

Beyond the barrel

Following where your refuse and recyclables go on collection day

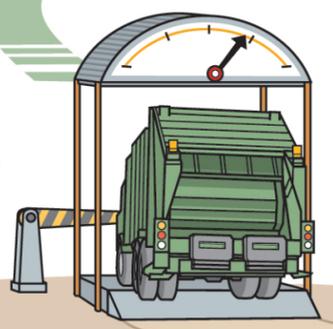
According to the Environmental Protection Agency, Americans generated 254 million tons of trash in 2007 — that's 4.6 pounds per person per day. About 33 percent of it was recycled and the rest sent to landfills. With a little thought, we could recycle more and toss less.

Should you toss it or recycle it?

It is an important decision when you consider up to 37 percent of everything we throw away could have been recycled. Not sure if you can recycle an item? Check below for a list of recyclables, or visit www.domoreblue.com.

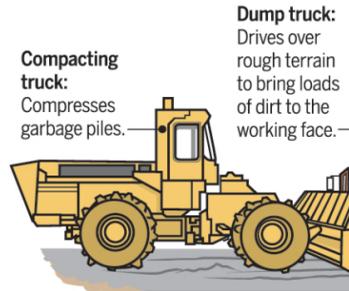


At the landfill: The truck is weighed, then drives to the disposal area, which is called the working face.



Goodbye, garbage: At the city's Los Reales Landfill, the working face is split into two sides, residential and commercial dropoff.

- Spotters at the site monitor and direct the trucks where to dispose their loads.
- Up to **2,000 tons** of solid waste arrives at Los Reales Landfill each day.



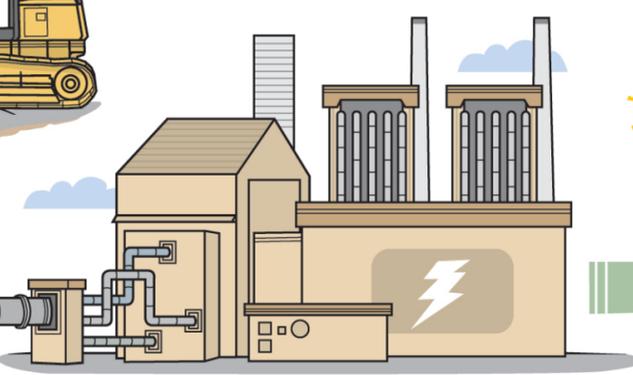
Compacting truck: Compresses garbage piles.

Dump truck: Drives over rough terrain to bring loads of dirt to the working face.

Water truck: Sprays garbage and dirt with reclaimed water from the landfill site to preserve air quality and prevent trash from blowing around the site. Can use up to **100,000 gallons of non-potable water** a day.

Bulldozer: Pushes trash into a pile.

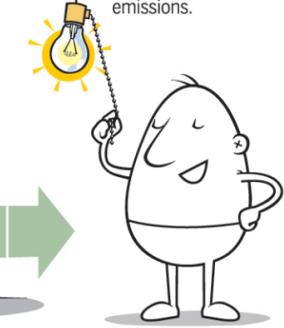
More about the gas-to-energy process
The Los Reales Gas-To-Energy Project was the first of its kind in Arizona when it was launched Aug. 15, 1999.



Putting gas to good use: As garbage decomposes, methane gas and carbon dioxide are released. Methane gas is collected by wells within Los Reales Landfill and sent to an on-site treatment facility. From here, the gas is piped 3.5 miles to a Tucson Electric Power plant.

Brought to you by garbage: According to TEP, Los Reales Landfill produced enough methane gas to power about **2,400 homes** for one year.

- This process also replaces about 12,000 tons of coal each year, which helps reduce carbon dioxide emissions.



Anatomy of a landfill

Each trash-storage area at the site is called a **cell**. The cell is made up of multiple layers.

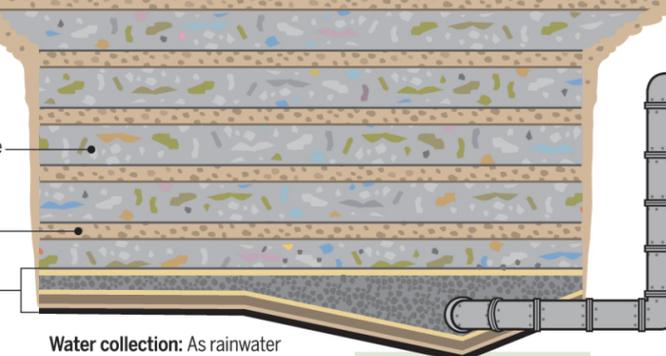
Garbage: Tightly compacted to take up as small an area as possible.

Daily cover: 6-8 inches of dirt are spread over the garbage at the end of each day.

Composite liner: Multiple layers prevent waste and moisture from seeping into the groundwater and surrounding environment.

Water collection: As rainwater drips through the layers, it picks up contaminants. This system gathers the liquid so it can be cleaned and reused on site.

How big is a cell?
A new cell at Los Reales is 29 acres wide and 100 feet deep. It is not expected to reach capacity for 8-9 years.

