



County of Yolo

PLANNING AND PUBLIC WORKS DEPARTMENT

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To: Readers of the Final Supplemental Program/Project-Level Environmental Impact Report

From: Linda Fiack, EIR Project Manager
Resource Manager, County of Yolo Planning and Public Works Department

Subject: Environmental Review of the Cache Creek Resources Management Plan and the Cache Creek Improvement Program for Lower Cache Creek

The County of Yolo's Planning and Public Works Department (the County) has prepared the attached Final Supplemental Program/Project-Level Environmental Impact Report (SEIR) under the California Environmental Quality Act for the Cache Creek Resources Management Plan and the Cache Creek Improvement Program. This SEIR is an informational document, the purpose of which is to inform public agency decisionmakers and the public of the environmental effects of the CCRMP and CCIP on Cache Creek since implementation. The proposed project is the continued implementation of the CCRMP, via the CCIP, along a 14.5-mile reach (approximately 2,324 acres) of Lower Cache Creek, extending from the Capay Dam, downstream to a levied section of the creek near the town of Yolo. The County determined that the review and updating of the information provided in the 1996 EIR is necessary prior to the County seeking new permits from the U.S. Army Corps of Engineers, Central Valley Regional Water Quality Control Board, and California Department of Fish and Game. The re-issuance of these permits would continue the streamline permitting process for channel improvement and habitat restoration projects in the project area, and the County would continue to have authority to approve projects that are consistent with the provisions of the CCRMP and CCIP.

On **July 11, 2002**, the Final SEIR, the Draft SEIR, and comments on the Draft SEIR will be presented to the Yolo County Planning Commission for consideration to recommend that the SEIR should be certified compliant under CEQA by the Yolo County Board of Supervisors (the Board). The Planning Commission meeting will be held at the **Yolo County Board of Supervisors Chambers at 625 Court Street** in Woodland. This project is scheduled to be addressed on the Planning Commission agenda at **9:00 a.m.**

The SEIR will then be presented to the Board (the decision-making body of the Lead Agency) for final certification. Upon certification, the Board will consider the SEIR for project approval or denial. The decision is anticipated to be determined by the Board by end of summer 2002.

The Final SEIR is available at the following repositories for review:

Project Repositories

Yolo County Planning and Public Works Department 292 W. Beamer Street Woodland, CA 95695	Woodland Public Library 250 1 st Street Woodland, CA 95695	Yolo Branch Library 37750 Sacramento Street Yolo, CA 95697
	Esparto Library 17065 Yolo Ave. Esparto, CA 95627	Davis Branch Library 15 East Fourteenth Street Davis, CA 95616

**CACHE CREEK RESOURCES MANAGEMENT PLAN AND
CACHE CREEK IMPROVEMENT PROGRAM
FINAL SUPPLEMENTAL PROGRAM/PROJECT-LEVEL EIR**

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1.0 INTRODUCTION

This document constitutes the Final Program/Project-Level Supplemental Environmental Impact Report (Final SEIR) for the Cache Creek Resources Management Plan (CCRMP) and Cache Creek Improvement Program (CCIP) for Lower Cache Creek.

1.1 CONTENTS OF THE FINAL SEIR

CEQA Guidelines (§15132) specify the required contents of a Final EIR. Table 1-1 shows how this Final SEIR complies with those requirements.

Table 1-1 Contents of Final SEIR

CEQA Guidelines (§15132) Require that the Final EIR include:	Final SEIR Contents
(a) The Draft EIR or a revision of the draft.	The Draft SEIR is incorporated by reference into this Final EIR, but the bulk of the analysis included in the Draft EIR will not be re-printed. Chapter 2.0 provides a summary of changes to the Draft SEIR.
(b) Comments and recommendations received on the Draft EIR either verbatim or in summary.	All comments are reproduced in their entirety in Chapter 4.0 (Comment Letters).
(c) A list of persons, organizations, and public agencies commenting on the Draft EIR.	Table 3-1 list all persons, organizations, and public agencies who commented on the Draft EIR.
(d) The responses of the Lead Agency to significant environmental points raised in the review and consultation process.	Sections 3-1 through 3-2 present the responses to all comments on the Draft SEIR.
(e) Any other information added by the Lead Agency.	Appendix A is provided to document the updated Mitigation Monitoring Plan, and Section G summarizes the public involvement program carried out for this EIR.

This Final SEIR is organized as follows:

- 1.0 Introduction
- 2.0 Changes to the Draft SEIR
- 3.0 Responses to Comments
- 4.0 Comment Letters
- Appendix A Updated Mitigation Monitoring Plan

1.2 PROPOSED PROJECT

The SEIR is an informational document, the purpose of which is to inform public agency decision-makers and the public of the significant environmental effects of the CCRMP and CCIP on Lower Cache Creek since implementation in 1996. The County is seeking new permits from the U.S. Army Corps of Engineers (Corps), Central Valley Regional Water Quality Control Board (CVRWQCB), and California Department of Fish and Game (CDFG). The proposed project is the continued implementation of the CCRMP, via the CCIP, along a 14.5-mile reach (approximately 2,324 acres) of Lower Cache Creek, extending from the Capay Dam, downstream to a levied section of the creek near the town of Yolo.

1.3 PUBLIC PARTICIPATION

The Draft SEIR was published on April 30, 2002. The County held a public review period for 45 days, which ended on June 14, 2002. The Draft SEIR was distributed by the County and through the State Clearinghouse to the various responsible agencies and members of the public. Copies of the document were also made available at the counter of the County's Planning and Public Works Department and at the following project repositories: Woodland Public Library, Yolo Branch Library, Esparto library, and Davis Branch Library. A Notice of Release (NOR) of the Draft SEIR was mailed to an extensive mailing list comprised of agencies, community groups, adjacent landowners, and members of the public. The NOR included information on how to review and obtain copies of the Draft SEIR. On June 13, 2002, interested parties had the opportunity to make public comment on the Draft SEIR at the Yolo County Planning Commission meeting. The Planning Commission agenda, which included information on the time and place of the public hearing, was mailed to the same recipients of the NOP and NOR.

1.4 DECISION PROCESS

The Final SEIR, the Draft SEIR, and comments on the Draft SEIR will be presented to the Yolo County Planning Commission for consideration to recommend that the SEIR should be certified compliant under CEQA. The SEIR will then be presented to the Yolo County Board of Supervisors (the decision-making body of the Lead Agency) for final certification. Upon certification, the Yolo County Board of Supervisors will consider the SEIR for project approval or denial. The decision is anticipated to be determined by the Yolo County Board of Supervisors by end of summer 2002.

2.0 CHANGES TO THE DRAFT SEIR

This section presents changes to the Draft SEIR in response to comments during the public review period. Responses to comments are presented in Chapter 3.0 and comment letters are presented in their entirety in Chapter 4.0. Text removed from the Draft SEIR is indicated by ~~strikeout (old text)~~. Added text is indicated with underlines (new text). All changes to the Draft SEIR, specifically revised and new mitigation measures, are reflected in Table 2-1 (revised Table 2-2 of the Draft SEIR) provided at the end of this chapter. Rather than update the Summary of Impacts and Mitigation Measures tables provided at the end of each issue area chapter of the Draft SEIR, the information provided in Table 2-1 of this Final SEIR overrides all previous Summary of Impacts and Mitigation Measures tables published in the Draft SEIR.

