



The Dirt

SIR Newsletter Insert
May 2016

*Cultural and Environmental News
brought to you by the Susanville Indian Rancheria
Natural Resources Department (NRD)*



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Clark's Creek at the SIR Cradle Valley property looks healthy as it meanders through the meadow after all the winter precipitation we received (photo above).

Many of the elderberry (*Sambucus nigra*) seedlings planted last fall have made it through the winter and are looking green (photo right). NRD staff will be checking in on them and giving them supplemental water throughout the spring and summer in 2016.



Meet the NeRDs...



Natural Resources Department Mission Statement:

To assess, protect and enhance the tribal and environmental resources (culture, language, land, air, water) on the ancestral homelands of the tribes and bands of SIR in order to maintain a healthy community and to manage for multiple land uses.

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We were sad to say goodbye to Katie who left for the east coast in late April to work for the US Forest Service. She was such an asset to the SIR environmental, cultural, forestry and wildland fire programs!

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From left to right: Katie, Aaron, Melany, and Meredith

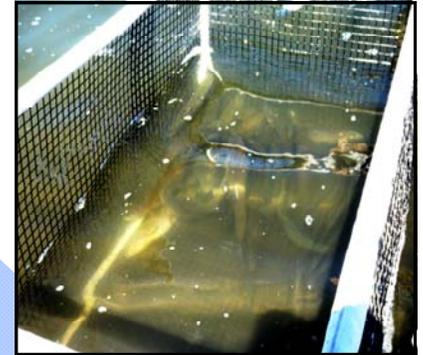
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Environmental News...

Electro-fishing and Egg Collection at Eagle Lake



The Susanville Indian Rancheria Natural Resource Department had the opportunity to assist the California Department of Fish and Wildlife (CDFW) with Eagle Lake Rainbow Trout (ELRT) egg collection in early April.



Eagle Lake Rainbow Trout (*Oncorhynchus mykiss aquilarum*) (photo on the right) is a subspecies of trout that is endemic to Eagle Lake. It is also designated as a California Heritage Trout. Due to the drought, this was the first year since 2012 that this important conservation work was able to take place in Eagle Lake.



SIR Environmental Technician Aaron Brazzanovich Jr. and Contract Biologist Teresa Pustejovsky (photo on the right), along with CDFW staff collected ELRT eggs for rearing in hatcheries.



To collect the fish we used boats specifically set up for electro-fishing, or e-fishing for short. Electro-fishing is the use of electrical currents to temporarily stun fish so that they can be netted easily. We had two e-fishing boats and a crew set up on shore to

perform the data collection, egg harvesting and spawning. Once the boats that were e-fishing had netted enough fish they brought them back to shore for data collection, egg harvesting and spawning. Over the course of two days we netted over 400 fish and spawned 161 pair. Only the eggs from mature females can be used for egg harvesting. On average, a mature ELRT female fish can produce 3,000-3,500 eggs. A Special thanks to Paul Divine and other staff from CDFW for allowing SIR to assist with the collection.



Climate Change...

