MITIGATION MONITORING AND REPORTING PROGRAM

for the

YUBA COUNTY WATER AGENCY
PROPOSED EXTENSION PETITION FOR THE INTERIM INSTREAM
FLOW REQUIREMENTS UNDER
STATE WATER RESOURCES CONTROL BOARD
REVISED WATER RIGHT DECISION 1644

Prepared for



Prepared by



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Table of Contents

1.1	Introc	Introduction		
	1.1.1	Purpose and Objectives of the Mitigation Monitoring and Reporting Program	1	
	1.1.2	Project Location	1	
	1.1.3	Project Description	3	
	1.1.4	Summary of Project Purpose, Need, and Objectives	3	
	1.1.5	Responsible Parties	4	
1.2	Envir	onmental Protection and Mitigation Measures	4	
	1.2.1	Air Quality	6	
	1.2.2	Biological Resources – Fisheries and Aquatic Resources	7	
	1.2.3	Biological Resources – Terrestrial Resources (Wildlife and Vegetation)	8	
	1.2.4	Cultural Resources	9	
	1.2.5	Hydrology and Water Quality – Groundwater Resources	10	
1.3	Conse	ervation Measures	11	

1.1 Introduction

The California Environmental Quality Act (CEQA) requires that a public agency adopt a mitigation monitoring and reporting program for any project approved based on an Environmental Impact Report or a mitigated negative declaration (PRC § 21081.6). This program must ensure compliance with mitigation measures during project implementation. Agencies must adopt a program if they adopt findings, including mitigation measures, as a part of the project approval. The approving agency then has the discretion to decide whether it implements a reporting program, monitoring program, or some combination of both. A reporting program consists of written compliance review and guarantees that the approving agency is informed of compliance. A monitoring program consists of a project oversight process and guarantees that compliance is checked regularly.

Yuba County Water Agency (YCWA) is the lead agency and project proponent for CEQA compliance purposes. The California Department of Water Resources (DWR) is a CEQA responsible agency as a party to the "Amendment No. 1 to Agreement for the Temporary Transfer of Water from Yuba County Water Agency to the Department of Water Resources" (one-year water transfer agreement). For the proposed project, YCWA and DWR will be responsible for implementation of this Mitigation Monitoring and Reporting Program (MMRP).

1.1.1 Purpose and Objectives of the Mitigation Monitoring and Reporting Program

YCWA, as the lead agency, has developed this document to guide mitigation compliance prior to, during and after implementation of the proposed project, as required by CEQA. Project approvals include environmental protection and mitigation measures to minimize or eliminate potentially adverse impacts to the project area. These measures have been described in the Initial Study/Mitigated Negative Declaration (IS/MND).

Compliance monitoring and evaluation will be performed by either YCWA or DWR, as indicated in the description of each measure. The objectives of this MMRP are to provide the following:

Compliance requirements for the environmental protection and mitigation measures on which the proposed project was approved;

A reference document containing the environmental protection and mitigation measures involving operation of the proposed project;

A list of lead agency and responsible agency contacts; and

The timing of mitigation measure implementation.

1.1.2 Project Location

YCWA will release water from New Bullards Bar Reservoir and through Englebright Reservoir into the lower Yuba River in Yuba County to implement the 2007 Pilot Program Fisheries Agreement instream flow schedules and the 2007 water transfer to DWR. DWR will receive and convey YCWA transfer water in the Sacramento River and the Delta, and potentially may store a portion of the transfer water in San Luis Reservoir or groundwater banks south of the Delta (**Figure 1-1**).

