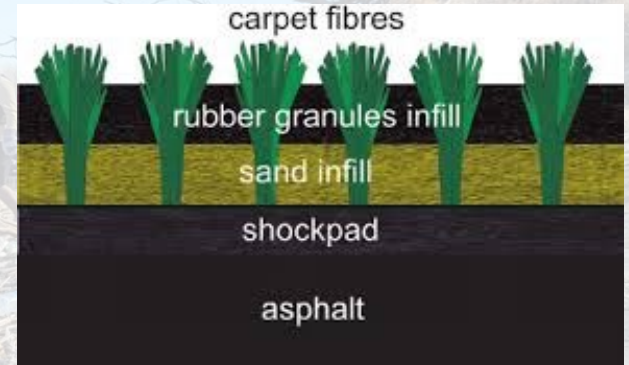
Plastic Bag Ordinance

- **Scope:** Prohibits the free distribution single-use plastic carryout bags to customers. May include provisions for alternative materials (such as paper or reusable bags) and allow or require a fee for their use.
- **Examples:**
 - **Edwardsville, IL** – Requires a \$0.10 fee be paid on single-use plastic and paper bags in stores larger than 7,000 sqft
 - **Lawrence, KS** – Prohibits businesses from providing single-use disposable plastic bags to customers at the point-of-sale.
 - **Logan, UT** – Prohibits the distribution of single-use plastic bags.
 - **Jackson, WY** – Prohibits distribution of single-use plastic bags in grocery stores and *allows a fee on the purchase of paper bags.*

NOTE: MO currently has a plastic bag ban preemption law

Artificial Turf & Crumb Rubber Ordinance

- **Scope:** Prohibits the installation of new artificial turf surfaces and replacement of existing surfaces after their useful life.
- **Examples:**
 - **Boston, MA** – Halted the installation of new artificial turf surfaces in city parks → *this led to statewide legislation being introduced!*
 - **Millbrae, CA** – Prohibits the installation and replacement of synthetic grass and artificial turf landscaping.
 - **Poolsville, MD** – Board of Commissioners votes to replace tire mulch playground surfaces with engineered wood fiber.
 - **Westport, CT** – Prohibits creation of new playing fields using synthetic infill material.



Skip the Stuff

- **Scope:** Requires that retail food service establishments only provide disposable food service items upon customer request (straws, disposable utensils, condiment packets, etc.).
- **Examples:**
 - **Chicago, IL** – Requires that food establishments provide single-use foodware only upon request from the customer or at a self-service station for any delivery or take-out order.
 - **Charleston, SC** – Requires that single-use cutlery is only distributed upon request or at a self-service station for drive-thru and take-out food operations.
 - **Denver, CO** – Requires retail food establishments to provide single-use condiments and service ware upon request.
 - **Gainesville, FL** – Prohibits prepared food providers from including single-use plastic food accessories for dine-in, take-out, or delivery orders unless upon request or at a self-serve station.

A Midwestern "Skip the Plastic!" Campaign

Skip the Plastic!

**PLASTIC STRAWS &
CUTLERY ARE
AVAILABLE
UPON
REQUEST**

Plastic, which is made from fossil fuels, never decomposes - it just breaks down into microplastics and continues to pollute the environment.

Plastic straws & cutlery cannot be recycled - they are contaminated and they are too small.

Skip the Plastic!

Help us celebrate success!! Register locations that are Skipping the Plastic!



Nicolina Pappas
Age 13
Rock Island, IL

Skip the Plastic!

**EVERY PIECE OF PLASTIC EVER MADE
STILL EXISTS TODAY.**

Plastic, which is made from fossil fuels, never decomposes - it just breaks down into microplastics and continues to pollute the environment.

Plastic straws & cutlery cannot be recycled - they are contaminated and they are too small.

HOW CAN YOU HELP?

IF YOU ARE A RESTAURANT OR EATERY:

- Train your staff to only provide plastic cutlery and straws if a customer requests them.
- Better yet, provide eco-friendly options, such as biodegradable utensils and to-go packaging or stainless steel straws.
- Promote that you are Skipping the Plastic!

IF YOU ARE A CUSTOMER:

- Ask restaurants to not provide plastic cutlery in your take-out orders.
- Refuse a plastic straw.
- Consider carrying your own metal straw with you.
- Celebrate restaurants that are skipping the plastic!

Help us celebrate success!! Register locations that are Skipping the Plastic!



