



Trinity River Restoration Program (TRRP)

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TECHNICAL MEMORANDUM

TO: TRRP WORKGROUP COORDINATORS

FROM: TRRP INTERDISCIPLINARY WORKGROUP (IDT)
(PRIMARY AUTHOR: ERIC PETERSON, TRRP DATA STEWARD)

CC: TRRP EXECUTIVE DIRECTOR

SUBJECT: REQUEST FOR REVIEW OF OBJECTIVES AND TARGETS, ADDITION OF MONITORING AND MODELING

DATE: JANUARY 12, 2024

Background:

The TRRP Science Plan (Pickard et al. 2023) calls for Workgroups to conduct a review of long-term monitoring activities through FY2023 and FY2024. The IDT has initiated this review through the lens of TRRP Objectives and Targets (O&T). The O&T document (draft attached) has long been envisioned as a living document with anticipation that some objectives and their targets will change. Therefore, use of O&T for review of monitoring should begin with a review of the objectives and targets themselves.

Furthermore, the Flow Workgroup requested review of the Decision Support System (DSS) that is used to support making recommendations on flow schedules (memorandum attached). This DSS is composed of a variety of physical and biological models for which the management action (dam releases) are a driver. The composition of models has changed over the years in part due to model availability, and in part due to perceived value of model results toward making decisions. The IDT has recognized that this DSS review should also be conducted in light of TRRP O&T, which may allow efficiency from conducting the monitoring and modeling reviews in concert.

Therefore, the purpose of the review is to identify opportunities to improve Adaptive Management through better aligning monitoring and modeling projects to TRRP needs as defined by objectives and targets. Expected outcomes include direct connection from Goal to Objective to Target to Monitoring activity and Modeling activity, plus potential reduction of efforts that are unnecessary to those connections, or addition of efforts currently missing from those connections.

The review is beginning with a high-level look at how O&T match to existing monitoring and modeling activities. Workgroups may anticipate future review of greater depth for particular monitoring and modeling activities as the review focuses-in on details of how TRRP needs are being met. However, those future reviews should remain at the level of meeting programmatic needs within the realities of TRRP budgets. *In-depth*

scientific reviews of sampling design, monitoring protocol, statistical analysis, and such should be anticipated as separate project-by-project efforts that can be conducted subsequently, perhaps by external entities.

Current Request to Workgroups:

The IDT is asking each Workgroup that has existing O&T to review them, revise if needed, identify activities that monitor progress on targets, and identify modeling efforts that inform management toward achieving objectives. The IDT further requests each Workgroup lacking existing O&T to affirm that objectives relevant to their focal topic are adequately covered by one or more other workgroups. Several synthesis reports have been completed since the bulk of the work was done on developing existing O&T and may prove valuable for informing the review.

Review at present may focus on the table of O&T (spreadsheet attached). This table is derived from the draft O&T document, Table 1, but has a column added to provide a link to TRRP goals as identified in the Science Plan (Form, Function, and Fish), plus a column for each of Monitoring Activities and Modeling/DSS Activities. The responsible Workgroup is identified at the beginning of the text for each Objective (e.g. “Fish 1”). The following questions are provided to aid in this review:

1. Does the suite of objectives effectively address TRRP needs? (Is anything missing?)
2. Is the objective effectively and appropriately stated?
3. Is the target(s) appropriate and measurable for tracking TRRP objective achievement?
4. Is the Science Plan Goal properly identified?
5. Is the list of Monitoring Activities complete and appropriate to the target?
 - a. Are there Targets that are not being monitored? If so, please identify by stating “Not Monitored” in the appropriate cell. (Note: some targets may be monitored through data obtained from outside of TRRP, which should be identified by data source.)
 - b. Your workgroup may add a parenthetical “(priority for addition)” if there are known methods available and practical for monitoring, and the group believes it deserves consideration for addition to the TRRP Science budget.
6. Is the list of Modelling/DSS complete and appropriate to the objective? Please keep in mind the potential for DSS in management decisions beyond flow scheduling.
 - a. Are there O&T that lack modeling or monitoring? If so, please identify by stating “Not Modeled (Monitored)” in the appropriate cell.
 - b. Your workgroup may add a parenthetical “(priority for addition)” if there are known methods available and practical for modeling, and the group believes it deserves consideration for addition to the TRRP Science budget.
 - c. Are all models used by the Flow Scheduling DSS in 2017 and 2023 (see memo) addressed? If not, then why is a model being used for DSS that is not aligned to TRRP O&T?

Completion of this review is requested by the end of FY2024 quarter 2 (end of March). Workgroup coordinators may enter edits to the table directly through the Microsoft Teams file link. Supporting information akin to the documentation in the draft O&T document may be submitted to the IDT as necessary. Questions may be directed to the TRRP Science Coordinator, or in their absence, the TRRP Data Steward.

References

Pickard, D., J. Alvarez, K. De Juilio, L. Gogan, J. Lee, K. Lindke, S. Naman, C. Smith, N. Som, and P. Zedonis. 2023. Trinity River Restoration Program: Science Plan. Report for the Trinity River Restoration Program (TRRP). TRRP, Weaverville, California. Available: <https://www.trrp.net/library/document?id=2605>.

Attachments:

1. [Draft Objectives and Targets document \(dated 23 February 2021\)](#)
2. [Objectives and Targets spreadsheet for Editing](#)
3. [Memo from Flow Workgroup regarding DSS review](#)