



Learn more
about less.

**Your 2020 Guide to
Recycling and Waste Reduction
Monterey Regional Waste Management District**

The Good News... We've Achieved 52%— But We're Not Stopping

In 2019, we were able to divert from the landfill more than 50 percent of the 472,000 tons of material we received.

This material went for reuse and recycling, instead of being lost as a resource.

We did it even as:

- The global recycling market changed, shrinking the opportunities for getting recyclables processed.
- The incoming volume of recyclables doubled.

The challenge is that we have more to deal with—but the success is that you are recycling so much.

Our new Materials Recovery Facility (MRF 2.0) played a huge part, as did our people. Now in its second year of operation, MRF 2.0 has proven to be truly state-of-the-art (and yes, we'll call it an art!).

Also in 2019, we began construction of a new 14-acre landfill module, which will help us continue to handle materials responsibly.

We completed our six-year, anaerobic digester pilot project. We learned much from this pioneering effort, while converting over 40,000 tons of organics to energy and compost. Building on that learning, we're planning now to reach a state-mandated target (under SB 1383) of diverting 75 percent of organics from the landfill by 2025.

But we know that while all of this is important and valuable, it isn't the final answer.

We—all of us—simply must produce less waste—and work towards the goal of zero waste. To that end, we will continue to bring you education and resources, both to address the challenges we face now and, we hope and trust, to inspire ever-greater progress.

This guide is an example. I hope you'll keep it close at hand. And I invite you to join us, your neighbors, and the whole community in learning more about less.

*Tim Flanagan,
MRWMD General Manager*



*Pictured above,
Tim Flanagan, MRWMD General Manager*

Why Recycle?

It's the easiest thing you can do (after turning off the lights) to reduce your carbon footprint.

Recycling...



Saves precious natural resources, like wood, water, and minerals.

Builds the economy by using local materials, creating jobs, and generating revenue to support local programs.

Cuts pollution by reducing the need for fossil fuels used in product manufacturing.

Slows climate change thanks to less manufacturing, energy use, and lower emissions.

Keeps valuable materials out of the landfill and available as a resource.

And did you know?



Recycling just one plastic water bottle saves enough energy to power a 60W light bulb for six hours.

If all our newspapers were recycled, we could save about 250 million trees each year!



In 2017, 84,000 people were employed in California's recycling and reuse economy, generating \$14.2 billion in annual revenues.



Recycling aluminum cans saves 95 percent of the energy needed to make new cans from raw materials.



Recycling Report: Needs Improvement

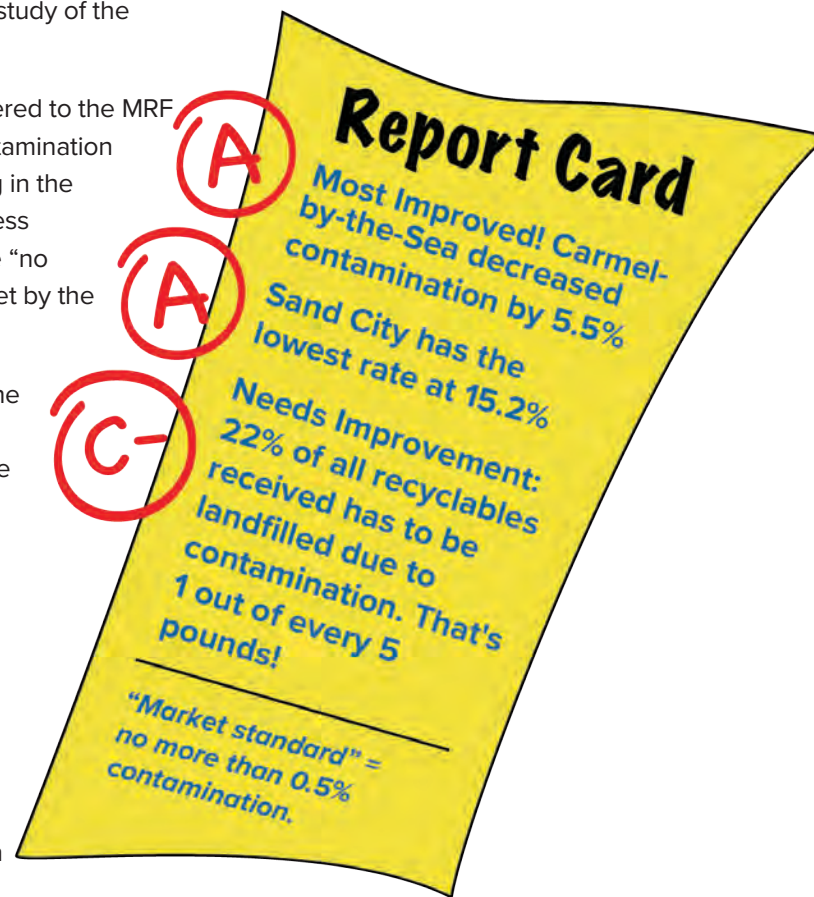
In summer 2019, we did our second waste characterization study of the recyclables found in blue carts from homes and businesses.

