



Trinity River Restoration Program

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NC-150

MEMORANDUM

To: Trinity Management Council

From: Mike Dixon, Executive Director
Trinity River Restoration Program

Subject: Director's Report

Date: December 11, 2023

Major TRRP activities between September 2023 and December 2023 include:

Construction at the Oregon Gulch project wrapped up in October and revegetation is essentially complete. A draft EA regarding gravel processing and augmentation was released for public comments. Work is underway to develop a work plan for a chinook salmon limiting factors analysis. With the completion of a TRRP-funded watershed project to remove an antiquated dam, there are no longer any artificial barriers to adult fish passage on East Weaver Creek.

Organizational Updates

- The Public Affairs Specialist (GS 7/9/11) was advertised but the certificate of applicants warranted readvertising. It will likely be readvertised sometime in early 2024.
- Eric Peterson's detail as Science Coordinator has ended. There is no update on when the permanent position might be advertised. It is possible that both this position and the public affairs position will be included with the HR "tiger team" effort that is being focused on NCAO in January.
- The USFWS selected Tyler Wallin to serve as the Arcata Fish & Wildlife Office's coordinator/liaison with the TRRP and the Designated Federal Official for the Trinity Stakeholder Advisory Committee. He started in that position at the beginning of December. He most recently served as a fish biologist in the USFWS' Fish and Aquatic Conservation Program in Arcata.

Budget Updates/Adjustments:

The initial FY24 budget that was approved in June and July of 2023 included a speculative amount of funding that would be available for channel rehabilitation activities, using that activity as a balancer because the planned project for 2024 will be constructed over two-plus years and is thus scalable. A handful of items have arisen since the initial budget was adopted which will influence the amount of funding available for channel rehabilitation.

- Because of frequent delays in getting annual funding agreements (AFAs) in place with the Yurok and Hoopa Valley Tribe and because monitoring years for several tasks span fiscal years, Reclamation is pursuing a shift to a calendar-year AFA. However, this will require that the first calendar year AFA (for 2024) also fund the work that started or was underway in October of 2023, which will increase the cost of all of those tasks.
- NFWF has requested that we fund the final \$500k in our watershed restoration grant. They are concerned that if we wait to fund it next fiscal year and then solicit applications, then grantees would only have several months to complete work before the overall grant expires. I will be asking TMC to consider fully funding that agreement this year.
- We will be soliciting for a contract to remove the infrastructure at the River Acres Road house in Junction City in the coming year. We have an independent government cost estimate but the actual contract cost will be determined when a selection is made.
- The group developing the Limiting Factors Analysis work plan is working toward having a scope of work to solicit by the end of January. The hope is to have the LFA funded with FY24 dollars (there was a placeholder with no dollar amount in the approved budget).
- Our proposal for BIL funding for a portion of the Upper Connor Creek project was well received (as a reclaiming mined lands task) and it appears that the revegetation component of the project will receive funds in FY24 and FY25.
- There is funding remaining on a recently expired five year interagency agreement. My request to recover those funds and apply them to FY24 needs was approved, adding an additional \$465,899.49 to our available funding for the year.

The current working budget for FY24 is included as an attachment.

Implementation Update

Sky Ranch Channel Rehabilitation Site: The design is at 60% and the VE study was completed. The land transfer from TPUD to USFS to BLM is anticipated to be completed in February 2024, and then TRRP can initiate NEPA. A right-of-entry was established with the largest private landowner on the project. TRRP is communicating with landowners on the changing project timeline. Depending on the availability of funding and the land transfer, the project may be constructed in 2026 or 2027.

Oregon Gulch Channel Rehabilitation Site: Civil construction, including demobilization, was completed in November. Revegetation continues and is expected to continue through the beginning of December. Initial repairs to Sky Ranch Road were made and will be monitored through the spring to ensure the surface is repaired to pre-project condition.

Evans Bar Channel Rehabilitation Site: The design remains at the existing conditions report stage. Designers and TRRP staff met with residents located in the ESL in October to discuss their concerns with a project.

Sawmill Gravel Processing Site: A 60% design was prepared by the Yurok Tribe and State design group and submitted to the TRRP design team for review in November.

Upper Conner Creek Channel Rehabilitation Site: The 90% design plan set was submitted to the design team in November by the HVT design group. Outreach and agreements with landowners within the ESL is ongoing. The project is expected to be ready for implementation in FY 24, or as soon as adequate funding is available. With current annual funding levels it is expected to be a 2-year project.

