



United States Department of the Interior



FISH AND WILDLIFE SERVICE
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In reply refer to:
1-1-04-I-2399

SEP 23 2004

Memorandum

To: Regional Director, Bureau of Reclamation Mid-Pacific Regional Office,
Sacramento, California

From: Field Supervisor, Sacramento Fish and Wildlife Office, Sacramento, California

Subject: Request for reinitiation of Formal Section 7 Consultation on the CALFED Bay-Delta Program to Evaluate the Efficacy of the Environmental Water Account (EWA) and Progress Toward Achieving the Milestones in Conserving and Promoting the Recovery of Covered Species.

This memorandum transmits the U.S. Fish and Wildlife Service's (Service) response to your request for reinitiation of formal consultation and conferencing under section 7 of the Endangered Species Act of 1973, as amended (ESA; 16 U.S.C. 1531 et. Seq.). This reinitiation request concerns the continued implementation of the CALFED Bay-Delta Program (CALFED Program), as described in the August 28, 2000 Programmatic Record of Decision (ROD). In addition to your request dated July 16, 2004, we received a comprehensive assessment package dated July 16, 2004, which provided an evaluation of the efficacy of EWA and progress towards achieving the milestones. We received additional information in a supplemental package dated September 15, 2004, that was generated through input from stakeholders and interested parties. Per the Conservation Agreement Regarding Multi-Species Conservation Strategy (Agreement) and our August 28, 2000 programmatic biological and conference opinion on the CALFED Program, the purpose of this reinitiation request is to evaluate the efficacy of the EWA and progress toward achieving milestones in conserving and promoting the recovery of covered species.

BACKGROUND

On August 28, 2000, the ROD for the CALFED Program was signed by 13 Federal and State agencies with management and regulatory responsibilities in the San Francisco Bay and Sacramento-San Joaquin Delta Estuary (Bay-Delta). Based on the analysis in the Multi-Species Conservation Strategy (MSCS) and the Final Programmatic Environmental Impact Statement/Environmental Impact Report (Final PEIS/R), the CALFED agencies fulfilled regulatory requirements for programmatic implementation of the CALFED Program, as set out under Section 7 of the ESA. As a result, the Service issued a programmatic biological and conference opinion (August 2000 opinion; #1-1-00-F-184) for species and critical habitat within its purview.

conference opinion (August 2000 opinion; #1-1-00-F-184) for species and critical habitat within its purview.

The Service originally concluded formal consultation on the CALFED Program on August 23, 2000. The August 2000 opinion was issued to clarify language within the project description. The co-lead agencies for the August 28, 2000, consultation were the same Federal and State agencies that collaboratively developed the CALFED Program and had management and regulatory responsibilities affecting the Bay-Delta. The co-lead agencies were: the Bureau of Reclamation (Reclamation), Service, Bureau of Land Management (BLM), U.S. Geological Survey (USGS), U.S. Army Corps of Engineers (Corps), Environmental Protection Agency (EPA), National Marine Fisheries Service (NOAA Fisheries), Natural Resources Conservation Service (NRCS), U.S. Forest Service (USFS), and Western Area Power Administration (WAPA). The State of California's Resources Agency was an applicant for purposes of this consultation, and represented the California Department of Fish and Game (CDFG), Department of Water Resources (DWR) and the State Reclamation Board.

For the purpose of this present consultation reinitiation request, the above CALFED agencies remain co-leads, and the State of California's Resources Agency represents CDFG, DWR, State Reclamation Board, and the California Bay-Delta Authority (CBDA). The August 2000 opinion addressed CALFED Program implementation as described in the Final PEIS/R, its technical appendices including program plans and strategies, its implementation plan and Phase II Report. The "Description of Proposed Action" within the August 2000 opinion was based on the CALFED Program documents, provided clarifications derived from the PEIS/R, and was intended to provide a comprehensive description of the CALFED Program.

Several components of the CALFED Program are designed to further the ESA. These components are an inseparable part of the CALFED Program, and include the Ecosystem Restoration Program (ERP), the MSCS, the Water Quality Program¹, a short-term EWA and its operating principles, and implementation strategies including monitoring and adaptive management. Since the ROD, the CALFED Program also developed a Science Program and a proposal for a long-term EWA as one component of an integrated set of actions called the Delta Improvements Package. Commitments by the CALFED agencies to uphold Federal and State listed species laws and to implement the many programs and commitments addressed in the ROD contributed to the Federal ESA decision-making process to reach a conclusion of no jeopardy or adverse modification of designated critical habitat for listed species. These commitments also contributed to the State's decision to approve the MSCS as a programmatic Natural Community Conservation Plan.

