FY24 Executive Director's Budget Narrative

26 May 2023

FY23 spend-out priorities for surplus funds

A variety of developments have led to an unanticipated surplus of funds this year, thought the exact amount will not be known until later in summer of 2023. The priority for surplus FY23 funds that was identified at the June 2022 TMC meeting was the Oregon Gulch Channel Rehabilitation Project, which we believed would require a third year of construction funding in FY24 for completion. However, with external funds brought to bear on that project, there is now funding available. Because those external (state restoration grant) funds were intended to accelerate the pace of implementation of channel rehabilitation work, it is important that we largely focus the resulting surplus TRRP funds on items that would otherwise have been funded in FY24 in order to free up funding for the channel rehabilitation project that is slated next year (which will require multiple years of funding). The actual amount of surplus funds and the cost of some of the priorities below will not be known until later this summer, so I have listed priorities for funding without regard to the potential amount per item (essentially we would start at the top and work our way down)

I propose that the following priorities be approved for allocation of residual FY23 funds:

Limiting Factors Analysis

The Science Plan identified this as a major priority for the program. Understanding why increases in juvenile Chinook production is not resulting in increased adult returns is essential to our ability to adaptively manage our restoration tools in a way that will result in success. The tentative vehicle for funding this task will be a modification to our existing grant with NFWF, who will in turn issue a Request for Proposals to execute the Performance Work Statement (PWS) that has been developed by the Fish WG and IDT. If the PWS and grant modification are completed this year, this should be our highest priority for FY23 funds.

Design support services

We have paused design support for the last couple years to let design development catchup with funding and the Phase II review. We are now at a point where both the Yurok Tribe and Hoopa Valley Tribe require additional funding to advance designs that they had been assigned. The latter is the higher priority of the two because we will be moving forward with construction of the Upper Connor Creek project next year. The design from that project needs to be developed to the construction-ready level. The Yurok Tribe are working jointly with DWR to concurrently develop designs for the Evans Bar project as well as the close-out of the Sawmill gravel processing site and also require funds to advance those designs.

Facies mapping

This project ranked highly in the FY22 science planning process, but was not funded due to unresolved comments from external review. The information gained from this data collection feeds into several other projects and it continues to be a need. However, if the time between collection of the 40-mile topography and collection of the facies map is too great, the channel may have changed enough to make the facies data less relevant. We are approaching that point, and given that we are not due to collect topographic data again until 2027, I encourage the TMC to fund this project this year.

Forward funding existing multiyear agreements

With those time-sensitive, project-specific priorities addressed, I propose forward funding existing multiyear agreements to free up funds in FY24 that could then be applied to channel rehabilitation.

Gravel processing

In the event that there is sufficient funding for all of the above priorities or if funding of those priorities is infeasible because of time or logistical constraints, I propose advance funding of gravel processing. We have significantly depleted our gravel stockpile and, given that gravel has a long shelf life, this is a prudent place to park funding to free up resources for channel rehabilitation.

FY24 budget priorities

The TRRP operating budget has been proposed for a modest reduction from FY23; we anticipate approximately $12.8m of Reclamation appropriated funding, CVPRF funding, and USFWS support for tribal fisheries monitoring.

The following is a narrative to accompany the FY24 TRRP budget recommendation spreadsheet. It has been developed following extensive discussions with partners, internal program staff deliberations, mid-term projections in implementation priorities, and has incorporated previous discussions of program priorities from recent fiscal years.

It should be noted that the three categories within the budget (Administration, Implementation, and Science and Monitoring) are arbitrary and are included solely for familiarity because of how past budgets have been prepared. They do not reflect any strict lines of overhead vs. restoration activities vs. science. For example, much of the "Technical Assistance" funding on the Admin page reflects science support and workgroup participation (including Design Team) by agency staff; and the costs included in both the Implementation and Science pages include significant overhead costs associated with positions and projects which would logically be considered Admin. Further, costs have frequently been moved between these subjective categories, so the reader is strongly cautioned against trying to compare the relative amount of the budget going to Admin, Implementation, and Science and Monitoring within or between years.

