

# *Getting to Zero Waste...doing OUR Part!!*

Presentation to the  
**Fredericksburg Food Co-op**  
Saturday, January 21, 2023

By

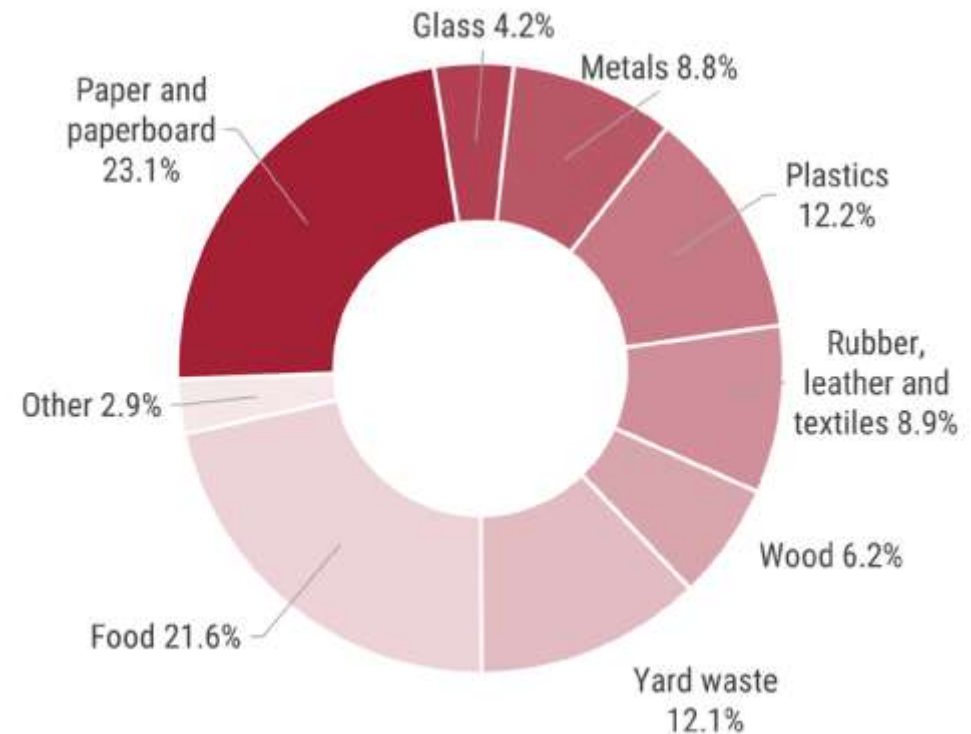
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Environmental Process Research (retired) and  
Environmental Advocate



# *Getting to Zero Waste...Doing OUR Part!!!*

- Each American throws out nearly **ONE TON** of material each year.
- Nearly all of this could be eliminated (with the possible exception being plastics) with a conscious effort on our part.

