



Trinity River Restoration Program

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NC-150

MEMORANDUM

To: TMC

From: Mike Dixon, Executive Director
Trinity River Restoration Program

Subject: Director's Report

Date: September 16, 2022

Major TRRP activities between June and September 2022 include:

Excavation and hauling began at the Oregon Gulch Channel Rehabilitation Site. Planning has progressed on initiatives to provide programmatic NEPA compliance for watershed restoration projects, and for a proposal to address sediment deficits in areas of the upper river currently not accessible for sediment management activities. Staff have supported several well attended outreach activities including Hoopa Sovereign Day, a public float, and the Trinity County Fair.

Organizational Updates

- Kiana Abel has started as of August 29 as the TRRP Office secretary. She comes to us from a similar role with a regional design and environmental compliance company.
- An offer was made and accepted for a civil engineering technician vacancy. Elliott Sarnacki will start October 24. He comes the National Park Service where he works as a utility systems operator at Katmai National Park.
- The outreach specialist position remains farther down in NCAO's priority list for recruitment.

Budget Updates/Adjustments:

Annual funding agreement modifications to fund monitoring and channel rehabilitation activities have been completed for both the Hoopa Valley and Yurok Tribes. Having Caryn Hunt DeCarlo come back as a rehired annuitant to get the agreements completed was a major win; it would have been nearly impossible to get either of the modifications completed without her help.

Budget spend out for FY22 is complete.

The FY23 budget is tracking with what was approved in June, subject to appropriations. The USFWS contributed \$505,119 toward tribal participation in fisheries monitoring projects; \$500k had been held as a placeholder. A more detailed budget update will be provided at the December TMC meeting when we will have a recommendation on FY23 science proposals to be funded, a

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completed appraisal for the flowage easement on the River Acres Rd structure, and updated office operations and salary projections.

Watershed Restoration Grant

Selectees from the first Request for Proposals have been notified that their grants are awarded. NFWF selected Hamer Environmental as their compliance coordinator to ensure that projects meet requirements of federal law prior to implementation funds being awarded. A second RFP may be released late fall 2022 with the \$500,000 that TMC approved for the coming FY plus the unspent funds from the first RFP.

Phase II Implementation Review Contract

There was a kick-off meeting with the IDT and other technical work group participants on June 28, followed by a field tour of the Bucktail and Lowden Ranch project sites. A walking/floating tour of sites from Dutch Creek to Sky Ranch occurred on June 29. Interviews with program experts should be occurring in early fall. A stakeholder and public open house was held on September 12 at the Redding Rancheria's Trinity Health Center to hear perspectives from people not directly represented in the TMC entities, including California Trout, the Nor Rel Muk Wintu Nation, recreation guides, and interested local residents.

Implementation Update

Sky Ranch Channel Rehabilitation Site: TRRP staff had a meeting with USFS, BLM, and Trinity County PUD about the status of the land transfer on September 14. We were provided a project schedule of completed and upcoming activities. The new targeted date to record all deeds and the patent is March 2023. We hope to start NEPA on the project in 2023.

Oregon Gulch Channel Rehabilitation Site: Excavation and hauling are ongoing. We hosted a Sky Ranch Road neighborhood meeting on August 2, a week prior to full scale mobilization and rock hauling. A short presentation has been prepared to provide TMC status on the work and our forecast of completion date.

Evans Bar Channel Rehabilitation Site: State-Yurok Design Team continues to work on the existing conditions report.

Sawmill Gravel Processing Site: The closeout design for the Sawmill closeout design is at 30% is being scheduled for VE study concurrently with Upper Conner Creek. Oliver has been coordinating the VE study to occur at the end of October.

Upper Conner Creek Channel Rehabilitation Site: Upper Conner Creek is at 30% is being scheduled with VE study concurrently with Sawmill. Oliver has been coordinating the VE study to occur at the end of October.