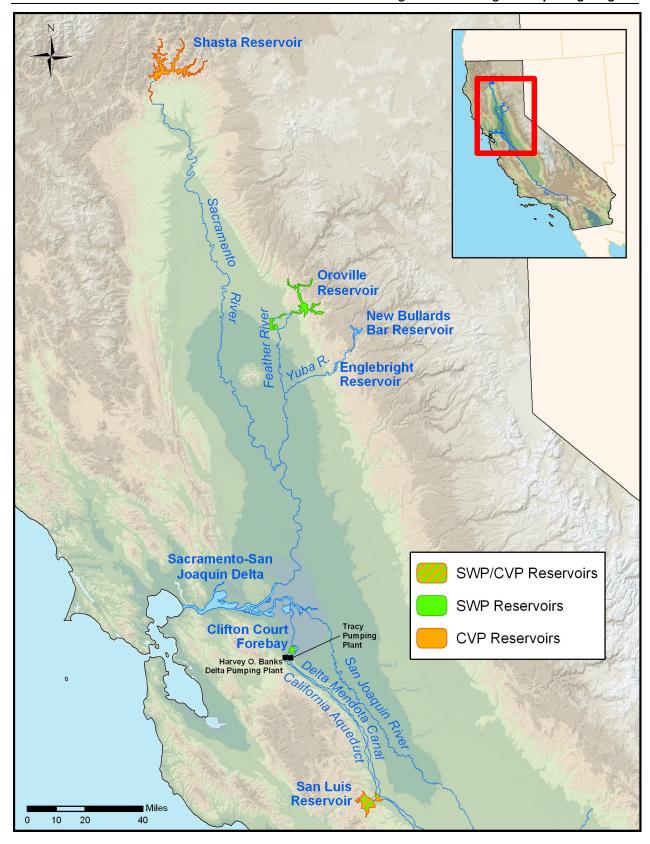


Figure 1-1. Project Area

1.1.3 Project Description

YCWA and DWR propose to conduct a one-year water transfer for 2007 in a manner that would serve as a "pilot program" for the Proposed Yuba Accord. The 2007 Pilot Program Fisheries Agreement specifies instream flows in the lower Yuba River for the period of March 1, 2007 through March 31, 2008. Implementation of the proposed project would result in YCWA's operation of the Yuba Project to meet the 2007 Pilot Program Fisheries Agreement instream flow schedules, resulting in the potential for DWR to acquire a maximum of 125,000 acre-feet of transfer water. Water released by YCWA would pass from New Bullards Bar Reservoir through Englebright Reservoir and over Daguerre Point Dam. New Bullards Bar Reservoir storage levels during the proposed project would remain within normal operating limits for the Yuba Project. YCWA would not change its historical practices of providing irrigation water to its Member Units, potentially including implementation of a groundwater substitution program. YCWA releases would flow from the lower Yuba River into the Feather River, and the Sacramento River, and downstream to the Delta. DWR would use the transfer water for environmental purposes in the Delta or would convey the water via the pumping plants at Clifton Court Forebay into conveyance channels. The acquired transfer water would then either be stored in San Luis Reservoir or transported through the California Aqueduct directly to groundwater storage banks or to state or federal water contractors pursuant to the provisions of the Environmental Water Account (EWA) Program.

1.1.4 Summary of Project Purpose, Need, and Objectives

The proposed project involves YCWA's submittal of a petition to modify the terms of YCWA's water right permits to change the effective date of RD-1644 long-term instream flow requirements from March 1, 2007 to April 1, 2008. Additionally, pursuant to Water Code §1725, YCWA and DWR propose to conduct a one-year water transfer for 2007 (March 2007 through December 2007). The proposed project includes the requested Extension Petition as well as the Transfer Petition that would enable implementation of the 2007 Pilot Program involving a one-year water transfer of up to 125,000 acre-feet of water from YCWA to DWR and changes in YCWA operations of the Yuba Project to meet the instream flow schedules of the 2007 Pilot Program Fisheries Agreement. The 2007 Pilot Program would provide YCWA revenue, assist DWR in meeting a substantial portion of the EWA Program asset acquisition goal for 2007, and provide both agencies with a forum to test key elements of the Proposed Yuba Accord.

