

# Challenge of Increasing Recycling Rates & Limitations to Curbside Recycling

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# Today we will look at:

- ▶ What recycling is and isn't
- ▶ The landscape of waste infrastructure
- ▶ Curbside recycling trends (in Kane Co. and beyond) & drivers
- ▶ Curbside recycling limitations & guidelines
- ▶ Markets

# What Recycling Is:

- ▶ A process through which materials that would otherwise be disposed (landfilled) are collected, separated, processed and returned to the economy
- ▶ An important component of waste reduction strategy
  - ▶ Over the last 5 years, private waste management companies have invested millions in Chicago-region facilities to sort and process recyclables

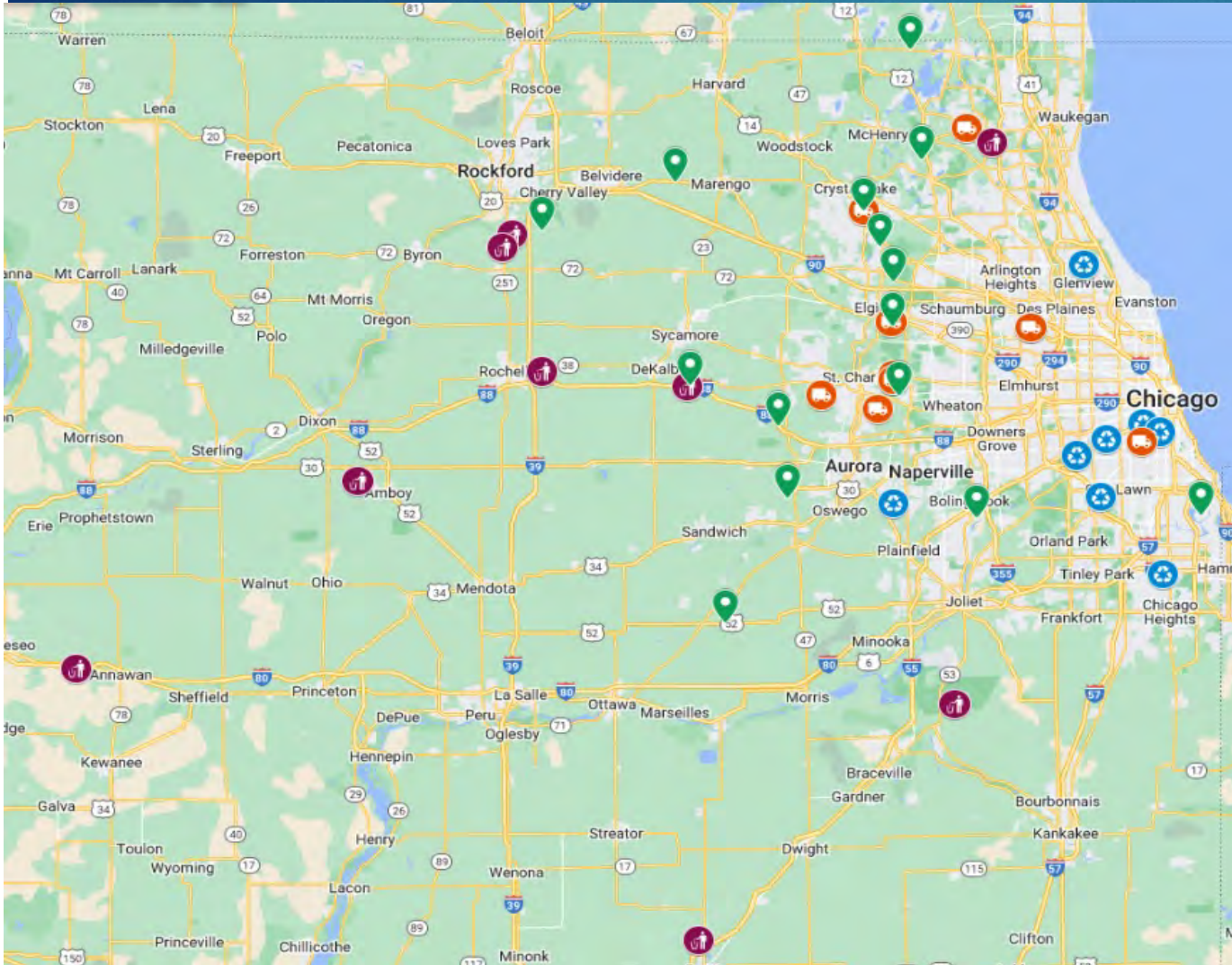


# What Recycling Is Not:

- ▶ A panacea to solid waste problems and “single-use society”
  - ▶ Reliant on individual behavior
  - ▶ Recycling facility limitations
  - ▶ Market limitations & fluctuations
- ▶ Transparent or easily understood
  - ▶ Misleading use of the “chasing arrows” symbol with plastic resin codes
  - ▶ Private sector operations with few reporting requirements
- ▶ If we’re serious about reducing waste, we need to rethink, reduce, repair, reuse and then recycle



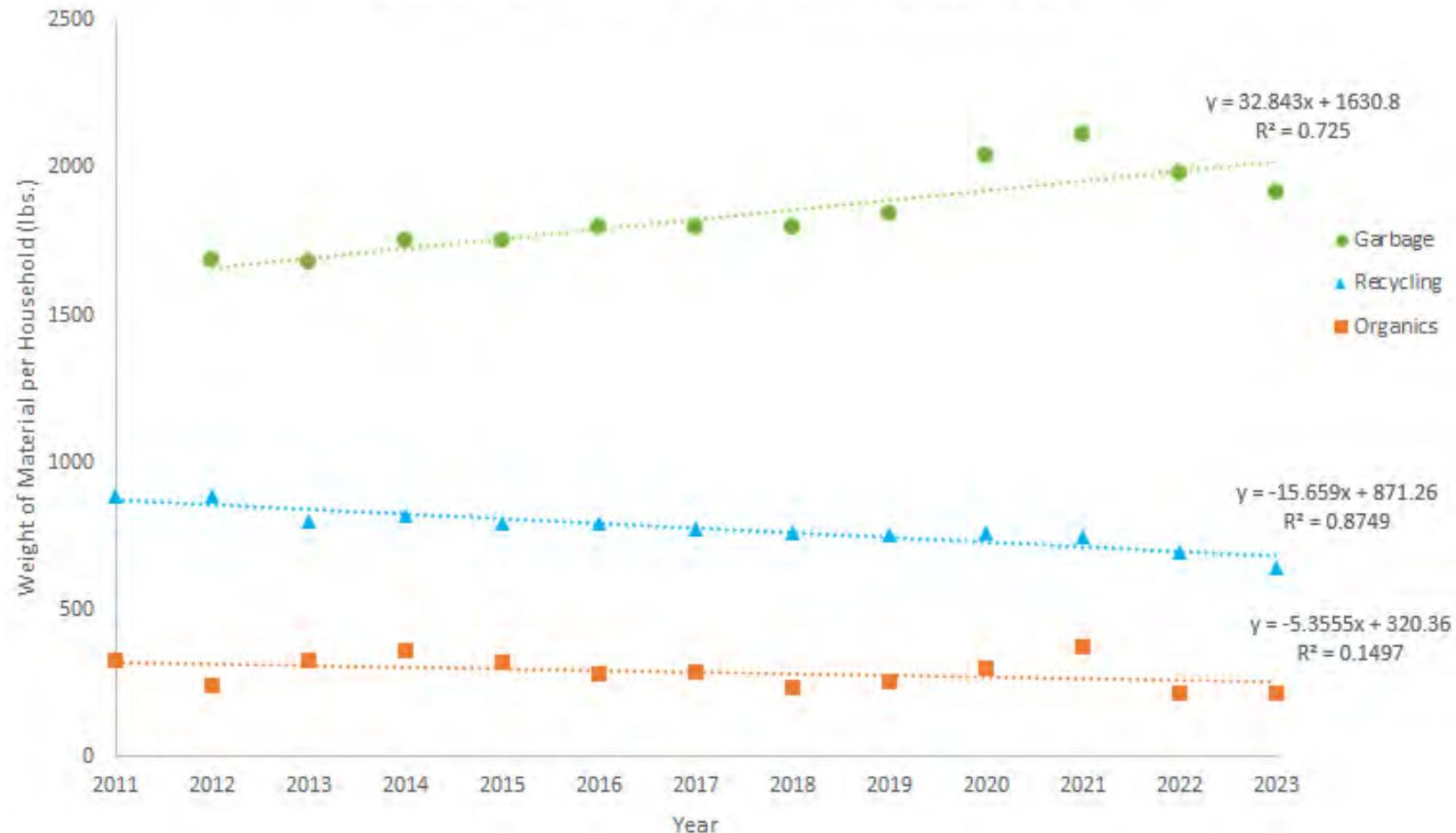
# Where Does our Stuff Go?