The ROD contained a set of 119 "milestones" for the CALFED Program. The milestones are a discrete set of actions intended to be carried out during the CALFED Program's Stage 1 (the first 7 years of the 30-year program). These actions are derived from the PEIS/R technical appendices including the MSCS and program plans for the ERP and Water Quality Program. The Service, NOAA Fisheries, and CDFG developed the milestones to ensure that the MSCS, ERP and Water

¹ The Water Quality Program as described in the PEIS/R subsequently was separated into the Drinking Water Quality Program and the Environmental Water Quality Program. The Environmental Water Quality Program is now part of the ERP.

Quality Program are carried out in a manner and level adequate to sustain programmatic ESA, Natural Community Conservation Plan Act (NCCPA), and California Endangered Species Act (CESA) compliance for all CALFED Program elements.

In the CALFED Program ROD, the Service, NOAA Fisheries, and CDFG committed to reinitiating ESA Section 7 consultation no later than 180 days before September 30, 2004, to evaluate progress toward achieving milestones and the efficacy of the EWA (The consultation reinitiation commitment can be found in the Conservation Agreement regarding the MSCS). This commitment was reiterated in the Service's August 2000 opinion as a reinitiation statement.

The assessment and supplemental packages submitted by Reclamation on behalf of the Federal CALFED agencies constitute the documents used to request reinitiation of consultation on July 16, 2004. As described in the Conservation Agreement regarding the MSCS (Agreement), reinitiation of consultation was expected to result in supplemental biological opinions, which could be appended to the original biological opinions. However, this consultation reinitiation request is unique in that the CALFED agencies are not proposing a new action. Instead, this request for reinitiation serves as the measure by which the CALFED agencies' commitments in making progress toward achieving milestones and EWA can be assessed and confirmed. Because the proposed action has not changed from that contained in the ROD, it is incorporated by reference and is not repeated here.

One of the central tenets of the CALFED Program is to improve the status of covered species of flora, fauna and their habitats. The commitment to improve the status of covered species is accompanied by a commitment that there would be no requirement for uncompensated reductions in water supply exports south of the Delta beyond those required to meet the regulatory baseline. These regulatory commitments are embodied in the CALFED ROD and the Agreement signed in 2000. Although the Agreement expires in 2030, the regulatory commitments within the Agreement expire on September 30, 2004, unless extended by mutual agreement among the 10 signatory agencies.

The program-level regulatory commitments made available through the CALFED Program can be extended with an amendment to the Agreement after a review of the EWA and an evaluation of progress towards achieving milestones. The milestones and EWA assessment package submitted by Reclamation on behalf of the Federal CALFED agencies lays the foundation for an amendment to the Agreement.

MILESTONES

Summary of Progress

The July 2004 assessment package provided with this reinitiation request reviewed over 450 contracts: 416 ERP contracts from 1995-2003; 68 Anadromous Fish Restoration Program contracts from 2000-2003; and more than 50 Watershed Program contracts. Non-CALFED Program activities contributing toward achievement of the milestones were also evaluated and included in the assessment. During preparation of the July 2004 assessment package, it was determined that of the 119 milestones, 64 percent were on

schedule for completion, 3 percent were ahead of schedule, 20 percent were under evaluation, and 13 percent were behind schedule (Table 1).

Region	Behind schedule	On schedule	Ahead of schedule	Under Evaluation	Total	Percentage
Delta	6	24	1	6	37	31
Bay	1	9	0	6	16	13
Sacramento	2	20	2	6	30	25
San Joaquin	3	18	1	6	28	24
Research	3	5	0	0	8	7
Total	15	76	4	24	119	100
Percentage	13	64	3	20	100	

During the preparation of the July 2004 assessment package, many of the water quality related milestones could not be classified under the “behind schedule”, “on schedule”, or “ahead of schedule” categories because of the multi jurisdictional nature of the water quality milestones. The water quality milestones were instead placed in an “under evaluation” category because they represented expansive, complicated, and evolving issues that require long-term solutions and continuous improvement. Most of the water quality related milestones also were supported by the activities of water quality agencies and watershed groups.

