

The Flow

Delivering News from the Carson River Watershed Community

Fall 2014

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Nevada Floods. Are You Prepared?

By Courtney Walker, Carson Water Subconservancy District

Nevada Flood Awareness Week is **November 10-15, 2014**. With the recent summer flooding, the inaugural Nevada Flood Awareness Week is timely. The week will be the culmination of an educational outreach campaign to raise awareness that serious flooding occurs regularly in Nevada and to learn about the steps residents can take to reduce their risk. Preparedness tips include knowing if your property is in a flood zone, considering the purchase of flood insurance, building a disaster kit, and knowing the health risks after a flood.

The Nevada Flood Awareness Committee formed in late 2013 to organize the campaign. CWSD is participating on the committee, as floodplain conservation is a key Guiding Principle of the Carson River Coalition (CRC). The website is up and running; watch for billboards and listen for radio and television ads starting mid-October. To learn more about flooding and the steps you can take to limit the risks, visit their award winning website, www.NevadaFloods.org.

ARE YOU PREPARED?
www.NevadaFloods.org



Flash Floods Hit Western Nevada

By John Cobourn, University of Nevada Cooperative Extension

In late July and early August of 2014, a monsoonal weather pattern brought moisture from the Gulf of California, east of Baja, up into Nevada. Beginning on July 20th, a series of thunderstorms developed over parts of Douglas County and Carson City. Some of these rainstorms were very intense and produced enough rain in an hour or so to cause flash floods in normally dry washes. According to the Douglas County website, flash floods occurred on July 20th, 30th and August 6th, 8th, 10th, and 11th, 2014.

Flash floods can occur from convective thunderstorms that sometimes produce “cloudbursts” with rainfall rates exceeding one inch per hour. Flash floods are very different from large river floods, like the 1997 flood, that occur here about every ten or fifteen years in the winter. These

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storms are usually small and localized compared with large winter storm systems that produce rain and snow throughout the northern and central Sierra. Cloudbursts can occur for an hour or two and drench an area from one to five square miles.

The storm on July 20th in Douglas County caused damage in Fish Springs and in the Johnson Lane neighborhood just below the south side of Hot Springs Mountain. In Fish Springs, it produced a “wall of water” that rushed down the creek, pushing piles of branches, trees, and shrubs. That same afternoon, a thunderhead appeared to park above Hot Springs Mountain and dropped intense rainfall for over 40 minutes. A rain gage in Minden measured 1.2 inches of rain, however, given the amount of flooding that occurred off of Hot Springs Mountain, it is likely that considerably more rain fell in that area.



Aerial photo of Hot Springs Mountain in Douglas County.
Photo by John Dunn, Nevada Bureau of Mines and Geology



Recent flash flooding caused gullies 5-10 feet deep in some areas.
Photo by John Cobourn, University of Nevada Cooperative Extension

Residents on the east side of Carson City also experienced flooding from these storms. Neighborhoods built on alluvial fans throughout the Carson River Watershed are at similar risk from the kind of summer flash floods that struck Douglas County and Carson City this year. Residents in throughout the Carson River Watershed should visit www.NevadaFloods.org for preparedness tips.

The higher elevations on the mountain are very rocky, therefore a large portion of the rainfall ran down the slopes. When the flowing water hit the ancient sand dunes that drape the lower portions of the mountain, it created deep gullies down the sandy roads, carrying tons of sand into nearby washes and onto the alluvial fan below. Once flood water reaches an alluvial fan, its pathway is unpredictable. On July 20th, the floods emerging from two canyons on the south side of Hot Springs Mountain came together and entered the Buckbrush Estates subdivision at the east end of Jackie Road. Several properties experienced water flowing through the yard, destroying landscaping and depositing as much as four feet of wet sand around the houses.



Flash flood on Mel Drive in Fish Springs on July 20, 2014.
Photo by Craig Swartz

2014 Markleeville Creek Day Accomplishments

By Shane Fryer, Alpine Watershed Group

The Alpine Watershed Group held its 15th Annual Markleeville Creek Day on Saturday, August 23rd. 55 volunteers from Northern California and Nevada divided into five working groups to help with river cleanups and restoration projects throughout the Upper Carson River Watershed.

The work our amazing volunteers accomplished resulted in:

- 115 feet of stream bank stabilized on Shay's Creek and the West Fork;
- 200 feet of willow bundles installed to protect Hope Valley Meadow;
- 1,000+ willow stakes planted at various project sites;
- Over 600 pounds of invasive weeds removed from Grover Hot Springs Meadow; and
- 56 pounds of litter removed from our creeks and streams!