EA Development

- Upper Conner Creek and Sawmill Environmental Assessment (EA)
 - The EA is in progress and the public scoping period opened for Dec 4- Dec 17, 2023. The scoping notice can be viewed here: <https://www.trrp.net/ucc-sawmill/>
- Gravel and Wood Augmentation EA
 - The public comment period for the EA concluded on November 22. TRRP is responding to comments.
- Watershed Programmatic EA
 - Progress continues on this EA. The team is currently reviewing technical descriptions of activities to be covered by the PEA.

Public Outreach Update

Publications and Education Materials:

- [River Riffle](#)
 - [September](#)
 - Trinity River: Current Conditions
 - TMC Meeting Recap
 - Article: Flow Variability in the Trinity River
 - Program Update: River Acres, Junction City
 - Upcoming Events
 - [October](#)
 - **Trinity River:** Current Conditions
 - **Draft Environmental Assessment Open for Public Comment** – New Gravel Augmentation Sites Proposed Beginning Winter 2023/2024
 - **Program Update:** Latest Reports
 - **Featured Article:** New Challenges in the Struggle to Save Pacific Salmon (A story map from the US Fish and Wildlife Service)
 - **Trinity River Watershed:** Animal Spotlight – North American Beaver
 - Upcoming Events
- The TRRP Facebook page is up 47 followers from the end of September topping out at, 865 followers.
 - Top post in the last 60 days was the East Weaver Dam removal project near Weaverville. The TRRP was the primary funder for this watershed restoration

project which was carried out by Five Counties Salmonid Conservation Program.



Public Events and Environmental Education:

- SCIENCE ON TAP, at Trinity County Brewing Company
 - September: Lenya Quinn Davidson: Rebuilding a Culture of Fire: People, Policy and Practice
 - October: Chris West, Yurok Condor Program: Cultural and Ecological Restoration of the California Condor
- OTHER EVENTS
 - October 7 - Annual Salmon Harvest Festival



- October 12 – TRRP adopted a portion of HWY 3 – we had our inaugural clean up and gathered 15 bags of trash and a speed limit sign.



- October 21 - Adopt-A-Plot Native Plant Day at the Bucktail Restoration Site. This year we adopted 18 plots of varying sizes, targeting the road-side and first parts of the trail. Volunteers finished the season spreading seed and planting native plants. Hats off to those digging in that unforgiving rocky soil.





EDUCATIONAL OUTREACH

- September: Bar 717 Environmental Camp
- Toured the 6-8th grade Junction City Elementary School class around Oregon Gulch in October. This field trip served as a great opportunity for young minds to connect with the environment and witness the positive impact of restoration efforts on the Trinity River ecosystem.



- Toured Several Groups of kids at the Hatchery to talk about the salmon life cycle and spawning
 - Trinity High School Science Class: Eric Peterson and Kiana Abel

- Weaverville and Hayfork Homeschool Groups: Chris Laskodi and Kiana Abel

Landowner and Stakeholder Notifications:

- Public comment period (October 10, 2023 to November 22, 2023) for public review of the draft Sediment and Wood Augmentation Environmental Assessment/Initial Study (EA/IS).
- Scoping Period (December 4 – 17) for two proposed restoration projects the Sawmill Gravel Processing Site and the Upper Conner Creek Restoration Project is underway.

Upcoming

- December 19 – Oregon Gulch Ceremonial Ribbon Cutting
- Science on Tap series picks back up in January
 - January 24, 6pm Max Ramos – Modelling the reestablishment of coho salmon in Klamath River tributaries after dam removal
 - February: Oregon Gulch (presenter unconfirmed)
 - March: Water Always Wins Author, Erica Geis
 - April: Klamath Mountain Wildflowers
- Science on the River will occupy the summer months in 2024
 - June & July: Unconfirmed
 - August: Todd Buxton: Diurnal Pool Stratification in August
- 2024 Science Symposium – Dates TBD March – May
- General Outreach Programing: January - April
 - Open House (February)
 - Birding Days
 - Invasive Plant Pull (Spring)
 - Day at the Wetland (expanding to downriver schools)

Unsolicited Side Note

Some of the most positive interactions experienced have come from these events; interesting questions, positive feedback, great conversations, meet passionate individuals! I invite everyone to participate – it is good for the soul – we hope to see you at our next event!

Science Update

The last quarter has seen a great deal of activity, driven in large part by the IDT.

- **Water Year 2023 variable flow implementation review.** Although a winter storm synchronization flow did not occur, elevated baseflows were scheduled for the period from February 14 through April 15. The elevated baseflows were partially constrained by dam infrastructure limiting the release to 2000 cfs prior to April 1. Preliminary results assembled by the Flow Workgroup include bed mobility, inundation, benthic macroinvertebrates, and outmigrant fish data. These findings will be summarized in a report which will be submitted for peer review in the coming months.

