

# Wasatch Integrated Waste Management District

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# Members

Centerville

Clearfield

Clinton

Davis County

Farmington

Fruit Heights

Kaysville

Layton

Morgan City

Morgan County

North Salt Lake

South Weber

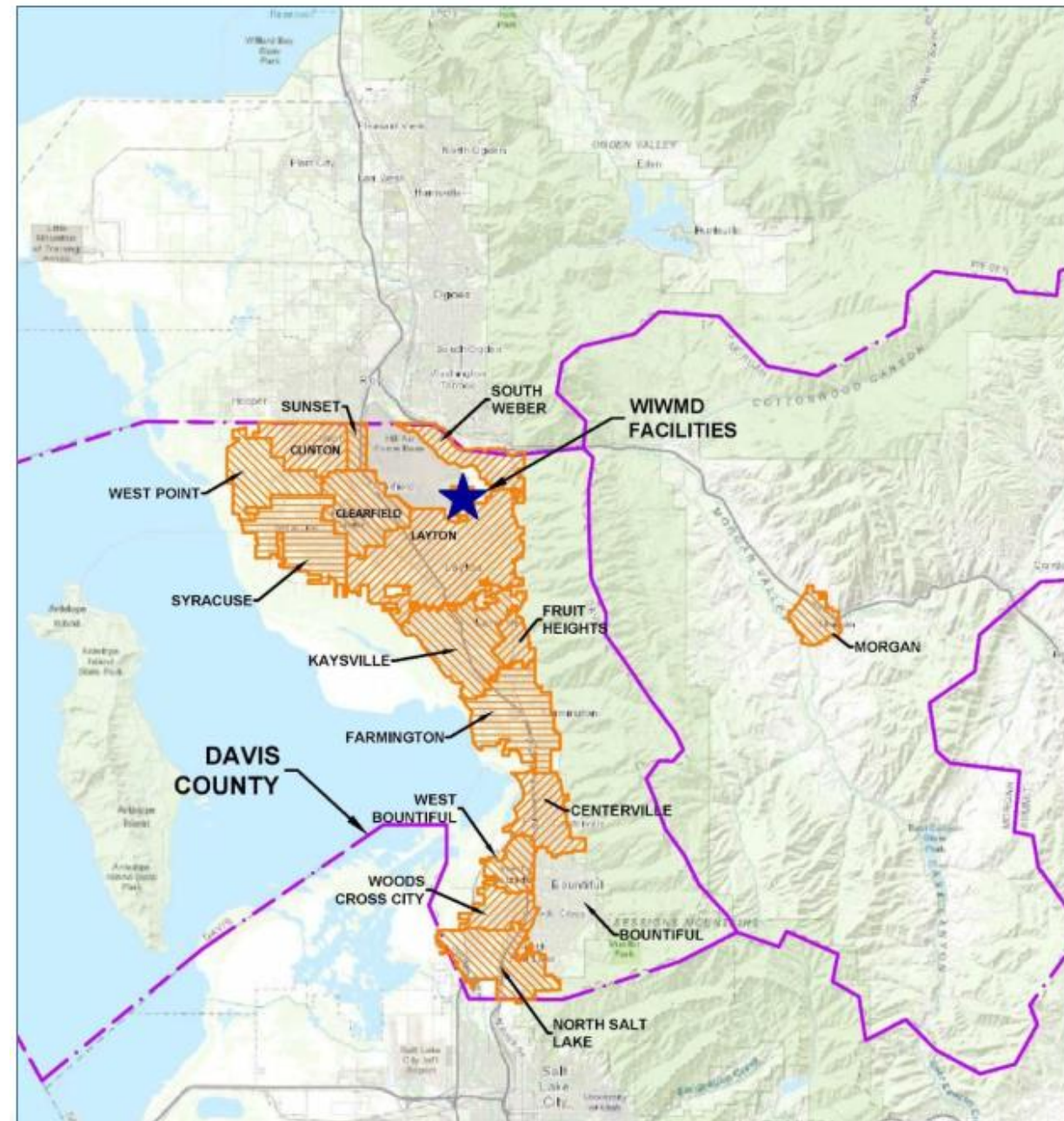
Sunset

Syracuse

West Bountiful

West Point

Woods Cross



# Mission Statement – Bylaws

2012

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## **1-1-103. Mission Statement.**

Provide sustainable, cost-effective, and environmentally sound solid waste management.

### Guiding Principles

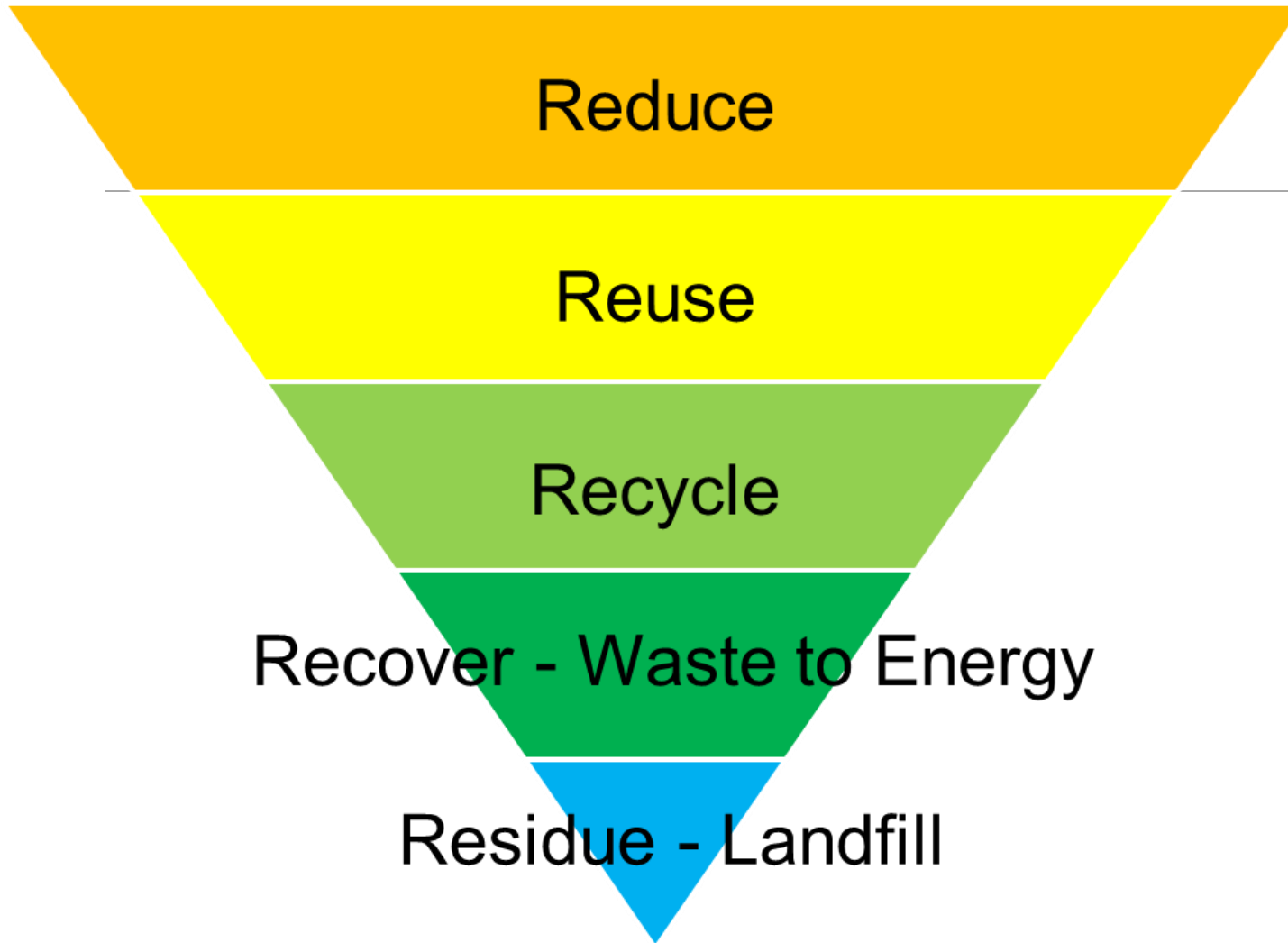
Maintain fiscal integrity with minimal financial risk. Consider long term effects and life cycle costs. Maximize the value of assets.