However, based on the extensive programs in place and the amount of funding available (\$50 million) from the State Board during the next few years to address water quality milestones, the September 2004 supplemental assessment package changed the progress of 15 water quality related milestones from “under evaluation” to “on schedule”. Changes were made to 4 milestones in the Delta Region (27, 28, 29, 35), 4 milestones in the Bay Region (45, 46, 47, 51), 4 milestones in the Sacramento Region (73, 75, 76, 81), and 3 milestones in the San Joaquin Region (101, 104, 109). Therefore, of the 119 milestones, approximately 76 percent are on schedule for completion, 3 percent are ahead of schedule, 8 percent are under evaluation, and 13 percent are behind schedule (Table 2).

Table 2. Summary of Milestones Progress After September 2004 Supplemental Assessment						
Region	Behind schedule	On schedule	Ahead of schedule	Under Evaluation	Total	Percentage
Delta	6	28	1	2	37	31
Bay	1	13	0	2	16	13
Sacramento	2	24	2	2	30	25
San Joaquin	3	21	1	3	28	24
Research	3	5	0	0	8	7
Total	15	91	4	9	119	100
Percentage	13	76	3	8	100	

Delta Region – 37 Milestones

Process-related milestones. Four of five ecological process related milestones are on schedule. Progress toward achieving Milestone 3 is behind schedule; Milestone 3 is to provide a fall or early winter outflow that emulates the first “winter” rain through the Delta, is behind schedule.

Habitat-related milestones. Ten of the 11 habitat related milestones are on schedule and the eleventh is ahead of schedule. Restoring slough habitat, non-tidal emergent wetland, and seasonal wetlands are expected to continue, with emphasis on restoring riparian habitat in the Eastside Delta Tributaries EMZ on the Calaveras River and riparian restoration in the Delta EMZ, especially in the South Delta EMU.

Stressor-related milestones. Nine of the 21 stressor related milestones deal with fish screens, fish barrier and fish passage issues, and stream flow and temperature issues. Four of these nine are on schedule and five milestones are behind schedule.

The other 12 stressor milestones for the Delta Region address water quality and toxicity issues, many of which are repeated in the other regions. Ten of these water quality stressor milestones are on schedule; the other two milestones are still under evaluation, including assessment of other regulatory programs with authority over water quality and pollution issues.

Bay Region – 16 Milestones

Process-related milestones. There are no ecological process related milestones for the Bay Region.

Habitat-related milestones. All six habitat related milestones for the Bay Region are on schedule.

Stressor-related milestones. There are 10 milestones that deal with stressor reduction in the Bay Region. Milestone 44, addressing unscreened diversions in Suisun Bay, is the only non-water quality or toxicity milestone in the Bay Region and it is behind schedule. Seven of the remaining nine water quality stressor milestones are on schedule and two others are under evaluation.

Sacramento Region – 30 Milestones

Process-related milestones. All seven ecological process related milestones for the Sacramento Region are on schedule.

Habitat-related milestones. Three of the five habitat related milestones for the Sacramento Region are on schedule and two are ahead of schedule.

Stressor-related milestones. Seven of the 18 stressor milestones in the Sacramento Region address fish screens, fish barrier and fish passage issues, and stream flow and temperature issues. Six of these are on schedule and the remaining one is behind schedule. The other 11 stressor milestones for the Sacramento Region address water quality and toxicity issues, many of which are repeated in the other regions. Eight of these water quality stressor milestones are on schedule, one is behind schedule; the other two milestones are under evaluation, including assessment of other regulatory programs with authority over water quality and pollution issues.

San Joaquin Region – 28 Milestones

Process-related milestones. Six of the seven ecological process related milestones for the San Joaquin Region are on schedule and one is behind schedule.

Habitat-related milestones. Four of the five habitat related milestones for the San Joaquin Region are on schedule and one is ahead of schedule.

Stressor-related milestones. Four of the 16 stressor milestones in the San Joaquin Region address fish screens, fish barrier and fish passage issues, and stream flow and temperature issues. Three of these four milestones are on schedule and the remaining one milestone is behind schedule.

The other 12 stressor milestones for the San Joaquin Region address water quality and toxicity issues, many of which are repeated in the other regions. Eight of these water quality stressor milestones are on schedule, one is behind schedule; the remaining three milestones are under evaluation, including assessment of other regulatory programs with authority over water quality and pollution issues.

