

Winter 2021-2022

Watershed Connections

Delivering News to the Carson River Watershed Community

Spring Forum
Information Inside



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

Where to Find Upcoming Events

Nevada State Parks

[State Parks \(nv.gov\)](https://stateparks.nv.gov/)

Carson City Open Space

[Parks, Recreation, and Open Space | Carson City](#)

Churchill County Museum

[Events – Churchill County Museum \(ccmuseum.org\)](https://ccmuseum.org/)

Alpine Watershed Group

[Programs | awg-website \(alpinewatershedgroup.org\)](https://alpinewatershedgroup.org/)

Eagles and Ag 2022 registration

[Eagles & AG - Carson Valley Chamber of Commerce \(carsonvalleynev.org\)](https://carsonvalleynev.org/)

Carson River Mercury Superfund Site Public Comments Due Feb 15, 2022

[Go to USEPA Carson River Mercury Site Website to learn more](#)



Ranch One Cattle at
River Fork Ranch

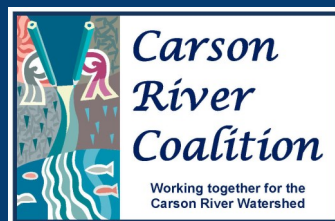


Ernie and Carmen
Schank on Minor Ranch
Board Field Trip



Snowy view from V & T Trail

This newsletter has been developed in part with Clean Water Act 319(h) funds from the Nevada Division of Environmental Protection.



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Brenda Hunt

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Kaylee Maples

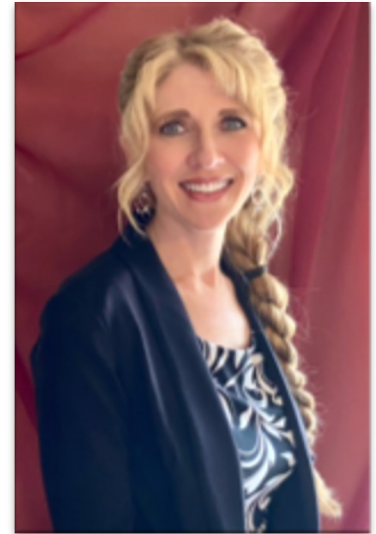
Shane Fryer



Welcome to the CWSD Team Holly!

Hello, my name is Holly Farnham, and I am the new Senior Watershed Clerk for Carson Water Subconservancy District (CWSD). My background consists of an Associate of Applied Science Business Degree in Computer and Office Technology. Over the past five years I have worked as the Practice Administrator/Credentialing Manager for an anesthesia group. Previously, I worked as a Member Service Representative at Greater Nevada Credit Union (GNCU), and over five years with the State of NV/ Division of Water Resources. During my time with the State, I became a Water Commissioner.

I have lived in the Carson City/Minden area, all my life. I enjoy spending time going hiking, walking, camping, backpacking, reading, and cooking/baking with my family and friends. Basically, I love all activities in the great outdoors. I am extremely eager to learn all aspects of this position, and look forward to contributing my knowledge and skills to this endeavor. I'm looking forward to meeting everyone in the New Year!



Save the Date: March 28, 2022 Carson River Watershed Spring Forum Begins



2022 - Carson River Watershed Forum

Online presentations begin:
March 28th 2022

Partners will share projects from the
Carson River Watershed

Education • Planning • Recreation •
Floodplain Mgmt. & Protection •
Climate Change • Water Supply

Watch for updates on our social
media and email list!



*Join Our
Newsletter*

CWSD Set to Launch *Bag It* Public Service Announcement

By Brenda Hunt, CWSD Watershed Program Manager

Whether you already have a furry critter as a family member or are planning to add one this holiday season, we hope you'll take a minute to watch [Bag It](#), our inaugural Public Service Announcement (PSA) being formally launched the week of January 3rd, 2022. *Bag It* focuses on the importance of picking up your pet waste to help keep the Carson River Watershed clean and healthy. The video is available with Spanish captions [here](#).

The Carson River is on the USEPA Clean Water Act's list of impaired waters in Nevada. The river is impaired due to polluted runoff and pet waste can be a source for this type of pollution, yuck! The Carson River Watershed hosts approximately 16,000 dogs and that calculates to an estimated 12,000 pounds of dog poop daily. Pet waste contains pathogens and bacteria that can seep into our groundwater and pollute our rivers, lakes, and streams. You can help keep our waters clean by bagging and properly disposing of your pet's waste, whether in your backyard, neighborhood, or out on the trail.



