

Watershed Connections

Delivering News to the Carson River Watershed Community

Carson River, photo by Justin Bedocs.

State Revolving Fund Awards \$1.4 Million to Churchill County for Groundwater Improvements

By Samantha Thompson, NDCNR

Did you know that Nevada is the driest state in the nation, with less than 11 inches of precipitation per year? As such, groundwater resources are crucial to Nevada’s natural environment, economy, and quality of life.

During March 2019, in recognition of National Groundwater Awareness Week, the Nevada Division of Environmental Protection (NDEP) awarded Churchill County \$1,405,075 through NDEP’s State Revolving Fund program. These funds will be used to complete two significant groundwater improvement projects for the benefit of the local community. NDEP supports local source water protection plans, empowering Nevada communities to pursue projects that protect groundwater resources.

Project No. 1: Septic-to-sewer consolidation for Churchill Community Golf Course: \$330,075 in principal forgiveness funding.

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Churchill Community Golf Course

Currently, the commercial septic system’s leach field is failing at the county-owned golf course. Poor soils and high groundwater levels typically 10-20 feet below ground surface create many problems for septic systems. The clubhouse, which includes a restaurant, is used by golfers and the general public. Large community events, such as class graduations and weddings are often held in this space.

This septic system is within the County’s source water protection/wellhead protection area for its only municipal well. The County pumps the

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Groundwater Improvements Continued

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septic tank monthly, and during large events or high usage, the County must pump the septic tank multiple times to prevent a spill. Any spill poses a risk to public health and may violate the County's operating permit, possibly leading to penalties issued by NDEP. This continuous need to pump the tank, along with the history of other system issues, has added significant maintenance costs for the County.

Most of the existing homes surrounding the golf course are served by private septic tanks and individual domestic wells. By removing this large commercial septic system and hooking the facility to the sanitary sewer system, the County will benefit from significant water quality improvements for both the municipal well and private wells in the surrounding community.

Project No. 2: Septic-to-Sewer consolidation of 25 residential homes on Lattin Road in Churchill County: \$1,075,000 in principal forgiveness funding.

Churchill County has ordinances to limit proliferation of high density septic tanks, including a program to connect sewer and water users in large areas. The shallow aquifer is directly influenced by recharge and has the greatest risk of pollution from facilities or activities at the land surface. Converting septic systems to sanitary sewer and educating residents on proper maintenance of existing septic systems is a part of the community's long-term plan to protect its groundwater resources.

In 2017, a project was completed in the Pine Grove subdivision that eliminated the Dallas lift station and force main, and extended a new gravity main (no additional power) to allow the consolidation of 22 homes on Dallas Drive and Lattin Road. Through NDEP's SRF funding, the second phase of the project will extend the sewer main to connect 25 more homes.

This subdivision is within the county's municipal wellhead protection area and is located approximately 750 feet from the county's only municipal well. High groundwater levels are influenced by major irrigation canals and the Carson River. The area has faced numerous septic tank problems, so having the ability to connect to a municipal system and forego aging septic systems will help protect groundwater resources for many years.

Visit www.ndep.nv.gov to learn more about the Nevada Division of Environmental Protection.

"We are grateful to the Nevada Division of Environmental Protection's State Revolving Fund for providing Churchill County an opportunity to do these projects," said Marie Henson, Churchill County Building Inspector. "It is important that we protect our groundwater resources for Churchill County residents by removing old septic systems and consolidating them with the existing county sewer system. As a county water system, we are always looking for ways to protect the groundwater while providing services to our residents."



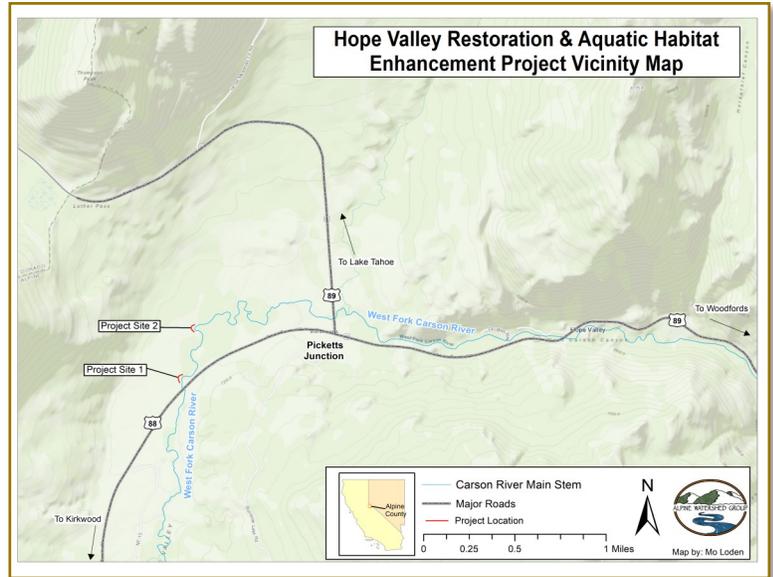
NEVADA DIVISION OF
**ENVIRONMENTAL
PROTECTION**