EA Development

- Gravel Augmentation EA – We organized a meeting with Physical WG on August 24 to discuss the language drafted for site descriptions and methods of placement in the EA. One placement method being considered would result in a change to the proposed action in the 2020 BiOp but, in conversation with NMFS, it will likely not require a revision to the BiOp unless additional adverse effects will exceed what was analyzed. We are seeking some feedback from Fish Workgroup on timing of placement and sediment sizes

as we head into the home stretch of publishing the public draft EA, likely by the end of October.

- Watershed Programmatic EA – We’ve made great progress on an interagency approach to getting a programmatic EA in place that includes BLM, FS, private lands, and potentially tribal lands on the Trinity Watershed. The inclusion of private lands is needed for projects that TRRP watershed grants fund in order to expedite compliance activities prior to implementation. The scoping notice is near complete and there is agreement from the group to host a public meeting during the scoping period in Weaverville. We also are moving forward with a single consultation letter to the Tribes in advance of the public scoping period. TRRP has co-developed several EAs with FS and BLM over the years but has never attempted a one-government approach to tribal consultation in the NEPA process. TRRP (USBR) will be the lead agency for the EA development and coordination with SHPO, and ultimately, we hope to develop a programmatic agreement with SHPO, should SHPO concur. The scoping period is likely still a month away.

Gravel Processing: TRRP is activating this task in the Yurok AFA. We’ve met at the Sawmill processing site with Yurok Tribe Construction Corporation and coordinated with BLM on the Free Use Permit we have in place to continue processing material for fish rock. After the hatchery placement last summer, our stockpile of fish rock for augmentation in the upper river has been depleted. Work is expected to begin September 26 and continue for approximately one month. We finalized an outreach flyer for social media and posting throughout Lewiston and are also mailing notification letters to about 20 residences within a ¼ mile of the processing site.

Public Outreach Update

Publications and Education Materials:

Todd Buxton and Chad Abel co-authored an article for the Trinity Journal and Two River Tribune about Dr. Buxton’s pool bathymetry and temperature stratification study called “cold water pools on the Trinity River.”

We have published regular posts to TRRP’s Facebook page. Check us out!

Public Events and Environmental Education:

- Trinity River Cleanup was on Saturday, June 25
- A number of TRRP staff attended the weekly river excursions during Weaverville Summer Camp in July to engage the kids in experiential learning activities
- TRRP staffed a booth at Trinity County Fair July 13-16
- The annual public float was Saturday, July 30
- TRRP hosted a booth at Hoopa Sovereign Day on August 12

Science on Tap, at Trinity County Brewing Company

- July – The good, the slimy, and the unknown: algae in the Trinity River. Presented by Eric Peterson
- August – Getting water temperature just right: What Goldie Locks and the Three Bears can teach us about river management. Presented by Kyle de Julio

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- September – Fine sediments in the Trinity River, then and now. Presented by Todd Buxton
- UPCOMING October – A natural history of the Klamath Mountains. Presented by Michael Kauffmann and Justin Garwood (will include a book signing event for the recently published book of the same title)
- UPCOMING November – Klamath Dam Removal. Presented by Mike Belichick
- No Science on Tap event in December due to the holiday

Landowner and Stakeholder Meetings:

Met with Sky Ranch neighborhood in advance of Oregon Gulch implementation on August 2.

Upcoming

We cohost the annual Salmon Festival in Weaverville with the Trinity County RCD. TRRP will have a booth and planned activities event on Saturday, October 1.

Science Update

A notable decision from the TRRP Science Branch and Interdisciplinary Team regards the timeline for the FY 2023 science solicitation. Investigation plans, based on six topics that the IDT selected, are due to TRRP on **Friday, 04 November**. The IPs will then be submitted to the SAB for their review, to be completed within a month. The SAB will make one of three recommendations for each IP: fund, do not fund, or fund with revisions. In the unlikely event that multiple IPs are submitted for a single topic, the SAB will be asked to select the best IP. Based on their review and the IDT's rankings of topics, the science coordinator will make a recommendation to fund science projects at the December quarterly TMC meeting.

