

## Waste Diversion Goal and Recycling Ordinance

#### Environmental Sustainability Strategic Plan Goal #1:

Solid Waste Stream Reduction and Recycling: Reduce the amount of Town of Vail landfill contributions by 10% within 5 years and 25% within 10 years (2019).

#### 2010 Baseline Data:

- Town of Vail: 9% (residential) and 19% (commercial)
- Eagle County: 14.7%
- National Average: 34.5%

### 2014 Community-Wide Recycling Ordinance

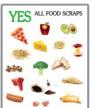
- Embedded rates
- Pay as You Throw
- 3. Mandatory Recycling
- 4. Hauler Registration and Reporting
- On-site recycling
- Equal Service



### Public Outreach and Education









plastic packaging and labels from

970.476.3511





- **Composting Program**
- **Business Recycling Challenge**
- Climate Action Collaborative
- Clean Up Day
- Staff and Community Presentations
- Small Cart Exchange Program
- Recycled Art Installation



# Town of Vail Recycling Rates

recycling + composting

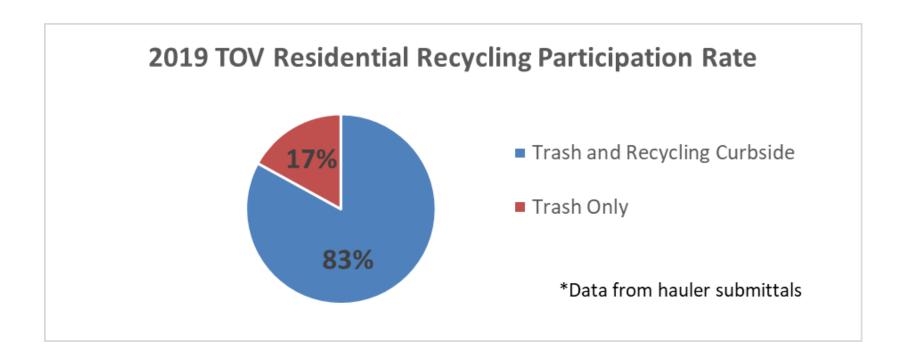
(recycling + composting + landfill bound municipal solid waste)

TOV Annual Tonnage Estimates								
	<b>2019 tons</b>	<b>2018 tons</b>	<b>2017 tons</b>	<b>2016 tons</b>	<b>2015</b> tons			
MSW (Landfill)	11,487	10,871	9,832	8,995	8,126			
Recycling	3,897	3,597	2,755	2,224	1,955			
Organics	350	155	50	37.5	0			
Recycling Rate	25%	25%	22%	20%	19%			
Recycling Rate w/ Organics	27%	26%	22%	20%	19%			

<sup>\*</sup>Data includes residential and commercial municipal solid waste, including recycling and organics, only.



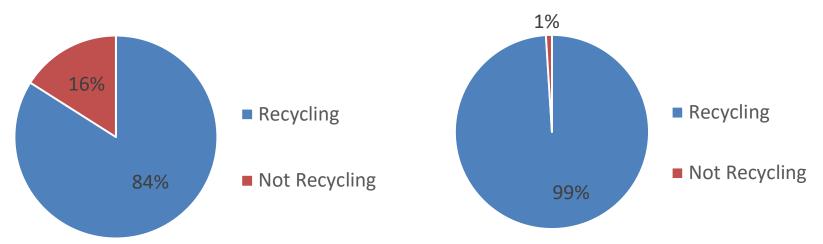
# Residential Recycling Participation



# Commercial Recycling

### **Commercial Recycling Participation**

**Multi-Family Recycling Participation** 



Statistics from 2018 data; these data were not available in 2019.