Balloon Release Restriction

- **Scope:** Prohibits the intentional outdoor release of balloons or other floating devices inflated with lighter-than-air gases.
- **Examples:**
 - **La Crosse, WI** – Prohibits the intentional outdoor release of balloons.
 - **Beaufort, SC** – Prohibits the intentional outdoor release of balloons.
 - **Cleveland, OH** – Prohibits the intentional release of 10 or more balloons.
 - **St. Augustine, FL** – Prohibited the intentional release of balloons → *this led to a statewide balloon release ban!*

Single-Use Plastics Ordinance

- **Scope:** Prohibits businesses from distributing various single-use plastic products to customers.
- **Examples:**
 - **Hailey, ID** – Prohibits the distribution of single-use products at city-sponsored events.
 - **Savannah, GA** – Prohibits plastic bags, straws, coffee stirrers, cups, utensils, and most plastic food packaging within city facilities and supports local businesses who want to voluntarily transition.
 - **Miami Beach, FL** – Prohibits plastic and metallic decorations at city parks, public marinas, marine facilities, and along city beaches (*in addition to statewide balloon ban*).
 - **Milwaukee, WI** – Prohibits food establishments from providing a single-use plastic straw, unless upon request.

Water Refill Station Installation

- **Scope:** Encourages the use of reusable water bottles instead of single-use plastic bottles by installing water refilling stations in public spaces.
- **Examples:**
 - **MRCTI benefiting North St. Louis** – Used an EPA grant award to install 4 water refill stations in underserved communities and replaced over 87,500 single-use plastic or styrofoam packaging in restaurants with sustainable or reusable containers.
 - **Gateway Arch National Park** – Refill stations installed in every building within the park.
 - **H2O Refill Program – Milwaukee, WI** – Provides water refill stations for local events.
 - **Water Station Project – Eugene, OR** – Provides up to 10 water refill stations at public events with anticipated attendance above 250 people.

Business Actions in the Region



- **Big Sky Cafe** – Implemented Skip the Straw and replaced plastic straws with compostable alternatives.
 - **St. Louis Zoo** – Eliminated straws, cup lids and plastic bags in retail shops.
 - **O’Connell’s Pub** – Replaced plastic food serviceware with reusable alternatives & uses aluminum foil for leftover food packaging.
 - **Seed, Sprout, Spoon Catering** – Purchased second-hand reusable serviceware to offer to customers for events and eliminated individually-wrapped condiments.
 - **Local Harvest Grocery** – Offers refill services for dry goods, personal care, and household care products.
 - **The Swallow’s Nest** – Offers a refill station for personal care products that can be purchased using reusable containers.
- ... and MANY more!

<https://greendiningalliance.org/find-a-restaurant/>
<https://sustainability.wustl.edu/items/local-refill-stores/>

Plastic Free July: A Missouri Business Challenge

A **voluntary** opportunity for businesses across Missouri to try **at least one plastic-reducing practice** at their establishment throughout the month of July.

Benefits to Participating:

- Statewide participation **map**:
<https://bit.ly/PFJ2026-map>
- Recognition on **social media** platforms
- Print and digital **promotional materials**
- A unique opportunity to **be a leader** in community-wide plastic reduction efforts



**PLASTIC
FREE
JULY**



School Actions

District Policies

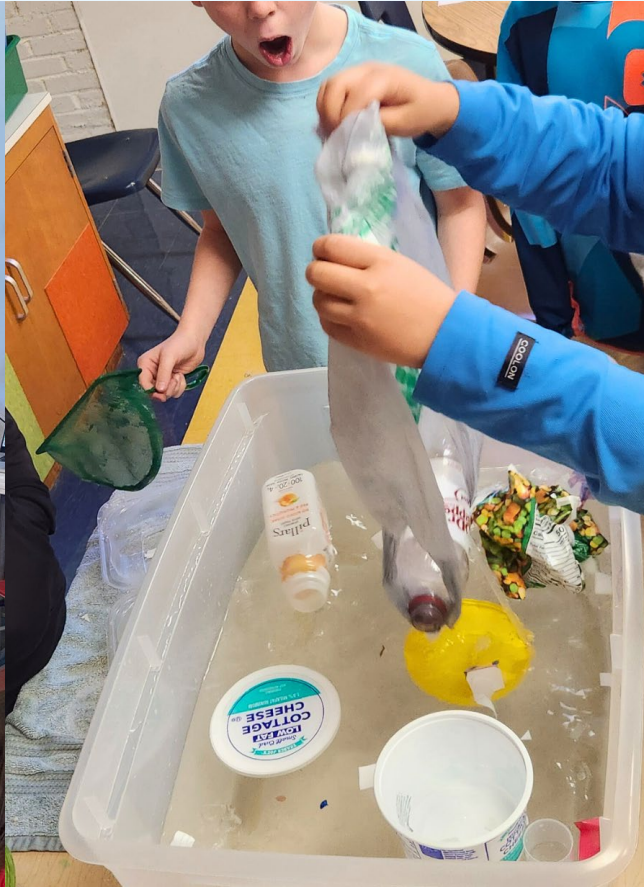
- Switch to Reuse
- Promote Reuse via Fundraisers
- Water Refill Stations
- Plastic-Free Lunch Days
- Condiment Packet Bans
- Bring Your Own Policy
- Skip the Stuff Policy
- Artificial Turf Ban

