

Carson River Watershed Boundary Map

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The Flow

Delivering News from the Carson River Watershed Community

Fall 2013

Does the Carson River Float Your Boat?

By Brenda Hunt, Carson Water Subconservancy District

This past spring over 200 participants spent the day learning about critical watershed issues while rafting or kayaking the Carson River. Pat Fried of Great Basin Sports coordinates the Explore Your Watershed Conservation Tours of the Carson River. Fried and her crew overcame the river's low flows this spring and successfully conducted over 20 rafting and kayaking tours. Participants paddled various sections of the watershed including the East Fork, the Middle Carson River, Eagle Valley, and Stillwater wetlands. The Carson River is a great classroom for participants to actually see how different issues impact the health of the watershed. Specific issues discussed include:

- polluted run-off prevention,
- erosion control best management practices implementation,
- land use decisions,
- floodplain protection and functions, and
- the importance of our riparian corridors.

Participants on the Eagles and Agriculture Raft

Tour in Carson Valley in February delighted in seeing 15 bald eagles, two golden eagles, three great horned owls, six deer and numerous turtles, raptors and shorebirds. On the Eagle Valley tour participants leisurely rafted by Carson City's floodplain open space areas and under large cottonwood galleries learning firsthand about beaver impacts, river bank erosion, and why floodplain conservation is critical. By providing an opportunity for people to experience the river, the Conservation Tours program aims to create an informed citizenry that will act in ways that benefit our watershed. The Conservation Tours program is funded through the Nevada Division of Environmental Protection (NDEP) and administered by the CWSD. For more information please contact Pat Fried, pat@greatbasinsports.com and/or Brenda Hunt, brenda@cwsd.org.



Kayaking through Eagle Valley on the Carson River -Photo courtesy of Brenda Hunt

"These tours are a unique opportunity for people to see, smell, hear, and feel how the river moves through the landscape. They allow participants access to a living river and its surrounding environment, and to truly experience why the Carson River is our lifeline in the desert." -- Pat Fried, Great Basin Sports



Kayakers paddle through the Carson Valley —photo courtesy of Great Basin Sports.

New Watershed Planning Tool

By Debbie Neddenriep, Carson Water Subconservancy District

The water supply of the Carson River is almost entirely dependent upon the winter snow pack that accumulates in the Sierra Nevada Mountains. Therefore, preserving water and avoiding waste is critical in balancing the water demands from agricultural, environmental, and domestic uses. This is especially true in the Carson River Watershed, which has very limited surface water storage capacity in the upper Watershed. To assist in planning for long-term water supply solutions, the Carson Water Subconservancy District (CWSD) recently completed and adopted a Comprehensive Regional Water System Plan August 2013 (Plan). The US Bureau of Reclamation (USBR) assisted with funding the document and required the plan to cover potential impacts from climate change, water conservation actions, regionalization, water leasing, and water banking opportunities.



Sierra snow pack melting into Lost Lakes, the headwaters of the West Fork of the Carson River in Alpine County, CA.

The Plan focuses on evaluating future municipal water demands for the entire Watershed. It looks at how these new water demands may be met while minimizing the impact on the environment and agriculture. All the water in the Watershed, both surface and groundwater, is fully allocated, so any new demands for water must come from existing sources. Additionally, research conducted on climate change indicates that earlier runoff patterns and flows in the Carson River is occurring and could impact future water supplies. Some ideas to meet future demands are to enhance water conservation and evaluate possible water storage projects.

Water purveyors have each developed their own water systems and operated them independently to serve the various small communities throughout the Carson River area. Many of these communities have grown and are now adjacent to each other. Several water purveyors have begun linking their water systems together to enhance water supply reliability, provide emergency backup, and better meet new water quality standards. Although the Plan does not commit any purveyor or entity to any action, it considers how infrastructure interconnections between the major water purveyors might be implemented.

The Plan is an important first step in looking at the municipal water demands in the entire Carson River Watershed. Further study and analysis will be necessary to determine specific steps to meet future water demands and promote continued cooperation throughout the entire Watershed. CWSD is hopeful that the document will be a useful planning tool for all water purveyors as they consider potential alternatives for water system coordination on a regional basis. The plan is available on CWSD's website by following this link:

<http://www.cwsd.org/newcms/userpages/2013CompRegWtrSystemPlan.aspx>.



Lahontan Reservoir is the only storage on the Carson River, and it is more than two-thirds down to the lower watershed.

