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<https://extension.msstate.edu/>

Program Goals

- 1) Create Behavior Change – Improve your health, wealth and well being**
Social Marketing Approach – Measured with Pre & Post Surveys
- 2) Raise awareness of the complexity of waste management stream
- 3) Increase understanding of why reducing & reusing waste should be top priorities
- 4) Increase knowledge of why recycling is important & how to do it correctly
- 5) Increase knowledge on the negative impacts of litter
- 6) Increase awareness about litter and ocean pollution
- 7) Take the Pledge to have a Sustainable Home





Make your home a Sustainable Home!

Whether you've got a big family or you're living on your own, you can improve your health, wealth, AND well-being when you make your house a Sustainable Home.

You will learn how to:

- reduce and reuse the waste in your home
- recycle plastics, papers, metals, and more
- save money by living more sustainably

Topics include:

- benefits of living more sustainably
- ways to reduce, reuse, and recycle household materials
- how litter negatively impacts the environment
- the past, present, and future of waste management

Sign up for this **two-session course** you can take in person OR online.

Get certified, and you'll get your very own Sustainable Home sign for your yard!



Sustainable Home Pledge

Small Behavior Changes Can Create Big Impacts! Pledge to Make at least 5 Changes to your daily routine that contribute to community wide sustainability. (Please check at least 5 below.)

Spread the Word

- I will tell at least 3 friends about the Sustainable Home Program
- I will place my Sustainable Home Sign in my yard.

Reduce & Reuse

- I will work to reduce the amount of food that I waste in my home.
- I will mend, sell, donate, or share clothing/items that I no longer need instead of throwing them away or buying brand new items.
- I will carry a reusable water bottle instead of drinking bottled water.
- I will use reusable plates, utensils, napkins in my home versus disposable items.
- I will bring reusable bags whenever I shop.
- I will remove myself from junk mail & catalog lists.
- I will work to purchase brands made from recyclable or biodegradable packaging.

Recycling

- I will work to recycle household materials correctly.
- I will advocate for recycling services in my community.
- I will work to compost food scraps and paper.

Energy Savings

- I will turn off lights in my home when I leave any room for more than a few minutes.
- I will unplug everyday items that consume energy when not in use (cell phones and laptops).

Litter Prevention

- I will make a conscious effort to pick up litter when I see it.
- I will join volunteer groups to pick up litter in my community.

Name

Date

Take the
Pledge

CERTIFIED



Sustainable
HOME

Why is Waste Management Important?

Protects against
the spread of
contagious
diseases

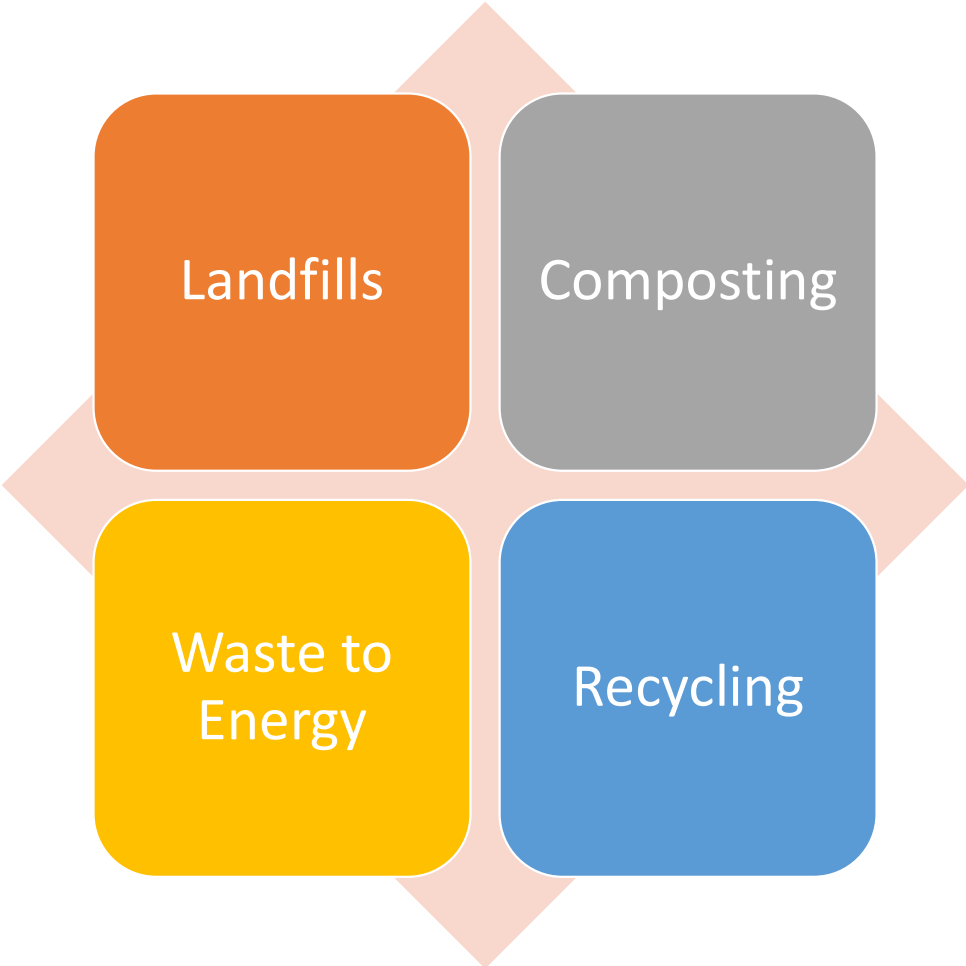
Protects the
wellbeing of
mankind and
wildlife