In Review or Final Edits

The draft synthesis report, “Synthesizing 87 years of scientific inquiry into Trinity River water temperatures”, (J. Eli Asarian, Kyle DeJulio, David Gaeuman, Todd Buxton, and Seth Naman) remains in final edits.

The draft report, “Tracking coarse sediment augmentations with RFID tracers in the Trinity River, CA” (Gaeuman and De Julio) is in peer review.

The draft report, “Stream bed disturbance and risk of salmonid redd scour in the Trinity River, CA” (Gaeuman, De Julio, and Buxton) is in peer review.

The draft synthesis report, “Coarse Sediment Storage Synthesis on the Trinity River: Recommendations and Correlations to Juvenile Chinook Salmon Rearing Habitat” (McBain Associates and Hoopa Valley Tribe) is in final edits.

Final Publications and Reports

The synthesis report, “Cooper-Hertel, E., D. Gaeuman, K. De Julio, A. Martin, J. Boyce, D. H. Goodman, N. Som, and J. Alvarez. 2022. **Trinity River Juvenile Salmonid Habitat Synthesis: Physical Habitat Capacity at the Restoration Site and Reach Scale**. Report for the Trinity River Restoration Program (TRRP). Klamath, California.

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Available: <https://www.trrp.net/library/document?id=2570>” was completed and posted to the TRRP Dataport.

The report, “Cooper-Hertel, E. J., K. T. Lindke, T. Daley, K. De Juilio, and K. Hopkins. 2022. **Assessing temperature regimes and juvenile Chinook Salmon growth in Trinity River off-channel and mainstem habitats**. Report for the Trinity River Restoration Program (TRRP). Yurok Tribe Fisheries Department, Klamath, California.

Available: <https://www.trrp.net/library/document?id=2567>” was completed and posted to the TRRP Dataport.

The synthesis report, “Pinnix, W. D., S. P. Boyle, T. Wallin, T. Daley, and N. A. Som. 2022. **Long-Term Analyses of Estimates of Abundance of Juvenile Chinook Salmon on the Trinity River, 1989-2018**. Arcata Fisheries Technical Series Report TS 2022-40, report for the Trinity River Restoration Program (TRRP). U.S. Fish and Wildlife Service, Arcata, California. Available: <https://www.trrp.net/library/document?id=2571>” was completed and posted to the TRRP Dataport.

The synthesis report, “Buxton, T. H. and D. N. Bradley. 2022. **Evolution of tributary junctions and their capacity for rearing juvenile Chinook salmon (*Oncorhynchus tshawytscha*) on a regulated river**. *Ecohydrology* :. DOI: 10.1002/eco.2463.

Available: <https://www.trrp.net/library/document?id=2569>” was submitted as a journal article and published in the journal *Ecohydrology*. It may also be found on the TRRP Dataport.

The report, “Trinity River Restoration Program (TRRP). 2022. Trinity River winter flow project. Report for the TRRP. TRRP, Weaverville, California.

Available: <https://www.trrp.net/library/document?id=2566>” was submitted to TRRP and posted to the Dataport.

Design Reports- N/A

Environmental Reports and Findings- N/A

Post-Implementation Reports- N/A

Final Data Packages- N/A

Appendix I: Technical Workgroup Briefings March 2022

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

Workgroup: Fish

Coordinator: Bill Pinnix

The Fish Workgroup did not meet this past quarter. However, members of the fish workgroup continue to participate in the TRRP-Trinity River Hatchery Technical Team (TRHTT) collaboration to find areas where the two programs can work together collaboratively to meet the needs of both the TRRP and the TRHTT. In addition, members of the fish workgroup have participated in the newly formed Trinity River Temperature Task Group.

