

# **Ten Water Conservation Best Practices**

Do you know when, where and how to use water in ways that minimize impacts to our watershed and its aquatic life? How to best transfer and store water? Here are several water conservation best practices.

1) The best place to source your water is from a certified community services district (CSD) water district. Utilizing a certified water district ensures that your water will be clean, safe, and withdrawn under the best possible conditions for the watershed. Customers who live outside of the service area of a water district can purchase water from Hayfork's Trinity County Waterworks District and the Weaverville CSD (www.weavervillecsd.com/) to supplement their water storage.

2) If you don't have access to a CSD, withdrawing water from a well will reduce your impact on stream health and aquatic wildlife. Rain and snowmelt recharge groundwater, which in turn recharges some streams. While wells do have an impact on some streams, it is less than when water is drawn directly from the surface water.

**3) If you have to pump water from a stream, do it legally.** It is illegal to take water from streams without permits. There are numerous laws about withdrawing water from streams, rivers and springs, and numerous agencies regulate these activities. This includes siphoning water into a tank in a truck, as well as diversion intakes. The Salmonid Restoration Federation recently created a brochure explaining which agencies to contact and how to start the process. It is posted on their website at:

http://calsalmon.org/srf-projects/water-rights-education#tabl. If you would like a printed copy, please stop by the TCRCD office and we'll be happy to print one for you.

4) Low-flow pumps are much better for streams than high-flow pumps. Low-flow pumps remove water more slowly over a longer period of time when compared to highflow pumps. Low-flow pumps are less harmful to the watershed because they don't surpass the water recharge rate. However, the use of storage tanks is recommended as they will ensure ample water availability when you need it (see tip number 7).

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## Ten Water Conservation Best Practices (continued)

**5) If you do pump water from a stream, it is essential to use a screen on the pump intake.** This practice keeps you from sucking up baby fish. It also keeps debris out of your pump, prolonging its life. Screen mesh openings vary. The full list of screen criteria is available at the following website: http://swr.nmfs.noaa.gov/hcd/pumpcrit.pdf. An example of an appropriate fish screen is at: www.pump-rite.com. Remember, the worst way to take water from a stream is with a high-flow pump.

6) The best time of day to pump is late at night or early in the morning. In northern California, forests use a lot of water during the heat of the day through a process called evapotranspiration. At night, they need far less water leading to significantly higher stream flows during the night than during the day. When you take water at night or early in the morning there is likely more water in the stream making your water take less impactful. Use a timer at night. It'll save you time, energy and water.

**7) Have appropriate water storage.** Having large water storage systems (2,500 gallons or more) greatly expands your options for water use, and can greatly reduce your impact on aquatic life. Storage allows you to take water either in winter when water is abundant, or take water at lower flow rates (see low- flow pumps above). It can also help utilize rainwater through harvesting and other creative water collection ideas. California Water Boards regulate the use of water storage tanks. See the following website for more information: www.aterboards.ca.gov/waterrights/publications\_forms/forms/docs/sdu\_registration.pdf .

8) Fix that leaky faucet, tank or pipe! Maintaining your water infrastructure is essential to water

conservation. Even little tiny drips waste large amounts of water and your money spent pumping that water; especially if you have several leaks. Three leaky faucets loosing 60 drops per minute equates to approximately 6,248 gallons wasted per year.

9) Set up irrigation systems to conserve water and improve plant production. Using drip irrigation, a soaker hose, or other direct application irrigation delivers water right where it is needed. These systems combined with timers allow you to control and monitor water consumption, improve plant production and save time and energy spent irrigating. Once purchased, these systems can be used for numerous years. Set it up, save water and your time!

**10) Use mulch to cover the soil around your plants.** Mulches reduce evaporation and keep soil moist. They also reduce soil temperature due to solar radiation. Mulches shade the soil, reduce weed growth and save you time pulling weeds or using herbicides. Rice straw is a good mulch material as it tends to be weed seed free. Mulch also reduces surface erosion from heavy rainfall events and is an effective way to protect areas where bare soil has been exposed.



The Five Counties Salmonid Conservation Program (www.5counties.org) rolled out their conservation demonstration trailer at the Trinity County Fair in August. Please contact the 5Cs at 623-3967 if you'd like the demonstration trailer at your event.





