The creeks, springs and seeps of Carson Valley trails provide a series of beautiful oases in the western edge of the Great Basin Desert. Let’s think for a moment about these special spots.

Especially on the trails of the Genoa Trail System and the Fay-Luther/Jobs Peak Ranch Trail System, you occasionally cross small creeks which flow from springs above. Along with larger streams like Luther Creek, Genoa Canyon Creek and Sierra Canyon Creek, these streams carry water down to the ranches in the valley, which use it for irrigation. All of these creeks and springs are tributaries of the Carson River, which flows through our valley.

The Carson Range is a fault block composed of granitic and metavolcanic rock that has been uplifted on the west side of the prominent Genoa Fault. Granitic and metamorphic bedrock is typically made of tight-fitting crystals with little room for water, but fractures and faults form permeable zones that can store and transport water. Soil and weathered rock at the surface also store water in open spaces known as pores. As the annual snowpack in the mountains melts, it recharges both shallow soil aquifers and deep aquifers in the fractured rock. The deep aquifers provide water to fracture springs which flow year-round, creating perennial creeks. Creeks that are primarily spring-fed from deep aquifers, such as the first creek that you cross on the Jobs Peak Ranch Trail, are unlikely to have much of a gain in water level during rainstorms nor a reduction in water during dry spells. Other springs dry up in the summer, so their creeks, and creeks fed directly by snowmelt, are called intermittent streams. Creeks that only flow as a result of a recent rainstorm are referred to as ephemeral streams.

One reason these landscape features are so special is that they create rare streamside habitat, known as riparian habitat. The soil and growing conditions on the banks of creeks and springs are so different from surrounding “uplands” soils, that they support a diverse biological community. The plants here, like sedges, rushes, currants, aspens, alders, willows, and wildflowers, like to grow “with their feet wet.” Not only are these streams a valuable water source for all birds and land-based animals, but the riparian vegetation and insects provide much more food for birds and wildlife than most drier mountainside habitats. Observing birds and other wildlife can be especially rewarding near our streams.

Like all wet areas or “wetlands,” these environments are fragile. That is why CVTA has spent much time and effort creating so many safe, stable creek crossings. It is especially important to stay on the trail in these rich areas of biodiversity.
Dear Trail Travelers and Supporters,

What a beautiful spring. So many blossoms and so many birds. During this unsettling pause in life as usual, many have had some extra time to spend exploring our amazing trails. Others have continued to keep our community supported, fed and cared for. And for that, we are so thankful.

With the increase in traffic on the trails and at trailheads, I have heard concerns about maintaining the trails’ pristine and peaceful character. If you are already a member/supporter, most likely you are familiar with the norms of trail etiquette. How should we gently share these norms with new users? With this in mind, our Spring/Summer newsletter focuses on trail etiquette and water features on the trails.

For some, this has been an emotional time and the trails have provided the opportunity to get out of the house and enjoy the amazing, fresh air. Friends, with the best intentions and wanting to encourage others, have been leaving items to find on the trails. Remember, one key tenet of trail etiquette is ‘Pack it in. Pack it out’. Trust that nature, alone, can encourage and uplift. If we travel quietly, with eyes wide open, the inspiration is endless. We can motivate our friends to come out by asking them to look for special features on the trails. Can you spot the Heartleaf Milkweed that grows on the slopes of the Lonesome Trail? Do you know where to see the twin triple-trunk pine trees on the Fay Luther Trail? The CVTA website has a link to Trail Treasures documents with ideas of things to search for on the trails. It doesn’t really matter if you find them. The magic happens on the journey. [https://carsonvalleytrails.org/brochures/](https://carsonvalleytrails.org/brochures/).

A special thank you to John Cobourn and Matt McMackin for sharing their knowledge about one of my favorite trail features—water. The cover story for this issue is eye opening. This morning, I stopped at my second favorite water crossing—the stream on the west side of the Valley View Loop. May 3rd magic! False Solomon’s Seal is blooming already. Seep-spring Monkey Flowers are beginning to stretch out of the water. I am grateful for all the considerations that have been made for water crossings on our trails. Safety, beauty and sustainability are always forefront in trail design and construction. To that end, please stay on the trails at water features. Do not obstruct crossings by adding branches or rocks. If you see something that looks like a potential problem, feel free to take a picture and email CVTA.

Get out. Enjoy. Also, please read and honor the signs on the trails that are there for our safety and education.