Recognize waste as a resource through reuse, reduction, recycling, and the production of fuels and energy, when financially viable. Manage waste destined for disposal with state-of-the-art landfill resources, operations, and long-term care.

Make well informed decisions based upon sound scientific and business judgment and ethical business practices.

Aggressively pursue best available demonstrated technologies that minimize the volume and toxicity of wastes and protect the environment for future generations.

Promote public education and awareness of effective and efficient municipal solid waste management practices.



# Integrated Waste Management Hierarchy



# Integrated Solid Waste Management

- Waste is Local
- Solutions are Local
- No One Size Fits All
- Demographics, Geography, Culture, Climate, Laws, Regulations, Mandates, Industry, Politics, Physics







# Davis Landfill





# Green Waste Recycling and Composting Facility





## Citizen Waste and Recycling Drop-Off





# HHW and Electronic Waste





# Landfill Thrift Store





# Landfill Gas to Energy





# Davis Material Recovery and Transfer Facility

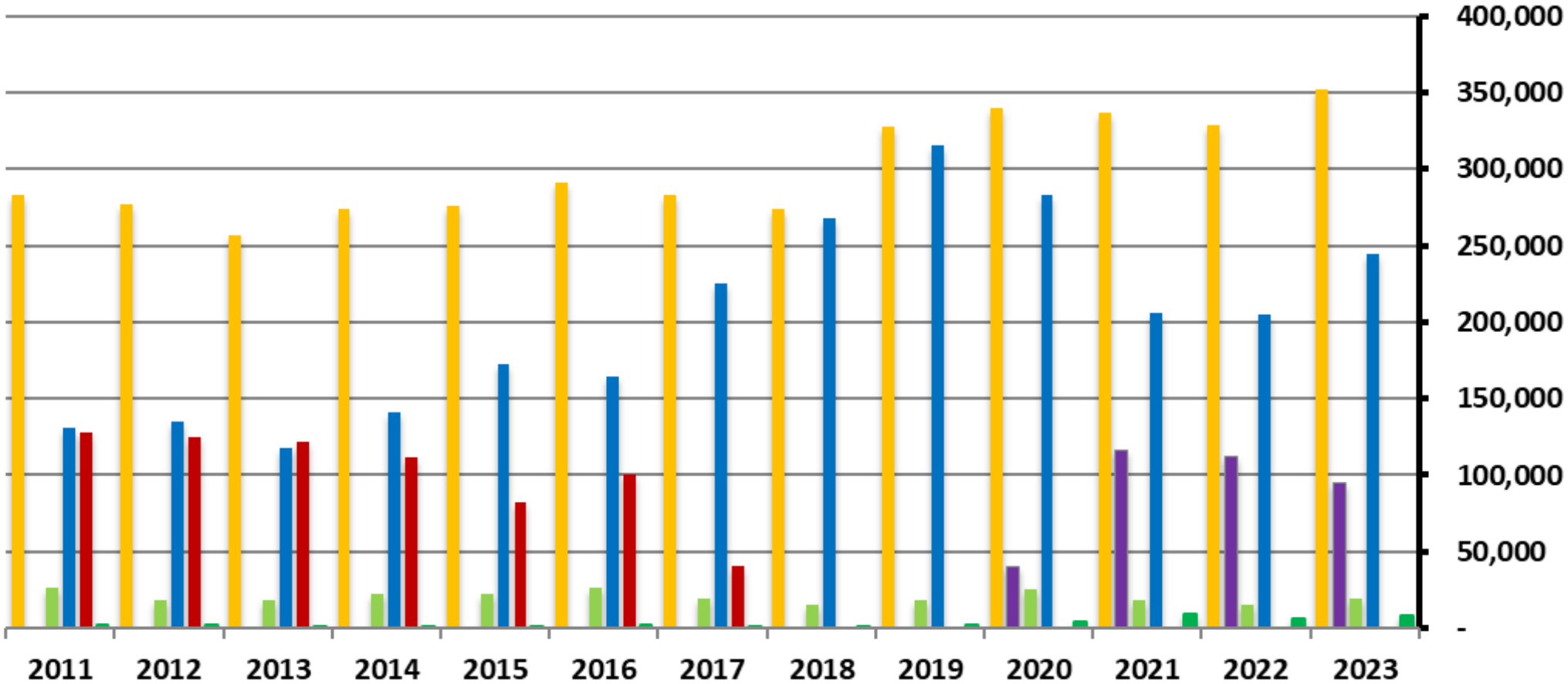


# How is the System Changing?

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- Closure of the Davis Energy Recover Facility
- Life of the Davis Landfill Shortened
- Increasing Population
- Increasing Waste Generation per Capita
- Waste Transfer to Regional Landfill
  - Additional Cost of \$35+ per Ton

# Waste Delivered and Disposal



■ Total Waste Delivered 
 ■ Regional Landfill 
 ■ Green Waste 
 ■ Davis Landfill 
 ■ Waste Incinerated 
 ■ Recycled/Diverted



# What About the Future?

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- How long will the Davis Landfill last?
  - Substantial Increase in Cost Upon Closure
- How do we honor the mission statement?
- How do we best use the MRF to adapt to changing and developing opportunities?
- What are the long term economic and environmental consequences of our choices?

# 20 Year Integrated Waste Management Plan

Revised 2022

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- GBB Solid Waste Management Consultants
- Process Started in 2021
- Board Advisory Committee (Open & Public Meetings)
- Identified Scenarios
- Financial Modeling of Scenarios
- Survey of Residents
- Recommendations



# 20 Year Integrated Waste Management Plan

Approved November 2022

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- Stop Processing Mixed Waste at the MRF
- Davis Landfill Life = 18 Years
- Increase MSW Transferred to Regional Landfill
- Increase Waste Diversion (up to 30% of residential)
  - Support Robust Recycling Programs District Wide
  - Install Equipment Modifications at the MRF
- Plan for additional facilities to meet future demands.