Samples taken from commercial and residential loads delivered to the MRF 2.0 were measured and assessed. The study identified contamination (which includes soiled material and items that do not belong in the recycling cart) at the rate of 22 percent for home and business recycling. This means we have a long way to go to meet the “no more than” half-percent contamination rate—the standard set by the markets that exist for our recyclables.

The good news is that there was some improvement over the 2018 contamination rates. Efforts were noticeable for some communities, like Carmel, which had a five percent decrease in contamination. And efforts to eliminate some of the “guiltiest” items from recycle carts led to a remarkable decrease in film plastic, a nemesis of the recycling operations!

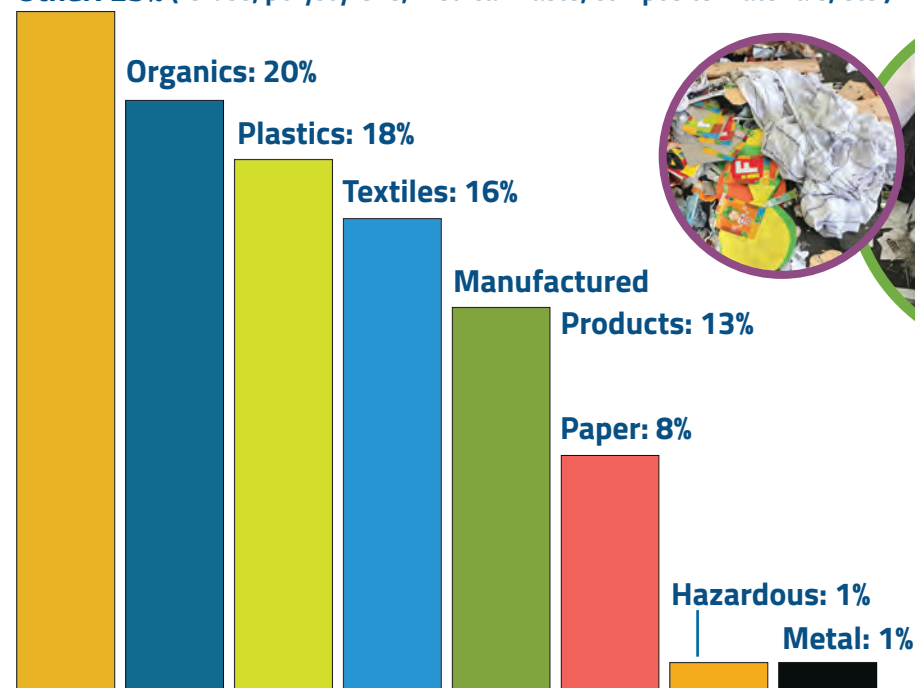
Your help in keeping the recycling clean is critical—each pound of contamination has far-reaching impacts on the economy, environment, worker health, and safety.

Learn more about the top items that need to stay out of the bin. Visit WhatGoesWhere.Info or download the app to learn what, where, and how to recycle at home and work.



Most common contaminants found in local recycling:*

Other: 23% (refuse, polystyrene, medical waste, composite materials, etc.)



*Contaminants are soiled material, materials that are not recyclable, and items made with composite materials.