Workgroup: Design

Coordinator: Oliver Rogers

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Major Design Team activities between June and August 2022 include:

The Design Team met on July 13th to receive updates from the Federal Design Team, Yurok/State Design Team, and Hoopa Design Team. Topics covered included a progress update on the Sky Ranch site constraints, updates on the Sawmill Gravel Augmentation Site and Evans Bar Channel Rehabilitation projects, and a status update on the Upper Conner Creek Rehabilitation Site design. The Design Team Workgroup received an update on the Value Engineering Study Process and the Phase II Channel Rehabilitation Review.

Proposed Project Updates

- Sawmill Site Design: Closeout design is currently at 30%. No significant updates as designers anticipate direction from TRRP. Additional uncertainty analysis, expected evolution, and habitat enhancement opportunities will support Yurok/State Design Team development of a 60% design.
- Upper Conner Creek Site Design: The Hoopa Design Team has received comments on the 30% Design Drawings and Report and has begun the review process. Major constraints to current design alternatives include heavy recreational use, spoiling constraints on material excavated from public lands, and a lack of geotechnical investigation data.
- Sky Ranch Channel Rehabilitation Site: The land transfer and private property ownership issues have delayed the project Design, currently at 60%, and are progressing slower than expected. Resolution of these issues are necessary to ensure a comprehensive and implementable final design. Additional information has been provided to the Trinity County Planning Department and TRRP anticipates the required Phase II Environmental Site Assessment.
- Evans Bar Channel Rehabilitation Site: Yurok/State Design Team is working on the Existing Conditions Report for the project. Designers have made considerations regarding modification of the ESL to avoid the potential spoiling constraint and other constraints are being further identified to thoroughly evaluate the five early concepts. The

Evans Bar Neighborhood continues to support restoration of the Trinity River through this and other channel rehabilitation projects.

Project Updates

- Chapman Ranch Phase B Channel Rehabilitation Project: The Post-Implementation Report developed by the HVT is expected to be completed soon. Continued progress is being made and the PIR is scheduled for technical editing by the end of September and final submission would follow shortly thereafter. Irrigation and post-revegetation maintenance of the site is ongoing for the 2022 season.
- Oregon Gulch Channel Rehabilitation Site: Final cost considerations for Oregon Gulch FY22 funding were completed and awarded by end of August/beginning of September. Implementation has involved initial bulk excavation outside of regulatory floodway with pending CLOMR

review/approval, forward positioning of materials (gravel processing and large wood), and end hauling of mining overburden to local disposal site.

Design Team Meeting Calendar

· Wednesday, October 5, 2022 @ 9:00 a.m. - 1:00 p.m.

Workgroup: Flow

Coordinator: Seth Naman

The Flow Work Group met August 3, 2022 to discuss current Trinity River conditions, review CVP operations and reservoir storage, and discuss recommendations for water year 2023. The work group discussed the merits and details of the winter flow variability proposal and status quo spring snow hydrograph development. Most work group members agreed that a means by which to begin management of Trinity River flows at the beginning of the water year (October 1) was needed, and that the status quo method of making flow recommendations in April after most of the water year has passed is limiting the effectiveness of TRRP flow management.

Workgroup: Watershed

Coordinator: Chad Abel

The workgroup met on July 27. The workgroup received project updates from current grantees, discussed the recently-completed fy22 grant process with NFWF, and were briefed on the development of the watershed programmatic EA.

Workgroup: Physical

Coordinator: Todd Buxton

The workgroup held meetings on July 7 and August 24. The July 7 meeting was held to discuss next steps in delineating the physical domain of the Trinity River for restoration. The outcome of this discussion was that workgroup members were not interested in volunteering to proceed with the delineation exercise but were willing to assist in proposal development if others choose to pursue science funding for this work. The August 24 meeting involved the group providing the TRRP Implementation Branch their input regarding the sediment augmentation EIS one last time before submittal.

