



Silver Saddle Ranch in Carson City

The Flow

Delivering News from the Carson River Watershed Community

Winter 2013

Northern Nevada Flood Awareness Week

By John Cobourn, University of Nevada Cooperative Extension

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The Northern Nevada Flood Awareness Week and Media Campaign is a new, multi-agency effort being planned for November 10-15, 2014. The University of Nevada Cooperative Extension (UNCE) is teaming up with the Nevada Division of Water Resources-Floodplain Management Program, the Nevada Division of Emergency Management, the US Army Corps of Engineers, and many other local and regional organizations to coordinate this educational event.

Northern Nevada is located in the Great Basin Desert; therefore, some residents who have not lived here long don't realize how often the region receives devastating floods. The Carson, Truckee, and Walker Rivers actually flood approximately every 10 to 15 years, usually in the winter.



Rain swollen Carson River surrounds homes in Gardnerville during the 1997 flood. Photo courtesy of Marilyn Newton

Since the last large flood occurred on January 1, 1997, many people have developed "flood amnesia" and are unprepared for the next flood in our region.

The long term goal of the project is to encourage Nevada residents to make their homes and communities flood resilient. People can better prepare for flooding if they understand how their watershed works. Are they more vulnerable to floods on low-lying floodplains near major creeks and rivers, or from flash floods that rush from mountain canyons onto alluvial fans? Is their home in a designated FEMA 100 year floodplain? If so, their property has a 1% chance of sustaining flood damage each year. Key objectives of Flood Awareness Week are to make sure residents know their vulnerability to flood hazards and that they prepare for and reduce their risk from flooding.

Much of the impetus for this program came from the Carson River Coalition (CRC), the Carson River Watershed citizens group supported by the Carson Water Subconservancy District (CWSD) and the Nevada Division of Environmental

(Continued on page 3)

Lost Lakes Dilemma

By Karen Dustman, Alpine County Resident



Lost Lakes provides critical upstream storage at the top of the Carson River's West Fork.

When the Carson Water Subconservancy District (CWSD) purchased the Lost Lakes water rights in 2001, they hoped to remain good stewards of its 219-acre-feet for decades to come. But that was before California quadrupled its dam safety inspection fees.

Ed James, CWSD General Manager, shared that bad news at a Markleeville community meeting in Alpine County on September 25, 2013. Over a four-year period, California's mandatory dam inspection fees have jumped from \$1,192 to over \$5,000 for the pair of small dams at Lost Lakes.

CWSD uses Lost Lakes to benefit the Carson River Watershed. They keep the water in the lakes for recreational purposes during the summer and release it

from the dams in late fall each year, helping to maintain flow in the West Fork of the Carson River when natural runoff is at its lowest. This benefits not only fish and wildlife, but fishermen and recreational users of the river as well.

The annual Lost Lakes water release is "essential to the West Fork of the Carson River," said Judy Wickwire, a member of Friends of Hope Valley and Alpine Watershed Group. "Without it, we'll be in a lot of trouble here in Alpine County, both economically and environmentally."

But at present, California does not offer a reduced fee for environmental dam operators. "Unfortunately, we don't qualify for the farming and small business entity exemptions," observed James. "These state inspection fees help fund lots of programs, but they're programs that we don't use."

So, how can CWSD cope? Options presented at the recent community meeting included transferring all or a portion of the Lost Lakes water rights to downstream operators or selling the water rights to another agency like California Fish & Wildlife. While such transfers would save costs for CWSD, they would also halt the current benefit to the waters of the West Fork.

For community members at September's meeting, however, it was the possibility of a legislative solution that sounded most promising. If the California legislature could be persuaded to lower inspection fees for dams which provide environmental benefits, CWSD could continue to fund the Lost Lakes dam operation and its fall addition to the West Fork waters of the Carson. Both the CWSD Board and the Alpine County Board of Supervisors may be asked to weigh in soon. After that, the rest of the story would be up to California lawmakers.