Prevents pollution
of our water and
soils

Reduces
greenhouse gas
emissions



Waste Management Methods



**To move forward into the future,
you must first know where you
have been.**

- Charles Williams

History of Garbage



3,000 B.C. – 1st recorded landfill was developed in Crete (Greece)

1388 – English Parliament bans dumping in ditches & waterways

1856 – 1st man made plastic patented by Alexander Parks

1908 – In US it is still common practice to dump waste in oceans & wetlands

1939 – WWII begins and rubber, paper, scrap metal is recycled

1945 – 100 US cities are using landfills to dispose of waste

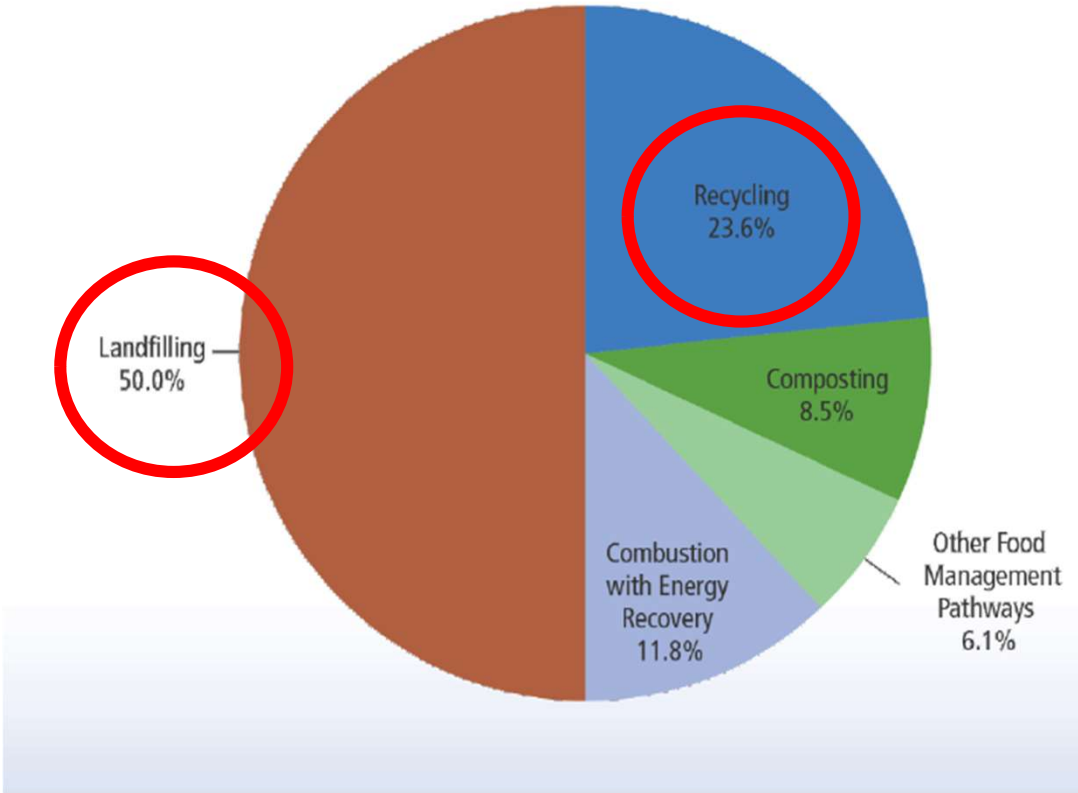
1945 – Disposable plastics are common & disposal increases by 67%

