Environmental Water Account

Final Supplemental Environmental Impact Statement/Environmental Impact Report —

to the EWA Final EIS/EIR

U.S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region
Sacramento, California

March 2008

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Environmental Water Account

Final Supplemental Environmental Impact Statement/ Environmental Impact Report – to the EWA Final EIS/EIR

Prepared by

United States Department of the Interior
Bureau of Reclamation, Mid Pacific Region

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California Department of Water Resources

California Department of Fish and Game

National Marine Fisheries Service

U.S. Department of the Interior
Bureau of Reclamation
Sacramento, California

March 2008

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FINAL
SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT (EIS)/ENVIRONMENTAL IMPACT REPORT (EIR) FOR THE ENVIRONMENTAL WATER ACCOUNT (EWA) FINAL EIS/EIR

State Clearinghouse # 1996032083
State of California

Co-Lead Agencies:

Lead Agency for the EIS: U.S. Department of the Interior, Bureau of Reclamation
Lead Agency for the EIR: California Department of Water Resources

Cooperating Agencies:

U.S. Fish and Wildlife Service
National Marine Fisheries Service
California Department of Fish and Game

ABSTRACT

This Supplement to the Final EIS/EIR for the EWA provides an evaluation of the effects associated with extending the current EWA through 2011. The effects of the current EWA program were assessed in the July 2003 EIS/EIR and the January 2004 Final EIS/EIR. Records of Decision were signed in March and September 2004. The EIS/EIR, referred to henceforth as the "2004 EIS/EIR" addressed an EWA program to be carried out from 2004 to 2007. A Supplement is needed because the period of analysis addressed in the 2004 EIS/EIR was through 2007 and because several changes in the environmental setting/affected environment have occurred since the completion of the 2004 EIS/EIR.

The EWA consists of two primary elements: facilitation of fish population recovery through asset (water) acquisition and management, and use of the acquired assets to replace water deliveries (or supplies) interrupted by changes in State Water Project/Central Valley Project (Project) operations. This Supplement analyzes three alternatives, including two action alternatives that involve the acquisition of EWA assets via stored surface water, stored groundwater, groundwater substitution, and crop idling purchases; with EWA asset management through source shifting, groundwater storage, and borrowing of Project water. The alternatives differ primarily in actions taken to protect fish and the quantities of assets acquired under each. The Supplement reviewed all resource areas addressed in the 2004 EIS/EIR to determine whether any changes to the regulatory or environmental settings would change the impact conclusions stated in the 2004 EIS/EIR. With the exception of fisheries and aquatic ecosystems, no other resource areas produced different conclusions or findings from that of the 2004 EIS/EIR.

This Supplemental EIS/EIR is prepared in compliance with the National Environmental Policy Act (NEPA), Bureau of Reclamation NEPA procedures, and the California Environmental Quality Act (CEQA) and CEQA Guidelines.

The closing date for comments is 30 days from the Notice of Availability in the Federal Register.

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Contents

Page

Tables

Appendices

Acronyms and Abbreviations

AASIP	Amended Action Specific Implementation Plan
APCD	Air Pollution Control District
AROG	American River Operation Group
ASIP	Action Specific Implementation Plan
BA	Biological Assessment
BO	Biological Opinion
CALFED	CALFED Bay-Delta Program
CCWD	Contra Costa Water District
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
cfs	cubic feet per second
CVP	Central Valley Project
CVPIA	Central Valley Project Improvement Act
DAT	Data Assessment Team
DCC	Delta Cross Channel
DRERIP	Delta Regional Ecosystem Restoration Implementation Program
DWR	Department of Water Resources
E/I ratio	export/inflow ratio
EIS/EIR	Environmental Impact Statement/Environmental Impact Report
EPA	United States Environmental Protection Agency
ERP	Ecosystem Restoration Program
ESA	Endangered Species Act
EWA	Environmental Water Account
EWAT	Environmental Water Account Team
FMMP	Farmland Mapping and Monitoring Program
GAMA	Groundwater Ambient Monitoring and Assessment
GGS	giant garter snake
ITA	Indian Trust Assets
M&I	municipal and industrial
NCCP	Natural Community Conservation Plan
NCCPA	Natural Community Conservation Planning Act

NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
OCAP	Operations Criteria and Plan
O&M	operation and maintenance
PM10	particulate matter smaller than 10 microns
POD	pelagic organism decline
Reclamation	United States Department of the Interior, Bureau of Reclamation
ROD	Record of Decision
SCH	State Clearinghouse
SHPO	State Historic Preservation Office
SMUD	Sacramento Municipal Utility District
SWP	State Water Project
SWRCB	State Water Resources Control Board
TAF	thousand acre feet
TMDL	Total Maximum Daily Loads
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
VOC	volatile organic carbon
WAPA	Western Area Power Administration
X2	2 parts per thousand salinity near-bottom isohaline
Yuba County WA	Yuba County Water Agency

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Chapter 1
Introduction

On October, 17, 2007, the Environmental Water Account (EWA) agencies (U.S. Department of the Interior, Bureau of Reclamation [Reclamation]; California Department of Water Resources [DWR]; U.S. Fish and Wildlife Service [USFWS]; National Marine Fisheries Service [NMFS], and California Department of Fish and Game [CDFG]) released the Draft Supplemental Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for the EWA for public review and comment. The Draft Supplement EIS/EIR identified three alternatives, the Flexible Purchase Alternative (the Proposed Action/Proposed Project), the Fixed Purchase Alternative, and the No Action/No Project Alternative. The EWA agencies held public hearings to receive oral comments at the following locations: Sacramento, November 14, 2007; and Los Banos, November 15, 2007. The public hearings were recorded and a transcript made of all comments received. The comment period closed on December 10, 2007. Oral and written comments were received from Federal, State, and local agencies, and non-profit organizations.

The Draft Supplement EIS/EIR and this document together constitute the Final Supplemental EIS/EIR. This document contains all comments on the Draft Supplement EIS/EIR and the responses thereto, and also contains the following elements:

- Chapter 2 is an overview of the EWA developed from the Draft Supplement EIS/EIR Executive Summary. The Executive Summary has been revised to address comments and is repeated in its entirety as Chapter 2.

- Chapter 3 provides comments on the merits of the Draft Supplemental EIS/EIR alternatives excerpted from the comment letters and the responses to those comments. Also included is a list of all of the commentors. Appendix A includes copies of the original comment letters and the public hearings transcripts. Each comment letter and transcript is identified individually with a number ID, and each comment is assigned a sequential number, as Chapter 4 describes. Where a comment results in a change to the Final Supplement EIS/EIR text, a notation is made in the response indicating that the text is revised.

- Chapter 4 presents revisions to the Draft Supplement EIS/EIR text based on issues raised by comments, clarifications required for EWA

effects descriptions, or corrections. Changes in the text are signified by strikeouts where text is removed and by italics where text is added.

- Chapter 5 contains mitigation and monitoring guidelines that will be used as a template for the mitigation and monitoring plan, which will be completed prior to the Record of Decision (ROD), California Environmental Quality Act (CEQA) findings, and certification of the Final Supplement EIS/EIR.

- Chapter 6 includes the references to documents used to support the comment responses.

Chapter 2
Overview of the EWA

The Executive Summary text from the Draft Supplemental EIS/EIR has been modified in response to comments received on the Draft Supplemental EIS/EIR. It is reproduced in its entirety on the following pages to provide the reader with a general overview of the EWA, including purpose of the study, project description, major conclusions and findings, and project-related effects. The revised Executive Summary also forms a background for the review of the comments and responses provided in Chapter 3.

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Executive Summary

Purpose of Study and Environmental Impact Statement/Environmental Impact Report

The purpose of the Supplemental Environmental Impact Statement/Environmental Impact Report (EIS/EIR) to the Environmental Water Account (EWA) Final EIS/EIR (2004 EIS/EIR) is to provide an evaluation of the effects associated with extending the current EWA[1] through 2011. A Supplement is needed because the period of analysis addressed in the 2004 EIS/EIR was through 2007 and because several changes in the environmental setting/affected environment have occurred since the completion of the 2004 EIS/EIR. The Supplement has been prepared in accordance with the provisions of the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). More specifically, the new and additional information that supplements the Final EIS/EIR complies with the Federal Council on Environmental Quality Regulations Section 1502.9(c) regarding preparation of a Supplement to an EIS, and CEQA Guidelines Section 15163(a) regarding preparation of a Supplement to an EIR.

The 2004 EIS/EIR addressed the EWA program through 2007. The EWA agencies propose to continue the EWA program beyond 2007. Therefore, this document supplements the 2004 EIS/EIR. In 2004, the EWA agencies began the preparation of an EIS/EIR for a proposed Long-Term EWA program. In 2006, the five EWA agencies determined that completion of the Long-Term EWA Draft EIS/EIR would be postponed until completion of multiple environmental and program-related documents including ongoing investigations into the apparent Delta pelagic organism decline and ongoing planning for the proposed Bay-Delta Conservation Plan. The EWA implementing agencies propose to extend the existing EWA program until these uncertainties are resolved.

Changes that Require a Supplement

NEPA and CEQA require a supplement when there are substantial changes in a proposed project or the circumstances under which the project is undertaken that are relevant to environmental concerns. A supplement is also required when

[1] The current EWA was assessed in the EIS/EIR finalized in January 2004 and the EWA Record of Decision was signed in March of 2004. The EIS/EIR, referred to henceforth as the "2004 EIS/EIR" addressed an EWA program to be carried out from 2004 to 2007, which was the end of stage 1 of CALFED.

new information of substantial importance becomes available and is relevant to the environmental analysis. In the case of the EWA, the essence of the project as originally proposed has not substantially changed; however, the implementation timeframe that was originally anticipated may be extended by up to four years. Additionally, several years have passed since the 2004 EIS/EIR was completed and the existing environmental and regulatory settings (i.e., the environmental and regulatory basis of comparison for the purposes of the CEQA impacts analysis) are now different relative to some environmental topics and/or new information is now available. In that regard, the hydrologic modeling used in evaluating biological/aquatic resource impacts now has additional capabilities relative to understanding the implications of certain fish actions under the EWA program. This Supplement has been prepared in light of the aforementioned changes in circumstances and new information in order to carefully and systematically evaluate if and how such changes and new information affect the analysis presented in the 2004 EIS/EIR. This Supplement, along with the 2004 EIS/EIR, provides the public, reviewing agencies, and decision-makers with an analysis of the EWA alternatives as defined in this document.

Statement of Purpose and Need/Project Objectives

The purpose and need/project objectives for the proposed action are to: 1) provide a highly flexible, immediately implementable, water management strategy that protects the at-risk native Delta-dependent fish species affected by SWP/CVP operations and facilities, 2) contributes to the recovery of these fish species, 3) allows timely water management responses to changing environmental conditions and changing fish protection needs, 4) improves water supply reliability for water users downstream from the Delta, and 5) does not result in uncompensated water cost to the Projects' water users. This water management strategy must also be consistent with the preferred program alternative selected by the CALFED Bay-Delta Program (CALFED) agencies in the CALFED Record of Decision (ROD).

EWA Description

The EWA program consists of two primary elements: facilitation of fish population recovery through asset (water) acquisition and management, and use of the acquired assets to replace water deliveries (or supplies) interrupted by changes in project operations. That is, the EWA program helps facilitate fish population recovery by reducing pumping in the Delta when fish are most at risk. EWA agencies would also acquire water either for direct environmental use, or to repay State Water Project (SWP) and Central Valley Project (CVP)

contractors whose supplies would have otherwise been interrupted by actions taken to benefit fish.

EWA agencies may take actions to benefit fish that include:

- **Pump Reductions** – Decreasing export pumping from the Delta when at-risk fish species are determined to be within the vicinity of the SWP and CVP pumping stations.

- **Delta Cross Channel Gates Closure** – Closing the Delta Cross Channel (DCC) Gates (beyond closures required without the EWA) to restore natural flow patterns and to encourage fish to migrate through the most suitable water channels away from the SWP and CVP pumping stations.

- **Instream Flow Augmentation** – Increasing the streamflow of rivers tributary to the Delta (through releases of EWA assets stored in onstream reservoirs) to improve spawning, migration, and rearing habitats.

