Environmental Protection Department Newsletter

Wishing you all the joys of Christmas with health and happiness throughout the New Year.

From All the Staff of the Environmental Protection Department

Richard, Sonia, Ileana, Alicia

Eco-Friendly Holiday Activities

Like most celebrations lately, the 2020 holidays are likely to be far different than any past holiday season we have had. We might be spending more time at home with our families rather than engaging in the more traditional activities that we are used to. I have compiled a small list of a few activities that can be done with items you may already have around the house.

Wine Cork Reindeer – There is no shortage of wine corks in my home (thanks to COVID!) Just collect some twigs make small holes with a wine corkscrew in the corks, and decorate with ribbons. I like a little piece of red felt or an cotton ball painted red can be used for the nose.
Eco-Friendly Holiday Activities Continued

**Pine Cone Ornaments** – I remember making these when I was a kid and it was always a blast! Do you have any old decorative pine cones around the house, or even from our nearby mountains? The deco ones do work better because they tend to be bigger. You can decorate these guys anyway you want, glitter (if you dare), beads, pretty frilly stuff off of old clothing, get creative. You can even paint the cone to a different color. Then just fasten a ribbon from side to side then it’s ready for the tree!

**Sock Snowman** – This one may be my favorite though I haven’t tried it yet, but it is definitely a must! What to do with those mismatched socks? Make snowman of course! The socks need to be crew length or longer. Cut off the top of the sock from the foot. Turn it inside out and tightly tie a rubber band around the end of the sock (this will be the base), then turn right side out again. Fill it up with rice, be sure to pack it down as you go. This makes him round and proud! Rubber band the end of the sock closed. Stand that guy up and put another rubber band ¾ of the way down from the top for his head. Now decorate! Add some eyes, buttons and maybe even a scarf! I will just use my hot glue gun to secure everything. You can use the toe of the cut sock to add a cute little cap for him!

How to Clean Your Home to Stop the Spread of Covid-19

Clean and disinfect common areas daily, such as tables, countertops, light switches, doorknobs and cabinet handles, remotes and controllers. First, glove up with either disposable or reusables to prevent skin irritation from disinfectants. Next, use soap and water to clean surfaces. Now use a disinfectant. Be sure to read the label to check on the wet contact time duration. Allow to air dry. Make sure your home is well ventilated whenever you utilize chemicals inside your home. If you can’t get your hands on an approved disinfectant, you can use bleach. Mix 4 tablespoons bleach to 4 cups water. Soak your cleaning cloth in the solution and use it to disinfect surfaces, allowing to air dry. Clean electronics with alcohol based wipes of 70 percent or higher. Wash dishes and utensils in hot soapy water or utilize a dishwasher.

How does soap annihilate viruses? Viruses are materials surrounded by proteins and fatty lipids. In water rich environments the lipids line up and form a shell with the heads outside and the tails inside, called the hydrophobic effect. This outer structure helps the molecular machinery of the virus break through cellular membranes and hijack our cells to replicate the virus.

Water alone rushes over the virus like it were oil. It doesn’t mix. Soaps have amphiphiles resembling biological lipids that compete for space in the lipid lineup structure of the virus. The amphiphiles are just different enough to break up the virus line up and form a bubble structure around virus particles like RNA and proteins to be washed away. Soap allows the fat to dissolve It takes 20 seconds for this reaction to occur.
Honoring Our Veterans

Although there wasn’t a tribal Veteran’s luncheon this year because of the coronavirus pandemic, we remember and thank all of our veterans for their service. Remembering the Tribe’s past years of honoring our veterans through pictures.

To those in uniform serving today and to those who have served in the past, we honor you today and every day.
What You Can do if You are at Higher Risk of Severe Illness from COVID-19

Are You at Higher Risk for Severe Illness?

Based on what we know now, those at higher risk for severe illness from COVID-19 are:

- Older adults
- People of any age with the following:
  - Cancer
  - Chronic kidney disease
  - COPD (chronic obstructive pulmonary disease)
  - Heart conditions, such as heart failure, coronary artery disease, or cardiomyopathies
  - Immune-compromised state (weakened immune system) from solid organ transplant
  - Obesity (body mass index [BMI] of 30 kg/m² or higher but < 40 kg/m²)
  - Severe obesity (BMI ≥ 40 kg/m²)
  - Sickle cell disease
  - Smoking
  - Type 2 diabetes mellitus

Here’s What You Can do to Help Protect Yourself

- **Limit contact** with other people as much as possible.
- **Wash your hands** often.
- **Avoid close contact** (6 feet, which is about two arm lengths) with people who are sick.
- **Clean and disinfect** frequently touched surfaces.
- **Avoid all cruise travel** and non-essential air travel.

Call your healthcare professional if you are sick.
For more information on steps you can take to protect yourself, see CDC’s How to Protect Yourself.

cdc.gov/coronavirus
Snowmelt and Nonpoint Source Pollution

Nonpoint source pollution does not result from a single definable location, such as an industrial discharge pipe, but rather results from land runoff, precipitation, atmospheric deposition, or percolation. Exceptions are irrigation return flows and storm water flows which are deemed nonpoint sources.