No Rest for the Watchful Weed Warrior

By Margie Evans, Carson City Weed Coalition

In the world of weeds this is the time of year when land managers start to breathe a sigh of relief and plan their winter equipment maintenance, data uploads, and label reading. But for the watchful, wary weed warrior, there are some weeds whose presence can be readily identified on the winter landscape. Perennial pepperweed (*Lepidium latifolium*) and poison hemlock (*Conium maculatum*) both leave tall stalks of dead flower heads that stand out above the “laid-down” winter landscape. If you have EDDMapS on your phone or your computer (use QR Code below), you can report your citing. Land managers will visit in the spring to determine which of the nasty plants you were seeing and treat them accordingly.



Puncturevine

UNR Weed ID and Control
Guide 1998

If you're out for some winter exercise, you may find goatheads collecting on your shoes or bicycle tires. Fire up EDDMapS and report the collection location. Although it's too late for your shoes and bicycle tires at this point (pun intended), it still alerts land managers to go out there and treat in the coming field season. In fact, puncturevine (*Tribulus terrestris*), the plant that makes goatheads (see photo of seed and plant), can be stopped before it germinates if the

proper pre-emergent chemical is applied to the site in March or early April.

Medusahead (*Taeniatherum caput-medusae*) germinates in the late fall, or winter when moisture is available. It may be harder to see, and the distinctive seed head is undeveloped, but you will see Medusa-like characteristics on dead plants lying in the area (See photo). Map it on EDDMapS to help alert watershed land managers to its presence. Early detection/rapid response is one of the best way to manage noxious weeds beyond preventing them from starting in the first place. With your help, we can reduce weed infestations in the Carson River watershed.



Medusahead

Photo courtesy of Brenda Smith, Eastern Oregon Agricultural Research Center.

Bus Tour Summary

This year's Carson River “Get on the Bus” Watershed Tour was a great success! Forty participants joined us June 12 & 13 for two informational and fun filled days. The first day we visited the Upper Watershed, stopping at Carson City's Quill water treatment plant, the historic Dangberg Ranch in Minden, the West Fork in Hope Valley, and the Nature Conservancy's River Fork Ranch in Genoa. Day two was spent in the lower watershed visiting the Borda Ranch in Dayton, the historical Buckland Station and Fort Churchill State Park, Lahontan Reservoir dam and Stillwater Wildlife Refuge near Fallon. Integrated watershed management topics included weeds, water supply, water rights and settlement history, local Tribal projects, floodplain restoration/conservation/agriculture connections, bank stabilization and riparian restoration, mining impacts, and non-point source pollution prevention. We hope you join us for next year's tour! Contact us at (775) 887-7450.



Bus tour participants at the Borda Ranch on the Carson River in Dayton.

Regional Floodplain Management Plan Updated

By Brenda Hunt, Carson Water Subconservancy District

The Regional Floodplain Management Plan (RFMP) was adopted by five counties along the Carson River in 2008. CWSD just recently completed and adopted Supplemental Update 2013 in August. The update assists those counties that participate in FEMA's Community Rating System (CRS) program, including Carson City and Douglas County. CWSD will be presenting the updated RFMP to the various County Commissions and Supervisors over the next month to ensure the updates are formally adopted. The main changes in content are related to progress on the Suggested Actions section.

Other updates and revisions provide current information relating to emergency contacts, CRS information, and consistency with other existing plans. Additional appendices have been added that provide details on a number of the plan's suggested actions. The original 2008 RFMP is available on the CWSD website at http://www.cwsd.org/newcms/admin/Uploads/Finalfloodplainplan9_08.pdf, and the draft revised document and appendices are available at <http://www.cwsd.org/newcms/Admin/Uploads/DRAFT%20Regional%20Floodplain%20Management%20Plan%20Supplemental%20Update%202013.pdf>. Please note that the final Supplemental Update 2013 document will be available online after each County along the Carson River formally adopts the plan.



The Carson Valley provides critical floodwater storage for the Carson River during flooding events. Photo courtesy of Pat Glancy, retired USGS

Summary of 2013 Water Year

By Ed James, Carson Water Subconservancy District

The 2013 water year started off with great expectations due to above normal precipitation in December. Based on this precipitation, the National Oceanic and Atmospheric Administration was predicting above average runoff. By late winter the water picture changed significantly. Flows in the Carson River started to drop below the long term average and by June the flows in the East Fork were less than 40 percent of average. Flows at the Carson City gauge were worse, running less than 20 percent of average and continuing this low throughout the summer.