**R**esidents of Trinity County live in an extraordinary location where mountains, rivers and expansive blue skies provide a backdrop for our daily lives. The diversity of all types of life in this county, from mushrooms and wildflowers to birds and bears, provides a point of local pride. When the fisheries plunged into decline 50 years ago, local residents all along the Trinity River knew they had to find a solution to protect this precious natural resource. Creation of the Trinity River Restoration Program (TRRP/Program) in 2000 by order of the Secretary of the Interior began to address the problem.

Although many residents are aware of the Program and the main office located in the Weaverville Tops Shopping Center, some folks may not realize the Program depends on multiple agencies, several inter-agency work groups and a federally chartered advisory committee to plan, execute, complete and monitor projects. After independent review of completed projects, future projects are planned based on adaptive environmental assessments. Trinity County is in a unique position to have such an unprecedented approach to fishery and river restoration, which allows an extensive scope of participation virtually unheard of prior to the formation of TRRP.

## Who Makes Decisions?

Each of the eight partner agencies that comprise the Program hold a seat on the Trinity Management Council (TMC). These agencies are:

- US Bureau of Reclamation
- US Fish and Wildlife Service
- Hoopa Valley Tribe
- Yurok Tribe
- California Resources Agency
- US National Marine Fisheries Service
- US Forest Service
- County of Trinity

The TMC acts as a board of directors for the Program, making decisions and providing guidance on:

- restoration and maintenance of the river channel's essential structure and formation (morphology);
- balancing the recruitment of coarse and fine sediment of the upper river which was disrupted by the construction and operation of the Trinity River Dam;
- upslope watershed restoration programs to address sediment input from Trinity River tributaries resulting from land use practices; and
- overall fulfillment of restoration management actions conducted by technical staff from all the partners.

The unique structure of the Program ensures TMC's guidance and decision making process is based on community and scientific scrutiny, analysis and advice. Program activities and projects are not presented to the TMC for approval until after this guidance is received and reviewed.

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TRRP (continued)

## How Are Technical Methods Developed?

The TRRP has a number of collaborative work groups comprised of staff from the partner agencies. These work groups address scientific and technical issues regarding adaptive management approaches used by the Program. These issues all tie into restoration work in one form or another. The work groups report their findings to the TMC and TAMWG at their quarterly meetings. Work group meetings are open to the public and are posted on the TRRP calendar at www.trrp.net. Work groups currently include:

- Design Team
- Fish Work Group
- Flow Work Group
- Interdisciplinary Team (IDT)
- Physical Work Group
- Temperature Work Group
- Watershed Work Group
- Wildlife and Riparian Work Group

### How is Local Input Ensured?

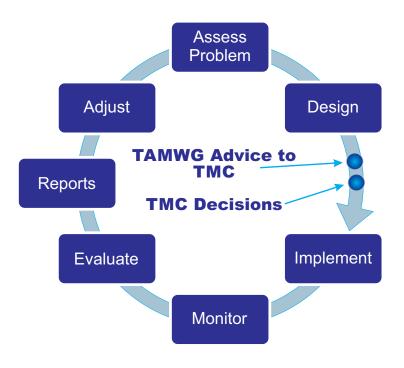
The Trinity Adaptive Management Working Group (TAMWG) provides local public oversight of the Program as a Federal Advisory Committee. Advisory committees have played a vital role in shaping federal programs from the earliest days of the nation. Since President Washington sought the advice of an advisory committee during the Whiskey Rebellion of 1794, their contributions have been notable. (www.gsa.gov/portal/content/101010; accessed 8/13/13). TAMWG reviews the Program's technical information and restoration activities, then makes recommendations to the TMC.

TAMWG members include representatives from environmental organizations, agricultural water users, small business owners, Trinity County residents, recreational fishermen /commercial fishermen, utility companies, the Natural Resource Conservation Service, local land owners, recreational fishing guides, and whitewater outfitters and guides. The complete list of individual participants can be found on the US Fish and Wildlife website at www.fws.gov/arcata/fisheries/tamwg\_contact.html.

## How is Scientific Oversight Provided?

The final integrated piece of the Program is an independent review panel known as the Scientific Advisory Board (SAB). The SAB has nearly completed their review of the Phase I projects, with a report expected by early fall 2013.





