Chapter 7
Monitoring, Adaptive Management, and other Disclosures

7.1 Monitoring Program

The EWA program involves acquiring assets through stored reservoir water purchase, groundwater substitution, stored groundwater purchase, and crop idling actions. EWA agencies will manage the assets to maximize benefits to at-risk native fish species, but asset management can change river flows and Delta outflows, and also 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 fish benefit objectives are being met while minimizing or avoiding adverse effects to other species and their habitats due to EWA actions. The monitoring program will include both compliance and effectiveness monitoring. Data collected and reviewed under EWA monitoring efforts will be 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. EWA agencies will document compliance with FESA, CESA, and NCCP in the BO's and NCCP Determination prior to implementation of the EWA Proposed Action.

The EWA agencies will complete a Monitoring Plan before implementation of 2004 water purchases. An EWAT Monitoring Subteam will be responsible for implementation of the Monitoring Plan.

7.1.1 Responsibilities

Agency Responsibilities

The responsibilities of each agency may include data collection, analysis, interpretation, findings, and recommendations for changing EWA water asset acquisition and management strategies. The EWA agencies will establish the EWAT Monitoring Subteam who will manage the EWA Monitoring Plan.

EWA agencies will be responsible for including conservation measures in the water purchase contracts with willing sellers as outlined in this document so that the sellers would know their responsibilities in the water transfer action.

Monitoring for compliance with the conservation measures will also be the responsibility of the EWA agencies. The EWA agencies will confirm through field visits and aerial photography that the land idled as part of a fallowing contract action is consistent with the purchase contract. EWA agencies will verify in the field that the willing seller is adhering to conservation measures for maintenance of irrigation ditch habitat and adequate return ditch flows. EWA agencies will seek appropriate remedies if water agencies fail to meet their contractual obligations.

Water Agency/Willing Seller Responsibilities
Water agencies and/or willing sellers may participate in monitoring efforts related to asset management actions involving their facilities or land within their districts. The EWA Monitoring Plan will address the responsibilities and involvement of these parties related to overall EWA monitoring efforts.

7.1.2 Monitoring Plan Development

The initial steps of the monitoring plan development will be the identification of specific data requirements for effects and compliance determination, the identification of existing data collection programs that can provide the data, and the development of new monitoring efforts for locations where monitoring is not currently occurring.

The monitoring plan will address data collection, analysis, and implementation activities necessary to demonstrate EWA effects on aquatic and terrestrial resources. Upon completion of the assessment of existing programs and the identification of new monitoring efforts, the EWA agencies will complete a Monitoring Plan that will include, at least, the following sections:

- Data requirements and the actions necessary to satisfy those data requirements;
- Data assessment methods;
- Compliance and performance measures;
- Monitoring strategy;
- Implementation process and schedule;
- Responsibilities of the EWA agencies and the water agency/willing seller;
- Reporting requirements; and
- Monitoring Plan review and adaptive management processes.

7.1.3 Monitoring Plan Implementation

The EWAT Monitoring Subteam will be responsible for ensuring that all aspects of the Monitoring Plan are implemented.

The EWAT Monitoring Subteam will review and assess monitoring data as necessary to evaluate EWA action effects. The EWAT Monitoring Subteam will assess each proposed EWA action relative to Baseline conditions in making recommendations to the EWAT for any change in asset acquisition and management strategies.

7.1.4 EWA Monitoring Program Review

The EWA monitoring program will be subject to an annual review by peers with knowledge of the Bay-Delta system and its tributaries. This can be accomplished

through the CALFED Science Program. The purpose of the review would be to allow for independent evaluation of EWA monitoring efforts that would also allow for the development of independent recommendations regarding future EWA asset management actions. The EWAT Monitoring Subteam will be responsible for incorporating suggested changes into the monitoring studies as provided by the independent review.

7.2 Adaptive Management

The August 28, 2000, CALFED Bay-Delta Program PEIS/EIR and ROD described an EWA as a 4-year program that could be extended by written agreement of the participating agencies. The CALFED science panel will be one of the entities responsible for reviewing the EWA program at the end of the four years. In addition to this review, the CALFED program includes annual conferences and symposia for analyses of population trends and recovery. It is expected that the scientific reviews of EWA actions and effects will provide recommendations for changes both to the EWA and for the ongoing monitoring efforts related to the EWA. Therefore, the expected decision to continue EWA in 2007 would also include the recommended changes.

The EWA agencies, in consultation with other CALFED agencies, may need to amend or modify the Monitoring Plan as information is developed on actions, implementation, and biological monitoring and research. The following elements may change during the four-year life of the EWA Program:

- The EWA program description;
- Implementation status of other CALFED agency actions;
- Species status relative to goals, or other biological information that results from research and monitoring (including new listings and delistings);
- Species found to be affected by CALFED agency actions;
- Exceedance of incidental take allowed in biological opinions; and
- Prescriptions for achieving “R” and “r” species goals.

Changes in these elements may result in reinitiation of consultation on the EWA Program. Conservation measures do not necessarily have to be modified when new information becomes available, but USFWS, NOAA Fisheries, and CDFG, in consultation with the EWA agencies, may do so when necessary and appropriate. If necessary, conservation measures could be amended to include additional avoidance, minimization, and compensation or restoration measures, species or habitat monitoring, or completion of research needed to meet species goals.