Residential  
Curbside  
Recycling

-

Industry Best  
Practice

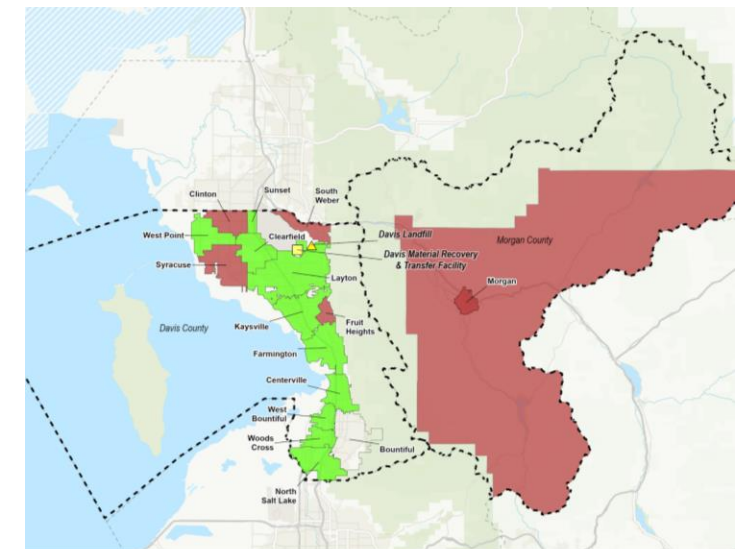


# City Sponsored Curbside Recycling Programs

City	MSW Accounts	Recycling Accounts	Recycling Participation (%)	Program Type
Centerville City	4,335	4,025	93%	Opt-Out/Mandatory
Clearfield City	6,191	3,267	53%	Opt-Out/Optional
Farmington City	6,691	6,394	96%	Opt-Out/Mandatory
Kaysville City	8,959	6543	73%	Opt-Out/Mandatory
Layton City	19,506	5,837	30%	Subscription
North Salt Lake City	5,121	4,396	86%	Opt-Out/Mandatory
Sunset City	1,598	526	33%	Opt-Out/Optional
West Bountiful City	1,807	1617	89%	Opt-Out/Mandatory
West Point City	3,604	2,787	77%	Opt-Out/Mandatory
Woods Cross City	2,952	2,952	100%	Bundled
Locations w/o Recycling	24,205	--	--	--
<b>Total Across District</b>	<b>84,969</b>	<b>38,344</b>	<b>45%</b>	

## Locations Without City sponsored Recycling Service

- Clinton City
- Fruit Heights City
- Morgan City
- Morgan County
- South Weber City
- Syracuse City



Notes – Locations w/o recycling; serviced by Mountain West Recycling by subscription

– Source: May 2023 Curbside Report



Current  
Residential  
Curbside  
Recycling  
Performance

-

15% Diversion is  
Achievable



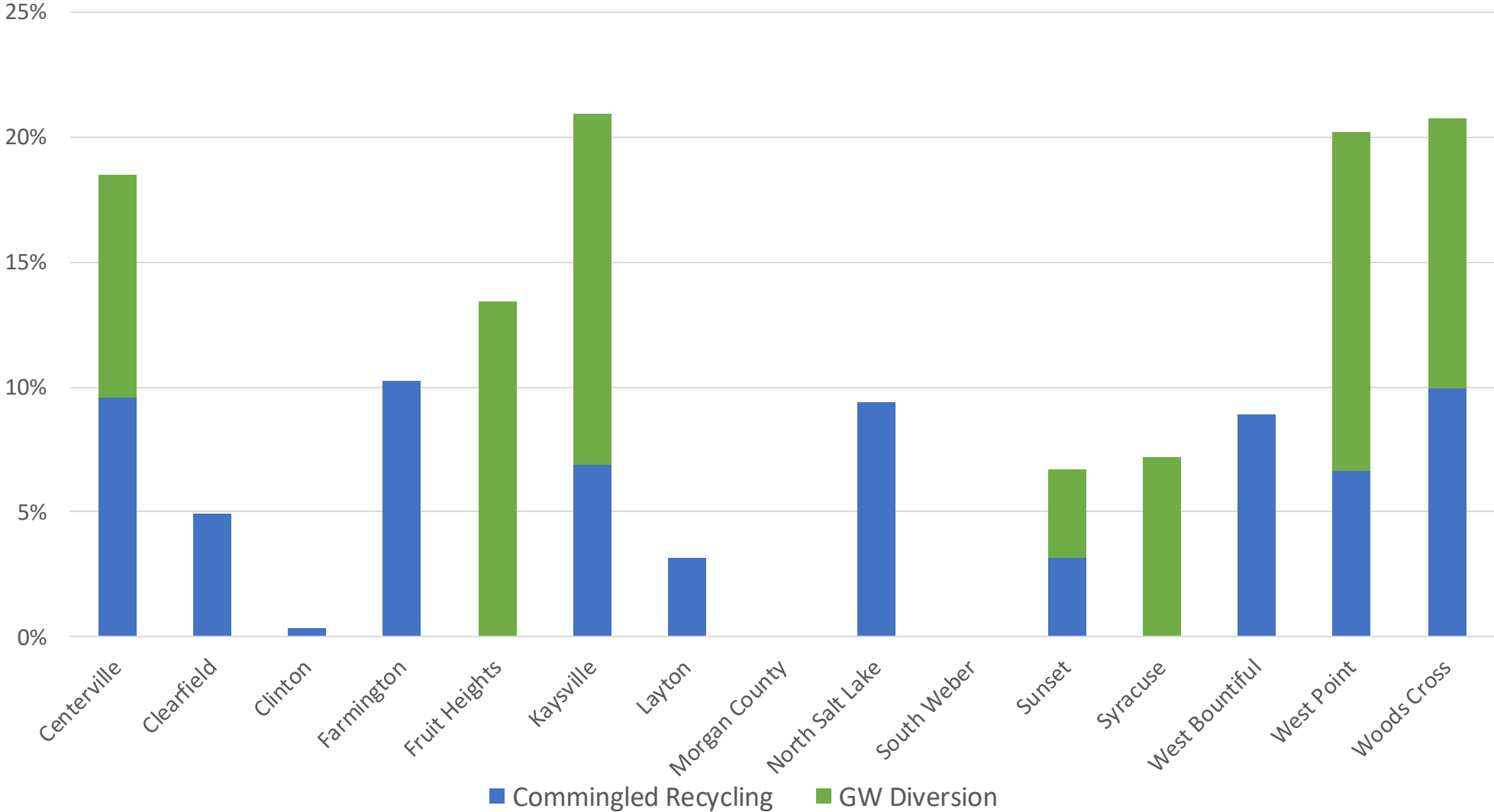
# Material Tonnages and Diversion Rates

City	MSW Tons	Commingled Recycling Tons	Green Waste Tons	Recycling Diversion Rate	GW Diversion Rate	Total Diversion Rate
Centerville	5,231	615	573	10%	9%	19%
Clearfield	8,375	433	--	5%	--	5%
Clinton	10,443	--	--	--	--	0%
Farmington	8,474	969	--	10%	--	10%
Fruit Heights	2,317	--	359	--	13%	13%
Kaysville	12,831	1,119	2,283	7%	14%	21%
Layton	29,543	965	--	3%	--	3%
Morgan City and County	4,709	--	--	--	--	0%
North Salt Lake	6,080	631	--	9%	--	9%
South Weber	3,472	--	--	--	--	0%
Sunset	1,995	68	75	3%	4%	7%
Syracuse	13,719	--	1,066	--	7%	7%
West Bountiful	2,667	262	--	9%	--	9%
West Point	4,246	355	719	7%	14%	20%
Woods Cross	3,583	450	487	10%	11%	21%
<b>Total Across District</b>	<b>117,684</b>	<b>5,901</b>	<b>5,562</b>	<b>5%</b>	<b>4%</b>	<b>9%</b>