Do Your Part: Keep These Out of the Cart

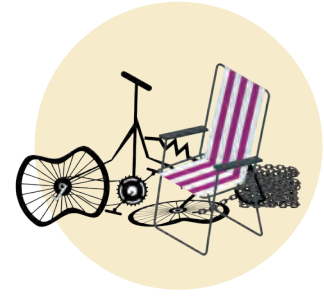
They cause fires, injure workers, contaminate recyclables, and can harm people and the planet.



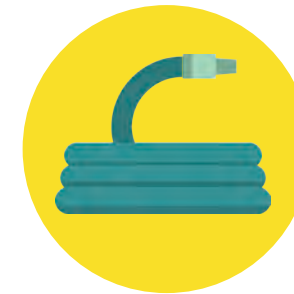
Paper towels and tissue—unfortunately, not recyclable. Place in trash or home compost.



Donate textiles at the Last Chance Mercantile or a charity shop.



Scrap metal is recyclable, just not in your cart. Check WhatGoesWhere.info for sites near you.



Hoses are great in the garden, but not in the recycle cart. They cause safety and maintenance issues.



Batteries, especially rechargeable batteries, cause fires in recycling trucks, facilities and landfills. Check WhatGoesWhere.info for safe disposal.



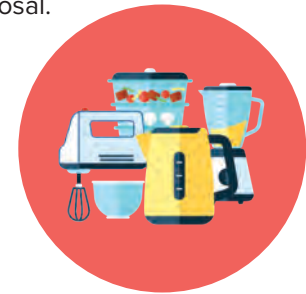
Propane bottles and compressed gas cylinders can explode and harm our workers and equipment. Check WhatGoesWhere.info for proper disposal.



PLEASE! No diapers in the recycling. They are a health and safety risk and aren't recyclable. Dispose of them properly in the trash.



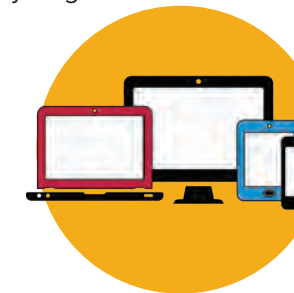
Recycle the jar, but not the food— it gunks up the system and spoils marketable materials. Clean containers with a spatula before recycling.



Small appliances are not recyclable. Donate working appliances or check WhatGoesWhere.info for proper disposal.



Plastic film, bags, wrap, video tape, etc. are not recyclable in your cart. Reduce, reuse, or check WhatGoesWhere.info for proper disposal and recycling.



Electronics are problematic because of the many harmful materials involved. Recycle for free at the Last Chance Mercantile.



Syringes are dangerous to the workers who handle recyclables. Take them to a pharmacy or the Household Hazardous Waste Collection Program in a sturdy, sealed, labeled container.



Recycle Right—With These Easy Guidelines

Keep it Loose

Hold the bag please. Put your recyclables loose into your container. The exception is shredded paper: put it into a clear sealed bag or a stapled brown paper bag.

Close it Up!
It's important to keep the lid closed as it keeps animals, birds, and rain out and prevents extra charges on your garbage bill.

Keep it Clean—How Clean?

Spatula clean is clean enough for food containers like mayo, peanut butter and spaghetti sauce. Pizza boxes? Eat the pizza and remove the greasy bits.

Just One Type at a Time

Packaging made from multiple materials (including paper, plastic, and metal—like shipping envelopes, product packaging, and food containers) is not recyclable unless you can separate materials first.



Break it Down

Remove all packaging and contents from boxes and containers, like tape, foam packaging, and bubble wrap, then flatten and put it into the cart.*



*For extra and large cardboard that won't fit into the cart, contact your hauler for a bulky item pickup.

Remember the Five!

Instead of struggling to remember what not to put into your cart, remember these and leave the rest out, please.

1) Aluminum & Metal Containers



2) Glass Bottles & Jars



3) Plastic Bottles



4) Plastic Containers



5) Clean Paper & Cardboard



These “to-go” containers just can’t go into the recycling.



The black plastic food packaging used for takeout, roasted chicken, baked goods, salads, and condiments is not accepted. Why? When melted and mixed with other plastics, the integrity of the colors is affected, making it unusable by the manufacturers of recycled goods.

Online Shopping Doubles Discards



The rise in shipping packaging has been referred to as “the Amazon effect.”

USA Today reports that postal deliveries doubled to 6.2 billion between 2009 and 2018, with 95 percent of all products in the United States shipped in corrugated boxes.