- **SAB recruitment.** Contracts are in preparation for Dr. John Hayes for the Aquatic Ecology position, Dr. Kurt Fausch for the Riparian and Watershed position, and Dr. Daniele Tonina for the Hydrology position. We hope to have them onboard in January.
- **Limiting Factors Analysis (LFA).** The team that was selected by the IDT to work with Cramer Fish Sciences has identified a suite of reports and data to be provided to the contractor. They are working to develop a work plan which will be used to solicit a contract to conduct the actual limiting factors analysis with a soft target of the end of January 2024.
- **Core Monitoring and Decision Support System review.** In recent years, TRRP completed a set of Objectives and Targets as a living document to help focus the science program. The IDT is using these as the basis for two coordinated reviews. The Science Plan directs the IDT and workgroups to conduct a review of Core Monitoring during FY24 activities in order to focus our limited science and monitoring budget on the right tasks, and the Flow WG has requested a review of our current DSS for hydrograph review to ensure that we are applying the right measures in scheduling flows. The IDT intends that coordinating these reviews will provide better alignment from Objectives and Targets to Core Monitoring and DSS modeling.
- **FY25 Science priorities.** The technical workgroups are actively developing research questions that will address key uncertainties from the Science Plan, specifically related to nutrient flux, wetted area, and temperature. These research questions will be reviewed by IDT and SAB and the highest priority questions will be the basis for an RFP for science and monitoring proposals for FY25. Proposals will also be reviewed by the SAB in preparation for the June meeting of the TMC.

In Review or Final Edits

- Adult Salmonid Spawning

Final Publications and Reports

- Inter-Fluve Inc., G. M. Kondolf, and SWCA Environmental and Engineering Inc. 2023. **Trinity River Restoration Program phase II review.** Report for the Trinity River Restoration Program (TRRP). TRRP, Hood River, Oregon. Available: <https://www.trrp.net/library/document?id=2623>.
- Kier, M. C., J. Hileman, and K. Lindke. 2023. **Chinook Salmon, Coho Salmon and fall steelhead run size estimates using mark-recapture methods; 2022-23 season.** Report for the Trinity River Restoration Program (TRRP). California Department of Fish and Wildlife, Arcata, California. Available: <https://www.trrp.net/library/document?id=2625>.
- U.S. Bureau of Reclamation (USBR). 2023. **Update of the RBM10 model for predicting daily average temperatures on the Trinity River, California.** Report ENV-2023-115. U.S. Bureau of Reclamation, Technical Service Center, Denver, Colorado. Available: <https://www.trrp.net/library/document?id=2628>.

Synthesis Reports – See Appendix II.

Incomplete:

- Adult Salmonid Spawning – in final edits
- Cohort Reconstruction – a road-block on modeling is actively being remedied

- Large Wood Management – actively progressing on a new timeline
- Flow Synthesis – regaining momentum
- Channel Complexity

Design Reports- See Design Workgroup Report below

Environmental Reports and Findings

- U. S. Department of Interior, Bureau of Reclamation, Trinity River Restoration Program (USDI BOR TRRP), U.S. Department of Interior, Bureau of Land Management, and North Coast Regional Water Quality Control Board. 2023. **Draft Environmental Assessment and Initial Study - Sediment and Wood Augmentation along the Trinity River Restoration Reach**. October, 2023. CGB-EA-22-028. Weaverville, California. Available: <https://www.trrp.net/library/document?id=2624>.

Post-Implementation Reports

Final Data Packages

- U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), Yurok Tribal Fisheries Program (YTFP), Hoopa Valley Tribal Fisheries Department (HVTFD), and U.S. Forest Service (USFS). 2023. **Mainstem Trinity River salmon redd locations in 2020**. Data Package for the Trinity River Restoration Program (TRRP). USFWS, Arcata, California. Available: <https://www.trrp.net/library/data?id=154>.
- U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), Yurok Tribal Fisheries Program (YTFP), Hoopa Valley Tribal Fisheries Department (HVTFD), and U.S. Forest Service (USFS). 2023. **Salmon carcasses collected during the 2020 mainstem Trinity River spawning survey**. Data Package for the Trinity River Restoration Program (TRRP). USFWS, Arcata, California. Available: <https://www.trrp.net/library/data?id=155>.
- U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), Yurok Tribal Fisheries Program (YTFP), Hoopa Valley Tribal Fisheries Department (HVTFD), and U.S. Forest Service (USFS). 2023. **Mainstem Trinity River salmon redd locations in 2021**. Data Package for the Trinity River Restoration Program (TRRP). USFWS, Arcata, California. Available: <https://www.trrp.net/library/data?id=156>.
- U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), Yurok Tribal Fisheries Program (YTFP), Hoopa Valley Tribal Fisheries Department (HVTFD), and U.S. Forest Service (USFS). 2023. **Salmon carcasses collected during the 2021 mainstem Trinity River spawning survey**. Data Package for the Trinity River Restoration Program (TRRP). USFWS, Arcata, California. Available: <https://www.trrp.net/library/data?id=157>.
- Yurok Tribal Fisheries Program (YTFP) and Trinity River Restoration Program (TRRP). 2023. **Digital Elevation Model (DEM) exported at 1 ft resolution from the 2022 Trinity River Focal Reach Digital Terrain**. Data Package for the TRRP. YTFP, Arcata, California. Available: <https://www.trrp.net/library/data?id=158>.
 - “Terrain” format is ~24GB, available upon request.