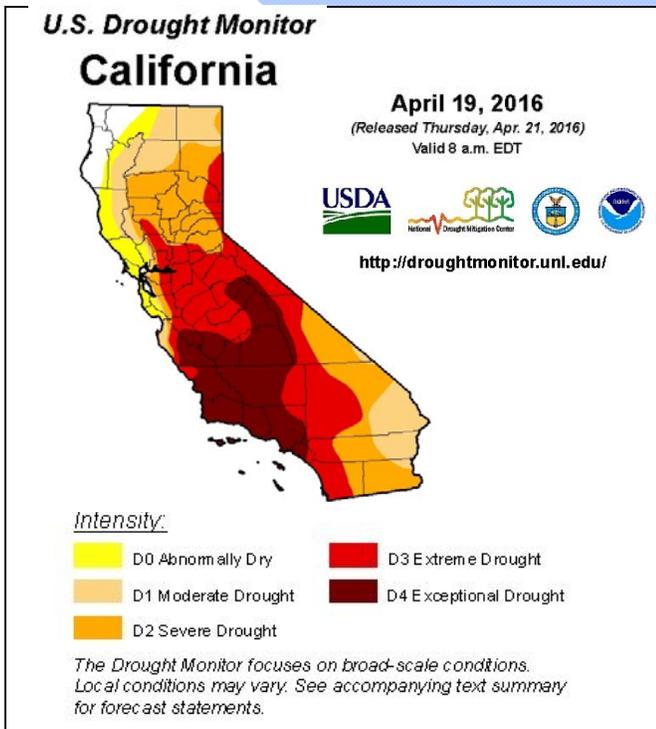
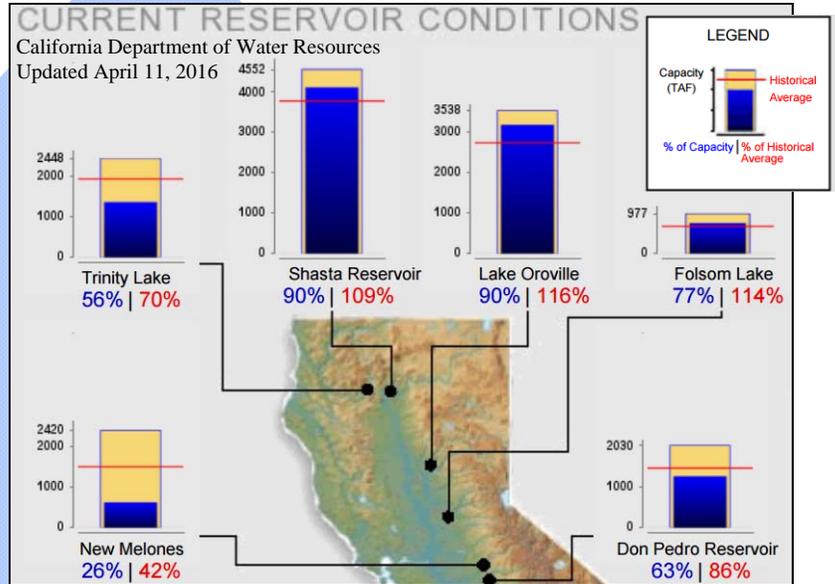


ONE wet winter does not end drought!

The wet winter has been a great improvement for California reservoirs, springs and streams. This was evident on the SIR 875 acre property where all six water sampling sites at springs or seasonal streams had flowing water during the April sampling! And Clark's Creek at Cradle Valley has a good high flow (see page 1 for photo).

The State of California Department of Water Resources reports that current reservoir conditions at Shasta Reservoir, Lake Oroville, and Folsom Lake in north and central California are above the historical average (see image to the right, as of April 11, 2016; <http://cdec.water.ca.gov/cgi-progs/products/rescond.pdf>). Sierra Nevada snowpacks are also near normal; northern Sierra Nevada is 97% of average, and 72% of average in southern Sierra Nevada.

However, despite the winter precipitation still ONLY 3.5% of the state, located in the northwest corner, is NOT in a drought. Here in northeastern California, we range from moderate to extreme drought (see image below, April 19, 2016, <http://droughtmonitor.unl.edu/>).



One wet winter does not reverse the prolonged drought we have been experiencing in northeastern California. Climate change is connected to drought and extreme weather events across the globe.

Elyssa Lynn at the California Department of Water Resources states, we can expect to see increased duration of drought along with increased temperatures and less snowpack in future years (<http://mavensnotebook.com/2016/02/17/considering-climate-change-in-water-resources-planning/>).

Water Quality...



CLEAN drinking water on the Upper Rancheria

If you live on the Upper Rancheria you probably already know that the NRD and Public Works routinely sample the drinking water at tribal homes for bacteria, lead and copper, and disinfection by-products. Since tribal drinking water is purchased from the City of Susanville, the city also monitors the drinking water before it reaches homes on the Upper Rancheria.

The United States Environmental Protection Agency (EPA) sets the regulatory limits for contaminants in drinking water and the monitoring requirements. Each year, a Consumer Confidence Report (CCR) is delivered to homes on the Upper Rancheria outlining water quality results.

During 2015, all EPA drinking water health standards were met!
The CCR was delivered to households on the Upper Rancheria on May 2nd.

A few EPA monitoring requirements have changed for 2016. The table below outlines the monitoring requirements and the SIR monitoring schedule.