1970 – Environmental Protection Agency created – 1st Earth Day Celebrated

Today – US creating 20% of world waste, making up 5% of world pop.

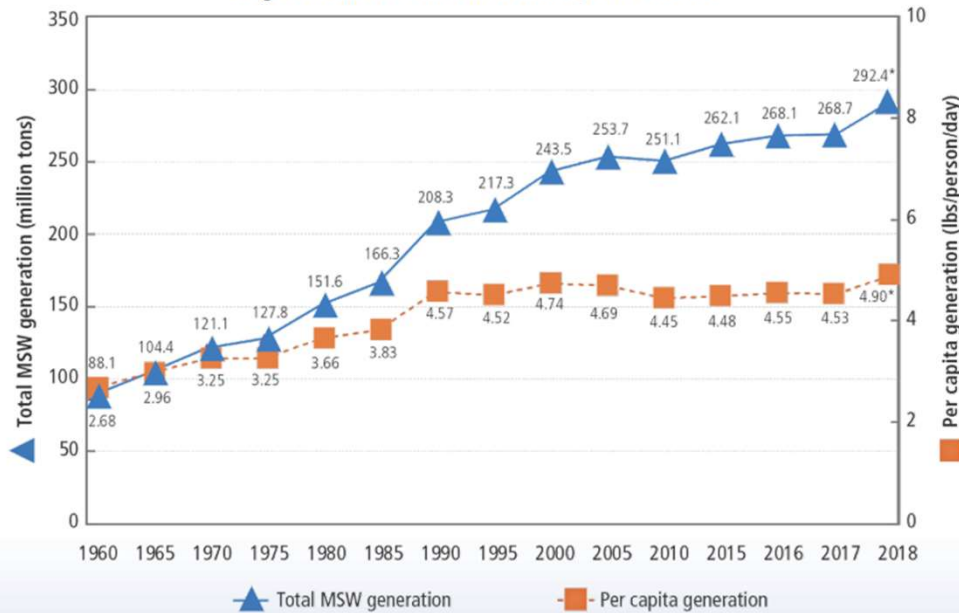
Current Waste Management

Figure 3. Management of MSW in the United States, 2018



Current Trends

Figure 1. MSW Generation Rates, 1960 to 2018*



Source – EPA Advancing Sustainable Materials Management – 2018 Fact Sheet

- Average person in US creates 4.9 lbs of garbage/per day, compared to 2.68 lbs/per person in 1960 (EPA)
- **Total MSW generated in US has increased by 93% since 1980s.**
- Worldwide – Estimated 2.01 Billion tons of garbage generated each year, by 2050 it is expected to be 3.4 B/yr a 70% increase (World Bank)
- **70% increase prediction – due to population growth, urbanization, economic growth, shopping habits**

