

Questions from Public Outreach Meeting

Willow Creek: May 29, 2012

TRRP Organization / Structure / Budgets / Process

(for additional information please review www.trrp.net)

The Willow Creek community expressed a high level of interest in an updated presentation by the TRRP either on DVD and/or in person.

The Trinity River Restoration Program is happy to give presentations to community groups and schools and welcomes requests for specific information pertaining to work on our responsibility areas within the 40 mile main river reach below Lewiston Dam.

Examples of subjects are listed below:

Flow Management of Record of Decision (ROD) Restoration Volumes and Flows

Channel Rehabilitation in completing the 44 projects & 3 side channels specifically identified in the ROD

Gravel Augmentation as described in the ROD to make up the deficit caused by the dams

Fine sediment reduction through watershed activities in the 40 mile main river reach

Specific infrastructure improvements of potable wells and septic systems in the main river floodplain that may be affected by restoration flows

Environmental compliance with permitting requirements of the management agencies

Science-based adaptive management incorporating lessons learned from TRRP activities into planned Program projects.

What is the TRRP management structure (i.e. governance / management / structure)?

The Trinity River Restoration Program is a combination of many cooperating local, state and federal agencies, along with local tribal interests, that work together to make recommendations to the Secretary of Interior (U.S. Department of Interior <http://www.doi.gov>) for activities carried out by TRRP staff.

TRRP's main office is located at 1313 S. Main Street in Weaverville, CA, right next to Tops Superfoods. Please contact us at 530-623-1800, visit our website, www.trrp.net, or come to our office. TRRP funds Trinity River restoration activities by partners and other collaborating agencies and organizations. The TRRP executive director acts as the program manager fulfilling the reporting and accountability requirements of this federal program.

The [Trinity Management Council \(TMC\)](#) is the decision making body for the TRRP, advising the Secretary of Interior in managing the Trinity River Restoration Program. Representatives from the eight partner agencies and organizations are voting members who fulfill the role of a board of directors. TMC membership includes: U.S. Fish and Wildlife Service, U.S. Bureau of Reclamation, U.S. Forest Service, NOAA Fisheries, State of California Resource Agencies, Hoopa Valley Tribe, Yurok Tribe, and the County of Trinity. The chair of the TAMWG and the TRRP executive director are non-voting members of the TMC.

The [Trinity Adaptive Management Working Group \(TAMWG\)](#) is a federal advisory committee comprised of appointed local/regional stakeholders which advises the TMC. The [TAMWG](#) is conducted under oversight of the US Fish and Wildlife Service. The purpose of the TAMWG is to ensure thoughtful stakeholder involvement in the Restoration Program, especially the adaptive management process, as it applies to TRRP responsibilities.

What is the purpose of the TRRP?

The Trinity River Restoration Program is a long-term, comprehensive effort to restore fish and wildlife populations in the Trinity River below two dams, Trinity Dam and Lewiston Dam that are part of California's Central Valley Project (CVP).

The restoration work is underway as part of meeting requirements of the Central Valley Project Improvement Act of 1992, which includes fish and wildlife protection and mitigation. These have equal priority with irrigation, domestic uses and power generation. The Trinity River program includes management of [Record of Decision flows](#), [channel rehabilitation](#), [sediment](#) control, and [watershed](#) restoration.

TRRP uses the fishery population surveys conducted by the Program partners to report on progress toward Record of Decision goals. The Program's efforts towards ecological restoration of river processes and restoration of fish and wildlife habitat are also consistent with the America's Great Outdoors Initiative, and ultimately fish and wildlife populations for the enjoyment of the American public. For more information see <http://www.usbr.gov/river/>.

What revenue sources (\$\$) fund TRRP?

The Trinity River Restoration Program is funded through several, variable sources of funding. The Bureau of Reclamation and U.S. Fish and Wildlife Service both provide a long term commitment to funding the Program. Actual amounts vary from year to year and are appropriated by Congress for the Bureau of Reclamation (BOR) specifically for the TRRP. The BOR is reimbursed from water and power revenues by the CVPIA and other sources. The Central Valley Project Improvement Act of 1992 (http://www.usbr.gov/mp/cvpia/title_34/public_law_complete.html) added the following language to existing law: "To protect, restore, and enhance fish, wildlife, and associated habitats in the Central Valley and Trinity River basins of California." This established a Restoration Fund and engaged USFWS funding. All TRRP activities must mitigate for impacts of the Trinity Division on 40 miles of the river below Lewiston Dam, with rehabilitation of river habitat, fish, and wildlife.

How much water is diverted from the Trinity?

Approximately 50% of the inflow to Trinity Reservoir is diverted out of the Trinity River Basin to the Central Valley Project.