The following text revisions are shown in the order in which they appear in the Draft SEIR (i.e., by page number). The specific comment to which the changes respond is indicated in parentheses.

Page 4.2-17, Chapter 4.2 Biological Resources (Text Update)

SEIR Mitigation Measure 4.2-5: It is recommended that ~~this Performance Standard (4.5-19)~~ be modified to read “Low weirs may be installed, outside of the low-flow channel, to provide shallow pools for encouraging the establishment of riparian vegetation. When establishing shallow pools outside of the low flow channel, but within the floodplain of Cache Creek, the County shall coordinate with the California Department of Fish and Game to minimize the potential for native fish species mortality.” ~~amended to minimize the potential for native fish species mortality and satisfy the CDFG requirement that any plans that may impede fish migrations be approved by Department engineers.~~

Pages 4.2-19 and 4.2-20, Chapter 4.2 Biological Resources (Comment A-1)

Performance Standard 4.5-20 ~~The in-channel area located west of the Capay Bridge is the highest priority for tamarisk elimination. Weed control shall begin within the first year after ground disturbance in order to prevent tamarisk from out-competing native vegetation. Chemical control is preferred, since dying trees keep soil in place and retain moisture, encouraging the growth of other species. Options include, but may not be limited to: Rodeo, 4 Roundup, and Garlon 3A. Rodeo is low in toxicity, does not persist in the soil, and is labeled for aquatic use. Chemicals should be applied to freshly cut stumps and must cover the entire cambium layer. Cut plants should be removed from the channel and either disposed of or burned. Cutting and chemical treatment is most effective during November through January, when the plant is entering dormancy. Application should be repeated to control shoots growing from root systems. All chemical spraying must be done by a certified herbicide applicator.~~

tamarisk removal commenced in October of 2001 and the reach from the Harrison property to the Dewey property was completed in November of 2001. The remaining properties between County Road 94-B and the Dewey property (with the exception of the Kerr property) are scheduled to be completed in 2002. ~~The portion from County Road 94B to the Dewey property was completed between October and December, with the exception of the Bloodworth, Plocher and Kerr properties. The Plocher and Bloodworth properties are scheduled to be completed in 2003.~~ The tamarisk removal area west of Capay Bridge identified in Performance Standard 4.5-20 is no longer a high priority area due to scour caused by storm events and erosion caused by subsequent high flows. In addition, the suggested schedule for tamarisk removal is outdated since new chemicals used for tamarisk control require foliage treatment between the months of July and November. The new chemicals currently being used for

tamarisk control include Round-up pro, Aqua Master, and Stalker. Performance Standard 4.5-20 in conjunction with SEIR Mitigation Measure 4.2-8 adequately addresses these updates.

Performance Standard 4.5-21 Giant reed shall be removed from areas of high flow velocity, especially within the channel area located west of the Capay Bridge. The most effective control is the chemical application of Rodeo during March and April. Optimum results are achieved with total spray coverage, although Rodeo may be sprayed at full strength on stumps that are cut as close to the ground as is practicable. Alternatively, reed may be sprayed with follow up removal of the dead plants. All cut plants should be either disposed of or burned. Applications should be repeated to treat shoots that resprout. All chemical spraying must be done by a certified herbicide applicator.

The area reach of Cache Creek west of the Capay Bridge, heavily infested with tamarisk and Arundo, was completely scoured and the tamarisk and Arundo were completely exotic species removed during 1998 flood events in 1998. Therefore, this area is no longer considered a high priority area for exotic plant removal. New herbicides and new technology in tamarisk and Arundo control have resulted in a timing change for spraying applications from November through January for Arundo or to July for tamarisk through the first frost (November). The new herbicides (e.g. Aqua Master) are safe for aquatic uses (e.g. marsh areas).

SEIR Mitigation Measure 4.2-8: It is recommended to continue to use new the most recent technology for tamarisk and Arundo removal, that includes a combination of mulching and spraying controls. Per new The latest technology in tamarisk and Arundo removal includes techniques, spraying herbicides from the period beginning in April for Arundo and July for tamarisk through the "first frost" (November). Arundo control involves application of Round-Up (away from water) or Aqua Master (near water) during March and April. Applications should be repeated to treat shoots that resprout when re-growth is approximately 4-feet tall and 60% of the original stem density. All chemical spraying must be done by a certified herbicide applicator. All cut plants should be either disposed of or burned. Monitor and map the success of the tamarisk and Arundo removal efforts. Monitoring and mapping should be coordinated with the Yolo County Weed Management Area efforts.

Page 4.2-30, Chapter 4.2 Biological Resources (Comment B-3)

Performance Standard Action 4.4-4 Coordinate with the Cache Creek Conservancy , the H.A.W.K. program, the Yolo County Flood Control and Water Conservation District, the California Department of Fish and Game, and the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers to ensure that habitat restoration projects proposed by these and other entities are consistent with the Cache Creek Resources Management Plan Restoration plans shall compliment preservation and enhancement measure in the Yolo County Habitat Conservation Program.

SEIR Mitigation Measure 4.2-12a: The text of Performance Standard 4.4-4 shall be replaced with the following text: "Coordinate with the Cache Creek Conservancy, the Yolo County Flood Control and Water Conservation District, the California Department of Fish and Game, the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, and all other appropriate agencies to ensure that habitat restoration projects proposed by these and other entities are consistent with the Cache Creek Resources Management Plan. Restoration plans shall compliment preservation and enhancement measures in the Yolo County Habitat Conservation Program."

Page 4.2-33, Chapter 4.2 Biological Resources (Comment B-4)

SEIR Mitigation Measure 4.2-13: Establish a “safe harbor” agreement between resource agencies and local farmers to encourage the creation of new wildlife habitat on agricultural lands within the Planning Area. Also evaluate the feasibility of land easements as an alternative to the “safe harbor” strategy on private property within the Planning Area. The Yolo County Resource Manager for the CCRMP and CCIP should coordinate the development of any “safe harbor” initiative with all appropriate agencies to explore opportunities for broadening the program and its benefits.”

Page 4.3-14, Chapter 4.3 Geology and Soils (Text Update)

As per the 2001 Surface Mining Inspection Reports, all mining operations are incorporating appropriate erosion control measures via stabilization. ~~As per the April 7, 1999 Planning Commission Staff Report, the County was preparing bids to lease the Yolo County Mining Operation site as a stockpile storage area.~~ Reclamation at the site began in March of 2002. The lessee would be expected to complete final reclamation. No active mining is occurring at this site; however, exposed soils are subject to mechanical erosion processes via wind and water (Yolo County Planning and Public Works Department, 1999a). Mitigation measure 4.3-6 is recommended to mitigate potential significant impacts to the Planning Area via erosion to a less than significant level until final reclamation of the site occurs.