The budget, as proposed, identifies largely status-quo funding for Administration, status quo funding for Implementation tasks (except as described below), and status quo funding for Science tasks except for the incorporation of the limiting factors analysis and facies mapping (in the event that they are unable to be forward funded using FY23 dollars). The proposed budget includes assumptions about costs of key tasks based on year-adjusted prior year costs; actual funding amounts may vary based on staff salary adjustments, indirect and fringe rate changes, and other cost changes. **As such, the proposal before the TMC is to approve these items as priorities in principle, with the acknowledgment that final numbers may differ from what is listed in the initial budget.** Any savings from lower-than-anticipated operating costs would be redirected to the multi-year Upper Connor Creek Channel Rehabilitation Project or associated implementation materials activities (e.g. large wood acquisition or gravel processing).

Administrative Budget

TRRP Program Office Personnel

The funding level proposed assumes that the Executive Director, Secretary, and Grants and Agreements Technician positions are encumbered for the full year.

TRRP Administration

TRRP Office Operations

Proposed based on multi-year averages and projection of costs for lease, utilities, fleet, and other non-staff overhead costs.

Annual Report

Continuing the shift that started in FY21, the TRRP will produce the annual report using internal staff time. Because the budget spreadsheet only displays this year and the previous two years, this means this task is no longer reflected there. There is no additional cost projected for this task. Note: the 2022 annual report is likely to be produced electronically as an ArGIS story map, with a scaled-down pdf version available for printing.

TMC Notetaker

Having an objective, professional notetaker is invaluable for adequately documenting our deliberations and maintaining transparency. A contract for a new notetaker should be awarded very soon, if not by the June TMC meeting. This estimate assumes four in-person TMC meetings and eight monthly meetings. When the TSAC is formally rechartered, we would need to modify this contract if we wish to provide note taking services for those meetings, but that is not a concern for this fiscal year.

TCRCD Outreach Grant

This long-running grant promotes the program's image in the community, provides valuable environmental education, and significantly streamlines our communications (e.g. NEPA mailings, newspaper ads). Since the start of the new 5 year grant and following turnover at the RCD, the RCD staff have stepped up their game substantially, and recent outreach events have been overwhelming successes. I propose to fund this fourth year of the grant.

Technical Assistance

This line funds the participation in program activities by staff from across the TMC agencies. The proposed budget for these lines is flat with FY23 plus year-on-year increase. Some of the costs noted are actual amounts from multiyear agreements, while the two tribes and CDFW are scaled costs based on FY23 because new multiyear agreements for those entities still need to be negotiated.

Implementation Budget

TRRP Program Office Staff

This funding level assumes the positions of Implementation Branch Chief, Public Affairs Specialist (Outreach Coordinator), Civil Engineer, Civil Engineering Technician, and Senior Natural Resource Specialist (Compliance) are encumbered, and assumes we continue to hold vacant the second CE Tech. Note that this number is almost certainly higher than will be necessary for these positions, as the Public Affairs Specialist may not be filled by the beginning of the fiscal year and other positions may become vacant during the year. Further, this estimate assumes that the vacancies would be filled at the full performance level, but both the Public Affairs Specialist and Natural Resource Specialist will be advertised as multi-grade developmental positions so the selectee may be hired at a lower grade. Any salary savings from this task would be redirected to channel rehabilitation as described above.

Miscellaneous

FEMA/Flood Compliance Updates

In recent years, this task had been funded through an agreement with Reclamation’s Technical Service Center (TSC). While we ultimately intend to have the TRRP’s engineer and engineering technician perform this work internally, a combination of staffing shortages and a backlog of delinquent FEMA Letters of Map Revision requires that we continue to work with TSC.

River Acres Road House

Negotiation with the landowner to acquire a flowage easement did not yield a satisfactory outcome. We are in discussion with the landowner to purchase the property outright. This may occur in FY23, or it may get pushed to FY24 which would be covered by funding of the FY23 spend-out priorities identified above.

Realty

Construction of the Upper Connor Creek project will require temporary access agreements with private landowners; these have yet to be negotiated and actual costs will not likely be known until Q2 or Q3 of FY24. The figure provided is a placeholder.

Planning

NEPA/CEQA Compliance/Permits

This funds a contractor to perform biological and cultural field surveys and develop permitting packages for future projects. The existing contract will expire just before the end of FY24, so the cost proposed is an estimate for a new contract.

Revegetation Supply

This optional task associated with the environmental support services contract described above allows for advance ordering of container stock, native grass seed, hay, and other revegetation materials in advance of channel rehabilitation revegetation work.