Contaminant	Total Coliform	Disinfection By-Product	Lead and Copper
Monitoring Interval	Monthly: 1 routine sample	Monthly: Free chlorine Every 3 years: Total Trihalomethanes and 5 Haloacetic Acids	Every 3 years: Five samples
Next Sampling Due	Monthly	08/31/2017	09/30/2016
Likely Source	Naturally present in the environment, and found in human and animal fecal waste.	By-product of drinking water chlorination	Internal corrosion of faucets, plumbing, service lines, deteriorating lead-based paint, lead-contaminated dust, and lead-contaminated soil.

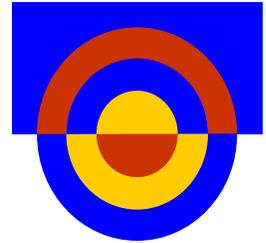


The news that Flint, Michigan's drinking water was contaminated with lead has raised concerns around the world. There was NO violation in the latest lead sampling at the SIR or the City of Susanville. The SIR will be sampling for lead again this summer on the Upper Rancheria. Additional information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the EPA Safe Drinking Water Hotline (800-426-4791)

Or at: <http://www.epa.gov/safewater/lead/leadfactsheet.html>

Cultural News from the THPO...

DAY IN THE DESERT At Belfast Petroglyph Site



From APRIL 19 through APRIL 21, 2016, students, teachers, parents, and presenters gathered at the Belfast Petroglyph Site to learn and teach about the Native American perspective, wildlife, plants and protecting cultural artifacts.



This year, there were three Days in the Desert, five sessions each day of 5th Graders! It was quite ambitious, but we made it! One session went to Willow Creek with the BLM Archaeologists to see petroglyphs and learn site etiquette. The wildlife professionals from BLM shared their knowledge of wildlife at Belfast and the animals that used to exist there. BLM Recreation Specialists made a presentation on keeping our lands clean, staying on existing trails, and also enjoying all the public BLM lands have to offer. The Botanist from BLM made a presentation on plants and noxious weeds. Unfortunately, this is too early in the year to show any flowers, grains or plant foods that are found on the land. My presentation is Native American Perspective. Little props help me with my presentation; I bring examples of the type of materials that were used to make tools; projectile points (arrowheads), scrapers, knives and many other tools. Fine grained basalt, obsidian, and chert are the primary types of rock used to make these tools. Tiny, small chips, can still be seen on the ground, linking our people to the land. My explanation of leaving everything where it's at made sense to the students and parents! I spoke of destruction of petroglyphs by shooters, who unintentionally or intentionally shot at them. The land and all surrounding areas belonged to Native Americans before European contact. Eventually this Belfast area came to be managed by the BLM. Since this is public land now, everyone must strive to take care of this lovely land. It's all our responsibility, it's our legacy...

Day in the Desert...



Sharynn Blood, Archaeologist for the BLM helped me on Tuesday. She answered questions and encouraged students to consider becoming Natural Resource people and Archaeologists! Working outside in beautiful areas is a great reason to consider a career in these areas!



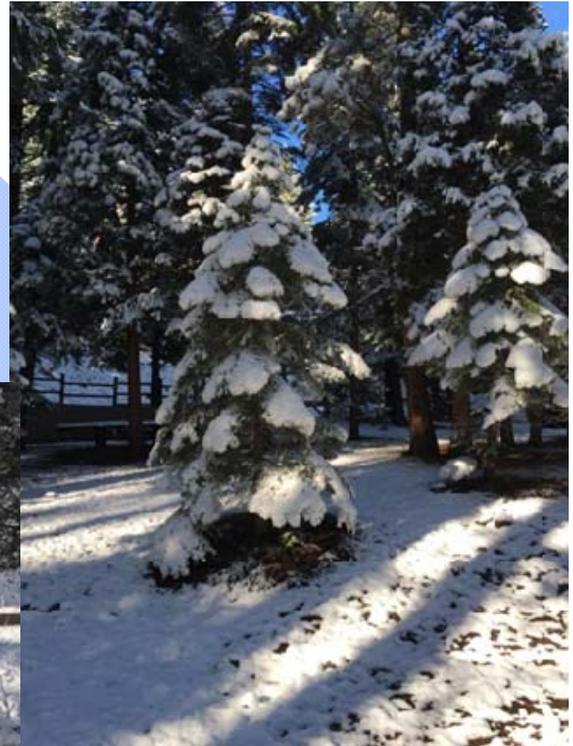
A group called the “Rabbits” are filling out pages about our station. The juniper tree has provided shade to many students over the years. Juniper trees produce a berry that is used for medicine. A tea made of juniper berries helps with bringing blood sugars down, however the tea is very bitter! The berries are used for other ailments too. This field tour was perfect!



