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ECO-LOGIC

The Official Newsletter of the Tri-City Ecology Center



NEWS & STORIES FOR THIS ISSUE:

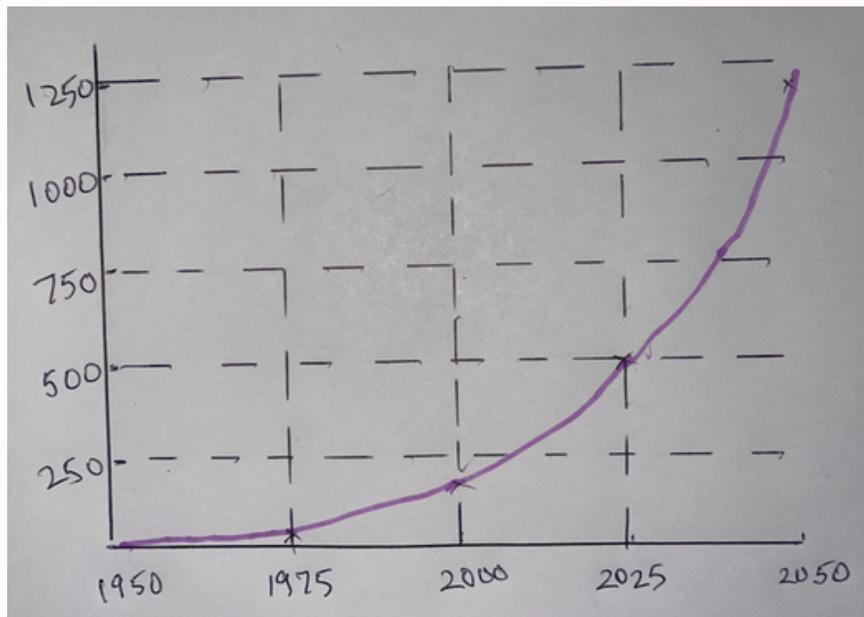
- Everything you always wanted to know about Recycling
- The Tri-City Ecology Center Christmas Giveaway Meeting
- TCEC Interview with Rocky Raccoon
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EVERYTHING YOU ALWAYS WANTED TO KNOW ABOUT RECYCLING (or maybe didn't want to know!)



If you believe attorney Jennie Romer, who wrote the book “Can I Recycle This”, recycling should be third on the list of things to do – in other words – Reduce, Reuse, and only then Recycle! Why in that order? Because only 5-7% of plastics ever really get recycled, the statistics are not encouraging. Here’s how things have changed since 1970, the year that John Landers and TCEC started recycling, along with others.

Global Plastic Production In million metric tons/year



The curve is like the CO2 hockey stick graph and build-up – only not quite as dramatic, but definitely not bending towards justice, or showing reduced plastic in the ocean or the Bay, or even in our bodies. As America moves away from fossil fuels, the Petroleum industry is left with plastic production to make profits, so trying to whittle down from the one billion metric tons/year, as is predicted for 2025, is not going to be easy!

Since plastic was first invented in the mid-1800s, worldwide production has grown to an estimated 400 million tons annually. In the U.S., **less than 9%** of plastic gets recycled, according to U.S. Environmental Protection Agency estimates. Meanwhile, the production of plastic, made from petroleum and natural gas, will continue to increase. Dozens of plastic plants are currently being built or planned, most of them on the Gulf Coast and in the Ohio River Valley. What happens when we try to recycle? Have you ever wondered what you can recycle and what goes into the black bin?



As the chart indicates, OMG! Confusing! So now what do we do?????

One recycling success story is HDPE, or high-density polyethylene, the translucent plastic commonly used in milk jugs, shampoo bottles, and cutting boards. As a non-pigmented material, it can turn into any color reprocessing downstream needs it for and thus fetches a price of \$1 per pound, or over \$2,000 per ton.

Another is metal. Aluminum cans, and also glass bottles and containers are worthwhile. Paper products with long fibers (cardboard, paper bags) recycle well, as does PET#1 (polyethylene terephthalate).