The good news: The boom in online shopping and corrugated boxes has helped keep some U.S. paper mills running and people employed. Cardboard is easy to recycle curbside. It can be recycled into a new carton seven times. Recycling cardboard helps cut greenhouse gas emissions and reduces the need to cut down trees.

The bad news: The use of lighter-weight plastic and plastic padded envelopes has increased too; neither of these are recyclable. When plastic packaging is not removed from boxes, or if cardboard boxes get wet or soiled in transit, they become unrecyclable.



Reuse It, Remake It, Repurpose It

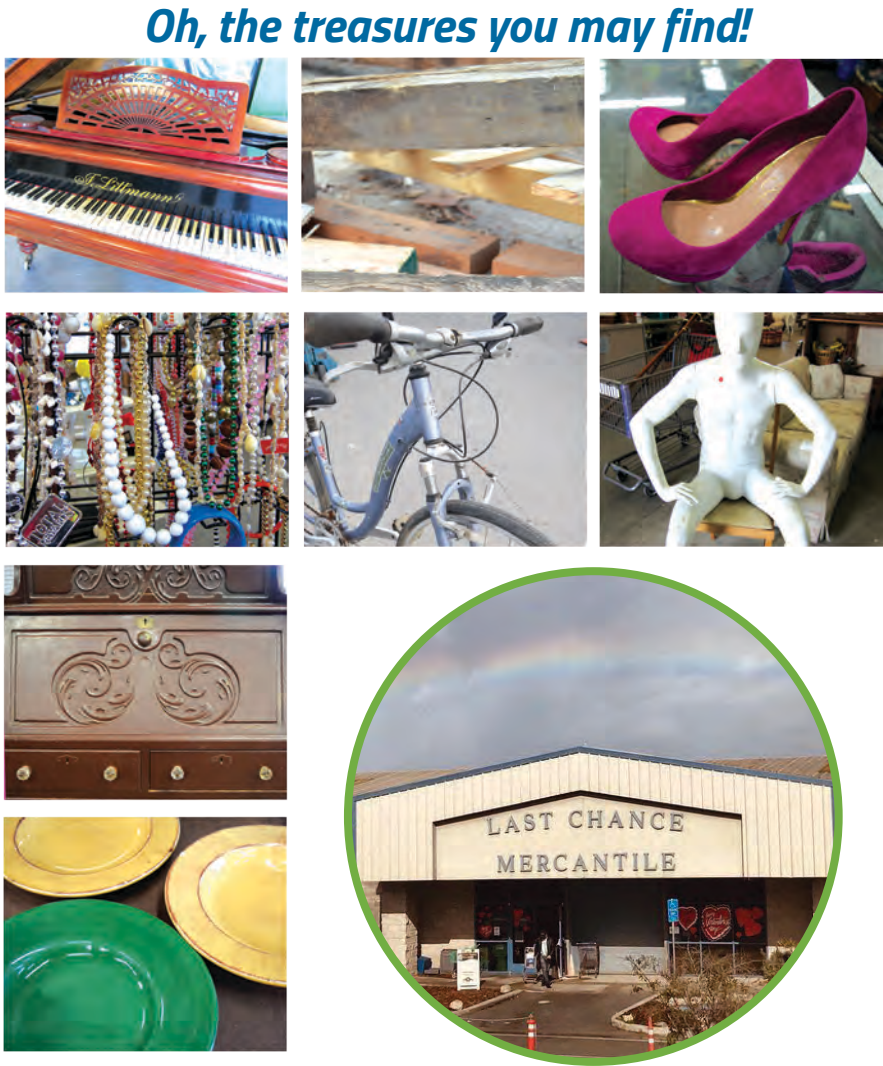
Give it a "Last Chance" at life

Reducing waste starts at the source: reimagining, reusing, repurposing, donating, and of course recycling are all great ways to help prevent valuable items from going to the landfill each year.

- “ A great thrift store that provides awesome deals on used (sometimes barely used) goods while keeping stuff out of the landfill. A win-win!
Spenser S.
- “ The Last Chance Mercantile is A SALVAGE YARD with a bit of thrift which is exactly why it ROCKS!
Leslie R.
- “ Absolutely love this place. I have gotten a lot of great finds here. And love that it doesn't end up in the landfill!
Elizabeth D.