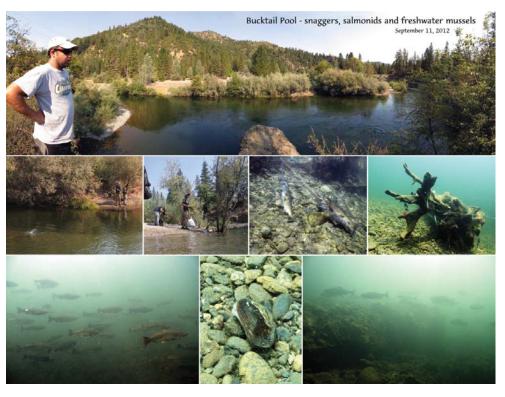
The steps of the adaptive management process.

#### Adaptive Management

The TMC takes the technical recommendations and advice of the TAMWG and public input to implement the Adaptive Environmental Assessment and Management (AEAM) component of the Program. This process is described in the Record of Decision, which established the TRRP. Interdisciplinary assessments allow development of hypotheses about how the river has changed under past natural and man made conditions. Teams of scientists, managers, stakeholders, and policy makers use this information to develop future management actions. The adaptive management process is repeated in a systematic way as management actions gradually result in the rehabilitation of the Trinity River and restoration of its fisheries. Results from these assessments are available on the TRRP online data portal: http://odp.trrp.net/

The popular Bucktail fishing hole near Lewiston has as much happening underwater as on the shore. Fresh water mussels are a native species of the Trinity River and depend on salmonids for distribution during their early life stages.

Photos taken by Thomas Dunklin and provided by Trinity River Restoration Program.





# 2.013 Weaverville Sammer Day Camp: Full Sessions, Full of Fun



Active games on the lawn lead to tired campers by the end of the day.



Campers searched for insects during the "What's the Buzz About?" session.



Sharing a water balloon was safer than tossing one.



The tunnel slide was so much fun!



US Forest Service specialists treated the campers to tales of forest animals and the opportunity to create their own animals from clay.



Campers learned about the salmon life cycle by presenting the Salmon Pageant with waterfalls to jump and bears and eagles to evade.



Local musician Hal Oleari volunteered each week to bring music to campers.



A field trip to the Weaver Basin Trailhead at East Weaver Campground let campers explore nature and clean up the trail as well.



Hikers at Lewiston Lake enjoyed the shade and a sip of water.



Arts and crafts kept campers of all ages entertained in the Young Family Ranch craft shed.



Everyone got into the groove when it came to learning the cha-cha slide.



Girls rock on "dress like a rock star" day.

## Weaverville Does it Again!

The 2013 Weaverville Summer Day Camp was a great success with help from the many community volunteers, Young Family Ranch, US Forest Service, Lowden Park Aquatic Center, Trinity Transit, Trinity County Health and Human Services, Trinity Alps Orchestra Musicians, TCRCD staff, four awesome counselors (Kelsey Briggs aka "Dolly," Christian Burris aka "Bowser," Kristen Jepsen aka "Pebbles" and last but not least, Tasha Weaver aka "Tigger"), UC CalFresh, supportive parents and the campers themselves. Thanks to everyone for another great year.

Donna Rupp, TCRCD Outreach and Education Specialist



# Noxious Weeds Facing Coordinated Attack by New Partnership

Noxious weeds don't recognize boundaries. A new regional partnership between several organizations coordinates weed eradication and containment efforts across boundaries in recognition of the need for a more holistic approach. A noxious weed is any plant that can spread rapidly, is not native to an area, and poses a significant threat to the local ecology or economic activities. Noxious weeds overwhelm, out-compete and displace native plants.

This alliance was spearheaded by the California Invasive Plant Council (Cal-IPC) and forms the North Central Region under their statewide regional effort. Representatives for the North Central Region include the US Forest Service Shasta-Trinity and Klamath National Forests; Trinity County and Fall River Resource Conservation Districts; Watershed Research and Training Center (WRTC); the Mid-Klamath Watershed Council; the Salmon River Restoration Council; Siskiyou and Shasta Counties Agricultural Departments; and the Weed Management Councils of Trinity, Siskiyou and Shasta Counties. In the first eight months of 2013 the partnership created a work plan for the eradication of priority species and submitted grant proposals to do the work identified by the work plan.

