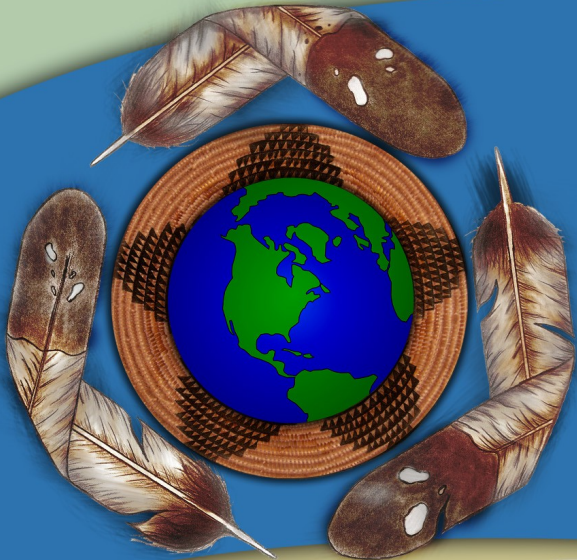


# Soboba Band of Luiseño Indians

Vol. 10 | Spring | 2012

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## *Cham Tema*

“Our Land”

### **Soboba Tribal Environmental Department**

The Soboba Band of Luiseño Indians' Tribal Environmental Department is committed to protecting, restoring, and enhancing natural resources on the Soboba Reservation for all Tribal Members: past, present, and future.



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# Soboba Tribal Earth Day 2012

On Thursday, April 19th, the Soboba Environmental Department hosted the 6th annual Soboba Tribal Earth Day event. We would like to thank everyone who attended the event and remind those who couldn't make it that Earth Day is an annual event and hopefully they can attend next year. It seemed to be a great success with 400 people in attendance and about 20 booths and vendors. Several departments from Soboba participated as well as other tribal environmental departments.

Earth Day is celebrated nationally every year on April 22. It is a great reminder to do something good for the environment. If you didn't take any action on Earth Day, it's never too late. The EPA has a "Pick 5 for the Environment" campaign that encourages choosing 5 eco-friendly ideas and implementing them in your everyday life. Examples include "Use only the water you need, and reuse when possible," "Use human powered modes of transportation to get from place to place," and "Learn about composting, try it out." Visit the Pick 5 website for more information at <http://www.epa.gov/pick5/>



Top left: The Cultural Center displayed native plants. Top right: Children explore the fire engine at the Tribal Emergency Response Commission booth. Bottom left: The Native American Environmental Protection Coalition provided a recycled water bottle bracelet craft. Bottom right: The Soboba Preschool created an Earth Day display to go along with their The Lorax themed booth.





# Pollution Prevention

The idea of pollution prevention is to reduce the amount of pollution that is produced, so there is less of it to recycle, throw away, or clean up. This includes wastes such as packaging and disposable items along with toxic chemical wastes. The EPA defines pollution prevention as “reducing or eliminating waste at the source by modifying production processes, promoting the use of non-toxic or less-toxic substances, implementing conservation techniques, and re-using materials rather than putting them into the waste stream.”

You may be asking yourself what this means for you. The bottom line is the less stuff you use, the less waste there will be. There are several easy steps you can take every day to prevent pollution.

- Recycle used motor oil — it can be re-refined into new oil, processed into fuel oils and used as raw materials for the petroleum industry. One gallon of used motor oil provides the same 2.5 quarts of lubricating oil as 42 gallons of crude oil. Recycle it at a "quick lube" shop, gas station, or auto store that accepts used motor oil.

Reduce  then Recycle 

- Buy food in bulk and buy products with reusable or recyclable packaging instead of those in non-recyclable packaging when possible.
- Some home electronic products use energy even when they're off. Those that have earned the ENERGY STAR rating use as much as 60 percent less energy when off. Less energy means you pay less on your energy bill.
- Small engines use for landscaping contribute significantly more air pollution per hour of operation than cars. Use hand tools when possible.
- Buy products that contain recycled material.
- Reduce waste with reusable shopping bags.
- Install a water-efficient shower head (2.5 gallons or less per minute) to reduce water consumption and energy use.
- Turn off water while brushing your teeth and shaving.



## Air Pollutants

Most of us have a general idea about air quality. What most of us don't think about is what the pollution is made of. The Clean Air Act set six criteria pollutants that are common and can affect human health and the environment.

1. Ozone ( $O_3$ ) is a very reactive gas that exists in two places in our atmosphere. High in the atmosphere, it helps protect the Earth from harmful UV rays. Ground level ozone is harmful and is the main substance in smog. When it comes in contact with tissues, like our lungs, ozone attacks and damages cells lining the airways, this causes swelling and inflammation.
2. Carbon Monoxide (CO) is a colorless, odorless gas. It is usually formed as a product of combustion (something being burned) with the main source being vehicles. CO reduces the body's ability to transport oxygen and can lead to death with high exposure.
3. Nitrogen oxides (NOx) refers to several compounds that can be reactive and hazardous.

NOx is usually produced by vehicles and power plants. It is one of the main components of ozone and can lead to respiratory damage.