## Diversion Rate with Construction and Demolition Debris

2019 TOV Tonnage Estimate with	2019 TOV Tonnage Estimate		
MSW with C & D	14,296	MSW	11,487
Recycling with C & D	4,030	Recycling	3,897
Organics	350	Organics	350
Diversion Rate including C&D	23%	Recycling Rate	27%

**19%** of landfill waste = construction and demolition debris

3.7% construction and demolition debris created is recycled



# Municipal Operations and Collection Events

Town of Vail			2018 TOV Operations		
2018 Collection Events			Scrap Metal	10	tons
Spring 18 Collection Event:	280 cars		Vehicle Oil (TOV Recovery- 1,763 gal)	6.5	tons
Paper Shredding:	3,120	lbs	Vehicle Oil (Mesa Environmental- 441 gal)	1.6	tons
HHW (Paint/Checmicals, etc)	7,815	lbs	Chipping and Composting	50	tons
E-Waste	16,319	lbs	E-Waste	1.25	tons
Total	27,254	lbs	Municipal Compost	25.98	tons
			Total	95	tons
Fall 18 Collection Event	189 cars		TOV Drop Site		
E-Waste	9,871	lbs	Co-Mingle	48.7	tons
Paper Shred	1,840	lbs	Paper	51.2	tons
Total	11,711	lbs	Cardboard	46.2	tons
2018 Total Collection Events:	19	tons	Total	146.1	tons

Town of Vail		
2019 Collection Events		
Spring 19 Collection Event:	280 cars	
Paper Shredding:	2,500	lbs
HHW (Paint/Checmicals, etc)	3,411	lbs
E-Waste	13,130	lbs
Total	19,041	lbs
Fall 19 Collection Event	147 cars	
Fall 19 Collection Event E-Waste	<b>147 cars</b> 6,957	lbs
		lbs
E-Waste	6,957	
E-Waste Paper Shred	6,957 1,420	lbs
E-Waste Paper Shred Vinyl Banners	6,957 1,420 1,000	lbs

2019 TOV Operations		
Scrap Metal	7	tons
Vehicle Oil (TOV Recovery- 1,358 gal)	5	tons
Vehicle Oil (Mesa Environmental- 475 gal)	1.8	tons
Chipping and Composting	50	tons
E-Waste	1.9	tons
Municipal Compost	31	tons
Total	97	tons
TOV Drop Site		
Co-Mingle	49.2	tons
Paper	50.1	tons
Cardboard	50.2	tons
Total	149.5	tons



### Zero Waste Events

2019 Zero Waste Event Data	Pounds	Tons
Landfill	12,940.5	6.5
Recycling	34,752.7	17.4
Compost	12,145.8	6.1
2019 Total Collection	59,839.0	29.9
Average Diversion Rate	80.40%	

- US Burton Open
- Taste of Vail
- Campsite
- GoPro Mountain Games
- Vail Farmer's Market

- Rocky Mountain Burger Battle
- Vail Craft Beer Classic
- Gourmet on Gore
- Vail Social



## **Eagle County Update**

## Climate Action Collaborative Materials Management Task Force:

- Biannual Recycling Guide
- Waste Wizard App
- C & D Round Table

### **Eagle County Landfill:**

C & D Recycling Pilot Program

- \$15 tipping fee
- Clean dimensional lumbar
- Concrete with rebar
- Concrete without rebar
- Diverted 3,000 tons in 2018 and 1,500 tons in 2019