SEIR Mitigation Measure 4.3-6: ~~Until an agreement has been obtained for the reclamation of the “Idle” Yolo County Mining Operation, the site~~ Reclamation at the site has begun. It should be revegetated at a minimum to limit wind and water erosion and potential sedimentation.

Page 4.4-6, Chapter 4.4 Groundwater (Comment E-5)

~~SEIR Impacts~~

~~The following impacts are addressed as they relate to activities within the Lower Cache Creek Planning Area.~~

~~SEIR Impact 4.4-1: Potential Impacts to Groundwater Levels, Rate of Flow, and Direction of Flow~~

~~All aforementioned mining companies, with the exception of Granite (Capay), demonstrate that proposed off-channel excavations extending below the groundwater level do not adversely affect the producing capacity or water quality of local active wells. The mining companies in compliance have either identified that other supply wells are not within 1,000 feet of their operations or conducted groundwater modeling to verify that their operations are in compliance with the OCMP. However, the 2001 Surface Mining Inspection Report identified that the Granite Phase 4 wet pit mining has not commenced and may cause an impact (significant) to an agricultural well located north of the proposed pit (Yolo County Planning and Public Works Department, 2001a). Granite must comply with OCMP Action 3.4-5 to avoid potential impacts to the Planning Area.~~

~~SEIR Impact 4.4-2: Loss of Aquifer Storage Due to Evaporation~~

~~Yolo County experiences the majority of its annual precipitation from November until April. The remaining months are dry with the hottest temperatures during the summer months. Evaporation and evapotranspiration rates increase during these hotter periods. The County indicates evaporative losses from wet pit lakes in the Planning Area to be approximately 3.92 feet per year and evapotranspiration losses for crops to be between 0.95 feet per year to 3.64~~

~~feet per year. As part of the Development Agreements and as indicated by the 2001 Surface Mining Inspection Reports, all mining companies are to address the creation of islands for wildlife habitat. The introduction of riparian vegetation could reduce evaporation rates; however, the type of vegetation needs to be carefully selected so as not to cause high evapotranspiration rates.~~

~~*SEIR Mitigation Measure 4.4-2:* The TAC biologist and hydrologist shall coordinate to select appropriate vegetation that is suitable for intended habitat planning within the CCRMP Planning Area, as well as aiding in reducing evaporative rates, while maintaining low evapotranspiration rates.~~

~~**SEIR Impact 4.4-3: Potential Impacts Associated with Inundation of Dry Pits or Lowered Reclaimed Surfaces by High Groundwater Conditions**~~

~~As part of their Development Agreements, all mining companies are to implement a well monitoring program for all ongoing projects. Compliance with the Development Agreements would avoid potential impacts associated with Inundation of Dry Pits or Lowered Reclaimed Surfaces by High Groundwater Conditions (Yolo County Planning and Public Works Department, 2001a through 2001e). All aforementioned mining companies, with the exception of Granite (Capay), demonstrate that proposed off channel excavations extending below the groundwater level do not adversely affect the producing capacity or water quality of local active wells. The mining companies in compliance have either identified that other supply wells are not within 1,000 feet of their operations or conducted groundwater modeling to verify that their operations are in compliance with the OCMP. However, the 2001 Surface Mining Inspection Report identified that the Granite Phase 4 wet pit mining has not commenced and may cause an impact (significant) to an agricultural well located north of the proposed pit (Yolo County Planning and Public Works Department, 2001a). Granite must comply with OCMP Action 3.4-5 to avoid potential impacts to the Planning Area.~~

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~~As part of their Development Agreements, all mining companies are to implement a well monitoring program for all ongoing projects. Compliance with the Development Agreements~~

~~would avoid potential impacts associated with Inundation of Dry Pits or Lowered Reclaimed Surfaces by High Groundwater Conditions (Yolo County Planning and Public Works Department, 2001a through 2001e).~~

Page 4.5-38, Chapter 4.5 Hydrology (Comment C-1)

C. Use the information developed from the HEC-6 and HEC-2 models, along with appropriate local scour analysis techniques, to assess the level of risk to bridges, utilities and other channel infrastructure of failure or exposure by scour. Individual projects with the potential for affecting bridge scour or hydraulic capacity shall be required to submit hydraulic and scour analyses for review and approval by the County. County review shall include providing a copy of the analysis to the agency responsible for the potentially-affected bridges (for instance Caltrans), and consideration of comments by the responsible agency.

Page 4.5-39, Chapter 4.5 Hydrology (Comment A-2)

SEIR Mitigation Measure 4.5-2: The County shall evaluate Muskingum and/or Modified Puls hydrologic stream-routing parameters, used by the U.S. Army Corps of Engineers, in developing the design discharge for the possible Woodland flood control project currently being evaluated, and ~~take~~ use these routing parameters to develop floodplain encroachment guidelines, taking into account probable cumulative effects, for ~~into~~ consideration when reviewing projects that may have an effect on downstream discharge through removal of floodplain storage areas. A stream routing shall be performed once every five years to monitor the cumulative effects of development and to adjust encroachment guidelines as necessary.

Page 4.6-21, Chapter 4.6 Water Quality (Comment A-5)

~~Locations along the Creek below County Road 94B that provide public access could be potential areas of concern for exposure to elevated coliforms and likely associated pathogens. These locations include: Capay, Esparto, Stevens and I-5 bridges, Cache Creek Nature Preserve, or wherever there is the potential for children and adults to enter the creek. The Conservancy staff discourages recreational contact with Cache Creek waters in the Project Area. This preventive measure is important to mitigate any impact.~~

Page 4.6-36, Chapter 4.6 Water Quality (Comment E-9)

SEIR Impact 4.6-1: Groundwater Pollution

~~There are groundwater quality issues associated with in channel projects near Cache Creek mining activities related to groundwater recharge. Groundwater recharge contains potentially significant levels of chemical constituents that could be adverse to the use of groundwater for domestic, industrial and agricultural purposes.~~

Since Cache Creek recharges groundwater along some of its length in the Planning Area, there is the potential for constituents from projects implemented under the CCRMP and CCIP in the Creek waters to pollute the groundwater in adjacent areas. This issue is of the greatest concern for those who may use shallow wells near the Creek as a domestic water supply. While the characteristics of the shallow groundwater in domestic water supply wells have not been investigated in this study, there is a potential for herbicides used as a means of vegetation control for habitat restoration projects under the CCIP to pollute groundwaters in the Planning Areas. This pollution could in turn pollute a domestic well that draws water near the Creek.