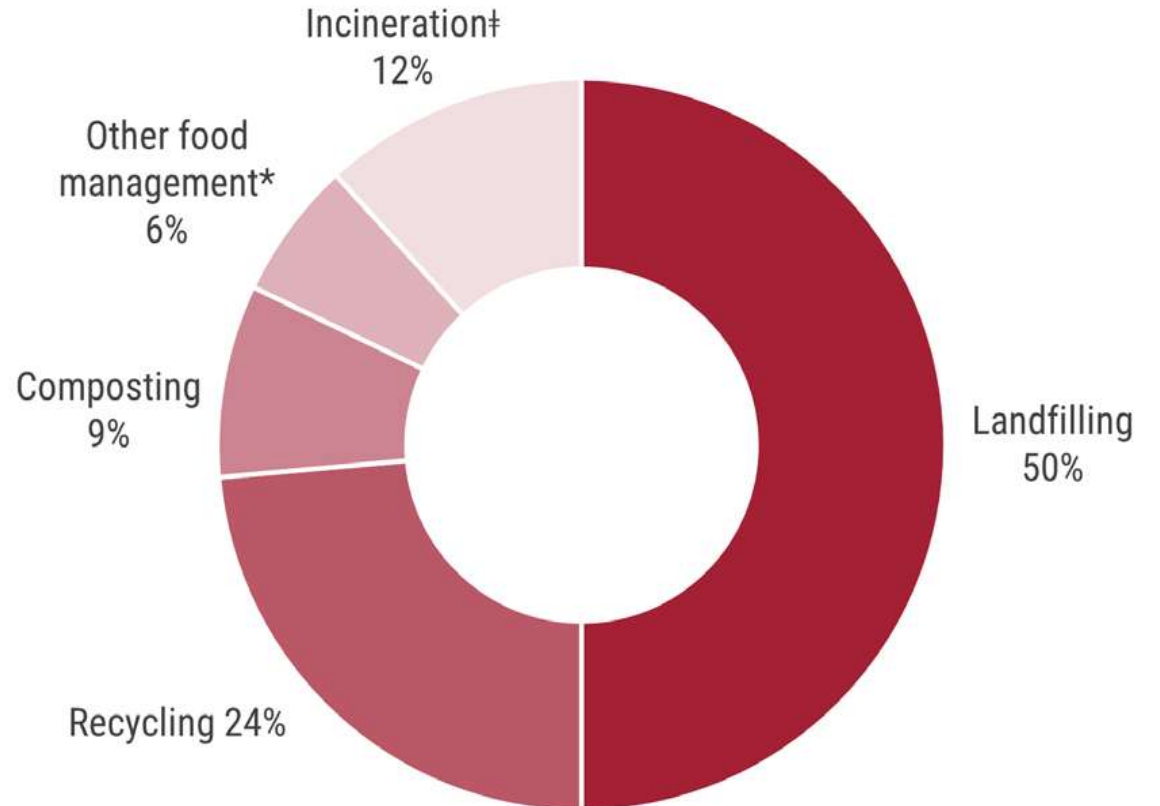
Composition of Our Trash



# *Getting to Zero Waste...Doing OUR Part!!!*

## Disposition of Our Trash

- **50%** of our waste is **landfilled**.
- **12%** is **incinerated**.
- **9%** is **composted**
- **24%** is **recycled (maybe)**



# Getting to Zero Waste...Doing OUR Part!!!

- **Generation and Disposition of Materials in US by Type (2018)**

**Units: 1000's Tons**

	Generated		Recycled		Composted		Incinerated		Landfilled	
				%		%		%		%
Paper & Paperboard	67,390	45,970	68		0	0	4,200	6	17,220	26
Glass	12,250	3,060	25		0	0	1,640	13	7,550	62
Aluminum***	3,890	670	17		0	0	560	14	2,660	68
Ferrous Metal	19,200	6,360	33		0	0	2,310	12	10,530	55
Non-Ferrous (Cu, Zn)	2,510	1,690	67		0	0	80	3	740	29
Plastics*	35,680	3,090	9		0	0	5,620	16	26,970	76
Rubber & Leather	9,160	1,670	18		0	0	2,500	27	4,990	54
Wood	18,090	3,100	17		0	0	2,840	16	12,150	67
Textiles	17,030	2,510	15		0	0	3,220	19	11,300	66
Food Waste**	63,132	13,704	22		2,592	4	7,552	12	35,277	56
*Recycling Rates for #1 (PET) = 29.1%; for #2 (HDPE) = 29.3%										
** Food Waste Recycling includes animal feed, anaerobic digestion, donation, and biochemical processing										
*** Aluminum can recycling rate = 49.8%										

# *Getting to Zero Waste...Doing OUR Part!!!*

## **Why is getting to zero waste so important?**

- **The waste that we throw out is just a small part of OUR waste picture**
  - Industrial solid waste – 7,600 million tons per year
  - Mining and mineral processing – 1,500 million tons per year
  - Construction and demolition debris – 600 million tons pr year
  - Municipal solid waste – 292 million tons per year
  - Oil and gas exploration and production – 107 million tons per year plus 4.5 billion gallons of contaminated water
  - Hazardous solid waste – 28.9 million tons
- **Reducing our waste impacts the amount of waste generated in all of these other areas**

# *Getting to Zero Waste...Doing OUR Part!!!*

## Why is getting to zero waste so important?

- Roughly 42% of all U.S. greenhouse gas emissions are the result of our LINEAR ECONOMY of extracting resources, producing goods, consuming goods, and disposing of the waste and transporting these materials between each stage of the process.



# *Getting to Zero Waste...Doing OUR Part!!!*

## **Why is getting to zero waste so important?**

- Roughly 12% of our waste is incinerated. THIS IS NOT A CLEAN PROCESS EVEN WITH SCRUBBERS. Incineration releases hazardous materials such as mercury from the waste and produces others such as dioxins that are released into the air.



# *Getting to Zero Waste...Doing OUR Part!!!*

**➔ Why is getting to zero waste so important?**

- It took the equivalent of 321 million trees to produce the paper that ended up in landfills or was burned in the U.S. in 2018





# *Getting to Zero Waste...Doing OUR Part!!!*

## **Why is getting to zero waste so important?**

- Food that is wasted in the U.S. is the equivalent to the production from 30 million acres, roughly the size of Pennsylvania.



# *Getting to Zero Waste...Doing OUR Part!!!*

**➔ Why is getting to zero waste so important?**

- More than 16.5 million tons of plastic is not even being captured by our waste systems and is washing into our oceans each year.



VS



# Getting to Zero Waste...Doing OUR Part!!!

 What WE Can Do??

- **JUST THINK......THINK ABOUT THE WASTE YOU ARE CREATING EACH TIME YOU BUY SOMETHING AND MINIMIZE THE WASTE GENERATED TO THE EXTENT POSSIBLE**



OR



?



# Getting to Zero Waste...Doing OUR Part!!!

 What WE Can Do??