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Recycled Material (Residential &	2010	2011	2012	2013	2014	2015	2016	2017	2018
Commercial)	Tons	Tons	Tons	Tons	Tons	Tons	tons	tons	tons
MSW Residential and Commercial ab	4,188	7,036	7,595	8,284	9,535	13,683	11,735	10,743	14,03
Organics <sup>c</sup>	5,907	4,231	3,856	4,808	6,432	4,798	5,134	4,175	4,00
HHW and Ewaste <sup>d</sup>	34	55	60	102	125	138	130	144	101
			-	-	-	-	-	-	•
Total MSW Recycled	10,129	11,322	11,510	13,194	16,092	18,619	16,998	15,061	18,1
Total MSW Disposed <sup>e</sup>	58,547	47,472	47,336	46,246	48,693	50,549	51,430	52,676	51,5
Total MSW Generated	68,676	58,794	58,846	59,440	64,785	69,168	68,428	67,737	69,7
MSW Recycling Rate <sup>f</sup>	14.7%	19.3%	19.6%	22.2%	24.8%	26.9%	24.8%	22.2%	269
MSW Recycling Rate <sup>f</sup>	2010	19.3%	19.6%	22.2%	24.8%	26.9%	24.8%	22.2%	
MSW Recycling Rate f									201
, ,	2010	2011	2012	2013	2014	2015	2016	2017	201 ton
Diverted Materials (Industrial)  Diverted Materials (non-MSW)	2010 Tons	2011 Tons	2012 Tons	2013 Tons	2014 Tons	2015 Tons	2016 Tons	2017 tons	201 ton
Diverted Materials (Industrial)  Diverted Materials (non-MSW)	2010 Tons	2011 Tons	2012 Tons	2013 Tons	2014 Tons	2015 Tons	2016 Tons	2017 tons	201 ton 4,15
Diverted Materials (Industrial)  Diverted Materials (non-MSW)  Total Recovered Material (Residential,	2010 Tons 855	2011 Tons 1,595	2012 Tons 2,669	2013 Tons 1,583	2014 Tons 1,734	2015 Tons 521	2016 Tons 96	2017 tons 92	201 ton 4,15 22,3
Diverted Materials (Industrial)  Diverted Materials (non-MSW)  Total Recovered Material (Residential, Commercial, and Industrial) g	2010 Tons 855	2011 Tons 1,595	2012 Tons 2,669	2013 Tons 1,583	2014 Tons 1,734	2015 Tons 521	2016 Tons 96	2017 tons 92 15,153	201 ton 4,15 22,30 107,7 130,0

<sup>&</sup>lt;sup>a</sup> Includes: Glass, Plastics #1 - #7, OCC, ONP, OP, steel, tires, aluminum

<sup>&</sup>lt;sup>b</sup> Sources: Vail Resorts, Waste Management, Honeywagon, Costco & City Market, Eagle County MRF, Eagle County Landfill

<sup>&</sup>lt;sup>c</sup> Sources: Honeywagon, EverGreen Zero Waste, TOV, Grub Dump, Eagle County Landfill

<sup>&</sup>lt;sup>d</sup>Sources: Eagle County HHW, ERI, Metech, Blue Star

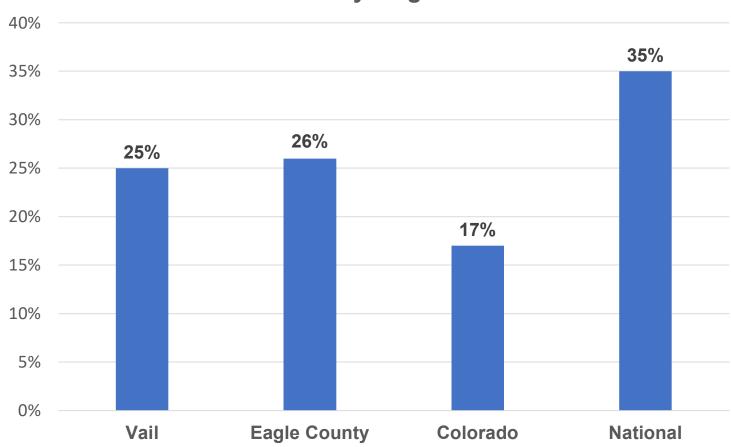
<sup>\*</sup>Total MSW disposed is total landfill tonnage minus diverted materials and industrial (C&D) waste

