United States Department of the Interior
FISH AND WILDLIFE SERVICE
Sacramento-San Joaquin Estuary Fishery Resource Office
4001 North Wilson Way, Stockton, CA 95205-2486
209-946-6400 (Voice) 209-946-6355 (Fax)

6 January, 1997

Mr. Dick Daniels
CALFED Bay-Delta Program
1416 Ninth Street,
Suite 1155
Sacramento, California
95814

Dear Mr. Daniels:

Following are my initial comments on the draft "Goals and targets for key resources in the Delta tributaries," distributed following the November 5, 1996 technical meeting focused on these tributaries. The comments may also have some relevance to programmatic objectives and targets presented in your November 15, 1996, "Preliminary working draft on implementation objectives and targets." The comments are limited in scope but present some of my thoughts on the Ecosystem Restoration Program Plan (ERPP) approach to implementation objectives and targets. As you know, AFRP staff have been focused on a similar parallel path to the ERPP, and we are currently working on finalizing the Restoration Plan and our responses to comments. This process has focussed a large amount of our time, but we hope to participate in your planning process more in the future to facilitate complementary integration of the two respective programs.

The overall approach of identifying ecosystem elements (such as key indicator species and habitats) and key ecosystem functions, processes, and associated stressors to develop implementation objectives, targets, and restoration actions provides insight to key limiting factors and potential remedial actions that need to occur. Where currently feasible, numeric targets or measurable performance standards should be developed and presented. For example, it is possible to present numeric anadromous fish targets that are indicative of some degree of restoration in addition to your current targets that focus on cohort replacement values greater than one. This could result in developing anadromous fish restoration targets similar to those presented by the AFRP. This type of target provides more definition to the magnitude of restoration that needs to occur and a way to measure achievement milestones or performance standards. Incorporating this sort of numeric target is nicely supported by ERPP's description of target development using a historical reference period. Numerous Central Valley anadromous fish stocks lend themselves well to this procedure.

The ERPP "Preliminary working draft on implementation objectives and targets" identifies artificial fish production primarily as a stressor, and secondarily as a ecosystem restoration

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tool that should be used cautiously in systems with limited natural fish production potential. It is probably premature to list an implementation objective for the Mokelumne River that states, "Manage for a composite natural spawning and hatchery population" for fall-run chinook salmon. The current natural production cohort replacement target for this population indicates that the system's capacity to support natural production is greater than just "limited," and that ERPP emphasis should be on this component of the run. The ERPP, and other existing restoration programs, should not ignore existing artificial production operations, but the initial focus should be sound integration of both production components to minimize negative effects to natural production.

The overall approach presented in the draft "Goals and targets for key resources in the Delta tributaries (i.e., identifying ecosystem components, processes, implementation objectives, etc.) provides a good framework for identifying linkages between actions, and restoration objectives for either key species or ecosystem functions. Where possible, developing numeric objectives or quantifiable performance standards is desirable. Obviously, refinement of specific targets still needs to occur. In contrast, Table 8 and 9 of the November 15 "Preliminary working draft of implementation objectives and targets" has attempted to integrate a lot of information in a very general way, especially for the physical processes section. This leads to some confusion because of the lack of specificity. Primary and secondary physical processes and functions are not linked to a stressor which I feel would provide a better, clearer transition to implementation objectives, targets and actions, similar to that presented in the draft "Goals and targets for key resources in the Delta tributaries."

Again, these comments are not comprehensive, but hopefully they will be useful as you further develop the ERPP.

Sincerely

Scott Spaulding

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