DWR is a CALFED Project Agency responsible for administering the EWA Program, including banking, borrowing, transferring, selling, and arranging for the conveyance of EWA water supply and EWA assets. DWR and the Bureau of Reclamation (Reclamation) are responsible for seeking to acquire approximately 200,000 acre-feet of water on behalf of the EWA Program annually. DWR also acquires water for its annual Dry Year Water Purchase Program for use in the State Water Project (SWP) and Central Valley Project (CVP) service areas. If a portion of the YCWA transfer water is not needed for the EWA, then DWR may elect to use the water for the 2007 Dry Year Water Purchase Program.

Implementation of any 2007 water transfer by YCWA to DWR is subject to SWRCB approval of the Extension Petition. Because there is a low probability that the hydrological conditions in late 2006 and early 2007 will be such that any YCWA transfer water can be transferred to the DWR Dry Year Program in 2007, the IS/MND did not analyze such a transfer. If, because of the hydrological conditions that occur in late 2006 and early 2007, YCWA and DWR decide to pursue such a transfer, then YCWA will prepare a supplement to the IS/MND and file a supplemental petition or request to the SWRCB for approval of the transfer.

1.1.5 Responsible Parties

YCWA and DWR are responsible for implementation of the environmental commitments and mitigation measures identified in this MMRP. YCWA, as the CEQA lead agency, would be primarily responsible for MMRP elements that apply to the proposed one-year water transfer and that would occur in the Yuba River Basin. DWR, as a CEQA responsible agency for the proposed project, would be responsible for the MMRP elements that relate to the EWA Program.

Representatives of each agency are listed below:

Yuba County Water Agency

Mr. Curt Aikens General Manager Yuba County Water Agency 1402 D Street Marysville, CA 95901 (530) 741-6278

California Department of Water Resources

Ms. Delores Brown DWR Environmental Specialist Department of Water Resources 3251 S Street Sacramento, CA 95816 (916) 227-2407

1.2 Environmental Protection and Mitigation Measures

Environmental commitments are measures or practices adopted by a project proponent to reduce or avoid adverse effects that could result from project operations. The following sections describe the environmental commitments, including impact avoidance or mitigation measures that will be implemented by either YCWA or DWR to ensure no significant impacts result from the proposed 2007 Pilot Program, including the Extension Petition.

The identification of environmental commitments below includes those that are included as part of the EWA Program and would apply to the proposed one-year transfer from YCWA to DWR. The lead and responsible agencies have adopted these measures and incorporated them as part of the proposed project in compliance with applicable federal, state, and local policies or regulations that apply to the project activities. These measures will ensure that the proposed project will minimize or avoid potentially significant environmental impacts, to the extent feasible. These measures include YCWA monitoring commitments that were developed during the preliminary planning and design phases of the proposed project, and mitigation and monitoring commitments identified by DWR in the Final EWA Environmental Impact Statement/Environmental Impact Report (EIS/EIR) (Reclamation *et al.* 2004).

YCWA proposes to transfer water to DWR through implementation of the 2007 Pilot Program Fisheries Agreement instream flow schedules and changes in project operations, and possibly through groundwater substitution transfers. As discussed in the Draft IS/MND, the CEQA Environmental Checklist identifies the conditions under which a proposed project evaluation may rely upon an earlier analysis of potential impacts. An earlier analysis of a proposed project may be relied upon if the potential impacts were within the scope of the previous analysis, and the impacts were adequately addressed.