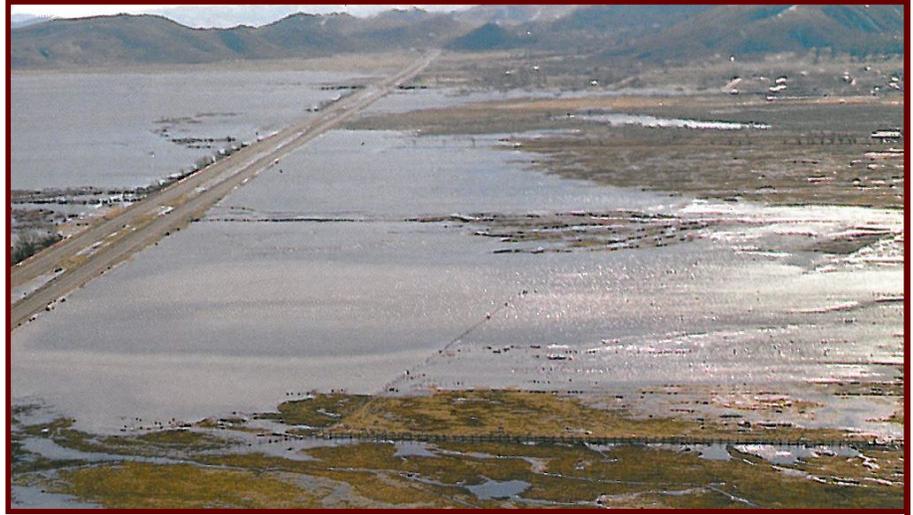
Will Lost Lakes' water keep flowing, or will rising fees be too much to swallow? Stay tuned.

This article was published in the Record Courier on October 11, 2013.

(Continued from page 1)

Protection. CRC Members worked with CWSD staff to write the *Carson River Watershed Regional Floodplain Management Plan* (Plan) in 2008. This Plan recommends nonstructural floodplain management, as opposed to costly and less effective structural methods such as flood levees. Nonstructural methods include improved floodplain mapping, education, and protection of open space in floodplains. The Plan specifically recommends flood hazard outreach and education, including the annual Flood Awareness Week. The Army Corps grant will allow increased public outreach education in all watersheds in Northern Nevada.

Flood Awareness Week is a way to remind the general public that we need to take action, before a flood occurs, to keep our homes, family, livestock, and pets safe. We need to have emergency supplies in our homes and a family disaster plan that includes communication options, evacuation routes, and meeting locations. Project organizers are reaching out to all Northern Nevada county and city Floodplain Managers to help plan fun, educational events in their communities. With funding from the Nevada Floodplain



Most of the Carson Valley is flooded January 1997. Photo courtesy of Marilyn Newton

Management Program and the Nevada Division of Emergency Management we will develop informational ads for TV, radio, and billboards to raise awareness prior to and during the week of the events.

University of Nevada Cooperative Extension will develop publications and PowerPoint presentation templates that can be used in community and club events. That way trusted local experts can make presentations to their communities across Northern Nevada. The US Army Corps of Engineers, Sacramento District, will purchase a table-top floodplain model that shows family members how effective floodplain management can reduce flood hazards for watershed communities. We hope to create an interesting and informative “film festival” about flooding that can be shown at public events and activities.

One of the most important goals for these educational events is to describe the value of the National Flood Insurance Program (NFIP). This program provides federally subsidized flood insurance to home and business owners at rates much lower than non-NFIP commercial rates. The Community Rating System (CRS) of the NFIP awards points to communities that increase their flood preparedness, and residents there will pay even lower premiums as their jurisdiction earns more points.

Most importantly, the University of Nevada Cooperative Extension and the State Floodplain Management Program seek interested citizens, teachers, public officials, and agency staff to help organize events in towns in each county in Northern Nevada. By joining our Flood Awareness Advisory Committee you will start the process for a successful program in Fall 2014. For more details, please call John Cobourn at 775 336-0244 or cobournj@unce.unr.edu.