Volunteers at Markleeville Creek Day place willow bundles to alleviate erosion on the banks of the West Fork of the Carson River.

Photo by Brenda Hunt



Volunteers at Markleeville Creek Day pulled over 600 pounds of invasive weeds, enough to fill an entire pickup truck, from Grover Hot Springs Meadow.

Photo by Courtney Walker

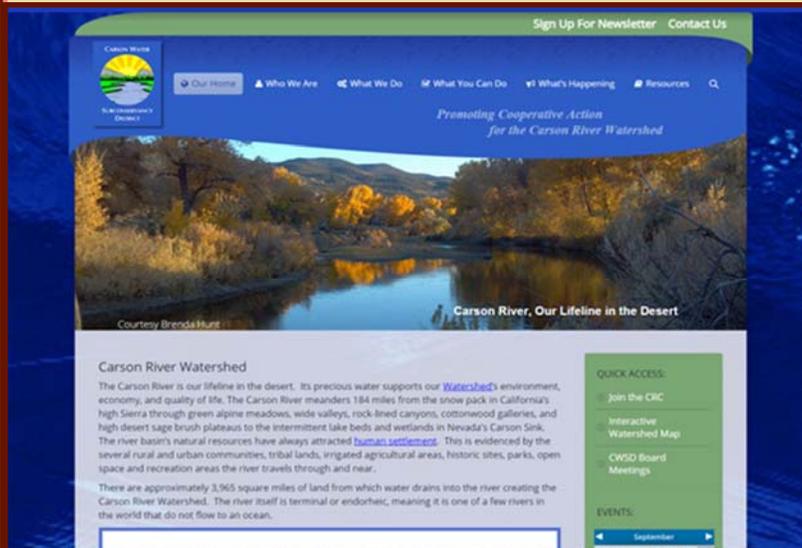
We would like to thank our local partners that helped lead Creek Day projects. Our deepest thanks to the Washoe Tribe of Nevada and California, Alpine/Upper Carson Weed Management Area, Friends of Hope Valley, California State Parks, Carson Water Subconservancy District, and the fantastic youth group with Dominic.

This event was made possible with funding and support from the Alpine County Chamber of Commerce, Douglas Disposal and Recycling, California Department of Conservation, Carson Water Subconservancy District, Sierra Nevada Conservancy, Meeks Lumber, Costco, Magic Stitches, DIY and Trader Joe's.

Alpine Watershed Group greatly appreciates all of the community support, which helped make Markleeville Creek Day 2014 one of the biggest turnouts ever! More photos of the event can be found on the [Alpine Watershed Group's Facebook page](#).

CWSD Launches New Website

By Brenda Hunt, Carson Water Subconservancy District



CWSD is excited to announce our **NEW WEBSITE!!!!** The website is user friendly (we hope you'll agree!) and models CWSD's integrated approach to watershed management. Navigation topics include *Our Home*, *Who We Are*, *What We Do*, *What You Can Do*, *What's Happening* and *Resources*.

Different user groups can quickly access specific information such as meeting agendas and notes or the Explore Your Watershed Interactive Map. The site contains useful information on CWSD and Carson River Coalition projects and

programs. We hope you'll like the great pictures, useful maps, our blog and the events calendar. The website is dynamic with staff having the ability to change most of the content. Please let us know if you have an event or blog news to share with the watershed. The site is viewable on multiple platforms and devices so check us out from anywhere!

CWSD staff thanks RDM Infinity, Inc., for working with us on the website template. I also want to thank CWSD's hardworking staff, specifically Courtney Walker, Watershed Assistant and Debbie Neddenriep, Water Resource Specialist for helping make our new website a reality! We invite you all to explore www.cwsd.org. Be sure to let us know if you see an error, have concerns, or just want to provide feedback! Contact Brenda Hunt, brenda@cwsd.org.

