



Burlington County Recycling Program circa 1982

Burlington County Recycling Program

Let's Talk About Recycling





See it to believe it!

TAKE A TOUR OF OUR RECYCLING FACILITY

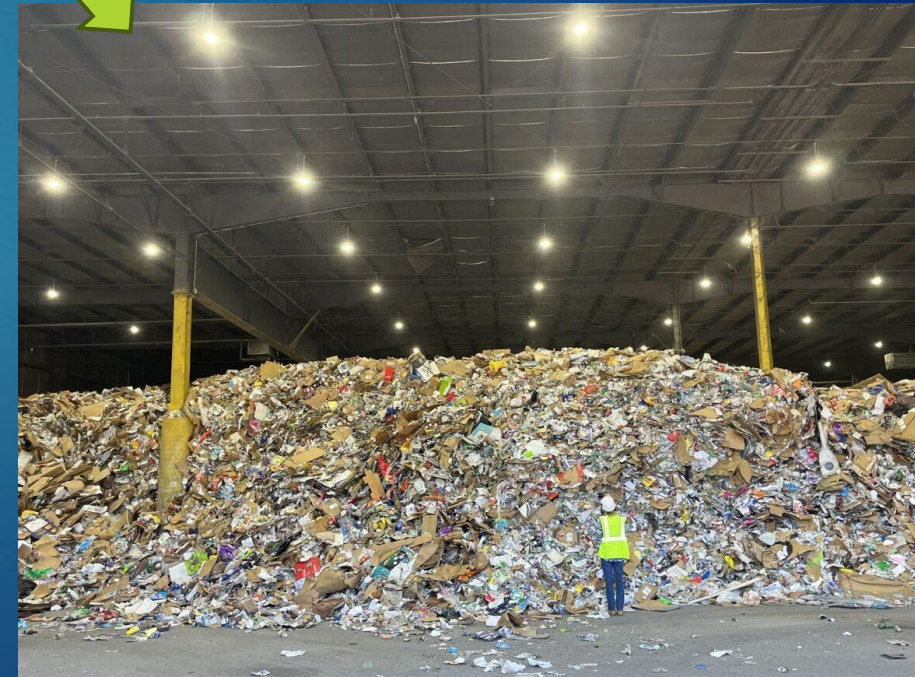
Burlington County Program Background



- ▶ County owns the landfill and runs the recycling program.
- ▶ Longstanding contract with the Occupational Training Center (OTC).
- ▶ OTC operates Class A Recycling Center, Class B recycling, Convenience Center, landfill litter pickup crews.



How our Recycling Program Works



- ▶ 150,000 Single Family Homes
- ▶ 30,000 Multifamily Units (200 complexes)
- ▶ 40 Municipal Drop-offs
- ▶ 140 Schools