- Raw lidar/sonar are hundreds of GB, available upon request.
- Yurok Tribe Fisheries Department (YTFD). 2023. **2023 Trinity River focal reach 4-band orthophotography**. Data Package for the Trinity River Restoration Program (TRRP). YTFD, Arcata, California. Available: <https://www.trrp.net/library/data?id=159>.

Appendix I: Technical Workgroup Briefings December 2023

Updates have been prepared for the Trinity Management Council by the Trinity River Restoration Program Technical Workgroup (WG) Coordinators.

Workgroup: Fish

Coordinator: Kyle De Juilio

The Fish Workgroup held a quarterly meeting on 11/21. The meeting was well attended. The group reviewed a pair of proposed systemic physical juvenile salmonid habitat targets that could be used to assess impacts to habitat availability from changes to channel form and hydrology. Presentations from principal investigators on our juvenile and adult salmonid population monitoring projects provided an update of current conditions. We continued our review of fish related synthesis report recommendations to explore which ones are actionable. Finally, the group began the process of reviewing the metrics and presentation of the Decision Support Workbook for hydrograph selection. The Flow workgroup and IDT have asked the workgroups to review this tool to make sure that it is as useful and intuitive as possible. The group plans on continuing efforts on recommendations and DSS review in the next quarter and will seek a presentation on preseason forecast about the fall Chinook Salmon fishery management in 2024.

Workgroup: Design

Coordinator: Oliver Rogers

The Design Team met on November 16th, for a quarterly meeting and received updates from the State of California-Yurok Tribe Design Team and the Hoopa Valley Tribe Design Group. Topics covered included an update on the Sawmill Gravel Processing Site Rehabilitation Draft 60% design and a presentation of the Draft 90% design for the Upper Conner Creek Rehabilitation Site. The Design Team WG also discussed the finding and recommendations of the Trinity River Restoration Program Phase II Review – Section 6. Recommendations for Channel Rehabilitation. Additionally, the Design Team WG members received a status update on the remaining channel rehabilitation sites and were asked to provide their input.

Workgroup: Flow

Coordinator: Ken Lindke

The flow workgroup met once since the September TMC meeting. The group continued the re-evaluation of the Decision Support System (DSS) for flow management, noting in particular that models and data included in the DSS should relate as directly as possible to the objectives and targets adopted by the TMC at their June 2022 meeting. There is also important overlap between revision of the DSS and re-evaluation of long-term monitoring projects. Winter variable flow implementation in WY2023 was also discussed at length. A subgroup was formed to develop a formal peer-reviewed report detailing the effects of WVF implementation that will refine and finalize preliminary results to date and add additional analyses using data and models that were not available for the preliminary analyses. Considerations for changes to summer baseflow

magnitudes was also discussed with an emphasis on the potential to benefit non-salmonids species while providing suitable holding habitat for spring Chinook Salmon.

Workgroup: Watershed

Coordinator: Justin Alvarez

The Watershed Workgroup has not met this quarter. Most members will participate in a review of proposals that will be solicited in Q2 of FY24.

Workgroup: Physical

Coordinator: Conor Shea

The Physical Workgroup met on October 19, 2023. The purpose of the meeting was to review the status of physical restoration actions and recent investigations into the status of sediment management within the 40-mile project reach. The Workgroup reviewed status of permitting for existing and new proposed gravel augmentation sites. The Workgroup also discussed methods for improving the planning of gravel augmentation activities and potential actions for 2024.