Here's the City of Fremont's list of what and where to recycle. It's worth clicking on to know our local requirements

- <https://www.fremont.gov/government/departments/environmental-services/recycling-compost-garbage/recycling-guide-single-family>
- <https://www.republicservices.com/cms/documents/municipality/ca/Fremont-CA/Fremont-CA-Resi-Services-Guide-2020.pdf>

Do you like to impress your STEM children or chemistry friends? Below is a chart to memorize. Unfortunately, most of the rotating triangles have numbers that don't recycle, or hardly at all. For instance, 3 – 7 either can't be broken down safely and can carry chemicals that are headed for the landfill, or worse still, out to the ocean.

The City of Fremont says we can't put all plastic into the blue recycle bin. Most or all of what goes in the black bin ends up in a landfill.

How do New York and some cities sort all this out?
Here's the drill: 1) Sanitation truck, 2) Excavator, 3) Liberator 4) Disc Screens 5) Drum magnets 6) Trommel screen, 7) Ballistic Separators 8) Infeed conveyer belt with special cameras and precise air guns 9) Eddy Current Separator, 10) Quality control with real people 11) packaged into bales 12) Residue – all the rest goes to landfill.

And the bales then go to China, right? Well, no more after China introduced the National Sword Policy and only accepts recycling with no more than 0.5% contamination. In 2017 China's import of scrap plastic dropped from 12.6 billion pounds to 110 million pounds in 2018. Nevertheless, China is still the top importer in the world as of 2021.



Here's the chemical list for the 7 categories of plastic

1 - PET - Polyethylene Terephthalate

2 - HDPE - High-density polyethylene

3 - PVC - polyvinyl chloride

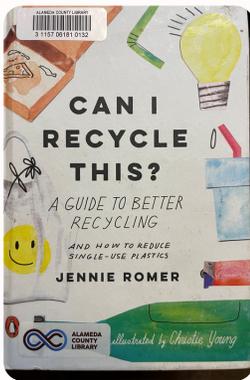
4 - LDPE - low-density polyethylene

5 - PP - polypropylene

6 - PS - polystyrene

7 - Other materials made with more than one resin from categories 1 - 6

Source and Book recommendation: *Can I Recycle This? A Guide to Recycling* _ by Jennie Romer



By listing all the chemicals and the numbering system the Plastic industry tried to fulfill its legal requirement, at least for a while. Now Senate Bill 54 increases what has to go.

California dumps more than 12,000 tons of plastic into landfills every day — enough to fill 219 Olympic-size swimming pools, according to CalRecycle, the state's recycling, and waste management agency. The state boasts one of the highest recycling rates in the country, especially for cans and bottles, but despite decades of investment in infrastructure and machinery, the system remains overwhelmed by plastic.

Voted into law on June 30, 2022, SR54 requires most single-use plastic packaging and foodware be reusable, compostable, refillable, or recyclable by 2032 — with definitions for what is “recyclable” to be set by state agency CalRecycle. Plastic producers will also be required to pay into a plastic pollution mitigation fund. Because of the passage of SB 54, proponents of a voter initiative addressing very similar goals removed their measure from the November 2022 ballot.

SB54 has loopholes – plastic makers have to reduce the use of plastics in single-use products such as packaging and foodware by just 10 percent in 5 years and 25 percent in 10 years. You may get Styrofoam containers from your favorite restaurant for 25 years, so you may want to ask the restaurant to change its practice.

KQED article - <https://www.kqed.org/news/11901288/you-cant-recycle-your-way-out-californias-plastic-problem-and-what-to-do-about-it>

THE TRI-CITY ECOLOGY CENTER CHRISTMAS GIVEAWAY MEETING



Non Profits selected:

- *Alameda Creek Alliance,*
- *Bar Area Ridge Trail,*
- *California Oak Foundation*
- *Ohlone Audubon Shinn Park,*
- *Bay Bird Observatory,*
- *Baykeepers, OHS Wildlife Rehab Center,*
- *Fremont Beeks,*
- *Museum of Local History*

TCEC INTERVIEW WITH ROCKY RACCOON



 TCEC – Rocky, it's almost Christmas and we liked to ask a few questions. Is it true you've been raiding the garbage cans in the neighborhood?