Research – 8 Milestones

Progress thus far includes: (1) a better understanding of the conditions necessary to establish riparian vegetation on the Sacramento and San Joaquin rivers; (2) completion of several instream flow studies to determine the flows necessary to support anadromous and estuarine fish species; (3) completion of an initial phase of experimental introductions of Sacramento perch into nontidal perennial aquatic habitats; and (4) substantial work towards assessing the impact of hatchery practices on naturally spawning populations of Chinook salmon and steelhead. While milestones addressing the above issues have progressed as planned, none of those milestones are considered fully accomplished, as Stage 1 is only half-completed.

Consistency Analysis

The purpose of the request for reinitiation of consultation is to determine whether implementation of the CALFED Program has been consistent with the project description contained within the August 2000 opinion and ROD. Satisfactory achievement of milestones and efficacy of the EWA during the first four years of CALFED Program implementation serve as the basis for this determination. If the CALFED Program is found to be consistent with the project description, then an additional biological opinion is unnecessary because effects of the project were adequately considered in the August 2000 opinion. If the CALFED Program is found to be inconsistent with the project description (*e.g.*, if milestones were not adequately achieved during the first four years, or if the EWA was not efficacious during the first four years), then a new (or supplemental) biological opinion would be required to consider new or additional effects of the CALFED Program.

The simplest manner in which achievement of milestones can be assessed is to compare expected achievement based on the CALFED Program's project description with observed achievement based on the assessment and supplemental packages submitted for consultation. This evaluation is taking place at approximately midway through Stage 1. Thus, the ERP implementing agencies (Service, CDFG, and NOAA Fisheries) are expected to accomplish approximately half of the projected actions. With 79 percent of the milestones either on or ahead of schedule, the ERP implementing agencies found that this constituted sufficient achievement of milestones. As discussed above, 91 milestones (76 percent) are on schedule for completion, 4 (3 percent) are ahead of schedule, 9 (8 percent) are under evaluation, and 15 (13 percent) are behind schedule.

To be precise, 100 percent of the milestones were expected to be on schedule for completion during this consultation reinitiation, not 76 percent (or 79 percent, including those that are ahead of schedule). Those milestones defined as "behind schedule" (Appendix A) include milestones pertaining to issues such as improving instream flow, screening diversions, improving fish passage, resolving dissolved oxygen problems, development of a comprehensive monitoring, assessment and research program and several others.

During the July 2004 milestones assessment, it became clear that many of the water quality related milestones could not be classified under the categories used to define the status of the other milestones because of the multi jurisdictional nature of the water quality milestones. The issues addressed by the water quality milestones are governed by Regional Water Quality Control Boards, U.S. Environmental Protection Agency, California Environmental Protection Agency, California Department of Health Services, Department of Pesticide Regulation, to name a few agencies and a milieu of county departments with regulatory and statutory responsibility over the water quality milestones. Those milestones defined as “under evaluation” were exclusively contaminant or water quality related, and it is for good reason that they were considered “under evaluation”. The water quality milestones were classified as “under evaluation” because the ERP had no regulatory control of these issues. Combined efforts had resulted in substantial progress, but the measure of progress was difficult to articulate. While these milestone criteria were being refined, the water quality related milestones were described as “under evaluation” to reflect the ongoing assessment of complicated and multifaceted issues and programs.

Since the July 2004 milestones assessment, CBDA staff refined the assessment of approximately 20 water quality milestones that pertained to non-point sources, particularly agriculture. Fifteen of those 20 milestones (27, 28, 29, 35, 45, 46, 47, 51, 73, 75, 76, 81, 101, 104, 109) were reported as “under evaluation” due to the need to evaluate activities in other programs that might support those milestones. Five of those water quality related milestones were already reported as “on schedule” (33, 49, 80, 105, 107). Many programs established to control Non Point Source Pollution from agriculture in California include joint efforts by local, State, and federal agencies. The State Water Resources Control Board (SWRCB), the California Coastal Commission (CCC) oversees the statewide program, with assistance from the Department of Pesticide Regulation for pesticide pollution and the Department of Water Resources for irrigation water management. Local governments administer programs for general planning and local coastal plans. The California Natural Resource Conservation Service (NRCS) and the University of California Cooperative Extension Service provide technical and financial service for farmers. Resource Conservation Districts also provide guidance, training, and technical assistance.