- **Delta Outflow Augmentation** – Increasing the Delta outflow quantity to repel saline San Francisco/San Pablo Bay water from the Delta, to improve the water quality in Delta habitats, and to improve fish outmigration.

The asset acquisition measures available to the EWA agencies include:

- **Stored Reservoir Water Purchase** – Purchasing surface water stored in non-Project reservoirs (not CVP or SWP reservoirs).

- **Groundwater Substitution** – Purchasing surface water supplies (typically stored in a reservoir) while the users forego their surface water supplies and pump an equivalent amount of groundwater as an alternative supply.

- **Crop Idling/Crop Shifting** – Purchasing water from agricultural users who then idle land that would otherwise have been in production or shift to less water-intensive crops.

- **Stored Groundwater Purchase** – Purchasing groundwater assets that were previously stored by the selling agency with the intent to sell a portion of those assets at a later date. This option differs from groundwater substitution in that groundwater substitution transfers would not come from water that had been previously stored.

- **Variable Assets** – Obtaining water through a regulatory or operational change in the Delta that allows water to be diverted from the Delta specifically for the EWA.

In addition to managing the acquired water, the EWA agencies may use the following asset management measures:

- **Source Shifting** – Providing water earlier or delaying water deliveries to a Project contractor. Under the earlier delivery, the EWA agencies would be essentially borrowing storage space from the contractors' facilities for a fee until the time the contractor would normally have received the water. Under the delayed delivery, the EWA agencies would be essentially holding water in San Luis Reservoir for a fee and returning the water at a later date.

- **Stored Water** – Purchasing stored water from the south-of-Delta sources to be used as collateral for borrowing (released only when all other assets have been expended), and to function as long-term storage space after the water has been released; and.

- **Borrowing Project Water** – Borrowing CVP or SWP water, if the water can be repaid without affecting deliveries to Project contractors. The EWA could also borrow Project storage space if the Projects do not need that space for other designated uses.

- **Exchange of EWA Assets** – Exchanging EWA assets for assets of a character, such as location, seasonality or year-type, more suitable to EWA purposes.

No Action/No Project Alternative

The No Action/No Project Alternative describes the future conditions without the EWA program, defined as those CVP/SWP operational and environmental conditions that would reasonably be expected in the foreseeable future if the EWA program were not approved. The No Action Alternative assumes the existing regulatory and legal constraints. This alternative also describes the conditions that would occur if the EWA program did not receive funding in the future.

If the EWA program were not implemented, some actions to protect fish and benefit the environment would continue under the existing baseline of fishery protection. Reclamation, with DWR as an applicant, has reinitiated consultation on the current biological opinions; these revised opinions would establish the fish actions in the No Action Alternative. The No Action Alternative in this Supplement is structured such that it has fewer fish actions than the action alternatives. However, it is unknown what level of fish actions will be contained in the revised biological opinions.

Flexible Purchase Alternative (The Proposed Action/Proposed Project)

The Flexible Purchase Alternative would allow the EWA agencies the ability to acquire up to 600,000 acre-feet of water assets (although the EWA agencies would typically acquire 200,000 to 300,000 acre-feet annually, except in years with high fish needs) to address pump reductions and other fish actions, and to compensate the CVP/SWP for water otherwise lost due to those actions. These actions would include reducing Delta export pumping, closing the DCC gates, augmenting Delta outflow, or increasing instream flows. The EWA agencies would have the flexibility to choose from these actions to best protect at-risk fish, and would not need to solely focus on actions within the Delta. The Flexible Purchase Alternative would provide higher levels of fish actions than either of the other alternatives.

The Flexible Purchase Alternative analysis only assesses the effects associated with purchases up to 600,000 acre-feet. If pumping would be likely to put at risk the continued existence of a species listed as endangered or threatened under the Endangered Species Act (ESA), the Project Agencies would curtail pumping even if purchases already totaled 600,000 acre-feet and all assets were used. However, the EWA agencies would need supplemental environmental documentation before they could acquire more water to compensate water users for these actions.

Fixed Purchase Alternative

In the Fixed Purchase Alternative, the EWA agencies could take the same types of fish actions identified in the No-Action/No Project and Flexible Purchase Alternatives, but the assets available would limit the magnitude of the actions. This alternative limits the EWA agencies to purchases of the 185,000 acre-feet identified in the CALFED ROD (35,000 acre-feet upstream from the Delta and 150,000 acre-feet in the Export Service Area) and would not use functional equivalency to adjust purchase location. Water purchases would be limited to the 185,000 acre-feet per year regardless of water year type. In this alternative, the volumes that the EWA agencies would purchase from each region would remain constant every year. The Fixed Purchase Alternative has the benefits of variable assets, source shifting, and groundwater storage as described in the ROD. In this alternative, the EWA agencies would acquire variable assets at the same rate as in the Flexible Purchase Alternative.

The Fixed Purchase Alternative analysis only assesses the effects associated with purchases up to 185,000 acre-feet. If pumping would be likely to put at risk the continued existence of a species listed as endangered or threatened under the ESA, the Project Agencies would curtail pumping even if purchases already totaled 185,000 acre-feet and all assets were used. However, the EWA agencies would need supplemental environmental documentation before they could acquire more water to compensate water users for these actions.

Comparison of Alternatives

Table ES-1 presents a comparison of the EWA asset acquisition and strategies for the project alternatives.

Table ES-1. Comparison of EWA Alternatives

EWA Actions	No Action/No Project	Flexible Purchase Alternative	Fixed Purchase Alternative
Fish Actions			
Pumping Reductions	Reductions because of regulatory requirements only; limited ability to repay water not delivered due to pump curtailments	Ability to provide fish protection actions at Delta pumps beyond those required by regulations, but limited to the total volume of water acquired, variable assets, and debt without interrupting water supply. Availability of 600 TAF[1] of water increases opportunity for fish actions and ability to repay Projects for water not delivered during pump curtailments.	Ability to provide fish protection actions at Delta pumps beyond those required by regulations, but limited to total volume of water acquired, variable assets, and debt without interrupting water supply. Availability of 185 TAF of water increases opportunity for fish actions and ability to repay Projects for water not delivered during pump curtailments.
Upstream Flow Enhancements for Fish Recovery/Enhancements	No potential for upstream flow enhancements beyond existing programs	The magnitude of potential benefits would vary between rivers but would be limited by the volume of upstream purchases moved during the transfer window, which could be up to 600,000 acre-feet.	The magnitude of potential benefits would vary between rivers but would be limited by the volume of upstream purchases moved during the transfer window, which could be up to 35,000 acre-feet.
Asset Acquisition			
Stored Reservoir Purchase	No purchases	Purchases of up to 135 TAF in dry years; wet year purchases would be limited to the Delta[2] pump capacity available to EWA of approximately 50-60 TAF	Limited to 35 TAF Upstream from the Delta
Groundwater Substitution (Upstream from the Delta)	No purchases	Purchases of up to 340 TAF in dry years, but only approximately 50-60 TAF in wet years; groundwater substitution would most likely be exercised in dry years but not in wet years due to pump capacity	Limited to 35 TAF Upstream from the Delta; probably would not be exercised in most years because 35 TAF can be obtained from stored water sources
Groundwater Purchase (Upstream from the Delta)	No purchases	Purchases of up to 10 TAF in dry and wet years.	Limited to 10 TAF Upstream from the Delta; probably would not be exercised in most years because 35 TAF can be obtained from stored water sources
Groundwater Purchase (Export Service Area)	No purchases	150 TAF maximum; stored groundwater purchase would not be available each year	Purchase of up to 150 TAF maximum; stored groundwater purchase would not be available each year

EWA Actions	No Action/No Project	Flexible Purchase Alternative	Fixed Purchase Alternative
Crop Idling (rice Upstream from the Delta);	No purchases	Purchases of up to 290 TAF in dry years and approximately 50-60 TAF in wet years. Crop idling would probably not be exercised in wet years.	Limited to 35 TAF Upstream from the Delta; probably would not be exercised in most years because 35 TAF can be obtained from stored water sources
Crop Idling (cotton within Export Service Area)	No purchases	Purchases of up to 260 TAF; higher amounts would be expected for wet years when EWA has less pump capacity to export water from Delta	Purchase of up to 150 TAF maximum within Export Service Area
Variable Assets	Projects can access water from Joint Point of Diversion; Relaxation of the Section 10 Constraint; and Relaxation of the Export/ Inflow Ratio	Variable amounts of water available to EWA each year through changes in Delta operations.	Same as Flexible Purchase Alternative
Asset Management Activities			
Groundwater Storage (banking)	No storage	Up to 200 TAF	200 TAF addressing CALFED ROD first year EWA requirement
Source Shifting	Available to water users	Source shifting to protect San Luis is available	Source shifting to protect San Luis is available
Project Water Borrowing	No project borrowing to repay water not delivered due to pump curtailments	Potential for borrowing water for later repayment of up to 100 TAF	Potential for borrowing water for later repayment of up to 100 TAF

Notes:
[1]*TAF = thousand acre feet*
[2]Hydrologic modeling of Delta pump capacity indicates that there would be 50 TAF of excess capacity available to EWA during wet years and up to 520 TAF in dry years. Delta pump capacity is a limiting factor on the quantity of water EWA agencies can purchase and export to the CVP/SWP service areas.

Because of its wider potential range of purchases and actions, the Flexible Purchase Alternative would have a greater potential for environmental, physical, and socioeconomic effects in wet years than the Fixed Purchase Alternative. However, the Management Agencies would have greater potential for operational changes that benefit fish while keeping the Project contractors whole (provide for replacement water), plus greater opportunities for Delta outflow benefits and for upstream flow enhancements. During dry years, less water would be available for the Projects to export to Project contractors, and the Delta pumps would have more pumping capacity available for EWA use than in wet years.

Although both the Fixed Purchase and Flexible Purchase alternatives could achieve similar benefits, the Flexible Purchase Alternative would have a greater potential to achieve fishery protection, enhancement, and recovery goals than the Fixed Purchase Alternative. The behavior of fish at the Delta pumps—the timing of their arrival (typically winter and spring; December through June) and the length of their stay—varies year-to-year and cannot be predicted in advance. Years in which the fish arrive late and leave early may require fewer pump reductions than other years and the Fixed Purchase Alternative may have

adequate assets to cover those reductions as well as providing water for upstream fish enhancements.

In years in which the fish arrive early and leave later, pump reductions may occur more often, resulting in the potential for insufficient assets to address Project water commitments under the Fixed Purchase Alternative. In such years, the Flexible Purchase Alternative would have a greater potential for meeting both the Project water commitments and the fish enhancement benefits intended for EWA under the CALFED ROD.

Major Conclusions and Findings

The Supplement reviewed all resource areas addressed in the 2004 EIS/EIR to determine whether any changes in the regulatory setting or environmental setting would change the impact conclusions stated in the 2004 EIS/EIR. Table ES-2 lists whether there is a regulatory, an environmental, or no substantive change. Additionally, the Supplement considered the effects of climate change (although not evaluated quantitatively), which was not included as a resource area in the 2004 EIS/EIR.

With the exception of fisheries and aquatic ecosystems, none of the changes listed in Table ES-2 changed the conclusions and findings of the 2004 EIS/EIR. (See Appendix A for a list of the impacts, mitigation measures, and beneficial impacts included in the 2004 EIS/EIR that are also applicable to this Supplement. The Delta fisheries sections of the tables are deleted and are superseded with the information below. Additionally, Placer and Tulare Counties are deleted from the tables because they would not be a participant in the EWA program evaluated in this Supplement[2].)

Table ES-2. Changes to the Resource Area Regulatory and Environmental Settings

Resource Area	Regulatory Setting Change[1]	Environmental Setting Change[1]	No Substantive Change
Water supply			X
Water quality		X	
Groundwater		X	
Geology and soils			X
Air quality	X	X	
Fisheries and aquatic ecosystems	X	X	

[2] Since publication of the 2004 EIS/EIR, the EWA agencies have decided that they would not purchase water through crop idling from the Friant Division. Tulare County contains primarily Friant Division contractors; therefore, Tulare County was removed from the Export Service Area. Placer County Water Agency has indicated that they would not sell water through crop idling or stored reservoir water to the EWA agencies; therefore, Placer County was removed from the Upstream from the Delta region.