Data Source: 2022 Curbside Report



# Material Diversion Rates

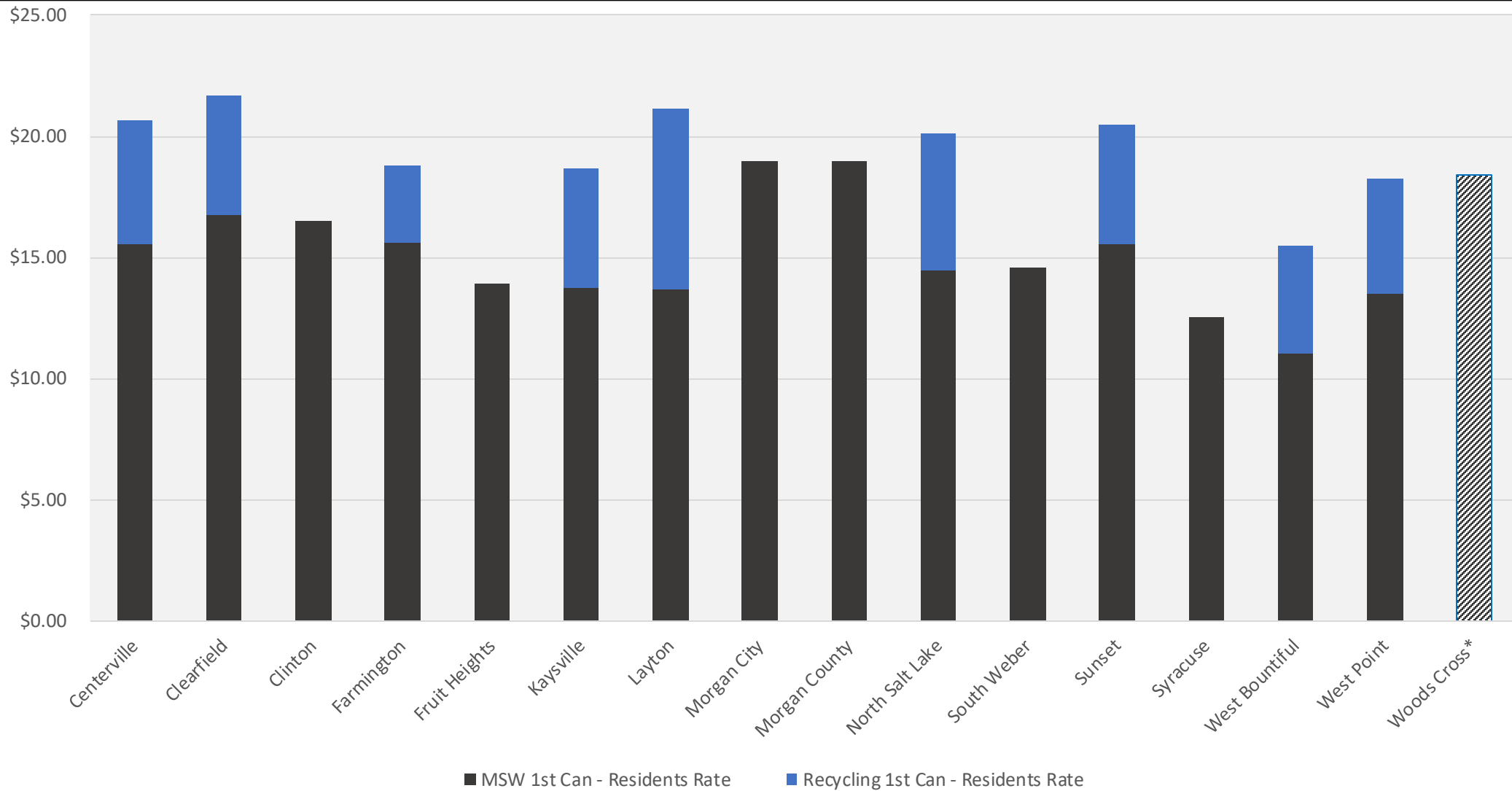


# Residential Curbside Collection Fees





# Comparison of Resident Fees Across District (MSW + Recycling)

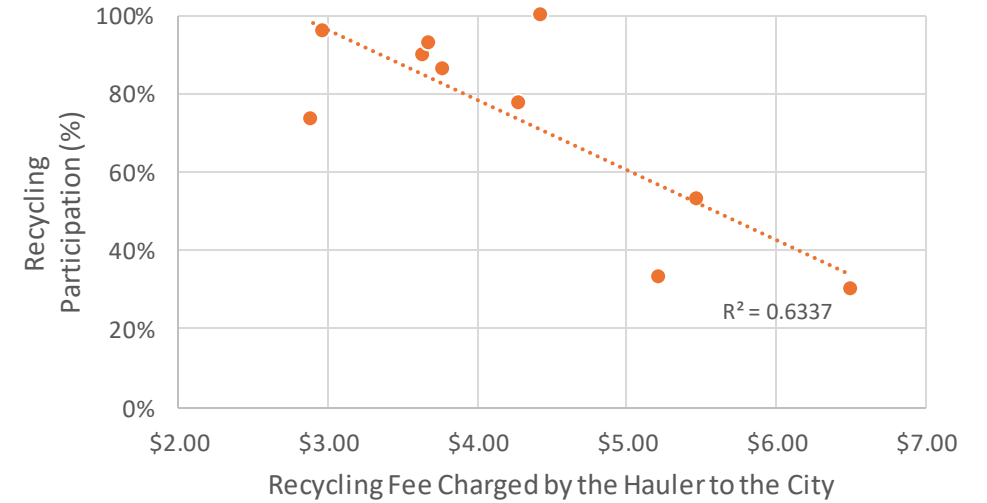


\*Woods Cross combines 1<sup>st</sup> curbside trash can with 1<sup>st</sup> recycling can into one, inseparable fee

# Evaluation of Recycling Hauler Fees by Participation (%) and Program Type

Member City	Recycling Fee Charged by the Hauler to the City	Recycling Participation (%)	Program Type
Kaysville	\$2.90	73%	Mandatory
Farmington	\$2.97	96%	Mandatory
West Bountiful	\$3.65	89%	Mandatory
Centerville	\$3.69	93%	Mandatory
North Salt Lake	\$3.78	86%	Mandatory
West Point	\$4.29	77%	Mandatory
Woods Cross	\$4.43	100%	Mandatory
Sunset	\$5.23	33%	Optional
Clearfield	\$5.48	53%	Optional
Layton	\$6.51	30%	Optional

Recycling Fee Charged by the Hauler and Recycling Participation (%) appear highly correlated.



