



## Trinity River Restoration Program

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To: TRRP Interdisciplinary Team and Technical Work Groups

From: Mike Dixon, Interdisciplinary Team Coordinator/Implementation Branch Chief

Subject: Guidance for objectives and refinements exercise

This memo is to provide guidance to work group coordinators and their respective work group members on refinement of programmatic means objectives and targets, and to provide consistency of this effort throughout the Program. The guidance provided in this memorandum was jointly developed by the IDT Coordinator/Implementation Branch Chief, Work Group Coordinators, Executive Director, and other Partner staff at the October 10, 2018 IDT meeting in Arcata.

Numerous objectives were identified in the Record of Decision (ROD) and the Integrated Assessment Plan (IAP), and work groups have been tasked with finalizing the refinement of those objectives to a manageable set that can be monitored by the Program to measure success toward meeting our overarching goals and fundamental objectives. Specifically, this memo provides definitions for the hierarchical categories used to organize objectives and targets, some specific instructions on decision making during refinement, and an example table that work groups are expected to complete and provide to the Science Coordinator and/or IDT at the completion of the metrics refinements task.

Means objectives are derived primarily from the ROD and the IAP, and the primary task of the work groups is to refine the complete set of those means objectives down to a manageable set that can be quantified and monitored with some regularity (e.g., annually) to measure progress. In addition, a target must be identified for each means objective that is retained at the end of this exercise, with a few exceptions. There are some objectives that were proposed in the ROD or the IAP that either can't be quantified in a meaningful way (i.e., a target cannot be identified) or the Program does not have management authority over actions that would affect progress toward meeting the objective. Work groups are instructed to take one of the following actions when presented with such an objective:

1. Omit the objective from further consideration by the Program.
2. Retain the objective, but flag it as one that the Program does not measure or use to infer progress toward success.

Trinity Management Council

Don Bader, Chair, Bureau of Reclamation – Justin Ly, Vice Chair, National Marine Fisheries Service –  
Terri Simon-Jackson, USDA Forest Service – Mike Orcutt, Hoopa Valley Tribe – Dave Hillemeier, Yurok Tribe – Keith Groves, Trinity County –  
Teresa Connor, California Department of Water Resources – Dan Everson, US Fish & Wildlife Service –  
Caryn Hunt DeCarlo, TRRP Executive Director

## Definitions

**Overarching Goal:** This is the single unifying primary goal that the Program is founded upon. The goal, as stated below, was agreed upon at the Objectives Workshop in May 2013, and is not currently up for reconsideration or redefining.

“Restore and sustain natural production of adult anadromous fish populations downstream of Lewiston Dam to pre-dam levels, to facilitate dependent tribal, commercial, and sport fisheries full participation in the benefits of restoration via enhanced harvest opportunities. The TRRP strategy for accomplishing this goal restores and perpetually maintains fish and wildlife resources (including T&E species) by restoring the processes that produce a healthy alluvial river system.”

**Fundamental Objectives:** These are the broadest objectives directly influenced by TRRP decisions, which can be viewed as ends in and of themselves. These should be concise and understandable. The two fundamental objectives stated below were agreed upon at the Objectives Workshop, and are not currently up for reconsideration or redefining.

1. Restore and sustain natural production of anadromous fish populations downstream of Lewiston dam to pre-dam levels.
2. Restore the processes and attributes of a healthy alluvial river system.

**Means objectives:** These represent way stations on the progress toward a fundamental objective. These must have a link to a management action to be included as a means objective.

Examples:

1. Increase naturally produced fall-run Chinook salmon adult production in the Trinity River Basin to the extent necessary to meet or exceed escapement objectives and facilitate expanded harvest opportunity.
2. Provide optimal temperatures to minimize pre-spawning mortality, protect in-vivo egg viability, and improve spawning success of spring and fall-run Chinook salmon.
3. Improve thermal regimes for outmigrant salmonid growth and survival (dependent on water year type).
4. Increase proportion of Natural Influence (pNI) used as a surrogate for genetic interactions, i.e., mixing of hatchery and natural fish.

**Target:** This is a measurable value or range of values demonstrating that a means objective has been met. **The target should include specifics for the duration, frequency, time of year, magnitude, and location, if they apply.**

Examples:

1. 62,000 adult fall-run Chinook salmon
2. 60 degrees F (July 1 to September 14), 56 degrees F (September 15 to September 30) at Douglas City
3. <62.6 degrees F (extremely wet, wet, and normal years), or <68 degrees F (dry and critically dry years) prior to July 9 at Weitchpec
4. pNI  $\geq$  0.50

**Additional Guidelines**

The purpose of this section is to provide some of the sideboards of the refinements of means objectives and targets task. It is important for work group members to remember that this task is not the end-all-be-all of objectives/targets defining, refining, adding, or removing. The effort is meant to reduce the current set of means objectives to a manageable set that eliminates redundancies and reflects the current understanding within the Program. It is also important to remember that any formal changes to objectives or targets are the purview of the TMC.

1. Objectives that are redundant should be combined—to the degree possible—or omitted, resulting in distinctly different means objectives at the completion of the task.
2. Objectives that are no longer relevant should be omitted, with documentation of the rationale and science supporting the omission.
3. New means objectives can be proposed, but must be distinctly different than already existing objectives. New objectives should be accompanied by a well-documented justification and must be directly related to a specific management action.
4. New targets should be identified and proposed for means objectives that are retained and for which appropriate targets have not yet been defined.
5. New targets can be proposed for objectives that already have quantifiable targets, if they are accompanied by sufficient science-based justification (whether empirical, modeling based, or from the literature). However, work group members should be aware of targets that are codified in law. If a work group achieves consensus on recommended changes to a target codified in law, the proposed change should be well-documented and presented to the TMC for consideration.
6. Work groups can change objectives, if scientifically-based justifications for a change are well-documented. If the changes simply add clarification in language or add specificity necessary to make an objective quantifiable, the level of documentation can be at the discretion of work group members.

### Example table

The table below is meant to serve as a starting point for work groups to organize means objectives and targets, and to identify the management actions that affect them. Work groups are encouraged to add columns to the right of the “Management Action” column as they see fit. An example of an additional column that was discussed in a recent IDT meeting is “Data Sources,” which was intended to identify the research or monitoring work that has been or is currently being implemented by the Program to inform a given objective. Note that the content in the table below is only provided as an example and has not yet been reviewed by work groups.

Means objective	Target	Management Action
Increase naturally produced fall-run Chinook salmon adult production to the extent necessary to meet or exceed escapement objectives and facilitate expanded harvest opportunity	Increase escapement of naturally produced fall-run Chinook salmon to 62,000 adults.	Channel rehabilitation, flow management
Improve thermal regimes for outmigrant salmonid growth and survival (dependent on water year)	Chinook (July 9), <62.6 F in EW, W, N water years @ Weitchpec, <68 F in D, CD water years @ Weitchpec	flow management
Provide optimal temperatures to minimize pre-spawning mortality, protect in-vivo egg viability, and improve spawning success of spring and fall-run Chinook salmon	60F to Douglas City July 1-Sept 14, 56F to Douglas City Sept 15-Sept 30, 56F to North Fork Trinity Oct. 1-Dec 31.	flow management
Increase proportion of Natural Influence (pNI) used as a surrogate for genetic interactions = mixing of hatchery and natural fish	pNI $\geq$ 0.5	channel rehabilitation, flow management (increase natural populations)