Monterey Regional Waste Management District
Turning Waste into Resources

Recycling 101
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Angela Goebel
Public Education & Outreach Specialist
agoebel@mrwmd.org
Monterey Regional Waste Management District

Turning Waste into Resources

• 67 Year History (formed in 1951)
• Publicly Owned/Operated
• $34 Million Operating Budget
• Regional Recycling, Processing & Disposal Facility (470-acre site)
• Landfill: 100+ year capacity
• 143 – Employees (40+% Salinas; 70% Salinas Valley Area)
• 9 - Appointed Board Members
• Serving Central Coast Region (Monterey, Santa Cruz, & San Benito Counties)
MRWMD Today - An Integrated Approach
Why Recycle?
Why Recycle?
Why Recycle?
Why Recycle?
Why Recycle?
The Birth of Modern Recycling
Pacific Grove, early 1900s
Sand City, 1920-1955
Carmel-by-the-Sea, 1982
The Birth of Modern Recycling
International Recycling Market Changes

Plastic China, 2016
He who can wield the sword shall rule...
The Monterey Regional Waste Management District has an awesome new facility to process your trash. But there are problems with China, and it’s not about Trump.

By David Schmalz

Photos by Nic Coury
No More Plastic Bags In Curbside Recycling Bins

By ERIKA MAHONEY • AUG 15, 2018

As of August 1, plastic bags and other plastic film is no longer accepted as recyclables at the Monterey Regional Waste Management District. Instead, they’re going to the landfill.
What to Recycle

- **METAL**
- **GLASS**
- **PLASTIC**
- **PAPER**

Plastic containers and beverage bottles #1-5, rigid plastic items larger than 12 inches: baskets, buckets, coolers, crates, and coat hangers.
### Plastic Resins

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Polymer Name</th>
<th>Product Examples</th>
</tr>
</thead>
</table>
| ![PETE](1.png) | Polyethylene Terephthalate (PETE or PET) | - Soft drink bottles  
- Water bottles  
- Sports drink bottles  
- Salad dressing bottles  
- Vegetable oil bottles  
- Peanut butter jars  
- Pickle jars  
- Jelly jars  
- Prepared food trays  
- Mouthwash bottles |
| ![HDPE](2.png) | High-density Polyethylene (HDPE) | - Milk jugs  
- Juice bottles  
- Yogurt tubs  
- Butter tubs  
- Cereal box liners  
- Shampoo bottles  
- Motor oil bottles  
- Bleach/detergent bottles  
- Household cleaner bottles  
- Grocery bags |
| ![PVC](3.png) | Polyvinyl Chloride (PVC or V) | - Clear food packaging  
- Wire/cable insulation  
- Pipes/fittings  
- Siding  
- Flooring  
- Fencing  
- Window frames  
- Shower curtains  
- Lawn chairs  
- Children’s toys |
| ![LDPE](4.png) | Low-density Polyethylene (LDPE) | - Dry cleaning bags  
- Bread bags  
- Frozen food bags  
- Squeezable bottles  
- Wash bottles  
- Dispensing bottles  
- 6 pack rings  
- Various molded laboratory equipment |
| ![PP](5.png) | Polypropylene (PP) | - Ketchup bottles  
- Most yogurt tubs  
- Syrup bottles  
- Bottle caps  
- Straws  
- Dishware  
- Medicine bottles  
- Some auto parts  
- Pails  
- Packing tape |
| ![PS](6.png) | Polystyrene (PS) | - Disposable plates  
- Disposable cutlery  
- Cafeteria trays  
- Meat trays  
- Egg cartons  
- Carry out containers  
- Aspirin bottles  
- CD/video cases  
- Packaging peanuts  
- Other Styrofoam products |
| ![OTHER](7.png) | Other Plastics (OTHER or O) | - 3/5 gallon water jugs  
- Citrus juice bottles  
- Plastic lumber  
- Headlight lenses  
- Safety glasses  
- Gas containers  
- Bullet proof materials  
- Acryl, nylon, polycarbonate  
- Polyactic acid (a bioplastic)  
- Combinations of different plastics |
How to Recycle: Best Practices

• **Clean, Dry, Empty**
  How clean is clean?

• Place materials loose in your recycle cart

• Bag shredded paper in clear or paper bags

• Flatten bottles and put the caps back on
Common Contaminants
Common Contaminants
Recycling Characterization, 2018

Exhibit 3. Contamination Received at MRWMD

- Refuse: 10%
- Paper: 49%
- Contamination: 22%
- Glass: 16%
- Plastic: 9%
- Metal: 4%
- Organics: 4%
- Film Plastic: 3%
- HHW: >1%
- Medical Waste: >1%
- Manufactured Products: 5%
- Expanded Polystyrene: 1%
- Aseptic: >1%
Local Recycling Rates Compared

![Bar chart showing recycling rates for different areas and types: Pebble Beach, Carmel, Pacific Grove, Seaside. The chart includes Residential, Commercial, and Multi Family categories.]
Materials Recovery Facility (MRF) 1.0
Materials Recovery Facility (MRF) 2.0
Materials Recovery Facility (MRF) 2.0
Materials Recovery Facility (MRF) 2.0

1. Primary Screen
   Separates cardboard from paper, containers and fines. Breaks and separates glass.

2. Secondary Screens
   Further separates material by size.

3. Single Drum Separators
   Air technology separates paper, plastics and other valuable commodities from contaminants.

4. 2D/3D Screens
   Separates 2D (paper, plastic film) from 3D (containers).