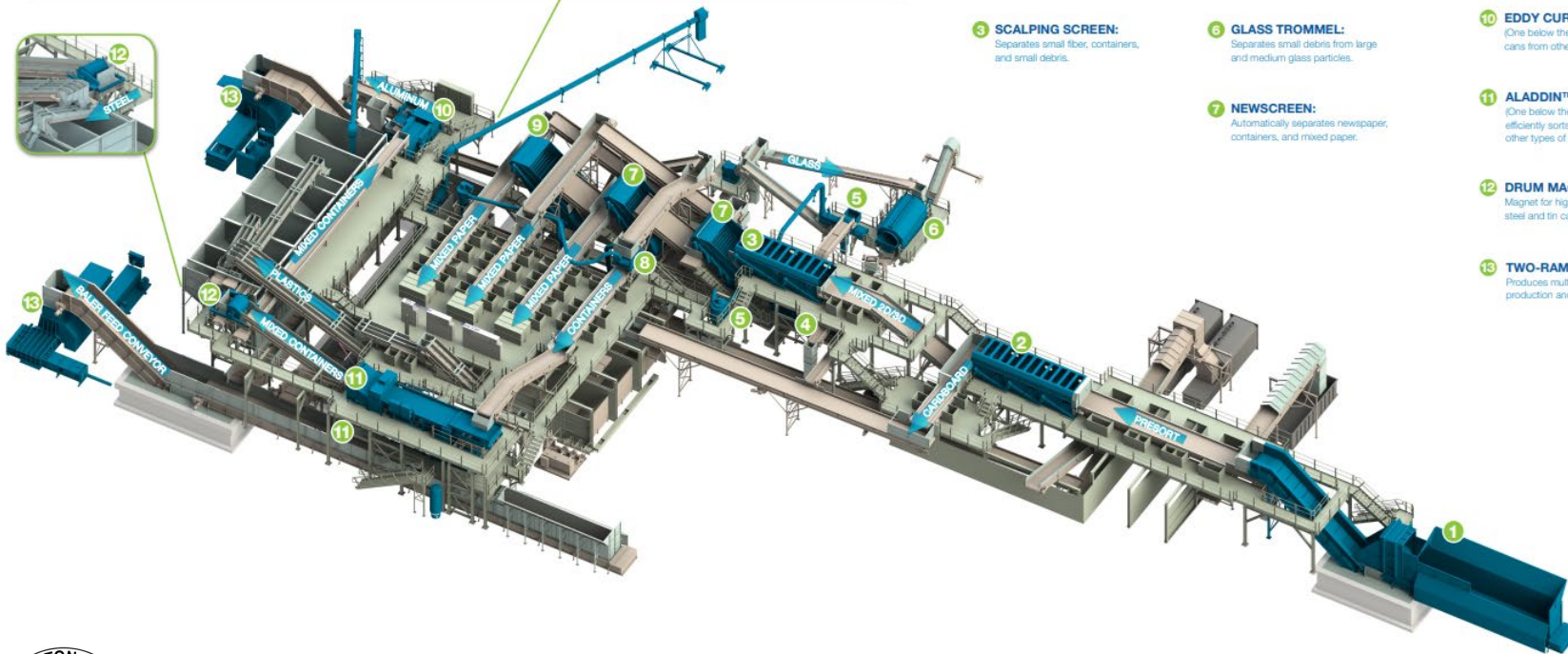
Recycling is brought back to OTC to be **processed, sorted, and marketed** by material type.



Bales of PET, mixed paper, and HDPE-C

Updated to \$13 Million Single Stream System in 2015

35 TPH SINGLE STREAM SYSTEM BURLINGTON COUNTY, NEW JERSEY



1 DRUM FEEDER:

Provides a constant, even material flow and feed rate into the system.

2 OCCSCREEN:

Separates cardboard from other fibers, containers, and debris.

3 SCALPING SCREEN:

Separates small fiber, containers, and small debris.

4 GLASS BREAKER SCREEN:

Breaks and separates glass at a highly efficient rate. (Below scalping screen.)

5 GLASS CLEAN-UP SYSTEM:

Separates small bits of paper from glass using an adjustable vacuum system.

6 GLASS TROMMEL:

Separates small debris from large and medium glass particles.

7 NEWSCREEN:

Automatically separates newspaper, containers, and mixed paper.

8 AIR DRUM SEPARATOR:

Separates paper from containers.

9 CPSCREEN™:

Automatically separates 2D (mostly fiber) from 3D (mostly containers) materials.

10 EDDY CURRENT SEPARATOR:

(One below the other.) Separates aluminum cans from other materials.

11 ALADDIN™:

(One below the other.) Optical Sorter efficiently sorts #1 and #2 plastics from other types of containers at high speeds.

12 DRUM MAGNET:

Magnet for high volume separation of steel and tin cans from other containers.

13 TWO-RAM BALER:

Produces multi-material bales at high production and throughput rates.

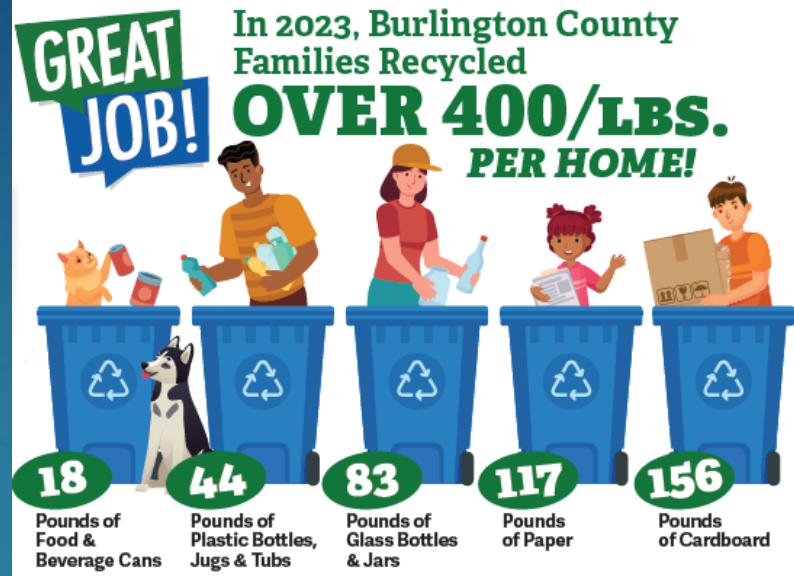


Optical sorters allow us to sort thousands of plastic bottles every minute.