What Last Chance customers like best: the prices, the thrill of the hunt, friendly staff, great items to reinvent & repurpose, affordability, good service... **EVERYTHING!**

Voted Best Eco-Friendly Business by Monterey County Weekly readers
Since 2015



For almost 30 years, Last Chance Mercantile has offered the community a place to find low-cost treasures to use as-is or repurpose.

Moving? Downsizing? Deconstructing? We welcome your reusables. Donations save you the cost of disposal and keep the resources in use.

Find free e-waste recycling, reclaimed paint, and household products, as well as a bottle and can buy-back center. For more info see mrwmd.org.

Find locally-produced sustainable landscape products, compost, and home composting supplies for your home or business.

REUSE

DONATE

RECYCLE

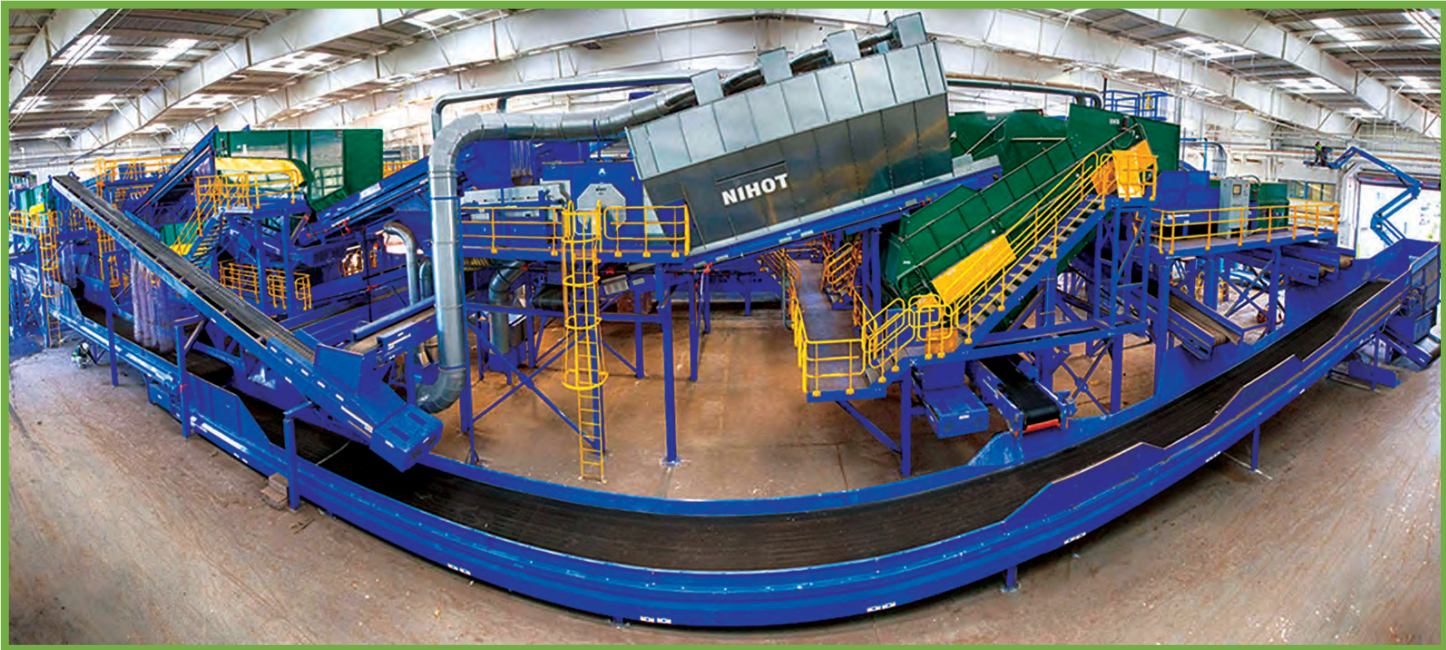
GREENER GARDENS



Monterey County's Recycling App

Meet the MRF!

The state-of-the-art recycling facility at the Monterey Regional Waste Management District



As the regional recycling processing facility, the Material Recovery Facility 2.0 (MRF) is the recycling muscle for the Central Coast. It receives and processes up to 500 tons of recyclables per day. Located just outside of Marina, it's operated by the District and serves communities in Monterey, Santa Cruz, and San Benito Counties.