The Yolo County Public Health Department, Division of Environmental Health, is responsible for the regulation of domestic water supplies, wells, and liquid discharges, as outlined in the Yolo County Code §6-8.101 to 6.8-301 (Water Quality). Proposed projects under the CCRMP and CCIP within close proximity to an existing well would be subject to such regulation if impacts occur. ~~Impacts to groundwater from herbicides are considered a less than significant impact with appropriate implementation of Mitigation Measure 4.6-2, below.~~

~~**SEIR Mitigation Measure 4.6-2:** Domestic wells within one half mile of projects under the CCRMP and CCIP shall be, as required by the Yolo County Health Department, Division of Environmental Health.~~

Page 4.6-37, Chapter 4.6 Water Quality (Comment E-5 and E-11)

~~**SEIR Impact 4.6-2: Impacts to groundwater quality and Cache Creek water quality from mining operations**~~

~~At this time, the County groundwater monitoring program does not adequately detect changes in groundwater quality associated with recharge constituents before significant pollution of the aquifers occurs. §10-4.417 of the County's Off-Channel Surface Mining Ordinance 1190 presents the groundwater monitoring program requirements.~~

~~The groundwater monitoring program under the Ordinance is only required if the excavation extends below the water table. This approach does not adequately consider that mining within the vadose, unsaturated zone could lead to groundwater pollution through saturated transport of pollutants during periods of precipitation, and unsaturated transport. Proper implementation of measure 4.6-3 would mitigate this impact to a less than significant level.~~

~~Another potential problem current groundwater monitoring requirements is that a single monitoring well downgradient from a mining area could well miss a polluted groundwater plume arising from the mining area, where a spill of fuel or other constituents has taken place that only contaminates a limited area of groundwater underlying the mining area. Under these conditions, the currently allowed monitoring program may not detect groundwater pollution that is of concern for its own impacts, as well as pollution of Cache Creek by groundwater discharge to the Creek.~~

~~**SEIR Mitigation Measure 4.6-3:** In order to protect groundwater quality and Cache Creek water quality from pollution by mining operations, provisions not already contained in the existing the Off-Channel Surface Mining Ordinance, current Mining or Reclamation permits, or Development Agreements should be considered to address groundwater monitoring associated with all mining operations, independent of their location relative to the groundwater table. This groundwater monitoring program shall be applicable under both the CCRMP and OCMP for consistency in the Cache Creek Area Plan.~~

Page 4.6-39, Chapter 4.6 Water Quality (Comment E-14)

~~**SEIR Impact 4.6-5: Impacts of fuel and other constituents released during off-channel gravel mining**~~

~~There is the potential for pollution to occur within the Planning Area as a result of off channel gravel mining in areas hydraulically connected to Cache Creek. Mitigation measure 4.6-7 is recommended to prevent potential significant impacts.~~

~~*SEIR Mitigation measure 4.6-7:* All off channel gravel mining areas that are hydraulically connected and could pollute Cache Creek should continue to be identified. Groundwater monitoring that is not already required as part of the Off Channel Surface Mining Ordinance, Mining and Reclamation permits, or the Development Agreements shall take place in these areas to prevent the pollution of groundwater within the CCRMP Planning Area.~~

Page 4.7-14, Chapter 4.7 Land Use (Comment A-6)

SEIR Mitigation Measure 4.7-2: The text of Performance Standard 5.5-2 shall be replaced with the following text: "Recreational uses shall be clustered at locations along the creek, in order to limit public access, minimize habitat disturbance, and provide efficient and cost-effective management by the County. All access, whether by road or by trail, shall be through an entry point which can be controlled."

SEIR Mitigation Measure 4.7-3: The text of Performance Standard 5.5-3 shall be replaced with the following text: "Limited public access will also reduce impacts to sensitive habitat and adjoining private uses. Additional options include permits, volunteer docents to patrol the site, and escorted tours."

Page 4.7-15, Chapter 4.7 Land Use (Text Update)

However, the recreational nodes identified in the CCRMP and in the new Open Space and Recreation Element of the County's General Plan provide public access at each bridge and are widely used by the public. ~~It is the intent of~~ There is the potential for the County to eventually expand these and connect them into a continuous public trail.

Existing recreational areas within the Planning Area, but provided no access to the creek, include the Esparto Community Park, Madison Community Park and the (private) Flier's Club golf Course. However, the Cache Creek Nature Preserve is 130 acres of upland wetlands and on-going nature enhancement improvements administered by the County on reclaimed gravel pits previously mined by Teichert. The CCNP provides public access to the creek but at this time it is not included as part of the anticipated continuous public trail created via the network of nodes.

Table 2-1 Revised Summary of Impacts and Mitigation Measures

Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
BIOLOGICAL RESOURCES			
Impact 4.6-1 : Impact on Existing Vegetative Cover	Action 4.4-1 : Encourage the use of riparian vegetation and other "soft-engineering" methods in bank or channel protection. Methods may include willow spiling (retaining walls constructed of woven willow stems from which trees will sprout); spur dikes to deflect the current away from the bank and create areas for vegetation; and cabling dead trees along the bank to provide both bank stabilization and additional habitat.	Implementation of "soft engineering" methods for bank protection. Projects include: Teichert's wash pond shield levee at the Esparto facility, Solano Concrete's bank stabilization project downriver of I-505, Syar's bank willow plantings, bank willow plantings at the Janet Hayes property, and the Cache Creek Conservancy's streambank protection project at Gordon Slough.	
	Action 4.4-9 : Create the Yolo County In-channel Ordinance to provide specific guidelines for the design, implementation, and maintenance of riparian habitat.	None.	Mitigation Measure 4.2-1 : Revise the Yolo County Reclamation Ordinance to include specific guidelines.
	Performance Standard 4.5-4 : Shallow terraces may be created along the banks of the low-flow channel from I-505 to the Capay Bridge, with cottonwood and willow pole cuttings planted on the benches. As an alternative, short trenches may be dug diagonally to the low-flow channel (angled downstream), with prerooted willow and cottonwood cuttings planted on the upstream edge of the trench. These measures would allow for the development of a ribbon of vegetation to establish along the low-flow channel in this area, thereby helping to connect the riparian corridor.	Limited implementation of Performance Standard: Rock groins were constructed just upstream of I-505 by Syar to mitigate scour of bridge piers. These areas have gradually become vegetated with riparian vegetation. Solano Concrete created rock jetties (downstream of I-505) that were covered with topsoil and planted with a grass seed mixture and willow cuttings.	Mitigation Measure 4.2-2 : Create in-channel vegetation (riparian) plots in the I-505 to Capay reach of lower Cache Creek to trap bed materials and subsequently aid in creating shallow terraces.
	Performance Standard 4.5-5 : Planting shall be conducted immediately after grading, before invasive vegetation has become established. If undesirable vegetation does become established, it should be removed by mechanical means or approved herbicides, such as glyphosphate, under the supervision of a licensed applicator.	No grading has been performed, other than reported activities at Syar, Solano, and the straw bales.	
	Performance Standard 4.5-6 : Dense vegetation shall be emphasized along the stream bank to create a distribution of velocities within the channel, with the highest velocities occurring within the low-flow channel.	The Cache Creek Conservancy and a private landowner used a combination of rice bales and irrigated willow plantings at the Craig property to control streambank erosion; however, pump used to irrigate the willows was stolen and the plantings subsequently failed. The rice bales are still providing streambank erosion control. Willow plantings and excavated vegetation were used by Solano Concrete for in-channel bank protection and erosion control. Teichert Esparto planted riparian vegetation along the levee separating the Creek from their wash ponds.	Mitigation Measure 4.2-3 : Provide secure irrigation systems for revegetation projects within the Planning Area (e.g., obtain irrigation agreements with landowners to ensure adequate water supply for new plantings).
	Performance Standard 4.5-7 : Habitat areas located next to grazing lands shall be fenced in order to prevent vegetation disturbance.	In compliance with Performance Standard.	
	Performance Standard 4.5-8 : Fertilizer shall not generally be used because its application favors non-native vegetation. Where appropriate, however, trees and shrubs may be planted with a slow-release fertilizer.	In compliance with Performance Standard.	

Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
	<p>Performance Standard 4.5-9: All plant materials should be collected in the vicinity of the project site in order to maintain the genetic stock and provide the most site-adapted ecotypes. If seeding of native herbaceous species is proposed, seeds should be collected, cleaned, tested for viability, and stored appropriately by a qualified native seed supplier. Cottonwood cuttings shall be collected and contract-grown at a nursery with staff experienced in the propagation of native plants. Alternatively, cottonwood cuttings can be collected from vegetation in the project vicinity and stockpiled for planting within twenty-four (24) hours of collection. Willow cuttings can be collected from vegetation in the project vicinity and stockpiled for planting within 24 hours of collection. Other woody riparian species should be collected and contract-grown from local seed by a qualified native plant nursery.</p>	<p>In compliance with Performance Standard.</p>	
	<p>Performance Standard 4.5-10: Planting should be initiated in the fall after the first soaking rains. Container plants should be planted in holes at least twice as deep and wide as the plant container. The rootball should be thoroughly dampened before planting and the planting holes deeply irrigated prior to planting. After planting, the holes should be backfilled with native substrate material (with no mulch added) and thoroughly tamped to remove air pockets. Willow cuttings may be planted in clusters in planting holes prepared and backfilled in a similar manner. Trees, shrubs, and willow cutting clusters should be located in randomly spaced, naturally clumped patterns. Herbaceous seed mix (if used) should be hydroseeded (without hydromulch) or broadcast over the planting area, then covered with blown rice straw meeting State "weed-free" standards at one ton per acre. Soil stabilizer or tackifier such as Ecology Controls M-Binder should be included at 150 pounds per acre. Hydromulching is not recommended because of a history of poor results with native seedings.</p>	<p>In compliance with Performance Standard.</p>	
	<p>Performance Standard 4.5-11: Existing hydraulic conditions shall be assumed for all proposed biotic reclamation activities. If an agreement is reached between the County and the Yolo County Flood Control and Water Conservation District regarding maintenance of year-round flow in the creek, additional water would be available for restoration activities. The TAC would be responsible for identifying and implementing new restoration opportunities resulting from the increased water availability. All plantings should be carefully selected based on the existing hydrology and water availability of the reclamation area.</p> <p>Irrigation of tree and shrub plantings may be necessary for the first two or three summers in drier sites to allow the roots to develop sufficiently to tap into the summer ground water level. Irrigation may be necessary at least twice per month during dry periods for the first three years. Water requirements of young plantings should be evaluated as part of routine monitoring, with adjustments to the frequency and duration of irrigation made in response to indications of stress.</p>	<p>In compliance with Performance Standard.</p>	

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	<p>Performance Standard 4.5-16: The following guidelines shall be followed when creating habitat areas within previously mined areas outside of the active channel:</p> <p>(a) Basins that have floors close to the groundwater level should be restored to seasonal marsh and riparian wetlands. Those that are permeable, dominated by sand and gravel, should promote woodland habitat.</p> <p>(b) Pits floors shall have sufficient topsoil and overburden to support the proposed habitat. Overburden and soil may be obtained from the diversion of agricultural tailwater, aggregate processing wash fines, of deposition by the creek. Areas to be planted shall be appropriately prepared, prior to planting. If necessary, soils may be tested after preparation has occurred in order to determine the need for soil amendments.</p> <p>(c) Pits should then be planted and irrigated until the plants have established. Agricultural tailwater is encouraged as an irrigation source. It would provide a valuable source of water for revegetation projects, and would also provide bio-filtering for the sediment and residue pesticides contained within the tailwater.</p> <p>(d) Areas that will not be planted may be graded to create steep, barren slopes to provide habitat for the bank swallow.</p> <p>(e) Except in important recharge areas, levees may be removed, breached at the downstream end, or a culvert installed at the downstream end to allow for dynamic interaction with the variable water level in the creek. Natural flooding will provide additional water, increase the diversity of tree species through colonization, and allow for the accumulation of organic nutrients and sediment.</p> <p>(f) Habitat plans shall take into account the range of expected water level fluctuations and shall adjust the siting and design of the pit accordingly.</p>	<p>(a) Development Agreements between Yolo County and the Planning Area mining companies have established the habitat types and total acreages of each habitat type that each mining company is required to reclaim; (b) In compliance; (c) In compliance; (d) Development Agreements between Yolo County and the Planning Area mining companies have incorporated provisions that will provide bank swallow habitat on vertical mining slopes; (e) In compliance; (f) In 1997, Jones & Stokes Associates developed a Revegetation Program for the Correll Pit for the Cache Creek Conservancy.</p>	<p>Mitigation Measure 4.2-4: In other areas where fluctuating groundwater levels may affect revegetation plots at wet pit sites, consult with the TAC hydrogeologist and biologist to develop a viable, site-specific planting plan.</p>
	<p>Performance Standard 4.5-17: Topsoil and vegetation removed from the streambed shall be salvaged for use in restoration planting within the channel.</p>	<p>In compliance with Performance Standard.</p>	
	<p>Performance Standard 4.5-18: Where the low-flow channel is creating excessive bank erosion problems and its relocation becomes necessary, grading within the low-flow channel shall provide a smooth surface, without undulations. This will ensure the safe passage of fish and prevent them from becoming trapped in isolated pockets of water.</p>	<p>In compliance with Performance Standard.</p>	