Hope Valley Restoration and Aquatic Habitat Enhancement Project

By Mo Loden, AWG Watershed Coordinator

Restoration work in Hope Valley continues to be a priority for Alpine Watershed Group (AWG) with the development of the Hope Valley Restoration and Aquatic Habitat Enhancement Project. The proposed project areas in lower Hope Valley will be contiguous with the 2015 restoration project and support the 2016 restoration project conducted by American Rivers, a national nonprofit organization with a California Headwaters program. AWG's upcoming Hope Valley restoration project consists of two West Fork Carson River meander bends on California Department of Fish and Wildlife land.

Project Site 1 is the first meander approximately 300 feet downstream of the Highway 88 bridge crossing over the West Fork Carson River in Hope Valley.



Project Site 1: Restoration to mimic abandoned oxbows

Currently AWG is preparing project permit applications. Design plans will be finalized after receiving permitting agency feedback, and we hope to construct the project in summer 2020. If you would like to learn more, please join us for a site visit to discuss and visualize the project plans on Tuesday, July 9, 5:30-7 p.m. Bring water and dress accordingly to walk in Hope Valley meadow, where we may encounter standing water, tall grasses, and fluctuating temperatures. For more information, contact Mo Loden at awg.mo.loden@gmail.com or (530) 694-2327.

Restoration techniques will mimic an abandoned oxbow feature by creating a trench behind the failing bank and filling it with live sod blocks, willow stakes, and live shrubs. In the interim the vegetation will serve as good habitat for birds and amphibians, and eventually it will provide vital fish habitat when the erosion pushes back that far.

Project Site 2 is approximately 0.5 miles further downstream at the log crib/2015 American Rivers restoration site. At Project Site 2, updates are needed to divert stream energy from scouring behind the 2015 American Rivers project, a log crib structure. A basic approach of installing slash (conifer and willow cuttings) at the ends of this reach will add the stability needed.



Project Site 2: Stream Energy Diversion Needed

Carson River AmeriCorps Float a Success!

By Justin Bedocs

On May 31st, great weather and river conditions welcomed 18 AmeriCorps members and 11 [Carson River Coalition](#) (CRC) partners to raft the Carson Canyon white-water reach of the Carson River. Dubbed the “AmeriFloat,” the event trained and educated the Truckee Meadows Parks Foundation (TMPF) AmeriCorps members about river rafting and the Carson River Watershed, while treating them to a wild and memorable ride!

The day began with CWSD providing a trip expectation and boating safety briefing including an explanation about the CRC and partner involvement in watershed management. After shuttling cars to the take out at Santa Maria River Park, the group put in at Carson City’s Morgan Mill Road River Access Area. This reach of the Carson River runs through Carson Canyon. Here, steep canyon walls close in on the river, creating many fun rapids to traverse. Discussions were held on boats during the calmer sections of the river describing the history of mills and mining in the area, historic features and local wildlife and plants. I saw smiles, heard laughter and noticed the comradery that comes from a successful and memorable shared experience.



*The Carson River - Carson Canyon
Photo By Patricia Tierney*

A culmination of weeks of planning and coordination, this event was largely created to celebrate AmeriCorps members’ hard work and dedication to their communities during their year of service. Planned in the spirit of the CRC, the event underscored the CRC’s essence of watershed stakeholders coming together to protect and appreciate our river. As such, a diverse group of professionals attended who represent organizations from the Carson River and Truckee River Watersheds. These included [Alpine Watershed Group](#), [Carson City Parks Recreation and Open Space](#), [CWSD](#), [Desert Research Institute](#), [Great Basin Outdoor School](#), [Greenhouse Project](#), [Keep Truckee Meadows Beautiful](#), [Nevada Department of Environmental Protection](#), [RCI](#), [The Nature Conservancy](#), [River Wranglers](#) and [Truckee Meadows Parks Foundation](#).



*Ed James, CWSD, describing historic mill sites to rafting participants.
Photo by Patricia Tierney*

The day would not have been possible without many volunteer efforts! [Lahontan State Recreation Area](#) donated oars and life vests. Thank you to Lynn Zonge, Stefanie Viselli, Dan Earp, Ed James and Mo Loden. As boat captains, they donated their time, their boats and their expertise to make this trip special. Our heartfelt thank you for a great day on the river!

It was fitting that this was my last day as an AmeriCorps member at CWSD. I have grown very passionate about working in the Carson River Watershed and it was nice to see that same love of nature and conservation reflected in everyone who was a part of this rafting trip.