At 100,000 square feet, the MRF contains state-of-the-art technology designed to process single-stream recyclables, construction and demolition debris, bulky materials, and organics (food scraps and yard waste).

The new \$24 million MRF 2.0 opened Spring 2018. It replaces the 20-year-old MRF 1.0 and supports compliance with State recycling requirements, along with providing economic and environmental benefits to our local communities.



MRF operations include:
65 staff to sort, maintain & manage
• 85 conveyor belts equaling one mile
• Sizing & polishing screens
• Optical sorters
• Industrial magnets
• Air classification technology, and a unique baler, called Paal.



Millions of Pounds to Market in 2019	
Material	Pounds
Cardboard	33,116,000
Paper	25,530,000
Glass containers	16,312,000
Plastic containers	4,726,000
Mixed plastic	1,210,000
Mixed metals	1,188,000
Aluminum	526,000
TOTAL	82,608,000 pounds

For a MRF 2.0 Virtual Tour, Visit: mrwmd.org/materials-recovery-facility



Your recycling from curb to global market! Meet the folks who get it there.

It starts with you!



Patty collects five tons daily and 1,300 tons annually. Best practice: Flatten your cardboard boxes and secure under the lid.



At the curb: Patty Corda, Recycling Driver, 20 yrs

Mario, an independent transporter



Mario is one of the many drivers who transports processed recyclables to market. He carries 45,000 tons of material at a time, on its way to becoming a new product.

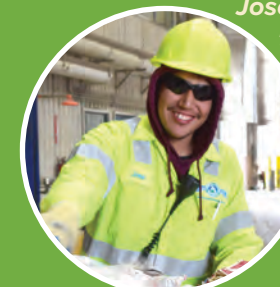
Leo Martinez Jr., Senior MRF Operator, 22 yrs

Leo started 22 years ago as a sorter in MRF 1.0. Today he's a skilled operator, certified instructor, and experienced lead. Best practice: Consider what you're throwing away and buy things that will last.



Jose Tafolla-Ayala, MRF Sorter, 1 yr

Jose is on his way to nursing school but until then he works on the sort line and assists with quality control. Best practice: Consider alternatives to single-use plastics and make sure the plastics you buy are recyclable.



Daniel Lopez, MRF Operator I, 5 yrs

Daniel assists with the end of the process, helping produce and move 240 bales per day. Best practice: Keep hazardous and dirty materials like syringes and diapers out of the recycling—they're dangerous.



Heriberto Carrasco, MRF Maintenance Assistant II



Heriberto helps support the maintenance, repair, and upkeep of the MRF. That includes hours of freeing plastic wrap and hoses from the sorting screens. Best practice: Please keep hoses, cords and plastic film out of your recycle cart.



Erendira (China) Miranda, Sort Systems Operator, 2 yrs

MRF Operation: Rebeca Cabrera-Mojica, Sorter, 2 yrs

Rebeca sorts about 240 tons of recyclables a day, making sure they're "clean enough" (no more than 0.5% contamination) to go to market. Best practice: Please put only recyclables in your cart!



Erendira starts, runs, and stops the sort line to address problems, like blockages. Why recycle: It's beneficial to the environment and for my children's future.

At the MRWMD Scale: Connie Andrade, Weighmaster, 1 yr



Connie manages about 680 loads for disposal and recycling each day. Why recycle: My children recycle to protect the animals. I do it to protect our health and future.

MRF Operation:

Jeaneva Fresquez, MRF Operator II, 15 yrs

Jeaneva moves 9,000 tons of material per month. Best practice: Keep garden hoses out of the recycling. They cause blockages, safety risks and can even stop operations.



MRF Admin. Office: Regina Santa Cruz, Operations Support Specialist, 13 yrs

Regina is at the hub of MRF activities, including quality control, reporting, meeting production goals, and creating a positive work culture. Best practice: I learned to recycle and compost in third grade. We need to teach our children early just how important this is.