Workgroup: Riparian and Aquatic Ecology

Coordinator: Chris Laskodi

The Riparian and Aquatic Ecology Workgroup met on November 9. The group had a field trip to the Indian Creek Stage-0 Restoration Site constructed in 2019 to see how the site has evolved after the wet winter. An abundance of seedlings of various species were noticed in previous areas that were largely devoid of vegetation. The culmination of the trip was the documentation of juvenile Coho in the creek, something that hasn't been documented since the late-1980s/early-1990s. The group received a revegetation update at Oregon Gulch. Over 9000 shrubs and trees will be planted. Twelve acres of upland and 6.5 acres of contractor use will be seeded and mulched while 17 acres will receive no seed (likely to be underwater). The group discussed the Gravel Augmentation EA and Large Wood Management synthesis report and if the RAEWG will be responsible for wood augmentation recommendations in the future. We also discussed FY25 Science Priorities where several questions were developed that will be taken to the IDT. After serving as the workgroup coordinator for the last several years, Chris Laskodi will be stepping down. Veronica Yates volunteered and was designated as the new workgroup coordinator.

Workgroup: Interdisciplinary Team

Coordinator: James Lee /
Eric Peterson

The IDT met October 18th and November 28th. The October meeting was largely a strategizing session on how to accomplish several major tasks while the Program lacks a Science Coordinator. Toward Core Monitoring Review (assigned by the Science Plan) and flow DSS review (requested by the Flow Workgroup), the plan was formulated to review Objectives and Targets, and provide linkages to existing Core Monitoring and flow DSS Modeling. A process for then splitting up reviews or making new recommendations among workgroups and project teams was outlined. The team also further strategized the development of questions related to nutrient flux and wetted width to use as a basis for a Science Priority RFP in preparation for FY25.

The November meeting (subsequent to the writing of this ED report) is expected to complete the connection of existing Objectives and Targets with existing Core Monitoring and DSS modeling.

Toward FY25, priority questions on nutrient flux and wetted width are expected to be finalized, thus enabling an RFP to be issued in December or January.

Appendix II: Synthesis Reports Tracking and Estimated Completion Dates

Synthesis Reports				
Project No.	Brief Title	Involved Entities	Proposed Due*	Status
TRRP-2018-002	Tributary Delta	<i>Program Office</i> (POC: Todd Buxton, TRRP)	March 2019	Published in <i>Ecohydrology</i> 2022;e2463
TRRP-2018-003	Fish Habitat	<i>HVT, USFWS, YT, USBR TSC</i> (POC: Damon Goodman, USFWS)	2 nd Q 2019	USFWS portion Posted; YT portion Posted
TRRP-2018-007	Juvenile Chinook Production	<i>USFWS, YT, HVT</i> (POC: Bill Pinnix, USFWS)	July 2017	YT Portion Posted USFWS portion in final edits
TRRP-2018-009	Cohort Reconstruction	<i>HVT, USFWS, CDFW</i> (POC: Ken Lindke, CDFW)	2 nd Q 2019 Cur.ETA mid-2024	In progress
TRRP-2018-011	Adult Salmon Spawning	<i>USFWS, HVT, YT, CDFW</i> (POC: Steve Gough, USFWS)	2 nd Q 2019 Cur.ETA fall 2023	In final edits
TRRP-2018-018	Bed Mobility and Scour	<i>HVT, USFWS</i> (POC: Geoff Hales & Scott McBain, McBain Associates)	2 nd Q 2018	FINAL POSTED
TRRP-2018-019	Cottonwood Seed Dispersal	<i>HVT</i> (POC: John Bair, McBain Associates)	3 rd Q 2018	FINAL POSTED
TRRP-2018-021	Riparian Encroachment	<i>HVT</i> (POC: John Bair, McBain Associates)	4 th Q 2018	FINAL POSTED
TRRP-2018-022	Sediment Storage	<i>HVT, USFWS</i> (POC: Geoff Hales & Scott McBain, McBain Associates)	4 th Q 2018	FINAL Posted
TRRP-2018-025	Channel Complexity	<i>HVT, USFWS</i> (POC: Smokey Pittman & Scott McBain, McBain Associates)	August 2019 Cur ETA ?	Delayed- uncertain timeline
TRRP-2018-027	Fine Sediment	<i>Program Office, NMFS, HVT</i> (POC: Todd Buxton, TRRP)	July 2020	FINAL POSTED
TRRP-2018-032	Water Temperature	<i>YT, USFWS, HVT, USBR, NMFS</i> (POC: Eli Asarian, Riverbend Sciences)	May 2019	FINAL POSTED
TRRP-2018-033	Large Wood Management	<i>NMFS, YT, HVT</i> (POC: Scott McBain)	April 2018 Cur.ETA 2024	Recently reorganized team, in progress,
NA	Flow Synthesis	<i>HVT et al.</i> (POC: Justin Alvarez)	Mid FY 22 Cur.ETA: July 2024	In Progress

* = due date for TRRP Peer Review process according to status assessment in December 2018. TRRP staff have created a web page for linking synthesis reports as they are completed. It incorporates additional reports that have had a synthesis intent but were not specifically funded by the FY2018 effort. The page is live at <https://www.trrp.net/restoration/adaptive-management/synthesis-reports/>.