Happy trails,
Norah
VIOLENT FLOODS CAN OCCUR ON OUR WEST SIDE TRAILS

By John Cobourn and Matt McMackin

The Carson Valley experiences large river floods on the valley floor and smaller flash floods around its margins. Retired geologist Pat Glancy of the US Geological Survey has stated that the most powerful and violent local floods will most likely occur on the west side of the Carson Valley. The steep 4000 to 5000 foot slopes on the east escarpment of the Carson Range are subject to both the intense cloudbursts of summer thunderstorms and the heavy deluge of atmospheric river “rain-on-snow” storms that occur occasionally in our winter months.

Both the Jobs Peak Ranch Trail and the Genoa Trail System traverse a series of steep canyons that can create flash floods in the right conditions. Evidence shows that Genoa Canyon Creek, Schoolhouse Canyon Creek and Sierra Canyon Creek, all in the Genoa area, have the greatest potential for flash floods that could affect our trails.

Floods from steep slopes and confined canyons can flow very fast and carry large amounts of sediment. They can become a mixture or slurry of water and sediment which can carry boulders. At the foot or mouth of canyons, where water can spread out and slow down, the streams drop their sediment, creating the characteristic alluvial fans. Many west side trailheads are on alluvial fans. Fans at the foot of steep mountain canyons can be dangerous places for development. Creek beds there can become plugged with boulders and logs during a storm, causing the flood to carve a new channel down the convex fan surface. Boulders scattered around a fan are a testament to the power of canyon floods.

Sometimes we are surprised to cross a major canyon that has no stream flowing down a surface channel. Canyon creeks can flow underground when the canyon bottom is composed of porous deposits of rocks and boulders that have been deposited by a type of landslide called a debris flow. Debris flows can start suddenly, when soils (and sometimes snow) are saturated with water. Deposits are carried by flows in which large boulders and tree trunks are swept along (or actually floated) by a muddy mix, like liquid concrete. You can see an example of such a deposit a little over a quarter mile up from the Eagle Ridge Trailhead, when you cross lower Adams Canyon. The floor of this canyon is composed of jumbled piles of rocks, gravel, boulders and cedar tree trunks (“debris”) that have washed down in a fast-moving slurry from high in the canyon. Debris can travel faster than person can run. Be aware and avoid channels after heavy rains.

Such debris flows occur randomly when the weather conditions are right. A steep canyon might be unflooded for centuries until a heavy summer rain storm or rain-on-snow event flushes stored sediment in an avalanche-like flow that crashes down the canyon. John McPhee, in his classic book, “Basin and Range,” called cloudburst storms the “sculptor” of the Great Basin. Fortunately for hikers, such violent flash flood events are very rare, so most of the time, the creeks and springs of our trail systems are peaceful places for appreciating nature. If you are on a trail and caught by heavy rain, move to a safe place and enjoy the rare event.

John Cobourn is a Water Resources Specialist. Matt McMackin is an Independent Geologic Consultant. We thank them for their generous contributions to this issue of Trail Connections.
Respect the landscape

Respect your local trail builders and be a good steward of the physical environment. Keep singletrack single by staying on the trail. Practice Leave No Trace principles. Do not ride muddy trails because it causes rutting, widening and maintenance headaches. Ride through standing water, not around it. Ride (or walk) technical features, not around them.

Share the trail

Most of the trails we ride are multi-use. Mountain bikers yield to horses and foot traffic, and descending riders yield to climbing riders. This yield triangle has been formally adopted by land managers since the late 1970s and is a significant reason why we have the access we do. There are some regional differences and unique rules on single-use, directional mountain bike trails—know the code where you ride. Be nice. Say hi.

Plan ahead

Be prepared and self-sufficient. Every mountain biker should carry what they need for the ride they’re undertaking, and know how to fix a flat tire and make minor repairs. Download a GPS trail app on your phone for navigation or carry a map in unfamiliar locations. Ride with a partner or share your riding plan with someone if you’re heading out solo.

Wildlife

When it comes to wildlife, live and let live. In some places, running cattle and disturbing wildlife are serious offenses. If you want to ride with your dog, first find out whether or not it’s allowed by looking up the leash laws. Be prepared to take care of your dog. Ensure your companion is obedient enough to not cause problems for you, other trail users or wild animals.

Adapted from https://www.imba.com/ride/imba-rules-of-the-trail
The Leave No Trace Recommendations for Getting Outside During Covid-19

The coronavirus pandemic has altered all of our lives. The Leave No Trace Center for Outdoor Ethics aligns with the CDC recommendations to help slow the spread of the virus. Let's keep ourselves, our communities and our natural world healthy.