Workgroup: Riparian and Aquatic Ecology

Coordinator: Chris Laskodi

The Riparian and Aquatic Ecology Workgroup did not meet last quarter

Workgroup: Interdisciplinary Team

Coordinator: James Lee

The interdisciplinary team met on July 28 and September 15. During the July meeting, the workgroup refined a list of topics on which to base the FY 23 science solicitation. During the September meeting, the workgroup determined the timeline for the solicitation (investigation plans due November 4, 2022), heard an update on the FY 23 and 24 science planning processes, reviewed the protocol for document submission to TRRP, and considered the flow workgroup's WY 2023 recommendation to implement winter variable flows.

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 (POC: Todd Buxton, TRRP)</i>	March 2019	Published in <i>Ecohydrology</i> 2022;e2463
TRRP-2018-003	Fish Habitat	<i>HVT, USFWS, YT, USBR TSC (POC: Damon Goodman, USFWS)</i>	2 nd Q 2019	USFWS portion Posted; YT portion Posted
TRRP-2018-007	Juvenile Chinook Production	<i>USFWS, YT, HVT (POC: Bill Pinnix, USFWS)</i>	July 2017	YT Portion Posted USFWS portion in final edits
TRRP-2018-009	Cohort Reconstruction	<i>HVT, USFWS, CDFW (POC: Ken Lindke, CDFW)</i>	2 nd Q 2019	In progress
TRRP-2018-011	Adult Salmon Spawning	<i>USFWS, HVT, YT, CDFW (POC: Steve Gough, USFWS)</i>	2 nd Q 2019	In final edits
TRRP-2018-018	Bed Mobility and Scour	<i>HVT, USFWS (POC: Geoff Hales & Scott McBain, McBain Associates)</i>	2 nd Q 2018	FINAL POSTED
TRRP-2018-019	Cottonwood Seed Dispersal	<i>HVT (POC: John Bair, McBain Associates)</i>	3 rd Q 2018	FINAL POSTED
TRRP-2018-021	Riparian Encroachment	<i>HVT (POC: John Bair, McBain Associates)</i>	4 th Q 2018	FINAL POSTED
TRRP-2018-022	Sediment Storage	<i>HVT, USFWS (POC: Geoff Hales & Scott McBain, McBain Associates)</i>	4 th Q 2018	In final edits
TRRP-2018-025	Channel Complexity	<i>HVT, USFWS (POC: Smokey Pittman & Scott McBain, McBain Associates)</i>	August 2019	Delayed- uncertain timeline
TRRP-2018-027	Fine Sediment	<i>Program Office, NMFS, HVT (POC: Todd Buxton, TRRP)</i>	July 2020	FINAL POSTED
TRRP-2018-032	Water Temperature	<i>YT, USFWS, HVT, USBR, NMFS (POC: Eli Asarian, Riverbend Sciences)</i>	May 2019	In final edits
TRRP-2018-033	Large Wood Management	<i>NMFS, YT, HVT (POC: Scott McBain)</i>	April 2018	Recently reorganized team, in progress, external review draft expected late CY 2022
NA	Flow Synthesis	<i>HVT et al. (POC: Justin Alvarez)</i>	Mid FY 22	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	2021 Approved	2022 Working	2023 Initial
Program Administration	\$ 2,617,785.51	\$ 2,433,379.48	\$ 2,878,442.71
Rehabilitation Implementation	\$ 6,812,479.36	\$ 5,430,943.23	\$ 6,290,052.93
Science Program <i>-includes FWS tribal funds transferred to TRRP/USBR</i>	\$ 3,494,410.61	\$ 4,040,210.26	\$ 4,532,454.20
TOTAL <i>(doesn't include FWS salary/ops funds retained at FWS)</i>	\$ 12,924,675.48	\$ 11,904,532.97	\$ 13,700,949.83