BLM Technical Assistance

This task funds participation by BLM technical specialists in program activities, primarily compliance for restoration work on BLM-administered public lands. The BLM has used our funds judiciously and is a key partner in our work.

Geophysical Support Services

This broad category funds annual aerial photography, boundary surveys, post-construction as-built surveys, and large-area remote sensing data collection. The request here is to fund annual 40 mile aerial photography and as-built surveys for the Oregon Gulch Channel Rehabilitation Project.

Design and Support Services

As described above under FY23 spend-out priorities, we hope to forward fund design support by HVT and YT design groups, but if that does not happen, this would be an FY24 priority.

$40k is proposed to be added to our general Technical Service Center modeling support agreement. This task allows us to lean on technical specialists in that office in support of a suite of research and modeling program activities.

Construction

Construction Projects

In FY24 we intend to construct the Upper Connor Creek Channel Rehabilitation Project, which is similar in scope to the Oregon Gulch project and likely exceeds the funding that will be available to complete the project this year. As such, because of the scalability of funding to define phases of the project, I propose that, as in FY23, this task be used to balance the budget (in other words, if costs for other tasks are higher or lower than proposed, the adjustment to the budget would be in this item).

Large Wood Supply

The purpose of this task is to procure large wood for habitat installation in the following fiscal year. We will require large wood per the design of the Upper Connor Creek project.

Construction Inspector

TRRP office implementation staff should be able to cover the on-site government inspector role in the coming fiscal year, so paying for an inspector from the Willows Construction Office or Northern California Area Office should not be necessary.

VE Study

The next projects in queue for implementation (Upper Connor Creek, Sky Ranch, Sawmill Close-Out) have all had VE studies, so we do not anticipate needing a VE study this FY.

High Flow Gravel Augmentation

Funding for placement of gravel is required this FY.

Coarse Sediment Processing/Placement

The supply of processed gravel is largely depleted, so we will need to process gravel this FY.

Revegetation Maintenance/Irrigation

We conduct three years of post-project irrigation and maintenance of plantings at channel rehabilitation sites. In FY24 we will irrigate Chapman Ranch Phases B. There are also some invasive weed actions and maintenance of the Bucktail and Chapman Ranch beaver dam analogs that will occur under this task.

Systemic Riparian Mapping

This required monitoring project recurs at five year intervals; it is due in FY24.

Watershed Implementation

Continuing to support projects that improve tributary habitat is essential, particularly for coho and steelhead. It has become routine to fund our annual watershed grants at approximately $500k/yr. I propose to fund another grant cycle through our five year Watershed Restoration Grant with the National Fish and Wildlife Foundation at that level.

Science and Monitoring Budget

Science Program Support

Program Office Personnel (BOR)

The number assumes that the Science Coordinator, Data Steward, Physical Scientist, and a Natural Resource Specialist (GIS support) are fully encumbered. With the lateral of the current Science Coordinator into the Implementation Branch Chief position, the Science Coordinator may be vacant for a portion of the FY.

Program Office Personnel (HVT)

We will continue to require riparian ecology expertise for science & monitoring, revegetation design, and compliance support in the coming year.

Program Office Personnel (YT)

We will continue to require fish biology expertise for science & monitoring, flow management, channel rehab design, and compliance support in the coming year.

SAB

An interest announcement is being circulated in hopes of recruiting new Science Advisory Board members. The actual cost that will be required for agreements with new SAB members is unknown; the figure listed is a placeholder.

Stream Gaging

This is an intra-agency agreement Reclamation holds with USGS to fund gaging in the Trinity River watershed. The gage network underwent an internal review by the workgroups in 2018.

Status and Trend Monitoring

These projects are proposed for funding at FY23 levels adjusted for year-on-year cost increases. No changes to these existing projects are proposed at this time.

Effectiveness Monitoring

Bed Surface Grain Map (Facies Map)

This project was reviewed and discussed extensively during the FY22 Request For Proposals process. In spite of it being recommended for funding in FY23, other priorities were identified by TMC. This project will likely be incorporated into a suite of recurring sampling under the Science Plan, likely synchronized with 40-mile topography data collection. If it is not funded using FY23 dollars, I propose deferring this until the next 40-mile topographic data collection effort in FY27.

Limiting Factors analysis

As described above in the FY23 spend out priorities, this is our highest science priority outside of routine status and trend monitoring. If it is unable to be funded with surplus FY23 dollars, it should absolutely be a priority for FY24.