Middle Carson River Projects

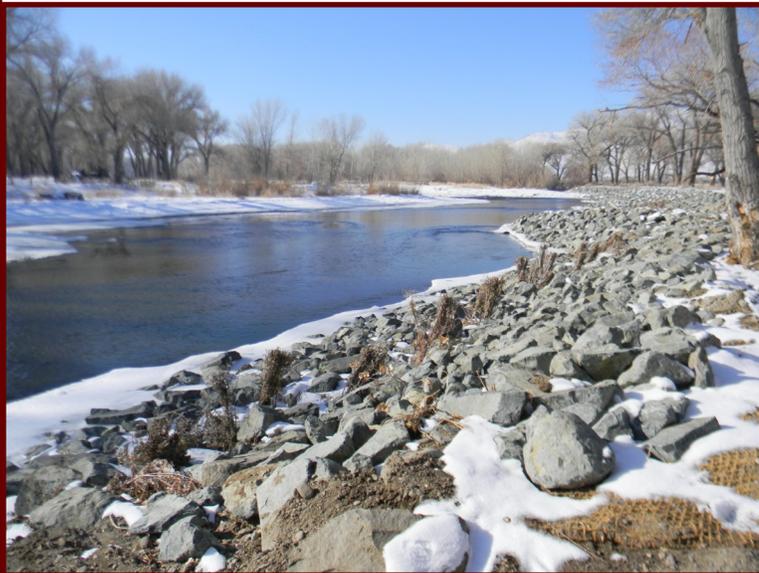
By Rich Wilkinson, Dayton Valley Conservation District

The Dayton Valley Conservation District (DVCD) is working on three river bank stabilization and revegetation projects on the Middle Carson River. The focus of these projects is to stabilize failing or eroding riverbanks, establish native vegetation, minimize sediment transport, and improve water quality. The stream banks are being protected by rock and bio-engineering treatments, such as rock rip-rap, willow bundles, willow poles, willow mattresses, erosion matting, and juniper tree revetments. These three projects encompass 1800 linear feet of riverbank and will cost approximately \$400,000 to complete.



Stream bank erosion on the Middle Carson River in Dayton, due to cottonwood trees falling over into the river.

Project construction began in October 2013 and is approximately 95% complete. DVCD will be re-seeding approximately three acres of disturbed areas with native and desirable vegetation in an effort to re-establish wildlife habitat. DVCD will also be harvesting and planting close to 60,000 willows on the project and up to 300 juniper stems to complete the bio-engineering work.



The stabilized stream bank after restoration work was completed on the Middle Carson River in Dayton.

Along with DVCD staff, Rapid Construction LLC is the general contractor. Permitting agencies include the United States Army Corps of Engineers, Nevada Division of State Lands, Nevada Division of Environmental Protection, and the State Historic Protection and Preservation Society.

DVCD anticipates completing the project by the end of January 2014 with annual monitoring. Special thanks to our funding partners Nevada Division of Environmental Protection 319 (H) program, Carson Truckee Water Conservancy District, Lyon County, Carson Water Subconservancy District, and the Nevada Conservation District Program.

New Signage for Clear Creek

By Courtney Walker, Carson Water Subconservancy District

At the end of 2013, four new signs will be installed near Baily Fishing Pond and Fuji Park near Clear Creek and the Carson City Fairgrounds. Special thanks to the generous anonymous donor who made these signs possible. Partners include Carson City Parks Department, Clear Creek Watershed Council, Nevada Division of Environmental Protection, and Carson Water Subconservancy District. Next time you're at Fuji Park and Baily Fishing Pond check them out!

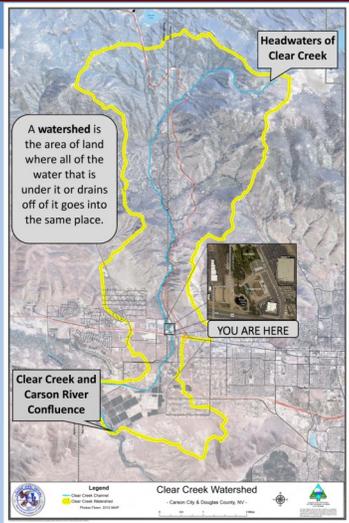
You are in the Clear Creek Watershed!

The Clear Creek Watershed is an area of about 13.5 square miles located east of Lake Tahoe and south of Carson City. It begins in the Carson Range near Spooner Summit at 8,780 feet elevation and flows along Highway 50, through the Carson City Fairgrounds and Fuji Park, and into the Carson River at 4,639 feet elevation. Clear Creek is a tributary to the Carson River and flows year round.