Resource Area	Regulatory Setting Change[1]	Environmental Setting Change[1]	No Substantive Change
Vegetation and wildlife	X		
Regional and agricultural economics		X	
Agricultural social issues		X	
Agricultural land use		X	
Recreation		X	
Flood control			X
Power	X		
Cultural			X
Visual			X
Environmental justice		X	
Indian Trust Assets			X

Notes:
[1] Indicates regulatory and environmental setting changes from the 2004 EIS/EIR. See resource area sections in Chapter 3 for need for new analysis and significance determinations.

A substantive change has occurred to the regulatory and environmental setting for fisheries and aquatic ecosystems which is the focus of this Supplement. The following sections describe adverse impacts, beneficial impacts, and mitigation measures associated with Delta fish that are in addition to the findings of the 2004 EIS/EIR for fisheries and aquatic ecosystems.

Impacts and Beneficial Effects

Table ES-3 compares the effects for the Flexible and Fixed Purchase Alternatives. The following text also describes the impacts and beneficial effects for the three main areas of analysis: Delta outflow, X2, and entrainment, relative to the Baseline Conditions.

- The Flexible and Fixed Purchase Alternatives would result in a less than significant reduction of Delta outflow in October through December, due in part to the conservation measures included as part of the project.
- The Flexible Purchase Alternative would have a less than significant impact on X2 location during June through December. The Fixed Purchase Alternative would have a less than significant impact on X2 location during April through December.
- The Flexible Purchase Alternative would have a significant adverse impact on two non-native species (threadfin shad and American shad) for entrainment indices. This would be a significant and unavoidable impact.
- The Fixed Purchase Alternative would have a less-than-significant impact on two non-native species (threadfin shad and American shad) for entrainment indices.

Beneficial Impacts

- The Flexible and Fixed Purchase Alternatives would have a beneficial effect on Delta outflow during the most critical periods of the year, January and February.
- The Flexible Purchase Alternative would have a beneficial effect on X2 location during January through May. The Fixed Purchase Alternative would have a beneficial effect on X2 location during January through March.
- The Flexible and Fixed Purchase Alternatives would have a beneficial effect on entrainment indices for all listed species and most native species.

Conservation Measures

The fisheries and aquatic ecosystems chapter does not include any mitigation measures, but does include conservation measures (conservation measures included in the ASIP (Appendix C of the Draft Supplemental EIS/EIR) are incorporated into the EWA project). These conservation measures have not changed from the 2004 EIS/EIR and ASIP. However, the updated impacts analysis incorporates one conservation measure at a new time of year:

- The EWA agencies will avoid acquisition and transfer of water that would reduce flows essential to maintaining populations of native aquatic species.

Table ES-3. Summary Comparison of Effects of the EWA Action Alternatives

Potentially Affected Resource Parameter	Flexible Purchase Alternative	Fixed Purchase Alternative
Outflow	B-Jan-Feb	B-Jan-Feb
Changes in location of X2 (Monthly)	B- Jan-May	B-Jan-Mar
Entrainment		
Delta Smelt	B	B
Delta Smelt - Pre-spawning and Adults[1]	B	B
Delta Smelt - Juveniles[2]	B	B
Striped bass	LTS	LTS
Longfin Smelt	B	B
Threadfin Shad	S	LTS
Fall-Run Chinook[3]	B	B
Late Fall-Run Chinook[3]	B	B
Winter-Run Chinook[3]	B	B
Spring-Run Chinook[3]	B	B
Steelhead[3]	B	B
Splittail	LTS	LTS
American shad	S	LTS

Notes:
This table compares the effects and level of significance of the action alternatives to Baseline conditions.
B = Beneficial

LTS = Less than Significant Impact (May Contain Beneficial Impacts)
S = Significant Impact
[1]January through March
[2]April through June
[3]Entrainment indices based on loss ratios instead of only salvage numbers

Compliance with Applicable Laws and Regulations

This Supplemental EIS/EIR complies with NEPA and CEQA requirements. The Proposed Action/Proposed Project, as defined herein, would comply with all Federal, State, and local laws and permitting requirements.

Identification of Environmentally Preferred Alternative

Although the Fixed Purchase and Flexible Purchase alternatives involve similar water acquisition and management actions, their primary delineator is the magnitude of benefits that each alternative could provide for protecting at-risk fish species and at the same time addressing water supply commitments of the CVP and SWP. The Flexible Alternative would include higher levels of asset acquisition, which would allow the EWA agencies to take more actions to benefit fish. The Fixed Purchase Alternative would limit assets requiring the Management Agencies to prioritize their actions to address pump reductions only. The Flexible Purchase Alternative is the environmentally preferred alternative because of the increased benefits it would provide.

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Chapter 3
Commentors, Comments, and Responses

3.1 Introduction

This chapter contains responses to comments received on the Draft Supplemental EIS/EIR. Section 3.2 describes the format of the responses to comments. Each commentor, their associated agency, and assigned number identification is listed in Section 3.3. The comments included in Section 3.4 are excerpted verbatim from the comment letters. Text included in the public comment letters that was not a direct comment on the Draft Supplemental EIS/EIR, including introductory material and supplemental information, is not included in Section 3.4. A compilation of all comment letters in their entirety however, is included as Appendix A.

3.2 Format of Comments and Responses

Many public comment letters received on the Draft EIS/EIR included similar comments. Where a comment could be responded to with a response to an earlier comment, reference to that response is provided.

The public submitted comments during the public hearings on the Draft Supplemental EIS/EIR in Sacramento and Los Banos. Each hearing is given a Number ID; individual commentors are first identified with the hearing Number ID and subsequently identified by agency.

3.3 List of Commentors

Table 3-1. List of Commentors

Commentor	Agency	Letter ID	Page Number
Letters			
Jim Brobeck	Butte Environmental Council	1	3-2
Carol Perkins	Butte-Sutter Basin Area Groundwater Users	2	3-4
Dante John Nomellini, Jr.	Central Delta Water Agency	3	3-6

Commentor	Agency	Letter ID	Page Number
Greg Gartrell	Contra Costa Water District	4	3-13
Sonja A. Anderson	Department of Energy Western Area Power Administration	5	3-13
Katherine S. Poole and Barry Nelson	Natural Resources Defense Council	6	3-15
Valerie C. Kincaid	San Luis & Delta-Mendota Water Authority and Westlands Water District	7	3-24
Paul Olmstead	SMUD	8	3-26
Linda Fiack	State of California – The Resources Agency – Delta Protection Commission	9	3-28
Christopher Huitt	State of California – The Resources Agency – Department of Water Resources	10	3-28
Nova Blazej	U.S. Environmental Protection Agency	11	3-29
Linda Cole	Valley Water Protection Association	12	3-32
Public Hearings – Sacramento			
Paul Olmstead	SMUD	13	3-35
Public Hearings – Los Banos			
None		N/A	

3.4 Comments and Responses

1 – Butte Environmental Council
Jim Brobeck

1-1

Comment: Will you disclose analysis of impacts to Sacramento Valley aquifers that may result from using the aquifer system as a source of water as described in the Flexible Purchase Alternative and the Fixed Purchase Alternative?

Response: Chapter 6 of the 2004 EIS/EIR discussed impacts to Sacramento Valley aquifers from implementing the Flexible and Fixed Purchase Alternatives. The 2004 EIS/EIR evaluated the effects on groundwater from EWA actions including the acquisition of water through groundwater substitution, groundwater purchase, and crop idling, in addition to the storage of acquired EWA water in groundwater banking facilities. The analysis included effects on groundwater level change, alteration of the existing hydrologic interaction between surface water and groundwater, land subsidence, and degradation of groundwater quality. Additionally, the analysis includes an evaluation of multi-year acquisition and purchase during dry years. See Sections 6.2.4 and 6.2.5 for the analysis of impacts on groundwater from the Flexible and Fixed Purchase Alternatives and Section 6.2.7 for groundwater mitigation measures.

1-2

Comment: Will you disclose potential impacts to overlying landowners and the environment that will occur if the Sacramento Valley aquifer system is converted into a groundwater bank by replenishment districts?

Response: The EWA Program would not create groundwater banks. The EWA agencies would purchase stored groundwater from an existing groundwater bank. Any future groundwater banks that are created in the Sacramento Valley would require their own environmental documentation, which is outside the scope of the EWA Program and this Supplement.

The 2004 EIS/EIR evaluated the effects of stored groundwater purchase in the Groundwater and Vegetation and Wildlife sections of the document. The document evaluates the effects of stored groundwater purchase only for the Sacramento Groundwater Authority in the Upstream from the Delta Region. Again, if additional districts wanted to transfer water to the EWA via stored groundwater purchase, the transfer would require additional environmental documentation.

1-3

Comment: The Table ES-3 Summary Comparison of Effects of the EWA Action Alternatives claims that the Flexible Purchase Alternative and the Fixed Purchase Alternative which both contain a strategy of integrating Sacramento Valley groundwater into the EWA will have beneficial effects on Fall-Run Chinook, Late Fall-Run Chinook, Winter-Run Chinook, Spring-Run Chinook, and Steelhead. These anadromous animals have a complex life history that is inadequately described in Table 2-1 Anadromous Fish Life History Stages and Locations which utterly fails to discuss rearing stage.

Response: Table 2-1 is part of the project description chapter and is presented for informational purposes. The rearing stage for Fall-Run Chinook, Late Fall-Run Chinook, Winter-Run Chinook, Spring-Run Chinook, and Steelhead is a part of the EWA existing conditions and impact analysis described in Chapter 9 of the 2004 EIS/EIR.

1-4

Comment: Will you disclose potential impacts to anadromous rearing, spawning and migration habitat associated with the increase in groundwater extractions expected under the action alternatives presented in the final EIR/EIS? Impacts to streamflow dependent anadromous fish in Butte and Tehema counties must be addressed in the final EWA Supplemental EIR/EIS.

Response: The 2004 EIS/EIR included groundwater mitigation measures that would apply to all EWA groundwater transfers with exception of those from established groundwater banks that have undergone environmental review

(meeting CEQA/NEPA specifications). The mitigation measures consist of four components: Well Review, Pre-Purchase Groundwater Evaluation, Monitoring Program, and Mitigation Program (see Section 6.2.7.2 of the 2004 EIS/EIR for a detailed description). These components serve to minimize the potential for depleting surface water sources; effects to anadromous rearing, spawning and migration habitat would not be expected with these mitigation measures in place.

1-5

Comment: Will you disclose impacts to valley oaks and other riparian hardwoods associated with the increase in groundwater extractions expected under the action alternatives presented in the final EIR/EIS? These impacts must be examined and disclosed.

Response: Valley Oaks occur primarily as part of two habitats, the Valley/Foothill Riparian and the Valley/Foothill Woodland and Forest. Analysis for the Valley/Foothill Riparian habitat is included in the 2004 EIS/EIR. Analysis for the Valley/Foothill Woodland and Forest has been included in the Final Supplement.

2 – Butte-Sutter Basin Area Groundwater Users
Carol Perkins

2-1

Comment: Butte-Sutter refutes the fact that changes to environmental or regulatory settings regarding water and groundwater resources are insignificant enough to warrant further analysis. We believe the Lawrence Livermore National Laboratory report released in January 2005, "Groundwater Ambient Monitoring and Assessment (GAMA) Results for the Sacramento Valley and Volcanic Provinces of Northern California" does highlight information of substantial importance.

Response: Additional groundwater existing conditions information has been added to the Final Supplement. The additional existing conditions data did not result in the need for updated impact analysis.

2-2

Comment: In our estimation, both the GAMA and DWR reports demand further analysis of aquifer/stream interactions before groundwater substitutions can be safely folded into water export portfolios.

Response: The information provided in the GAMA and DWR reports does not substantially change the information presented in the 2004 EIS/EIR such that an updated analysis beyond the analysis conducted in the 2004 EIS/EIR is needed. Additionally, the groundwater mitigation measures would evaluate each

potential transfer on a case by case basis with the intent of preventing impacts from aquifer/stream interaction.

2-3

Comment: The groundwater substitutions in 1994 (approximately 114 TAF) created significant financial losses for many land owners and farmers in the area; how will the potential withdrawal of 2 to 3 times this volume affect the citizens and environment of the Sacramento River Valley?