1. You and Your Outdoor World
   You may be asking: Can I go for a hike or walk on the beach right now? Your personal vulnerability, the health of others in your community, access to local and uncrowded spaces and more play into this decision. Then there are communities and states with either lockdown, shelter in place or stay at home mandates. Where Covid-19 is spiking, it may not be possible to get out at all, so pay close attention to guidance in your community before heading outside. Then follow physical distancing guidance, meaning staying at least six feet away from anyone not living with you.

2. Expect Closures
   As businesses limit services or direct their staff to work remotely, closures should be expected. The result could be a lack of water, restrooms, campgrounds, or other facilities—or even entire areas closed to the public. Many experts are recommending that you refrain from using public restrooms and other open facilities at all right now. Take necessary precautions like bringing extra food and water, learning how to go to the bathroom outdoors, and being ready to pack all your trash out with you.

3. Pack Out Your Trash
   With limited staff and services likely in many parks and protected areas, trash and recycling receptacles may not be emptied as often as normal or at all. This can result in trash overflowing from receptacles which becomes litter and can harm wildlife. Instead, pack your trash and recyclables out with you all the way home and utilize your own receptacles.

4. Avoid Times and Places of High Use
   Absolutely avoid crowded parks, trails, and beaches. Physical distancing applies in the outdoors just as it does anywhere else. To avoid being part of the creation of large crowds and groups at popular outdoor areas, spread out to less popular spots, and avoid times of highest use if possible. Follow guidelines at usa.gov/state-health about group size restrictions.

5. Proceed With Caution
   Keep in mind that as our healthcare system becomes more overwhelmed, it's important to reduce potential accidents that would add to the stress on first responders and medical professionals. As much as possible, stick to activities and areas that are within your regular routine and take it easy.

6. Don’t Forget the Leave No Trace 7 Principles
   Just because times are tough, doesn’t mean the Leave No Trace 7 Principles fly out the window. Our outdoor spaces will likely be receiving less attention from staff and volunteers right now. This means our shared spaces need us to act as stewards more than ever. Remember, it is still just as important to prepare for spring weather conditions, stick to trails, dispose of your waste properly, minimize fire impacts, leave what you find, keep a safe distance from wildlife, and generally do your best to eliminate impacts.

7. Be Considerate and Kind to Other Visitors
   We are all in this together. Be considerate of others in the outdoors by ensuring that you practice social distancing. Be particularly kind to park staff during these challenging times. Help them do their job by doing your part to take care of each other and our beloved outdoors.

We will see you out there on the other side!
Hiking Etiquette

Be respectful of the land and other hikers.

Almost every group of people has some unwritten rules to help govern their activity and make things more pleasant for all those participating. Rules such as not cutting in line at a ski lift and keeping your elbows off the table when eating at Mom’s house are just two examples.

Hikers are no different. Following a few unwritten rules can help make your hike and the hike for others more pleasant. Among some commonly observed practices, are:

• Hike quietly. Speak in low voices and turn your cell phone down, if not off. Enjoy the sounds of nature and let others do the same.

• If taking a break, move off the trail a ways to allow others to pass by unobstructed.

• Don’t toss your trash – even not even biodegradable items such as banana peels. It is not good for animals to eat non-native foods and who wants to look at your old banana peel while it ever-so-slowly decomposes? If you packed it in, pack it back out.

• Hikers going downhill yield to those hiking uphill.

• When bringing a pet on a hike, be sure to keep it on a leash and under control. Don’t forget to pack out pet waste as well.

• Don’t feed the wildlife. While many animals stay hidden, others are not so shy. Giving these creatures food only disrupts their natural foraging habits.

• Leave what you find. The only souvenirs a hiker should come home with are photographs and happy memories. (And maybe an improved fitness level!)

• When relieving yourself outdoors, be sure to do so 200 feet away from the trail and any water sources. Follow Leave No Trace principles.

• Walk through the mud or puddle and not around it, unless you can do so without going off the trail. Widening a trail by going around puddles, etc. is bad for trail sustainability. Just because it looks easy to cut the corner off of a switchback doesn’t mean it’s a good idea. Help preserve the trail by staying on the trail.

• If hiking in a group, don’t take up the whole width of the trail; allow others to pass.

This fact sheet was originally created by and is reprinted with permission of American Hiking Society

www.AmericanHiking.org
In addition to routine maintenance including brush and rock clearing, the following trail maintenance and improvement work was done.