- Clear Creek Watershed is culturally significant to the Washoe Tribe of California and Nevada.
- Clear Creek flows through Carson City and Douglas County.
- Nearly half of the land in the watershed is owned by the US Forest Service.



Clear Creek flowing through the Carson City Fairgrounds and Fuji Park in 2008



A watershed is the area of land where all of the water that is under it or drains off of it goes into the same place.

This sign (left) will be duplicated and installed on both sides of Fuji Park. It contains information about the Clear Creek watershed and has a map of the watershed boundaries with Fuji Park, Baily Fishing Pond, and the Carson City Fairgrounds in relation to the entire watershed.

This sign (right) describes Baily Fishing Pond and how it was constructed. It displays before and after photos and site specific stormwater management information. You will find this sign next to Baily Fishing Pond.



A go-cart race track existed prior to pond construction at the Carson City Fairgrounds.



Baily Fishing Pond on opening day in 2010

Baily Fishing Pond

The Baily Fishing Pond was constructed in 2010. This urban fishing pond provides easy access for young, old, and the physically challenged who enjoy fishing and provides many amenities including parking, restrooms, and picnic shelters.



The fishing pond is fed by groundwater and by diverting a portion of Clear Creek. The pond is 15 feet deep in the center. The Nevada Department of Wildlife (NDOW) stocks the pond on a regular basis with Rainbow Trout and Brown Trout.

Stormwater Management

The urban fishing pond incorporates stormwater Best Management Practices (BMPs) to protect Clear Creek from polluted runoff.

- Parking areas are graded to guide runoff into an open basin. Once there, the sediment is captured and the water soaks into the ground.
- Overflow water from the basin filters through a constructed wetland before entering Clear Creek.

This basin and wetland system protects water quality in Clear Creek.



The wetland provides an overflow area for Baily Fishing Pond which filters the water before entering Clear Creek.

Best Management Practices (BMPs) for Stormwater Runoff



Erosion from stormwater runoff



By stabilizing the area with vegetation, this BMP prevents erosion

What is stormwater runoff?

In an undisturbed, natural watershed the majority of rain or snow-melt is absorbed and filtered through ground cover into the soil. When a watershed is disturbed or development occurs with the construction of roads, parking lots, and homes, much less stormwater is absorbed into the ground. As a result, rain runs off their impervious surfaces, becoming stormwater runoff.

How does stormwater runoff become polluted?

Pollutants, such as fine dirt particles (sediment), grease, oil and heavy metals (lead, zinc) from vehicles, accumulate on hard or impervious surfaces, such as roads, parking lots, and rooftops. When a storm occurs the stormwater runoff washes over these surfaces, picking up accumulated pollutants, carrying them to the nearest storm drain, pipe, or ditch and eventually flowing to Clear Creek and the Carson River.

What is being done to prevent stormwater runoff and protect water quality in Clear Creek?



Carson City installed curb cuts in the parking lot so runoff flows into the landscape beds and soaks into the ground.



Stormwater runoff from the surrounding parking lots and streets is captured in this detention basin.



This sign (left) explains how stormwater runoff is filtered from surrounding parking lots to protect water quality in Clear Creek. This sign will be installed near Baily Fishing Pond.

Mayweed Chamomile Update

By Brenda Hunt

The Summer 2013 issue of *The Flow* contained an article on proposed regulation changes relating to Mayweed Chamomile, (*Anthemis cotula*) a Nevada listed noxious weed. On December 11, 2013, the Nevada Department of Agriculture (NDA) held a public hearing to solicit public comments on proposed regulation changes to NAC 587.173 which governs Nevada's noxious weed seed list. The proposed change would **except** Mayweed Chamomile seed, from Nevada's weed **seed** list, while keeping it on the Nevada's noxious weed list. On December 20, 2013, NDA Director Barbee announced, "After careful consideration of all sides, we have decided to not act on this regulation, which would have removed Mayweed chamomile from Nevada's prohibited seed list. The plant spreads quickly and may be damaging to humans and livestock. We are aware of the impact our decisions have on interstate commerce – however, we believe this is the most appropriate course of action at this time. Noxious and invasive plants in Nevada have severe negative impacts on our agriculture industry, wildlife, natural resources and recreational opportunities." CWSD is pleased with this outcome and thanks everyone who attended the hearing! Your input was critical! See the NDA website for the entire press release:

http://agri.nv.gov/News/2013/Nevada_Dept_of_Agriculture_takes_no_action_on_Mayweed_chamomile_regulation_change/