Additionally, a “mercury strategy” document was developed to provide a framework for future mercury investigations. Coordination efforts and over \$20 million in ERP mercury research projects are contributing to implementation of the mercury strategy, so there is an expectation that significant progress would be made in the next few years on evaluating ecological effects, effects of restoration, and potential management actions to reduce mercury exposure. ERP has funded three multi-region projects to reduce pesticide inputs, and three multi-region projects to investigate unknown toxicity, which are currently in progress. In addition, there are three projects specific to the Sacramento Region to assess or develop methods to reduce pesticide inputs to waterways. Based on the extensive programs in place and the amount of funding available from the State Board and ERP in the next few years (approximately \$70 million), we agree that these milestones are being addressed adequately by other programs.

The remaining milestones defined as “under evaluation” are exclusively contaminant or water quality related. The milestones categorized as “under evaluation” (Appendix B) remain under evaluation because they need to be reviewed and scientifically vetted to more appropriately address the issues to which they pertain. Future regional planning efforts will vet these milestones so the degree of implementation can be more fully understood.

Given that 79% of the milestones are on or ahead of schedule, the Service concludes that this level of accomplishment constitutes sufficient progress at approximately halfway through Stage 1. We have reached this conclusion for two reasons: first, there was a great amount of preparation work during the beginning of Stage 1 that was necessary to lay the foundation for achieving milestones, but which did not necessarily result in accomplishment of milestones themselves. Second, while the proportion of milestones on or ahead of schedule (79%) did not reach the expected proportion (100%), milestones progress should be compared to the progress of other programs to provide an accurate portrait of the overall CALFED Program status. At least six CALFED Program Elements were described in the milestones and EWA assessment package as having implementation delays or limited progress due to lack of funding or other difficulties. These CALFED Program Elements include Watersheds, Drinking Water Quality, Science, Water Transfers, Levee System Integrity, and Storage. The CALFED Program’s restoration activities (including Milestones) offset impacts of other CALFED Program Elements at the programmatic level. Thus, if the progress of other CALFED Program Elements is delayed, then a small delay in milestones progress would not constitute a new effect of the CALFED Program that could affect listed species or critical habitat in a manner or to an extent not considered in the August 2000 opinion.

As discussed above, there are select milestones which are behind schedule (Appendix A), and it is those milestones to which ERP should give first priority in the future. We urge the ERP Implementing Agencies to address weaknesses in the program through the remainder of Stage 1 by doing the following:

1. Focusing the upcoming Proposal Solicitation Package (PSP) on monitoring with the intent of showing more clearly the results of the beneficial actions of the ERP. This PSP will be developed in close coordination with the Science Program and is expected to be complemented by the Science Program PSP.
2. Focusing a future PSP on the gaps identified in this assessment. Results from this assessment will guide selection of proposals so milestones needing further work will be addressed appropriately.
3. Where gaps still remain following upcoming PSPs, directing actions to ensure that milestones will be substantially achieved by the end of Stage 1.
4. In cooperation with other CALFED agencies, developing a comprehensive monitoring plan by July 2005, as described in the *Delta Improvements Package*

Implementation Plan Regarding CALFED Bay-Delta Program Activities in the Delta, dated August 12, 2004.

To ensure that the milestones are substantially achieved, the ERP Implementing Agencies should continue to work with the ERP Science Board during the process of developing near and long-term ERP implementation plans and priorities. As part of this effort, we recommend that an update on milestones progress be given within ERP's multi-year program plans. Moreover, we agree that milestones, along with actions and targets, should be evaluated during the preparation of regional ecosystem restoration implementation plans. Using a "vetting" process like that currently under development for the *Delta Regional Ecosystem Restoration Implementation Plan*; milestones, actions, and targets will be evaluated with the most current scientific information available including information gained during the first four years of ERP implementation. This process is consistent with "adaptive management" approach fundamental to the CALFED Program.

During the preparation of regional ecosystem restoration implementation plans, the vetting process may provide a more accurate future evaluation of how ERP projects contribute to ultimately achieving milestones. An example includes how a habitat mosaic should be designed that will contribute to the ERP's strategic goals, how wildlife friendly agriculture effectively fits into that mosaic, what types of projects qualify as being wildlife friendly agriculture, and under what conditions they contribute to meeting milestones. As new information becomes available and conceptual models are tested and refined as part of this process, the Service anticipates that priorities reflected in the milestones may change, and that new issues or questions may emerge. Through the annual ERP implementation process, revisions to the milestones may be proposed based on pertinent new information. If the Service, NOAA Fisheries, and CDFG (Fish and Wildlife Agencies) determine that the proposed revisions are warranted and are consistent with the ESA and the NCCPA, the Fish and Wildlife Agencies will revise the milestones accordingly.