Annual Costs Summary by TRRP Program Activity	2022	2023	2024 Working
Program Administration	\$ 2,433,379.48	\$ 3,676,752.34	\$ 2,470,817.75
Rehabilitation Implementation	\$ 4,972,558.70	\$ 5,107,455.23	\$ 6,668,630.48
Science Program- <i>includes FWS tribal funds transferred to TRRP/USBR</i>	\$ 4,050,210.26	\$ 4,864,326.24	\$ 4,864,477.04
TOTAL <i>(doesn't include FWS salary/ops funds retained at FWS)</i>	\$ 11,456,148.44	\$ 13,648,533.81	\$ 14,003,925.27

TMC TRRP Annual Funding <i>(doesn't include FWS salaries/operations funds retained at FWS)</i> :	2022	2023	2024 Working
USBR (Water & Related A30 funds) <i>Any recovered funds are included here</i>	\$ 9,991,000.00	\$ 11,207,000.00	\$ 11,295,883.49
USBR (CVPIA H37 funds)	\$ 1,500,000.00	\$ 1,500,000.00	\$ 1,500,000.00
USBR (BIL ecosystem restoration)	\$ -	\$ 454,000.00	\$ 750,000.00
<i>FWS*</i> - annual transfer to TRRP/USBR for specific tribal projects	\$ 535,000.00	\$ 505,119.00	\$ 525,000.00
TOTAL	\$ 12,026,000.00	\$ 13,666,119.00	\$ 14,070,883.49

Includes \$465889.49 in recovered funds

**FWS* annual funds transferred to TRRP/USBR for Tribal monitoring/survey projects.

PROGRAM ADMINISTRATION		2022 Approved	2023 Approved	2024 Working
TRRP Administration Personnel				
TRRP Program Office Personnel ED, Secretary, Grants and Agreements Specialist		\$ 474,980.00	\$ 581,399.00	\$ 610,469.00
	Subtotal	\$ 474,980.00	\$ 581,399.00	\$ 610,469.00
TRRP Administration				
TRRP Program Office Operations (TRRP office rent, vehicles, utilities, supplies, RO contracting, NCAO)		\$ 231,725.00	\$ 317,232.00	\$ 333,094.00
TMC Notetaker - TRRP contract		\$ 29,380.00	\$ 18,307.20	\$ 23,558.52
Public Education and Outreach/Website - TCRCD Work expands community knowledge of Program and educates schoolchildren, promoting environmental stewardship with a goal of improving support/success of restoration efforts.		\$ 104,666.28	\$ 107,359.26	\$ 109,836.23
Headwaters Refinements Contract - Extension		\$ -	\$ 22,160.00	\$ -
	Subtotal	\$ 365,771.28	\$ 465,058.46	\$ 466,488.75
Technical Assistance				
Hoopa Valley Tribe -AFA		\$ 485,316.76	\$ 499,927.09	\$ 649,288.00
Yurok Tribe-AFA		\$ 518,447.26	\$ 557,703.17	\$ 744,572.00
CA Dept of Water Resources - FA		\$ 54,827.31	\$ 300,000.00	\$ -
CA Dept of Fish & Wildlife - FA		\$ 247,820.87	\$ 536,954.50	\$ -
NOAA Fisheries - IA		\$ 148,223.00	\$ 310,545.12	\$ -
Forest Service - IA		\$ 43,000.00	\$ 89,290.00	\$ -
Trinity County Technical Assistance (TRRP grant, floodplain development permit, FEMA)		\$ 94,993.00	\$ 335,875.00	\$ -
	Subtotal	\$ 1,592,628.20	\$ 2,630,294.88	\$ 1,393,860.00
TOTAL PROGRAM ADMINISTRATION		\$ 2,433,379.48	\$ 3,676,752.34	\$ 2,470,817.75