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	<p>Performance Standard 4.5-19: Low weirs may be installed, outside of the low-flow channel, to provide shallow pools for encouraging the establishment of riparian vegetation.</p>	<p>Subsequent to the adoption of this Performance Standard, the CDFG has expressed concerns that the establishment of shallow pools outside the low flow channel, but within the floodplain of Cache Creek, could result in fish mortality as the pools dry.</p>	<p>Mitigation Measure 4.2-5: It is recommended that Performance Standard 4.5-19-be modified to read “Low weirs may be installed, outside of the low-flow channel, to provide shallow pools for encouraging the establishment of riparian vegetation. When establishing shallow pools outside of the low flow channel, but within the floodplain of Cache Creek, the County shall coordinate with the California Department of Fish and Game to minimize the potential for native fish species mortality.”</p>
	<p>Performance Standard 4.5-22: Where riparian reforestation is proposed in streambed areas located outside of the low-flow channel, swales should be excavated to a depth within six (6) inches of free water. Cottonwood and willow cuttings should be placed within the swales in order to provide them with sufficient water to survive the summer months.</p>	<p>Subsequent to the adoption of this Performance Standard, the CDFG expressed concerns that the establishment of shallow pools outside the low flow channel, but within the floodplain of Cache Creek, could result in fish mortality as the pools dry.</p>	<p>Mitigation Measure 4.2-6: It is recommended that this Performance Standard be modified to read “Where riparian reforestation is proposed in streambed areas located outside of the low-flow channel, cottonwood and willow cuttings should be placed within existing swales and other naturally occurring low elevation areas in order to provide them with sufficient water to survive the summer months”.</p>

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	<p>CCIP Monitoring Program (Chapter 6): Every five years, the TAC (will) prepare a riparian habitat survey and map for incorporation into the County's GIS system, as part of the CCIP Monitoring Program (Chapter 6). The riparian habitat survey will present measurements or estimates by subreach or subarea of the following:</p> <ol style="list-style-type: none"> 1. Percent cover; 2. Crown height of trees (by age or size class); 3. Vigor; 4. Invasion by exotic species (or particular problem species); 5. List of special status species present; 6. Natural recruitment/regeneration; and 7. Changes in vegetative and habitat characteristics from previous evaluation. <p>These measurements will be recorded on maps in a format suitable for incorporation into the County's GIS system. Maps will be produced through a combination of field inspection and use of aerial photo enlargements.</p>	<p>Some of the required information has been collected, at least for portions of the Planning Area. Information on percent cover, crown height and vigor of trees was presented in Truan's 2001 report on her <i>Riparian Survey and Monitoring Project: Vegetation and Avifauna</i> at the Cache Creek Preserve. Information has also been compiled on exotic species' invasion and special status species. The County has not yet integrated all of this information into their GIS system and produced the required 5-year mapping.</p>	<p>Mitigation Measure 4.2-7: Produce a GIS-based Riparian Habitat Map of the Planning Area to indicate changes since adoption of the CCRMP and CCIP. In order to adequately discern changes in riparian habitat, the riparian habitat survey and GIS map should be conducted at 10-year intervals (rather than every five years). This would allow a more reasonable period for detecting changes in riparian plant growth. The annual data collected at the 13 established monitoring transect locations should be used to augment other survey data and aerial photography collected in order to develop a comprehensive GIS map.</p>
	<p>Goal 4.2-5: Establish monitoring programs for the continued collection of data and information, to be used in measuring the success of revegetation efforts.</p>	<p>Monitoring programs have been implemented and data have been reported for several of Teichert's revegetation sites in the creek adjacent to the Haller, Muller, and Rodgers Pits. The TAC requires monitoring and reporting on the success of these revegetation sites.</p>	
	<p>Performance Standard 4.5-12: The site should be closely monitored for competing non-native vegetation. Non-native species can be sprayed or removed by hand as necessary to attain the success criteria, as defined in each site-specific plan. The site should be closely monitored for competing non-native vegetation. Non-native species can be sprayed or removed by hand as necessary to attain the success criteria, as defined in each site-specific plan.</p>	<p>Teichert and the CCC have reported removal of competing non-native vegetation at their restoration sites.</p>	
	<p>Performance Standard 4.5-23: The TAC shall evaluate the vegetative cover within the CCRMP on an annual basis. At a minimum of once every five years, the existing hydraulic model of the Cache Creek channel shall be updated based on current conditions, including estimates of channel roughness. If sensitivity analysis indicates that the existing vegetation is contributing to adverse channel roughness, the TAC shall recommend removal of vegetation within selected areas of the channel.</p>	<p>Yolo County has installed 13 permanent transect locations along Cache Creek to conduct long-term habitat monitoring for in-channel projects. In addition, the Corps has updated hydraulic modeling data for the Woodland Flood Control Project.</p>	

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	<p>Action 4.4-2: Remove vegetation when it threatens channel stability. In particular, the growth of tamarisk, giant reed, and willow on mid-channel gravel bars shall be controlled to prevent streamflows from being diverted towards nearby banks.</p>	<p>The Cache Creek Conservancy and the County, in cooperation with DWR, FEMA, and the Yolo County Flood Control and Water Conservation District, have removed in-channel tamarisk and Arundo in lower Cache Creek to provide bank protection.</p>	
	<p>Action 4.4-3: Promote the eradication of invasive species, such as the giant reed and tamarisk, in areas where they inhibit the growth and development of native riparian vegetation.</p>	<p>The CCC has been funded by the Wildlife Conservation Board (WCB) to remove and control tamarisk and Arundo throughout the Planning Area. The removal program was initiated in October of 2001 and will continue until all 14 miles of stream channel in the Planning Area has been treated (approximately 300 acres of tamarisk and Arundo removal). The method for removal includes mechanical mulching followed by a herbicide treatment. The program includes five years of annual monitoring surveys to determine the effectiveness of the program and to make further removal recommendations.</p>	
	<p>Performance Standard 4.5-20: The in-channel area located west of the Capay Bridge is the highest priority for tamarisk elimination. Weed control shall begin within the first year after ground disturbance in order to prevent tamarisk from outcompeting native vegetation. Chemical control is preferred, since dying trees keep soil in place and retain moisture, encouraging the growth of other species. Options include, but may not be limited to: Rodeo, 4 Roundup, and Garlon 3A. Rodeo is low in toxicity, does not persist in the soil, and is labeled for aquatic use. Chemicals should be applied to freshly cut stumps and must cover the entire cambium layer. Cut plants should be removed from the channel and either disposed of or burned. Cutting and chemical treatment is most effective during November through January, when the plant is entering dormancy. Application should be repeated to control shoots growing from root systems. All chemical spraying must be done by a certified herbicide applicator.</p>	<p>tamarisk removal commenced in October of 2001 and the reach from the Harrison property to the Dewey property was completed in November of 2001. The remaining properties between County Road 94-B and the Dewey property (with the exception of the Kerr property) are scheduled to be completed in 2002. The tamarisk removal area west of Capay Bridge identified in Performance Standard 4.5-20 is no longer a high priority area due to scour caused by storm events and erosion caused by subsequent high flows. In addition, the suggested schedule for tamarisk removal is outdated since new chemicals used for tamarisk control require foliage treatment between the months of July and November. The new chemicals currently being used for tamarisk control include Round-up pro, Aqua Master, and Stalker. Performance Standard 4.5-20 in conjunction with SEIR Mitigation Measure 4.2-8 adequately addresses these updates.</p>	<p>See Mitigation Measure 4.2-8 below.</p>