5. Optical Sorters
   Optical technology separates plastics: PET, HDPE, Mixed Plastics.

6. Magnets
   Separates metals from other materials.
Let’s Gear Up!
End Markets and Products
## End Markets and Products

<table>
<thead>
<tr>
<th>Material Type</th>
<th>Destination</th>
<th>What It Becomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 PET Plastic</td>
<td>Georgia</td>
<td>Carpet</td>
</tr>
<tr>
<td>#2 HDPE Natural Plastic</td>
<td>California</td>
<td>Resin &amp; flake for remanufacturing</td>
</tr>
<tr>
<td>#2 HDPE Colored Plastic</td>
<td>Iowa</td>
<td>Industrial Piping</td>
</tr>
<tr>
<td>Mixed Rigid Plastics</td>
<td>Taiwan</td>
<td>Molded plastic products</td>
</tr>
<tr>
<td>#5 Polypropylene</td>
<td>Alabama / California</td>
<td>Plastic paint cans, packaging</td>
</tr>
<tr>
<td>Aluminum</td>
<td>California</td>
<td>Sold to broker</td>
</tr>
<tr>
<td>Steel</td>
<td>Sold to US broker</td>
<td>Rebar, car parts</td>
</tr>
<tr>
<td>Mixed Paper</td>
<td>Thailand / Indonesia</td>
<td>Boxboard</td>
</tr>
<tr>
<td>Cardboard</td>
<td>Vietnam</td>
<td>Linerboard</td>
</tr>
<tr>
<td>Shredded Paper</td>
<td>Domestic</td>
<td>Tissue paper</td>
</tr>
<tr>
<td>Aluminum Cans &amp; Foil</td>
<td>Pennsylvania</td>
<td>Aluminum roll stock for remanufacturing</td>
</tr>
<tr>
<td>Glass</td>
<td>California</td>
<td>Glass bottles, insulation, filter media</td>
</tr>
</tbody>
</table>
Life-Cycle of an Aluminum Can
What Goes Where

Recycling is Changing in Monterey County
Battery (disposable)

Special Instructions

1. Tape the top of 9-volt and 6-volt batteries with spring terminals. Button-cell coin-shaped batteries are NOT accepted.

Household Batteries

Place household batteries in a clear Ziploc-type bag and set the bag on top (not inside) of your recycling cart. Batteries accepted curbside include most common household batteries (AA, AAA, C, D, 6-volt, 9-volt, camera batteries, nickel cadmium and lithium ion). Please tape the top of the 9-volt rectangular batteries and 6-volt square-base batteries with spring terminals. Button-cell coin-shaped batteries are NOT accepted.

Set-out Time

All materials must be placed curbside for collection no later than 6 a.m. on your normal collection day.

Drop-off - Household Hazardous Waste

Drop off this item for safe handling.

MRWMD - Household Hazardous Waste Collection Facility

1.5 mi · 5 minutes
14202 Del Monte Blvd., Marina · 831-384-5313 · 831-264-6386
Plastic bag

Special Instructions

- Bring reusable bags when possible.

Garbage

- Put this item in your garbage.

Set-out Time

- All materials must be placed curbside for collection no later than 6 a.m. on your normal collection day.

Drop-off - Plastic Bags

- Don’t place plastic bags or liners in recycling container. Instead, many local grocery stores offer recycling drop-off bins by their entrances.
- Any clean plastic bags accepted, including grocery bags, bread bags, case overwrap, dry cleaning bags, newspaper sleeves, ice bags, wood pellet bags, ziplock & other re-sealable bags, produce bags, bubble wrap, salt bags, and cereal bags.
- All materials must be clean, dry and free of food residue.

Target - Marina

- 444 yd • 1 minute
- 133 General Stillwell Dr, Marina • 831-883-5720
Best Practices: Purchasing Decisions
Best Practices: Close the Loop with Recycled Content
Best Practices: Eliminate Single-Use Disposables

'Single-Use' Is The 2018 Word Of The Year, Collins Dictionary Says
Best Practices: Eliminate Single-Use Disposables
Best Practices: Go Reusable
More Resources at MRWMD.org
Zero Waste Home – Saturday, March 2

WASTE REDUCTION WORKSHOPS

RECYCLING 101 • Saturday, Feb 2 • 10-12
ZERO WASTE HOME • Saturday, Mar 2 • 10-12

To Register or for more information:
mrwmd.org/upcoming-events or (831) 264-6382
Questions?

What Goes Where
Recycling is Changing in Monterey County