TMC TRRP Annual Funding <i>(doesn't include FWS salaries/operations funds retained at FWS):</i>	2021	2022 Working	2023 Initial
USBR (Water & Related A30 funds) <i>Any recovered funds are included here</i>	\$ 9,991,000.00	\$ 9,991,000.00	\$ 11,207,000.00
USBR (CVPIA H37 funds)	\$ 1,500,000.00	\$ 1,500,000.00	\$ 1,500,000.00
CALTRANS	\$ 1,000,000.00	\$ -	\$ -
USBR (BIL ecosystem restoration)	\$ -	\$ -	\$ 454,000.00
FWS* - annual transfer to TRRP/USBR for specific tribal projects	\$ 645,500.00	\$ 535,000.00	\$ 505,119.00
TOTAL	\$ 13,136,500.00	\$ 12,026,000.00	\$ 13,666,119.00

*FWS annual funds transferred to TRRP/USBR for Tribal monitoring/survey projects: Monitor Redds, Outmigrant Monitor, and Channel Rehab Effectiveness monitoring. Obligated with FWS prior FY end-of-

PROGRAM ADMINISTRATION		2021 Approved	2022 Approved	2023 Proposed	
TRRP Administration Personnel					
TRRP Program Office Personnel ED, Secretary, Indian Self-Determination Specialist, Grants and Agreements Specialist		\$ 646,478.40	\$ 474,980.00	\$ 639,810.66	Increase - Secretary filled
	Subtotal	\$ 646,478.40	\$ 474,980.00	\$ 639,810.66	
TRRP Administration					
TRRP Program Office Operations (TRRP office rent, vehicles, utilities, supplies, RO contracting, NCAO)		\$ 550,264.93	\$ 231,725.00	\$ 290,366.48	Decrease - interim lease lower
TRRP Annual Report (BOR Denver TSC)		\$ -	\$ -	\$ -	
TMC Notetaker - TRRP contract		\$ 17,529.60	\$ 29,380.00	\$ 18,307.20	
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.		\$ 102,858.52	\$ 104,666.28	\$ 107,359.26	
	Subtotal	\$ 670,653.05	\$ 365,771.28	\$ 416,032.94	
Trinity Management Council					
Forest Service - IA		\$ -	\$ -	\$ -	
Hoopa Valley Tribe - AFA		\$ 125,442.34	\$ -	\$ -	
Yurok Tribe - AFA		\$ 107,164.17	\$ -	\$ -	
CA Dept of Fish & Wildlife - FA		\$ -	\$ -	\$ -	
CA Dept of Water Resources - FA		\$ -	\$ -	\$ -	
Trinity County -FA		\$ -	\$ -	\$ -	
	Subtotal	\$ 232,606.51	\$ -	\$ -	
Technical Assistance			Cost includes TA and TMC	Cost includes TA and TMC	
Hoopa Valley Tribe -AFA		\$ 388,724.61	\$ 485,316.76	\$ 499,876.26	
Yurok Tribe-AFA		\$ 382,720.15	\$ 518,447.26	\$ 534,000.68	
CA Dept of Water Resources - FA		\$ -	\$ 54,827.31	\$ 150,000.00	
CA Dept of Fish & Wildlife - FA		\$ 240,602.79	\$ 247,820.87	\$ 255,255.50	
NOAA Fisheries - IA		\$ 56,000.00	\$ 148,223.00	\$ 152,863.67	
Forest Service - IA		\$ -	\$ 43,000.00	\$ 44,290.00	
Trinity County Technical Assistance (TRRP grant, floodplain development permit, FEMA)		\$ -	\$ 94,993.00	\$ 186,313.00	Includes supplement in FY23 because of funding increase after
	Subtotal	\$ 1,068,047.55	\$ 1,592,628.20	\$ 1,822,599.11	
TOTAL PROGRAM ADMINISTRATION		\$ 2,617,785.51	\$ 2,433,379.48	\$ 2,878,442.71	