Approximately 200 tons of recyclables are sorted per day!



Program Success



Bales of Recyclables – Ready to Ship to Mills

39,622 Bales Sent to Recycling Mills in 2023

After your recyclables are sorted, the paper, cardboard, plastic bottles, and cans are pressed into 1200–1500 lb. “bales.”

We ship over 700 bales/week to market!

Recyclable Material	# of Bales Shipped
Cardboard	18,841
Paper	11,883
Plastic Bottles, Jugs & Tubs	6,517
Steel/Tin Cans	1,038
Metal Cans	1,343
Total Bales Shipped in 2023	39,622

Program Success



Recycling Saves Tax Dollars and Landfill Space

2023 Burlington County Recycling Program

How Much Your Town Recycled and Saved!

Municipality	Total lbs. Recycled	Landfill Disposal Fee Savings	Municipality	Total lbs. Recycled	Landfill Disposal Fee Savings	Municipality	Total lbs. Recycled	Landfill Disposal Fee Savings
Bass River	198,806	\$9,447	Florence	2,400,771	\$114,085	Pemberton Twp.	3,836,925	\$182,331
Beverly	437,830	\$20,806	Hainesport	1,253,920	\$59,586	Riverside	1,730,792	\$82,247
Bordentown City	772,447	\$36,707	Lumberton	2,189,332	\$104,037	Riverton	548,949	\$26,086
Bordentown Twp.	2,140,243	\$101,704	Mansfield	1,784,873	\$84,817	Shamong*	1,361,075	\$64,678
Burlington City	1,576,364	\$74,909	Maple Shade	2,899,520	\$137,785	Southampton	1,900,223	\$90,299
Burlington Twp.	3,959,232	\$188,143	Medford Lakes	961,186	\$45,676	Springfield	722,970	\$34,356
Chesterfield*	1,142,275	\$54,281	Medford Twp.	5,375,615	\$255,449	Tabernacle	1,529,242	\$72,670
Cinnaminson	3,512,886	\$166,932	Moorestown	4,432,356	\$210,626	Washington	153,436	\$7,291
Delanco	958,462	\$45,546	Mt. Holly	1,883,950	\$89,525	Westampton	1,706,944	\$81,114
Delran	2,864,974	\$136,144	Mt. Laurel	8,013,622	\$380,807	Willingboro	5,181,365	\$246,218
Eastampton	1,151,337	\$54,712	New Hanover	161,718	\$7,685	Woodland	170,023	\$8,079
Edgewater Park	1,450,669	\$68,936	North Hanover	627,591	\$29,823	Wrightstown	111,241	\$5,286
Evesham	8,092,687	\$384,564	Palmyra	1,495,520	\$71,067	MDL Joint Base	818,715	\$38,905
Fieldsboro	123,117	\$5,851	Pemberton Boro	221,145	\$10,509	Total	81,845,168	\$3,889,282

Municipal Landfill Savings based on 2023 Disposal Fee of \$95.04/ton | *Residents contract privately for trash collection

