

# Enviro-News

Promoting recycling, watershed education and environmental stewardship for Nevada

A Publication for School and Community Educators

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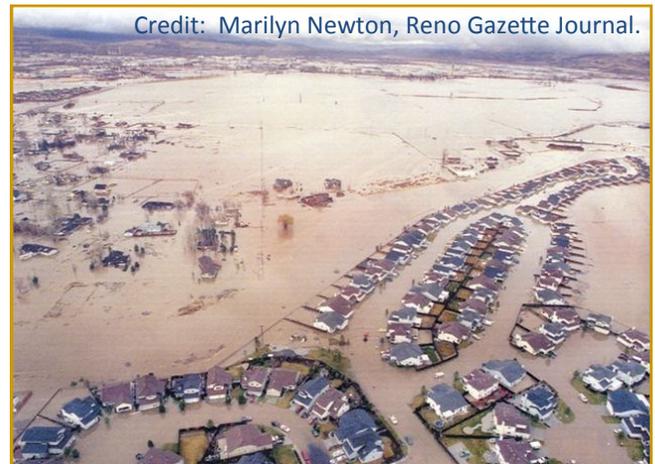
## Nevada floods. Are you prepared?

Although most of Nevada is characterized as a desert environment, flooding is a common occurrence that can often result in destruction of property or even loss of life. Recent reminders of this phenomenon are the intense thunderstorms experienced across the State in July and August, 2014 that caused mud slides, road and business closures and significant damage to infrastructure and property.

The Nevada Flood Awareness Committee is a new, multi-agency effort to educate Nevada residents about the impacts of flooding and encourage them to make their homes and communities flood resilient. The organizing Core Team, led by the University of Nevada Cooperative Extension and the State Floodplain Management Program, has created a one-stop shop website about flooding in Nevada at [www.NevadaFloods.org](http://www.NevadaFloods.org).

The website provides valuable information to help you take action before a flood occurs to keep homes, businesses, family, livestock and pets safe.

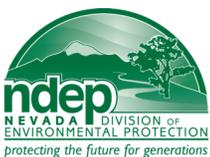
School and community educators are invited to participate in **Flood Awareness Week, November 10—15**. Help students and their communities weather the next storm by organizing fun and educational activities that provide the opportunity to discuss the impacts of flooding and actions that can be taken to protect humans, animals and property. Check out the "GET INVOLVED" tab on the NevadaFloods website for more information and suggestions.



Credit: Marilyn Newton, Reno Gazette Journal.

Flooded homes near the Rosewood Lakes Golf Course in Hidden Valley, Reno. January 2, 1997.

Some communities within a watershed are more vulnerable to floods because they are located on a low-lying floodplain near a river. Other neighborhoods are vulnerable to flash floods that rush from mountain canyons onto alluvial fans during a summer thunderstorm. Does your town or neighborhood flood? Learn about floods in your part of the state and the most common types of floods at NevadaFloods.org's [FLOOD LIBRARY](#). Learn the facts, so that you are not caught unprepared by the next flood.



901 S. Stewart Street  
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### What's Inside

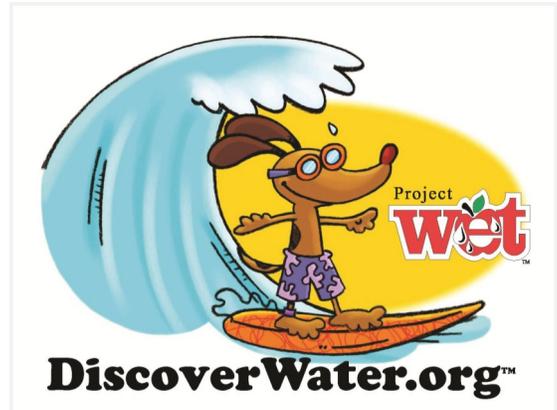
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# The Role of Water in Our Lives

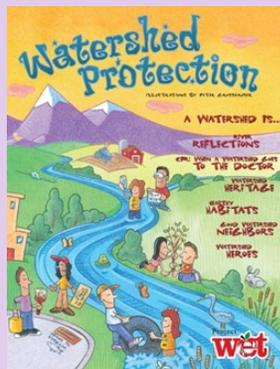
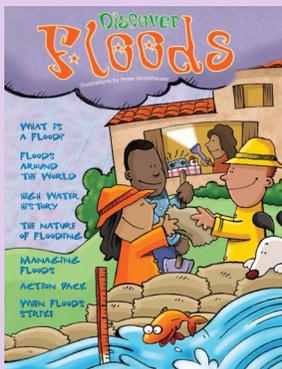
## DiscoverWater.org — in the Classroom or at Home

The website [DiscoverWater.org](http://DiscoverWater.org) is a great tool to assist educators in teaching about the most important liquid we know—WATER. [DiscoverWater.org](http://DiscoverWater.org) covers topics from the water cycle and oceans to water conservation and the role of water in the human body. Targeting learners aged 8 to 12, the website shows students how water affects them—and how they can affect water.