Bag It is the first in a series of Watershed Moments being released as a part of our 'I Am Carson River Watershed' campaign. This Watershed Moment series follows two earlier campaign video releases, [Water Connects Us All](#) and [A Walk Through the Watershed](#) (available in [Spanish](#)). CWSD will be releasing a new Watershed Moment each month during 2022. These upcoming PSAs will feature local people discussing actions people can take to improve the health of the watershed, including the importance of using a car wash instead of washing cars at home, absorbing stormwater on your property, curbing chemical use (fertilizers, insecticides, and herbicides), and more.

Your Actions Matter! Check out [Page 9](#) in this newsletter which shows all the icons for our upcoming Watershed Moments. Please consider these your Watershed Resolutions and take our [Watershed Pledge](#) to confirm your commitment to adopting these personal actions to improve the health of our watershed and quality of our waters. Moreover, we hope these films inspire you to incorporate these actions into your everyday mindset. Look for the new videos each month and participate with us on social media.

Locals will have the opportunity to win various prizes that align with each month's PSA. January winners will receive \$100 gift cards to pet stores located around the Carson River Watershed. Other upcoming prizes will include free car washes, Carson Hot Springs passes, Nevada State Parks annual passes, and more! Participating community members should look for these promotional prizes and giveaways with each month's Watershed Moment PSA release.

To be eligible for prizes, participants must:

- 1) Watch the PSAs on social media, YouTube, or the I Am Carson River Watershed website.
- 2) Complete [the online pledge](#) and/or add a photo or video of their own personal "watershed moment" in the comments section of [Carson River Watershed Facebook Page](#). Participants can comment and tag these "watershed moments" on Instagram using the [#mywatershedmoment](#) hashtag. Comments should highlight actions citizens take personally to help maintain a healthy Carson River.

Thank you to Felicia Patterson, Sierra Canine Academy, and Neon Agency for helping create the *Bag It* PSA. This campaign is coordinated and jointly funded by CWSD and a Clean Water Act Section 319(h) grant administered by Nevada Division of Environmental Protection. To learn more, visit iamcarsonriver.org and follow Carson River Watershed on [Facebook](#), [Instagram](#), and/or [YouTube](#). Questions? Contact Brenda Hunt at brenda@cwsd.org or 775.887.9005.

**Remember to *Bag It*,
your neighbors and your
watershed thanks you!**



BAG IT

River Wranglers Workday in Dayton

By Kaylee Maples; Americorps Member and Watershed Technician

This fall River Wranglers was finally able to work with schools throughout the watershed in-person! Spending time with students at the river is what we do best, and we enjoyed the opportunity to take students on field trips after working mostly virtually for the past 18 months.



Photo by Kaylee Maples

One of our most fruitful workdays involved 18 Dayton High School students and 43 Sutro Elementary students at Dayton State Park. Before going out into the field, River Wranglers spent multiple days training high schoolers on activities they would in turn teach to elementary students. Stations were set up at the river to cover key topics, including non-point source pollution, mapping the watershed, and how the water cycle works.

In addition to the stations our high schoolers led, River Wranglers partnered with Nevada State Parks staff to lead two stations involving downed branch cleanup and trail restoration. Guided by State Parks staff, students helped create a more defined trail by the old mill using rocks. They also created two very large branch piles for Parks staff to remove and mulch later, minimizing fuel for potential wildfire.

These workdays are pertinent to River Wranglers' mission to empower youth through outdoor watershed education. Students get out of the classroom and engage in the watershed in which they live, and their work makes a difference in their communities.

River Wranglers would like to thank everyone who partnered with us to make Carson River Workdays happen. We are looking forward to what we will accomplish this Spring and can't wait to continue working with students to improve our watershed - one workday at a time. For more information on River Wranglers, contact Darcy Phillips, dphillips@riverwranglers.org.



Photo by Kaylee Maples

**River Wranglers
worked with 15
schools
throughout the
Carson River
Watershed this
fall!**



Photo by Kaylee Maples

Tamarack Wildfire Restoration Efforts Underway

By Ed DeCarlo, Retired USFS, River Wranglers Co-Chair



Fire Overview

The Tamarack Fire started in the Mokelumne Wilderness in early July 2021 and gained national attention when it blew up on July 16, causing the town of Markleeville to be evacuated. The fire wasn't controlled until October 26, with over \$37 million in suppression costs.

