



UNDERSTANDING THE COST OF RECYCLING AND HOW YOU CAN HELP

Provo Residents Taking Action to Reduce, Reuse, Recycle

NAVIGATING THE PATH TO COST-EFFECTIVE RECYCLING IN PROVO



- **Unveiling the reasons behind escalating recycling costs**
- **Outlining strategies for Provo residents to contribute towards cost reduction**
- **Reinforcing the importance and benefits of the three R's: Reduce, Reuse, Recycle**

WHAT CAN I RECYCLE? **SUPER 6** IN THE BIN

PLEASE REMEMBER: EMPTY + DRY MATERIAL ONLY



NO BAGGED MATERIALS
LOOSE RECYCLING ONLY

ITEMS NOT ON THE LIST? KEEP IT OUT OF THE BIN!

THE SUPER 6 WHAT YOU CAN RECYCLE

UNDERSTANDING THE RECYCLING PROCESS

Five Key Steps in Recycling



Collection:

Your recyclables are collected from your curbside or drop-off locations and transported to a Material Recovery Facility (MRF).

Sorting:

At the MRF, materials are separated into different types: paper, plastics, metals, etc., using automated processes such as magnets and optical sorters.

Processing:

Once sorted, each type of recyclable is processed differently. Plastics are shredded and melted into pellets, metals are melted down, and paper is pulped.

Manufacturing:

The processed materials are then used to manufacture new products, like new plastic containers from plastic pellets and new paper products from pulped paper.

Purchasing Recycled Products:

The recycling loop completes when consumers buy products made from recycled materials, which encourages more recycling and reduces the need for raw materials.

OCC #11:

Our old corrugated cardboard travels through a pulping process, reincarnating as new cardboard or paper products.

Mixed Paper #54:

Various paper products, once sorted, are pulped, cleaned, and reborn as recycled paper goods.

Natural HDPE:

Clear high-density polyethylene bottles are transformed through shredding and melting, emerging as new plastic items.

Colored HDPE:

Colored high-density polyethylene containers follow a similar path to their clear counterparts, with an additional sorting step for different colors.

THE JOURNEY OF
RECYCLABLES:
FROM YOUR BIN TO
NEW PRODUCTS



Contamination

When non-recyclable items or dirty recyclables are mixed in, it can damage machinery and requires more resources to sort and clean, driving up costs. For example, food residue in plastic containers can lead to contamination.



Fluctuating Market Prices

The cost of recycling is affected by the global market for recycled materials. Prices fluctuate based on demand and supply, sometimes making recycling more expensive than producing new materials. For instance, the market price for OCC or PET can drop, increasing the cost of recycling.



Rising Operational Expenses

Costs for collection, transportation, and processing of recyclables are rising due to fuel prices, labor costs, and equipment maintenance. For example, fuel costs for trucks transporting recyclables or maintenance costs for machinery processing aluminum or steel cans.

THE INCREASING COST OF RECYCLING

COMPARATIVE ANALYSIS OF RECYCLING COSTS

SUV TS Single Stream Pricing						
			May-21			
Publication	Region	Grade	Price	Percentage	Value	
Pulp & Paper (OBM)	Southwest/PNW High	OCC # 11	\$105	39.1%	\$41.05	
Pulp & Paper (OBM)	Southwest/PNW High	Mixed Paper # 54	\$40	17.8%	\$7.13	
Recyclingmarkets.net (SMP)	Pacific NW Avg	Natural HDPE	\$1,550	1.4%	\$21.01	
Recyclingmarkets.net (SMP)	Pacific NW Avg	Colored HDPE	\$480	1.3%	\$6.07	
Recyclingmarkets.net (SMP)	PNW/Houston Avg	PET	\$170	2.5%	\$4.18	
Recyclingmarkets.net (SMP)	PNW/Houston Avg	Actual Steel/Tin Cans	\$145	1.1%	\$1.59	
Recyclingmarkets.net (SMP)	Pacific NW Avg	Aluminum Cans	\$1,140	1.1%	\$12.37	
		Other Plastic	(\$16)	1.7%	(\$0.28)	
		Residue	(\$29)	34.1%	(\$9.88)	
				100.0%	\$83.23	

> The index prices and rebate will be adjusted on a monthly basis.

> If above indexes do not reasonably reflect actual market conditions, actual sales price for the grade may be utilized

> The stream composition will be adjusted on a quarterly basis.