	Mandatory	Optional
<b>Mean</b>	\$3.81	\$4.78
<b>Median</b>	\$3.69	\$5.23
<b>Min</b>	\$2.97	\$2.90
<b>Max</b>	\$4.43	\$6.51



# New Contracting Considerations

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Recycling Bins  
Should Cost Less  
Than \$5

## Original/Existing Recycling Contracts

- Hauling to Salt Lake City
- Lower and Less Certain Participation
- Volatile Processing Fee

## Future Recycling Contracts

- Hauling to Layton
- Higher Guaranteed Participation
- No Processing Fee

# Why Bundled Service?

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- Efficiency
  - Higher Participation Drives Cost Down
- Effectiveness
  - Higher Participation Results in More Diversion
- Longevity
  - Avoids Subscription Drift
  - Easier for City Staff to Maintain





# What Will Residents Say?

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- 9% of South Weber households have an ACE recycling can.
- 62% of non-recycling residents indicate willingness to pay \$5.
  - Therefore, 71% of residents should be happy.
- 50% of residents have a second bin.
  - If these residents return second bin once they receive recycling bin, they will save money.

# Requirements of Bundled Curbside Service

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## Programs Must Offer The Following:

- Bundled solid waste and recycling fee (remains the same, regardless if customer chooses to use all services)
- Utilize coordinated and consistent educational materials from the District
- Cities and other members will have until July 2025 to roll-out their bundled curbside solid waste & recycling services before a differential fee goes into place.



# City Hardship Policy

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## For residents who don't have a recycling cart:

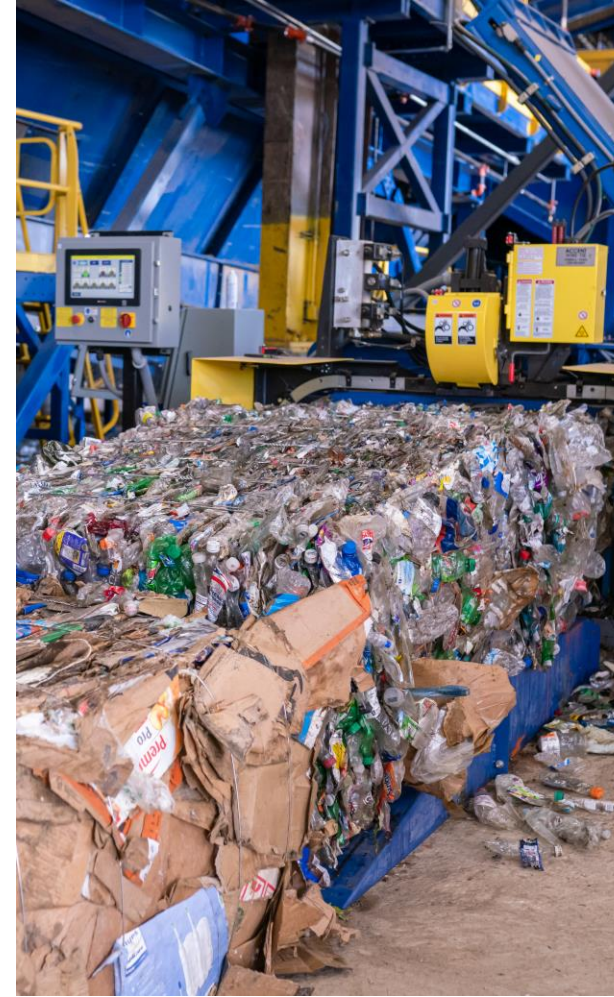
### Preferred Option (will net higher participation and qualify for TRP grant)

- The flier, education packet, and city newsletters will include a city phone number for any questions or concerns.
- After recycling carts are delivered, residents may request hardship pricing and/or removal of the recycling cart.
- Cities can use any criteria they like to grant hardship pricing.
  - Hardship request submitted in person.
  - Hardship pricing criteria may change 1 to 2 months after roll-out.
- Utility bill with bundled waste services on one line indicating hardship.
  - Solid Waste Services – Hardship.....\$y.yy



**This is a Process**





# Why Recycle?



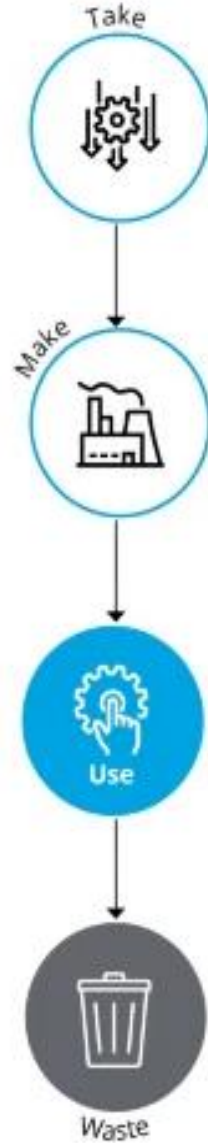
# Nature Recycles Everything

- There is no such thing as 'away'.
- Nature's systems are efficient and resilient.
  - Mushrooms, earthworms, and beetles spend their whole lives recycling dead matter back into usable nutrients for plants and animals.
- The goal is to transition our systems to follow nature's principles.