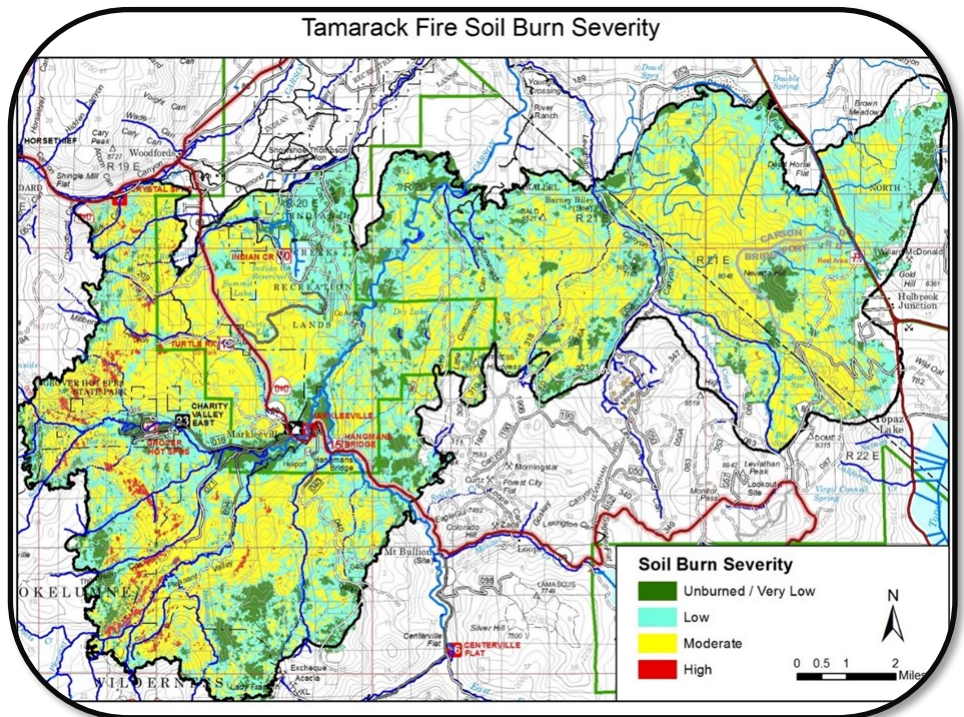
The total burn area was 68,637 acres. The fire involved several jurisdictions, including 4 counties in 2 states, with primary land ownership as follows: Forest Service (52%), Bureau of Land Management (15%), Bureau of Indian Affairs (16%), private (17%), and California State Park (0.01%).

Recovery Efforts

The "U.S. Forest Service Burned Area Emergency Report" identified burn intensity within the wildfire perimeter that helped identify priorities for fire recovery efforts:

- 9,464 acres unburned
- 23,451 acres low severity burn
- 27,718 acres moderate severity burn
- 988 high severity burn

A high priority identified for recovery mitigation efforts is protecting water quality impacts in the Musser Jarvis Basin above the Markleeville water system intake. Several agencies developed a mitigation plan, and the Alpine Watershed Group held an initial field workday in November to begin on-the-ground mitigation. Another priority concern identified is risk to people and infrastructure from standing burned hazard trees. Contracts have or will be developed for tree removal.



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Other stabilization recovery efforts to repair wildfire damage to infrastructure on the multi-jurisdictional lands within the fire perimeter have begun, including: campgrounds, roads, trails, and irrigation facilities. Liberty Utilities completed replacement of 150 powerline poles and six miles of distribution lines destroyed by the fire. Forest restoration recovery efforts are underway for salvage of burned trees and restoration to re-establish the forest and associated wildlife habitat. This will include activities such as early detection and rapid response surveys for invasive weeds, planting tree seedlings, and using drones for aerial seeding of steep and less accessible areas.

Information was obtained from the national interagency wildfire information site [Inciweb](#), U.S. Forest Service Tamarack Fire Burned Area Emergency Response report and [Alpine Watershed Group](#) website.