Partial or full 2-year funding, FY18 and FY19

Yellow Highlight are Changes from last TMC meeting

IMPLEMENTATION BUDGET		2021 Approved	2022 Working	2023 Proposed
Implementation Personnel				
TRRP Program Office Personnel (Implementation Branch Chief, Outreach Coordinator, Civil Engineer, CE Tech (1), Senior Natural Resource Specialist)		\$ 816,975.40	\$ 778,178.00	\$ 804,465.26
	Subtotal	\$ 816,975.40	\$ 778,178.00	\$ 804,465.26
Miscellaneous				
FEMA/Flood Compliance Updates - Denver TSC		\$ -	\$ 58,000.00	\$ 45,000.00
River Acres House Flowage Easement - Misc Obl.		\$ -	\$ 458,384.53	\$ 250,000.00
Realty Acquisitions (Easements, material storage)		\$ 21,712.00	\$ -	\$ -
	Subtotal	\$ 21,712.00	\$ 516,384.53	\$ 295,000.00
Planning				
NEPA/CEQA Compliance/Permits/ (TRRP contract: wetland delineation, bird surveys, native seed, cultural res surveys)		\$ 198,000.00	\$ 203,940.00	\$ 210,058.00
Revegetation Supply TRRP contract: native seed, native grass hay, plants		\$ 114,506.00	\$ -	\$ -
BLM Technical Assistance - IA (NEPA, permits)		\$ 64,207.00	\$ 85,585.78	\$ 87,297.00
Geo-Phys Support Services (Aerial photography, boundary surveys, bathymetry and lidar, topography)		\$ 551,846.00	\$ 31,410.00	\$ 32,439.00
	Subtotal	\$ 928,559.00	\$ 320,935.78	\$ 329,794.00
Design and Support Services				
Hoopa Valley Tribe Support Services		\$ 169,540.88	\$ -	\$ -
Yurok Tribe Support Services		\$ 88,462.26	\$ -	\$ -
TSC Modeling Support		\$ -	\$ -	\$ 40,000.00
Channel Rehab Review		\$ -	\$ 245,946.68	\$ -
	Subtotal	\$ 258,003.14	\$ 245,946.68	\$ 40,000.00
Construction				
Construction Projects		\$ 4,050,000.00	\$ 2,605,300.00	\$ 3,943,850.00
Construction Large Wood Supply YT		\$ -	\$ -	\$ 250,000.00
Construction Inspector		\$ -	\$ -	\$ -
Value Engineering Study - Reclamation requirement		\$ -	\$ -	\$ 45,000.00
Sediment Augmentation YT		\$ -	\$ 130,748.38	\$ -
Coarse Sediment Processing/Placement YT		\$ -	\$ 253,892.90	\$ -
Revegetation Maintenance/Irrigation-HVT		\$ 62,229.82	\$ 79,556.96	\$ 81,943.67
Systemic Riparian Mapping Project HVT (Funded Every 5 Years)		\$ -	\$ -	\$ -
	Subtotal	\$ 4,112,229.82	\$ 3,069,498.24	\$ 4,320,793.67
Watershed Implementation				
Watershed Grants		\$ 675,000.00	\$ 500,000.00	\$ 500,000.00
	Subtotal	\$ 675,000.00	\$ 500,000.00	\$ 500,000.00
TOTAL IMPLEMENTATION BUDGET		\$ 6,812,479.36	\$ 5,430,943.23	\$ 6,290,052.93

Amounts are 2-year funding, FY19 and FY20

Yellow Highlight are Changes from last TMC meeting

Decrease - CE tech hired at starting grade, outreach coordinator has not been hired