Landfills nationwide

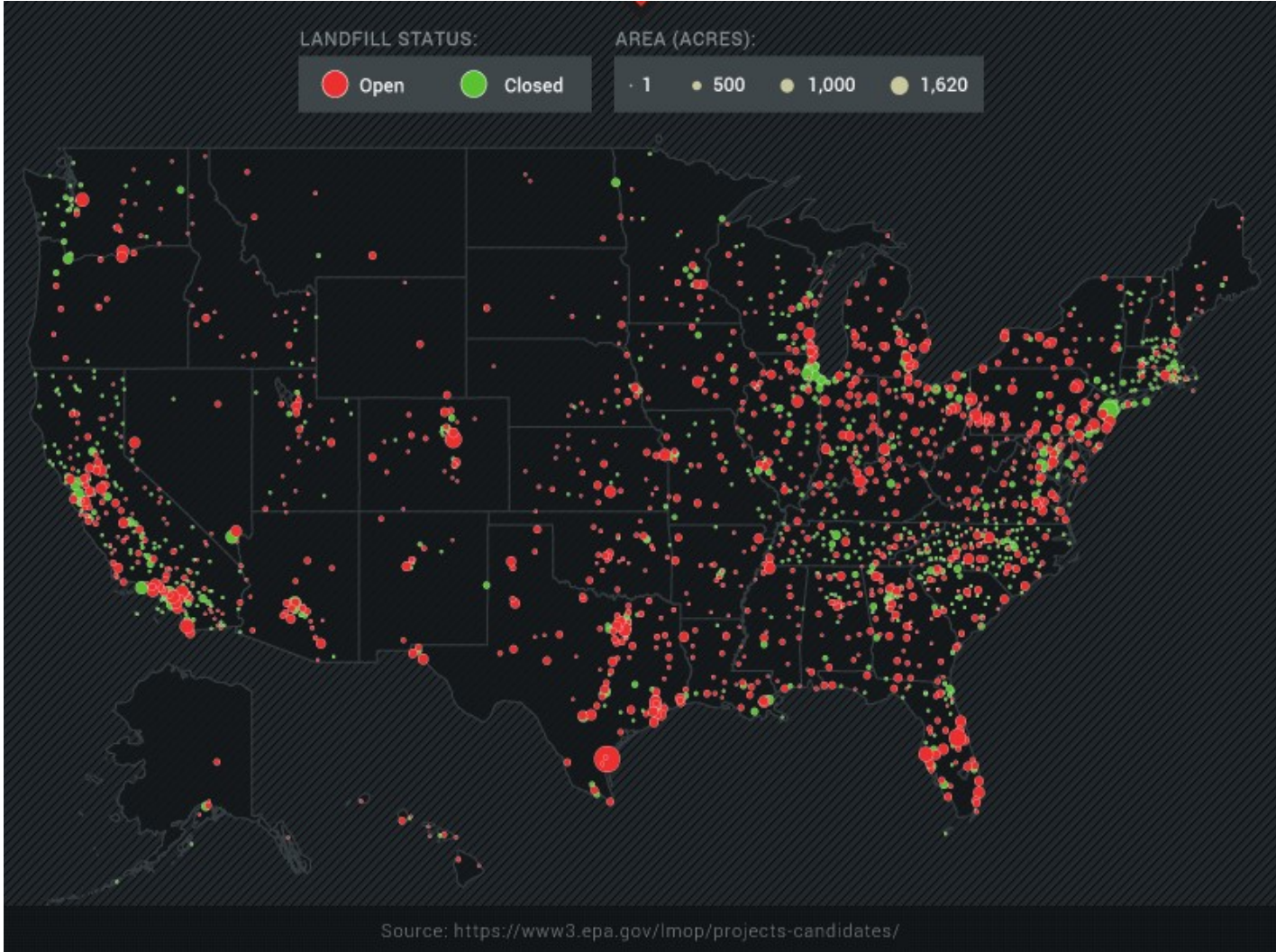
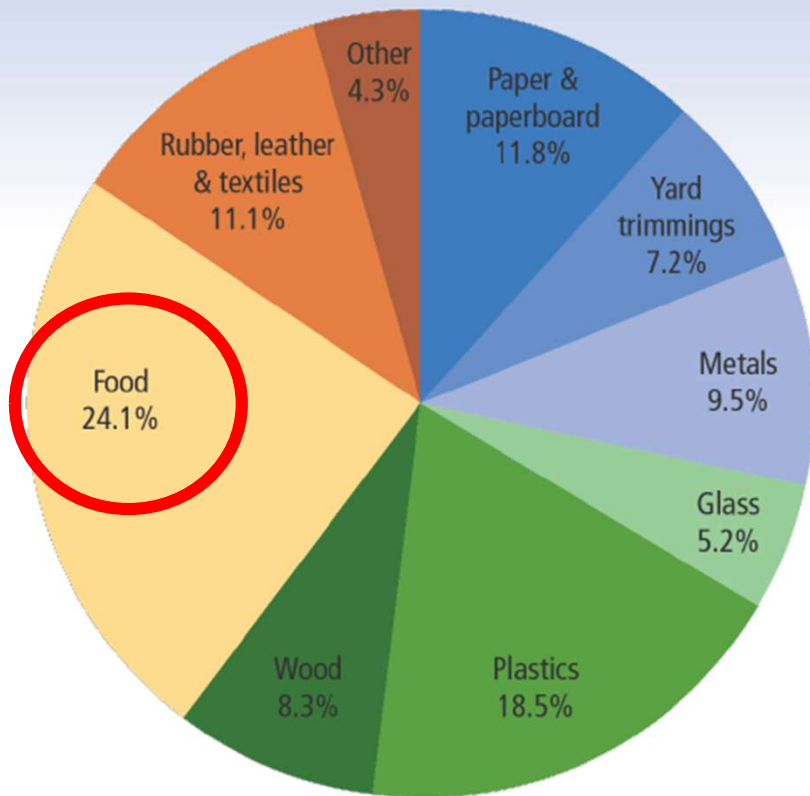