MRF Operation: Steven Padilla, MRF Supervisor, 6 yrs

Steven helps oversee operations and 34 staff, who safely and efficiently process approximately 500 tons coming through the MRF each day. Why recycle: We can't recycle our way out of our environmental challenges, but it's an important part in protecting our planet, conserving resources, and addressing pollution.



The Global Market

Where materials went and what they became in 2019

Material	Destination	End Product
#1 PET plastic	California / Georgia	Carpet & packaging
#2 HDPE natural plastic	California	Resin & flake for remanufacturing
#2 HDPE colored plastic	Iowa	Industrial piping
Mixed rigid plastics	Malaysia	Molded plastic products
#5 Polypropylene	Alabama / California	Plastic paint cans & packaging
Aluminum	California / Pennsylvania	Sold to broker for aluminum cans & sheeting
Steel	US Broker	Rebar & car parts
Mixed paper	Thailand / Indonesia	Boxboard
Cardboard	Vietnam	Linerboard
Shredded paper	Domestic	Tissue paper
Glass containers	California	Glass bottles, insulation & filter media

China’s Waste Import Ban Spurs Growth for U.S. Recycling Markets

IntegriCo, a U.S. manufacturer, is a large consumer of mixed plastic bales from residential and commercial recycling programs like ours. They use 25-35 million pounds of recovered plastic each year at their Louisiana facility to manufacture composite rail ties and construction matting. More: [integrigo.com](https://www.integrigo.com)

Crossroads Paper is building a 350,000 tons-per-year container board mill in the Salt Lake City area to serve western states. Using a state-of-the art machine from Valmet Inc., it will turn mixed paper and cardboard into 100 percent recycled material for new boxes and cartons. More: [crossroadspaper.com](https://www.crossroadspaper.com)

Trex is the largest recycler of plastic bags in North America. Their composite wood products (decking) are made from 95 percent recycled plastic film and wood fiber. Their film comes from warehouses and front-of-the-store bag collections. A publicly traded company, Trex recently announced it will produce lumber from compost. More: [trex.com/recycling](https://www.trex.com/recycling).

Source: Resource-Recycling, August 2019



Organics to Energy: a Climate Solution

Turning your banana peels and plate scrapings into tomorrow’s energy, water, and food

Climate action through resource recovery

The problem: In 2018, California sent about 39 million tons of waste to landfills, of which about one-third was compostable materials. That included 18 percent food, 12 percent lumber, nine percent landscape waste, and nearly 20 percent paper and cardboard.

The legislation: Starting in 2022, California’s groundbreaking climate action law, SB 1383, takes effect. It will require 75 percent of organic material to be diverted from landfills, and 20 percent of food resources to be recovered for human consumption.

Local solutions: MRWMD has been turning landfill gas into energy since 1983. Today we produce five megawatts of power, a quarter of which is used to operate all our facilities. The remaining energy is enough to power thousands of homes and currently goes to the grid.

This year we plan to install a biogas conditioning system which will produce carbon negative biofuel. This will be used to fuel local recycling and waste collection vehicles.

By 2021, MRWMD also plans to provide energy to Monterey One Water for their renewable water project.

“We look forward to working with our community partners, jurisdictions, haulers, and stakeholders to design the next generation of programs and facilities, which will meet SB1383 requirements and serve our communities and our environment.

Tim Brownell
MRWMD Director of Operations



“If food waste were a country, it would be the third-largest emitter of greenhouse gases behind China and the U.S.

J.E. Spiegel
Yale Climate Connections
yaleclimateconnections.org

In 2021, MRWMD will contribute renewable power from its Landfill Gas-to-Energy program to Monterey One Water’s (M1W) Pure Water Project. M1W will utilize this renewable power to make renewable water—one of the first jurisdictions in the US to make this connection.



Unwrapping Plastic

Impacts of the plastic crisis on economy, ecology, and equity

Of all the plastic ever created, over **60%** has been produced since 2000. We must recycle as much of it as we can, but recycling alone can't stem the tide. Because of the petroleum-based molecular structure of plastics, some of them can't be recycled.

99% of plastics are made from fossil fuels.

Demand for plastic is increasing and it's estimated that global production capacity will increase **33%** by **2025**.