Rebate/Tip Fee Calculation		
	To SL MRF	
Material Sales Value	\$ 83.23	
Less base fee	\$ (95.00)	
Available Commodity Value	\$ (11.77)	
Customer rebate % (if positive)	60.0%	
Customer Base Rebate/(Tip Fee) per Ton	\$ (11.77)	
TS processing/haul fee	\$ -	direct delivery
Customer Rebate/(Tip Fee) per Ton	\$ (11.77)	
Excess Contamination Charge	\$ (6.00)	
Total Customer Rebate/(Tip Fee) per Ton	\$ (17.77)	

SUV TS Single Stream Pricing						
			June-23			
Publication	Region	Grade	Price	Percentage		
Pulp & Paper (OBM)	Southwest/PNW High	OCC # 11	\$55	45.2%		
Pulp & Paper (OBM)	Southwest/PNW High	Mixed Paper # 54	\$15	18.8%		
Recyclingmarkets.net (SMP)	Pacific NW Avg	Natural HDPE	\$1,350	1.4%		
Recyclingmarkets.net (SMP)	Pacific NW Avg	Actual Colored HDPE	\$120	1.9%		
Recyclingmarkets.net (SMP)	PNW/Houston Avg	PET	\$170	2.6%		
Recyclingmarkets.net (SMP)	PNW/Houston Avg	Actual Steel/Tin Cans	\$174	1.0%		
Recyclingmarkets.net (SMP)	Pacific NW Avg	Aluminum Cans	\$1,250	0.7%		
		Other Plastic	(\$34)	3.3%		
		Residue	(\$34)	25.2%		
				100.0%		

> The index prices and rebate will be adjusted on a monthly basis.

> If above indexes do not reasonably reflect actual market conditions, actual sales price for the grade may be utilized

> The stream composition will be adjusted on a quarterly basis.

Rebate/Tip Fee Calculation		
	To SL MRF	
Material Sales Value	\$ 53.52	
Less base fee	\$ (112.57)	
Available Commodity Value	\$ (59.05)	
Customer rebate % (if positive)	60.0%	
Customer Base Rebate/(Tip Fee) per Ton	\$ (59.05)	
TS processing/haul fee	\$ -	direct delivery
Customer Rebate/(Tip Fee) per Ton	\$ (59.05)	
Excess Contamination Charge	\$ (14.00)	
Total Customer Rebate/(Tip Fee) per Ton	\$ (73.05)	

Baled OCC
\$ 9.00

PLAYING OUR PART PRACTICAL WAYS TO REDUCING COSTS

- Plastic Bags: They harm recycling machinery and raise costs. Recycle them at participating grocery stores, not in your recycling bin.
- Trash Bags: Recycling materials should be loose in containers. If recyclables are in trash bags, they often end up in the garbage due to inability to see what's inside.
- Glass Containers: Recycle glass by taking it to the Glass Recycling bin at 100 W 300 N. Do not place bags or boxes in this bin.
- Electronics: Keep them out of the recycling bin. Small appliances go in the trash. Large electronics can be recycled during citywide Spring and Fall clean-ups or taken to SUVSWD transfer stations.
- Textiles: Donate them to local charities.
- Wax Coated Boxes: Place these in the trash bin.
- Plastics 3-7: Lacking a market, these items should go in the trash bin. They are identifiable by codes on the bottom of containers encircled by chasing arrows.
- Shredded Paper: It's recyclable through professional services. At home, don't put shredded paper in the recycling bin. Instead, bag it before disposing of it in the trash to avoid messes.
- Aluminum Foil/Trays/Pie Tins: Due to food and oil residues, please dispose of used aluminum foil, trays, and pie tins in the trash.
- Other Non-recyclable Items:



A SUMMARY OF KEY TAKEAWAYS

Understanding the Basics

The 'Super 6' recyclables include cardboard, paper, food boxes, aluminum cans, steel cans, and plastic containers.

The Recycling Process

Different materials undergo specific processes, from sorting and shredding to melting and remolding, before they can become new products.

Cost Analysis

The decrease in prices for most recyclable materials, increase in contamination costs, and overall increase in base fees led to higher overall recycling costs in May 2023 compared to May 2021.

Doing Our Part

We can help lower these costs by properly sorting our recyclables, avoiding non-recyclable items, and properly disposing of certain materials like plastic bags, electronics, and glass containers.

WORKING TOWARDS A SUSTAINABLE FUTURE



- Increased Transparency: Through understanding the complexities of the recycling process and the factors leading to increased costs, we can make informed decisions about our recycling practices.
- Continued Efforts: By actively participating in reducing, reusing, and recycling, we can contribute to a sustainable future for Provo and beyond.