Programming & Education

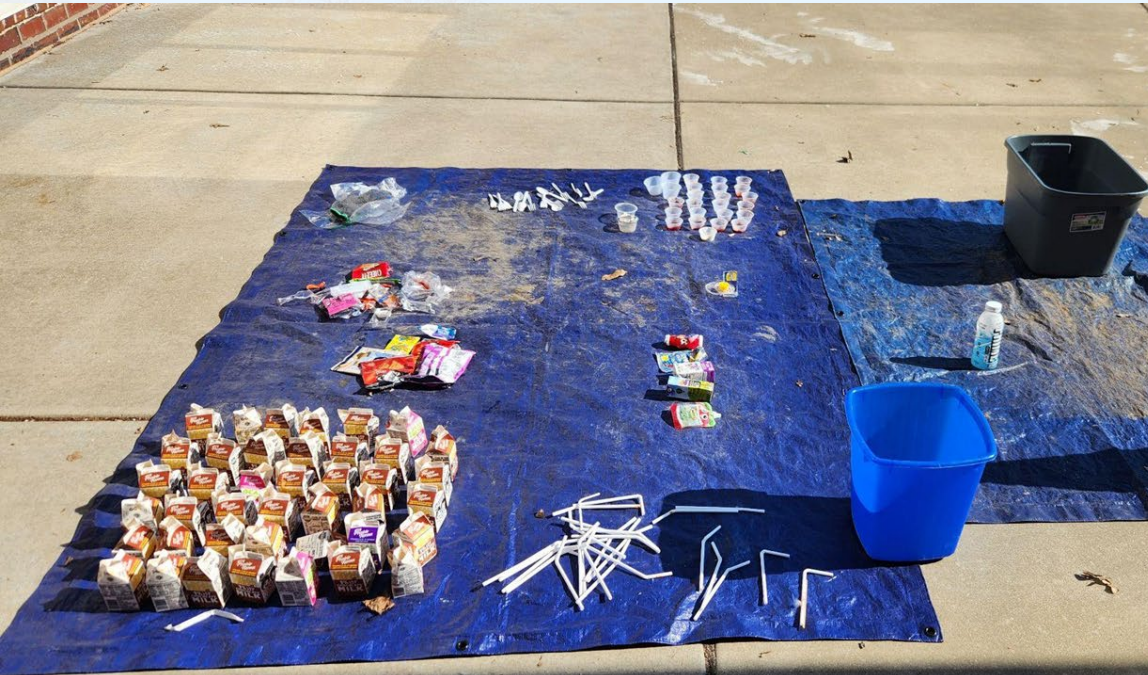
- Classroom programs
- Cafeteria plastic audit
- Plastic Free Lunch Day
- Support for switching to reuse