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	<p>Performance Standard 4.5-21: Giant reed shall be removed from areas of high flow velocity, especially within the channel area located west of the Capay Bridge. The most effective control is the chemical application of Rodeo during March and April. Optimum results are achieved with total spray coverage, although Rodeo may be sprayed at full strength on stumps that are cut as close to the ground as is practicable. Alternatively, reed may be sprayed with follow up removal of the dead plants. All cut plants should be either disposed of or burned. Applications should be repeated to treat shoots that resprout. All chemical spraying must be done by a certified herbicide applicator.</p>	<p>The reach of Cache Creek west of the Capay Bridge, was completely scoured and the tamarisk and Arundo were completely removed during 1998 flood events. Therefore, this area is no longer considered a high priority area for exotic plant removal. New herbicides and new technology in tamarisk control have resulted in a timing change for spraying applications from November through January to July through the first frost (November). The new herbicides (e.g. Aqua Master) are safe for aquatic uses (e.g. marsh areas).</p>	<p>Mitigation Measure 4.2-8: It is recommended to continue to use the most recent technology for tamarisk and Arundo removal, including a combination of mulching and spraying. The latest technology in tamarisk removal includes, spraying herbicides from July through the "first frost" (November). Arundo control involves application of Round-Up (away from water) or Aqua Master (near water) during March and April. Applications should be repeated to treat shoots that resprout when re-growth is approximately 4-feet tall and 60% of the original stem density. All chemical spraying must be done by a certified herbicide applicator. All cut plants should be either disposed of or burned. Monitor and map the success of the tamarisk and Arundo removal efforts. Monitoring and mapping should be coordinated with the Yolo County Weed Management Area efforts.</p>
<p>Impact 4.6-2: Impact on Sensitive Natural Communities</p>	<p>Goal 4.2-1: Provide for a diverse riparian ecosystem within the Cache Creek channel, that is self-sustaining and capable of supporting wildlife.</p>	<p>The majority of existing and future planned restoration projects have and/or will occur outside the Cache Creek channel. In-channel riparian restoration accomplished since 1996 has primarily occurred at locations that have required bank stabilization and erosion control (e.g., the Craig, Solano, and Teichert Esparto properties). Some projects have created conditions that allow high flow water to enter old mining pits (e.g., Hayes and Correl Pits), thereby, creating suitable conditions for the natural recruitment of riparian vegetation (available water and sediment). Also, the extensive exotic vegetation removal program currently under way will greatly enhance the opportunity for natural riparian vegetation establishment.</p>	

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	<p>Goal 4.2-3: Develop high quality natural habitat that is dominated by native plants.</p>	See Goal 4.2-1.	
	<p>Objective 4.3-1: Conserve and protect existing riparian habitat within the channel, to the greatest extent possible. Where channel maintenance or improvement activities result in the removal of riparian habitat, require disturbed areas to be replanted. Where vegetation has been removed within the channel for flood protection and/or erosion control purposes, replanting shall be done in nearby areas that do not adversely affect stream flows.</p>	See Goal 4.2-1.	
	<p>Objective 4.3-2: Establish conditions to encourage the development of a variety of natural riparian habitat types within the Cache Creek channel.</p>	See Goal 4.2-1.	
	<p>Action 4.4-6: Favor projects that establish riparian woodlands over emergent wetlands, in appropriate areas within the Cache Creek channel. Riparian forest and scrub habitats have largely disappeared regionally, and are much more difficult to recreate than are emergent wetland habitats. Emergent wetlands can also be established in a greater range of environmental conditions, whereas riparian woodlands require specific considerations in order to thrive.</p>	No in-channel mining has occurred within the Planning Area since 1996 that affected any mature trees.	
	<p>Performance Standard 4.5-1: No new haul roads shall be constructed through significant riparian vegetation. Haul roads shall be realigned or redesigned to avoid established habitat.</p>	Development Agreements between Yolo County and the mining companies within the Planning Area require that haul roads be located in areas that avoid disturbance to riparian vegetation. Surface Mining Inspection Reports indicate conformance with the Agreement.	
	<p>Performance Standard 4.5-2: No excavation shall take place within twenty-five (25) feet of any mature trees to be retained within the channel.</p>	No in-channel mining has occurred in the Planning Area that affected any mature trees.	
	<p>Performance Standard 4.5-3: Oaks and drought-tolerant shrubs should be planted on streambank slopes due to the lack of water on the higher elevations. Oaks and shrubs should be especially encouraged on slopes facing north or east.</p>	Successfully applied at Teichert's Rodgers and Haller Pits. The CCC has adhered to this standard in revegetating slopes and other dry areas at the Correll and Hayes Pits and at the Cache Creek Preserve.	