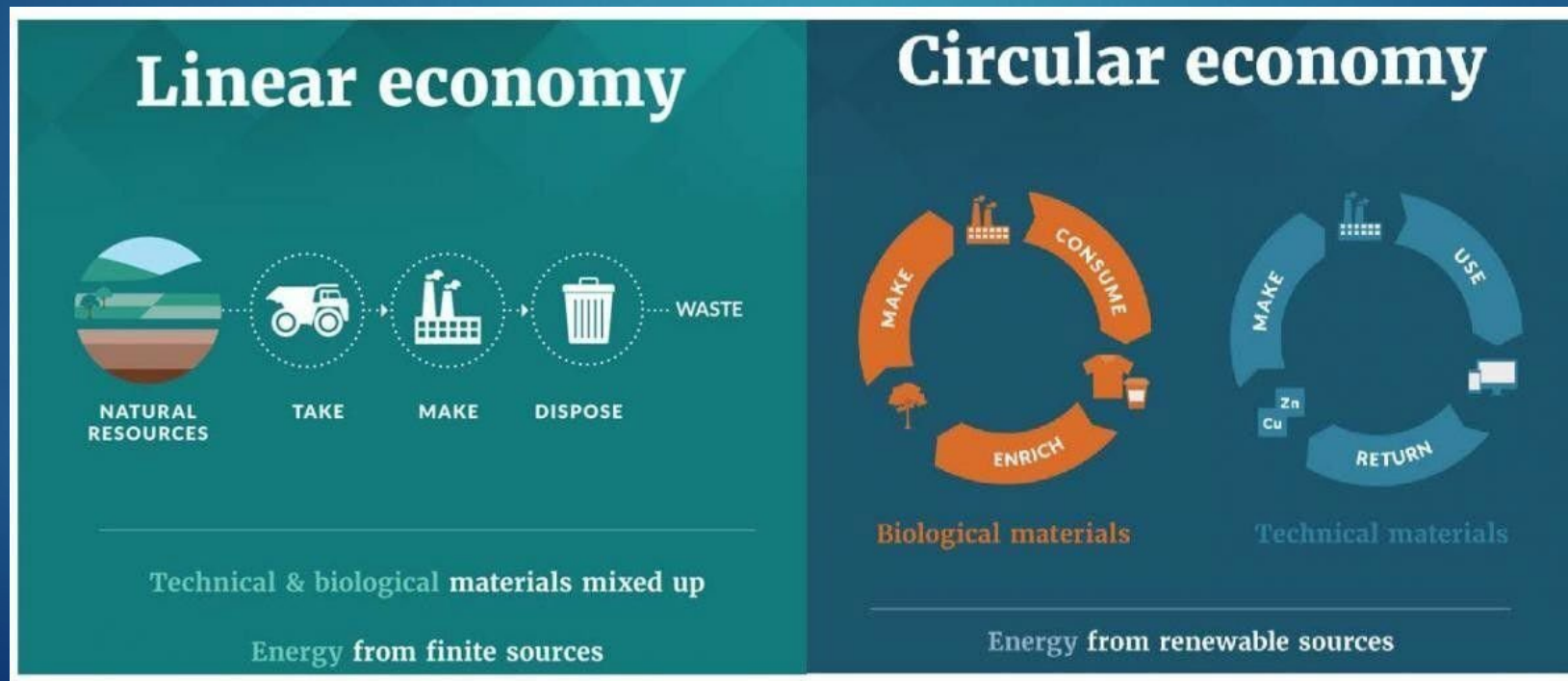
Challenges: Contamination



Does this look right?

Markets & Circularity

- ▶ Circular design approach in our production of goods and services.
- ▶ Considerations for a product's end of life is key.
- ▶ Strong markets needed for recycled content and incentives for producers to invest in sustainable supply chains.
- ▶ A need for ethical markets.



Plastics Recycling Misconceptions

- ▶ Not all plastics are easy to recycle.
- ▶ Plastics are composed of different polymer types.
- ▶ Plastics have varying physical and chemical properties that impact their recyclability.
- ▶ Some plastics have limited markets.

Plastic resin identification code Quick reference guide

			COMMON PRODUCTS OF EACH CATEGORY	
EASIER TO RECYCLE	 1 PET	Polyethylene Terephthalate	water bottles fizzy drink bottles	
	 2 HDPE	High-density Polyethylene	milk bottles shampoo bottles laundry detergent containers	
DIFFICULT TO RECYCLE	 3 PVC	Polyvinyl Chloride	vinyl tubing/pipe biscuit trays commercial cling wrap	
POSSIBLE TO RECYCLE	 4 LDPE	Low-density Polyethylene	soft plastic products bread bags squeeze bottles plastic film	
EASIER TO RECYCLE	 5 PP	Polypropylene	most temperature resistant containers takeaway containers	
DIFFICULT TO RECYCLE	 6 PS	Polystyrene	solo cups and CD cases expanded polystyrene cups (eg. styrofoam)	
	 7 OTHER	All other plastics	toys compostible packaging (eg. Polyactic Acid) sippy cups CDs/DVDs and lenses	

Easier to recycle (commonly collected by council recycling schemes) | Possible to recycle (sometimes recycled) | Difficult to recycle (not often recycled)

Public Distrust



We are inundated with news and daunting statistics...

