



Cahuilla Band of Indians

Cahuilla Tribal Environmental Protection Office

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November Newsletter



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CTEPO Updates
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Events**

**Let's Learn About
Methane
Electric Vehicles**

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CTEPO Updates!

Whew was October an interesting month! CTEPO was pretty much always on the go!

Much of the month was dedicated to getting things in the department organized and ready for the new year.

With a rather irregular month, our waste management team worked especially hard this month to ensure the trash route was completed as timely as possible.

We thank Tribal Members for your patience and understanding throughout this month with the many schedule improvisations. Also, thanks to Jake and Jason for doubling up their efforts on multiple occasions to get things done. Your hard work does not go unnoticed!

Alyssa spent much of her October planning for a new project that you'll hear more about in 2025! We are so very excited to work more on it in the coming months and share it with you!

Lastly, CTEPO traveled to San Jose to attend the Region 9 Tribal EPA Conference. This opportunity to learn and connect with other Tribal Environmental Professionals was an unparalleled experience and we were so appreciative to be in attendance.

We returned inspired and committed to implementing this new knowledge to bettering our work in the department and our services to you.

Here comes November! We're ready for what the new month shall bring!

Fall Calendar

NOVEMBER 2024

SUN MON TUE WED THU FRI SAT



1
Half Day
2
Candle Night

3 4 5 6 7 8 9

10 11 12 13 14 15 16

Veteran's Day

17 18 19 20 21 22 23

24 25 26 27 28 29 30

Thanksgiving Holiday



DECEMBER 2024

SUN MON TUE WED THU FRI SAT

1 2 3 4 5 6 7

8 9 10 11 12 13 14

15 16 17 18 19 20 21

22 23 24 25 26 27 28

Christmas Eve

29 30 31

New Year's Eve



WHEN SOMEBODY ASKS
WHAT MONTH IT IS

NO SHAVE NOVEMBER!!!

Fun Fall Facts

November was once considered the ninth month in the Roman Calendar thus, receiving its name for the Roman word for "nine", novem.

This month's full moon is the Beaver Moon, receiving said name for being the time in the year to set beaver traps for winter fur.

Preparing your land in the autumn is the best way to allow for unhindered spring growth. Planting bulbs in early November will help pollinators in the Spring.



Unbeleafably Funny

What do you get if you eat too much pumpkin pie?

Autumn-y ache

What did the turkey say to the hunter in November?

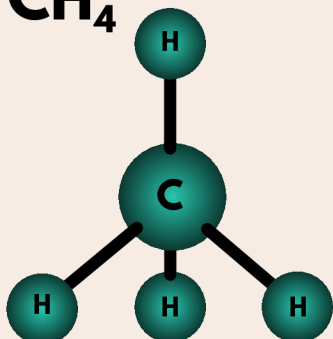
Quack! Quack!

What does the rockin' turkey say in November?

I'm going off the rails of a gravy train!

Methane

What is Methane?



Methane is a molecule comprised of four hydrogen atoms bonded to one carbon atom.

At ground level, methane is responsible for creating ozone, a dangerous air pollutant. In the atmosphere, methane is

currently the second most abundant greenhouse gas.

Did You Know...

Atmospheric methane can be anywhere from **25 to 82 times** more potent than carbon dioxide.

This means that each molecule of methane in the atmosphere holds way more heat than a molecule of carbon, increasing the planet's temperature at a much quicker pace.

It is the most powerful of the greenhouse gases because its effects are so much more concentrated.

Food Waste

In the US, food waste from Municipal Solid Waste landfills is the third largest source of methane emissions. Food, alone, accounts for **58% of methane emissions** in landfills.

As populations continue to grow, food waste emissions have increased by **295% since 1990**. Each year, the US wastes one third of its food supply which is **133 BILLION pounds** of food. That is a **\$161 billion** worth of food! Much of this food could easily be diverted from ending up in wastewater and landfills.

It is important that we try and reduce our waste-related emissions by making sure the food in our own homes doesn't end up going down the drain or into trash, especially during the holiday season.