7.3 Funding

This document assumes that during the period reviewed (2004-2007), the EWA agencies' water acquisitions and monitoring plan will be funded by the State and federal governments, however, funding is contingent upon the appropriation of funds. The initial acquisition of assets for the EWA actions is being made by federal and State agencies (Reclamation and DWR). In future years it is anticipated that acquisitions of assets may involve participation of third parties.

7.4 Assurances to Landowners

At a minimum, the following assurances will be included in the cooperating landowner commitments:

- Land Use Classification – EWA agencies will not implement EWA actions or associated conservation measures that will change the land use classification of any land where EWA actions may occur.

- Monitoring – Monitoring and site-specific surveys will be carried out in cooperation with the water agency and local landowner.

Additional landowner assurances may be included in each individual cooperating landowner commitment, depending upon site-specific requirements.

7.5 Assessment of Cumulative Effects

The impact analysis performed for the Proposed Action (the Flexible Purchase Alternative) was based on the maximum quantity of water that any agency, including the EWA agencies, could acquire upstream of the Delta via either surface water purchase, crop idling, groundwater substitution, or groundwater purchase. This limitation represents the maximum quantity of water that is likely to be moved through the Delta in any one year. The water acquisition strategy of the EWA agencies is to employ the conservation measures stated in this ASIP and to assess water acquisition efforts of other agencies before committing to water purchases for the current year. Through the use of the conservation measures and water acquisition program assessments, the EWA agencies would avoid any cumulative effect by not making water acquisitions that lead to a significant adverse effect.

The Draft EWA EIS/EIR contains descriptions of the other water acquisition programs and CALFED agency actions included in the cumulative effects analysis. The EWA agencies will work together in a collaborative process to review the water acquisition plans for all water transfer programs to ensure that there are no cumulative effects on MSCS covered fish and terrestrial species or their habitats.

7.6 Other Alternatives Evaluated

The CALFED ROD for the PEIS/EIR identified the EWA as one element of the CALFED Bay-Delta Program. The CALFED Program's primary objective is to restore the Bay-Delta ecosystem and improve water quality and reliability for the state's

water users. Developing the alternatives for the CALFED PEIS/EIR involved a lengthy and inclusive public process that identified problems, objectives, actions, strategies, and alternatives, and culminated in a preferred alternative. The process identified 50 categories of actions that would resolve Bay-Delta problems and achieve Program objectives. The categories were drawn from existing literature; participation from CALFED agencies and the Bay Delta Advisory Council; and numerous workshops with stakeholders and the general public. The CALFED ROD for the PEIS/EIR included the EWA as one element in the preferred alternative.

The element of the CALFED ROD that the EWA program is intended to address is the protection and recovery of at-risk native fish species in the Delta through the use of a water acquisition and management strategy that includes no uncompensated water cost to the CVP and SWP water contractors. The strategy involves EWA agencies acquiring water (EWA assets) that can be use to replace project water whose deliveries were curtailed when Delta pumping was reduced to protect fish species. Acquiring of water assets also allows EWA agencies to initiate additional beneficial fish actions without interrupting water supplies.

DWR implemented the EWA in 2001 in accordance with the CALFED ROD and Operating Principles. Reclamation joined in with EWA asset acquisitions in 2002. Because the PEIS/EIR did not address EWA actions fully, an EIS/EIR on the EWA actions – tiered from the PEIS/EIR - was deemed necessary. The preparation of the EWA EIS/EIR allows for reevaluation of actions described in the ROD and of other potential alternatives to the actions described in the ROD.

In addition to the No Action/No Project Alternative, the EWA Draft EIS/EIR evaluates two action alternatives. The first action alternative is a "strict" interpretation of the ROD that could limit the quantities of water EWA agencies could acquire and the second is a "flexible" interpretation of the ROD that could allow greater acquisition and management quantities and potentially more fish benefits. The "strict" interpretation of the ROD has been termed the "Fixed Purchase Alternative" and the "flexible" interpretation the "Flexible Purchase Alternative". Each alternative employs a different acquisition strategy with the Flexible Purchase Alternative allowing for the purchase of greater quantities of water to address fish protection and recovery needs.

As part of development of the alternative details, other actions were assessed in relation to their ability to meet the purpose and need of the EWA program. The development of alternatives presented in the Draft EIS/EIR was an iterative and collaborative process involving representatives from Reclamation, DWR, USFWS, NOAA Fisheries, CDFG, and other CALFED agencies. This interagency team worked together to interpret the CALFED ROD definition of the EWA while fully considering a range of possible EWA alternatives. The purpose and need statement contained in the Draft EWA EIS/EIR formed the basis for the determination and evaluation of alternatives. Because none of the other alternatives could be immediately

implemented to address the EWA purpose and need, only the fixed and flexible purchase EWA strategies were subject to detailed effects analyses in the EIS/EIR. Because the EWA agencies have identified the flexible purchase alternative as the preferred alternative, this ASIP addresses the flexible purchase alternative as the proposed action.