SUSTAINABLE DEVELOPMENT GOALS



... yet I remind myself of the bigger picture and the knowledge we share.

Burlington County Plastic Recycling Data

- ▶ **740,000 more lbs. of bottles were recycled in 2022 vs. 2018.**
- ▶ In 2023, our homes recycled 45 lbs. of plastic bottles.
- ▶ US and Canadian recyclers want more plastics!
- ▶ The domestic demand for recycled plastic is rising.



Residue Study

MATERIALS	2023 TOTALS	% found on residue line	lbs. not captured by system, based on audit	Material	Per ton Sept 2024 Pricing	Revenue loss
PET	4,232.89	1.1%	92,000	PET	\$405	\$18,630
HDPE Natural	753.03	0.7%	11,232	NatHDPE	\$940	\$5,279
HDPE Colored	862.83	2.7%	48,298	CHDPE	\$260	\$6,279
Steel Cans (gross tons)	1,324.70	0.0%		Steel Cans		\$0
Aluminum	1,071.37	0.4%	7,862	Aluminum	\$1,805	\$7,095
Lbs. system didn't capture			159,392			\$37,283
Tons system didn't capture			80			

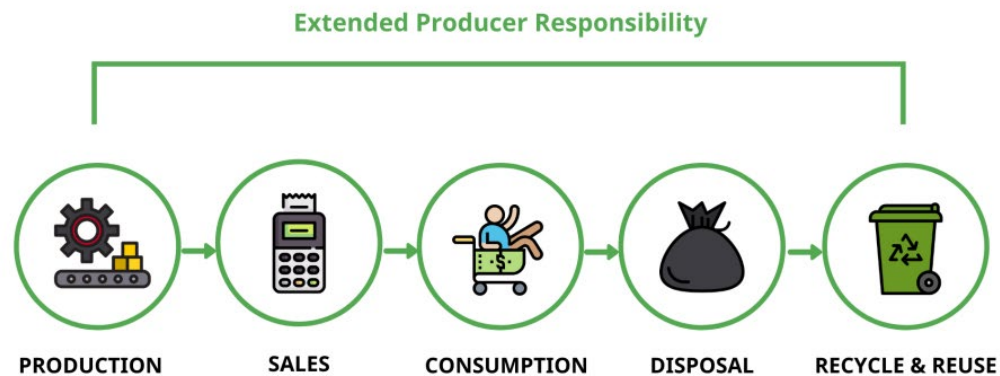
- ▶ Each year only 1.1%, 0.7%, and 2.7% of the PET, NatHDPE, and C-HDPE respectively are not captured by our system.
- ▶ Most of these containers were not recycled properly (crushed, filled with liquid).

Extended Producer Responsibility

INFOGRAPHIC BY ECUBE LABS:

Extended Producer Responsibility (EPR): Better Recycling and Resource Management

How the responsibility for managing products has changed with EPR



Previously

What can companies
save because of EPR?



MONEY



TIME



ENERGY

Benefits of EPR:

- ▶ Reduces waste.
- ▶ Increases recycling rates.
- ▶ Encourages innovation.
- ▶ Improves infrastructure.
- ▶ Ensures accountability!