<sup>&</sup>lt;sup>f</sup>Total MSW recycled/total MSW generated

gTotal MSW recycled + total industrial diverted

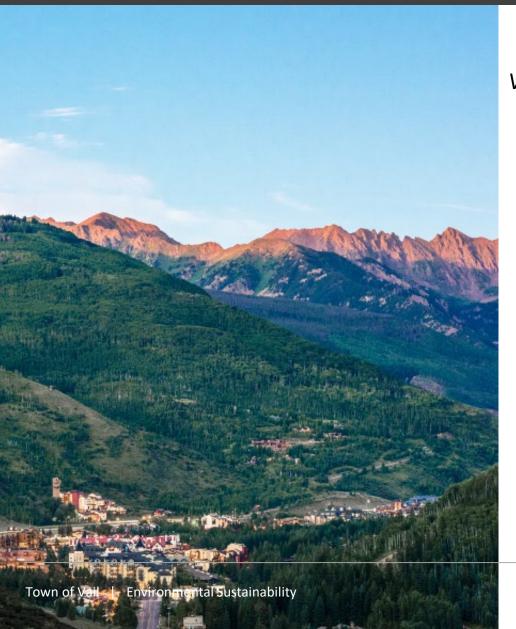
# How Vail Measures Up







### 2020 Waste Diversion Initiatives



Goal #1: Solid Waste Stream Reduction and Recycling: Reduce amount of Town of Vail landfill contributions by 10% within 5 years and 25% within 10 years (2019).

- Love Vail campaign
- Compliance Inventory
- Curbside composting pilot program
- Celebrate Green
- Signage
- State Legislation



### Discussion

Vail as a National Leader in Recycling

The Environmental Sustainability Department is seeking Town Council direction:

- 1. Increased enforcement of current regulations
- 2. Construction and demolition waste diversion standards
- 3. Single hauler municipal contract



### **Increased Enforcement**

### Increased enforcement of current regulations

- Current: Outreach and one on one discussions with businesses
- Code: Recycling ordinance can be enforced with a court summons and determination by the Judge.
- Process: Warnings, court summons, and potential fines up to \$1,000 to residents and businesses
  - ~ Wildlife resistant containers



### Construction and Demolition Debris

#### Construction and demolition waste diversion standards

- 13% of all waste = construction and demolition debris (C & D).
- Vail's average = 19% of landfill bound waste is C & D
- 3.7% of all C & D debris in Vail is diverted from the landfill.
- Potential
  - New C & D recycling site at the landfill
  - New C & D waste diversion standards for all construction projects in town

# Single Hauler Municipal Contract

#### Current

- Open Market System
- 3 waste haulers registered and operating in Vail:
  - Vail Honeywagon
  - Waste Management
  - Vail Valley Waste
- Trash and recycling trucks in Vail 6 days/week
- Hauler Reporting
  - Quarterly Audits
  - Difficulty with data collection in 2019



# Single Hauler Municipal Contract

- State legislation for single hauler system (<8 units)</li>
- TOV selection of 1 hauler, multiple services
  - Proven tool to achieve goals

### Single Hauler Communities

Eagle	Telluride
Minturn	Louisville
Carbondale	Superior
Rifle	Manitou Springs
New Castle	Golden
Fruita	Lafayette



## Positive Outcomes of Single Hauler Systems

### **Environmental Impact**

Recycling rates on average of 13%

Greenhouse gas emissions (~33%) and air pollution

Data collection, reduced staff time

Contamination in recycling

Dumping in public areas

Days exposure to wildlife

### Health, Safety, and Aesthetics

Safety on the roads for pedestrians in residential areas

Air quality

Odor and noise

Days containers set out

### Rates, Service, and Communication

Cost (12%-42%)

Accountability/Service Level

Streamlined communications- services, collection days, education

Ease of enforcement





## Considerations of Single Hauler Systems

#### Limits free market hauler services in the residential sector

### Limits resident choice on selecting hauler

Level of service and cart sizes (Pay as You Throw program)

### **Billing Structure**

Options vary – in-house to hauler provided

#### **Overall Infrastructure:**

- Pay as You Throw, bundled pricing, recycling requirements, enforcement
- Vail's infrastructure well poised to transition to single hauler system

### Staff Recommendations

### Staff recommends prioritization single hauler municipal contract,

### **Next Steps:**

- Identify Legal parameters/procedure
- Establish Program objectives, services
- Community Input
- Hauler Input
- Develop RFP

#### **Additional Actions:**

- Active Enforcement
- C & D Standards