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Carson River AmeriCorps Float Continued

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It always amazes me how CWSD staff pull together as a team for events. Thank you CWSD staff: Shane Fryer, Brenda Hunt, Ed James, Debbie Neddenriep and Catrina Schambra for helping make this event successful!

This trip is just one example of the great things that are possible during an AmeriCorps experience. If you are interested in charting your own AmeriCorps adventure, please visit <https://www.tmparksfoundation.org/> to learn more.



The Float Crew! Photo By Shane Fryer

Newlands Project Water Rights Workshops

By Nevada Division of Water Resources, NDCNR

The Nevada Department of Conservation and Natural Resources' Division of Water Resources has completed revisions to Phases 1 through 5 of the Newlands Project Water Rights Mapping Project.

Workshops are scheduled to assist water rights owners to review the mapping of their water rights for correctness. If owners feel their water rights are incorrectly represented, a Request for Revision form and supporting documentation may be submitted to NDWR no later than September 30, 2019.

Newlands Project Water Rights Mapping results and forms to request a revision are available for review at <http://water.nv.gov>, located under the Programs listings.

Revised Phases 1-5 Workshop Location and Dates:

Fernley City Hall, Community Room 595
Silver Lace Blvd. Fernley, Nevada 89408
August 26 – 1:00 pm – 7:00 pm
August 27 – 1:00 pm – 7:00 pm
August 28 – 9:00 am – 3:00 pm
August 29 – 9:00 am – 3:00 pm

Churchill County Commission Room136
155 N. Taylor Street, Suite 110
Fallon, Nevada 89406
September 9 – 1:00 pm – 7:00 pm
September 10 – 1:00 pm – 7:00 pm
September 11 – 9:00 am – 3:00 pm
September 12 – 9:00 am – 3:00 pm

For additional Newlands Project Water Rights Mapping Project assistance, water rights owners may call NDWR at 775-684-2800 and ask for Newlands Mapping Project assistance.

2019 Peak Runoff Contest!

By Shane Fryer

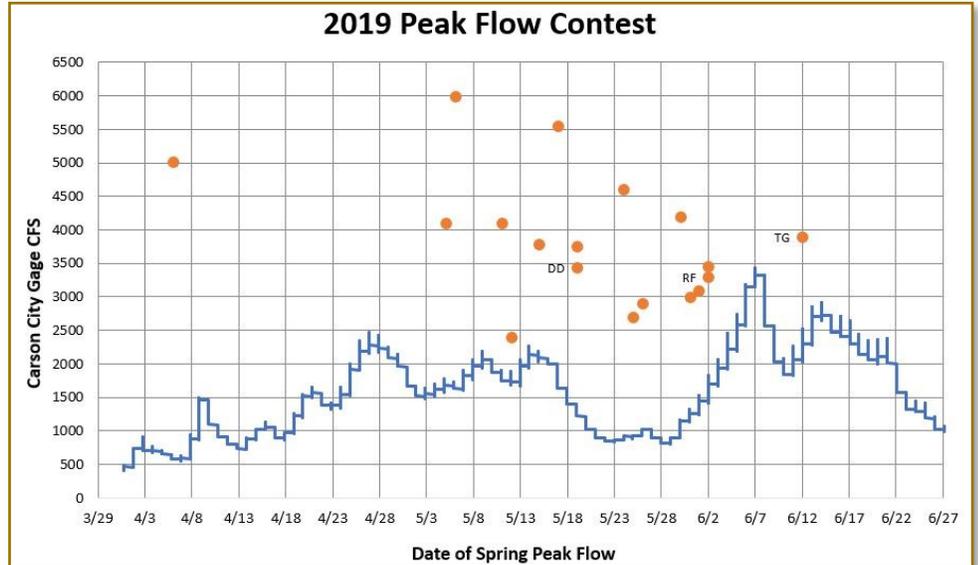
Thanks to everyone who participated in this year's 2019 Peak Runoff Prediction Contest! In total we had 18 participants who dove into the data, scrutinized the forecasts and shook their magic 8-balls. So, what did this season look like? The average daily flow on the Carson peaked on June 7 at 6:25pm. The average daily flow on the 7th was 3290 cubic feet per second (cfs), and the highest flow recorded was 3410 cfs. So, the winners are:

Thomas Gray: Predicted June 12th, 5 days late, but 6 hours and 25mins closer than anyone else.

Robb Fellows: Predicted 3300cfs, just 10cfs off the average daily flow!!

Dan Dyer: Predicted 3427cfs, just 17cfs off the highest flow recorded!

Congratulations to the great oracles of 2019!