Response: The groundwater substitutions in 1994 occurred in absence of the groundwater mitigation measures that are part of the EWA Program. Similar effects would not occur with the EWA because these measures are designed to prevent the types of impacts that occurred in 1994. The groundwater analysis concludes that there would be no significant impacts to groundwater. Based on this conclusion, associated impacts, such as economic losses caused by lowered groundwater levels, would not be expected to occur.

2-4

Comment: This Supplement does not address mitigation measures or alternatives available to the citizens of this area due to increased exploitation.

Response: The 2004 EIS/EIR included groundwater mitigation measures that would apply to all EWA groundwater transfers with exception of those from established groundwater banks that have undergone environmental review (meeting CEQA/NEPA specifications). The mitigation measures consist of four components: Well Review, Pre-Purchase Groundwater Evaluation, Monitoring Program, and Mitigation Program (see Section 6.2.7.2 of the 2004 EIS/EIR or Chapter 5 of this document for a detailed description). The Mitigation Program is designed for anyone harmed by the EWA Program actions; the other three components would be implemented as necessary as part of the willing sellers' transfer.

2-5

Comment: The Supplement must disclose how long before we destroy the quality and quantity of the last "new" source of water this state has. How will the loss of the water quality in this supply affect the entire state over time?

Response: It is not within the scope of this Supplement to evaluate and disclose the long-term viability of California's groundwater resources. However, the EWA agencies are aware that the issue of groundwater resources is an important one. Chapter 6 of the 2004 EIS/EIR evaluated the effects on groundwater from EWA actions including the acquisition of water through groundwater substitution, groundwater purchase, and crop idling, in addition to the storage of acquired EWA water in groundwater banking facilities. The analysis included effects on groundwater level change, alteration of the existing hydrologic

interaction between surface water and groundwater, land subsidence, and degradation of groundwater quality. It also included a cumulative effects discussion. The Supplemental EIS/EIR evaluates the effects of the EWA through 2011; it is only through this time period that the EIS/EIR must address the effects of the EWA alternatives.

3 – Central Delta Water Agency
Dante John Nomellini, Jr.

3-1

Comment: The instant "range" of alternatives in the Supplement is not objectively reasonable.

Response: The Supplement is designed to build upon the 2004 EIS/EIR. Updates to the 2004 EIS/EIR included in the Supplement were only made where changes (e.g., environmental or regulatory changes) have occurred. Section 2.2 of the 2004 EIS/EIR describes the alternative formulation process, screening criteria, and the alternatives eliminated from detailed evaluation. The alternatives analysis in the 2004 EIS/EIR included consideration of seven alternatives beyond those carried forward in the document.

The period of analysis for the Supplement (four years) is the same as the period of analysis in the 2004 EIS/EIR, and the project objectives and project description have stayed the same. Therefore, the screening criteria from the 2004 EIS/EIR of immediate, flexible, and reliable are still valid for alternatives considered for the Supplement. No additional alternatives beyond those described in the 2004 EIS/EIR were believed to meet the project objectives, screening criteria, and offer a reduction in impacts relative to the action alternatives already evaluated.

3-2

Comment: No reason has been articulated why additional alternatives could not have been developed and added to the Supplement's range of alternatives.

Response: See response to Comment 3-1.

3-3

Comment: An example of an alternative which should be added to the Supplements' existing "range," is an alternative that does not attempt to make up for a reduction in exports at certain times of the year to protect fish by increasing exports at other times of the year. Accordingly, such a "reduced export alternative" would be designed to result in an overall reduction in total annual exports from the Delta.

Response: The commentor suggests a reduced export alternative that would lessen overall annual exports. The components of this alternative are generally covered by the Fixed Purchase Alternative described in the 2004 EIS/EIR and Supplement. Under the Fixed Purchase Alternative, the EWA agencies would take fish actions (export reductions), but would primarily make up for those reductions with assets from the Export Service Area. The Fixed Purchase Alternative would acquire 185,000 acre-feet, but would limit asset acquisition from the Upstream from the Delta region to 35,000 acre-feet. The Fixed Purchase Alternative would therefore reduce overall annual exports.

Section 15126.6 of the CEQA Guidelines states that the alternatives should serve to avoid or substantially lessen significant impacts. The types of impacts that the commentor states the reduced export alternative could avoid/lessen are already reduced with the implementation of mitigation measures for the action alternatives evaluated in the Supplement. The Fixed Purchase Alternative would not have any significant and unavoidable impacts. The Flexible Purchase Alternative would have a significant and unavoidable impact to threadfin shad and American shad for entrainment indices; however, unlike the reduced export alternative suggested by the commentor, the Flexible Purchase Alternative would not cause significant unavoidable impacts for any other resource area.

Although the reduced export alternative would avoid the one significant impact that the Flexible Purchase Alternative causes, the reduced export alternative would likely not be able to alleviate impacts that exist without the EWA that the Flexible or Fixed Purchase Alternatives could alleviate. The 2004 EIS/EIR and Supplement identify actions that would be likely under the No Action Alternative (i.e., if the export users' water supply was reduced). These actions include, "…accept the shortage, increase local water supplies, idle or retire agricultural lands, transfer water from northern California via groundwater substitution or crop idling, or pursue independent water transfers." (Supplement, p. 2-9). Uncompensated water supply reductions would cause water supply impacts. Actions such as additional groundwater pumping, water transfers, and crop idling that occur under the EWA are mitigated so as not to cause impacts to air quality, land use, vegetation and wildlife, and groundwater. If farmers were faced with reduced supply, they would be able to turn to actions to supplement their supply. But, because these actions would occur on an individual basis and not as part of the EWA Program, no mitigation would be required. Therefore, significant impacts to the above-mentioned resources could occur without the EWA that would not be lessened under the commentor's suggested alternative. As such, the reduced export alternative would simply replace the more limited significant impacts to fish with a broader array of significant impacts to water supply, air quality, land use, vegetation and wildlife, and groundwater.

In order to avoid impacts to water supply and to better meet the purpose and need of "no uncompensated water cost" to export water users, the commentor suggests that a reduction in exports could be offset by developing additional

water supplies that do not require export. The commenter does not elaborate on what these sources may be, but this concept is generally encompassed in the Fixed Purchase Alternative as well as several alternatives initially considered in the 2004 EIS/EIR. The Fixed Purchase Alternative would reduce exports and offset the exports by acquiring assets within the Export Service Area, which do not require export. The 2004 EIS/EIR evaluated alternative water sources including desalination in southern California, increased use of Colorado River water, water use efficiency measures, and new water sources as means to increase supplies; however for several reasons (described in the 2004 EIS/EIR) these alternatives were not considered feasible.

The EWA agencies do not believe that the reduced export alternative merits analysis in this Supplement because as described above: 1) the components of a reduced export alternative are already included in the range of alternatives evaluated in the Supplement; 2) alternatives should serve to lessen or avoid significant impacts and the two action alternatives contained in the Supplement only have one significant impact between the two of them; and 3) the anticipated impacts of a reduced export alternative would likely be greater than those described for the action alternatives evaluated in the Supplement.

3-4

Comment: Thus far, the Supplement lacks such a range of alternatives and the above-described reduced export alternative in addition to others should be added to the Supplement and presented as potentially feasible choices which the decision makers can ultimately choose after giving due consideration to the comparative merits of all of the alternatives.

Response: See response to Comments 3-1 and 3-3.

3-5

Comment: Finally, such a reduced export alternative is also particularly appropriate in light of the EWA agencies' failure to renew the prior regulatory commitment that will expire in 2007 that "there would be no additional CVP or SWP export reductions from actions conducted to protect fish under the Federal ESA, California ESA, or NCCPA beyond the regulatory baseline of fishery protection." (Supplement, p. 2-4). Thus, while the existence of such a commitment may have directed the lead agencies in the 2004 EWA EIS/EIR to lean towards alternatives that did not result in any overall reduction in exports, in light of the non-renewal of that commitment, it appears more appropriate than ever that the instant renewal of the EWA consider an alternative that does seek to reduce overall Project exports.

Response: As described in the Supplement (p. 2-4), although the regulatory commitments have not been renewed, the lack of regulatory commitments

would not affect how the EWA agencies would operate the EWA. See response to Comment 3-3 regarding a reduced export alternative.

3-6

Comment: If the lead agencies continue to contend in this Supplement that one or more of the various EWA actions sought pursuant to the proposed project or its alternative are not mitigation measures which offset the Project's impacts on fishery species, then the lead agencies must provide sufficient facts and analysis to support such a contention. In particular the lead agencies should demonstrate what has changed since the SWRCB's 1978 Decision 1485 which would lead them to fairly conclude that the Projects have already fully mitigated their impacts on fisheries and that the various EWA actions are merely actions which improve or enhance the fisheries beyond such mitigation.

Response: The EWA program was designed for the protection and recovery of fish. Mitigation obligations of the Projects are beyond the scope of this project.

3-7

Comment: This again raises the question of why are the Projects being compensated by public taxpayer dollars to offset reductions in exports when such exports are not surplus to the areas of origin, and, hence, such exports are contrary to one of the major objectives of the State Water Resource Development System? (Wat. Code, §12200.)

Response: The EWA agencies have implemented, and propose to continue implementing, the EWA pursuant to and consistent with water rights permits granted by the SWRCB and held by Reclamation and DWR, and in accordance with applicable permit terms and conditions, water right orders and decisions..

3-8

Comment: If the lead agencies believe the proposed reductions in exports involve a reduction in the exportation of surplus water, then the lead agencies should demonstrate, with sufficient facts and analysis, their basis for such a conclusion.

Response: See response to Comment 3-7.

3-9

Comment: Once again, the lead agencies must adequately explain why the proposed reductions in exports pursuant to the project for the benefit of the deteriorating fisheries within the areas of origin involve the reduction in exports of water that is <u>not</u> "reasonably required to adequately supply the beneficial needs of the [areas of origin]."

Response: See response to Comment 3-7.

3-10

Comment: If the Projects are prohibited from exporting such non-surplus water from the areas of origin pursuant to Water Code section 11460, then how can a program be developed and ultimately implemented in a manner that uses public taxpayer dollars to compensate the Projects for reductions in the export of water that the Projects are not legally entitled to export?

Response: See response to Comment 3-7.

3-11

Comment: The analysis in both this Supplement and the 2004 EIS/EIR with regard to water acquisitions is very broad and general. There does not appear to have been any attempt to analyze any specific water acquisition at a "site-specific" level of analysis. If the lead agencies believe any specific water acquisitions have been analyzed in the Supplement and/or 2004 EIS/EIR, then the lead agencies should clearly disclose that belief and identify those specific water acquisitions.

Response: While certain aspects of the transfers would not be known until the transfer agreements are made, the general locations for potential transfers were evaluated providing a project-level analysis applicable to the circumstances described. For some transfers, the changes in flow in a river or changes in water level in a reservoir were described, constituting a site-specific analysis. For other transfers, such as groundwater substitution or crop idling, it is not known which particular well or field may be used, but the effects of such actions within a boundary that contains similar environmental features is evaluated.

The 2004 EIS/EIR and Supplement evaluate the effects of the Flexible and Fixed Purchase Alternatives at a project (site-specific) level. Reference in these documents to the necessity of additional environmental documentation would only be for willing sellers not included in the document. Chapter 2 includes the willing sellers and the maximum transfer evaluated for each district.

3-12

Comment: The Supplement sets forth the following new mitigation measure at page 4-33:

"The EWA agencies will avoid acquisition and transfer of water that would reduce flows essential to maintaining populations of native aquatic species in the source river."

Apparently, this mitigation measure will ensure Delta Outflow is not substantially reduced under the Flexible Purchase Alternative, e.g., in December

(see Supplement, at p. 4-34), and X2 is not substantially moved eastward in November and December (see Supplement, at p. 4-35).

CEQA requires that mitigation measures "must be fully enforceable through permit conditions, agreements, or other legally-binding instruments." (CEQA Guidelines, § 15126.4(a)(2).) To be "fully enforceable," such measures must provide something that can be meaningfully enforced.

With the instant mitigation measure it is not clear what constitutes "flows essential to maintaining populations of native aquatic species in the source river." Nor is it clear what is meant by the "source river."