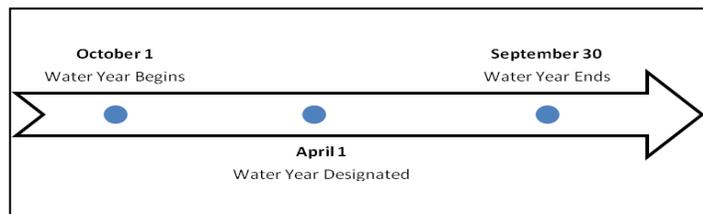
Prior to the implementation of the [Record of Decision](#) (commonly referred to as “the ROD”), there were much larger diversions from the Trinity River Basin. The ROD guaranteed a minimum level of guaranteed flows to the Trinity River with the following language, “Variable annual instream flows for the Trinity River from the TRD based on forecasted hydrology for the Trinity River Basin as of April 1st of each year, ranging from 369,000 acre-feet (af) in critically dry years to 815,000 af in extremely wet years;”

Restoration flows are “based on forecasted hydrology.....as of April 1st of each year”. This forecast also impacts how much water is annually diverted away from the Trinity Basin. The forecast is jointly developed by the National Weather Service and the California Department of Water Resources for the entire State of California, including the Trinity River, and identical forecasts are published in the “Water Supply Outlook for California and Northern Nevada” (http://www.cnrfc.noaa.gov/water_supply.php) produced by the National Weather Service, and in “Bulletin 120” produced by the California Department of Water Resources.

Flow decisions are based on the volume and frequency of actual, not forecast, water year types. A detailed account of all [Record of Decision flows](#) and [non-restoration releases](#) and diversions is available on the Trinity River Restoration Program website (<http://www.trrp.net/>). Starting in 2012, the detailed accounting of all releases will also be available in the annual flow implementation report, which will also be accessible through the Trinity River Restoration Program website.

What are the determining factors and who makes that determination?

The predicted water year type is based on the April 1st forecast for the annual river runoff of the Trinity River at Lewiston, CA. The annual runoff forecast for the Trinity River is based on a combination of snow pack measurements and predictive modeling.



Each annual water year forecast determines the water year type (e.g. wet, dry) and the Record of Decision describes the volume of water available to the Trinity River Restoration Program for restoration releases for the different water year types. As mentioned above, this forecast is jointly developed by the National Weather Service and the California Department of Water Resources.

Many agencies and organizations use this forecast, including the TRRP. Once the Program receives this determination, the Flow Workgroup, made up of technical representatives of all partner organizations, meets to determine how to design a hydrograph (flow release schedule) for the spring to provide the variable flows need for juvenile fish outmigration, riparian vegetation, and floodplain and side channel interactions with the main river.

Restoration Projects – Performance and Review

What restoration work needs to be done in Willow Creek? Any tributary work planned?

The US Forest Service Six Rivers National Forest manages land along Willow Creek. Information on land management and contact numbers can be found on the web site for the [Six Rivers National Forest](#). The [Five Counties Program](#) also works on tributaries within watersheds.

The Willow Creek community might consider forming a watershed group, similar to others in the North State. They are also encouraged to become familiar with other local entities that are positioned to work in tributaries, such as Five Counties.

Why are the only projects from Lewiston to the North Fork and why are projects not planned for the Willow Creek area?

The Trinity River [Flow Evaluation Study](#) (1999) determined that restoring juvenile rearing habitat from Lewiston Dam to the North Fork of the Trinity River would provide a basis to restore the Trinity River and its populations of salmon, steelhead and other fish and wildlife. The TRRP was developed specifically to rehabilitate river habitat in the mainstem in the forty mile reach between Lewiston Dam and the North Fork of the Trinity River. Areas of the river below the North Fork were thought to have sufficient flows and gravel from tributaries to provide habitat for salmonids.

When and where are restoration and/or tributary projects selected? What are the criteria?

The original 44 sites for restoration in the upper Trinity River were chosen and the analyses presented in the Trinity River Flow Evaluation Study and [Environmental Impact Statement/Environmental Impact Report for the Trinity River Mainstem River Restoration](#).

The process for the final, complete designs of sites is a lengthy and complicated process. It involves incorporation of knowledge gained from previous efforts, design engineers and other technical experts from partners, NEPA, permitting and public meetings. The environmental documents, flyers for public meetings, and designs are all posted on our website, distributed through the Program office, in addition to being handed out at public meetings. The 2012 design and environmental documents can be found under 2012 [Channel Rehabilitation Information](#) on www.trrp.net.

How is success of projects measured?