Reclamation, DWR, U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS) and California Department of Fish and Game (CDFG) (Reclamation *et al.* 2003) completed an environmental analysis of the EWA Program, including characterization of probable water transfer volumes from YCWA. EWA agencies acquire and manage assets to maximize benefits to at-risk native fish species, but asset management can change river flows,

Delta outflows and the amount of seasonal wetlands within agricultural areas. The manner in which EWA agencies apply, acquire, and manage assets will be monitored to ensure that EWA fisheries benefit objectives are met while potential adverse impacts to other species and their habitats because of EWA actions, are minimized or avoided. To address these considerations, compliance and effectiveness monitoring components (Mitigation Plan) were identified in the Final EWA EIS/EIR (Reclamation *et al.* 2004). Data associated with EWA monitoring efforts are used to support adaptive management decisions that could change how some assets are managed should the overall goals of the EWA Program related to fish species, habitats, and terrestrial species not be met. Because the EWA Mitigation Plan identified several environmental protection and mitigation measures related to the YCWA component of EWA acquisitions (e.g., proposed project), these EWA measures also have been incorporated into this MMRP, and are discussed below.

A summary of the environmental protection and mitigation measures described in this MMRP is provided in **Table 1-1**.

Table 1-1. Summary of Environmental Protection and Mitigation Measures Incorporated into the Proposed Project

	Mitigation Measure	Implementing Agency	Timing ¹				
AIR QUALITY							
1.2.1-1	Implement a no net increase air quality mitigation plan	YCWA/ Member Units	Monthly, if groundwater substitution operations occur				
BIOLOGICAL RESOURCES – FISHERIES AND AQUATIC RESOURCES							
1.2.2-1	Install and operate automated water temperature recorders in the lower Yuba River	YCWA	Continuous, year-round				
1.2.2-2	Conduct redd dewatering and fry stranding studies in the lower Yuba River	YCWA	As appropriate, during the Chinook salmon and steelhead adult spawning, embryo incubation, and juvenile rearing periods				
BIOLOGICAL RESOURCES – TERRESTRIAL RESOURCES (WILDLIFE AND VEGETATION)							
1.2.3-1	Monitor EWA-related water releases	DWR	Prior to, and during transfer				
1.2.3-2	Coordinate EWA actions with federal, state, other CALFED agencies and regional programs	DWR	Ongoing, and prior to transfer				
1.2.3-3	Comply with EWA-related reservoir drawdown provisions identified for San Luis Reservoir	DWR	Late summer and fall				
	CULTURAL RESOURCES						
1.2.4-1	Comply with EWA-related drawdown provisions for New Bullards Bar Reservoir	YCWA/ DWR	Prior to and after transfer				

2007 Pilot Program
Mitigation Monitoring and Reporting Program

Mitigation Measure		Implementing Agency	Timing ¹			
HYDROLOGY AND WATER QUALITY - GROUNDWATER RESOURCES						
1.2.5-1	Comply with EWA-related groundwater substitution provisions	YCWA/ DWR/ Member Units	Prior to, during and after transfer			
1.2.5-2	Prepare a Groundwater Monitoring and Reporting Plan	YCWA/ DWR/ Member Units	Prior to, during and after transfer			

The proposed project would be implemented from March 1, 2007 through March 31, 2008. However, the water transfer portion of the proposed project would only be implemented from March 1, 2007 through December 31, 2007.

1.2.1 Air Quality

Mitigation Measure 1.2.1-1: Implement a no net increase air quality mitigation plan (page 4-17 of the IS/MND).

Commitment: YCWA and the Member Units will implement a no net increase air

quality mitigation plan to ensure no significant or adverse impacts associated with groundwater substitution pumping would result

during the 2007 Pilot Program.

Responsible Parties: YCWA and the Member Units

Location: Project Area (Sacramento Valley Air Basin - Feather River Air

Quality Management District)

Timing: Monthly, if groundwater substitution operations occur

Monitoring: Verify that the water pumped for the 2007 Pilot Program will be

obtained from either: (1) electric-powered motors; or (2) diesel-powered motors operating according to an emission offset. YCWA will obtain readings from the groundwater pump flow meters through monthly site visits to the participating Member Unit wells during groundwater substitution operations of the 2007

Pilot Program.