 Rocky – *Don't know what you're talking about. I don't raid anything!*

 TCEC – Well, we have photos of you inside the garbage can.

 Rocky – *That doesn't prove anything. It could have been another raccoon, and anyway, having a nighttime snack is not raiding. I'm a clean, omnivorous, nocturnal animal, always washup before and after, and contrary to rumors, I don't have rabies.*

 TCEC – We never said you had rabies. But there is an issue of you being wild and untamable. Paul McCartney even wrote a song about you.

 Rocky – *I know, I checked into a room with Gideon's Bible and all that come to Jesus stuff. I'm an honest Raccoon and I don't carry a gun, like you people do, who are always hunting us poor critters. You know at one point we were the most hunted animal in America, just so you could make Raccoon coats and Davey Crocket hats. Little wonder that we hide out during the day.*

 TCEC – Well, Rocky, it's impressive that you can find a hiding spot. Now that you weigh fifty pounds, it must be hard for you to fit under the house. All because you have learned to open garbage cans and gorge yourself. Don't you want to be a little more domesticated?

 Rocky – No thanks. We celebrate Christmas in our own way, I'll work out later and lose some weight, but meanwhile, I hope you'll celebrate your holiday with lots of great food. I'll be looking for the leftovers!

A SUSTAINABLE HOLIDAY GUIDE

COURTESY OF STOPWASTE

From discarded wrapping paper, retired e-waste, and uneaten leftovers, the holidays come with a lot of waste - from Thanksgiving to New Year's, Americans produce 25 percent more waste! Here's a guide to celebrating, giving back, and staying green this season



When Giving

- Think about giving back to the community: Give experiences, like a gift card to a museum or a favorite local restaurant. Consider donating to a local food bank to help feed families in need during the holiday season.
- Second-hand first. Shopping at vintage or thrift stores, or your local buy-nothing group, not only saves money but keeps stuff out of the landfill.
- *Give home-cooked meals or baked goods to share with neighbors, family, and friends.*
- *Avoid buying online which comes with tons of packaging waste.*
- *Make a point to shop from local stores (many are still struggling) and ones that focus on sustainable, lasting goods. Or support a local artist!*



When Wrapping

- Skip the store-bought wrapping paper, and get crafty with repurposed materials you probably have around the house. Paper bags, newspaper, and fabric make beautiful options.
- If you're giving the gift of homemade goodies this year, repurposed glass jars and containers work wonderfully.



When Cooking and Eating

- With holiday celebrations small this year, be sure to buy only what you need. This Guest-Imator tool allows you to adjust your ingredients and portions accordingly. Don't forget about the leftovers!

Don't forget about the leftovers!

- Visit [StopFoodWaste.org](https://www.stopfoodwaste.org) for tips and easy recipes to repurpose and transform your leftovers into delicious meals, such as this tasty [recipe for fried rice](#).
- Remember to [compost your inedible food scraps](#). Keep a small tub near your cutting board to collect vegetable trimmings, then easily dump them into the curbside green bin. Go one step further and save those onion peels, carrot skins, and celery tops in the freezer for a delicious [veggie stock](#)

GROUND SQUIRRELS

by Pat Kite



Ground Squirrels group in burrows. They are one of the most destructive burrowing pests. Once they take residence in your garden, it becomes a bastion of people-tripping prime tunnels, some of which can be up to 30 feet long and 4 inches wide with multiple entrances. Little soil mounds are nearby. If any plant gets in their way, say goodbye.