2-year funding, FY23 and 24

Yellow Highlight are Changes from last TMC meeting

IMPLEMENTATION BUDGET		2022 Approved	2023 Approved	2024 Working
Implementation Personnel				
TRRP Program Office Personnel (Implementation Branch Chief, Public Affairs Specialist, Civil Engineer, CE Tech (1), Senior Natural Resource Specialist)		\$ 778,178.00	\$ 462,266.00	\$ 1,095,318.00
	Subtotal	\$ 778,178.00	\$ 462,266.00	\$ 1,095,318.00
Miscellaneous				
FEMA/Flood Compliance Updates - Denver TSC		\$ 58,000.00	\$ 45,000.00	\$ 45,000.00
River Acres House Purchase & Removal		\$ -	\$ 530,000.00	\$ -
Realty Acquisitions (Easements, material storage)		\$ -	\$ -	\$ 30,000.00
	Subtotal	\$ 58,000.00	\$ 575,000.00	\$ 75,000.00
Planning				
NEPA/CEQA Compliance/Permits/ (TRRP contract: wetland delineation, bird surveys, native seed, cultural res		\$ 203,940.00	\$ 210,058.00	\$ 218,460.32
Revegetation Supply TRRP contract: native seed, native grass hay, plants		\$ -	\$ 121,479.00	\$ 126,338.16
BLM Technical Assistance - IA (NEPA, permits)		\$ 85,585.78	\$ 176,340.45	\$ -
Geo-Phys Support Services (Aerial photography, boundary surveys, bathymetry and lidar, topography)		\$ 31,410.00	\$ 42,422.81	\$ 129,579.00
	Subtotal	\$ 320,935.78	\$ 550,300.26	\$ 474,377.48
Design and Support Services				
Hoopa Valley Tribe Support Services		\$ -	\$ 150,903.00	\$ 9,080.00
Yurok Tribe Support Services		\$ -	\$ 250,000.00	\$ -
TSC Modeling Support		\$ -	\$ 53,136.00	\$ 40,000.00
Channel Rehab Review		\$ 245,946.68	\$ -	\$ -
	Subtotal	\$ 245,946.68	\$ 454,039.00	\$ 49,080.00
Construction				
Construction Projects		\$ 2,605,300.00	\$ 2,027,566.00	\$ 3,320,000.00
Construction Large Wood Supply YT		\$ -	\$ 250,000.00	\$ 250,000.00
Construction Inspector		\$ -	\$ -	\$ -
Value Engineering Study - Reclamation requirement		\$ -	\$ 7,360.00	\$ -
Sediment Augmentation YT		\$ 130,748.38	\$ -	\$ 143,554.00
Coarse Sediment Processing/Placement YT		\$ 253,892.90	\$ 177,000.00	\$ -
Revegetation Maintenance/Irrigation-HVT		\$ 79,556.96	\$ 103,923.97	\$ 110,072.00
Systemic Riparian Mapping Project HVT (Funded Every 5 Years)		\$ -	\$ -	\$ 151,229.00
	Subtotal	\$ 3,069,498.24	\$ 2,565,849.97	\$ 3,974,855.00
Watershed Implementation				
Watershed Grants		\$ 500,000.00	\$ 500,000.00	\$ 1,000,000.00
	Subtotal	\$ 500,000.00	\$ 500,000.00	\$ 1,000,000.00
TOTAL IMPLEMENTATION BUDGET		\$ 4,972,558.70	\$ 5,107,455.23	\$ 6,668,630.48

2-year funding, FY23 and 24

Yellow Highlight are Changes from last TMC meeting

Awaiting infrastructure removal contract cost

Placeholder; will be soliciting new contract
Placeholder; will be soliciting new contract

Balancer

(proposed)