Response: This *conservation* measure reflects the EWA agencies' intent that pumping to decrease debt would not be conducted in a manner that would result in adverse changes in Delta outflow or X2 location as identified in the preceding paragraph. This is described at the end of the third full paragraph on page 4-34. "In the source river" is intended to reflect that EWA actions would not be conducted where such actions would cause substantial impacts to fish in either the Delta or the source river from which EWA assets are stored or purchased.

3-13

Comment: Sufficient outflow, for example, is recognized to be important to many native aquatic species. Accordingly, will EWA agencies allow acquisitions and transfers of water that reduce outflow so long as that reduced outflow does not impair the native aquatic species in the river where the acquisition and transfer is taking place, despite the fact that such acquisitions and transfers impair the native aquatic species in other rivers that are dependent on sufficient outflow?

Response: The phrase "in the source river" has led to some confusion regarding the intent of the conservation measure. The conservation measure is intended to avoid acquisitions and transfers that adversely affect native populations of fish. Therefore, if Delta export pumping to decrease debt would reduce outflow such that it would adversely affect fish, the EWA agencies would not acquire water in that manner. The text of the conservation measure has been edited to state, "The EWA agencies will avoid acquisition and transfer of water that would reduce flows essential to maintaining populations of native aquatic species in the source river and in the Delta.**"**

3-14

Comment: Moreover, the Supplement should clarify what "flows essential to maintaining populations of native species" means.

Response: Sections 4.2.2.4 and 4.2.2.2 of the Supplement describe the importance of Delta outflow and X2 to Delta fisheries. "Flows essential to

maintaining populations of native aquatic species" are defined as flows sufficient to maintain X2 west of the confluence of the Sacramento and San Joaquin River. The EWA agencies would not undertake actions that would jeopardize fish protections in the upstream rivers, subsequent to those actions. Data indicates that when X2 is west of this location throughout the year, populations of longfin smelt, delta smelt and striped bass fare better.

3-15

Comment: Since the Supplement has articulated "significance thresholds" for both outflow and X2 (see pages 4-31 & 4-32), and since the Supplement has identified significant impacts from the Flexible Purchase Alternative on both outflow and X2 (see pp. 4-34 thru 4-36), presumable this mitigation measure will ensure, at a minimum, that outflow and X2 will not exceed those significance thresholds?

Response: Maintaining Delta outflow and X2 location is the intent of this mitigation measure. EWA actions would not move X2 more than 0.5 km to the east or reduce Delta outflow by more than 10 percent, unless the EWA agencies determined that such changes would not be detrimental to fish. An example of such a change would be when X2 is located near Benicia, where a change of the magnitude indicated would not bring X2 into an area where habitat values would be substantially affected.

3-16

Comment: Clarification of precisely what this mitigation measure is intended to ensure is not only essential to its meaningful enforcement, but also to support the decision makers' ultimate finding that the significant impacts from the Flexible Purchase Alternative have indeed been "mitigate[d] or avoid[ed]…whenever it is feasible to do so." (Pub. Resources Code, § 21002.1(b).) As it stands, reliance on this mitigation measure for such a finding is misplaced since it is far too vague and lacks any concrete performance standards to provide any meaningful assurance that such significant impacts will in fact be adequately mitigated or avoided.

Response: Clarification is provided in the preceding comments (3-12, 3-14, 3-15). Text is modified to include specific targets for X2 location.

3-17

Comment: It does not appear that the "science" supports the EWA efforts at protection and recovery. Moving forward on the proposed program/project to protect certain levels of exports would appear to threaten these species, not protect them. Until DWR applies for and receives a take permit under CESA, and until the CVP receives the necessary "updated" BO's it is premature to

make any biological or environmental conclusions about how the EWA may or may not affect these species.

Response: As described in Section 2.1.3 of the Draft Supplement, the regulatory commitments described in the 2004 EIS/EIR were agreed to by the CALFED agencies through 2007; the agencies are not proposing that these commitments be in place past 2007 and have therefore not included them in this Supplement. The Supplement evaluates the alternatives, incorporating a set of fish actions that the EWA agencies believe would be likely to occur. The decision of the level and type of fish actions was based on the best available information at the time. Section 7 consultation on the proposed action is independent of the consultation process for the updated biological opinion on the long-term operations of the CVP and SWP.

4 – Contra Costa Water District
Greg Gartrell

4-1

Comment: CCWD supports the objectives of the EWA program as it seeks to help satisfy the multiple demands for waters of the Sacramento-San Joaquin Delta. An extension of the existing EWA program is appropriate and called for at this time, given the current uncertainty surrounding the future of the Delta's facilities and operations. The flexibility of the EWA will allow the program to continue to benefit Delta fisheries while minimizing impact to water supplies as additional solutions are developed to the Delta's current problems.

Response: Comment noted.

5 – Department of Energy Western Area Power Administration
Sonja A. Anderson

5-1

Comment: The technical appendices qualitatively summarize the projected impacts of the various alternatives for specific evaluation categories. We are, however, unclear and unsure as to the relative magnitude of those projected impacts because numerical ratings and/or equivalents which could provide context and which might compare/contrast the qualitative definitions does not appear to have been defined within the supplemental report. At the margins, we are unclear as to the difference in magnitude between an impact which has been identified as being less than significant as opposed to one that had been identified as being potentially significant.

Response: The effects determination: no effect; beneficial effect; LTS (less than significant); and PS (potentially significant), prior to mitigation correspond to the results of the impacts relative to the significance criteria in the 2004

EIS/EIR. NEPA/CEQA requires disclosure of the impacts relative to a significance threshold; because no quantitative threshold exists for some resource areas, the evaluation and reporting of the results is qualitative. The relative magnitude of the impacts for each alternative is compared in a qualitative discussion in the Comparative Analysis of Alternatives section in the 2004 EIS/EIR for each resource area (e.g., for power, see Section 16.3.8).

A LTS determination signifies that the potential impact is less than the thresholds for significance identified in the significance criteria. A PS impact signifies that the impact may meet or exceed the significance criterion threshold. In this case, mitigation is applied to reduce the potential for a significant impact to LTS.

5-2

Comment: The EWA program (past, present, and future) has and will undoubtedly continue to affect the water and power operations of the Central Valley Project (CVP). We assume that the project still has available flexibility and capability to modify its water and power operations to meet potential new operational demands. To what extent has re-operation of the CVP over time caused a change in the relative proportion of benefits received by each of the authorized project beneficiaries and, as a result, affected their respective financial repayment obligations and liabilities?

Response: The purpose of NEPA/CEQA (in this case, the Supplement) is to evaluate and disclose the effects of the proposed action and alternatives and mitigate for potentially significant impacts. It is not part of the scope of the Supplement to address how the CVP has changed over time or to discuss repayment obligations. The 2004 EIS/EIR and Supplement evaluate the effects of implementing the EWA on power resources including describing existing power facilities and the effects on those facilities from implementing the proposed action and alternatives.

5-3

Comment: Although this environmental analysis evaluates the impact of the EWA program, to what extent (in the baseline, as well as in the other alternatives), are other potential operational changes reflected (e.g., re-consultation with the fish and wildlife management agencies for the operating criteria and procedures for the CVP, San Joaquin River Settlement, Federal participation in the proposed new CALFED storage projects, and other environmentally sensitive issues affecting CVP water and power operations).

Response: The 2004 EIS/EIR and Supplement describe the effects of the EWA in combination with other projects in the cumulative analysis section. The definition of the cumulative condition (used in the cumulative effects analysis) includes projects that meet certain criteria (e.g., there must be a planning level

document completed). The Supplement does not consider the operational changes reflected by the items mentioned because they are not far enough along in the planning process to know that they are reasonably foreseeable within the scope of the Supplement and to understand their impacts sufficiently.

5-4

Comment: Under the EWA program, irrigation entities may have the opportunity to fallow their lands from time to time and receive payments for their water. Given that a number of irrigators in the CVP have requested and received consideration for capital repayment relief under the "irrigators ability to pay" criteria, in the event this class of irrigators sell their water to others as part of the EWA program, does Reclamation plan to monitor and provide sufficient safeguards so that in the event such irrigators in fact do sell their water to the EWA program, that they will not be eligible for "irrigators ability to pay" relief?

Response: Reclamation conduct's an irrigators ability to pay study (at the contractor's expense) to determine whether they are eligible for irrigators ability to pay relief. "The study assesses the financial capability of an irrigation district (or contracting entity) to pay for existing or increased Reclamation water charges and services. Ability to pay is defined as the farm-level payment capacity aggregated to the entire district, minus district existing obligations, operation and maintenance (O&M) costs, power costs, and reserve fund requirements. If the district has documented sources of non-farm-related income, they may also be incorporated into the analysis." (Reclamation 2004). If a willing seller transfers water to the EWA, the study will assign the compensation as income. Therefore, Reclamation does account for the transfer to the best of their ability; however, this may or may not affect the determination of the study.

Of note, of the 17 districts that are evaluated in the Supplement, only one of them has applied for ability to pay relief.

5-5

Comment: Western notes that under Table 2 of the draft EWA EIR/EIS technical appendices that the "EWA agencies will be responsible for covering additional power costs…" Western would like to confirm that this statement means that in the event EWA water transfers result in lost opportunities for foregone generation, that in past instances, and similar to what transpired on the American River, that the EWA agencies would be financial responsible for ensuring that the power function is made whole for any lost and/or foregone generation as a result of the transfer.

Response: The EWA agencies would be responsible to ensure that CVP power and CVP Preference Customers are not adversely affected by EWA operations.

For EWA operations on the American River, the EWA agencies would reimburse the WAPA for foregone energy caused by water bypassing the energy generation facilities at Folsom when water is being released for temperature control purposes as an EWA action on the Lower American River. In the event of a water transfer, such as from the Placer County Water Agency, the water would be conveyed through the energy generation facilities at Folsom Dam and the energy generated would be used for CVP purposes or preference customers, but not for EWA.

6 – Natural Resources Defense Council
Katherine S. Poole and Barry Nelson

6-1

Comment: The failure of the EWA to function as envisioned is epitomized in the failure of the agencies to invoke Tier 3 this year – the intended backstop for any shortfall in EWA assets. EWA Tier 3 was supposed to ensure that if EWA was underfunded or failed to perform as anticipated (both of which have happened), sufficient water would be provided to ensure no jeopardy to listed fish…Unfortunately, when the time came to call upon this Tier 3 "fail-safe", the agencies failed to trigger it, ensuring that listed species rather than water users would suffer the consequences of the failure of the EWA to live up to its stated purpose.

Response: The comment does not specifically address any issues on the Supplemental EIS/EIR. However, it should be noted that the EWA agencies did not invoke Tier 3 over the last year because at no time were species listed as in jeopardy at a point when the EWA had exhausted its assets, which included water purchases, Project re-operation, and carrying over debt. In 2007, EWA actions totaled 501,500 acre-feet and EWA assets offset all but about 50,000 acre-feet. Because the EWA agencies have the ability to carry 100,000 acre-feet in debt into the next year, the assets were still about 50,000 acre-feet from being exhausted. Thus, the conditions necessary to trigger Tier 3 were not met in 2007.

6-2

Comment: Inexplicably, the DSEIS/EIR makes no mention of this breakdown of the EWA's "fail-safe", nor does it describe or analyze the historical shortfalls of the EWA or the program's failure to function as envisioned. These shortcomings are far more relevant to the foreseeable impacts of extending the program than any of the purely hypothetical modeled impacts contained in the DSEIS/EIR. The DSEIS/EIR must be revised to address these issues.

Response: The comment does not specifically address any issues on the Supplemental EIS/EIR. However, the EWA agencies do not agree that the EWA Program has failed to function as envisioned. The EWA agencies believe that

the program has merit for aiding in the protection and recovery of fish and for the improved water supply reliability of export area water users. The EWA Program has operated within the project description of the 2004 EIS/EIR and the EWA agencies would strive to continue to operate the program according to the project description in the Supplemental EIS/EIR. See response to Comment 6-4 regarding Tier 3.

6-3

Comment: Further, these historical realities belie the statement in DSEIS/EIR that "[i]f pumping would be likely to put at risk the continued existence of a species listed as endangered or threatened under the Endangered Species Act (ESA), the Project Agencies would curtail pumping even if purchases already totaled 600,000 acre-feet and all assets were used." DSEIS/EIR at ES-5. This is precisely the situation that presented itself to the Project Agencies this summer, and the agencies failed to curtail pumping once EWA assets were depleted even though continued pumping threatened the continued existence of the delta smelt.