- ▶ Two active landfills in the metro region
- ▶ IEPA estimates that current landfill capacity can meet state's needs for 19 years
  - ▶ Greater Chicago Metro has the least capacity
    - ▶ Long distance hauling is coming
- ▶ Chicago Metro has by far the most recycling capacity in the state
- ▶ Composting facilities primarily for yard waste

# Recycling Trends in Kane Co.\*

Time Series of Materials Collected from Kane County Households through Franchised Hauling Agreement, 2011(12) - 2023



- ▶ Pre-pandemic recycling rates of ~30%, diversion of 37%
- ▶ Post-pandemic recycling rates of ~26%, diversion of 33%
- ▶ \*MAJOR CAVIATS:
  - ▶ Data quality and completeness
  - ▶ Problems with weight based metrics...

# Recycling Trend Contributors:

- ▶ Ever-changing mix of materials entering the household
- ▶ Light-weighting of packaging
- ▶ Changes in international policy re: import/export of recyclables
- ▶ Extreme market fluctuations during and post-pandemic
- ▶ Long-standing lack of access to multi-family residences
- ▶ Public confusion over what is and is not curbside recyclable
- ▶ Public skepticism
- ▶ Public apathy (IL participation rate among households with access is 65%)

**FIGURE 1: PET Bottle Collection Rates, 2001 - 2022**



# Recycling Infrastructure: Meet the MRF!

- ▶ Single stream recycling is processed at Materials Recovery Facilities (MRFs)
  - ▶ MRFs use a combination of man power, machinery and artificial intelligence to sort single stream recycling into component materials and weed out contamination
- ▶ What should and shouldn't go into curbside recycling comes down to 3 things:
  1. Materials that are safe to collect, transport and sort at a MRF
  2. Materials that can be sorted with existing labor and technological resources
  3. Materials that can be sold on the commodities market



# Agreed Upon Regional Guidelines

## RECYCLING GUIDELINES

# YES!

**Clean & Empty**

Replace lids & caps

**Put material in loose  
- Not in bags**



### METAL

Steel & Aluminum Containers and Foil



### PAPER

Cardboard (Flattened),  
Office Paper, Newspaper, Magazines



### GLASS

Containers: Bottles & Jars Only



### PLASTIC

Containers: Bottles, Tubs, Jugs,  
and Jars Only



### CARTONS

# NO!



**No Plastic Bags  
No Plastic Wrap**  
(return clean to retailer)



**No Big Items** (Electronics, Wood,  
Propane Tanks, Scrap Metal or Styrofoam –  
see [countyofkane.org/recycling](http://countyofkane.org/recycling) for other recycling options)