Annual Costs Summary by TRRP Program Activity	2022	2023	2024 Proposed
Program Administration	$ 2,433,379.48	$ 2,896,017.89	$ 2,906,446.67
Rehabilitation Implementation	$ 4,972,558.70	$ 4,074,494.43	$ 5,598,268.87
Science Program-*includes FWS tribal funds transferred to TRRP/USBR*	$ 4,040,210.26	$ 4,934,226.24	$ 4,324,943.70
TOTAL *(doesn't include FWS salary/ops funds retained at FWS)*	**$ 11,446,148.44**	**$ 11,904,738.55**	**$ 12,829,659.24**

TMC TRRP Annual Funding (*doesn't include FWS salaries/operations funds retained at FWS*):	2022	2023	2024 Proposed
USBR (Water & Related A30 funds) ***Any recovered funds are included here***	$ 9,991,000.00	$ 11,207,000.00	$ 10,830,000.00
USBR (CVPIA H37 funds)	$ 1,500,000.00	$ 1,500,000.00	$ 1,500,000.00
USBR (BIL ecosystem restoration)	$ -	$ 454,000.00	$ -
FWS* **- annual transfer to TRRP/USBR for specific tribal projects**	$ 535,000.00	$ 505,119.00	$ 500,000.00
TOTAL	**$ 12,026,000.00**	**$ 13,666,119.00**	**$ 12,830,000.00**

***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-year

PROGRAM ADMINISTRATION		2022 Approved	2023 Approved	2024 Proposed
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	$ 519,924.17
Yurok Tribe-AFA		$ 518,447.26	$ 557,703.17	$ 580,011.30
CA Dept of Water Resources - FA		$ 54,827.31	$ 150,000.00	$ 150,000.00
CA Dept of Fish & Wildlife - FA		$ 247,820.87	$ 255,255.50	$ 281,699.00
NOAA Fisheries - IA		$ 148,223.00	$ 152,863.67	$ 157,681.45
Forest Service - IA		$ 43,000.00	$ 44,290.00	$ 45,000.00
Trinity County Technical Assistance (TRRP grant, floodplain development permit, FEMA)		$ 94,993.00	$ 189,521.00	$ 95,173.00
	Subtotal	**$ 1,592,628.20**	**$ 1,849,560.43**	**$ 1,829,488.92**
TOTAL PROGRAM ADMINISTRATION		**$ 2,433,379.48**	**$ 2,896,017.89**	**$ 2,906,446.67**

Partial or full 2-year funding, FY18 and FY19

Yellow Highlight are Changes from last TMC meeting

IMPLEMENTATION BUDGET	2022 Approved	2023 Approved	2024 Proposed	
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 Flowage Easement - Misc Obl.	$ -	$ 225,000.00	$ -	
Realty Acquisitions (Easements, material storage)	$ -	$ -	$ 30,000.00	
Subtotal	**$ 58,000.00**	**$ 270,000.00**	**$ 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	Placeholder; will be soliciting new contract
Revegetation Supply TRRP contract: native seed, native grass hay, plants	$ -	$ 121,479.00	$ 126,338.16	Placeholder; will be soliciting new contract
BLM Technical Assistance - IA (NEPA, permits)	$ 85,585.78	$ 87,297.00	$ 89,043.45	
Geo-Phys Support Services (Aerial photography, boundary surveys, bathemytry and lidar, topography)	$ 31,410.00	$ 42,422.81	$ 112,000.00	
Subtotal	**$ 320,935.78**	**$ 461,256.81**	**$ 545,841.93**	
Design and Support Services				
Hoopa Valley Tribe Support Services	$ -	$ -	*0	
Yurok Tribe Support Services	$ -	$ -	*0	
TSC Modeling Support	$ -	$ 67,000.00	$ 40,000.00	Funding added for cohort reconstruciton model update
Channel Rehab Review	$ 245,946.68	$ -	$ -	
Subtotal	**$ 245,946.68**	**$ 67,000.00**	**$ 40,000.00**	
Construction				
Construction Projects	$ 2,605,300.00	$ 1,915,047.65	$ 2,418,000.00	Balancer
Construction Large Wood Supply YT	$ -	$ 250,000.00	$ 250,000.00	
Construction Inspector	$ -	$ -	$ -	
Value Engineering Study - Reclamation requirement	$ -	$ 45,000.00	$ -	
Sediment Augmentation YT	$ 130,748.38	$ -	$ 141,417.45	
Coarse Sediment Processing/Placement YT	$ 253,892.90	$ -	$ 274,610.56	
Revegetation Maintenance/Irrigation-HVT	$ 79,556.96	$ 103,923.97	$ 108,080.93	
Systemic Riparian Mapping Project HVT (Funded Every 5 Years)	$ -	$ -	$ 150,000.00	
Subtotal	**$ 3,069,498.24**	**$ 2,313,971.62**	**$ 3,342,108.94**	
Watershed Implementation				
Watershed Grants	$ 500,000.00	$ 500,000.00	$ 500,000.00	
Subtotal	**$ 500,000.00**	**$ 500,000.00**	**$ 500,000.00**	
TOTAL IMPLEMENTATION BUDGET	**$ 4,972,558.70**	**$ 4,074,494.43**	**$ 5,598,268.87**	