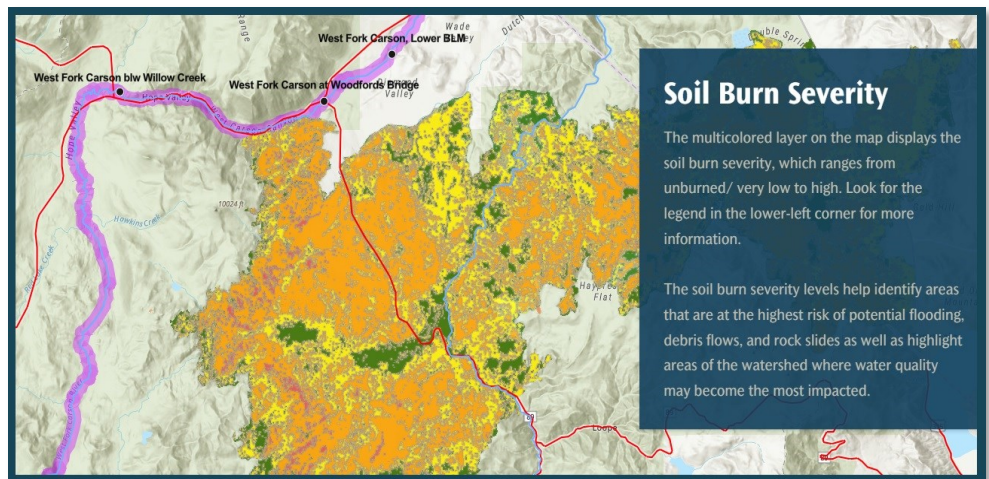
Lahontan Envisions the West Fork Carson River as a Story Map

By Meghan Walsh, Scientific Aid, Lahontan Regional Water Quality Control Board

The Lahontan Regional Water Quality Control Board has created a new story map resource for the public which outlines the West Fork Carson River Vision Project. In 2015, the West Fork Carson River was identified by the Water Board as a Vision Watershed. The West Fork Carson River Vision Project is a watershed-wide plan under development at Lahontan guided by the [U.S. Environmental Protection Agency framework](#). The project focuses on improving water quality through collaboration and provides a flexible approach to achieving water quality restoration goals. The Vision Project plan will address impairments by September 2022, and implementation will begin shortly thereafter.

The West Fork Carson River's story map is a web resource that keeps the community informed about the Vision Project. The resource invites users to explore the project area by integrating maps, information, and photos into an interactive presentation. The story map enables the audience to take a closer look at the Carson River Watershed within the California jurisdiction. Scrolling through a map of the Lahontan Region, viewers zoom in on the West Fork Carson River while relative content, including listed pollutants and affected beneficial uses, are simultaneously displayed. The story map also shows the locations of the [Surface Water Ambient Monitoring Program \(SWAMP\)](#) trend monitoring sites along the West Fork Carson River and highlights years of data collected by the SWAMP team. Other sections of the story map include: water quality objectives, water quality improvement strategies, a cooperative plan to address impairments via restoration projects, and maps of the Tamarack Fire, which feature alongside a summary of the post-fire recovery efforts.

You can view the [West Fork Carson River Vision Project Story Map here](#), or read more about the Vision Project at [Lahontan Region – West Fork Carson River Multiple Pollutants Vision Project](#).



A glimpse at the interactive Tamarack Fire Map featured in the West Fork Carson River Vision Project Story Map.

The Return of Alpine Community Workdays ... in a Burned Landscape

By Kimra McAfee, Executive Director, Alpine Watershed Group

After more than a year of scaled-back volunteer involvement and with the devastation of the Tamarack Fire surrounding us, volunteers relished the opportunity to come together as a community in Alpine County.

On September 18, Alpine Watershed Group (AWG) resumed hosting Markleeville Creek Day. It was touch and go with public land closures and hazardous air quality, as the Caldor Fire followed on the heels of the Tamarack Fire. The 49 volunteers picked up loads of trash along the highways, hauled out more than a ton of green waste between sprucing up Markleeville and the Hope Valley fishing platform access route, removed invasive Canada thistle, installed sod plugs at [Hope Valley Restoration & Aquatic Habitat Enhancement Project Site 1](#), and more. [Follow this link](#) to see detailed information and our impressive list of event partners and sponsors.



Photo Courtesy of AWG

Check out these Creek Day Outcomes:

- 45 sod plugs salvaged and installed
- 600 ft of project fencing removed for winter
- 2,000 ft of trail improved
- 6 bags (~300 lbs.) of broken glass removed
- 30 bags of trash collected in Hope Valley along 10 miles of Highways 88 and 89

Then on November 20 and 21, AWG was thrilled to assist Markleeville Water Company in coordinating the first community-based Tamarack Fire restoration work, in the Musser and Jarvis watershed. This drainage supplies 70% of Markleeville's water and was severely burned in the Tamarack Fire. With less than a week's notice, 46 volunteers showed up the weekend before Thanksgiving—some for a few hours, some all day long on both days. They contributed 284 hours raking and spreading native grass seed in rough conditions, and chinking in soil behind the logs that CalFIRE California Conservation Corps (CCC) crews felled for erosion control on the steep, burned slopes. (Learn more about Log Erosion Barriers [here](#).) AWG is working on a monitoring plan so the outcomes of this work can help inform future post-fire restoration work.