Figure 8. Total MSW Landfilled (by material), 2018
146.1 Million Tons



- Food is #1 material sent to landfills
- Almost ½ of the food produced in U.S. goes to waste
- Food waste results in \$100 billion lost each year
 - \$30 billion commercial
 - \$20 billion farming
- Primarily due to food spoilage & misreading expiration labels

Food Waste

- A recent study found that Average American consumer spends \$1,300/yr. on food that is wasted
- More spent on wasted food than any other household expense
- Not just food wasted – but ag. inputs, pesticides, water, fertilizers, energy

Annual Expenses/Consumer	Average Cost/yr
Gasoline	\$1,250
Electricity/heating	\$1,149
Property taxes	\$1,046
Household maintenance/insur.	\$936
Clothing/Apparel	\$1,207

Conrad, 2020

Plastics

- Plastic waste generated –
 - 60 lbs per person in 1980
 - **218 lb per person in 2018.**
- Plastics are in so many materials we use – Even Chewing Gum!
- Less than 5% of all plastics are being recycled in the US.
- Remaining plastic goes to landfills, litter on land and in the ocean



Clothing and Textiles

- Average American throws away 82 lbs of clothing each year
- Many garments are only worn between 7 to 10 times before being throw away
- The number of times garments are worn has declined by 36% over the last 15 years
- Fast Fashion – cheap clothing that is cheaply made



What about e-Waste?

Social Networks



- Electronic waste – currently fastest growing waste stream in U.S. according to EPA
- Much of it ending up in landfills
- Many of the materials making up e-waste are toxic.
- Cell phones and other electronics contain high amounts of precious metals such as gold, silver and platinum
- Billions of dollars in gold, silver and copper are thrown away worldwide in e-waste

Publications

MISSISSIPPI STATE UNIVERSITY EXTENSION Understanding the Meaning of Zero Waste

The term "zero-waste" is used to describe the act of minimizing the amount of waste generated. With all the disposable products on the market, the concept can be intimidating if you aren't informed about its true meaning. The "zero" in zero-waste seems to imply that waste will be eliminated, but most supporters of zero-waste agree that generating no waste at all is nearly impossible. One of those reasons is that we do not directly control the production and packaging of products by manufacturers.

The act of practicing zero-waste is a comprehensive approach to eliminating waste at all stages of the production chain, from resource extraction, manufacturing, product packaging, to the consumer. Responsibility for waste is accepted at all stages, thus closing the loop for waste to occur, and ensuring resources are conserved with little to no impact on the environment. Thus, creating a circular economy where very little waste is produced and sent to landfills (Figure 1).