Students can read stories, watch videos, print coloring pages and commit to taking action with interactive games. Students can print a personalized "Take Action" poster to help them remember to conserve and protect water. This internet experience brings water to life with [Bridger](#), Project WET's water dog mascot, and encourages today's youth to be tomorrow's responsible watershed stewards.



[DiscoverWater.org](http://DiscoverWater.org) is aligned with Common Core, Next Generation Science Standards and Ocean Literacy Standards. The website provides additional resources such as assessment methods and has been field tested with educators and students.



*Discover Floods and Watershed Protection KIDS Activity Booklets* are available as part of Nevada Flood Awareness week. These education booklets, published by [Project WET Foundation](#), are ideal for bringing watersheds to life and flood awareness to your classroom.

To request classroom materials, contact Mary Kay Wagner at 775-687-9454, [mkwagner@ndep.nv.gov](mailto:mkwagner@ndep.nv.gov).

[Discover Floods](#) targets elementary grades, overflows with learning opportunities and is saturated with facts and engaging activities that include math, health and language arts.

[Watershed Protection](#) sheds light on watersheds and fits well with upper elementary and middle school Social Studies, Science, Geography, History, and Environmental Education curricula. Students learn about healthy watersheds and how to help protect these special habitats.

The [Discover Floods Educators Guide](#) is available as a download (\$6.95) for middle school and high school teachers. This Guide addresses both the risks and benefits of flooding in both natural and urban communities through a series of engaging activities. The book helps students gain a global understanding of this common, albeit sometimes dangerous, natural phenomenon that affects hundreds of millions of people each year. The Guide includes photographs of the aftermath of floods, as well as numerous illustrations to facilitate learning.

Credit: Lisa Tolda, RGI



Impacts of flooding on the Carson River, Dayton, NV. January 2, 1997.

## Champion of Change

The White House recently honored 14 individuals as “Champions of Change” for their outstanding efforts and contributions toward empowering the next generation of environmental leaders. This recognition stems from the U.S. Department of the Interior's America's Great Outdoor Campaign, which is intended to recognize local leaders, nominated across the country, who are doing exemplary work to engage communities and youth in environmental stewardship and conservation.

Andy Hart, Executive Director of Nevada Outdoor School (NOS), accepted the award on behalf of the great work that NOS is doing to reconnect the current generation of young people with nature. Based in Winnemucca, NOS inspires youth conservation leadership through a variety of inquiry-based science and experiential outdoor education programs.

Hart says, “Everyone at Nevada Outdoor School is honored and excited to have received recognition for our work from such a high level. NOS has been around for 11 years and there are a lot of people that have contributed to this honor.”



Photo: Tami A. Heilmann, DOI

Meeting with Secretary of the Interior, Sally Jewell, was one of many highpoints during Andy's White House recognition for “engaging the next generation of conservation leaders.”

NOS supplements work in classrooms with watershed lessons, field trips, summer camps and other programs throughout the year. NOS has developed a strong partnership network, including program funding from federal and state agencies to sustain and expand its programs. Additionally, NOS's AmeriCorps program offers adult citizens the opportunity to engage in service and explore natural resource careers in various environmental and community programs.

## Ecology Fair

In May, many NOS partners supported the 4<sup>th</sup> Grade Ecology Fair, held in the Winnemucca Community Garden. Activities presented ecological concepts or principles such as food webs, noxious weeds, trash timeline, water percolation rates and erosion processes. NDEP's booth taught 4<sup>th</sup> graders about vermicomposting. Students learned how red wiggler worms act as nature's recyclers by breaking down food scraps into nutrient-rich compost. The students got to handle the worms (and the compost, a.k.a. worm poop) as they thought about food waste and where it usually ends up—the landfill.



Students learn that *vermicomposting* is the process of using worms and micro-organisms to turn kitchen waste into a black, earthy-smelling, nutrient-rich compost.