AWG is grateful for everyone who so freely gave of their time for watershed stewardship work. Many of the volunteers were Alpine County residents, but other volunteers traveled from Carson Valley, Carson City, Reno, South Lake Tahoe, and even Washington state! Helping to heal the landscape was exactly what our community needed—being able to actually do something after so many tears and so much talking soothed our collective pain. Newcomers to Alpine County commented on the beauty of the Carson River headwaters even in the burned landscape.



Photo Courtesy of AWG

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These workdays are just the beginning. Although we are a very small nonprofit organization, AWG is committed to being a partner and leader in the short- and long-term fire recovery effort. If you are interested in helping with post-fire restoration or monitoring, please [sign up for our newsletter](#) and stay tuned through our [website](#).

I am happy to share that AWG has two new staff members on our team to assist. Below is the contact information for all our staff. We look forward to working with our entire watershed community in 2022!

Kimra McAfee, Executive Director – awg.kimra@gmail.com

Rachel Kieffer, Watershed Coordinator – awg.rachel@gmail.com

Sierra Riker, AmeriCorps Member, Monitoring & Outreach Specialist – awg.sierra.snap@gmail.com

AWG Office – (530) 694-2327

Post Fire Restoration in an Urban Open Space

By Georgia Vasey, Senior Natural Resources Specialist, Carson City Parks, Recreation and Open Space



Photo by Lyndsey Boyer

Early July 2021, two lightning strikes ignited a fire at the north summit of Prison Hill Recreation Area burning approximately 171 acres. As this area is widely used by the community and provides habitat for many animal and plant species, [Carson City Open Space Division](#) (CCOS) quickly deemed it a high priority to restore. Restoration is a valuable tool to implement following disturbance on the landscape. These efforts can reduce the spread of invasive weeds, stabilize the soil, and revegetate bare areas enhancing the health and sustainability of the site.

The CCOS Division applied and received a grant from the [Dream Tags Charitable Fund](#). These funds were used to purchase over 3,500 pounds of perennial bunchgrasses, forbs, and scrub seeds for revegetation. In October, Open Space staff set up ten permanent photo monitoring points and three vegetation transects per point, to measure changes over time at the site. These transects will be monitored annually using the [line point intercept protocol](#), and the data will be compiled into a publicly accessible report.

In early December 2021, seeds were aurally broadcast using a helicopter. We hope for more rain this winter season to help establish the seedlings by next spring! For more information on this project, please contact Georgia Vasey, gvasey@carson.org.



Photo by Lyndsey Boyer



THE AMERICORNER

By Kaylee Maples, CWSD AmeriCorps Watershed Tech and River Wranglers

Hi, my name is Kaylee Maples, and I am the new CWSD Watershed Technician AmeriCorps member! I have now been with CWSD for four months and have been very busy learning about the watershed and the people who rely on it. Spending time talking to people and exploring the span of the Carson River has been a highlight this year, and I am very excited to see what next year has in store.



Before working with CWSD, I spent three months with Carson City Open Space working on interpretative signage and trail maintenance. Three of the signs I took part in creating will soon be on the Buzzys Ranch trail along the river in Carson City. The signs will provide information about ranching, and migratory birds, and include a wingspan sign where the community can see how they measure up to some of our native birds! I am excited to continue partnering with Open Space through my CWSD position to collaborate on some trail projects this upcoming spring!

I love getting to know the community that I'm working in and participating in making it a great place to live! If you see me around the watershed or along the trail, feel free to say hello!

New Years Resolutions to Keep our Watershed Healthy



BAG IT



USE A CAR WASH



TAKE THE PLEDGE



RECYCLE MOTOR OIL



CURB CHEMICAL USE



FOSTER HEALTHY SOIL



RECREATE RESPONSIBLY



EXPLORE YOUR
WATERSHED



MAKE YOUR YARD
A SPONGE



STOP INVASIVE SPECIES
IN YOUR TRACKS



PITCH IN



ENGAGE IN YOUR
WATERSHED