Tributary Assessments

Background

The ERP has commissioned the development of three initial tributary assessments for Clear Creek, Deer Creek, and the Tuolumne River. The tributary assessments have several objectives:

- Identify additional actions for potential inclusion in the ERPP;
- Refine ERP actions and targets;
- Discuss local factors limiting salmonid production, fluvial processes, and riparian regeneration processes;
- Identify local restoration opportunities and constraints;
- Identify potential threats to proposed ERP actions from permitted or planned human activities;
- Refine the general restoration objectives for the tributary;
- Package ERP actions in terms of the general restoration objectives; and
- Identify potential adaptive management experiments.

Identify additional actions. Many of the programmatic actions identified in Volume II of the ERPP were culled from other restoration plans, recovery plans, and watershed management plans. Some of the sources of ERP tributary –related programmatic actions include: AFRP Restoration Plan, AFRP Tributary Enhancement Plan, Recovery Plan for Winter-Run Chinook Salmon, etc. The tributary assessments may identify actions suggested by recent analyses or developments since these parent plans were developed.

Refine ERP actions. The ERP had to define general targets as part of the PEIS/EIR process. For example, it had to define general acreage targets for the impact analysis. The ERP also received significant pressure to quantify targets to provide a benchmark against which progress could be measured. For many of the ERP actions, there has been insufficient planning to quantify a target with confidence. For example, it is unclear what habitat or process target will achieve ecological health or will be sufficient for experimental purposes. Many of the actions and associated targets will need to be revised and refined as supplementary planning is completed and as we learn from projects. The tributary assessments attempt to screen ERP actions and targets to see if they are realistic.

Package ERP actions. The ultimate goal of the tributary assessments is to package ERP actions geared toward achieving general restoration objectives for a given tributary. For instance, a general restoration objective for Clear Creek is to restore spring-run chinook and steelhead to the stream. The tributary assessment attempt to identify the discrete ERP actions that need to be taken in concert or succession in order to achieve this general restoration objective. By helping to define how actions need to be staged relative to each other for a given tributary, the tributary assessments should help to clarify the overall staging of ERP actions.

Tributary Assessment Process

The three initial tributary assessments are being developed by a small interdisciplinary team. The team reviews existing ecological information, interviews local experts, conducts site visits, and does limited analysis of aerial photographs and stream gauge data. Once the tributary assessments are fully drafted, they will be reviewed by local experts.

Reconnaissance-level Analyses

The programmatic level of detail of ERP actions prevent us from comparing actions throughout the Bay-Delta system. Reconnaissance-level analyses are designed to better estimate the resource required to implement an action (or a type of action) and the ecological and biological benefits that the action (or type of action) is projected to yield.

Sample projects:

Feasibility study of mining the deposition cone of a major reservoir. We have learned through past rounds of PSP funding that the ERP creates a large market for gravel, which can have some bad side-effects. It can drive up restoration costs as the cost-per-unit increases in response to increased demand. It can also encourage additional gravel mining to meet the increased demand, which can potentially displace habitat impacts if the gravel is mined from the active channel or nearby floodplain. Mining the deposition cone of a major reservoir may provide a source of gravel for restoration purposes that does not compete with commercial aggregate production. This can keep costs down and prevent the displacement of mining impacts. It can also improve reservoir storage capacity. The ERP is considering funding a feasibility study of mining sediments from the deposition cone of Shasta reservoir.

Ecosystem Health. The broad goal of the CALFED program and the ERP is to restore ecological health in the Bay-Delta system. But it is unclear what endpoint actually constitutes ecological health, or what would indicate ecological health. The ERP is intends to fund a study that examines at least two tributaries with the intention of defining indicators of ecological health.

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