Response: See response to Comment 6-1 regarding Tier 3.

6-4

Comment: Moreover, the DSEIS/EIR seeks to utilize the ESA/CESA process for coverage of the EWA initially established in the CALFED ROD, without addressing any of these fundamental failures of the process to operate as envisioned and which were essential to the CALFED analysis. See generally DSEIS/EIR Appendix C.1 For example, Tier 3 no longer exists as a viable "fail-safe device." Yet, the CALFED assurances were explicitly "based on the availability of three tiers of assets." Tier 3 Protocol. The DSEIS/EIR makes passing reference to this change, obliquely noting that "[b]ased on current circumstances, these three tiers are no longer an accurate way to describe EWA assets." DSEIS/EIR at 2-4. But the document fails to acknowledge the implications of omitting this critical "fail-safe device" or to describe the replacement structure of the EWA going forward.

Response: The EWA agencies are aware that the EWA has not functioned exactly as described in the CALFED ROD, but believe the project still has merit. The EWA agencies acknowledge where these differences occur in the 2004 EIS/EIR and Supplement. For example, Table 2-6 in the 2004 EIS/EIR acknowledges the pattern of variable asset acquisition is not as envisioned in the ROD. Additionally, Section 2.4.2.2.4 of the Supplement states that opportunities to relax the E/I ratio may not be as numerous as assumed in the 2004 EIS/EIR, and thus may not result in the acquisition of as much water as assumed in the CALFED ROD.

The Supplement has been updated to clarify the status of the Tiers. Reference to Tier 1 and Tier 2 has been removed from the document because of the difficulty in differentiating between baseline water and the EWA (described as Tier 1 and Tier 2 respectively in the 2004 EIS/EIR). The intent of the description of removing "Tier 3" in the Supplement was to state that although no longer termed "Tier 3", the function of Tier 3 would continue. Because comments received on this subject indicate the removal of the term "Tier 3" has caused confusion, the terminology has been added back into the Final Supplement. Tier 3 (funding available to the EWA agencies to take fish actions for a species that is in jeopardy without available assets) is still in place. (See text edits to Chapter 2, contained in Chapter 4 of this Supplement.)

6-5

Comment: In short, the DSEIS/EIR fails to adequately describe the project to decisionmakers and the public or to disclose the environmental impacts associated with the policy choice of extending the EWA. The document should be revised to correct these shortcomings. We believe that an accurate description and assessment of the EWA will demonstrate that the program should not be extended.

Response: The EWA Program contains a complex project description, but this project description is presented in great detail in the 2004 EIS/EIR and Supplement. Each fish action, asset acquisition, and asset management option is individually addressed and the impacts evaluated.

6-6

Comment: Since shortly after the first EWA ROD was signed in 2004, the program has been used as an excuse by the agencies to deny needed water to imperiled fish rather than to help protect and recover imperiled fish…The agencies have turned the EWA on its head and, instead of using it to supplement the resources needed and required for fish protection, have used it as an excuse to short the environment and avoid committing those mandatory resources. Unless the agencies make very clear that limited EWA assets cannot be used as a reason not to take an action that would help protect or restore imperiled fish, it should be discontinued." [See Appendix A for text of entire comment].

Response: The EWA agencies took fish actions at times they deemed necessary and believed they were making the best decisions to aid in the protection and recovery of fish. The EWA agencies will continue to use real time management to act to do what is best for fish in the future. The size of the EWA Program does not limit what will be done for fish; the EWA Program is only a portion of what can be done for the protection and recovery of fish.

6-7

Comment: The DSEIS/EIR asserts that EWA assets should be used to reduce export pumping to protect fish from the months of December through July. DSEIS/EIR at 2-10 to 2-11. This proposal allows exports to increase to allow delivery of EWA water during the months of August through November. But several imperiled species are vulnerable to take at the pumps during this late summer/fall period. *See id.* at 2-13, 4-15. Moreover, the document notes that the alarming and continuing decline in four pelagic organisms in the Delta have corresponded to a period of "increased exports during June through December." DSEIS/EIR at 4-11. In addition, recent studies have indicated that decreased Delta inflows in late fall and winter may result in reductions in fall habitat quality and eastward movement of X2, which may result in adverse impacts to fish. DSEIS/EIR at 4-13. Thus, it is unclear when a safe pumping window exists for EWA to increase Delta exports.

Response: The purpose of the EWA is not to eliminate all impacts to Delta fish, but to aid in the protection and recovery of at-risk native Delta-dependent fish species affected by SWP/CVP operations by changing the way water is moved through the Delta for export. The pumping window of July through November was identified (Section 4.2.6.1, para 2) as a window when water could be moved through the Delta with less effect to fish than would occur at other times of year. All actions would take into consideration real-time monitoring information to avoid periods when sensitive species were present near the SWP/CVP pumps or in areas where the actions might expose them to more adverse conditions than they would experience in the absence of that action. Salvage information indicates that the species most sensitive to entrainment during the months of August through November are the introduced species, threadfin shad and American shad, and, to a lesser extent, striped bass. The native species are entrained at very low numbers during these months relative to other times of year. Exceptions are late fall run Chinook salmon, which are observed in salvage in low, but not unsubstantial numbers at both CVP and SWP facilities in November under both wetter and drier hydrologic conditions; and splittail, which are observed in low, but not unsubstantial numbers at the SWP in October and November in drier years. None of the species named above are listed under either the state or federal ESAs. This has been clarified in the Final Supplement.

While there is temporal correspondence between POD and increased delta exports, scientists are still evaluating the relationship between the POD and these increases. At this time, there is little evidence that the POD decline has been caused by these increases. As described in detail the Section 4.1.2.2.1 (cited by the commentor), a number of factors have been implicated in the POD (DWR and DFG 2007, Sommer 2007) and the relative contribution of these stressors has not been determined (see Uncertainties on pg 4-12). As noted in the second to last sentence on Pg. 4-11, models indicate that exports explain less than 2% of population index variation.

As the commentor indicates, this document notes the recent work on the importance of fall habitat quality on pelagic fish and includes a conservation measure (Section 4.2.4) specifically targeted at reducing impacts to Delta Outflow and X2 location to a less than significant level (see pg 4-33 and end of the third full paragraph on page 4-34).

6-8

Comment: Second, the DSEIS/EIR assumes with no support that "[w]hile the fish actions in … revised biological opinions [that are currently being developed for project operations] are unknown, they would likely be less than with the EWA program." DSEIS/EIR at ES-4. This statement reflects a fundamental misunderstanding of the nature of ESA and CESA requirements, which *mandate* that project operations cause no jeopardy to the existence or recovery of listed species, cause no adverse modification of critical habitat for survival or recovery of listed species, and that the impacts of project take be minimized and fully mitigated. In addition, Chapter 7 also imposes an affirmative obligation on federal agencies to "utilize their authorities in furtherance of the purposes of this chapter by carrying out programs for the conservation of endangered species and threatened species listed" under the Act. 16 U.S.C. § 1536(a)(1). A program of "conservation" is one that brings the species to the point of recovery and delisting. Id. § 1532(3). In short, the project agencies are obligated to protect, recover and conserve listed species, whether or not the EWA is in place.

Response: The text in the Executive Summary and Chapter 2 has been updated to clarify the comparison between the fish actions under the No Action and action alternatives. The Supplement evaluates a level of fish actions that the EWA agencies believe are representative of those that they would take. Whether or not the fish actions in the revised biological opinions are greater or less than those evaluated in the Supplement does not change this evaluation.

The EWA Program's purpose and need includes the protection of at-risk native Delta-dependent fish species as well as contribution to the recovery of these fish species. The fish actions serve to help meet Endangered Species Act (ESA) and California Endangered Species Act (CESA) requirements and go beyond these requirements if assets allow. ESA and CESA not only aim to protect at-risk species, but include recovery. Additionally, the size of the EWA Program does not limit what will be done for fish; the EWA Program is only a portion of what can be done for the protection and recovery of fish.

6-9

Comment: Third, the DSEIS/EIR explicitly bases its analysis of fish actions on the invalidated, reinitiated, and discredited OCAP biological opinions, claiming that it "would be speculative to assume that the fish actions in the BO will be the same as those described by Judge Wanger because the BO will be based on a comprehensive review of all available information and science." DSEIS/EIR

at 1-6. In reality, Judge Wanger's decision is based on a more comprehensive and current review of the science regarding the delta smelt than the invalidated BO, which failed even to acknowledge the precipitous decline of the delta smelt in recent years. In addition, the OCAP BO on listed salmonids has been discredited by more than three independent science reviews, including a CALFED review panel, which concluded that the BO was not based on the best available science. The DSEIS/EIR's reliance on the fish actions encompassed in these discredited BOs for the basis of its analysis lacks a reasonable basis.

Response: The Supplement used the biological opinions that were existing at the time of the analysis. The recent Wanger decision is an interim measure until the revised biological opinions are complete. It would be speculative to assume that the actions described in the Wanger decision would continue into the future.

6-10

Comment: Until the Bureau meets the requirements of ESA §7 and, among other things, obtains a valid biological opinion at the conclusion of consultation, the ESA § 7(d) prohibition on making any irreversible and irretrievable commitment of resources applies to the Bureau's actions…Reauthorization of the EWA as proposed in the DSEIS/EIR runs afoul of the 7(d) prohibition and contradicts Mr. Rodgers sworn statements in the pending OCAP lawsuits.

Response: The EWA agencies will complete Section 7 consultation regarding the effects of the EWA independent of the reinitiated consultation on the long term operations of the CVP and SWP. This is consistent with both ESA § 7(d) and Mr. Rodgers declarations submitted to the court.

Further, the 2004 EIS/EIR and the Supplement state that the EWA alternatives would not make any irreversible or irretrievable commitment of resources that would preclude development of any Reasonable and Prudent Alternatives in the reinitiated consultation on the long term operations of the CVP and SWP.

As a clarification, the Supplement is not reauthorizing the EWA; rather it is proposing to extend the program. The EWA Federal agencies involved with the EWA have authorization to implement the program. The authorization, pursuant to the Bay-Delta Authorization Act, October 25, 2004, remains in force until September 30, 2010 unless re-authorized by Congress.

6-11

Comment: Finally, the DSEIS/EIR concludes that continuation of the EWA "would have a less than significant impact on X2 location during June through December." DSEIS/EIR at ES-9. However, as the document recognizes, emerging science indicates that moving X2 westward of its recent historic location in the fall could have a significant beneficial impact on listed species

and their habitat. By reducing outflow in the fall, EWA could have a significantly detrimental impact on the ability of agencies to meet this new threshold.

Response: Impacts to Delta fishes were assessed based on anticipated changes in the various parameters evaluated from what these would be under baseline conditions. While the document reviewed the many activities that are currently going on in the Delta regarding its future operations, it did not speculate on the specific changes that might occur in the future. The document includes a conservation measure specifically intended to minimize changes in X2 during the fall months (see pg 4-33 and end of the third full paragraph on page 4-34).

6-12

Comment: To date, as discussed above, the EWA has primarily, even exclusively, been operated to limit protective ESA/CESA actions. However, the failure of the EWA extends even farther. The EWA was intended to "provide water for the protection and recovery of fish." CALFED Programmatic ROD at 54. Note that these benefits are not restricted to listed species. The ROD also states that the EWA will "acquire water for ecosystem and species recovery needs." CALFED ROD NCCP Determination at 21. Thus, the EWA was intended as a tool to provide restoration benefits beyond the requirements of ESA/CESA for listed species. These benefits were an important part of the Ecosystem Restoration Program and were the justification for public funding for the EWA. The document does not analyze the failure of the EWA to provide these anticipated benefits.

Response: The EWA Program's purpose and need includes the protection of at-risk native Delta-dependent fish species as well as contribution to the recovery of these fish species. The fish actions serve to meet ESA and CESA requirements and go beyond these requirements if assets allow. ESA and CESA not only aim to protect at-risk species, but include recovery. While recovery is one of the goals of the EWA Program, given the diverse nature of stressors on the Delta ecosystem, it is clear that the EWA alone will not fully protect and sustain Delta fisheries. However, it is likely to benefit these resources while broader solutions are being developed.