127 countries around the world now have taxes or bans on plastic bags. Despite this, the UN estimates that as many as **5 trillion** plastic bags are produced each year. Many bag bans affect only the thinnest types of bags, lack effective enforcement, and place responsibility on consumers instead of producers. More comprehensive bans on single-use plastics—as found in Rwanda, Canada, and the European Union, as well as locally in Pacific Grove and Santa Cruz—are becoming increasingly common as we see more awareness of the environmental and social impacts of plastics.

At all stages of its lifecycle, plastic harms human and environmental health. Plastic will take centuries to fully decompose. Meanwhile it breaks down into ever smaller particles known as **microplastics**. These microplastics are concentrated in **oceanic gyres** known as garbage patches. But that's not the only place they go: discarded plastic shows up throughout the ecosystem and, eventually, **in our bodies**.

To prevent plastic pollution, we need to hold producers accountable and practice **source reduction**. We all must simply use less!

Learn More: Unwrapping Plastics
www.mrwmd.org

Join Us in Moving Towards Zero Waste

Start at home:

Be inspired by the "Priestess of Zero Waste," Bea Johnson. Check out her book, *Zero Waste Home*, and website: zerowastehome.com

Take it to school:

Join students all over the world in the Students for Zero Waste Week Campaign, March 16-April 24, 2020. Students are inviting their local communities to "Go Green and Think Blue." During this annual campaign, students focus on reducing land-based waste in order to protect the health of local marine environments. Learn more and register at sanctuaries.noaa.gov/education/ocean_guardian/zero-waste-week

Become part of the movement in your community:

Join a Communities for a Sustainable Monterey County (CSMC) group in Marina, Seaside, Monterey, Pacific Grove, Carmel, Carmel Valley, or Salinas: sustainablemontereycounty.org

Get the big picture:

Check out the National Zero Waste Conference, March 18-19, 2020, Berkeley, CA.

Zero waste is good business:

Institute waste-reduction strategies at work to become a certified green business at montereybaygreenbusiness.org

Learn more:

Attend a MRWMD 2020 zero waste workshop: mrwmd.org

Zero isn't nothing — it's everything.

Zero waste is the conservation of all resources by means of responsible production, consumption, reuse, and recovery of products, packaging, and materials without burning and with no discharges to land, water, or air that threaten the environment or human health.

-Zero Waste International Alliance

"We don't need a handful of people doing zero waste perfectly. We need millions of people doing it imperfectly."

Anne-Marie Bonneau
zerowastechef.com



MRWMD OPERATIONS

Landfill Disposal Site

mrwmd.org/disposal

Monday - Friday, 7 am - 4pm

Saturday, 8 am - 4 pm

Last Chance Mercantile

Buy & Donate Reusable Goods

mrwmd.org/last-chance-mercantile

Tuesday - Saturday, 9 am - 4 pm

Closed Monday

Buy Back Center

Get Cash for your CRV

Bottles & Cans

mrwmd.org/buy-back-center

Tuesday - Friday, 9 am - 4 pm

Saturday, 9 am - 3 pm

Closed Monday

Household Hazardous

Waste Collection

Serving Residents & Businesses

in the MRWMD Service Area*

mrwmd.org/hhw

Tuesday - Saturday, 9 am - 4 pm

Closed Monday

Administration

Monday - Friday, 8 am - 4 pm

mrwmd.org/hours-directions

Salinas Valley

Residents and Businesses

For services and program info

see salinasvalleyrecycles.org or

call 831-775-3000



What Goes Where
Monterey County's Recycling App
WhatGoesWhere.info

**The District covers a total of 853 square miles. District jurisdictional boundaries include the cities of Carmel-by-the-Sea, Del Rey Oaks, Marina, Monterey, Pacific Grove, Sand City, Seaside, and the unincorporated areas of Big Sur, Carmel Highlands, Carmel Valley, Castroville, Corral de Tiefra, Laguna Seca, Moss Landing, Pebble Beach, San Benancio, and Toro Park. The population currently served is approximately 170,000.*



Turning Waste Into Resources



Monterey Regional Waste Management District

14201 Del Monte Blvd

Monterey County, CA 93933-1670

831-384-5313 (T) ■ 831-384-3567 (F)

mrwmd.org ■ WhatGoesWhere.info

Our mission is to

Turn Waste Into Resources

*in the most cost effective and
environmentally sound manner to benefit
the community.*

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FSC® Certified Paper.