ENVIRONMENTAL WATER ACCOUNT

Summary of Progress

The Environmental Water Account (EWA), one of the tools within the CALFED Water Management Strategy, was established to provide water for the protection and recovery of at-risk fish species beyond water available through existing regulatory actions related to the operations of the State Water Project (SWP) and the Central Valley Project (CVP). It is based on the concept that flexible management of water can achieve fish and ecosystem benefits more efficiently than a completely prescriptive regulatory approach (see the MSCS for details). The purpose of the EWA is to provide protection to the at-risk fish species of the Bay-Delta estuary through environmentally beneficial changes in SWP and CVP operations at no uncompensated water cost to the projects' water users. This approach to fish protection requires the acquisition of alternative sources of project water supply, called "EWA assets," that are to be used to augment stream flow or Delta outflow or to modify exports, to provide fish benefits, and to replace the regular project

water supply interrupted by the changes to project operations for EWA purposes. The EWA is intended to provide sufficient water, combined with the benefits of implementing ERP and the environmental protection provided by the regulatory baseline, to address CALFED Program's fish protection and restoration/recovery goals.

Although the EWA has not achieved the full funding level envisioned in the ROD, it has acquired sufficient water to implement most of the desired fish actions in its first 3 years. EWA actions have taken place predominantly in the Delta. Where a valid technical basis exists, increased funding could potentially allow the EWA to implement more upstream actions and make some water available for experiments. EWA has been successful in creating a forum for broader discussion of fish protection actions, fostering cooperation between Agency staff and stakeholders and decreasing the potential for conflict over limited resources.

Consistency Analysis

EWA has successfully reduced the direct effects of water export on Delta fish and protected the State and Federal projects from supply impacts due to excessive incidental take of at-risk fish species. However, because of the short time period of EWA implementation, insufficient data exist to fully evaluate the efficacy of EWA actions with respect to fish protection and recovery. Additional investigation is warranted, and some is already underway, to answer several remaining questions, including (1) the impact of incidental take on survival, abundance and distribution of fish populations, (2) how much environmental water is needed to accomplish CALFED Program's recovery goals, and (3) how the EWA can best be used to contribute to fish species recovery.

Several elements are identified as necessary to improve EWA implementation and the evaluation of EWA actions. These include storage and conveyance capacity, reliable funding enabling long-term water purchase contracts, a commitment to the monitoring and science investigations used to guide and evaluate EWA actions, and additional work on developing and using various types of models to understand the value of EWA and its contribution to achieving CALFED goals.

CONCLUSION

The Service concludes that implementation of the EWA and the current progress towards achieving milestones are adequate and consistent with the project description of the Service's August 28, 2000 programmatic biological and conference opinion on the CALFED Bay-Delta Program. Thus, the Service recommends that the program-level regulatory commitments within the Conservation Agreement Regarding the MSCS be extended through the remainder of Stage 1. However, if achievement of the milestones or efficacy of the EWA does not continue as described, the Program will no longer be consistent with the project description in the programmatic opinion and reinitiation of formal consultation with the Service will be required.

Signatories to the Agreement anticipated that the outcome of this reinitiation request would result in supplemental biological opinions which could be appended to the August 2000 opinion on the CALFED Program. However, in reviewing the assessment and supplemental packages submitted for consultation, the Service has determined that no new action is proposed, and the CALFED Program has not deviated from the project description within the ROD such that effects to listed species have changed. Thus, a supplemental opinion is unnecessary.

If you have any questions regarding this correspondence, please contact Darrin Thome (916-414-6533) or Ryan Olah (916-414-6639) of my staff. A complete administrative record of this review is on file in this office.