Placeholder - appraisal in progress

Balancer

SCIENCE AND MONITORING BUDGET		2021 Approved	2022 Working	2023 Working
Science Program Support				
TRRP Program Office Personnel (BOR) (Science Coordinator, Data Steward, Physical Scientist,NRS)		\$ 874,022.40	\$ 915,470.00	\$ 842,656.36
TRRP Program Office Personnel (HVT) - Riparian Ecologist		\$ 159,349.01	\$ 166,511.25	\$ 161,730.10
TRRP Program Office Personnel (YT) - Fish Biologist		\$ 101,427.50	\$ 117,874.37	\$ 121,410.60
External Peer Review Contract (DOI BPA)		\$ -	\$ 23,950.00	\$ 40,000.00
SAB Participation (currently 3 SAB members)		\$ -	\$ -	\$ 125,000.00
TRRP-2018-036: Stream Gaging BOR Region Contract		\$ 229,800.00	\$ 239,750.00	\$ 250,000.00
	Sub-total	\$ 1,364,598.91	\$ 1,463,555.62	\$ 1,540,797.06
Status and Trend Monitoring <i>doesn't include FWS** salaries</i>				
TRRP-2018-001: Chinook Run-Size Est.(CDFW, HVT)		\$ 482,768.30	\$ 499,251.67	\$ 514,229.22
California Department of Fish and Wildlife		\$ 417,626.47	\$ 430,155.26	\$ 443,059.92
Hoopa Valley Tribe		\$ 65,141.83	\$ 69,096.41	\$ 71,169.30
TRRP-2018-034: Chinook CWT-Fall Chinook (HVT)		\$ 198,310.51	\$ 327,348.07	\$ 337,168.51
TRRP-2018-004: Fall Run Scale Age (HVT, YT)		\$ 131,915.38	\$ 160,712.87	\$ 165,534.26
Hoopa Valley Tribe		\$ 85,246.17	\$ 114,651.74	\$ 118,091.29
Yurok Tribe		\$ 46,669.21	\$ 46,061.13	\$ 47,442.96
TRRP-2018-012:Outmigrant Monitor HVT, YT, FWS**		\$ 737,625.90	\$ 747,208.67	\$ 769,624.93
Hoopa Valley Tribe		\$ 416,186.59	\$ 416,495.18	\$ 428,990.04
Yurok Tribe		\$ 321,439.31	\$ 330,713.49	\$ 340,634.89
TRRP-2018-026: YT Harvest (Lower Klamath) (YT)		\$ 166,840.00	\$ 171,845.20	\$ 177,000.56
TRRP-2018-006: HVT Harvest (Lower Trinity) (HVT)		\$ 107,831.84	\$ 108,624.40	\$ 111,883.13
TRRP-2018-014: Monitor redds distribution, abundance and densities CDFW, YT, HVT, FS, FWS**		\$ 205,993.54	\$ 209,918.96	\$ 216,216.53
California Department of Fish and Wildlife		\$ 44,955.32	\$ 46,303.98	\$ 47,693.10
Yurok Tribe		\$ 68,902.51	\$ 70,662.25	\$ 72,782.12
Hoopa Valley Tribe		\$ 92,135.71	\$ 92,952.73	\$ 95,741.31
Forest Service (covered under technical assistance)		\$ -	\$ -	\$ -
TRRP-2018-010: Lower Klamath Creel Survey CDFW		\$ -	\$ -	\$ 100,000.00
TRRP-2018-005: Sport Harvest/Trinity Creel HVT		\$ -	\$ -	\$ 100,000.00
	Sub-total	\$ 2,031,285.47	\$ 2,224,909.84	\$ 2,491,657.14
Effectiveness Monitoring & Other				
TRRP-2018-035: Channel rehab habitat effectiveness monitor(40 mile model support) YT, HVT, TRRP TSC,		\$ 98,526.23	\$ 5,305.80	\$ -
TRRP Reclamation TSC		\$ 36,000.00	\$ -	\$ -
Yurok Tribe		\$ 21,184.14	\$ 3,819.80	\$ -
Hoopa Valley Tribe		\$ 41,342.09	\$ 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		\$ -	\$ -	\$ 500,000.00
	Sub-total	\$ 98,526.23	\$ 351,744.80	\$ 500,000.00
Total Science Budget		\$ 3,494,410.61	\$ 4,040,210.26	\$ 4,532,454.20

Decreased -
overestimate

Yellow Highlight are Changes from last TMC meeting