Besides the runoff due to rainfall in summer, the snowmelt runoff in early spring could also play an important role in deteriorating the water quality of the receiving waters. When it snows, atmospheric pollutants can be absorbed by the snow, eventually contributing to the run-off water contamination. In contrast to summer, the air quality in winter is usually much worse than that of other seasons because of the combustion of coal for heating.

Snow accumulates a variety of contaminants from the atmosphere, motor vehicles and roadways. These contaminants include salts and salt additives, heavy metals, petroleum products such as oil and grease, bacteria, organic chemicals such as pesticides and PCBs, soil materials and litter. Sand and other soil particles act as contaminants by filling our lakes, dams and navigation channels.

Constructed wetlands are the preferred tool of ecological purification. Wetlands have gained interest due to their low maintenance and operational costs, and their high removal capacity for many kinds of pollutants. Fortunately, we have two wetlands at the end of our watershed.

Compost Impacts

To participate in the curbside recycling program, please call us at the office at 775.423.0590 to sign up!
How to Control Pests/Diseases While Remaining Environmentally Friendly

**Why Use Integrated Pest Management?**
1. IPM is the most effective method of controlling pests.
2. Studies show that children's developing systems are at greater risk than adults to the effects of pesticide exposure.
3. Kids may crawl or play on surfaces that have been treated with pesticides, increasing their risk of exposure.
4. Getting organized, improving sanitation, and sealing buildings results in numerous benefits in addition to pest management.

- Using the least invasive - and often most effective - means first:
  - Prevention - Cultural practices
  - Mechanical controls
  - Naturally occurring biological controls (native predators)

- Use chemical controls sparingly, as a last resort:
  - Naturally occurring elements
  - Biologics - chemicals made by plants that are toxic to pests/diseases
  - Non-biologic pesticides:
    - Insecticides
    - Fungicides
    - Miticides

Non-native predators and chemical controls have the important drawback of non-specificity – they kill the good pests just as effectively as the bad. Moreover, chemical controls have the potential to impair water quality and those native organisms that reside in and around water.

Pest management begins at the bottom and works up.
‘Tis the Season for Elevated Levels of Radon

The Environmental Department will continue radon testing for homes on the reservation and colony this season. However, things will be done a little differently this year. Due to COVID-19 restrictions, staff will not be setting up tests in homes. Instead, tests with instructions will be provided for the community upon request. Just give us a call at the office, leave your address and I will send a test kit your way. I’ll be available to provide support telephonically if needed!

Testing needs to take place during the cold months as the cold weather affects radon levels. Winter is a good time to test for radon because you are, in most cases, measuring the worst case scenario for your home.

Cold weather increases the amount of warm air that is escaping from your house through vents or drafty windows. This escape of air causes a vacuum inside the home. If the air in your home is under negative pressure, radon gas can be pulled in from the soil below the foundation. Cracks in the concrete floors, foundations and sump pumps are typical radon entry points. This stack effect can be greater in the winter months resulting in more gas entering the home. Radon gas occurs naturally in the soil. Unfortunately, during the winter or rainy seasons, the ground around your home can become saturated with water and in some cases frozen. When this happens, it can block the flow of radon into the atmosphere and redirect it into your home in higher concentrations. During the winter months, most people keep their windows shut. They fire up the furnace and recirculate the same air throughout their home. Many homes have poor indoor air quality and higher radon levels because the home is closed up during winter months. In modern years, more homes are built to be energy efficient and more “tight.” This energy efficiency can help keep the house warmer but it also can trap the bad air inside.

If you are interested in having your home tested for radon, please call the Environmental Protection Department at 775.423.0590 or email me at soniaenviro@fpst.org to sign up.

Air Monitoring

The Environmental Protection Department (EPD) has been in the preliminary stages of implementing an ambient air program for the last year. In February, staff completed a course at the Tribal Air Monitoring Support (TAMS) Center in Las Vegas. There is a lot of equipment available on the market for monitoring air and the training focused on finding the correct equipment for our specific needs. The TAMS Center has a loaner program where they loan out their equipment to tribes to begin baseline data collection. The TAMS Center had a DustTrak available and offered to loan it to the FPST. The DustTrak is a portable device that will measure fine particulate matter 2.5 and 10. (PM 2.5 and PM 10). PM2.5 is particulate matter that is smaller than 2.5 micrometers in diameter. PM 10 is particles smaller than 10 micrometers in diameter. An Emissions Inventory was completed last year and was able to provide information to the EPD about what the tribe’s primary concerns are regarding air quality and PM is in our area of concern. Thanks to the TAMS Center Loaner Program, we are able to begin baseline monitoring.
ENIRONMENTAL PROTECTION DEPARTMENT  
PUBLIC NOTICE  
November 28, 2020  
The Environmental Protection Department has completed a draft of a Fallon Paiute-Shoshone (FPST) Composting Plan. The purpose of this plan is to develop an environmentally sound, feasible, and publicly acceptable pilot community composting program.  
This document is available for a 30 day public review and comment period. Because of the Covid 19 pandemic, the draft Composting Plan is available for public review at the Tribe’s website at www.fpst.org. Please send written comments to:  
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1011 Rio Vista Drive  
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If you have any questions, please call 775-427-9950. Thank you and stay safe.  
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