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Appendix A

CALFED MSCS-ERP Milestones Currently "Behind Schedule"		
Milestone Number	Milestone	MSCS "R" and "r" Covered Species² that would Benefit from Achieving Milestones
3	Provide a fall or early winter outflow that emulates the first "winter" rain through the Delta.	all Central Valley salmonids
17	Develop and implement a program to address inadequate instream flows for steelhead and chinook salmon on streams within Eastside Delta tributaries. Where appropriate provide adequate flows for Sacramento splittail and green sturgeon.	steelhead, fall/late fall-run chinook salmon, green sturgeon, Sacramento splittail
19	Assist in the development and implementation of a black and clapper rail impact reduction program.	California black rail, California clapper rail
21	Complete installation of fish passage facilities at Bellota Weir, Clements Dam, and Cherryland Dam on the Calaveras River and provide passage flows.	Central Valley fall/late fall-run chinook salmon and steelhead
24	Consolidate and screen 50 small agricultural diversions in the Delta, prioritized according to size, location, and season of operation.	all R and r covered fish
25	Upgrade screens at Southern Energy's Contra Costa power plants with screens acceptable to the Fish and Wildlife Agencies.	all R and r covered fish
44	Develop a program to consolidate, screen, or eliminate 25% of the unscreened diversions in Suisun Marsh.	all R and r covered fish
68	On Big Chico Creek, repair the Lindo Channel weir and fishway at the Lindo Channel box culvert at the Five Mile Diversion to improve upstream fish passage.	all Central Valley salmonids

² "R" = species with a CALFED goal of "recovery", "r" = species with a CALFED goal of "contribute to recovery".

Appendix A

CALFED MSCS-ERP Milestones Currently "Behind Schedule"		MSCS "R" and "I" Covered Species ² that would Benefit from Achieving Milestones
Milestone Number	Milestone	
74	<p>Actions to minimize or eliminate inter-substrate low dissolved oxygen conditions in salmonid spawning and rearing habitat, especially in the Mokelumne, Cosumnes, American, Merced, Tuolumne, and Stanislaus Rivers (from Phase II Report and Water Quality Program Plan):</p> <ul style="list-style-type: none"> • Develop inter-substrate DO testing for salmonid spawning and rearing habitat. • Conduct comprehensive surveys to assess the extent and severity of inter-substrate low DO conditions. • Develop and begin implementing appropriate best management practices (BMPs), including reducing anthropogenic fine sediment loads, to minimize or eliminate inter-substrate low DO conditions. 	Salmonids
90	Establish a river meander corridor between the Chowchilla Bypass and Mendota Pool to expand the floodway corridor to convey increased anticipated floodflows and restore floodplain habitat.	Sacramento splittail, Central Valley fall/late fall-run chinook salmon, steelhead, bank swallow
96	Develop and implement a program to address inadequate instream flows for steelhead and chinook salmon on streams within San Joaquin River tributaries. Where appropriate provide adequate flows for Sacramento splittail and green sturgeon.	steelhead, fall/late fall-run chinook salmon, green sturgeon, Sacramento splittail

Appendix A

CALFED MSCS-ERP Milestones Currently "Behind Schedule"		Milestone	MSCS "R" and "Y" Covered Species² that would Benefit from Achieving Milestones
Milestone Number		<p>Actions to minimize or eliminate inter-substrate low dissolved oxygen conditions in salmonid spawning and rearing habitat, especially in the Mokelumne, Cosumnes, American, Merced, Tuolumne, and Stanislaus Rivers (from Phase II Report and Water Quality Program Plan):</p> <ul style="list-style-type: none"> • Develop inter-substrate DO testing for salmonid spawning and rearing habitat. • Conduct comprehensive surveys to assess the extent and severity of inter-substrate low DO conditions. • Develop and begin implementing appropriate best management practices (BMPs), including reducing anthropogenic fine sediment loads, to minimize or eliminate inter-substrate low DO conditions. 	Salmonids
102			
112		Develop and implement a comprehensive monitoring, assessment and research program (CMARP) for terrestrial and aquatic habitats and species populations acceptable to the fish and wildlife agencies. Conduct statewide surveys for all "R" and "Y" covered plants and animals in the MSCS Focus Area.	
114		Conduct a study to investigate the effects of the road through Olcott Lake on vernal pool hydrology and impacts on vernal pool species.	
116		Conduct an investigation of in-channel structures that focuses on the following issues: (1) habitat suitability for both predator and prey fishes; (2) predator-prey interactions; and (3) recommendations for reducing predation on juvenile salmonids.	