SCIENCE AND MONITORING BUDGET	2022 Approved	2023 Approved	2024 Working
Science Program Support			
TRRP Program Office Personnel (BOR) (Science Coordinator, Data Steward, Physical Scientist,NRS)	\$ 915,470.00	\$ 940,652.00	\$ 987,685.00
TRRP Program Office Personnel (HVT) - Riparian Ecologist	\$ 166,511.25	\$ 157,948.45	\$ 201,871.00
TRRP Program Office Personnel (YT) - Fish Biologist	\$ 117,874.37	\$ 124,714.64	\$ 184,133.00
External Peer Review Contract (DOI BPA)	\$ 23,950.00	\$ -	\$ 40,000.00
SAB Participation (currently 2 SAB members)	\$ -	\$ -	\$ 125,000.00
TRRP-2018-036: Stream Gaging BOR Region Contract	\$ 239,750.00	\$ 235,900.00	\$ 237,720.00
Sub-total	\$ 1,463,555.62	\$ 1,459,215.09	\$ 1,776,409.00
Status and Trend Monitoring <i>doesn't include FWS** salaries</i>			
TRRP-2018-001: Chinook Run-Size Est.(CDFW, HVT)	\$ 499,251.67	\$ 514,229.22	\$ 475,966.00
California Department of Fish and Wildlife	\$ 430,155.26	\$ 443,059.92	\$ 404,250.00
Hoopa Valley Tribe	\$ 69,096.41	\$ 71,169.30	\$ 71,716.00
TRRP-2018-034: Chinook CWT-Fall Chinook (HVT)	\$ 327,348.07	\$ 303,804.85	\$ 315,957.04
TRRP-2018-004: Fall Run Scale Age (HVT, YT)	\$ 160,712.87	\$ 170,283.59	\$ 346,544.00
Hoopa Valley Tribe	\$ 114,651.74	\$ 118,091.29	\$ 178,116.00
Yurok Tribe	\$ 46,061.13	\$ 52,192.30	\$ 168,428.00
TRRP-2018-012:Outmigrant Monitor HVT, YT, FWS**	\$ 747,208.67	\$ 795,259.00	\$ 849,052.00
Hoopa Valley Tribe	\$ 416,495.18	\$ 429,087.05	\$ 449,873.00
Yurok Tribe	\$ 330,713.49	\$ 366,171.95	\$ 399,179.00
TRRP-2018-026: YT Harvest (Lower Klamath) (YT)	\$ 171,845.20	\$ 188,710.99	\$ 337,179.00
TRRP-2018-006: HVT Harvest (Lower Trinity) (HVT)	\$ 108,624.40	\$ 115,072.30	\$ 142,747.00
TRRP-2018-014: Monitor redd distribution, abundance and densities CDFW, YT, HVT, FS, FWS**	\$ 209,918.96	\$ 222,727.92	\$ 343,575.00
California Department of Fish and Wildlife	\$ 46,303.98	\$ 47,693.10	\$ 93,877.00
Yurok Tribe	\$ 70,662.25	\$ 79,293.51	\$ 160,183.00
Hoopa Valley Tribe	\$ 92,952.73	\$ 95,741.31	\$ 89,515.00
Forest Service (covered under technical assistance)	\$ -	\$ -	\$ -
TRRP-2018-010: Lower Klamath Creel Survey CDFW	\$ -	\$ 100,000.00	\$ 147,967.00
TRRP-2018-005: Sport Harvest/Trinity Creel HVT	\$ -	\$ 98,429.66	\$ 119,081.00
Sub-total	\$ 2,224,909.84	\$ 2,508,517.53	\$ 3,078,068.04
Effectiveness Monitoring & Other			
TRRP-2018-035: Channel rehab habitat effectiveness monitor(40 mile model support) YT, HVT, TRRP TSC,	\$ 5,305.80	\$ 70,348.81	\$ -
TRRP Reclamation TSC	\$ -	\$ -	\$ -
Yurok Tribe	\$ 3,819.80	\$ 70,348.81	\$ -
Hoopa Valley Tribe	\$ 1,486.00	\$ -	\$ -
FY22 RFP for research or modeling needs	\$ 312,839.00	\$ -	\$ -
TRRP-2022-6: Comparing physical and bioenergetic metrics of juvenile habitat	\$ 27,405.00	\$ -	\$ -
TRRP-2022-5: Improvements to RBM10	\$ 106,860.00	\$ -	\$ -
TRRP-2022-4: Effects of scour and inundation on aquatic communities	\$ 152,228.00	\$ -	\$ -
TRRP-2022-7: Site-specific SRH-2D	\$ 26,346.00	\$ -	\$ -
Supplement to complete large wood strategy HVT	\$ 33,600.00	\$ -	\$ -
FY23 RFP for research or modeling needs	\$ -	\$ -	\$ -
TRRP-2023-1: Chinook egg survival		\$ 172,292.00	\$ -
TRRP-2023-2: Hyporheic flow and macroinverts YT		222,778.00	\$ -
TRRP-2023-3: Lewiston Reservoir Temp Study YT		\$ 87,287.00	\$ -
TRRP-2023-4: Evolution of Stream Morphology YT		\$ 45,200.00	\$ -
TRRP-2023-X: Cohort reconstruction model support		\$ 40,000.00	
TRRP-2023-X: Bed surface grain map	\$ -	\$ 138,339.00	\$ -
TRRP-2024-X: Limiting Factors Analysis	\$ -	\$ 40,000.00	\$ -
TSC Sediment transport modeling	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00
Sub-total	\$ 361,744.80	\$ 896,593.62	\$ 10,000.00
Total Science Budget	\$ 4,050,210.26	\$ 4,864,326.24	\$ 4,864,477.04

Yellow Highlight are Changes from last TMC meeting

FY24 cost TBD