Yellow Highlight are Changes from last TMC meeting

SCIENCE AND MONITORING BUDGET	2022 Approved	2023 Approved	2024 Proposed	
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	$ 164,266.39	
TRRP Program Office Personnel (YT) - Fish Biologist	$ 117,874.37	$ 124,714.64	$ 129,703.23	
External Peer Review Contract (DOI BPA)	$ 23,950.00	$ 40,000.00	$ 40,000.00	
SAB Participation (currently 2 SAB members)	$ -	$ 125,000.00	$ 125,000.00	
TRRP-2018-036: Stream Gaging BOR Region Contract	$ 239,750.00	$ 230,800.00	$ 237,720.00	
Sub-total	**$ 1,463,555.62**	**$ 1,619,115.09**	**$ 1,684,374.61**	
Status and Trend Monitoring ***doesn't include FWS** salaries***				
TRRP-2018-001: Chinook Run-Size Est.(CDFW, HVT)	$ 499,251.67	$ 514,229.22	$ 478,266.07	
California Department of Fish and Wildlife	*$ 430,155.26*	*$ 443,059.92*	*$ 404,250.00*	
Hoopa Valley Tribe	*$ 69,096.41*	*$ 71,169.30*	*$ 74,016.07*	
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	$ 177,094.93	
Hoopa Valley Tribe	*$ 114,651.74*	*$ 118,091.29*	*$ 122,814.94*	
Yurok Tribe	*$ 46,061.13*	*$ 52,192.30*	*$ 54,279.99*	
TRRP-2018-012:Outmigrant Monitor HVT, YT, **FWS****	$ 747,208.67	$ 795,259.00	$ 827,069.36	
Hoopa Valley Tribe	*$ 416,495.18*	*$ 429,087.05*	*$ 446,250.53*	
Yurok Tribe	*$ 330,713.49*	*$ 366,171.95*	*$ 380,818.83*	
TRRP-2018-026: YT Harvest (Lower Klamath) (YT)	$ 171,845.20	$ 188,710.99	$ 196,259.43	
TRRP-2018-006: HVT Harvest (Lower Trinity) (HVT)	$ 108,624.40	$ 115,072.30	$ 119,675.19	
TRRP-2018-014: Monitor redd distribution, abundance and densities CDFW, YT, HVT, FS, **FWS****	$ 209,918.96	$ 222,727.92	$ 275,913.21	
California Department of Fish and Wildlife	*$ 46,303.98*	*$ 47,693.10*	*$ 93,877.00*	
Yurok Tribe	*$ 70,662.25*	*$ 79,293.51*	*$ 82,465.25*	
Hoopa Valley Tribe	*$ 92,952.73*	*$ 95,741.31*	*$ 99,570.96*	
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	$ 102,366.85	
Sub-total	**$ 2,224,909.84**	**$ 2,508,517.53**	**$ 2,640,569.09**	
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		182,778.00	$ -	
TRRP-2023-3: Lewiston Reservoir Temp Study		$ 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	$ -	Proposed
TRRP-2024-X: Limiting Factors Analysis	$ -	$ -	$ -	Cost TBD; portion may be funded FY23
Sub-total	**$ 351,744.80**	**$ 806,593.62**	**$ -**	
Total Science Budget	**$ 4,040,210.26**	**$ 4,934,226.24**	**$ 4,324,943.70**	

Yellow Highlight are Changes from last TMC meeting