- Stori Smith, Plastic Pollution Educator
 - stori.smith@mrbo.org

Classroom Programs



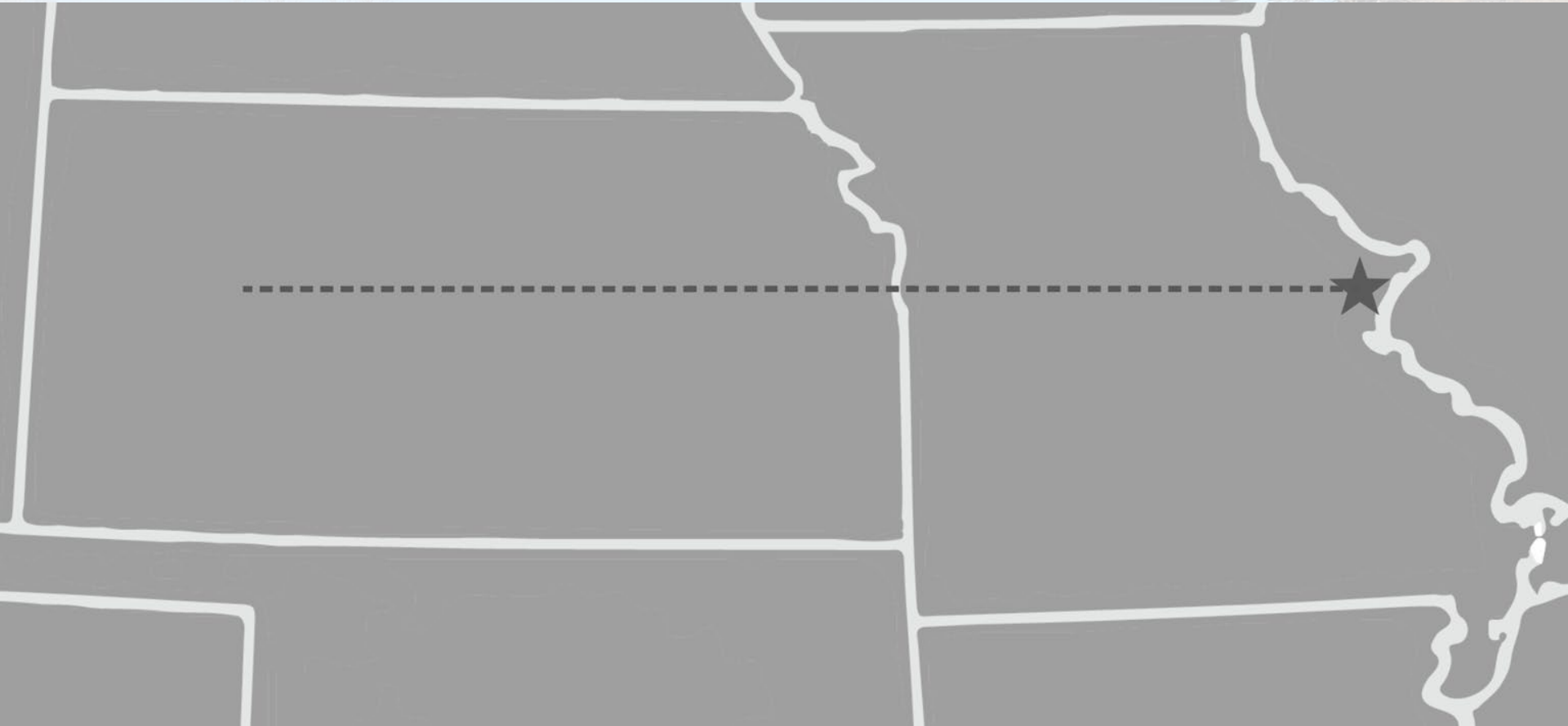
Cafeteria Plastic Audit



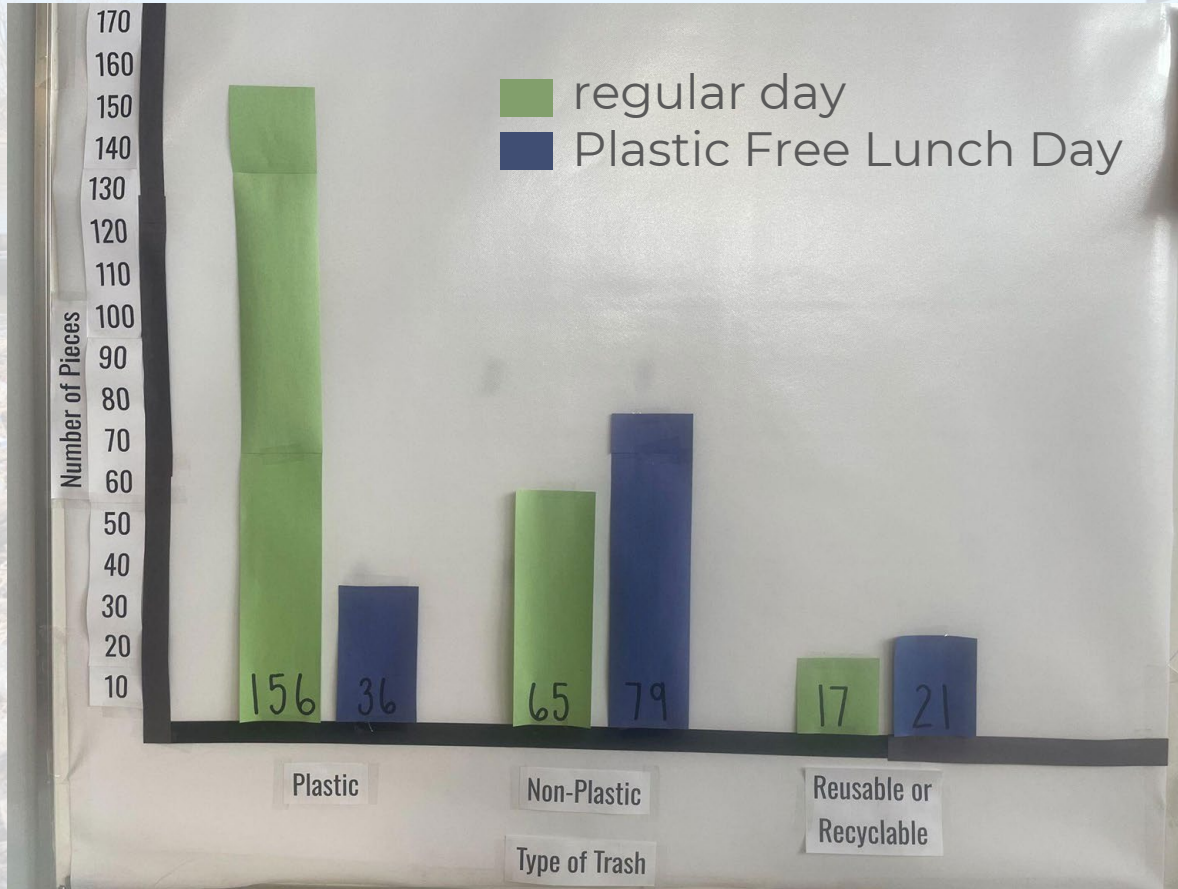
Cafeteria Plastic Audit




Cafeteria Plastic Audit



Plastic Free Lunch Day



- 
- A group of people is seen cleaning up a polluted shoreline. In the foreground, there is a large, messy pile of trash, including plastic bottles, cardboard boxes, and other debris. Several people are standing around the pile, some appearing to be sorting through it. In the background, there is a body of water and some trees. The overall scene is one of environmental cleanup.
- Better protect student health
 - Provide active learning with real-world context
 - Promote reuse, intentionality, and a sense of agency
 - Save money on cafeteria supplies
 - Be a leader, join a movement, elevate your school and

Show-Me Less Plastic
Cafeteria Culture

Missouri Green Schools
Beyond Plastics

A photograph of a beach cleanup. In the foreground, there is a large, messy pile of plastic waste, including numerous clear plastic water bottles, some with labels, and other debris. The background shows a sandy beach with several people standing near the water's edge. The sky is clear and blue, and there are some bare trees in the distance. The overall scene suggests a community effort to clean up a polluted beach.

Questions?



MIDAMERICA CLEAN FUTURE

PLASTIC POLLUTION INITIATIVE

LOCAL TAXPAYERS



Alleviate the burden on costly municipal infrastructure through community-specific and strategically designed plan.

COMMUNITY HEALTH



Minimize immediate and long-term health risks caused by plastic pollution.

OUR CITIES



Remove plastic pollution from the streets, neighborhoods, and waterways of our cities and towns.

GLOBAL OCEANS



Reduce ocean-bound plastic pollution.