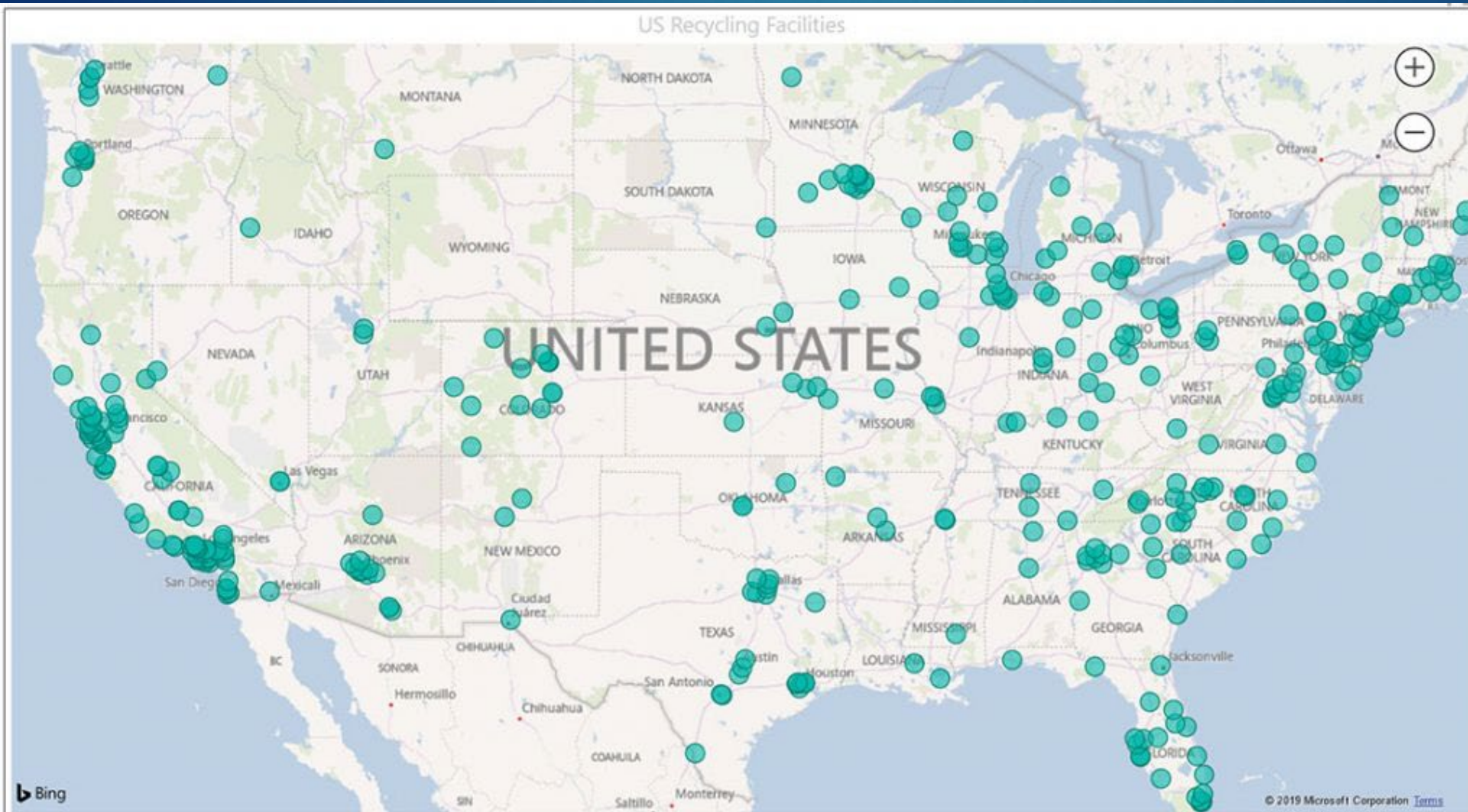
Reducing Plastic Use

Note - Individual actions are just the tip of the iceberg!

- ▶ Avoid the worst plastics.
 - ▶ #3, 6, & 7 have the most limited recycling markets and are the most toxic to produce.
- ▶ Seek alternatives to plastic.
 - ▶ Use reusable containers or opt for a more recyclable container such as aluminum cans.
- ▶ Refuse single-use plastics when possible.
 - ▶ Plastic straws, utensils, and bags often end up in landfills or littered on our land and waterways.



Infrastructure Investment



Proper waste management infrastructure



reduction of the amount of waste in landfills and incinerators.

Map of Material Recovery Facilities (MRFs) in the United States.

Legislation

- ▶ Extended Producer Responsibility
 - ▶ Product Packaging Stewardship (S208)
 - ▶ Paint Care (S2433)
- ▶ Truth in Labelling (S224/A2775)
 - ▶ “Prohibits sale, distribution, and import of certain products marketed as recyclable, unless DEP determines that products are widely recycled.”
- ▶ Uniform Statewide Recycling List.
- ▶ Revisions to “Dry Cell Battery Management Act” to address rechargeable and embedded batteries (A3876).



Call to Action: Let's Work Together & Fight the Myths!

- ▶ Recycling in NJ is alive and well.
- ▶ Plastic bottles are recycled at a high rate in NJ.
- ▶ We aren't landfilling any of the properly recycled materials that we collect.
- ▶ Don't be a "wish" cyclist – only put items in your carts that you know we take.
When in doubt – ask.
- ▶ Keep hazardous items out! They can truly harm the people who sort them.

Feel free to reach out!

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