Culture, Environment and Education...

FUN IN THE FOREST! At Roxie Peconum Campground

The Morning of April 14, 2016 I awoke to this beautiful sight! Snow! Although, I'm very happy to get this weather, I had a presentation to make at Roxie Peconum Campground! When I arrived, I was surprised there was more snow than in Westwood! Although, beautiful, it was extremely cold. I had layered up, however, it was the kind of cold that goes right to your bones.



Children and Parents getting instructions on where to start and how long to stay at each of the stations before they switch.

Fun in the Forest...



Some of the 4th graders gathered around, ready to get to the individual stations.



Some of the items on the scavenger hunt list were: a leaf, a pinecone, moss, a flat skipping stone, an acorn, a feather, seeds, a dandelion, garbage such as wrappers, paper, cans, anything that doesn't belong in nature.

Two friends looking for items for a scavenger hunt developed by the SIR Tribal Historic Preservation Officer (THPO), Melany Johnson. Melany spoke of the importance of Roxie Peconom campground that was passed down from her Gramma Lucille.

“The story told of the Worldmaker creating a safe place for humans to live and areas that were rich in ethnobotanicals and food. Roots were scattered about the meadows by Worldmaker, we still gather them. Every year there is celebration for a new year and forgiveness of our wrongdoings. The Bear dances and we dance in a great circle, one circle within another...it's a blessing, brings good feelings and afterwards we share a meal together. That's what my Gramma taught me.” — Melany

Even though it was a very cold day, we tried to keep moving to stay warm. The students, parents and teachers enjoyed “Fun in the Forest”. I am happy for all who attended. They were good days!

- Melany Johnson

Cultural News from the THPO...

I come from a family of strong women, like many other women I know. We are the descendants of survivors, our Ancestors rose to the task of looking out for the ones who would come after; seven generations! It has come to fruition, we are still here, some of us are the seventh generation, for others, our children or parents are the seventh generation! It's remarkable and amazing that we have endured! Despite massacres, genocide, starvation, the gold rush, illness and other atrocities, we are here! In the case of my Gramma's people, my people, the government predicted our demise, in which we would all die; we were terminated before we were even gone! It's a great reason to celebrate life! It's our job, in fact our responsibility to look after the ones who will come after us!

I started working for the Tribe in 2003. I feel very fortunate and blessed. There are many reasons I wanted to work for the Tribe, one being, to honor my Gramma Lucille and my father, Melvin Hill, both had crossed many years before. Truly, I did not choose this job, it chose me! Our Creator knows all, and he guided me here, as my heart and soul were broken. In a big way you could say my job saved my life. There are many aspects to being Tribal Historic Preservation Officer (THPO) and Native American Graves Protection and Repatriation (NAGPRA) Coordinator.

As THPO, I receive dozens of Cultural Resource Inquiries, National Environmental Policy Act (NEPA) documents, requests for consultation, timber harvest plans (THP's) and other proposed plans from the city and county; weekly. There is much research involved in these actions. I coordinate quarterly consultation meetings with federal agencies, such as the Bureau of Land Management (BLM), Forest Service, on the Lassen, Plumas and other forests. These meetings are extremely important to the Tribe. Other facets include reporting, field work, inventory of artifacts, presentations to our SIR Education students, parents, teachers, and to local schools in our area. I've attended many workshops and classes to help in my job. Through the NPS THPO grant I am able to support small cultural events. I am an avid supporter of all four Tribes at the Rancheria. I carry the power of my Grandmothers' spirits; they guide me to always do the right thing according to Creator's law. As a human being, I'm constantly learning, still make mistakes, however, I continue on this journey to fulfill promises I've made to our Ancestors.