The water stored in Lahontan Reservoir has been severely impacted by two dry years in a row. On September 16, 2013, the storage in Lahontan Reservoir reached its minimum pool amount of 4,000 acre feet. The last time the storage level was recorded this low was in July 1992.

With two back-to-back dry years, flows in the Carson River are well below average and this will continue throughout the fall. NOAA's prediction on precipitation amounts for this winter show there is a strong possibility that it could be wet or dry. Check out the video here: <http://www.youtube.com/watch?v=ha8ad5Z8OgU>. I am willing to go out on a limb and support their prediction. Water year runoff is much easier to predict once the water year has ended. A year from now I will let you know how water year 2014 turned out. Until then I will be working on my rain/snow dance.



A Successful, Rainy 14th Annual Markleeville Creek Day

By Sarah Green, Alpine Watershed Group

The 14th Annual Markleeville Creek Day was held on Saturday, September 21. A total of 33 volunteers participated in five different stream cleanup and restoration projects throughout the Upper Carson River watershed.

Three rained-soaked hours of hard work resulted in the following accomplishments:

- 60 feet of stream bank stabilized,
- 20 feet of stream channel reinforced,
- 150 willow stakes planted,
- 25 Aspen trees protected,
- 400 pounds of invasive weeds eradicated, and
- 200 pounds of garbage removed.

Many thanks go out to all of the volunteers who participated. We also want to thank the local partners that led projects and activities for the event - Alpine/Upper Carson Weed Management Association, Friends of Hope Valley and the California State Parks.

This event was made possible with funding and support from the Alpine County Chamber of Commerce, California Department of Conservation, Carson Water Subconservancy District, and the Sierra Nevada Conservancy.

We appreciate all of the community support and involvement which helped make Markleeville Creek Day 2013 a huge success!



Volunteers stabilizing the river bank on the Carson River in Hope Valley.

Be A Team Leader for 8th Annual Carson River Snapshot Day

By Courtney Walker, Carson Water Subconservancy District



Middle School children taking water samples in the Carson River during Snapshot Day.

On Snapshot Day, October 18, 9am-noon, multiple monitoring teams will assess water quality and habitat throughout the Carson River Watershed at the same time. Citizen volunteers and assigned local school classes learn about their watershed, water quality issues, how streams function, and how to assess stream health. Participants collect water samples, take photos, and gather field data.

Volunteer as a Team Leader! Team Leaders are resource professionals willing to share their time and expertise for a memorable outreach experience. Help make Snapshot Day

another success! **The Educator and Team Leader Training will be held Wednesday, October 9th from 3-5pm at the Carson River Park in Carson City near Lloyd's Bridge.** Contact Mary Kay Wagner, NV Division of Environmental Protection at (775) 687-9454 or mkwagner@ndep.nv.gov.

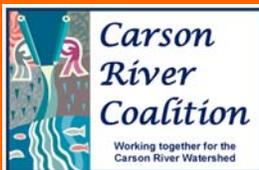
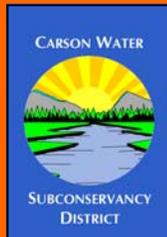
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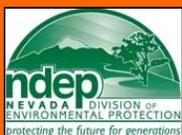
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Thanks to Staff &
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UPCOMING EVENTS

Pesticide Applicator Training:

October 2, 2013, Reno, Nevada or via videoconference at Nevada Cooperative Extension locations, <http://www.cwsd.org/newcms/userpages/NewCalenderEditEvent.aspx?eventID=1748>

Carson River Snapshot Day:

October 18, 2013, Entire Carson River Watershed, http://ndep.nv.gov/bwqp/snap_carson.htm

Nevada Weed Management Association Conference 2013:

October 29-31, 2013, JA Nugget, Sparks, NV, <http://nvwma.org/outreach-education-conferences/conference-information/>

Nevada Water Resources Association 2013 Terminal River Symposium:

November 5-7, 2013, Reno Ramada Hotel and Casino, <http://www.nvwra.org/river-symposium>

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/>

4th International Symposium on Weeds and Invasive Plants:

May 18—23, 2014, Montpellier, France. Invasive species are a problem worldwide! <http://www.ansespro.fr/invasiveplants2014/>

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