Our NEW Website
www.cwsd.org

Meet the New Leviathan Mine Superfund Site Project Manager

By Lynda Deschambault, Environmental Protection Agency

Lynda, Environmental Scientist with the US Environmental Protection Agency (USEPA), became the Leviathan Mine Superfund Site Project Manager in August. Lynda holds a dual degree (Chemistry/Soil Science), and an M.B.A. in Management from the University of New Hampshire and California State University, Long Beach. She has more than 17 years experience in the private environmental laboratory business where she held numerous positions of responsibility, including Quality Assurance/Quality Control and laboratory director. She then spent 4 years as a private environmental consultant before coming to work for the USEPA. At the USEPA, Lynda spent five years as an enforcement officer under the Toxic Substances Control Act, and the Toxic Release Inventory Program. She also presented numerous technical workshops to industry importers and exporters; and presented multiple community involvement workshops to schools, tribes and environmental justice communities. Lynda went on to provide nearly



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CWSD Enhances Flows in the West Fork of the Carson River

By Ed James, General Manager, CWSD

The ongoing drought has limited flows in the Carson River, impacting fish and wildlife habitat, especially by the beginning of fall. CWSD owns the water rights in the headwaters of the West Fork of the Carson River at Lost Lakes in Alpine County, California. This water is used for recreation during the summer months and augments stream flows in the fall for environmental, recreational and municipal uses.

The Carson Water Subconservancy District recently released most of the water stored at Lost Lakes to enhance flows along the West Fork of the



Debbie Neddrenriep measures the surface level of Lower Lost Lake. Photo by Courtney Walker



Upper Lost Lakes, the headwaters of the West Fork. Photo by Courtney Walker

Carson River through Hope Valley and beyond.

The release increased flows by about five to six cubic feet per second and pulsed through the system during the last week of September. There was approximately 70 acre feet of water between the upper and lower Lost Lakes. The slight increase in flows in the West Fork of the Carson River was timely, as the Alpine Aspen Festival took place September 25-28 in Alpine County's Hope Valley and Markleeville. To learn more about CWSD and the Carson River Watershed water supply, visit our new website, www.cwsd.org.

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Fallon Paiute Shoshone Tribe's New Environmental Specialist

By Caleb Kondor, Fallon Paiute Shoshone Tribe

Carmen Gonzales has handed the torch over to me to continue her work here at the Fallon Paiute Shoshone Tribe. I earned three associates degrees in Mathematics, Engineering and Chemistry from Western Nevada College. Last spring I finished my Bachelors of Science in Professional Chemistry from the University of Nevada, Reno. I also recently received my Permaculture Design Certificate from Restoration Seeds in Southern Oregon. I have spent a good portion of my life living in Carson City and I moved out to my property in the Lovelock area for a year before moving to Fallon for work. It is my personal project to green my plot of desert land. With the help of water harvesting techniques and some irrigation, I look forward to having a beautiful food forest. I have planted 200+ trees of more than 40 different species. My parents and brother live there and have stepped up to help me accomplish my vision. If you have any questions, feel free to contact me via phone (775) 423-0590 or email caleb@enviro-fpst.org.



Regional View of Water Supply

By Debbie Neddenriep, Carson Water Subconservancy District

In the Carson River Watershed, there are thirteen water purveyors that provide water to their residents and these entities work hard to keep the water flowing! CWSD coordinates with water purveyors throughout the watershed to assist their efforts to meet water demand for their users. CWSD is tasked by the Nevada Legislature to consider water supply and demand on a regional watershed basis. CWSD utilizes a 30,000 foot perspective to balance water needs that address agricultural, municipal and environmental uses. This balance is more important than ever as the drought continues and the economy picks up. CWSD communicates with our stakeholders to:

- coordinate resources to achieve common goals;
- implement a proactive approach to secure a sustainable water supply;
- identify workable solutions to any potential conflicts; and
- avoid duplication of efforts.

CWSD staff updates county and water purveyor boards about regional watershed issues on an annual basis. CWSD recently hosted meetings for water purveyors in the Middle and Upper Watershed. During the meetings various purveyors shared how current municipal water demand is being met and discussed how regional cooperation will enhance their ability to meet future water demand.

Attendees were informed about regional and local studies conducted within the watershed that address water supply, demand and quality. These two studies were discussed:

- The United States Bureau of Reclamation (USBR) is proposing to conduct a basin study for the Carson River Watershed, similar to the recently completed Truckee River basin study. USBR basin studies are comprehensive water studies that define options for meeting future water demands in river basins where imbalances in water supply and demand exist or are projected.
- The University of Nevada, Reno and Desert Research Institute are conducting a study of the Truckee and Carson Rivers. Their study uses a United States Geologic Survey model to examine surface water and ground water interactions. This model is intended to enhance resource planning and will be a useful tool for holistic, local planning and allocation of resources throughout the watershed.