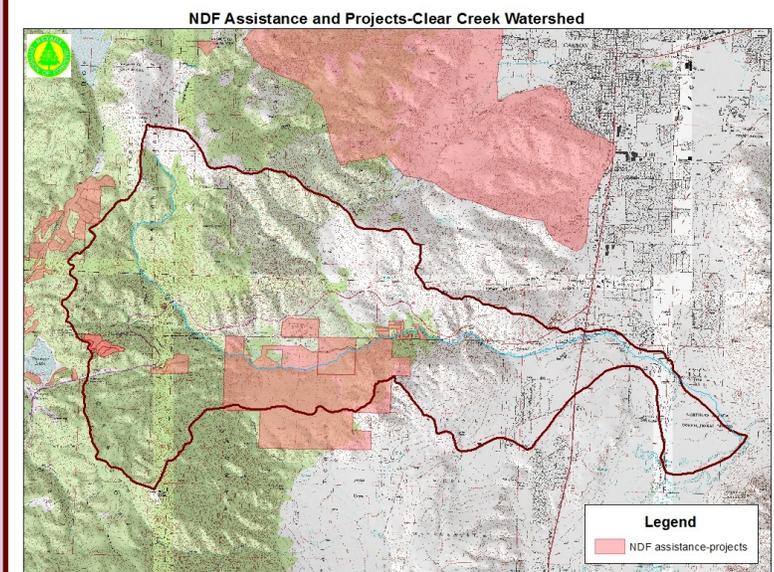
State Forest Management in the Clear Creek Watershed

By John Watermolen, Nevada Division of Forestry

The Nevada Division of Forestry (NDF) actively manages the forest in the Clear Creek watershed. NDF is currently working on a section of Lake Tahoe State Park land in the upper watershed near Kings Canyon Road. The project entails thinning the stand to improve tree spacing, adjusting the mix of tree species, and reducing understory fuel in an effort to create a healthier and more fire tolerant forest.

NDF has also improved the forest stand conditions on the State-owned Clear Creek Conservation Camp and, where possible, coordinated efforts with the federal land managers in the watershed on adjacent projects.

In the early 2000's, NDF began helping landowners develop stewardship plans to address forest health and wild land fire hazard issues on their properties. NDF recently began working with the Clear Creek Tahoe Golf Course to develop a Forest Stewardship Plan for their property. The plan will document the landowner's objectives, provide an inventory of natural resource assets and conditions, and outline management strategies to reach the landowner's goals. Likely issues to be addressed are forest health, wildlife habitat, and wildfire hazard. Landowners interested in developing or revising a Forest Stewardship Plan are encouraged to contact John Watermolen, Forest Stewardship Program Manager with NDF, at (775) 684-2530.



The maroon boundary delineates the Clear Creek watershed boundary.
The pink areas represent NDF project areas.

Dayton Student Wins 2nd Place in Nevada Poster Contest

By Courtney Walker, Carson Water Subconservancy District

Each year the National Association of Conservation Districts organizes the National Conservation Poster Contest. The posters are grouped by grades and judged by a sponsoring Conservation District. The top three posters compete at the Nevada Association of Conservation Districts' meeting in the fall. Any first place winners at the state level are sent to the national contest in Washington, D.C.

Peter Miklich, 12, a sixth grader from Sutro Elementary School, and his class were assigned homework to create a poster to be entered into the contest, sponsored by Dayton Valley Conservation District. This year's theme was "Where Does Your Water Shed?" Peter's teacher, Ms. Leifer, taught the class what a watershed is and why water conservation is important in our arid climate in Nevada.

Peter's poster was chosen to compete at the state level, and received 2nd place in the 4th-6th grade category. Peter received a gift of \$30, donated by Newmont Mining, and a ribbon and certificate of achievement. Peter stated he is lucky to live in the beautiful Carson River Watershed. We think so too!