Benefits of practicing zero-waste living

There are numerous benefits to practicing a zero-waste lifestyle that not only help the environment but can benefit local economies and communities. Potential benefits include:

- Environmental Benefits.** Producing less waste means less waste is sent to landfills, which in turn reduces methane gas emissions and potential threats to groundwater and surrounding habitats. Methane, one of the gasses responsible for climate change, is released when garbage breaks down in landfills. Practicing zero-waste habits can also indirectly save energy, land, space, and water by producing less material goods.
- Long-term Financial Savings.** Money can be saved when practicing a zero-waste lifestyle since items are reused multiple times, versus one use and then disposed of. Borrowing items can save money. Preventing food waste and eating leftovers can also result in significant savings over a year. Additionally, working to reduce impulse purchases can result in significant savings.
- Local Economic Benefits.** The recycling industry requires significantly more manpower compared to what is needed for landfill disposal. Recycling can create jobs for the residents of local communities that



Figure 1. Circular Economy model.

choose to start a recycling program. Businesses save money when they recycle by cutting costs associated with garbage disposal fees. Shopping locally can save energy and support small businesses which further benefits local economies.

- Rewarding Experience.** Knowing that you are conserving resources for future generations can give you a sense of paying it forward for the next generation. You also have an opportunity to change social norms in your community. If friends and neighbors see your lifestyle changes, they may be more open to mirroring your zero-waste behavior.

Starting a zero-waste lifestyle

Everyone can take part in zero-waste living, regardless of where they live or how much money they make. Collectively, we can all make small changes to our lifestyles that can have a huge impact on conserving natural resources and assist in closing the waste loop. Living a zero-waste lifestyle does not happen overnight. Small steps should be taken initially to prevent being overwhelmed by the process. The practice of zero-waste should be focused on progress and not perfection. The following are a few things you should take into consideration as you begin zero-waste living:

- Consider why you want to begin the zero-waste lifestyle.** You may want to conserve resources, protect the environment, save money, and/or avoid

MISSISSIPPI STATE UNIVERSITY EXTENSION

Recycle Right! Know the Basics

Residential Materials Accepted by Local Government Recycling Programs*

Usually Accepted by Local Programs

*Accepted materials vary by location. Contact your local government for details.



Yes!

- ✓ Clean, empty, and unbagged materials ONLY.
- ✓ Look for plastic labels 1 and 2 on materials.

Not Accepted by Local Programs



No!

Plastic grocery bags do not go in recycling bins! Instead, drop these off at local grocery stores. Contact stores for details.

Sometimes



Glass bottles, paper cartons, and aluminum pans are sometimes accepted by local programs.

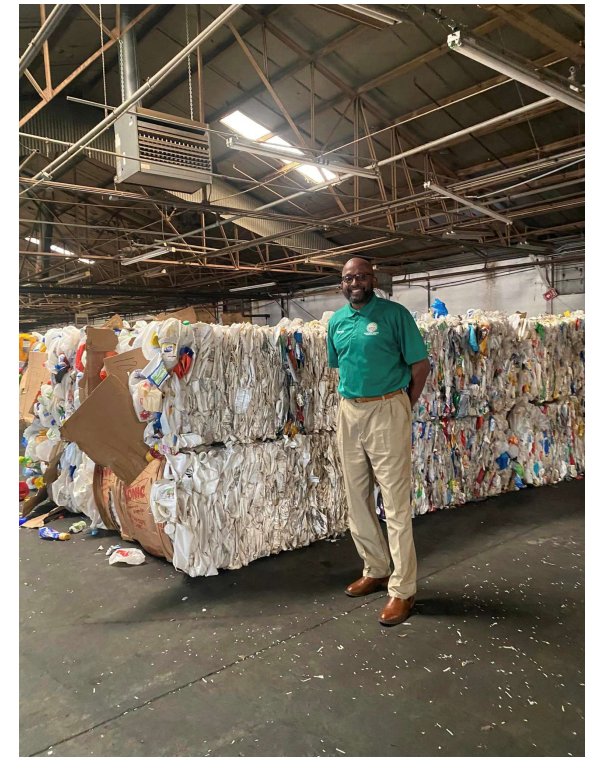
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Benefits of Recycling

- Reduces waste in landfills
- Reduces greenhouse gases
- Conserves energy
- Conserves natural resources
- Creates jobs – labor intensive



Raising Awareness – MS Recycling Infrastructure



Litter Awareness & Prevention



Why do people litter?