# Recycling Art Contest Announced!

Nevada Recycles is hosting a Recycled Art Contest this fall! Students and adults are welcome to participate. This is a great way to bring creativity, resourcefulness and stewardship into the classroom. It can also jumpstart or celebrate your school's recycling program.

Entries will be judged in the following categories: Grades K-5, 6-8, 9-12, Class Project, and Adult. Cash prizes will be awarded in each category thanks to our sponsor, Las Vegas Sands Corporation.

Entries must be made of used, recyclable material, and may use string, glue, and/or tape for fastening. Remember, many items are recyclable, including plastic bags, cell phones, tires, wire, milk cartons, etc. Some communities only accept a small variety of recyclable commodities--don't be limited by what your community accepts for recycling!

The deadline is Nevada Day, October 31, and winners will be announced by [America Recycles Day](#) (November 15). Submission is by photo. Entry photos will be displayed on a public website. Rules and submission information are posted at [NevadaRecycles.nv.gov](#).

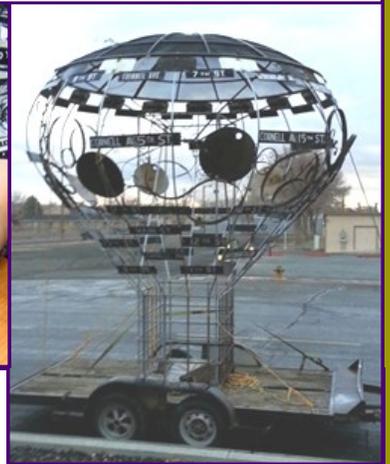
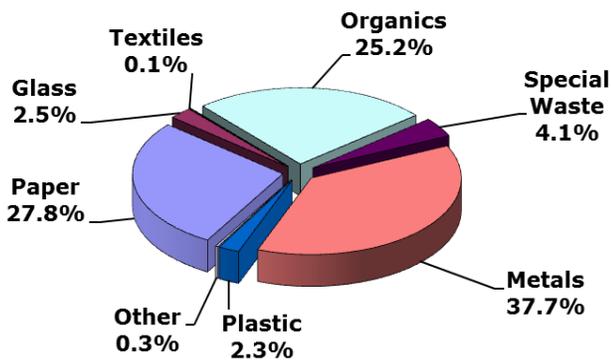
To complement this contest, a 5<sup>th</sup> grade standards-aligned curriculum on solid waste and recycling is available at [NevadaRecycles.nv.gov](#). Nevada Recycles staff is available for group and class presentations.

Questions? In northern Nevada, Contact [Nicole Goehring](#) 775-687-9466 or [ngoehring@ndep.nv.gov](mailto:ngoehring@ndep.nv.gov). In southern Nevada, contact [Rachel Lewison](#) at (702) 486-2850 x268 or [rlawison@ndep.nv.gov](mailto:rlawison@ndep.nv.gov).

## 2013 Nevada Recycling Rate

In 2013, Nevada recycled 25.1% of its MSW. What is MSW? It's Municipal Solid Waste—the waste from our households and businesses. MSW doesn't include industrial waste or construction and demolition debris. Check out the graph below to see the breakdown of the materials Nevadans recycled in 2013. More information on county, state, and national solid waste and recycling can be found at <http://nevadarecycles.nv.gov/Resources/Data/> and <http://www.epa.gov/waste/nonhaz/municipal/>.

Breakdown of recycled commodities in Nevada (by tonnage)



Inexpensive recycling ideas can save resources and create beautiful works of art. Picture frames of recycled cardboard and magazines are created by Clark County 4H campers (left). Lovelock residents constructed a recycled hot air balloon, complete with the town's old street signs (right).



Sorted recyclables at the Douglas County Transfer Station. Recyclables are baled by material before getting shipped to a recycling facility.

# We Are the Stewards

*Briefly describe your work.*

As Chief Meteorologist for a local television station, I tell the local weather story on a daily basis. The story begins with what the weather has been over the past few days and evolves quickly into a forecast for the next 24 hours and the outlook for coming week. I use many tools, including weather data and imagery, computer graphics and maps, forecast models, as well as personal knowledge and experience and viewer reports. As the “news scientist,” I deliver information on a variety of subjects, like seismology when earthquakes or tsunamis occur; ornithology, when a viewer wants to know the identity of a local bird; or astronomy for viewers to observe objects in the night sky.

A broadcast meteorologist is a vital link between the scientific community and local citizens. All residents are affected by weather and environment, but the average citizen does not have time to collect and interpret weather information. I have the task of communicating weather and scientific information accurately, while keeping the technical information understandable for the typical viewer.