Predictions vs. Actual

CWSD Awarded Bureau of Reclamation Grant

By Debbie Neddenriep

CWSD has been awarded a \$100,000 grant by the US Bureau of Reclamation to examine and develop a Water Marketing Strategy to enhance water reliability in the Carson River Watershed. Our watershed's surface and ground waters are fully allocated. There is limited upstream storage; therefore, maintaining a consistent water supply which meets all the demands of diverse users is challenging. Exacerbating this challenge is earlier spring runoff projected to continue by [USGS scientific studies](#).



Lahonton Reservoir Photo By Debbie Neddenriep

With this grant, CWSD will examine alternatives to enhance water reliability for the entire watershed. By developing a water marketing plan for the Carson River Watershed, Carson Water Subconservancy District (CWSD) will address the instability of the water supply; consider legal and physical constraints; and identify and rank possible storage locations in the watershed.

The project will develop a strategy to reduce potential conflict between different types of users: agricultural, municipal, industrial, and environmental users; as well as conflict reduction between upstream and downstream users. The project will kick off July 2019 with CWSD seeking guidance and input from water purveyors, the state engineer, the federal water master, water rights owners, and other interested stakeholders.

Welcome to the Watershed Loren and Cat!

Hello all! My name is Loren Secor and I am CWSD's new Watershed Tech through AmeriCorps. In this position, I will primarily be responsible for watershed outreach and education while additionally providing support for planning and coordination.

I am originally from South Dakota but spent most of my childhood in north Georgia where I developed a passion for water and the outdoors. I have continued that interest through my college education and recently graduated from the University of Nevada, Reno with a B.S. in Ecohydrology.

During my junior year, I became involved in UNR's Aquatic Ecosystems Analysis Laboratory where I participated in a variety of studies including mountain lake monitoring in northern California, invasive species work at Lake Tahoe, and researching ecosystem metabolism on the Carson River.

These experiences further honed my interests in freshwater ecology, water resource management, and human-environment interactions. I am greatly looking forward to working with CWSD and applying my enthusiasm for science into watershed education efforts and restoration.



Loren Secor



Catrina Schambra with Lynn Zonge rafting the Carson River

Catrina Schambra joined CWSD as our new Administrative Assistant in January. After a career with the American Federation of Teachers in Southern California, Catrina was looking for a new adventure.

She sure found it with us! As of this writing, she has already floated the Carson River five times and two of those were through Trainwreck, a Class III rapid!

She moved to the area to be closer to her family and has settled into her new home, right in the heart of the watershed. Catrina is totally taken with the charm and adventure of living here.

She is excited to be part of our team and we're lucky to have her! You can reach her at catrina@cwsd.org.



★ The AMERICORNER ★



CWSD AmeriCorps Member Bids Farewell
By Justin Bedocs

A year ago I moved to beautiful Carson City from Ohio, eager to take on the role of Watershed Technician at the Carson Water Subconservancy District. In that time, I've had the pleasure of serving with other AmeriCorps members as well as many Carson River Coalition partners from River Wranglers, Alpine Watershed Group and NDEP to name a few. I am very grateful to everyone who put the time and effort into training me and providing new learning opportunities to diversify my skill-set. This rich AmeriCorps experience has propelled me into a new position. I am pleased to announce that I will be staying in the Carson River Watershed working in the Nevada Division of Water Resources! I have really grown to cherish the area and the great working relationships developed over the past year.

What really struck me about this region, coming from Ohio, is how little water there is, but its not all humid and yucky like Ohio. (Oh, and no mosquitos!) Because of this, there is much greater concern and stewardship of natural resources. But even more impressive, is how much passion the people here have in working together and building a community to preserve these resources and watershed that we share and admire. I will forever carry on this spirit of conservation and collaboration in my heart. It was a pleasure working with you all and I look forward to seeing you around!



Justin kayaking the Carson River, literally sailing off into the sunset.



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CWSD works within existing governmental frameworks to promote cooperative action for the watershed that crosses both agency and political boundaries.

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 Shane Fryer
 Loren Secor

Thanks to Contributors!
 Justin Bedocs
 Shane Fryer
 Mo Loden
 Debbie Neddenriep
 NDWR
 Catrina Schambra
 Loren Secor
 Samantha Thompson

Follow us!



UPCOMING EVENTS

- Alpine Watershed Group Events - Volunteers Needed!**
July 8: [Weed-whacking day at Grover Hot Springs 8-noon](#)
September 21: [Markleeville Creek Day](#)
October 19: [Revegetation Workday 9am-12:30pm](#)
 Contact [Mo Loden](#) to sign-up

- The Nature Conservancy Events at River Fork Ranch:**
 Outdoor Painting Workshops
August 10: 9am-12pm, **September 14:** 10am-1pm
 Monarch Butterfly Workshop
August 21: 1pm-4:30pm
 Contact [Lori Leonard](#) to sign up

[Nevada State Park Events](#)

[Carson City Parks Rec and Open Space Events](#)

Carson River Coalition 1/2 Day Symposium-October, 2019