You may seldom see them above ground, like the grey squirrels scampering in your trees. Their fur is a mottled grey-brown, with a grayish-yellow underside. The tail is long. Sometimes you may see them standing on their hind legs, checking for enemies including snakes, hawks, and some cats. Multiplication can be quite rapid, with an emergence in January. Basically, they dig and chomp on almost everything, including garbage, bird eggs, tree roots, and sprinkler systems.

Now that you possibly are invaded and depressed, how do you get rid of them? Not so easy. You can try inviting hawks, Owls, large snakes, or local coyotes. Remove the hideaway wood and brush piles. Purchase vibrating stakes at the hardware store, and placing near holes. Make a concoction of cayenne red pepper flakes dissolved in hot water overnight, with a dash of dish soap. Spray on plants and around the home exterior. Apply daily until Ground Squirrels sneer. Display fake owls. Consider expensive traps, if legal.

Alternatives, which should be professionally done, include fumigation, gas bombs, and poison bait. These alternatives can be extremely destructive to children and pets. Because many of you like a fable, I tried to find a ground squirrel one for you.

Once upon a Cherokee time, after mankind began killing animals for sport as well as food, the animals had a conference about solutions. One solution was giving the animals the option of inflicting a disease or illness on their human predators [this is how illness entered the world]. Only a little ground squirrel objected to this. The other animals promptly tried to tear the ground squirrel to pieces, but it escaped. But this is why it has mottled fur. On a final note, the earliest ground squirrel fossil dates back 30 million years. So, it's best to keep trying. Happy Holiday season.

Editor's note – Having tried all the above-listed approaches except underground stake traps, which kill the squirrels, the most effective control method short of poison uses underground stakes. Feral cats, Schnauzer dogs, and Gopher snakes can work but a non-violent approach is protecting your veggies and lawn with a 1-inch screen below for the moles and a protective screening above for the hungry squirrels. Squirrels and Raccoons beware!

Special Price

BIOCOMPOSTABLE PRODUCTS

7 inch plate (50 per pack)	\$ 3.70
10 inch plate (50 per pack)	\$ 7.20
11.5 oz bowl (50 per pack)	\$ 2.70
8 oz no tree hot cup	\$ 4.00
9 oz cold cup (50 per pack)	\$ 4.90
10 oz cold cup (50 per pack)	\$ 6.25
16 oz cold cup (50 per pack)	\$ 5.35
Teaspoon, fork or knife (50 per pack)	\$ 2.10
3 gal kitchen pail bag 17"X17 " (50 per roll)	\$ 4.00
13 gal tall kitchen pail bag 17"X17 " (50 per roll)	\$ 3.15
100 count straws	\$ 1.45

*All prices reflect our nonprofit discount and tax. This benefit is for TCEC members only.

Orders may be picked up at 3375 Country Drive, Fremont, on Thursdays between 11 AM – 2 PM, or by special arrangement. When purchasing please fill out an order form and pay by cash or check. Sorry, we don't have change. Questions? Call Dee Miner at 510 9406272 or email her at muskox44@hotmail.com and please cc Caroline Harris at caroline.harris@earthlink.net.

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Do you have news or events you would like to share with Tri City Ecology's members?

Do you have any ideas on what would make Eco-Logic an even better publication?

Let us know!

We would love your feedback and are always looking for Fresh faces and ideas!

Email us @ richgodfrey77@gmail.com

Please check out our website – www.tricityecology.org and [Face Book](#)

You can always call and leave a message at 510 793 6222

And if you haven't joined TCEC yet, here's how



BECOME A MEMBER

WANT TO JOIN TCEC?

If you want to become a member please click [HERE](#) to fill out this form and mail a check to 3375 Country Drive, Fremont, CA 94536. To know more about TCEC please visit our website at <http://www.tricityecology.org>.

Board meets on the first Thursday of each month on Zoom due to Covid-1. Please call to verify. If you wish to speak on a subject, please call 510.793.6222 or 510.790.1685.

If you have any suggestions or want to contact us, please fill out [THIS](#) form.

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