As the NAGPRA Coordinator, I have worked and still to this day work with Museums and agencies to ultimately obtain our precious Ancestors, Funerary Objects and Objects of Cultural Patrimony. Our Ancestors need to come home to be reburied. Thousands of Native American peoples are locked up in museums, from many Tribes all over our Nation. There is much research involved in this part of my job. I do not do this work alone, we have a coalition of surrounding Tribes, named the Northeastern California Tribal NAGPRA Coalition, (NECATNC). We meet quarterly at different Tribal locations to discuss NAGPRA issues, speakers and experts are sometimes brought in to teach us about their specialties and help with our resistance. We have Diane McCombs Archaeology who is a strong supporter of SIR, NAGPRA and THPO. She is our staunch ally and testifies to the Scientists at some of our meetings with Museums. Since she is a qualified Archaeologist she can speak the scientific way to other scientists. Last, but not least we have our Cultural Committee to consult with; our Tribal Government Liaison Committee (TLC).



Four of my Grands, my daughter and me.

In closing I would like to share some of my personal life with you. On weekends, I am always thinking of my calling, it never goes away. My husband, George and I love to travel, when we travel out of our area we always find a ruin or Native place to see and feel the sacredness of those places. My five Grands are between the ages of 18 to 2 years old, and a new one will be born in August. I love them so much and I love teaching them about what I have gathered and learned from my Elder family members. Last spring and summer, all of our Elder family members from my immediate family crossed. It is my commitment and responsibility to teach my Grands about honor, respect, traditional ways that I have learned and to be the best people they can be. They live in the valley, so it's always a treat to see them and spend time together. They restore my heart and soul. As their Gramma, I've instilled the importance of Elders and the magnitude of seven generations.



Melany L. Johnson
THPO and NAGPRA Coordinator



This is my family...my Gramma Lucille Williams is the little girl, the little boy is Gramma's brother, Ralph Williams, their momma is Annie Gould, Gramma is Kate Charley Williams, their Auntie is Lucy Charley. My Ancestors are a mix of Hat Creek Pit River and Mountain Maidu.

Healthy Ecosystems...

Busy beavers at Cradle Valley: a sign of a healthy ecosystem



Beavers are well known for building dams, but did you know those dams are more than just for show, they also play an important role in the environment?

Beavers fell trees with their powerful teeth and create dams with branches, logs, and mud. The beaver dams at Clark's Creek at the Cradle Valley property have pooled enough water to create two ponds. These ponds provide protection from predators, better access to the beavers' food supply, and promote growth of their favored foods. Beavers eat the bark, twigs, and leaves of willows, cottonwoods, and other aquatic plants and shrubs.



In addition to benefiting the beavers, the flooded areas create habitat and food for other animals and plants including fish, birds and deer. Insects and aquatic invertebrates also benefit from the pooled water and wet conditions.

Beaver dams also help prevent erosion. Dams collect sediment and promote natural floodplains by limiting deep cut stream bed channels. These dams help the water stick around longer upstream which benefits the whole wetland ecosystem from the mountains to the valleys.

For more information on beavers see these references:

<http://wdfw.wa.gov/living/beavers.html>

<http://animals.nationalgeographic.com/animals/mammals/beaver/>

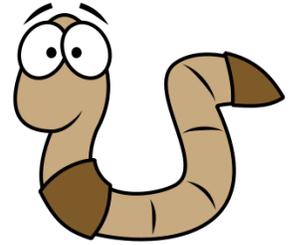
<https://www.nwfsc.noaa.gov/research/divisions/fe/wpg/beaver-assist-stld.cfm>

Beavers were nearly extirpated (i.e. almost eliminated from the ecosystem) after European colonization in the United States from overtrapping for their fur or "pelts".

Beaver have been reintroduced in some mountain meadow ecosystems, but they re-colonized all on their own at Cradle Valley. We welcome them home!



Earth Day 2016



Friday April 22nd was Earth Day!
To celebrate, NRD taught the SIR Education Center children about reducing pollution and trash through composting. Students got to play with worms, get their hands dirty planting native plants, and make bird feeders to bring home to their family. Check out the pics below!