MISSISSIPPI RIVER PLASTIC POLLUTION INITIATIVE



Mississippi River Cities Commitment to Reducing Plastic Pollution

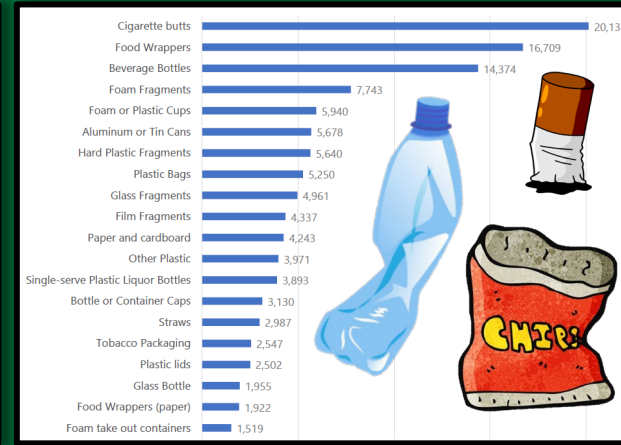


THE MISSISSIPPI RIVER PLASTIC POLLUTION INITIATIVE

CLEAN RIVER, CLEAN SEAS

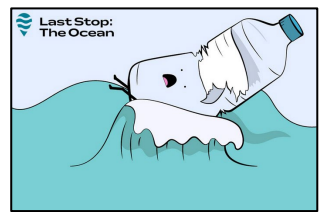
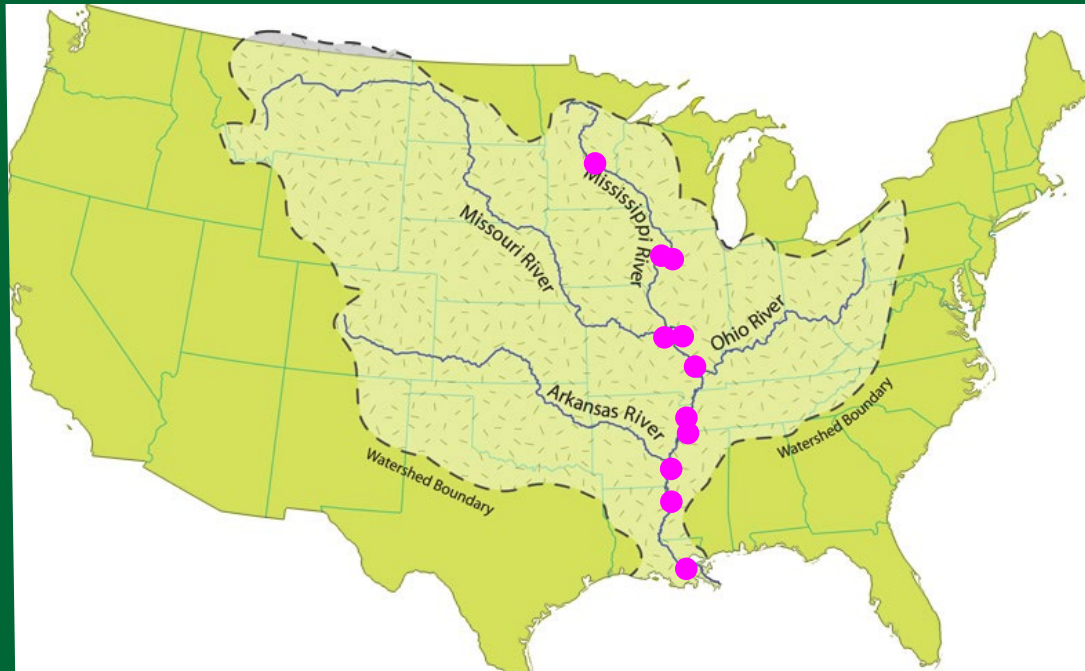
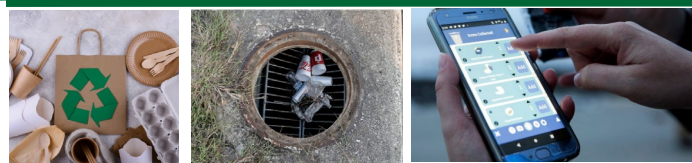
The Mayors of the Mississippi River, in partnership with the United Nations Environment Programme, National Geographic Society and the University of Georgia, launch an initiative to combat plastic pollution along one of the world's greatest waterways.

Working with volunteer citizen scientists from local communities, the initiative will record data on the state of plastic pollution at key sites along the river. This data will be used to generate a 'plastic pollution map' that will help policy makers, business and citizens take action.



Through Collaboration and Community Science

MISSISSIPPI RIVER PLASTIC POLLUTION INITIATIVE

MISSISSIPPI RIVER PLASTIC POLLUTION INITIATIVE



Cities' Urgent Declaration to the Intergovernmental Negotiating Committee (INC) on Plastic Pollution

We, as cities across the world, do hereby confirm the powerful and united position to reduce dependence on plastic and commit to working through a multi-lateral treaty and across our several continents to capture and dramatically lower plastic waste being released into our environment.

The Plastic Pollution Crisis and Subnational Governments

Cities stand on the frontline of plastic pollution impacts and are best positioned to design and implement solutions supported by a global treaty on plastic pollution.

The current level of plastic waste in our cities is a merging of overconsumption, mismanaged production, and a complete overwhelming of city infrastructure to assimilate incredible waste streams from every facet of the economy.

The planet is producing more than 400 million tons of plastic waste annually, and over 70 percent (70%) of that volume is from municipal solid waste sources. Five billion people globally lack access to solid waste disposal facilities and solid waste collection infrastructure.

Plastic waste is just as ubiquitous in our environment as it is throughout the world's many economies. Cities are uniquely dependent on riverine environmental services to support up to eight local economies including manufacturing and agriculture. Over 5.8 million tons of plastic waste annually pollutes rivers globally (OECD Global Plastics Outlook Database).