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# *Getting to Zero Waste...Doing OUR Part!!!*

## **Minimizing Packaging Waste**

- **BRING YOUR OWN REUSEABLE BAGS TO CARRY OUT YOUR GROCERIES OR CARRY THEM OUT IN YOUR HANDS.**



# *Getting to Zero Waste...Doing OUR Part!!!*

## **Minimizing Food Waste**

- **When buying PERISHABLES such as fresh greens, fresh veggies or fresh fruits...BUY ONLY THAT WHICH YOU PLAN TO USE IN THE NEAR FUTURE OR PLAN TO FREEZE.**



# *Getting to Zero Waste...Doing OUR Part!!!*

## **Minimizing Food Waste**

- **COMPOST FOOD WASTE WHEN POSSIBLE...OR PUT THE WASTE DOWN THE GARBAGE DISPOSAL RATHER THAN IN THE TRASH.**
  - Food waste that makes it to the landfill decomposes into methane and carbon dioxide. Methane is 30x worse than carbon dioxide in warming the atmosphere.
  - Food waste that goes down the garbage disposal only produces carbon dioxide.



# *Getting to Zero Waste...Doing OUR Part!!!*

## Minimizing Packaging Waste

- **USE REUSABLE BAGS FOR ANY PRODUCE YOU BUY.**



# *Getting to Zero Waste...Doing OUR Part!!!*

## Minimizing Packaging Waste

- **BUY BULK, WHEN YOU CAN, AND BRING YOUR OWN REUSABLE CONTAINER**



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# *Getting to Zero Waste...Doing OUR Part!!!*

## Minimizing Packaging Waste

- **BRING YOUR OWN CONTAINER WHEN YOU BUY A BOWL, A SMOOTHIE, A FRESH PRESSED JUICE, COFFEE, or SOUP.**



# *Getting to Zero Waste...Doing OUR Part!!!*

## **Minimizing Packaging Waste**

- **IF YOU PLAN TO EAT IN THE STORE, BRING YOUR OWN UTENSILS AND LAUNDERABLE CLOTH NAPKIN.**



# *Getting to Zero Waste...Doing OUR Part!!!*

## Minimizing Waste (in general)

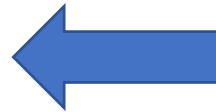
- **BUY PRODUCTS WITH MINIMUM PACKAGING or WITH BEST FOR THE ENVIRONMENT PACKAGING**



**BEST**



**BETTER**



**WORST**

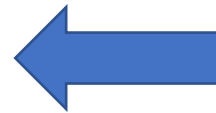
# *Getting to Zero Waste...Doing OUR Part!!!*

## Minimizing Waste (in general)

- **BUY PRODUCTS WITH MINIMUM PACKAGING or WITH BEST FOR THE ENVIRONMENT PACKAGING**



**BETTER**



**WORST**

# *Getting to Zero Waste...Doing OUR Part!!!*

## **Minimize Waste (general)**

- **DONATE YOUR USED GOODS TO AN ORGANIZATION THAT SELLS OR GIVES TO OTHERS WHO WILL REUSE OR REPURPOSE**
  - **Habitat for Humanity RESTORE (Furniture, lighting fixtures, building materials)**
  - **Good Will (clothing, household goods, toys, bicycles)**
  - **Re-Tail ( pet toys, pet goods, other resellable items)**

# *Getting to Zero Waste...Doing OUR Part!!!*

## **Minimizing Waste (in general)**

- **BUY PRODUCTS WITH MAXIMUM RECYCLED CONTENT—remember NEW means more industrial, mining, and hazardous waste.**
  - Buy Used rather than New (e.g., car, RESTORE, Good Will, Re-Tail)
  - Patagonia (active wear from polyester made from PET bottles)
  - Levis (jeans from recycled denim)
  - Coalatree (active wear from coffee grounds and polyester from PET)
  - Etsy (upcycled bags, recycled hand made paper, reclaimed yarn, reclaimed denim, repurposed jewelry,.....)



# *Getting to Zero Waste...Doing OUR Part!!!*

## **Minimizing Waste (in general)**

- **USE YOUR GOODS FOR AS LONG AS POSSIBLE**
  - **Repair rather than replace**
  - **Reuse (e.g., Upcycle) rather than throw away**
  - **Give to someone else who could extend their life**
  - **Recycle as a last resort**
  - **Don't throw in the trash unless absolutely necessary**

# *Getting to Zero Waste...Doing OUR Part!!!*

## **Wish List for Getting to Zero Waste**

- **INCENTIVIZE WASTE REDUCTION**
  - **Implement a PAYT—pay as you throw program**
  - **The more you throw, the more you pay.**
  - **Typical results:**
    - **MSW going to landfill decreases by 30 to 40%**
    - **MSW being recycled increases by up to 100%**

# *Getting to Zero Waste...Doing OUR Part!!!*

## **Wish List for Getting to Zero Waste**

- **ESTABLISH A FOOD WASTE/YARD WASTE COMPOSTING SYSTEM**
  - **Food waste typically is between 20 and 30% of trash going to landfill.**
  - **Establish a food waste pickup service and/or dropoff sites**
  - **Establish a centralized and managed composting site**
  - **This could be public or private**

# Thank You!!

Here's to hoping each of us does our part to get us to Zero Waste and we continue to spread the word to others!!

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