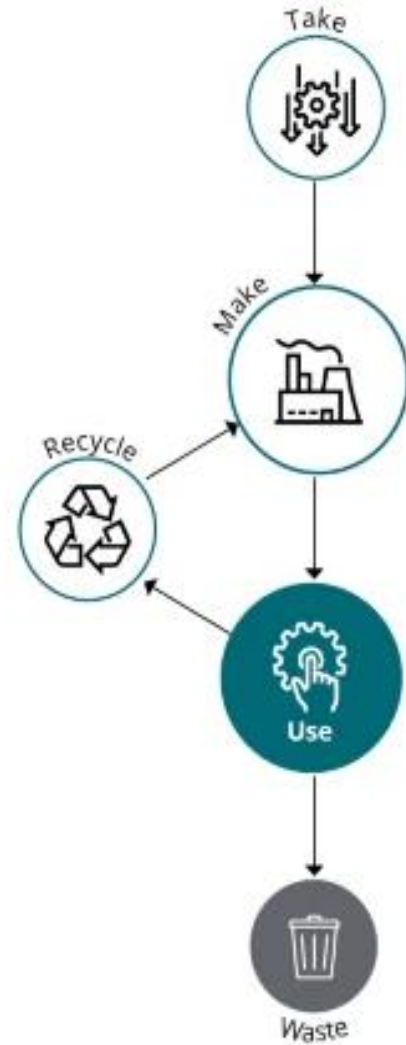




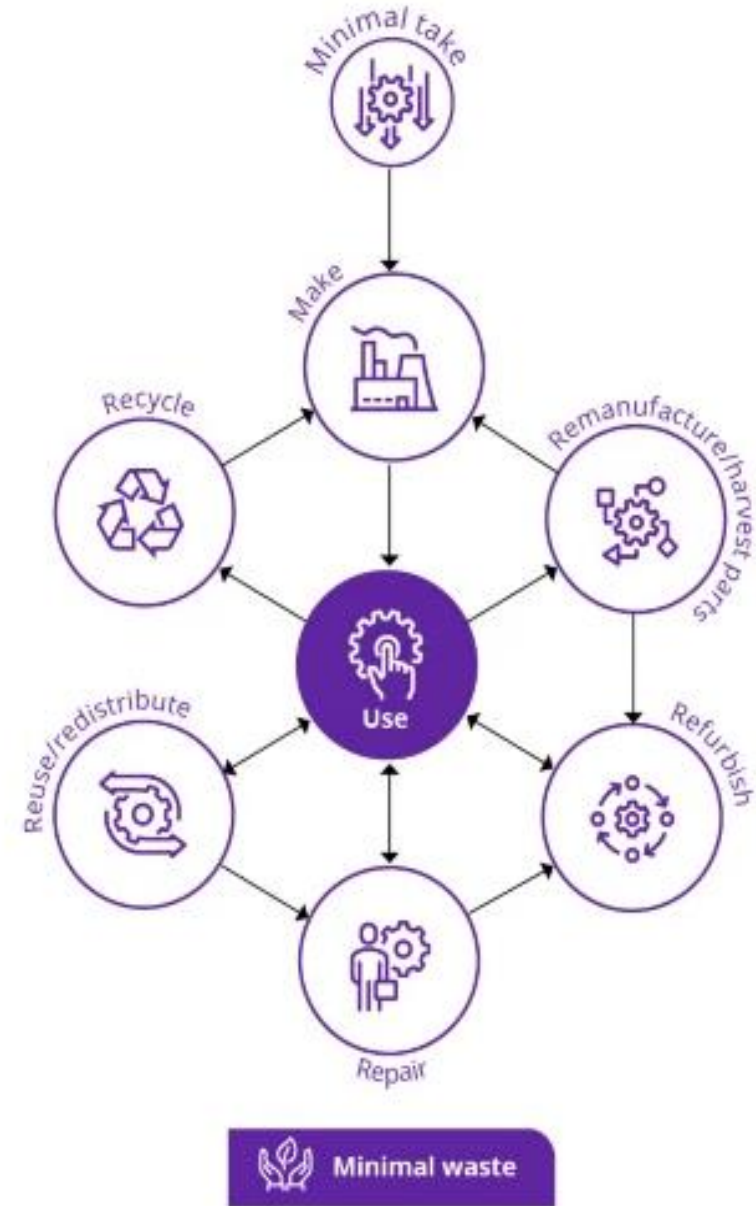
## LINEAR ECONOMY



## RECYCLING ECONOMY



## CIRCULAR ECONOMY

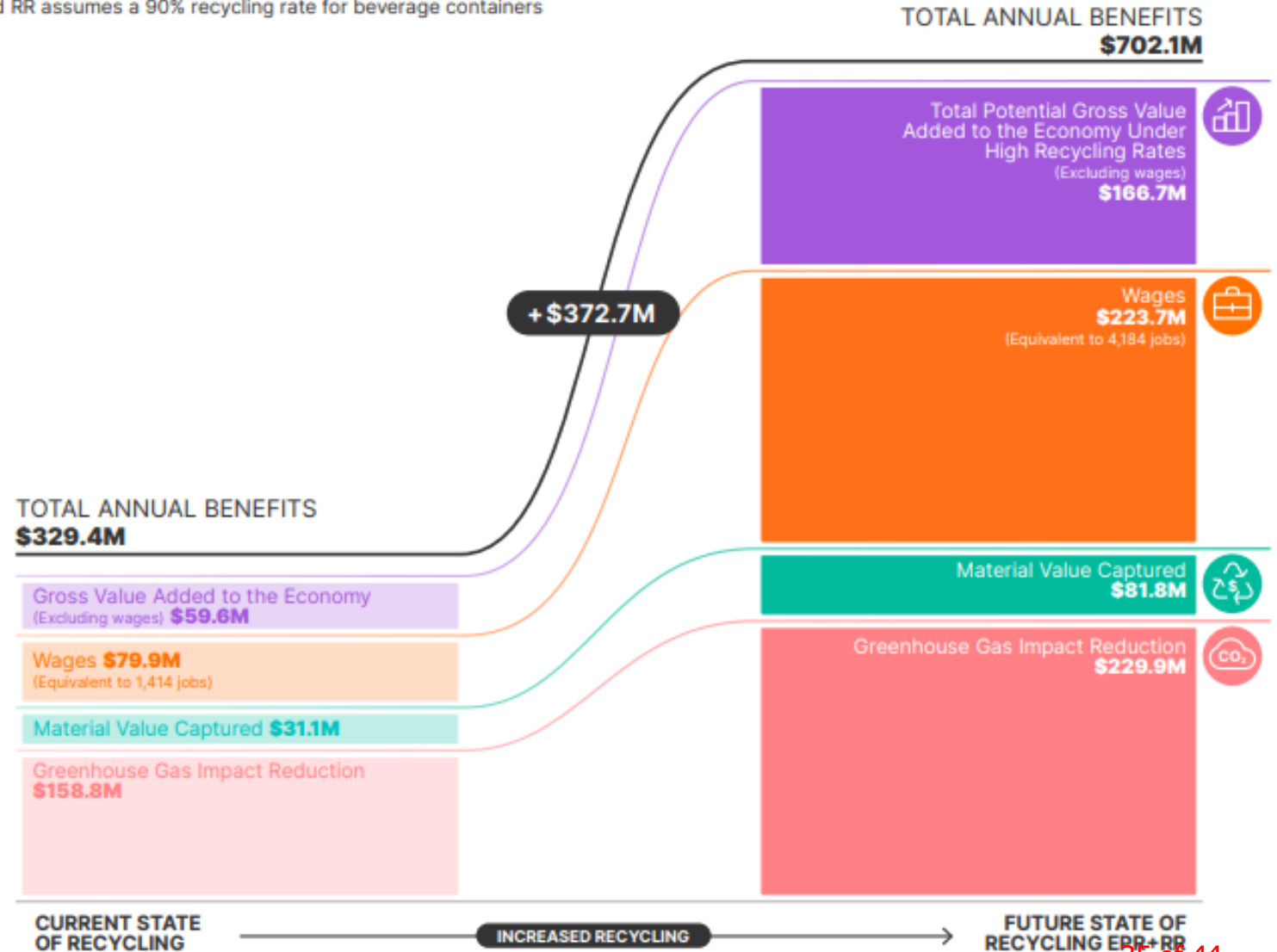


# Circular Economy

- Eliminate waste and pollution
- Circulate products and materials at their highest value
- Regenerate nature
- According to Goldman Sachs, a circular economy could help add \$4.5 trillion additional economic output by 2030 and \$25 trillion by 2050.