Cities Will Lead in Implementing a Global Plastic Pollution Treaty

Because the epicenter of the plastic pollution crisis is cities, we are tasked with addressing the consequences of plastic pollution and implementing many of the charges and policy established by nations through at global plastic pollution treaty. It is critical that cities are brought into and made part of the treaty negotiation agenda much like they have recently been brought into the UNFCCC process.

Importantly, many of the solutions and approaches under consideration through the INC process are already being implemented in cities across the world at varying scales. Cities are determined to continue this work with or without a global treaty and can thus bring the most value and practical experience to inform INC negotiations.

Regional collaboration, source reduction of single-use plastics, prevention of plastic litter, expanded circularity prioritizing for local benefit, spurring of post-consumer waste materials trade, and implementing of consistent reporting and tracking are just some of the transformative actions being taken by cities.

Declared by the Mississippi River Cities & Towns Initiative Executive Committee Mayors



Example Ordinances:

- Polystyrene Ordinance
 - **Skip The Stuff Ordinance**
 - Plastic Bag Ordinance
 - Balloon Release Restriction
 - Artificial Turf & Crumb Rubber Ordinance
- and...*
- **Recycling Accountability**



6 Month Plan for Code/Ordinance Revision – *We can help!*

- **Month 1** – Audit existing codes, ordinances, contracts, and practices; gather city concerns and data.
- **Month 2** – Staff review + field interviews; identify issues and initial actions.
- **Month 3** – Present findings in a work session with City Council.
- **Month 4** – Community engagement and public input (boards/commissions).
- **Month 5** – Compile feedback; refine issues and action items with staff.
- **Month 6** – Deliver final report and recommended revisions to Council.

Skip the stuff

Benefits for the City

- **Reduces unnecessary waste and lowers disposal costs**
- Cuts down on litter cleanup required by City staff
- Improves the appearance of streets, parks, and public spaces
- Reduces contamination in recycling
- Supports sustainability and climate goals

Benefits for Residents

- **Cleaner neighborhoods and public spaces**
- Less clutter at home from unwanted utensils and packets
- Only receive what they actually need
- Supports community values around waste reduction
- Maintains access for residents' needs for medical or accessibility reasons

Benefits for Restaurants

- **Less litter around storefronts and drive-thrus**, improving curb appeal
- Saves money by reducing unnecessary accessory purchases
- Simplifies inventory and ordering
- Meets customer expectations for waste-conscious service
- Improves operational efficiency



Example Ordinance: “Skip the stuff”

Location in Code: Solid Waste, Food Establishments or Health Regulations, Environmental Sustainability

Section X.XXX – Provision of Single-Use Food Service Accessories

- a. **Purpose.** The purpose of this section is to reduce unnecessary waste and promote responsible consumption by requiring that single-use food service accessories be provided only upon customer request.
- b. **Definitions.** For the purposes of this section, “single-use food service accessories” include, but are not limited to:
- straws
 - stirrers
 - disposable utensils
 - condiment packets or cups
 - napkins
 - cup lids for dine-in service
 - any other disposable accessory customarily provided with prepared food or beverages
- c. **Requirement to Provide Only Upon Request.** Retail food service establishments shall **not** automatically include single-use food service accessories with any dine-in, take-out, drive-through, or delivery order. Such items may only be provided:
Upon explicit request from the customer, or
At a self-service station where customers may select items as needed.
- d. **Third-Party Delivery Platforms.** Any third-party delivery service operating within the City shall provide customers with an option to request single-use accessories and shall not include such items unless selected by the customer.
- e. **Prohibition on Bundling.** Food service establishments shall not bundle single-use accessories in pre-packaged sets. Each item must be requested individually.
- f. **No Charge for Compliance.** Establishments shall not charge a fee for complying with this section or for declining to provide single-use accessories.
- g. **Exemptions.** Upon request, establishments shall provide single-use straws to individuals who require them due to disability or medical need.
- h. **Enforcement.** Violations of this section may result in warnings, administrative citations, or penalties as established by the City.

Strengthening Recycling Accountability Through Ordinance Updates

Example ordinance change for improved accountability of recyclables (Webster Groves):

Current language in Chapter 34 – Solid Waste with recommended revisions:

Sec. 34.030. Collection of solid waste.

- j. The collection supervisor shall contact the department of public works at midmorning and before leaving the city for the day on each day to obtain reports received directly by the city of missed or improper collections and to report resident violations of the solid waste ordinance or collection regulations. The contractor shall submit accurate monthly records to the director of the number of residences served, the total volume of refuse and yard waste collected and total **gross and** net tons of mixed recyclables collected within the city, by the fifteenth working day of the month following. **These records shall also include line-item documentation of each instance in which collection trucks scale in and out, as well as a report identifying the end-market or facility to which recyclables are delivered after sorting at the recycling center.**

Example ordinance change for improved accountability of recyclables (Webster Groves):

Current language in Chapter 34 – Solid Waste

Sec. 34.050. Disposal of solid waste.