Success of projects is measured in several different ways. We have a number of [performance measures](#) which we have posted on our web site. These include accounting for restoration volumes, managing and accounting for coarse sediment storage and transport, fine sediment storage and transport, achieving temperature targets, documenting increases in young salmon habitat, determining abundances of native salmon, the proportion of native salmon in the each run, distribution of natural area spawners, abundance of birds on the river, comparisons of turtle populations between the South Fork and main stem Trinity River, and status of vegetation within and long the river.

Are the river restoration projects completed considered successful?

We may not be able to determine the full relationship between our rehabilitation sites, flows, and the production of more fish until enough variability in water years, and enough life cycles of Trinity River salmon and steelhead have occurred. The first project of the TRRP was built in 2005, only one full fish life cycle so far. Different features of the rehabilitation sites are designed to respond to different flow levels. Since 2005, we have experienced (see interactive site http://www.trrp.net/?page_id=387) three dry years, one extremely wet, and two normal water years. In the coming years, once the river has experienced sufficient numbers of each water year type, full site performance in relation to flows and establishing and maintaining good salmon rearing habitat can be evaluated. As every fisherman knows, fish populations can vary greatly from year to year. Ocean conditions contribute to the success of adult returns, and this year will see the highest return seen, almost double that of any return in reported history. Again, some of the preliminary results from the Performance Measures may be useful as an initial measurement tool.

What is the Phase I review? When / where will Phase I review information be available? How many Phases (Phase I, etc) are planned?

The Phase 1 review is an independent review of the TRRP restoration projects (one half of the total planned) that have been completed and whether they accomplished the *defined physical objectives*. The Scientific Advisory Board (SAB) is conducting the review with administrative and analytical support provided by a contractor under the direction of the SAB. The SAB just released a revised schedule for the Phase 1, emphasizing the importance of a thorough, impartial review, in enough detail, to inform the second half of the projects and the approaches the TRRP uses in the coming years. The Phase I review **is not a be all and end all** to judge whether fish returns are increasing, TRRP operations are on track or any kind of comprehensive program wide review. Many of these other answers can be found in the Performance Measures and other reports.

How many projects completed so far? How many more planned?

Forty seven specific project sites were identified in the Trinity River Flow Evaluation Study and 23 have been completed. Two are planned for 2012 see the 2012 [Channel Rehabilitation Information](#) on our web site. We post information on public meetings and planning documents on our website every year. Folks are welcome to stop by our offices as well.

Are the tributaries in the upper 40 miles (Lewiston to NF) in worse shape than those below the North Fork?

The TRRP does not assess habitat in the tributaries. Much of the land is in Forest Service, BLM and private lands. Entities including the [Six Rivers National Forest](#), [Shasta Trinity National Forest](#), [Trinity County Resource Conservation District](#), and [Five Counties Salmon Conservation Program](#) can provide you information on the tributaries.

What is the status of watershed / tributary work?

TRRP partners and other entities such as the [Trinity County Resource Conservation District](#), [National Resource Conservation Service](#), [USDA Forest Service](#), and the [Five Counties Salmon Conservation Program](#) conduct work in the tributaries. The TRRP has cooperated on the following watershed projects in the Trinity basin since 2008. Our partners and other agencies leveraged TRRP funds on 28 out of 34 projects. TRRP Watershed financial contributions from Fiscal Year (FY) 2008 to 2012 was \$1,934,000, funds leveraged by other agencies during the same time period totaled \$2,019,500. See the table below:

Cooperative TRRP watershed projects in the Trinity basin since 2008

FY 2008 Projects

Conrad Gulch Road Decommissioning	Junction/Oregon Fire Outreach/Inventory
Lowden Implementation	North Fork Road Upgrade/Storm Proofing
Soldier Creek Storm Proofing	Lowden SPI
Jessup Gulch Road Upgrade	BLM/Democrat Gulch Storm Proofing
Browns Fire Outreach/Inventory	Little Grass Valley Creek Feasibility/Site Assessment

FY 2009 Projects

Grass Valley and Indian Creek Road Upgrade
Democrat Gulch Phase II Storm proofing
Junction City 2008 Fire Rehab
Dark Gulch Sediment Basin, Sediment Removal
China Gulch-Dutch Creek Sediment Reduction

FY 2010 Projects

Coffin Fire Road Rehab
Phillips Gulch Road Rehab
Bierce Creek Road Rehab
Soldier Creek Main Haul Road Sediment Reduction
Indian Creek Rehabilitation and Sediment Control, Phase I
Lower Sidney Gulch Rehabilitation and Sediment Control, Phase I

FY 2011 Projects

Middle Trinity Road Decommissioning / Upgrade
Union Hill Road Improvement
Indian Creek Rehabilitation and Sediment Control, Phase 2
West Weaver Creek Rapid Assessment
Conner Creek Migration Barrier
Browns Creek Road Sediment Assessment

FY 2012 Projects

BLM Roads Sediment Reduction
Lower East Weaver Creek Habitat / Infrastructure
Sidney Gulch at Forest Service Compound Feasibility
Conner Creek Fish Passage Feasibility
LiDAR Tributary Data Acquisition

Communication and Outreach

Can we get brochures in Willow Creek? (i.e. recent brochures that were just produced)

Please contact the [TCRCD](#) for the brochures TRRP developed with partners and stakeholders to highlight the beauty of Trinity County and describe the Trinity River Hatchery role on the Trinity River. Their telephone number is (530) 623-6004.