6-13

Comment: The EWA was also intended to provide "real time diversion management" of Delta flows and the CVP and SWP Delta pumps. CALFED ROD NCCP Determination at 29. Such real time management assumes that the EWA has enough flexibility to modify Delta flows and the management of the projects beyond the relatively fixed prescriptive requirements of ESA/CESA compliance. The document fails to analyze the extent to which the EWA will provide such flexibility to achieve additional ecosystem or protective measures.

Response: The EWA program does have a fair amount of flexibility, although some constraints exist, including practical limitations associated with decision-making. The analysis considered potential constraints, and the analysis of the impacts (and benefits) was based on constraints that could be incorporated into modeling. In fact, the analysis is actually more constrained than would occur in real time because the model uses a monthly time step when decisions in the real world are based on more recent information and can be made on a daily or weekly basis rather than monthly.

Several groups usually meet weekly or bi-monthly to discuss real time diversion management: environmental water account team, data assessment team, and water operations management team. Such meetings give the EWA Program the flexibility to make decisions and take fish actions on an as-needed basis. (Section 2.4.1.5 of the 2004 EIS/EIR references these groups.)

6-14

Comment: As discussed above, the document fails to analyze past performance, a failure that cuts to the core of the purpose of the EWA as an adaptive management tool. The document must be revised to fully and accurately analyze the effectiveness of the EWA as an adaptive management tool.

Response: The purpose of the Supplement is to analyze the effects of implementing the action alternatives through 2011; the performance of the EWA is evaluated by different means. Ongoing fish monitoring studies, such as the Fall Midwater Trawl, Spring Kodiak Survey, 20mm Survey, and turbidity studies for Delta smelt are examples of science studies related to the pelagic organism decline – the results and recommendations of which would be incorporated into the EWA. Other science processes include the Delta Smelt Working Group (Working Group), Interagency Ecological Program, and the CALFED Science Program, which sponsors studies and workshops (Delta smelt, chinook salmon, etc.) related to EWA. The EWA agencies continue to attempt to modify operations based on recommendations from these studies and groups. For example, during water year 2007, the Working Group as part of the EWA recommended that fish actions in January through March be based on the flows in Old and Middle Rivers rather than a specified level of exports. The Supplement includes a new analysis of fisheries in the Delta that incorporates this recent recommendation from the Working Group.

6-15

Comment: As discussed above, the document does not adequately analyze the EWA's failure to engage in real time management and adaptive management, to ensure ESA/CESA compliance and to contribute to broader ecosystem restoration. The document also does not include any meaningful provisions to address these failures. The document, however, largely maintains the old,

inaccurate description of the purpose of the EWA. DSEIS/EIR at page 2-3. Thus, the document fails to adequately describe the purpose of the project.

Response: As discussed in the above responses, the EWA agencies believe that the extremely detailed project descriptions in the 2004 EIS/EIR and Supplement explain the EWA Program as intended and as implemented.

The Supplement states that the EWA agencies would use real time management to make decisions regarding fish actions. As described in the response to Comment 6-13, the environmental water account team, data assessment team, and water operations management team meet for this purpose. Also as described in the response to Comment 6-14, the EWA agencies adaptively manage operations based on recommendations from various studies and science groups.

The EWA agencies believe that the EWA Program attempts to help protect and recover fish and contribute to ecosystem restoration while in compliance with ESA/CESA. As stated in response to Comment 6-8, the fish actions serve to meet ESA and CESA requirements and go beyond these requirements if assets allow. ESA and CESA not only aim to protect at-risk species, but include recovery.

Again, the EWA Program is consistent with the EWA project description in the 2004 EIS/EIR and Supplement. The documents provide all details necessary for decisionmakers to understand the project and its impacts.

7 – San Luis & Delta-Mendota Water Authority and Westlands Water District Valerie C. Kincaid

7-1

Comment: The EWA was developed as only part of the suite of CALFED actions to be implemented during Stage 1. Other actions to be implemented during Stage 1 included increasing pumping capabilities of SWP facilities, possibly establishing an intertie between SWP and CVP facilities at or near Tracy, and constructing a bypass canal to the San Felipe Unit at the San Luis Reservoir. None of those actions have occurred. The EWA is now set to expire on December 31, 2007. The Draft Supplemental EIS/EIR evaluates the extension of the EWA without thoroughly discussing the remainder of the CALFED program. That is particularly troublesome since it is unclear if or how the next phase of the CALFED program will be implemented. To appreciate the proposed EWA extension, including its potential environmental impacts, the Draft Supplemental EIS/EIR should be revised to disclose the challenges of and possible changes to the CALFED program during the period of the proposed EWA extension.

Response: The EWA is a stand alone program and not contingent upon the status of other CALFED programs. It is not within the scope of the

Supplemental EIS/EIR to discuss the status of the other CALFED programs, except as they would affect EWA Program operations. Because the intertie between the SWP and CVP facilities was potentially foreseeable within the evaluated timeframe of the Supplement, it was included in the modeling cumulative analysis. The status of other CALFED program elements was not relevant to the scope of the Supplement and therefore not discussed.

7-2

Comment: The Authority and Westlands appreciate the need for a supplement because previously prepared environmental documentation for the EWA did not consider the impacts of the EWA from January 1, 2008 through December 31, 2011 – the period of the proposed extension. Because of that circumstance, the law requires additional environmental review. The lack of review during the period of the proposed extension, however, is the sole basis for the supplement. Changes in the environmental and regulatory setting only become relevant when considering in the supplement the potential environmental effects of the extension. The Draft Supplemental EIS/EIR should be revised to make that clarification.

Response: The comment is noted, although the EWA agencies do not agree with the commentor's opinion and reasoning behind the need for the Supplement. Notwithstanding, and regardless of whether the need for the Supplement is one or two-pronged, it doesn't change the purpose, format, and relevance of the analytical content included in the Supplement.

7-3

Comment: The Draft Supplemental EIS/EIR presumed that at-risk fish species would benefit from (1) increases in Delta outflow, (2) westward movement of X2, and (3) reductions in entrainment. (Draft Supplemental EIS/EIR, pp 4-31 – 4-33.) The Draft Supplemental EIS/EIR provides no analysis of why those presumptions are valid or how those presumptions relate to increases in the population levels of the at-risk fish species. As a result, the Draft Supplemental EIS/EIR does not evaluate whether the methods employed to benefit fisheries will achieve the stated purpose and need for the extension. As has been recommended by the independent panel of experts, the Draft Supplemental EIS/EIR must be revised to include an analysis of the potential impact of the EWA on the populations of at-risk native Delta-dependent fish species.

Response: Sections 4.2.2.1 through 4.2.2.3 describe the importance of Delta outflow, X2, and entrainment to Delta fisheries. References back to these sections have been inserted into the sections cited by the commentor (4.2.3.1 and 4.2.3.2) for cross reference. Unfortunately there are no reliable population models available to relate these or any other parameters to population levels of different fish species in the Delta. The evaluation criteria were selected based on the best available science. Given the diverse nature of stressors on the Delta

ecosystem, it is clear that the EWA alone will not fully protect and sustain Delta fisheries. However, it is likely to benefit these resources while broader solutions are being developed.

7-4

Comment: Other than water that may be purchased under the Yuba River Accord, the Draft Supplemental EIS/EIR does not discuss or evaluate the source of funding for those additional purchases. At a minimum, the final Supplemental EIS/EIR must recognize that the acquisition of assets for the EWA will comply with the EWA's objective of no uncompensated cost to water users; that the EWA, during the extended period, will not result in any uncompensated adverse impact to water users, whether through increased rates of supply reductions.

Response: As a NEPA/CEQA document, the Supplement need not discuss funding sources.

One of the statements in the EWA purpose and need is, "does not result in uncompensated water cost to the Projects' water users (emphasis added)." The EWA action alternatives aim to meet this purpose and need statement by providing assets (water) to water users for fish actions taken.

8 – SMUD
Paul Olmstead

8-1

Comment: SMUD applauds the efforts made by the EWA agencies in dealing with bypassing the power penstocks at Folsom Dam to meet the cold water needs of the fisheries in the Lower American River. These efforts have been successful and supported by all parties. The proactive implementation by the individuals within the EWA agencies has mitigated the impact of the bypassed generation.

The EWA Program should continue to minimize redirected impacts and to maintain linkage between the beneficiaries of actions and the costs of those actions.

Response: Comment noted.

8-2

Comment: In the Executive Summary Table ES-3 the effect determination for power is identified as less than significant and no mitigation is required. The reader is unaware of what constitutes the significance criteria supporting this conclusion. Please describe the criteria that made impacts to power less than significant.

Response: Table ES-3 of the 2004 EIS/EIR summarizes the effects on power described in Chapter 16. Chapter 16, Section 16.3.2, lists the significance criteria. As shown in Table ES-3, the power analysis is summarized into four areas of analysis containing a total of seven potential effects. For the action alternatives, three potential effects are determined to be less than significant; four potential effects are determined to be potentially significant and require mitigation.

8-3

Comment: To the extent that any of the EWA actions causes an adverse impact to CVP power, in kind dollar for dollar compensation should continue to be provided to Western Area Power Administration.

Response: See response to Comment 5-5.

8-4

Comment: SMUD supports the conclusion in the EWA Final EIR/EIR – January 2004, which states on page ES-18, "In accordance with CALFED ROD, the EWA would be required to compensate the Projects for and net costs to power caused by management of EWA assets". This is the mitigation that should be included in Table ES-3 for the mitigation to impacts to power generation. Please update table ES-3 to reflect this change.

Response: Table ES-3 does reference mitigation for power for the effects found to be potentially significant. The table refers the reader to Table ES-4, which describes the mitigation measure.

8-5

Comment: The EIS/EIR separately analyzed the effect of the EWA. However all parties recognize that the CVP operations will be impacted by the recent Wanger Decision, future changes in the OCAP, the San Joaquin River Settlement, possible new storage projects, and future CVP reoperation. To the extent possible elaborate how EWA will integrate its needs into future programs, projects and reoperation.

Response: See response to Comment 5-3.

8-6

Comment: In Table 2 of the technical appendices makes the statement "EWA agencies will be responsible for covering additional power costs…" Please specifically identify who these agencies are.

Response: The EWA agencies are defined as: the U.S. Bureau of Reclamation, California Department of Water Resources, National Marine Fisheries Service,

U.S. Fish and Wildlife Service, and the California Department of Fish and Game.

8-7

Comment: Future EWA Program Financing / Cost Allocations need to be included in the Record of Decision to compensate for power purchases associated with EWA program and assure that EWA is funded each year to an appropriate level. The CVP Preferred Power customers support the EWA actions and do not want to see the program fall short of its goals due to a lack of funds available to purchase power necessary to support the EWA actions.

Response: The ROD will contain the selection of the environmentally preferable alternative, description of the proposed action, conservation measures, and mitigation and monitoring program requirements and responsibilities. Identification of program financing and cost allocations is not part of the required elements of the ROD and therefore is not presented.

8-8

Comment: Under current Reclamation policy, CVP agricultural customers can request and be relieved of their capital repayment obligations under the "irrigators ability to pay" criteria. If CVP Agricultural customers sell their water to the EWA, it is our recommendation that Reclamation list those agricultural customers who are compensated under EWA and when they request "the inability to pay" they are first to use the monies received from the EWA fund to repay their CVP obligations.

Response: See response to Comment 5-4.

9 – State of California – The Resources Agency – Delta Protection Commission Linda Fiack

9-1

Comment: From the information provided, it appears the proposed action is consistent with the Land Use and Resource Management Plan for the Primary Zone of the Delta.

Response: Comment noted.

10 – State of California – The Resources Agency – Department of Water Resources
Christopher Huitt

10-1

Comment: The project corresponding to the subject SCH identification number has come to our attention. The limited project description suggests your project may be an encroachment on the State Adopted Plan of Flood Control…If indeed your project encroaches on an adopted flood control plan, you will need to obtain an encroachment permit from the Reclamation Board prior to initiating any activities.

Response: The EWA Program does not propose to construct any new facilities or alter existing facilities. We do not believe an encroachment permit would be required.