This joint venture makes funding for noxious weed management more accessible, as it demonstrates a strategic, regional commitment to truly effective noxious weed management.

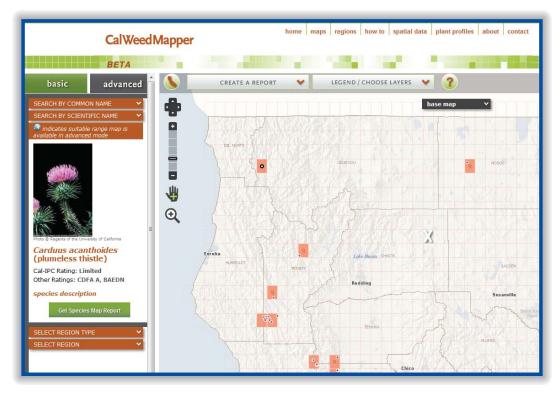
CalWeedMapper, a valuable web-based tool developed by Cal-IPC, provides the North Central Region with landscape level information regarding weed location, spread, and management; as well as where each weed is likely to spread based on suitable conditions.

The CalWeedMapper web program provided indispensible information regarding a population of French Broom (*Genista monspessulana*) near Hyampom. "We had no idea that the small population in Hyampom was one of the only populations in the County until your tool helped us see it," said Josh Smith, Watershed Research and Training Center. "We actually started a volunteer effort working on eradication of French Broom because of CalWeedMapper."

The public is invited to help in this coordinated effort and access the data at www.CalWeedMapper.org. For more information contact Christy Wagner (TCRCD) at 623-6004 or Josh Smith (WRTC) at 628-4206.



# Noxious Weeds Facing Coordinated Attack by New Partnership



*Carduus acanthoides* (plumeless thistle) has been identified as a strategic noxious weed species for eradication in the North Central Region because of its limited extent and invasive characteristics. The above snapshot from CalWeedMapper shows only a few known occurrences of the species in the region. Partners are working in cooperation to eradicate it from Trinity, Shasta and Siskiyou Counties.



Volunteers worked hard during a second treatment for French Broom along Lower South Fork Road in Hyampom. They pulled over 120,000 of these invasive plants!

# **Explore Trinity! Hosted Hiking Series Kicks Off September 28**

The South Fork National Recreation Trail follows the route of a historic narrow gauge wagon road. Crossing the South Fork Trinity River at Scott's Flat Campground in Forest Glen, the trail winds through old growth fir forest, drops down alongside the river, and offers vistas through oak and pine woodlands.

Explore this wild corner of Trinity County on Saturday September 28, when the Trinity County RCD (TCRCD) and Watershed Research and Training Center (WRTC) will be hosting a community hike along the trail. The first in a series of hikes that will offer participants the opportunity to visit various parts

of the county, the South Fork Trail route is an easy hike, well-suited for families. Much of the trail is shaded, and relatively level compared to many Trinity County hikes!

The group will meet at the trailhead at 9:45 am. TCRCD and WRTC will coordinate carpooling: contact Donna Rupp at the TCRCD (623-6004) for carpooling from the Weaverville area, and Michelle Medley-Daniel at the WRTC (628-4206) for carpooling from Hayfork. If you prefer to drive yourself, take Highway 36 to Forest Glen. Turn off at Hellgate Campground. Cross Rattlesnake Creek Bridge toward the Scott Flat Camp. The trailhead is at the suspension bridge 3/4 of the way through the dispersed campground.

Hikers should dress in comfortable layers and wear sturdy shoes. Bring your lunch, plenty of water, sunscreen, and camera in your day pack. You may also want to bring binoculars, guidebooks, swimsuit, and your journal. Join us as we explore this amazing watershed!



A child explores the South Fork Trinity River at the trailhead.