These studies dovetail and a possible outcome is the identification of off-stream or underground storage sites in the Carson River Watershed. CWSD will continue to work with agricultural producers, environmental groups, and local water purveyors in its effort to ensure water reliability in the most efficient manner while balancing water needs of all users.

Carson River Watershed Purveyors

Alpine County: Markleeville Water Company

Douglas County: Gardnerville Ranchos General Improvement District, Gardnerville Water Company, Town of Minden, Indian Hills General Improvement District, Douglas County

Carson City: Carson City

Lyon County: Silver Springs Mutual Water Company, Stagecoach General Improvement District, Lyon County

Storey County: Storey County

Churchill County: City of Fallon, Churchill County



Rit Palmer and Branden Mathiesen describe Carson City's water treatment to bus tour attendees. Carson City serves the largest population in the watershed.

Waters of the US—New Proposed Rule

By Ed James, Carson Water Subconservancy District

On April 21, 2014, the U.S. Army Corps of Engineers (Corps) and the US Environmental Protection Agency (USEPA), jointly released a new proposed rule – Definition of Waters of the U.S. Under the Clean Water Act – that would amend the definition of “Waters of the U.S.” and potentially expand the range of waters that fall under federal jurisdiction. The aim of this proposed rule change is to clear up legal confusion and protect waters that are vital to the health of the river systems. According to the Corps and USEPA, the purpose of the proposed rule change is to:

- reduce confusion about Clean Water Act protection;
- clarify types of waters covered under the Clean Water Act;
- save businesses time and money; and
- provide more benefits to the public than what the rules will cost the public.

CWSD is seeking clarification on the proposed rule changes and how it will affect river project implementation. CWSD has sent a letter to the USEPA and Corps expressing concerns with the proposed rule change to the “Waters of the US” relating to agricultural ditches that return flows to the river; stormwater systems; project permitting delays; and duplication with Nevada’s jurisdiction. The USEPA and Corps are accepting comments until October 20, 2014. To read the rule change and submit formal comments, visit <http://www2.epa.gov/uswaters>. If you have questions relating to this article, please contact Ed James at edjames@cwsd.org or call (775) 887.7450.

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10 years of remedial project management oversight to the Casmalia Superfund site, located in Santa Maria, California; and the Omega Chemical Corporation Superfund Site in Whittier, California.

Lynda enjoys international travel, pollution prevention, community engagement and environmental education. As a USEPA representative with the United Nations Environmental Programme Chemical Information Exchange Network, Lynda provided intensive hands-on training to the diplomatic leaders of three African countries. She has completed the USEPA Leadership Development Program, developing Region 9’s local city governments program and drafting the first Energy and Climate Change Strategy.

In her spare time, Lynda volunteers at the local community level. She served as an elected official and the Mayor of Moraga, California from 2004-2008. Lynda enjoys taiko drumming, horseback riding, scuba diving, and long walks with her beautiful blue-eyed Siberian husky! To contact Lynda, call (415) 947.4183.



The Carson River Canyon in the Fall.
Photo by Juan Guzman



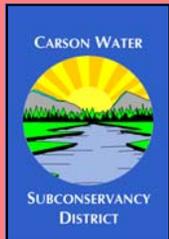
Leviathan Mine superfund site.
Photo by CWSD

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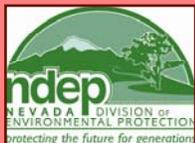
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Thanks to Staff &
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UPCOMING EVENTS

Nevada Flood Awareness Media Event
October 10, 10am, Wingfield Park, Reno, Nevada. www.NevadaFloods.org

Carson River 25th Annual Silver Celebration River Clean-up
October 11, Meet at BLM office in Carson City. Sponsored by Kiwanis Club of Carson City and Sierra Nevada Kiwanis, contact Ron Bowman, 775-885-7302

Nevada Water Resources Association Fall Symposium
October 15-16, Reno/Fernley, Nevada. <http://www.nvwra.org/2014-fall-symposium/>

Carson River Watershed Snapshot Day
October 17, 9am, Entire Carson River Watershed. http://ndep.nv.gov/bwqp/snap_carson.htm

Nevada Day Parade
November 1, Carson City, Nevada. www.nevadaday.com/

Nevada Flood Awareness Week
November 10-15, www.NevadaFloods.org



CWSD has entered the social media game and adopted the Carson River Watershed Facebook page, formerly administered by the University of Nevada Cooperative Extension.

Please like our page at <https://www.facebook.com/carsonriver/>! We post events and news, and link to other Facebook pages, so let us know if you have something you'd like us to share.

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