Can TRRP use Willow Creek Community Services District to get information out to the public? (utility bill stuffers, etc.)

TRRP has to develop the Restoration Flow schedule on a very short time table after the Water Year is announced. The scheduled releases often start within a week of the Trinity Management Council approval and transmission to the Department of Interior. Our current distribution by staff and helpful volunteers could be expanded if communities can identify citizens interested in participating. The Willow Creek CSD would need to describe exactly what type of information they would be able to distribute, the time schedule they can adhere to, potential associated costs, and then the TRRP would need to gain approval of the TMC for this increased outreach effort . The flow schedule is posted on the TRRP website as soon as it is approved by the TMC.

Is there a restoration program schedule available?

We assume this means flow schedule. We are happy to provide on our flow schedule and our rehabilitation schedule information for Willow Creek's use in future years as we have this year. This year TRRP staff and public volunteers posted the flow schedule on the day it was approved by the Trinity Management Council, at all put-ins and numerous businesses in the 40 mile reach between Lewiston Dam and the North Fork.

Willow Creek also has a stakeholder representative on the TAMWG and perhaps this representative could identify citizens who would be willing representatives of the Willow Creek community to identify events or citizens for outreach within the community. These volunteers could also help gather information for the community that is not the purview of the TRRP. Please contact Jeff Morris, the TCRCD outreach specialist directly with these concepts / contacts:

530-355-9880/ jeffconnection@gmail.com

Meeting schedules and project schedules are available on our website or accessible via U.S. Mail by calling (530) 623 – 1800.

What are the environmental documents that dictate flow and TRRP process? Can there be a “citizen’s guide to the ROD”?

A citizen’s guide to the ROD was developed in 2000 and is/has been available to the public from the TRRP office in Weaverville, on the TRRP website and online through the [Reclamation](#) Northern California website since 2000. The direct link is below:

http://www.usbr.gov/mp/ncao/trinity_river/trinity_river_mainstem_brochure.pdf

How do I find out what flows are (i.e. what are the public notice methods)?

The public can access flow information specifically related to the [Restoration Flows](#) on the TRRP website. You can see typical flows for each water year type as laid out in the ROD, and also see the current year flow schedule (see questions above). We also post notices in the Trinity Journal, the Two Rivers Tribune, The Eureka Times Standard and the Record Searchlight and media and public service announcements are made on other media (radio, social networks, etc). We also post notices at local community centers, grocery stores, markets and other social gathering locations.

Can a method of flow notices be implemented to insure key points on river have notices (Big Rock). Also see a need to physically post at strategic points.

We post information at river access points from Lewiston Dam to Big Bar as soon as the Restoration Flow release schedule is developed and approved for the year. Additionally, a reminder to citizens that hazards exist in a river was also posted at [river access points](#) from Lewiston to Big Flat along with the current flow schedule. The public can expect flows to vary based on precipitation events, snowmelt, and restoration releases. [Current annual hydrographs](#) for the Trinity River are found on the TRRP website under current release schedule and this webpage includes the opportunity to sign up for the automated Flow Release Notifications. Perhaps downriver residents could identify folks who would be willing to organize distribution of the flow schedule to the Willow Creek area, including popular locations like Big Rock.

The public can expect flows on the river to change every year, just as before the dams, with higher flows in the spring between mid-April and mid-July. The ROD has designated volumes and maximum flows for each type of water year. The public can go to the TRRP website or request typical hydrographs from the TRRP office 530-623-1800.

What about notices regarding tributary flows?

TRRP does not monitor tributary flows. The public can familiarize themselves with the [USGS](#) gaging stations that exist on some tributaries by accessing the National Water Information system. The [California Department of Water Resources](#) is also a good source of information on flows, as is the Water Quality Control Board.

Local Conditions

Why is there more moss/algae in lower Trinity? Can TRRP look / explore this issue?

TRRP monitors turbidity and water temperature during the summer. We do not govern any other water quality parameters. The public should contact the U.S. EPA, CA Department of Water Resources DWR, or our Regional Water Quality Control Board for more information about nuisance algae. Water quality problems that lead to nuisance algae are not the responsibility of the TRRP and cannot be controlled by the restoration tools we have available.