Reporting Requirements: YCWA will note the type of power used for the groundwater

substitution operations pumping during the monthly site visits. Member Units utilizing a diesel-powered pump for the 2007 Pilot Program will be required to show that a diesel engine (likely a diesel-powered ditch pump) that normally would have been in use, instead is not being used, thereby providing an emission

offset.

Description of Activities: YCWA and the Member Units will undertake several activities

described in the no net increase air quality mitigation plan, including well inventories, estimating pumping capacity, and

assessing the adequacy of mitigated pumping capacity.

Effectiveness Criteria: Concentration levels of any state or federal criteria pollutants do

not increase due to implementation of the 2007 Pilot Program.

1.2.2 Biological Resources – Fisheries and Aquatic Resources

Mitigation Measure 1.2.2-1: Install and operate automated water temperature recorders in the lower Yuba River (page 13 of the 2007 Pilot Program Fisheries Agreement [Appendix A of Appendix 2 to the IS/MND]).

Commitment: YCWA will implement a water temperature monitoring and

reporting program that will consist of monitoring sites at a minimum of three locations in the lower Yuba River: (1) Smartville; (2) immediately upstream from Daguerre Point Dam;

and (3) Marysville.

Responsible Parties: YCWA

Location: Project Area (lower Yuba River)

Timing: Continuous, year-round

Monitoring: Record lower Yuba River water temperatures

Reporting Requirements: Annual report to the Chief of the Division of Water Rights

Description of Activities: Site visits will be conducted on a regular basis to offload data,

inspect recorders and perform maintenance, as required. YCWA will prepare an annual report that summarizes the results of water temperature monitoring for the previous water year at the specified locations. The monitoring report covering the previous water year will be submitted to the Chief of the Division of Water

Rights by December 31 of each year.

Effectiveness Criteria: Through communication with the Division of Water Rights and

other regulatory and management agencies (e.g., USFWS, NMFS, CDFG), use the reporting mechanism to determine whether current water temperature regimes provide adequate protection to

Chinook salmon and steelhead in the lower Yuba River.

Mitigation Measure 1.2.2-2: Conduct redd dewatering and fry stranding studies in the lower Yuba River (page 13 of the 2007 Pilot Program Fisheries Agreement [Appendix A of Appendix 2 to the IS/MND]).

Commitment: YCWA will implement the "Lower Yuba River Redd Dewatering and

Fry Stranding Monitoring and Evaluation Plan (November 2003)," which has been revised and updated based on resource agency input, following SWRCB approval of the March 2002 plan. The primary objective of the plan is to determine whether current flow fluctuation and reduction criteria adequately protect Chinook salmon and steelhead redds from dewatering and fry from

stranding or isolation.

Responsible Parties: YCWA

Location: Project Area (lower Yuba River)

Timing: During the Chinook salmon and steelhead adult spawning,

embryo incubation, and juvenile rearing periods (see Section

4.3.2.3 of the Draft IS/MND).

Monitoring: YCWA will monitor specific locations in the lower Yuba River,

> which have been identified through an evaluation of specific criteria, during flow fluctuation and ramping events to evaluate potential redd dewatering and fry stranding associated with

implementation of flow fluctuation and reduction criteria.

Reporting Requirements: A report will be submitted to the SWRCB, DFG, NMFS, and

USFWS following the completion of the plan.

Description of Activities: A report will be prepared to summarize the results of monitoring

> and evaluation tasks, agency coordination efforts, and any modifications to the plan that may be proposed in response to

new information.

Effectiveness Criteria: Through communication with regulatory and management

> agencies, use the reporting mechanism to determine whether current flow fluctuation and reduction criteria adequately protect Chinook salmon and steelhead redds from dewatering and fry

from stranding or isolation.

1.2.3 Biological Resources – Terrestrial Resources (Wildlife and Vegetation)

Mitigation Measure 1.2.3-1: Monitor EWA-related water releases (page 4-68 of the IS/MND).