Date & Time	<b>Event &amp; Location</b>	Sponsor	Contact
September 14	<b>Trinity River Clean Up</b>	US Forest Service	Cindy or Esteban (Weaverville Ranger
9 am – 5 pm	Big Bar Ranger Station		Station) at 623-2121
September 20	Trinity Collaborative	TCRCD/ USDA	Tracy (TCRCD) 623-6004
10 am – 4 pm	Hayfork - County Fair Grounds		-
September 28	S. Fork Trinity River Hike	TCRCD/ WRTC	Donna (TCRCD) 623-6004 or
9:45 am – 4 pm	Meet at Forest Glen		Michelle (WRTC) 628-4206
October 6	Weaver Basin 50k-30k-10k	Rotary Club of	Gus Kormeier
8 am	Weaverville Community Forest	Weaverville	weaverbasin50k@gmail.com
October 12	Weaverville Salmon Festival	TCRCD/ Trinity	Trinity Chamber 623-6101
10 am – 4:30 pm	Highland Art Center Meadow	Chamber/ TRRP	
October 18	<b>Trinity Collaborative</b>	TCRCD/ USDA	Tracy (TCRCD) 623-6004
10 am – 4 pm	Weaverville – Veteran's Hall		
October 19	LaGrange Classic Bike Race	Trinity Chamber /	Trinity Chamber 623-6101 or
7 am	Weaverville	Team Bigfoot	www.teambigfoot.com
November 2	Salmon Gathering	WRTC/ TCRCD	Donna (TCRCD) 623-6004 or
Time TBD	Hyampom Community Center		Michelle (WRTC) 628-4206

# **Upcoming Trinity County Events**

Abbreviations: TCRCD = Trinity County Resource Conservation District; USDA = US Department of Agriculture; WRTC = Watershed Research and Training Center; Trinity Chamber = Trinity County Chamber of Commerce; TRRP = Trinity River Restoration Program.



# **District Manager's Corner**

## A Message from District Manager, Alex Cousins

Most of us in Trinity County cope with the summer heat by finding our favorite swimming hole until the cool evening allows us to head back home. This year seems different - the heat lingers later into the night and creeks and rivers are lower than usual. Algae seems to be more abundant this year, raising concerns for our fisheries and water supplies.

With a record low snowpack, and an increase in water usage throughout Trinity County, every drop has increased in value.

The overused and extremely relevant saying "whiskey is for drinking and water is for fighting" has never been truer than this year. It seems the entire state is jostling for a portion of the water supplied by the Trinity River and it's tributaries.



Alex Cousins

It's a great year to reflect on water usage and what can be done locally to reduce consumption. Low-flow toilets, showerheads and faucets are helpful, but so are ensuring that diversions and water intakes are legal, diversion times are appropriate, and landowners are taking only what is needed. We are including tips on water conservation in this edition, and the District office is always available to help landowners. We have examples of drip irrigation at the Young Family Ranch in Weaverville, as well as many partner agencies with plenty of information on water conservation.

Meanwhile, enjoy the heat, it'll be snowing soon enough...



# Highland Art Center Meadow on Main Street, Weaverville

Interested in being a vendor? Contact the Trinity County Chamber of Commerce at 623-6101

Sponsored By:

Trinity River Restoration Program 
Trinity County Resource Conservation District
Trinity County Chamber of Commerce
Trinity County Arts Council
California Conservation Corps





Established 1956

#### District Board Meetings

Third Wednesday 5:30 PM Open to the Public

#### TCRCD Office

Number One Horseshoe Lane PO Box 1450 Weaverville, CA 96093

> <u>Telephone</u> (530) 623-6004 FAX 623-6006

### E-mail: info@tcrcd.net Internet: www.tcrcd.net

Trinity County Resource Conservation District P.O. Box 1450 Weaverville, CA 96093



# **POSTAL PATRON**

The Trinity County Resource Conservation District (TCRCD) is a special district set up under state law to carry out conservation work and education. It is a not-for-profit, self-governing district whose board of directors volunteer their time.

### The TCRCD Vision

TCRCD envisions a balance between utilization and conservation of our natural resources. Through economic diversity and ecosystem management our communities will achieve and sustain a quality environment and healthy economy.

### The TCRCD Mission

To assist people in protecting, managing, conserving and restoring the natural resources of Trinity County through information, education, technical assistance and project implementation programs.

#### TCRCD Board of Directors are Mike Rourke, Rose Owens, Patrick Truman, Colleen O'Sullivan, and Greg Lowden.

The RCD is landowners assisting landowners with conservation work. The RCD can guide the private landowner in dealings with state and federal agencies. The RCD provides information on the following topics:

- Forest Land Productivity
- Watershed Improvement
- Water Supply and Storage
- Educational Programs
- Erosion/Sediment Control
- Wildlife Habitat
- Soil and Plant Types
- Fuels Reduction

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