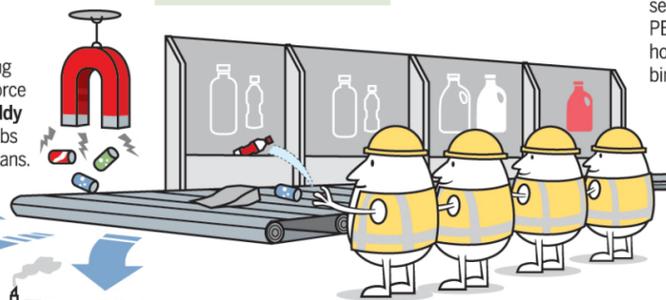


Ready for pickup: Every weekday at 5:30 a.m., the City of Tucson dispatches at least 45 trucks to gather residential garbage. Each truck can make up to 1,200 pickups before heading to the landfill.

What is a landfill?
A landfill is a carefully constructed area — either above or below ground-level — into which garbage is placed and covered with dirt. Landfills don't break down trash; rather, trash is simply buried there.

Non-recyclables: Are loaded into the trash, where they will be picked up by a truck and driven to the landfill.

Metals: A very strong magnetic force called an **eddy current** grabs aluminum cans.



End of the line: Six sorters separate colored and natural PETE and HDPE plastics into holding bins. The items in each bin will be prepared for baling.

What plastics can be recycled in Pima County?
There are seven categories of plastics, but only two types can be recycled here.

- 1 Polyethylene Terephthalate (PETE)** - Bottles and jugs only
- 2 High Density Polyethylene (HDPE)** - Bottles and jugs only

Crossover: All other recyclables are sent to a separate sorting area, where they will be organized by type.

How much do the bales weigh?
One bale of aluminum cans can weigh up to 1,300 pounds, and one bale of cardboard can weigh up to 1,500 pounds.

Trucked out: Recyclables are baled by type, then placed on trucks where they are driven to buyers who will convert the materials into new products.

First sorting station: Two sorters remove garbage and other contaminants from the pile.

Pre-sorting stations: Newspaper flows along the belt as sorters grab all other recyclables and place them in a hopper for processing.

Post-sorting station: Only newspaper is processed in this area; it is gathered for baling.

Waste Management Recycle America processes about **21 tons of recyclables** an hour — that's enough to fill four semi-trucks.

Leftovers: Any remaining recyclables are taken back to the tipping floor and the process begins again.

The sorting begins: The pile is mixed together, then pushed toward a conveyor belt for processing.

Star screens: Steel-covered axles separate newspaper from cardboard.

Never, ever place these items in your blue barrel:

- Plastic shopping bags
- Yogurt containers
- Trash
- Yard trimmings
- Recyclables in colored plastic bags will not be processed.

Gathering the recyclables: Just as in the garbage collection process, a truck travels its collection route to pick up recyclables from the blue barrels.

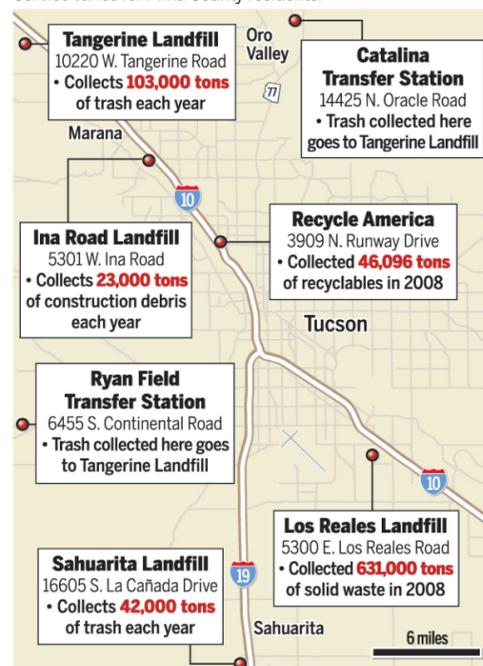
- Newspaper is the item most frequently recycled in Tucson.

Dropping them off: Recyclables are taken to a materials recovery facility for processing, like Waste Management Recycle America.

- Each truck tips its load onto the **tipping floor**.

Where your garbage, recycling go

City dwellers have their garbage taken to Los Reales Landfill and recyclables go to Waste Management Recycle America. Service varies for Pima County residents.



What can be recycled in the city of Tucson's Tucson Recycles program

- Newspapers
- Brown paper bags
- Corrugated cardboard: Remove plastic wrappers.
- Paperboard: Including cereal and show boxes
- Molded fiberboard
- Milk cartons: Please rinse.
- Drink boxes
- Magazines and catalogs: Less than one half-inch thick.
- Phone books
- Printing, writing and other paper
- Shredded paper: Please place in a clear plastic bag.
- Mail
- No. 1 PETE plastic: Commonly used for soda and water bottles. No trays, baskets, garbage or shopping bags.
- No. 2 HDPE plastic: Used in milk, water, juice, detergent, shampoo bottles and jugs. No hazardous material containers.
- Aluminum cans
- Steel/tin cans: Non-hazardous aerosol cans also accepted, but no other steel.
- Glass bottles and jars: Used for food and beverage. No other glass accepted.



Want to learn more? Go to: www.azstarnet.com/garbage