Commitment: Monitor EWA-related water releases to ensure that EWA actions

> minimize or avoid potentially significantly impacts to the California red-legged frog and the foothill yellow-legged frog, as

described in the EWA EIS/EIR Mitigation Plan.

Responsible Parties: DWR

Location: Project Area

Timing: Prior to and during transfer

Monitoring: Monitor releases into the lower Yuba River

Reporting Requirements: No specific reporting requirements

Description of Activities: Releases will be monitored to ensure that the significantly higher

> flows associated with EWA actions do not occur for long periods of time. If significant adverse effects could occur, EWA agencies have committed to institute changes to quantities of water released through adaptive management processes to avoid or

minimize any adverse effects.

Effectiveness Criteria: Avoid or reduce significant impacts to the California red-legged

frog and the foothill yellow-legged frog.

Mitigation Measure 1.2.3-2: Coordinate EWA actions with federal, state, other CALFED agencies and regional programs (page 4-68 of the IS/MND).

Coordinate EWA actions with federal, state, other CALFED agencies and regional programs to avoid conflicts among management objectives for evaluated species, as described in the

EWA EIS/EIR Mitigation Plan.

Responsible Parties: DWR

Commitment:

Location: Project area

Timing: Ongoing, and prior to transfer

Monitoring: No specific monitoring requirements

Reporting Requirements: No specific reporting requirements

Description of Activities: EWA agencies coordinate with federal, state, other CALFED

agencies and regional programs regarding EWA actions

Effectiveness Criteria: Avoid or reduce significant impacts to evaluated species

Mitigation Measure 1.2.3-3: Comply with EWA-related reservoir drawdown provisions for San Luis Reservoir (page 4-71 of the IS/MND).

Commitment: Comply with San Luis Reservoir drawdown provisions identified

to minimize or avoid low point problems, as described in the

EWA EIS/EIR Mitigation Plan.

Responsible Parties: DWR

Location: Project Area (San Luis Reservoir)

Timing: Late summer and fall

Monitoring: No specific monitoring requirements

Reporting Requirements: No specific reporting requirements

Description of Activities: Manage EWA actions to prevent contributing to or aggravating

the low point problem

Effectiveness Criteria: Minimal impacts to reservoir drawdown levels affecting the low

point problem in San Luis Reservoir

1.2.4 Cultural Resources

Mitigation Measure 1.2.4-1: Comply with EWA-related drawdown provisions for New Bullards Bar Reservoir (page 4-75 of the IS/MND).

Commitment: Monthly mean water surface elevations in New Bullards Bar

Reservoir will not fall below the historic lower bound of 1,711 feet (ft) mean sea level (msl), as described in the EWA EIS/EIR

Mitigation Plan.

Responsible Parties: YCWA and DWR

Location: Project Area (New Bullards Bar Reservoir)

Timing: Prior to and after transfer

Monitoring: Monitoring of New Bullards Bar Reservoir water surface

elevations after the 2007 Pilot Program water transfer

Reporting Requirements: Inventory and evaluation of previously unsurveyed areas should

the 2007 Pilot Program cause New Bullards Bar Reservoir water surface elevations to decrease below the historic lower bound.

2007 Pilot Program

Mitigation Monitoring and Reporting Program

Page 9

Description of Activities: YCWA will monitor New Bullards Bar Reservoir water surface

elevations to ensure that they remain above the historic minimum water surface elevation (i.e., 1,711 ft msl). Water transfers that draw down surface elevations beyond historically low levels could result in a potentially significant effect, and in such cases, Reclamation would require inventory and evaluation of

unsurveyed areas.

Effectiveness Criteria: Maintain water surface elevations at or above 1,711 ft in New

Bullards Bar Reservoir

1.2.5 Hydrology and Water Quality – Groundwater Resources

Mitigation Measure 1.2.5-1: Comply with EWA-related groundwater substitution provisions (page 4-91 of the IS/MND).