**No Tangles** (Hangers, Hoses,  
Wire, Cords, Ropes or Chains)



**No Clothing**  
Textiles or Shoes (donate)

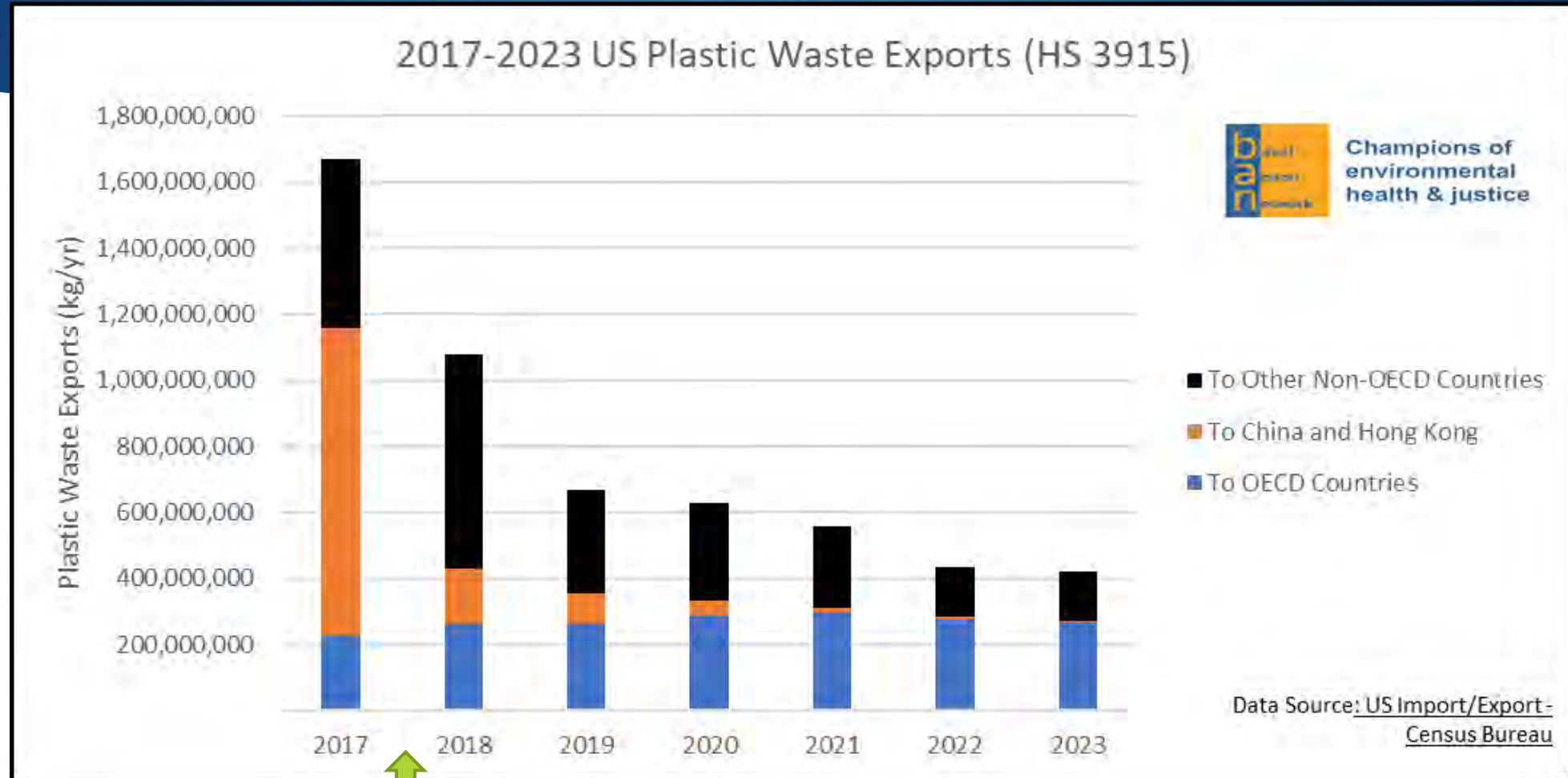


**No Food, Liquid, Diapers,  
Batteries or Needles**



**No Shredded Paper**  
(see [countyofkane.org/recycling](http://countyofkane.org/recycling)  
for other recycling options)

# A Word about Markets...



**National Sword**

<https://www.ban.org/plastic-waste-project-hub/trade-data/usa-export-data-annual-summary>

# Questions & Discussion?

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