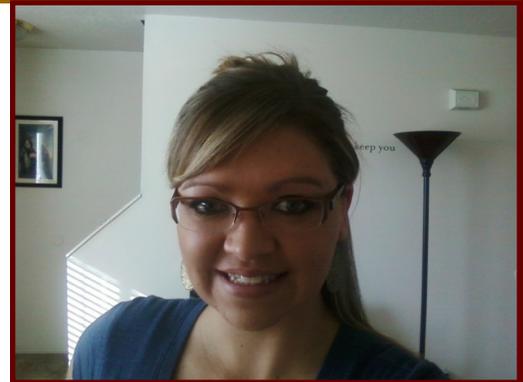
Peter Miklich and Ms. Leifer from Sutro Elementary School with Peter's 2nd place poster.

Lahontan and Stillwater Conservation District's New Employee!

By Courtney Walker, Carson Water Subconservancy District

CWSD would like to welcome the new Lahontan and Stillwater Conservation District's Conservation Specialist, Jackie Bogdanowicz, to the Carson River Watershed! Jackie grew up in Fallon and is a 100% Nevada girl that loves livestock and the country. As a kid Jackie was active in both 4-H and FFA and showed hogs, sheep, and steers. She was in her first rodeo when she was three years old and continued to rodeo until she graduated high school.

Jackie attended Brigham Young University – Idaho and received a Bachelors in Animal Science in 2006. She worked in Ogden, Utah for Cargill Animal Nutrition as a Territory Manager and Livestock Nutrition Consultant for six years. Jackie recently moved back to Fallon to be closer to her family and started working for the Lahontan and Stillwater Conservation Districts five months ago. She enjoys working with producers and landowners in the Lahontan Valley and helping them solve problems while conserving resources. Jackie loves teaching students about the Carson River Watershed and our natural resources on field days with local schools. She also coordinates bank stabilization and revegetation projects along the Lower Carson River with other local partners. She looks forward to getting to know and working with everyone along our watershed. Next time you're in Fallon stop by and say hi to Jackie!



FOR INFORMATION ON REGULARLY SCHEDULED MEETINGS VISIT

www.cwsd.org

Editor:
Brenda Hunt

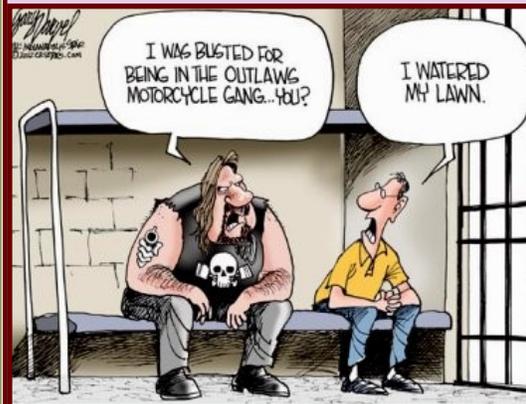
Thanks to Staff & Contributors!

John Cobourn
Karen Dustman
Rich Wilkinson
Courtney Walker
Brenda Hunt
John Watermolen

The 2014 Water Year is not starting out well and experts are not optimistic that it will improve much over the next five months.

The prediction from the National Oceanic and Atmospheric Administration (NOAA) is for the third year in a row is that the Carson River runoff will likely be below average.

There is a possibility that the water picture can improve, as January is typically our wettest month, so do your snow dance!



UPCOMING EVENTS

Nevada Water Resources Association 2014 Annual Conference:

February 3-6, 2014, Las Vegas, NV.

Registration now open and calling for abstracts. <http://www.nvwra.org/event-information/>

Eagles and Agriculture: February 21-23, 2014, Carson Valley, NV.

Registration open soon. www.carsonvalleynv.org

Carson River Coalition Meeting

March, 2014, (Exact date to be determined) Carson City, NV. www.cwsd.org

World Water Day

March 22, 2014, Worldwide

www.waterday.org

Water Education Workshop

April 16, 23, 30 & May 7, Genoa, NV.

Learn how to address Next Generation Science Standards in the classroom.

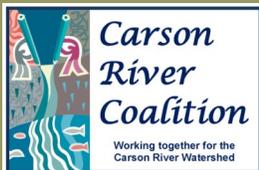
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CARSON WATER SUBCONSERVANCY DISTRICT

777 E. William St., #110A

Carson City, NV 89701

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