Sources of Methane Emissions

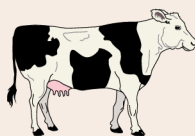
There are four predominant sources of methane emissions:

Agriculture

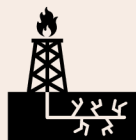
The Leading Source of Methane Emissions in the US

- Livestock
 - Ruminants produce a significant amount of methane in their digestion process.
 - The storage and treatment of manure also contributes to agricultural-related emissions.
- Rice Paddy Farms
 - Fields flooded with water allow for methane-emitting bacterial growth.

1



2



Energy & Industry

Natural Gas, crude oils and coal production are the second largest source of methane emissions.

Through the various stages of each industrial development process and the usage of these energy sources, methane is emitted in significant quantities.

3



Waste

Waste, especially food waste, in Municipal Solid Waste (MSW) landfills is the third largest source of methane emissions in the US.

Food waste is also found in wastewater streams and is another significant source of methane emissions.

4



Land Use and Land Management

Fires and other significant changes to the characteristics of the land can lead to the emission of methane. The management and development can impact sinks leading to greater atmospheric methane.



How They Work

Electric Vehicles (EV) run off of energy generated by a lithium-ion battery rather than the gasoline that we use in a traditional vehicle.

This means that instead of filling the car up at the gas station, you would charge this battery to run your vehicle.

An EV can drive up to 400 miles on a single charge, depending on the size of the car's battery and the conditions of the drive.

There are three levels to charging:

Level 1- Charging from a traditional outlet (110 volts) will usually take 40 to 50 hours.

Level 2- Charging from an adapted outlet (220 volts) will charge in 4 to 10 hours. These can be installed in your home to allow you to charge your car overnight.

Level 3- DCFC chargers are the most expensive to use but charge the quickest in about half an hour.

Similar to your phone, the vehicle battery's capacity to charge will deteriorate over time, lasting approximately 8 to 20 years.

California's Plan

By 2035, California intends for all new vehicles sold in the state to be "zero-emission" vehicles with a limited number of hybrids available in the market.

This is an effort to curb emissions related to automobile travel. Electric vehicles do not use gasoline and use little oil. They do not produce tailpipe emissions and are also considerably more efficient.

However, their batteries are currently fairly expensive to produce (~\$15,000/battery). It is expected with the projected increase in demand, production of these batteries will advance and the cost of buying an electric vehicle will be nearly equivalent in cost as buying a regular car.

It is important to note, EV batteries require a significant amount of lithium, which must be mined. Sourcing and using lithium can be rather taxing on the environment. Thus, the production and disposal of these batteries comes with its own set of environmental consequences.

Overall, it is believed that Electric Vehicles will be the solution to the carbon crisis resultant from the use of fossil fuels. In the coming years, with the right technologies and adaptations to California's electric grid, EVs will become an increasingly more prominent form of transportation throughout the state.

Finances of EVs

Electric Vehicles can cost anywhere from \$30,000 to \$110,000.

You can get up to \$7,500 in rebates for purchasing a qualifying new electric vehicle or \$4,000 for a qualified used electric vehicle.

Resources

California's Plan

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Function

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Word Scramble

Unscramble all of the terms. Using the numbered letters from the first portion of the puzzle, uncover the mystery phrase. The first Tribal Member to call CTEPO and reveal the secret message will win a special prize!

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11

A horizontal number line is shown, divided into four equal segments by three vertical tick marks. The third segment from the left is labeled with the number 5 below it.

A horizontal number line is shown with major tick marks every 10 units, labeled 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, and 100. A bracket is drawn below the line, starting at the tick mark for 14 and ending at the tick mark for 60. Below the bracket, the number 46 is written.

A horizontal number line with a red border. It has major tick marks at intervals of 10, labeled from 0 to 100. Below the line, the numbers 9, 12, and 4 are written under their respective tick marks.

[illegible]

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--	--	--	--

--	--	--	--

Mystery Phrase

Randy's Riddles

I'm the part of the
bird that's not in
the sky.



I can swim in the ocean and yet remain dry.

СТЕПО

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