4. Sulfur Dioxide ( $SO_2$ ) is a reactive gas that is associated with power plants and other industrial sources. It can have negative affects on respiratory health and is what causes acid rain.
5. Lead is a heavy metal that becomes airborne through industrial processes and was once an additive of gasoline. Lead accumulates in the body and can lead to many chronic health issues. Children are particularly affected by exposure.
6. Particulate matter is composed of many types of very small particles and liquid droplets. It is usually classified by size as either PM10 (larger) or PM2.5 (smaller). These tiny particles can work their way into sensitive areas of the lungs and cause respiratory problems. PM can be caused by dust, road ways, and industrial processes.

For more info, visit <http://www.epa.gov/air/urbanair/>



If you have any questions on information in the newsletter or any other environmental concerns contact:

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# Water Quality Monitoring

The Soboba Environmental Department monitors surface water quality on the reservation with funding from the Clean Water Act Section 106 grant. Indian Creek, Poppet Creek and the Hot Springs are monitored. The grant provides funds to measure parameters such as pH, temperature, conductivity/specific conductance, dissolved oxygen, and turbidity.

**pH** is the concentration of hydrogen in the water. pH ranges from 0 (very acidic) to 14 (very basic), with 7 being neutral. Most waters range from 6.5 to 8.5. Changes in pH can affect how chemicals dissolve in the water and whether organisms are affected by them. High acidity can be deadly to aquatic organisms.

**Temperature** is important to aquatic life. If the temperature gets too hot or too cold for some organisms, they die. Temperature also can affect the chemistry of the water. For example, warm water

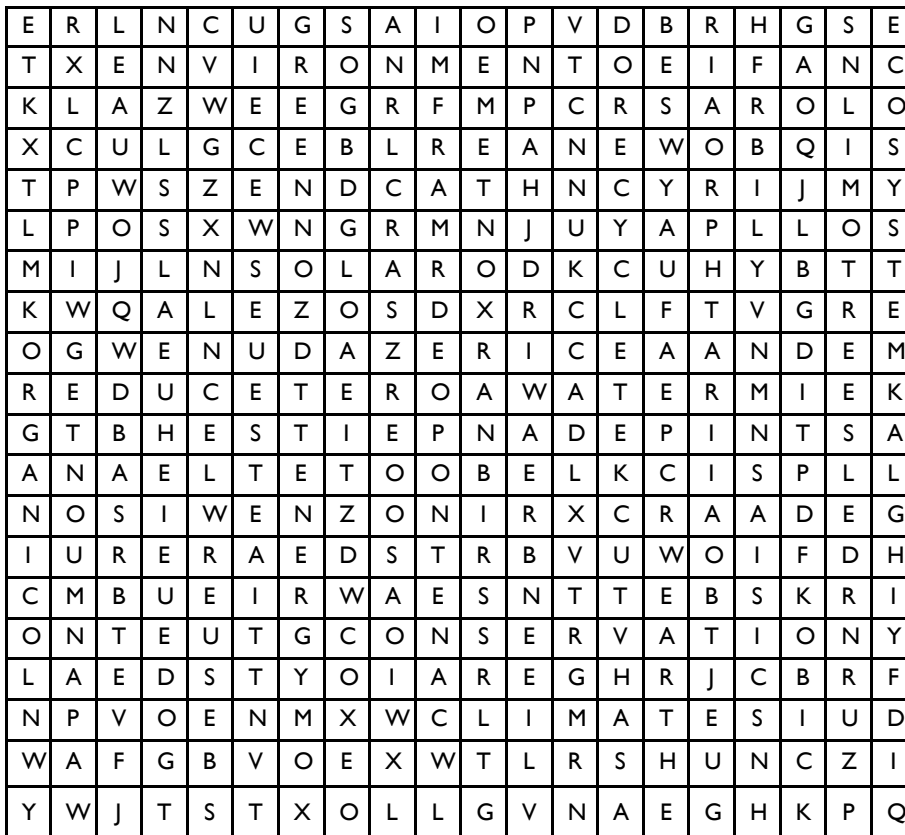
holds less oxygen than cold water.

**Dissolved oxygen** is needed for aquatic life to survive. Several factors can affect how much DO is in the water including temperature, amount/speed of flowing water, the plants and algae that produce and take in oxygen, pollution, and composition of the stream bottom.

**Conductivity** is a measure of the ability of water to pass an electrical current. Conductivity in water is affected by the presence of inorganic dissolved solids. Streams have a relatively constant conductivity, and changes can indicate the addition of unwanted ions.

**Turbidity** is a measure of water clarity how much the material suspended in water decreases the passage of light through the water. High turbidity increases water temperatures because suspended particles absorb more heat.

## Word Search



Find the following words

- Air
- Carbon
- Climate
- Conservation
- Earth
- Ecosystem
- Energy
- Environment
- Green
- Land
- Nature
- Organic
- Ozone
- Pollution



- Recycle
- Reduce
- Reuse
- Soil
- Solar
- Trees
- Toxins
- Waste
- Water