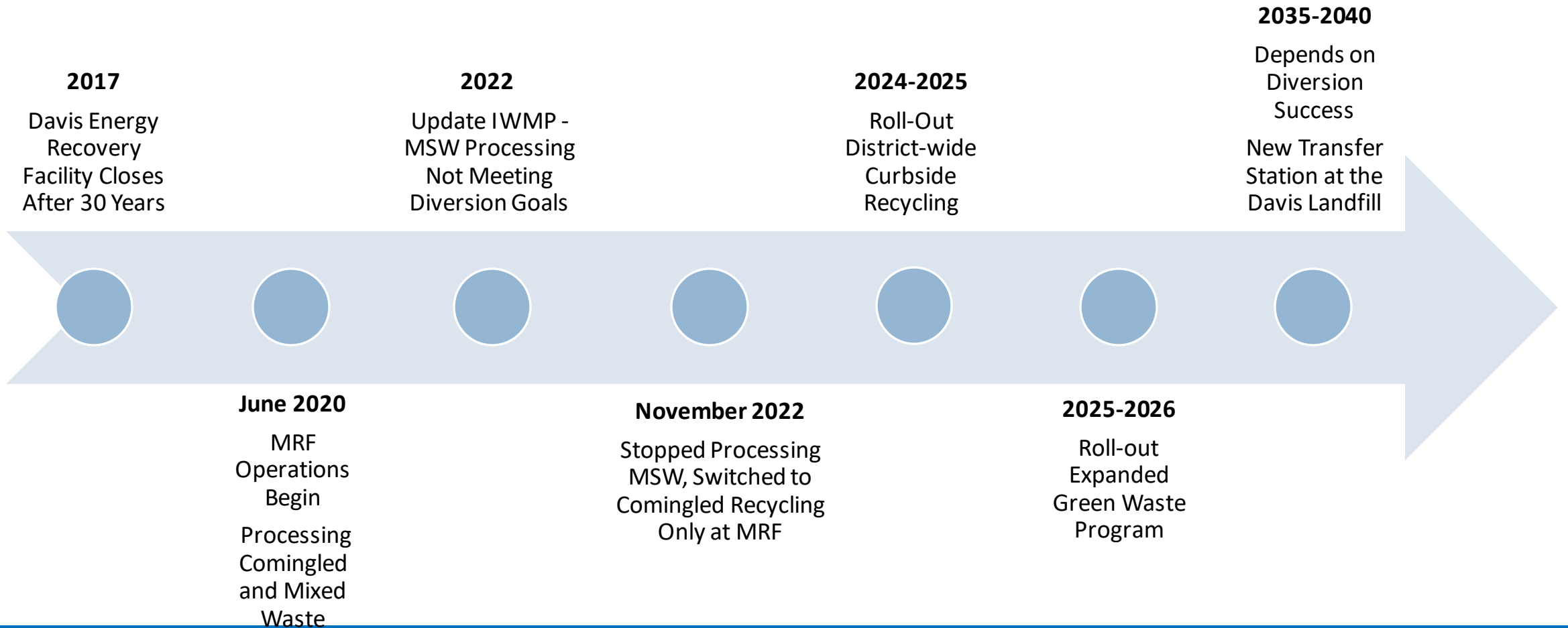
## THE ECONOMIC AND ENVIRONMENTAL OUTCOMES OF WELL-DESIGNED EXTENDED PRODUCER RESPONSIBILITY (EPR) + RECYCLING REFUND (RR) PROGRAMS

EPR assumes an overall recycling rate of 65% for residential packaging and RR assumes a 90% recycling rate for beverage containers





# Transition of District





**Food and Beverage  
Cans**  
empty and rinse



**Bottles, Jars, Jugs  
and Tubs**  
empty and replace cap



**Bottles and Jars**  
empty and rinse



**Mixed Paper, Newspaper,  
Magazines, Boxes**  
empty and flatten

# NO!



**Do Not Bag Recyclables  
No Garbage**



**No Plastic Bags  
or Plastic Wrap**  
(return to retail)



**No Food or Liquid**  
(empty all containers)



**No Clothing or Linens**  
(use donation programs)



**No Tangles**  
(no hoses, wires,  
chains or electronics)



# Benefits of Recycling

- Every ton of steel recycled saves 2,500 pounds of iron ore, 1,400 pounds of coal, and 120 pounds of limestone.
- Making cans from recycled aluminum saves 95% of the energy required to produce cans from raw materials.





# Benefits of Recycling

- Recycling one ton of paper saves:
  - 17 mature trees
  - 3.3 cubic yards (2.5 cubic meters) of landfill space
  - 7000 gallons (27,000 liters) of water
  - 380 gallons (1440 liters) of oil
  - 4100 kilowatt hours (14,700 megajoules) of energy
  - 60 pounds (27 kilograms) of pollutants