- a. Solid wastes shall be deposited at a processing facility or disposal area approved by the city and complying with all requirements of the Missouri Division of Health. Out of state processing or disposal facilities shall have the approval of the state wherein located.
- b. The director may classify wastes as hazardous wastes which will require special handling and shall be disposed of only in a manner acceptable to the director and which will meet all local, state and federal regulations.

Draft language suitable for insertion into Chapter 34 – Solid Waste

Sec. 34.055. Delivery of Solid Waste and Recovered Materials.

- a. All solid waste and recovered materials collected within the City shall be delivered only to processing facilities or disposal areas approved by the City and compliant with all requirements of the Missouri Department of Natural Resources (MDNR).
- b. In addition to the requirements of this Chapter, all facilities receiving solid waste or recovered materials from within the City must comply with the licensing and material-acceptance requirements of **St. Louis County Ordinance Chapter 607**, including Section 607.340 governing the acceptance of waste and recovered materials.
- c. Materials collected or represented as **recovered materials or recyclables** shall be delivered to a **licensed recycling or waste-processing facility** authorized to accept such materials. Such materials **shall not be disposed of in a landfill** unless residue or contamination renders them non-recyclable, as documented by the receiving facility.
- d. The hauler shall maintain documentation demonstrating delivery of recovered materials to a licensed processing facility, including scale tickets, gross and net tonnage, and end-market or downstream facility information, and shall provide such documentation to the City upon request.

Revisions to Hauler Contract After Updating the Ordinance

CONTRACT CLAUSE: Reporting (Hauler Agreement)

This clause can be inserted into the Reporting, Processing, or Performance Requirements section.

Recyclable Materials Delivery and Documentation Requirements

The Contractor shall deliver all materials collected or designated as recyclables or recovered materials to a **licensed recycling or waste-processing facility** authorized under St. Louis County Ordinance Chapter 607 and applicable MDNR regulations. Recyclable materials shall **not** be disposed of in a landfill except where contamination or residue renders the material non-recyclable, as verified by the receiving facility.

The Contractor shall provide the City with monthly documentation including:

- **Gross tons** of recyclables delivered (scale-in weight).
- **Net tons** of recyclables marketed (post-processing weight).
- **Residue tons** disposed.
- **Scale tickets** for each load, including scale-in and scale-out records.
- **Facility identification**, including the name and license number of the receiving processing facility.
- **End-market or downstream destination reporting**, identifying where sorted recyclables are marketed or delivered after processing.

Additional Revisions to Hauler Contract

CONTRACT CLAUSE: Education and Outreach Materials Clause (Hauler Contract)

This clause can be inserted into the Reporting, Processing, or Performance Requirements section.

Education and Outreach Requirements The Contractor shall develop, maintain, and distribute educational materials to support proper recycling, waste reduction, and contamination prevention within the City. These materials shall be provided at no additional cost to the City and shall include, at minimum:

Printed and digital educational materials explaining accepted and prohibited materials, preparation requirements, and set-out guidelines.

Annual updates to reflect changes in processing capabilities, end-market requirements, or contamination trends.

Targeted contamination-reduction materials, including door hangers, tags, or notices for residents who set out improper materials.

City-approved branding, ensuring all materials reflect the City's recycling program identity and messaging.

Advance submission of all educational materials to the City for review and approval prior to distribution.

The Contractor shall make these materials available on its website, provide them to new customers upon service initiation, and supply printed copies to the City upon request. Failure to provide or update educational materials as required shall constitute a material breach of contract.



EPR for Packaging: A Policy Trend to Watch

Positioning Our Cities for Success

What It Is:

A **state or federal** policy framework that shifts the **cost and responsibility** for managing packaging waste from **local governments and taxpayers** to the **producers** who design and sell packaging.

Discussion

1. How might your city/organization be involved with increasing local awareness about this issue?
2. Who in your community (businesses, schools, civic groups, etc.) is already reducing plastic waste, and how can they be supported?
3. What types of local ordinances or strategies might be most realistic in your community?
 - a. How might you gather public support for this ordinance?
 - b. What groups would be opposed and how might you work with them?

Many thanks!

- Cool Cities STL
- Mid America Clean Future Alliance
- Five Oaks on Warson
- Olivette Parks & Rec
- YOU!

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Feedback Survey