*Describe Nevada weather and water resource availability?*

I'll use an analogy and compare water resource availability to a personal budget, Nevada survives paycheck to paycheck. When you consider average annual precipitation, Nevada is the driest state in the nation. That means our average “income” on the balance sheet is already limited. Northern Nevada's water needs are met by the mountain snowpack, which means our water “income” needed to meet our annual water “expenses,” only comes during the winter storm season. This “income” is highly variable, and our “savings,” or storage capability, only provides a few years of flexibility. Long-time Nevadan knows that drought is always just a low snowpack away.

I want Nevadans to understand that water is a limited resource, that its availability is never certain, and that every drop saved is a drop needed. In my newscast, I emphasize the importance of the winter snowpack, not only for recreation, but for the water

Our featured steward is **Jeff Thompson**, who wears many hats as Chief Meteorologist at KOLO 8 News Station in Reno, NV.



content; where our water resources and the water budget stands, and what Nevadans can do to conserve this resource.

*How can Nevadans help conserve our precious water?*

Most residents comply with watering schedules that limit irrigation to three days a week, and I believe that as availability changes, residents will continue to adapt. The trend for larger water users to use reclaimed water will continue and expand. We will see more xeriscaping in new housing developments and expanding this practice into established grass-lawn neighborhoods. If not for conservation stewardship, the smart homeowner will surrender more grass in exchange for savings on the water bill. More homeowners and associations need to make design choices that will conserve water and reduce costs.

*How would you describe your watershed stewardship practices?*

I water two, rather than three days a week as the Water Authority schedule allows. I also plant flowers and vegetables in pots rather than in the ground, which limits the amount used for spot-watering. My wife and I teach our children to conserve water. We empty the kiddie pool, using that water for landscape plants; we teach them to turn off the tap when brushing their teeth, and to take short showers. I get my children out to experience nature and to get them **CONT. ON PAGE 6**

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## Stewardship Spotlight

talking about the value and importance of our natural resources as often as possible, knowing that someday, hopefully, they will be doing the same with my grandchildren. When camping, we practice “leave no trace” principles.

My interest in xeriscaping will go into practice soon. I’ll keep a section of grass the kids can play on, but most of the property will be low water use, while still being an attractive landscape.

*What would you like to see for your community in relation to water?*

I receive many complaints about water waste (leaks, broken sprinklers) from residents who work hard to conserve water. I’d love to see a water hotline with a menu of helpful tips, contacts, websites for low-usage plants and grasses, and message center for observed leaks or wasteful practices.

*Educators with questions regarding the understanding of how the atmosphere, ocean, land and water interact to generate weather and climate, may contact Jeff at 775-858-8880 or [jeff.thompson@kolotv.com](mailto:jeff.thompson@kolotv.com)*

### Five-day Truckee Adventure

by Jeff Thompson

A watershed idea to gets kids thinking about what they’re drinking!

**Day 1:** Start in Tahoe where you learn about lake clarity and take part in water testing. Then visit to a snow telemetry (SNOTEL) site to learn how it works and why snowpack is important.

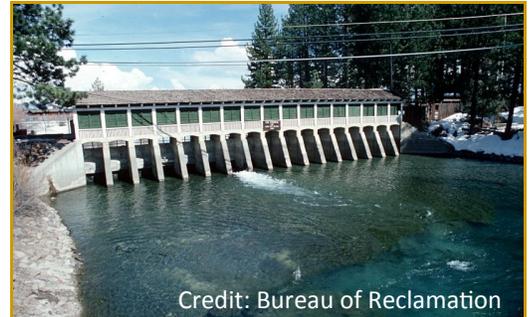
**Day 2:** Check out Lake Tahoe Dam and historic Fanny Bridge. Learn what the “natural rim” means and how water is moved around the system and reservoirs. In the afternoon, float the Truckee River!

**Day 3:** Visit Chalk Bluff Water Treatment Plant, follow with lunch and a river cleanup project. Have a local expert discuss how “all water drains to the river”, facts and concepts of runoff, infiltration, and nonpoint source pollution.