How are issues below the upper 40 miles dealt with as they relate to fish and the river?

The Trinity River Restoration Program monitors [spring and summer temperatures](#) in the lower Trinity below Lewiston Dam for salmonids. We have a Temperature Workgroup which tracks these metrics. We also track turbidity directly associated with in-channel projects.

If TRRP isn't responsible for following up on an issue (algae) who is?

[US EPA](#) governs water quality on the national level in rivers and the California Department of Water Resources and Water Quality Control Boards are the state.

Could Willow Creek are benefit from improved tributary health locally? (increased flows, cold water).

The [Five Counties Salmon Conservation Program](#) works on removing barriers to fish passage.

This year was the first year that locals had seen fish spawn at Kimtu.

We love to hear information about where fish are spawning and recommend you also report to the fishery management agencies including the NOAA and the CDFG.

Is there a possibility for restoration work in the Willow Creek area?

The [Five Counties Program](#) works on removing barriers to fish passage in tributaries.

Flows and Effects

How do increased flows affect areas further downstream (Willow Creek)?

Is there a way to estimate flow levels in Willow Creek and can there be increased outreach to insure the community is notified in a simple, effective manner?

Is there water temperature measurement in the Willow Creek area and how can the community be notified of that information?

The mainstem Trinity River flows are monitored by USGS in [Hoopa](#). Since tributaries contribute flows during snow melt and rain, the effects of Lewiston Dam releases are often augmented by tributaries and flows are much higher down river from the North Fork during the winter, spring, and early summer. The flows and temperatures measured at this site are also a good indicator of conditions in Willow Creek.

Can we have increased flows in the fall? Would there be a benefit?

Under very special circumstances, there are certain years when fall flows are necessary. 2012 is one of those years due to the projected large amount of returning salmon to the Klamath / Trinity and the potential, without the increased flows, for a fish die off similar to the die off that occurred in 2002.

Please see the following links for additional information:

Draft Environmental Assessment - http://www.usbr.gov/mp/nepa/documentShow.cfm?Doc_ID=10251

FONSI - http://www.usbr.gov/mp/nepa/documentShow.cfm?Doc_ID=10252

BOR Press Release - http://odp.trrp.net/FileDatabase/Documents/2012-07-17_MP-12-121%20Lower%20Klamath%20River%20Flows1.pdf

How do high flows affect fish and habitat and which of these is the priority?

Historically, salmon and steelhead in the Trinity River depended on the river's mobile and dynamic flow patterns to insure the formation of for high quality habitat.

With the arrival of Trinity Dam, fine sediment was deposited by tributaries below the dams and accumulated at deltas because river flows were too low to transport the fine sediment downstream.

Manual coarse sediment additions have returned that missing component to the river (see [Performance Measure](#)) and the restored flows of the ROD are able to transport coarse sediment (see [Performance Measure](#)). As the dynamic nature of the river is restored, we anticipate that habitat at a variety of flows will directly benefit fish by providing off channel habitat and floodplain access during high flows. Rehabilitation sites (see [Performance Measure](#)) also ensure the existence of that increased habitat.

When did the flows increase (as a result of the ROD), what is the scientific justification / background for the increased flows, how are flow levels determined?

Restoration water allocation was limited by Court order during 2001-2004. Court ordered volumes varied by year until the full Record of Decision flows were initiated in 2005. Restoration release volumes are based on average daily flow records for the Trinity River at Lewiston stream gage ([#11525500](#)) operated by the U.S. Geological Survey. The scientific justification of these flows is contained in the Trinity River Flow Evaluation Study (1999). The inflow to Trinity Reservoir is determined by the State of California Department of Water Resources, this inflow determines the water year as specified in the ROD.

What are the minimum and maximum flows required for healthy salmon population?

The Trinity River Flow Evaluation Study and the Environmental Impact Statement determined the flows that would form the basis of the Record of Decision Flows. The analyses represented the best available information at the time.

Are conservation projects good to keep water in its natural drainage (i.e. do the program projects insure consistent river flows vs. water exports to central valley)?

The Record of Decision Flows are adhered to by the US Bureau of Reclamation.

Fish and Other Wildlife

Do improved numbers of fish mean success to the program?

Yes, one of the main measures of success of the TRRP is the [number](#) of naturally produced (non-hatchery) adult native fish that return to the Trinity to spawn and provide harvest opportunity to tribal, commercial, and sport fishers. [Performance measures](#) looking at the fish, wildlife and riparian areas can be found on our website, with the links to the actual documents (see links in blue below)

Spawner escapement program goal summary is below: (*Escapement refers to fish that have “escaped” fisheries and are left to spawn. In the Klamath Basin, the current minimum natural area escapement level is 40,700 fall Chinook adults.*)

Species	Natural Escapement Goal	Hatchery Escapement Goal
Spring Chinook salmon	6,000	3,000
Fall Chinook salmon	62,000	9,000
Coho salmon	1,400	2,100
Fall steelhead adults	40,000	10,000

How is the fish return prediction determined? Is history used? How is error factored in?