1

Personal Choice –
becomes a habit

2

People are more
likely to litter in an
area where litter is
already present

3

A sense of lack in
ownership of an
area

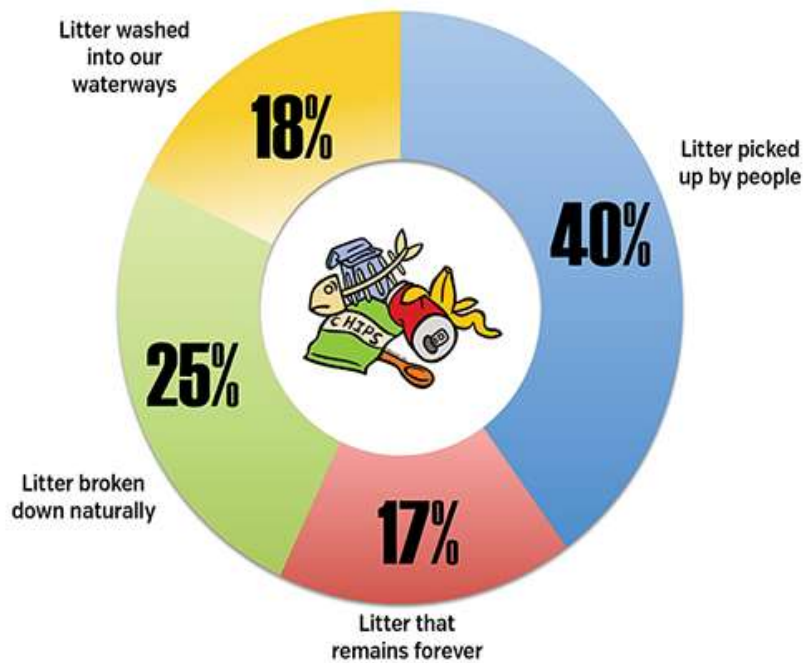




In Mississippi.....

- MDOT spends over \$3M/year picking up litter along MS roadways
- Individuals driving pickup trucks are a disproportionate source of litter, responsible for 1/3 of all litter by motorists
- 62% of Mississippi litter is deliberate
- Mostly disposable items, take out, bottles, snacks

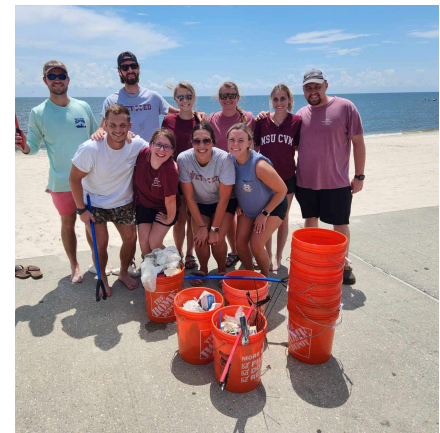
WHERE DOES LITTER GO?