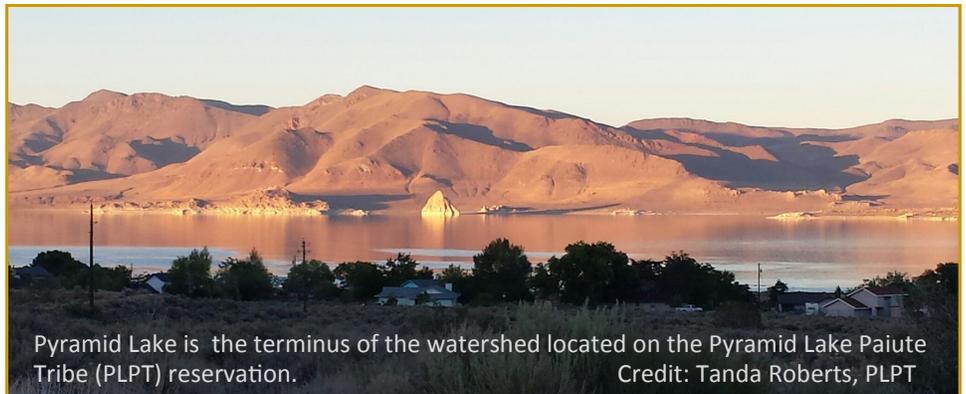
**Day 4:** A biology fieldtrip to the fish ladders to learn about the wildlife that rely on the river system. Visit a river channel restoration project and learn how healthy, restored channels have various advantages over engineered channels for flood control and wildlife.

**Day 5:** End your adventure at Pyramid Lake. View wildlife and learn about the Paiute culture of the lake and the importance of the water to the community that calls Pyramid Lake home.

**Extra Credit!:** If time permits, on any day, include more water testing and chemistry - from collection to lab analysis to see what is in our water and how important it is to take care of it.



Credit: Bureau of Reclamation  
Lake Tahoe Dam and historic Fanny Bridge at the top of the Truckee River Watershed.



Pyramid Lake is the terminus of the watershed located on the Pyramid Lake Paiute Tribe (PLPT) reservation.  
Credit: Tanda Roberts, PLPT

# Upcoming Events



## Alpine Aspen Festival

A celebration of the beauty and vital role that aspen groves provide for clean water to millions of Nevadans and Californians. Educational hikes, artist workshops, conservation projects and more. Visit [www.alpineaspenfestival.org/](http://www.alpineaspenfestival.org/)

September 25-28 in scenic Alpine County, California

# NevadaFloods.org

NEVADA FLOODS. ARE YOU PREPARED?

GET INVOLVED  
WITH  
EDUCATION  
ACTIVITIES



# Workshops

**Register Now!!**  
**9<sup>th</sup> Carson River Snapshot Day**  
**October 17<sup>th</sup> 9am - 12 Noon**



[http://ndep.nv.gov/bwqp/snap\\_carson.htm](http://ndep.nv.gov/bwqp/snap_carson.htm)

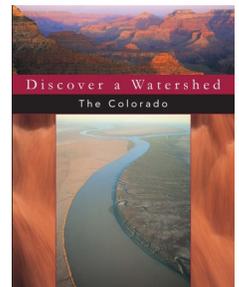
"Snapshot Day engages young adults in the field environment, and helps instill in them the importance of environmental stewardship and science-based observation of watersheds."

- Snapshot Day Team Leader, 2013

The Clark County School District offers water education workshops through the Professional Development Education Office (PDE). To register, contact the PDE office directly: 702-799-1921

**Discover a Watershed: Colorado River**  
10/18/14 — 8:00 - 4:30pm ½ PDE,  
at Clark County Wetlands Park

**PWET Workshop**  
11/15/14 — 8:00 - 4:30pm 1 PDE,  
at Clark County Wetlands Park  
& 12/6/14—8:00 - 4:30pm  
at Lake Mead National Recreation Area



**For more information contact:**  
Amanda j. D. Rowland, Education & Outreach Specialist  
Lake Mead National Recreation Area  
702-277-2770 [amanda\\_rowland@nps.gov](mailto:amanda_rowland@nps.gov)

The Nevada Division of Environmental Protection (NDEP) provides resources and funding for numerous educational and outreach programs and efforts throughout Nevada. NDEP sponsors and endorses Project WET and Recycling programs and curriculum through two Bureaus, Water Quality Planning and Waste Management.

Nicole Goehring ([ngoehring@ndep.nv.gov](mailto:ngoehring@ndep.nv.gov))  
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Rachel Lewison ([rlewis@ndep.nv.gov](mailto:rlewis@ndep.nv.gov))  
Southern Nevada Recycling Coordinator  
Bureau of Waste Management  
p: 1-800-597-5865 (Recycling Hotline)  
[NevadaRecycles.nv.gov](http://NevadaRecycles.nv.gov)



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