**Clear Creek Trail**

A 50-foot section of trail was moved over slightly for improved trail flow and biker safety below Knob Point. Two fallen trees were removed from the trail. A 75-foot realignment was done to improve biker safety. A 25-foot realignment was done to remove a sharp turn that was causing excessive trail skidding and rutting. A 100-foot realignment was done below Five Valleys View to improve an approach in and out of a switchback. The original approach was rutted out and entrenched from skidding. A 25-foot realignment was done below Cliff Rock to improve a switchback approach and reduce trail rutting from skidding.

The upper Jacks Valley kiosk lexan panel was cleaned to remove linseed oil stain streaks, tape, dust and dirt.

**Fay-Luther/ Jobs Peak Ranch Trail**

One fallen tree removed from the FL/JPR Trail. The Valley View Loop was brushed out and waterbars cleaned out. One ginormous fallen bitterbrush was cut from the Sandy Trail. Four waterbars were installed and the first 100 feet of trail at the Jobs Peak Ranch Trailhead was cleared of brush.

Working with the Jobs Peak Ranch Homeowners Association, a new bridge was approved and installed along with an improved trail realignment. This provides a more enjoyable trail location and an easier, safer crossing of the creek drainage.

Signage updates included removing the faded freestanding trail map at Jobs Peak Ranch Trailhead, removing the faded large trail map at Fay-Luther Trailhead, updating the Fay-Luther Trailhead kiosk map with a new one, and adding rattlesnake caution signs at both trailheads. Replacement maps are forthcoming.

**Genoa Trail System**

Rubble was cleaned out from behind the retaining walls in lower Genoa Canyon. Graffiti was removed from both Eagle Ridge kiosk legs. Several dumped leaf and needle yard waste piles were removed from the Eagle Ridge Trailhead. Two fallen trees were removed from the trail.

Push/pull labels were posted on the Muller Lane access gate. “No Dogs” signs were also installed to protect the ranching operations and nature preserve at The Nature Conservancy’s River Fork Ranch property.

Genoa Trail System maps were updated to the 2016 edition at both the Muller Lane and Genoa Lane kiosks, and at the Whit Hall Interpretive Center entrance panel at River Fork Ranch.
By Kerstin Wolle

… when fog blanketed our valley, I met my hiking buddy Betsy at the Fay-Luther Trailhead. Though the trail was barely visible, I was pleased to discover that my feet could still find the way. All nature was still and quiet except for the woeful sound of a mourning dove. Betsy described the sage lining the trail as "glittering gummy bears" and the slivers of ice and snow as "cotton candy" (her grandchildren's ages are 2, 4, 6, and 8, which may explain the adjectives.)

As we climbed higher, we came upon an expanse of manzanitas. To the eye, they resembled a deep, green sea of gently rolling waves. A pussywillow bush in a dry creek bed had moisture laden buds that glistened like diamonds.

On occasion, the fog opened a window to a robin's egg blue sky. As we lifted our eyes toward heaven, nature provided a free facial of lovely moisture.

We meandered down the trail, marveling at the tiny pink blossoms of the manzanita and the welcome buzz of a bee.

Thank you Nature for a magical hike and thank you CVTA for building and maintaining our trails.

Kerstin Wolle (photo, left) was CVTA President for many years. On any given day, you are likely to meet her and perhaps one or two of her many hiking buddies on the trail.

Do you have a favorite hike or experience on a CVTA trail that you'd like to share?

Write about it and send with a few photos to info@carsonvalleytrails.org
CVTA reported an annual income of $30,519 and expenses of $14,039. Thanks to the generosity of donors and members, CVTA was able to increase funding for future trails and maintenance projects by $23,472. CVTA is supported entirely by volunteers and 100% of all funding is used to accomplish CVTA mission and goals.

**Smith’s Inspiring Donations**
Smith’s will donate 0.5% of all eligible spending to organizations linked to their Rewards Card. To register for a digital account and link your card to CVTA, visit their website at [https://www.smithsfoodanddrug.com/community smiths-inspiring-donations](https://www.smithsfoodanddrug.com/community smiths-inspiring-donations)

**Board Position OPEN**
CVTA is looking for a qualified volunteer to fill the position of **VP/Fund Development**
For more information or if you’re interested in joining the Board, please contact us
[info@carsonvalleytrails.org](mailto:info@carsonvalleytrails.org)
The Carson Valley Trails Association
P.O. Box 222
Minden NV 89423

Your annual membership dues and donations to the Carson Valley Trails Association, a Nevada 501(c)(3) organization, may be tax deductible pursuant to the provisions of section 170.c. of the Internal Revenue Code of 1986, 26 U.S.C. 170.c. All proceeds support trail construction and maintenance, project planning, community events and trail access in the Carson Valley.

Thank you to all the good doggies for staying on the leash and reminding your families to pick up after you!