Fall Chinook salmon are currently the only species that we estimate preseason predictions for. Chinook salmon which emerge from gravels as juveniles in one year in the Klamath Basin return to the river as age two- through five-year olds (siblings) in subsequent years. The predictions are based on these “sibling relationships”. Age two in-river returns are used to predict age three ocean abundance levels, age three in-river returns are used to predict age four ocean abundance levels and so on.

Yes, history of the Chinook salmon runs is used. A long data set (20+ years) of historical returns by age is used to determine the relationship between one year’s in-river return and the next year’s ocean population level. This is a simplification of the methods as there are several factors such as age at maturity, ocean harvest levels etc. that all are part of the modeling.

The percentage error in the predictions is mostly due to environmental conditions that cannot be modeled precisely, such as ocean productivity, ocean survival, and ocean and estuary predation. However, there are buffers that are applied in the management process that are meant to compensate for these conditions.

Why is a large return predicted for this year?

The 2012 Klamath Basin in-river return is predicted to be the largest since 1977 (see discussion of above), due in part to the largest recorded return of age two fish in 2011. Age two in-river returns are used to predict age three ocean abundance levels, so we anticipate a large run of 3 year old fall Chinook salmon in 2012.

Are there other species monitored on the Trinity? Mussels?

Birds, mussels, aquatic insects, frogs, turtles have been monitored in the past. Many of these reports can be found on our online data portal (<http://odp.trrp.net/>). Mussels were recently examined for mercury content by U.S. Fish and Wildlife Service (see [report online](#)).

Are non-native species a concern to TRRP?

Non-native species which compete with native species are a concern to the TRRP and other management entities. Once a non-native species becomes established, it is difficult or impossible to eradicate. Often, management activities are directed at reducing or minimizing the impacts on the native species. In the case of brown trout, a non-native species, liberal bag and possession limits were put in place to help keep non native brown trout in check. We encourage fishers to keep brown trout. California Department of Fish and Game regulations allow for fishing for 5 brown trout a day and to keep 10 brown trout in the bag. <http://www.dfg.ca.gov/regulations/FreshFish-Mar2012/>.

Did fish adjust to flows prior to ROD and are they readjusting to new ROD flows?

Native salmon are extremely good at adjusting to changing conditions. However, the Flow Evaluation Study (1999) found that a lack of habitat for very young fish was preventing salmon populations from increasing. Habitat above the Lewiston and Trinity dams was entirely lost, and the remaining in-river habitat was severely degraded, especially from Lewiston Dam downstream to North Fork Trinity River. The difference in flows prior to the ROD and the new ROD flows are designed to improve this habitat in the 40 miles below Lewiston Dam. The Flow Evaluation Study (1999) found that below the North Fork that gravel introductions and increased flows from the dam would not increase rearing habitat for salmon. With tributaries contributing water and gravel, neither of these two important building blocks of salmon habitat were missing below the North Fork.

Are juvenile salmon adjusting to the new ROD flows and the other rehabilitation actions? Naturally produced juvenile Chinook salmon abundance appears to have increased steadily from 2007 through 2010 (<http://odp.trrp.net/Data/Documents/Details.aspx?document=1383>).

Permitting / Safety / Economics

Is there any discussion about a river wide permitting system (i.e. like the Rogue in Oregon that limits all activity under a permit system)?

The [US Forest Service](#) and [Bureau of Land Management](#) issue permits for rafting and river access. The Hoopa Valley Tribe governs their river access. [California Department of Fish and Game](#) issues fish licenses, [Department of Water Resources](#) and [Department of Fish and Game](#) issue permits for water withdrawals.

How is river safety addressed?

Public notices are posted from the new Lewiston Bridge down to Big Flat before Dam releases start in the spring.

In 2012 notices were also available at the TRRP website and office, and were circulated through the TRRP distribution list, by the outreach contractor, and the public outreach contractor. Notices ran in the Trinity Journal, the Two Rivers Tribune, The Eureka Times Standard and the Record Searchlight and media and public service announcements were made on KHUM and KCHO.

Is there (or could there be) an economic study conducted?

Yes, however TRRP funding could not be used for such a study. Public laws clearly describe how public expenditures related to the TRRP are used, in every case for mitigation of effects of the Trinity Dam on the mainstem Trinity River in the 40 miles below Lewiston Dam.