Commitment: Adhere to the groundwater substitution provisions, including

well review, pre-purchase groundwater evaluation, and monitoring program development, identified in the EWA EIS/EIR

Mitigation Plan.

Responsible Parties: YCWA, DWR, and the Member Units

Location: Project Area (North and South Yuba groundwater subbasins)

Timing: Prior to, and after transfer, with an intermediate measurement

two months into the proposed project

Monitoring: Conduct well reviews to ensure that proposed production wells

meet well depth and water quality criteria.

Reporting Requirements: Record the water levels and water quality of the subbasins.

Description of Activities: YCWA, as the willing seller, will be required to establish

monitoring programs for EWA-related transfers, which will include groundwater well assessments and reviews. YCWA also will coordinate with Reclamation and DWR hydrologists during

program development, pursuant to EWA requirements.

Effectiveness Criteria: No decline in groundwater levels that could cause: (1) increased

groundwater pumping cost due to increased pumping depth; (2) decreased yield from groundwater wells due to reduction in the saturated thickness of the aquifer; (3) reduced groundwater in storage; and (4) decrease of the groundwater table to a level below

the vegetative root zone.

Mitigation Measure 1.2.5-2 Prepare a Groundwater Monitoring and Reporting Plan (page

4-93 of the IS/MND).

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Commitment: Adhere to the provisions of the YCWA/DWR Groundwater

Monitoring and Reporting Program described in Appendix C of Appendix 2 to the Draft IS/MND. As part of this program,

YCWA will prepare a Groundwater Monitoring Report.

Responsible Parties: YCWA, DWR, and Member Units

Location: Project Area (North and South Yuba groundwater subbasins)

2007 Pilot Program

Mitigation Monitoring and Reporting Program

November 2006

Page 10

Timing: Prior to, and after transfer, with an intermediate measurement

two months into the proposed project

Monitoring: Record groundwater level measurements in the North and South

Yuba subbasins before and after groundwater pumping associated with the proposed project. Measure electrical conductivity before and after pumping, and intermediately two months into the

proposed project.

In the event that groundwater levels fall below those that would have occurred in the absence of the water transfer, monthly monitoring will be implemented until the groundwater level

returns to the pre-pumping level.

Reporting Requirements: YCWA and DWR will report monitoring data every other month

and prepare a final summary report that evaluates the impacts of

the water transfer.

Description of Activities: YCWA and DWR will continue implementation of a Groundwater

Monitoring and Reporting Program to monitor groundwater level

fluctuations within the local pumping area.

Effectiveness Criteria: Groundwater transfers should not result in unmitigated third

party impacts or cause overdraft.

1.3 Additional Monitoring Measures

YCWA and DWR both participate in other activities and programs that serve to protect or enhance the natural environment within their respective project and service areas. These activities include YCWA and DWR involvement in lower Yuba River flow monitoring activities and annual adult salmonid escapement surveys. These activities do not serve as mitigation for the proposed project, but do assist in supporting fisheries management activities in the Yuba River Basin.

Monitoring Measure 1.3-1: Annual Adult Chinook Salmon Escapement Surveys

YCWA committed funds for CDFG to develop the "Lower Yuba River Chinook Salmon Escapement Survey Plan," and YCWA will fund implementation of this plan in 2007. The primary objective of this plan is to collect the appropriate data to estimate monthly, seasonal, and annual Chinook salmon escapement. Field data collection activities for the escapement survey will be conducted from approximately October through December. A data summary report that details methods and results will be prepared following the conclusion of the field survey.

Monitoring Measure 1.3-2: Yuba River Flow Monitoring

YCWA will continue to monitor lower Yuba River flows at the Smartville and Marysville gages.

1.4 References

Reclamation, DWR, USFWS, NMFS, and CDFG. 2004. Environmental Water Account Final Environmental Impact Statement/Environmental Impact Report. Prepared by Camp Dresser & McKee and Surface Water Resources, Inc. State Clearinghouse No.1996032083.