Appendix B

CALFED MSCS-ERP Milestones Currently "Under Evaluation"

Milestone Number	Milestone	MSCS "R" and "r" Covered Species that would Benefit from Achieving Milestones
36	<p>Conduct the following trace metals work (from Phase II Report):</p> <ul style="list-style-type: none"> • Determine spatial and temporal extent of metal pollution. • Determine ecological significance and extent of copper contamination. • Evaluate impacts of other metals such as cadmium, zinc, and chromium. • Participate in Brake Pad Partnership to reduce introduction of copper. • Partner with municipalities on evaluation and implementation of stormwater control facilities. • Participate in remediation of mine sites as part of local watershed restoration and Delta restoration. 	<p>Salmonids, delta smelt, longfin smelt, Sacramento splittail, green sturgeon, giant garter snake, salt marsh harvest mouse, California clapper rail, California black rail</p>
37	<p>Conduct the following unknown toxicity work (from Phase II Report):</p> <ul style="list-style-type: none"> • Conduct appropriate studies to identify unknown toxicity, and develop management actions as appropriate. 	<p>Salmonids, delta smelt, longfin smelt, Sacramento splittail, green sturgeon</p>
52	<p>Conduct the following trace metals work (from Phase II Report):</p> <ul style="list-style-type: none"> • Determine spatial and temporal extent of metal pollution. • Determine ecological significance and extent of copper contamination. • Evaluate impacts of other metals such as cadmium, zinc, and chromium. • Participate in Brake Pad Partnership to reduce introduction of copper. • Partner with municipalities on evaluation and implementation of stormwater control facilities. • Participate in remediation of mine sites as part of local watershed restoration and Delta restoration. 	<p>Salmonids, delta smelt, longfin smelt, Sacramento splittail, green sturgeon, giant garter snake, salt marsh harvest mouse, California clapper rail, California black rail</p>

Appendix B

CALFED MSCS-ERP Milestones Currently "Under Evaluation"

Milestone Number	Milestone	MSCS "R" and "r" Covered Species that would Benefit from Achieving Milestones
53	<p>Conduct the following unknown toxicity work (from Phase II Report):</p> <ul style="list-style-type: none"> • Conduct appropriate studies to identify unknown toxicity, and develop management actions as appropriate. 	Salmonids, delta smelt, longfin smelt, Sacramento splittail, green sturgeon
82	<p>Conduct the following trace metals work (from Phase II Report):</p> <ul style="list-style-type: none"> • Determine spatial and temporal extent of metal pollution. • Determine ecological significance and extent of copper contamination. • Evaluate impacts of other metals such as cadmium, zinc, and chromium. • Participate in Brake Pad Partnership to reduce introduction of copper. • Partner with municipalities on evaluation and implementation of stormwater control facilities. • Participate in remediation of mine sites as part of local watershed restoration and Delta restoration. 	Salmonids, delta smelt, longfin smelt, Sacramento splittail, green sturgeon, giant garter snake, salt marsh harvest mouse, California clapper rail, California black rail
83	<p>Conduct the following unknown toxicity work (from Phase II Report):</p> <ul style="list-style-type: none"> • Conduct appropriate studies to identify unknown toxicity, and develop management actions as appropriate. 	Salmonids, delta smelt, longfin smelt, Sacramento splittail, green sturgeon

Appendix B

CALFED MSCS-ERP Milestones Currently “Under Evaluation”

Milestone Number	Milestone	MSCS “R” and “r” Covered Species that would Benefit from Achieving Milestones
103	Assess the ecological effects of low DO conditions in Suisun Marsh due to adding oxygen-depleted water from anthropogenic sources (from Water Quality Program Plan).	Delta smelt, Sacramento splittail, longfin smelt, salmonids, green sturgeon
110	Conduct the following trace metals work (from Phase II Report): <ul style="list-style-type: none"> • Determine spatial and temporal extent of metal pollution. • Determine ecological significance and extent of copper contamination. • Evaluate impacts of other metals such as cadmium, zinc, and chromium. • Participate in Brake Pad Partnership to reduce introduction of copper. • Partner with municipalities on evaluation and implementation of stormwater control facilities. • Participate in remediation of mine sites as part of local watershed restoration and Delta restoration. 	Salmonids, delta smelt, longfin smelt, Sacramento splittail, green sturgeon, giant garter snake, salt marsh harvest mouse, California clapper rail, California black rail
111	Conduct the following unknown toxicity work (from Phase II Report): <ul style="list-style-type: none"> • Conduct appropriate studies to identify unknown toxicity, and develop management actions as appropriate. 	Salmonids, delta smelt, longfin smelt, Sacramento splittail, green sturgeon