- ***sociological vs. ecological:*** The Trinity River and its population have changed a lot since the landmark twelve year study, the Trinity River Flow Evaluation Study completed in 1998. That study forms the scientific basis for the TRRP's activities and reflects society and the degraded condition of the river at that time. A revisit of the river that combines current ecological conditions with current sociological conditions would need to be funded under other authorizations.

- ***recreation vs. fish count/health (coastal economic influence is decreased with lower temps)***

Again, as other types of recreation increase along the Trinity River, that analysis would conceivably be part of the study suggested above which would need to be funded under other authorizations.

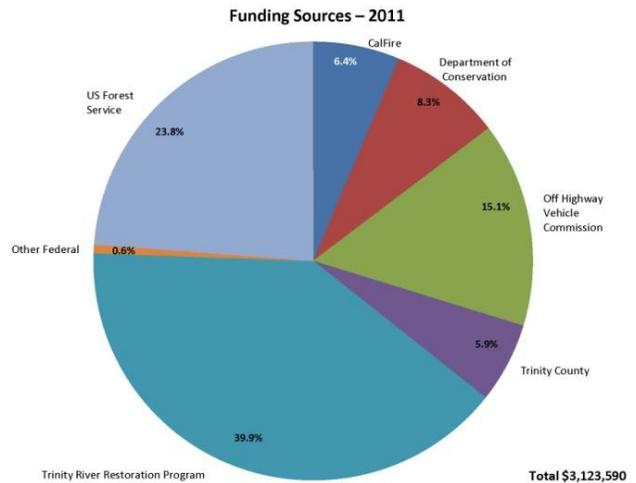
Questions and Answers About Other Agencies

What revenue sources (\$\$) is funding the TCRCD?

The Trinity County Resource Conservation District is funded through a number of different sources, the Trinity River Restoration Program. Funding amounts and percentages vary from year to year.

The 2011 funding sources total \$ 3,123,590 and break out as follows:

- U.S. Forest Service – 23.8%
- Calfire – 6.4%
- CA Department of Conservation - 8.3%
- Off Highway Vehicle Commission – 15.1%
- County of Trinity – 5.9%
- Trinity River Restoration Program – 39.9%
- Other Federal - .6%



The scope of work for the TCRCD spans a number of different resource categories, with the highest sectors for 2011 being allocated as follows:

- Roads – 31.0%
- Education and Outreach – 25.9%
- Planning – 14.1%
- Fuels Reduction – 9.5%

Is TPUD to be expanded to all of Trinity County?

TPUD can be contacted at their office in Weaverville -26 Ponderosa Lane, Weaverville, CA 96093, or by phone at (530) 623-5536.

We contacted TPUD and they provided the following response:

“It is extremely unlikely that TPUD would extend lines to everyone in the county. This is due to the fact that further out you go into a sparsely populated area, the higher the “per household” cost for a power line becomes. At a certain threshold, it becomes unfeasible economically and would result in rates higher than PG&E’s.

However, there is an effort currently underway to study different options surrounding formation of a Community Choice Aggregation (CCA) district that could potentially bring first preference power to the entire county. This would serve existing PG&E customers through existing infrastructure with first preference power from federal dams. Though these residents would still have rates somewhat higher than TPUD customers, the rates would probably be 15-20% lower than they are currently paying.”

Helpful Links to Web Addresses

Trinity River Restoration Program

Website: http://www.trrp.net/	Phone: 1530 623 1812
Program staff: http://www.trrp.net/?page_id=1985	The Mission of Reclamation: http://www.usbr.gov/river/

Governance Organizations

Trinity Management Council: http://www.trrp.net/?page_id=413	Trinity Adaptive Management Working Group: http://www.fws.gov/arcata/fisheries/tamwg.html
---	--

Governing Documents and Decisions

Central Valley Project Improvement Act: http://www.usbr.gov/mp/cvpia/title_34/public_law_complete.html	Environmental Impact Statement for the Trinity River Mainstem River Restoration: http://odp.trrp.net/Library/Details.aspx?document=1238
Trinity River Record of Decision: http://odp.trrp.net/Library/Details.aspx?document=227	The Flow Evaluation Study: http://odp.trrp.net/Data/Documents/Details.aspx?document=226
Trinity River ROD Brochure: http://www.usbr.gov/mp/ncao/trinity_river/trinity_river_mainstem_brochure.pdf	

Management Actions

Record of Decision flows: http://www.trrp.net/?page_id=51	Channel rehabilitation: http://www.trrp.net/?page_id=52
Sediment watershed: http://www.trrp.net/?page_id=409	Water Year Summaries: http://www.trrp.net/?page_id=387
Non-restoration flow releases http://www.trrp.net/?page_id=391	Current Release schedule: http://www.trrp.net/?page_id=150
2012 Channel Rehabilitation. http://www.trrp.net/?p=3865	Watershed restoration, http://www.trrp.net/?page_id=409
Temperature Management: http://www.trrp.net/?page_id=1026	