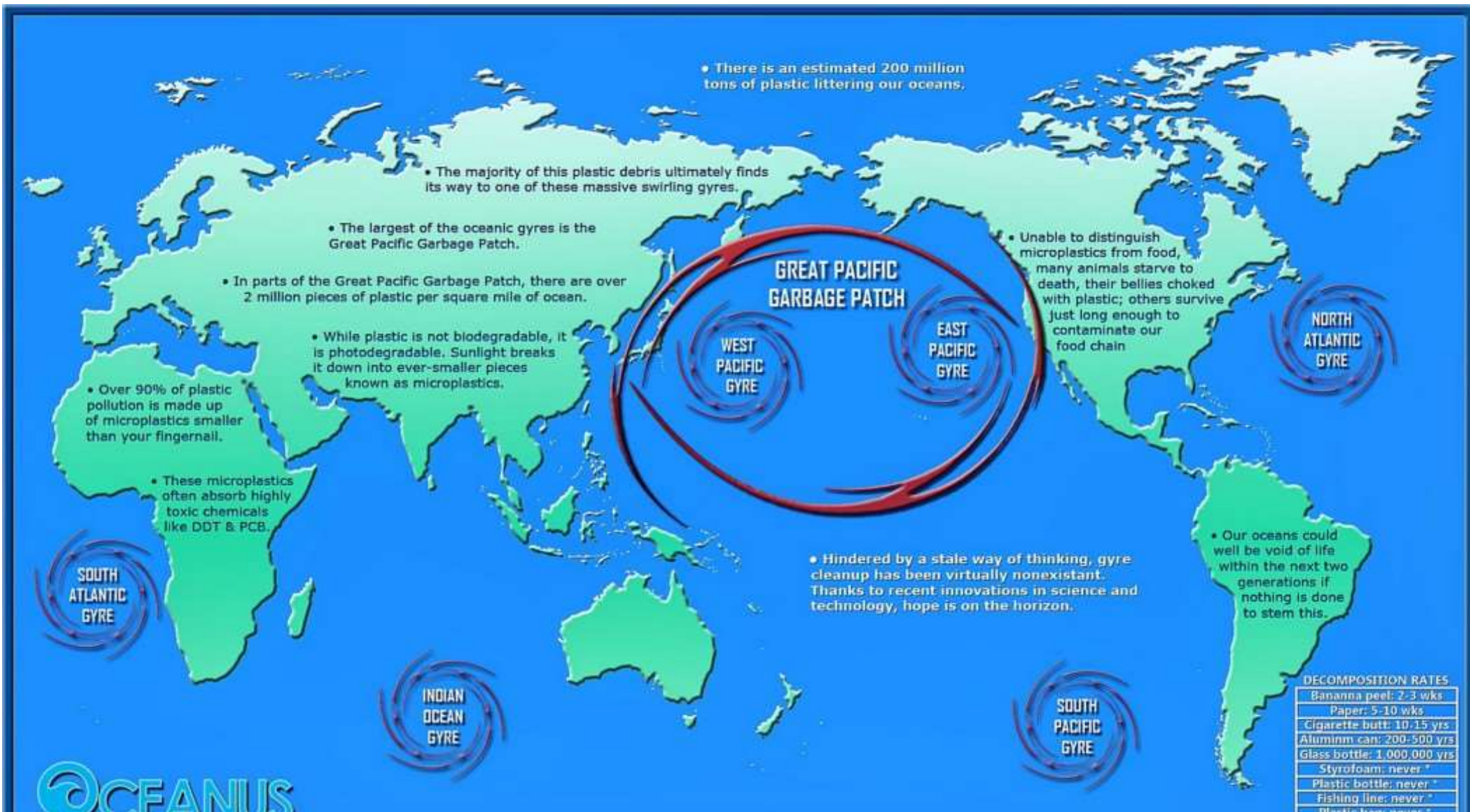


WHAT IMPACT DOES THIS HAVE?



Mississippi River Cities & Towns Initiative



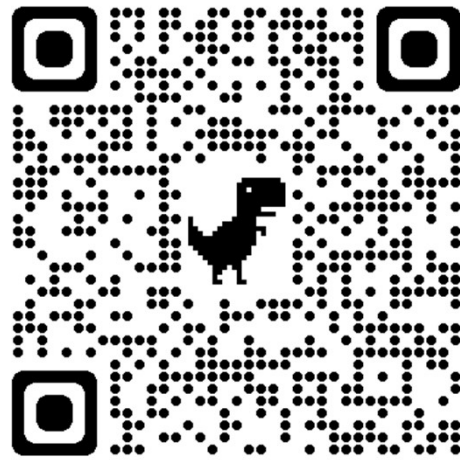


Overview – How can you make a difference?

- Become Informed – Educate Others
- Reduce Household Waste
- Use Reusable Items
- Recycle Items
- Prevent & Pick Up Litter
- Contact Manufacturers – request sustainable products & packaging
- PLEDGE TO HAVE A SUSTAINABLE HOME



Questions?



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