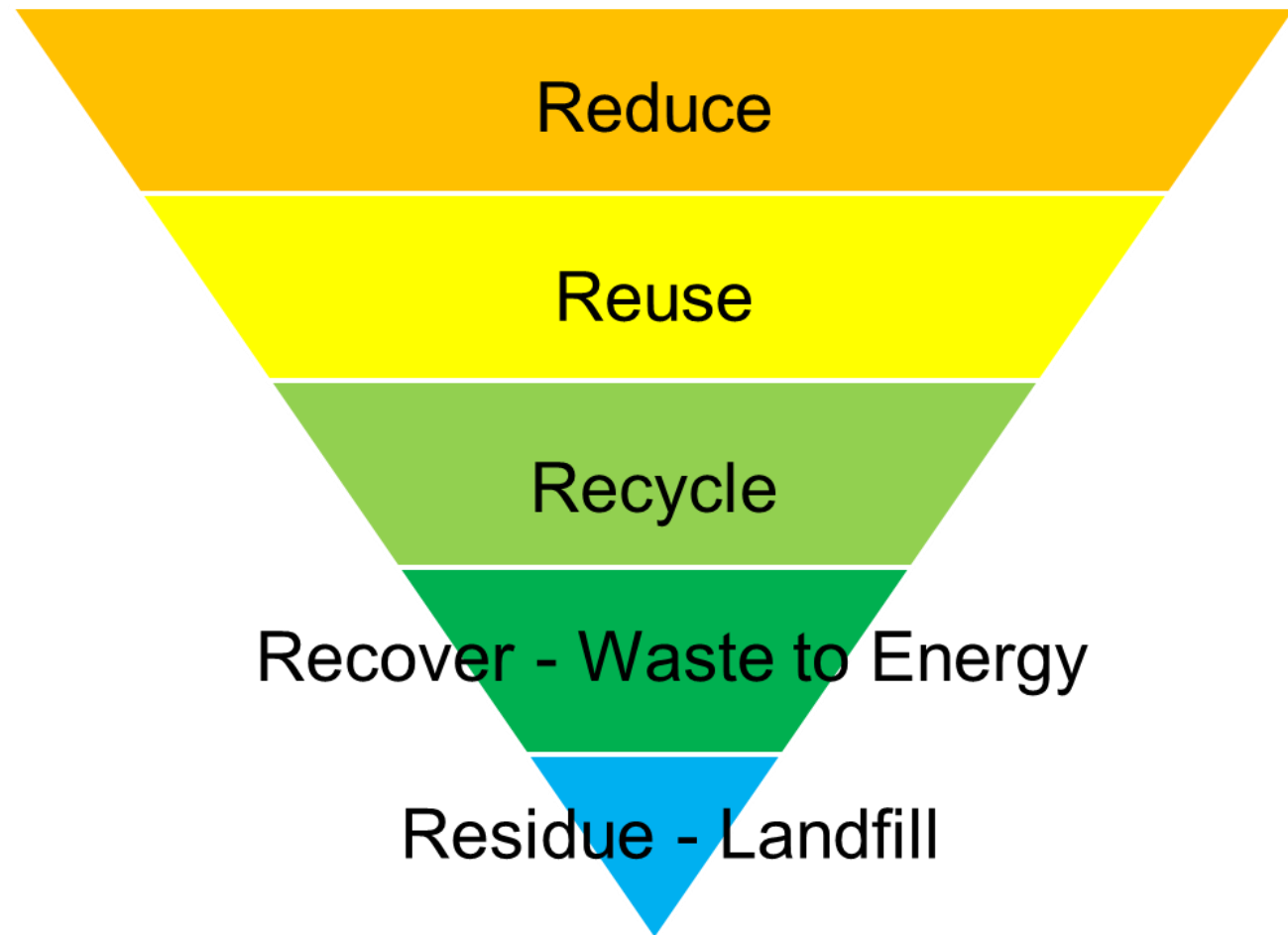
# Reduces Air Pollution & Greenhouse Gases

- Landfills are the third largest source of methane in the U.S.
  - Less waste to landfills & incinerators equates to less air emissions released to atmosphere.
  - Wasatch captures 90% of methane.



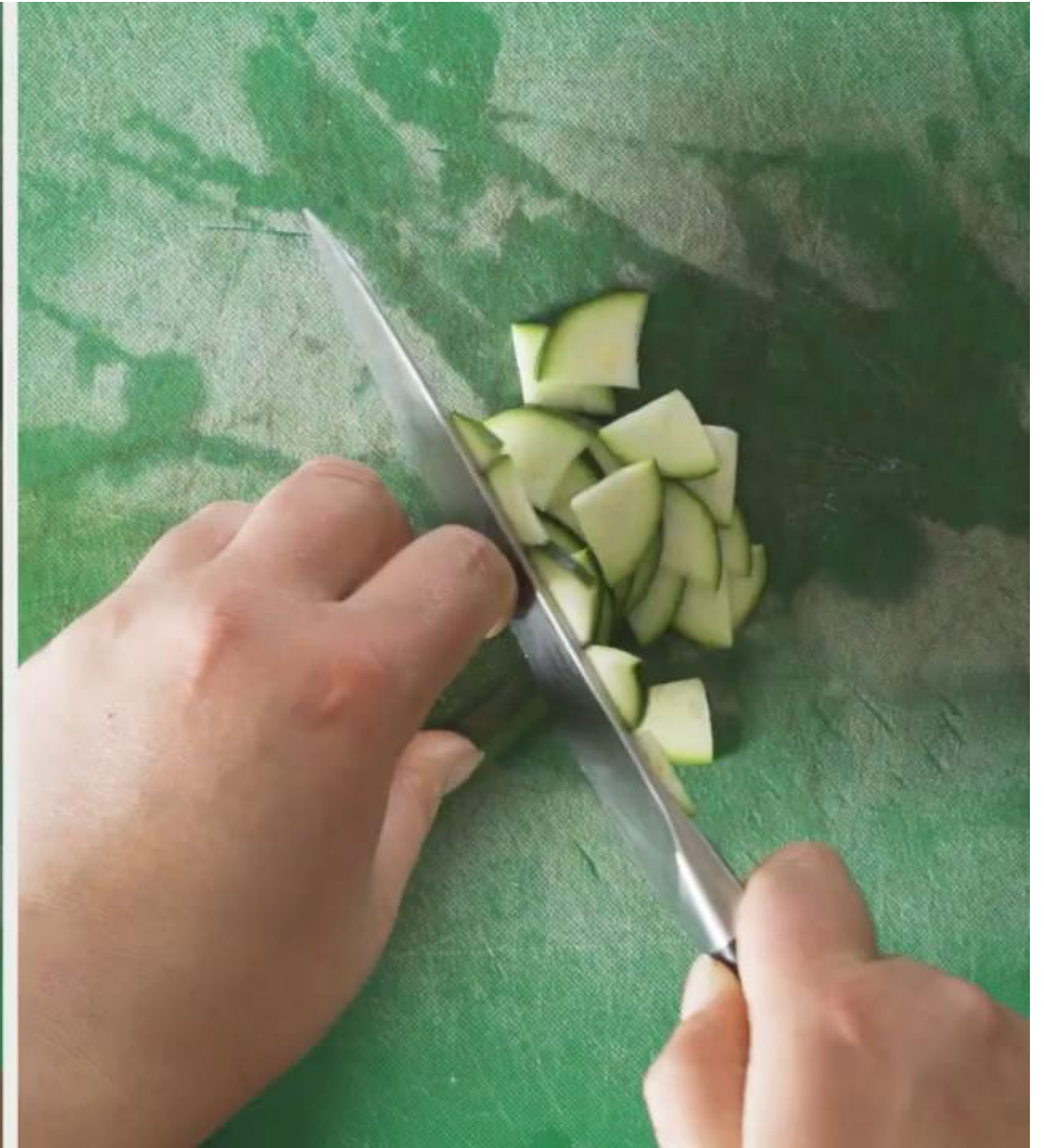
# The Impacts of Communication

- 75% of Americans do not recall receiving communication from their local program.
- For those who remember recycling communication, they are more likely to:
  - Be satisfied with their service
  - Recycle more at home
  - Be confident in their recycling abilities
  - Believe their recyclables are always or usually made into new things
  - Feel informed about what happens to their recyclables.





## The Best Packaging Is No Packaging



# Next Steps

- Meet with haulers
- Meet with The Recycling Partnership
  - \$15 toward each cart for cities with universal recycling
  - Funding for education
- Create recycling signage for carts
- Connect with city web and media designers
  - Consistent education
- Attend city council meetings

# WE'RE ON A ROLL

CARTS ARRIVE DECEMBER 2022

**Belmont**, meet your new recycling and garbage carts.



To learn more:  
Visit [www.casella.com/Belmont-NH](http://www.casella.com/Belmont-NH)  
or call Casella at 603-524-5881

Funded in part by  
**43 of 44** The Recycling Partnership  
SOLVING FOR CIRCULARITY



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