11 – U.S. Environmental Protection Agency
Nova Blazej

11-1

Comment: Documentation of the fisheries benefits, which are explicit purposes of the EWA, is very limited. Two of the chief goals of the EWA are protection of "at-risk native Delta-dependent fish species affected by SWP/CVP [State Water Project and Central Valley Project] facilities" and contribution to fish species recovery. The Pelagic Organism Decline highlights the issue of EWA effectiveness in protecting at-risk species and assisting in their recovery. Ability to measure and document effects of the EWA has been identified as an issue in CALFED Science Board review (2006 Review Panel). As the Draft Supplemental EIS/EIR acknowledges, there is an urgent need to advance our understanding of how management actions affect the Delta environment and how species respond to these changes. Overall, the benefits of the EWA from a fisheries perspective, relative to the costs of implementing the program, are unclear.

Although the Draft Supplemental EIS/EIR concludes that the two action alternatives are beneficial for a number of target species (p. ES-10, Table ES-3), this conclusion is based on a comparison with a 'no action' baseline. For an understanding of whether the EWA would achieve stated fishery purposes, a biological baseline would be needed.

Recommendation: The Final Supplemental EIS/EIR should provide more discussion of the issues surrounding measurement of fisheries benefits from the perspectives of protection and recovery, and should include information regarding how project benefits and costs can be meaningfully compared.

Response: The EWA provided some improvements in conditions that have been identified as important for certain fish species and has reduced certain types of impacts. The reality of the POD suggests that the contribution of the EWA Program may not have been sufficient and/or other factors independent of the EWA are also affecting these species. Because of the great deal of uncertainty regarding conditions in the Delta, it is difficult to know to what degree the EWA Program's benefits have been achieved. The EWA Program aims to continue to protect native aquatic species while broader solutions are being developed.

11-2

Comment: Current legal regulatory actions regarding the Delta are likely to significantly affect use of the EWA by changing the operational options available to the EWA and redefining whether a given management actions is considered part of the EWA or is incorporated in other agreements or requirements. The recent Court decision regarding the Biological Opinion for Delta Smelt (cited in the Supplemental Draft EIS/EIR, p. 1-3) is an immediate example of changed operational parameters; a ruling on the Biological Opinion covering salmon and steelhead is pending.

Recommendation: The Final Supplemental EIS/EIR should update information on how the EWA is affected by recent legal and regulatory activities.

Response: The Final Supplement has been updated to include the recent legal and regulatory activities. Because the Wanger interim order will be in effect for a portion of the timeframe of the Supplement, and because the fish actions described in the interim order are similar to the type described in the Supplement, a separate analysis specific to the fish actions in the interim order is not conducted. It is uncertain what will be included in the revised Biological Opinions and therefore, it is speculative to describe how the EWA would be affected until the Biological Opinions are complete.

11-3

Comment: We continue to have concerns, identified in our September 15, 2003, comment letter on the Draft and reiterated in our letter on the Final EIS (February 24, 2004), regarding the relationships between certain EWA actions and the quality of water in and exported from the Delta. Delta water quality is an extremely complex subject, given the range of beneficial uses and contaminants within the system, but in the immediate context two issues are central: (a) conditions needed for ecosystem health (e.g., salinity at varying times and geographic scales), and (b) priority parameters for source drinking water, such as salinity and bromides.

There are currently a number of efforts to improve characterization and management of Bay-Delta water quality, including the Delta Regional

Ecosystem Restoration Implementation Program and activities of the Water Boards (see "Consideration of a Resolution specifying actions the Water Boards will take to protect beneficial uses of the San Francisco Bay-Delta Estuary," Dec. 4, 2007). Additionally, water quality underlies strategies under consideration in the Delta Vision process.

Recommendation: The Final Supplemental EIS/EIR should discuss the status of water quality planning for the Bay-Delta and explain how new information regarding water quality conditions and management could affect the EWA.

Response: Text has been added to the existing conditions of the water quality section in the Final Supplement to describe water quality planning for the Bay-Delta.

11-4

Comment: Obtaining sufficient funding to operate an effective EWA has been, and remains, an issue. The most recent Science Board review suggested, for example, that either the EWA needs to obtain sufficient water to genuinely advance fish protection and recovery, or it should redefine its goals (2006 Review Panel). The chief distinction between the two action alternatives in the Supplement Draft EIS/EIR is magnitude of implementation (Flexible Purchase up to 600,000 acre feet annually, versus purchases up to approximately 185,000 in Fixed Purchase). However, in the past the annual EWA water purchases have averaged 210,000 acre feet ("EWA Accounting and Water Cost in Water Years 2001-2006"). The Draft Supplemental EIS/EIR does not explain how the program will be funded, and based on past experience, the Flexible Purchase alternative appears unrealistic.

Recommendation: The Final Supplemental EIS/EIR should discuss options and prospects for Program funding and the practicability of annual purchases of up to 600,000 acre feet.

Response: The NEPA/CEQA process does not require Program funding to be discussed in the EIS/EIR. Comment regarding size of the EWA alternatives is acknowledged. Based on the large degree of uncertainty regarding the health of the Delta, it is unclear how large the EWA alternatives would need to be to be 100 percent effective. In addition, it is not known where the funding would come from to take this maximum amount of fish actions. The way the EWA Program is structured, there is always a chance that the available budget may not be sufficient to take the necessary fish actions. The EWA agencies manage the assets they have available with the goal of maximizing the opportunities to aid in the protection and recovery of fish.

12 – Valley Water Protection Association
Linda Cole

12-1

Comment: What are the implications of potential risks or the opportunities for mitigation, offered assurances, and/or criteria for evaluation of the significant variables suggested in the documents and reports listed below?

- 2004 GAMA report age dating the waters of the Tuscan aquifer composing the Butte Basin Aquifer.
- The Northern District of Department of Water Resources report assessment of the poor efficiency of the Tuscan aquifer.
- Butte County's annual water conditions report showing continual small declining levels in many sub-basins of the County through various water years.
- The Department of Water Resources' Northern District new evaluation of cross sections showing the complexity of the Tuscan aquifer which point to questions about recharge and groundwater migrations. These bear on past assumptions about the sustainability of increases in groundwater extractions for your project. (The M&T study, among others suggest significant stream and aquifer interactions also impacting aquifer capacity assumptions).
- Initial presentations by CSUChico economist David Gallo, at the League of Women Voters, Butte County forum, show the application of economic-industry-wide standard modeling tools applied to increased fallowing practices for our communities. Any assessments which discount economic impacts of fallowing as insignificant due to economic migration (itself an impact) are inadequate. Rand studies indicate fallowing beyond one year does generate impacts. Crops subject to fallowing use seasonal labor not migrant labor.

Response: The documents described in the first and third bullets mentioned above were considered and included as new groundwater environmental setting information; the Final Supplement is updated with this information.

The document cited in the second bullet contained an incomplete reference to a DWR document. Based solely on the text of this comment, staff at DWR Northern District were not able to determine which document was being referenced by the commenter.

Regarding the fourth bullet - this comment is not specific in noting the reference for the "new evaluation of cross sections." However, the EWA agencies are

aware of geologic cross-sections developed by DWR and published in various documents (Butte County Water Inventory and Analysis Report (CDM 2001), Butte County Inventory Analysis (DWR 2005)). The 2004 EIS/EIR also makes reference to cross-sections developed by DWR (Figure 6-5). The EWA agencies are also aware that updated geologic sections were presented at the Groundwater Resources Association of California's 26th Biennial Groundwater Conference (September 2007). However, there is no publicly available publication of these geologic cross-sections.

It should be noted that the cross-sections (no matter which version is referenced) depict only geology and not hydrogeology. The cross-sections provide indications of groundwater hydrogeology, but they are not designed to indicate groundwater storage and transmission capabilities of the aquifer systems. Based on the information available regarding these cross-sections, the information presented in the 2004 EIS/EIR does not require changes.

The commenter also referenced an "M&T study" in the comment submittal. Based on correspondence with DWR ND (Dan McManus) the exact report title, author, and date are not clear.

Regarding the fifth bullet - The Regional and Agricultural Economics chapter in the 2004 EIS/EIR acknowledges that use of economic data from a larger baseline region tends to mask the effects of land idling on smaller, rural communities. Therefore, the analysis of economic effects was done at three levels: regional, county, and local. For the regional and county levels, the economic analyses relied on IMPLAN, a standard modeling tool, to estimate effects. The section also includes a local effects analysis to discuss effects that may not be clear from the larger regional analysis. The local effects analysis states that crop idling would adversely affect local agricultural business owners and employees. The analysis is qualitative because baseline economic data are not generally available for towns or rural communities. Under the EWA Program, the EWA agencies would not idle the same rice or cotton field for more than one year.

12-2

Comment: The document is inadequate without consideration of this new information as well as a discussion of standards of “significance” in rural communities. Yours is the burden of developing the research to scientifically investigate these looming questions affecting the sustainability of the EWA as it would be applied in this water source area.

Response: See response to Comment 12-1 regarding the relevance of the new existing conditions information as it applies to the impact analysis and significance of impacts. The groundwater mitigation measures and monitoring and reporting plan would ensure the sustainability of EWA transfers.

12-3

Comment: The Draft for the Monterey EIS/EIR is out for comment, and its acceptance or changes in its proposed operation will further impact the viability of the EWA as presented. The proposed actions to increase the water portfolio for out-of-basin water contractors may take an entirely different course.

Response: The Draft EIR for the Monterey Amendment to the State Water Project Contracts, including the Kern Water Bank Transfer and associated actions as part of a Settlement Agreement (Monterey Plus) was released at approximately the same time as this Supplement. However, the modeling for the EWA assumes full implementation of the Monterey Amendment, as the Amendments have been in place since 1996. Any change in the implementation of the Amendment would have no discernable impact on the EWA project description or impacts as analyzed in this document.

12-4

Comment: Considering these variables and questions, along with new water conservation technologies currently on the market please justify why there is not a level of significance which begs for a Draft "No Project" Alternative EIS/EIR for this and other Bay/Delta Projects. At the very least, the Environmental Water Account deserves a full investigation including the new information listed above.

Response: Based on the purpose and need, project objectives, and impact analysis, the EWA agencies have selected the Flexible Purchase Alternative as the environmentally preferable alternative. See response to Comment 12-1 regarding the relevance of the new existing conditions information.

13 – Public Hearings – Sacramento
SMUD – Paul Olmstead

13-1

Comment: In regards to the document that was presented for review, first of all, although power was noted as not having a significant impact in the evaluation of the environmental document, we do not see an evaluation it was dated as less than significant. We did not see what was that significance criteria, which identified as thus being significant.

Response: See response to Comment 8-2.

13-2

Comment: Although we recognize that's – the flexibility and the importance of the flexibility in the environmental account, we'd like to at least elaborate a bit on how the interaction with the environmental water account will be with the possible and expected future programmatic and project actions under the CVP.

Response: See response to Comment 5-3.

13-3

Comment: Another item – this is important – a third item is to assure in the future environmental water account program financing that costs are allocated to support the power functions like they have been in the past.

This was not elaborated on in the document. We certainly would like to see it in the record of decision to assure that we – those power allocations are supported, and your sister agency, Western Power Administration's ability to continue to do business is kept whole.

Response: See response to Comment 8-7.

13-4

Comment: And that leaves the third one, or the next one is that as the preference power customers we want to assure that the power function is made whole through EWA.

Response: The EWA agencies would be responsible to ensure that CVP power and CVP Preference Customers are not adversely affected by EWA operations.

13-5

Comment: The last item I'd like to bring up is a little interesting in complex, but it was pointed out in your document. You stated that irrigators may be allowed – will be allowed to have land go fallow, and then those irrigators will be paid monies for that water which will be used to support the EWA, and that's a great idea.

However, many of these irrigators in the ag community under CVP also fall under a certain division, which is called the "ability to pay." That is if they cannot pay their portion of capital now, and OEM operation costs under CVPIA, they are – those – obligations are waived. And what happens when those obligations are waived, the power community picks up that portion of the cost of CVPIA.

Therefore, if those irrigators, or if irrigators are given monies to fallow their land, that money is used, we'd like to have the Bureau of Reclamation track those irrigators, and maybe make a – our idea is we'd like to see that those irrigators have to help repay the cost of CVPIA under their obligations under CVPIA.

Response: See response to Comment 5-4.

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