Measurements of Success

Overall

Performance measures: http://www.trrp.net/?page_id=490	Online Document library with searchable reports: http://odp.trrp.net/
---	--

Flows and Snow

Flows: http://www.trrp.net/?page_id=387	Forecasts of Trinity River Flows: http://www.cnrfc.noaa.gov/water_supply.php
Flows at Lewiston: http://waterdata.usgs.gov/usa/nwis/uv?11525500	Flows and temperature at Hoopa: http://waterdata.usgs.gov/usa/nwis/uv?site_no=11530000
Department of Water Resources: http://cdec.water.ca.gov/snow/bulletin120/	

Species

Natural salmon: http://odp.trrp.net/Data/Documents/Details.aspx?document=1376	Salmon Habitat: http://odp.trrp.net/Data/Documents/Details.aspx?document=1374
Mussel report: http://odp.trrp.net/Data/Documents/Details.aspx?document=623	Salmon Out-migrant Abundance: http://odp.trrp.net/Data/Documents/Details.aspx?document=1383

Sediment

Fine Sediment: http://odp.trrp.net/Data/Documents/Details.aspx?document=1373	Coarse sediment: http://odp.trrp.net/Data/Documents/Details.aspx?document=1371
--	--

Agencies Involved in the Management of Natural Resources in the Trinity River Basin

Six Rivers National Forest: http://www.fs.usda.gov/srnf/	Shasta Trinity National Forest: http://www.r5.fs.fed.us/shastatrinity/
Trinity County Resource Conservation District: http://www.tcrd.net	National Resource Conservation Service: http://www.ca.nrcs.usda.gov/
US EPA Pacific Southwest Region Monitoring: http://www.epa.gov/region9/water/tmdl/	Pacific Fishery Management Council: http://www.pcouncil.org/salmon/stock-assessment-and-fishery-evaluation-safe-documents/
California Department of Fish and Game http://www.dfg.ca.gov/regulations/FreshFish-Mar2012/	California Department of Water Resources: http://cdec.water.ca.gov/river/trinityStages.html
Five Counties Salmon Conservation Program: http://5counties.org/	Trinity Public Utilities District can be contacted at their office in Weaverville -26 Ponderosa Lane, Weaverville, CA 96093, or by phone at (530) 623-5536
County of Trinity www.trinitycounty.org	

Permitting

US Forest Service: http://www.r5.fs.fed.us/shastatrinity/about/units/trmu/index.shtml	Bureau of Land Management: http://www.ca.blm.gov/i
California Department of Fish and Game / License: http://www.dfg.ca.gov/licensing/	Department of Water Resources: http://www.water.ca.gov/groundwater/well_info_and_other/well_permitting_agencies.cfm#TrinityCounty
Department of Fish and Game / Permit: http://www.dfg.ca.gov/habcon/envirRevPermit/	Six Rivers National Forest Land Management: http://www.fs.usda.gov/land/srnf/landmanagement

Other useful links

<p>Good map and information on the river: http://www.cacreeks.com/trin-hel.htm</p>	<p>Current Stream Flow Conditions In California: http://www.thetent.com/thetent/aogcr/ca/casf_index.htm</p>
<p>USGS Data: http://ca.water.usgs.gov/data/waterconditionsmap.html</p> <p>Map with station links. Discharge and gage height data is readily available.</p>	<p>DWR Data: http://cdec.water.ca.gov/river/rivcond.html</p> <p>Trinity River and Tributaries link in the North Coast Region box. Some of the sites have current water temperature, turbidity, and dissolved oxygen data, in addition to stage and discharge.</p>
<p>TMDL listings for the Trinity River: http://www.waterboards.ca.gov/northcoast/water_issues/programs/tmdls/303d/#current</p>	<p>National Wild and Scenic Rivers System: http://www.rivers.gov/rivers/rivers/trinity.php</p>
<p>Historical water quality data: http://www.water.ca.gov/waterdatalibrary/</p> <p>Pan to desired location on map, click the site type (water quality), refresh the map, and click on the link on the map. It has data on metals, minerals, and nutrients in the Trinity River at Lewiston from 2000 to 2012.</p>	<p>BLM River Guide Permitting: http://www.blm.gov/ca/st/en/fo/redding/recreationmain/flashguide.html</p> <p>“The BLM is not currently accepting applications for new commercial fishing guides on the Trinity River.” Contact information for the Redding Field Office is at the bottom of this page.</p>