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	<p>Performance Standard 4.5-13: The following guidelines shall be followed when developing wetland habitat areas:</p> <p>(a) Limit dense stands of aquatic vegetation in shallow areas to lower mosquito harborage and enhance wave action. This will also serve as substrate for mosquito predators.</p> <p>(b) The banks of areas that retain water after June 1 (the beginning of the optimal mosquito breeding season) shall be steep enough to prevent isolated pooling as the water level recedes, to allow for wave action and to provide access by mosquito predators. Shorelines shall be configured so as not to isolate small channels or shallow ponding areas from the main body of water, to provide continuous access by predators, especially mosquito fish.</p> <p>(c) Seasonal marshes shall be designed to have at least four months of soil saturation or shallow inundation. Water depths shall not exceed two (2) feet of water.</p> <p>(d) Marsh species shall be planted every six (6) feet, using plugs salvaged from marshes in the immediate vicinity or obtained from a nursery. Transplanting shall take place within twelve (12) hours after salvage and the root masses shall be kept continuously inundated from the time of transplanting.</p> <p>(e) Wetland areas shall cover a minimum of one (1) acre. Side slopes shall be no steeper than 3:1 (horizontal:vertical). Small islands and complex shorelines shall be provided to create a diverse environment. Wetland designs shall include provisions for the wetlands to be partially drained periodically, in order to allow for the reseeding of aquatic plants and to promote the decay of built up organic debris.</p> <p>(f) Pit bottoms should be recontoured to create areas for waterfowl nesting and depressions to provide a more permanent water feature. Islands should generally be located on the upwind side of the water body to minimize exposure to the prevailing winds. Island slopes above the water level should be no steeper than 2:1 (horizontal:vertical). Emergent vegetation shall be placed around the edges of islands to reduce wave-related erosion. Shrubs shall be widely spaced. Trees and tall shrubs shall not be planted on the islands, since predators perch in them to prey on waterfowl.</p> <p>(g) Appropriate species and densities for marsh restoration may include the following:</p> <table border="0" data-bbox="306 1019 894 1256"> <thead> <tr> <th><u>Species (common name)</u></th> <th><u>Density (plugs per acre)</u></th> </tr> </thead> <tbody> <tr> <td>Creeping spikerush</td> <td>200</td> </tr> <tr> <td>Baltic rush</td> <td>100</td> </tr> <tr> <td>Tule</td> <td>100</td> </tr> <tr> <td>Bulrush</td> <td>100</td> </tr> <tr> <td>Three-square</td> <td>10</td> </tr> <tr> <td>Beaked sedge</td> <td>5</td> </tr> <tr> <td>Scouring rush</td> <td>5</td> </tr> <tr> <td>Buttonbush</td> <td>5</td> </tr> </tbody> </table>	<u>Species (common name)</u>	<u>Density (plugs per acre)</u>	Creeping spikerush	200	Baltic rush	100	Tule	100	Bulrush	100	Three-square	10	Beaked sedge	5	Scouring rush	5	Buttonbush	5	<p>(a) No actions reported; (b) Mosquito fish have been successfully introduced at the CCC wetland area. (c) No action reported; (d) No action reported; (e) and (f) In compliance. (g) In compliance.</p>	
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	<p>Performance Standard 4.5-14: The following guidelines shall be followed when developing riparian woodland habitat areas:</p> <p>(a) Riparian woodland shall be established only where there are coarse slopes, containing soil types such as cobbly loam, gravelly loam, or other loamy textures. Where slopes contain significant clay layers, open woodlands or grasslands shall be restored instead.</p> <p>(b) Trees and shrubs shall be planted in clusters, to create alternate patterns of open and enclosed spaces.</p> <p>(c) Appropriate species and densities for riparian woodland restoration may include the following:</p> <table border="0"> <thead> <tr> <th><u>Species (common name)</u></th> <th><u>Density (number or pounds/acre)</u></th> </tr> </thead> <tbody> <tr><td>Wild rose</td><td>36</td></tr> <tr><td>Valley oak</td><td>33</td></tr> <tr><td>Fremont cottonwood</td><td>26</td></tr> <tr><td>Black willow</td><td>23</td></tr> <tr><td>Red willow</td><td>23</td></tr> <tr><td>Arroyo willow</td><td>23</td></tr> <tr><td>Sandbar willow</td><td>23</td></tr> <tr><td>Goodings willow</td><td>23</td></tr> <tr><td>Native blackberry</td><td>19</td></tr> <tr><td>Box elder</td><td>18</td></tr> <tr><td>Wild grape</td><td>16</td></tr> <tr><td>Dogwood</td><td>16</td></tr> <tr><td>Oregon ash</td><td>16</td></tr> <tr><td>Western sycamore</td><td>16</td></tr> <tr><td>Blue elderberry</td><td>12</td></tr> <tr><td>Mugwort</td><td>10</td></tr> <tr><td>Mule fat</td><td>6</td></tr> <tr><td>Creeping wildrye</td><td>16 pounds</td></tr> </tbody> </table>	<u>Species (common name)</u>	<u>Density (number or pounds/acre)</u>	Wild rose	36	Valley oak	33	Fremont cottonwood	26	Black willow	23	Red willow	23	Arroyo willow	23	Sandbar willow	23	Goodings willow	23	Native blackberry	19	Box elder	18	Wild grape	16	Dogwood	16	Oregon ash	16	Western sycamore	16	Blue elderberry	12	Mugwort	10	Mule fat	6	Creeping wildrye	16 pounds	<p>(a) In compliance (also see Performance Standard 4.5-3 above);</p> <p>(b) No actions reported; (c) Specifications have been incorporated into habitat restoration plans.</p>	
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	<p>Performance Standard 4.5-15: The following guidelines shall be followed when developing oak woodland habitat areas:</p> <p>(a) Trees and shrubs shall be planted in clusters of six (6) to seven (7) individuals, typically consisting of a single species. Some mixed groupings, such as valley oak and elderberry may occur where appropriate. Gray pine, however, shall be planted singly (not in clusters) at the higher elevations of the site. Clusters of trees and shrubs shall be planted from twenty-five (25) to fifty (50) feet apart, with native grasses in-between.</p> <p>(b) Appropriate species and densities for oak woodland restoration may include the following:</p> <table border="1" data-bbox="306 472 877 938"> <thead> <tr> <th>Species (common name)</th> <th>Density (number or pounds/acre)</th> </tr> </thead> <tbody> <tr><td>Valley oak</td><td>20</td></tr> <tr><td>Wild rose</td><td>15</td></tr> <tr><td>Blue elderberry</td><td>10</td></tr> <tr><td>Coyote bush</td><td>10</td></tr> <tr><td>Toyon</td><td>10</td></tr> <tr><td>Redbud</td><td>10</td></tr> <tr><td>Coffeeberry</td><td>10</td></tr> <tr><td>Native blackberry</td><td>8</td></tr> <tr><td>Interior live oak</td><td>6</td></tr> <tr><td>California buckeye</td><td>5</td></tr> <tr><td>Gray pine</td><td>3</td></tr> <tr><td>Creeping wildrye</td><td>16 pounds</td></tr> <tr><td>California brome</td><td>10 pounds</td></tr> <tr><td>California barley</td><td>5 pounds</td></tr> <tr><td>Pina bluegrass</td><td>5 pounds</td></tr> <tr><td>Purple needlegrass</td><td>5 pounds</td></tr> </tbody> </table>	Species (common name)	Density (number or pounds/acre)	Valley oak	20	Wild rose	15	Blue elderberry	10	Coyote bush	10	Toyon	10	Redbud	10	Coffeeberry	10	Native blackberry	8	Interior live oak	6	California buckeye	5	Gray pine	3	Creeping wildrye	16 pounds	California brome	10 pounds	California barley	5 pounds	Pina bluegrass	5 pounds	Purple needlegrass	5 pounds	<p>(a) No actions reported; (b) Specifications have been incorporated into habitat restoration plans.</p>	
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	<p>Action 4.4-12: Standards identifying planting procedures and materials, soil amendments and stabilizers, and appropriate species and planting densities for marshland, oak woodland, and riparian woodland restoration efforts should be considered guidelines. Variations from these guidelines shall be acceptable if alternative restoration plans have been prepared by a qualified biologist, consistent with the policies of the CCRMP.</p>	<p>In-channel restoration plans, consistent with the CCRMP Actions and Performance Standards, have been developed by qualified biologists.</p>																																			

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<p>Impact 4.6-3: Disturbance to Wildlife Habitat and Wildlife Movement Corridors</p>	<p>Goal 4.2-1: Provide for a diverse riparian ecosystem within the Cache Creek channel, that is self-sustaining and capable of supporting wildlife.</p>	<p>Development Agreements between Yolo County and the mining companies have defined the total acreages of each habitat type required in reclaiming mine sites and established “net gain” policies that will, cumulatively, create adjoining, compatible habitat areas. These agreements will result in significant increases of self-sustaining habitat (approximately 300 acres), which will contribute to a more continuous wildlife habitat corridor in the Planning Area. The 130-acre Cache Creek Preserve supports and has enhanced habitat for special status species such as VELB, Swainson’s hawk, and tri-colored blackbird. In addition, the CCC has identified and is in the process of acquiring other sites within the Planning Area as part of its Cache Creek Preserve network.</p>	<p>Mitigation Measure 4.2-9: Develop a comprehensive, Integrated Revegetation Plan that incorporates measures to connect wildlife habitat within the Planning Area. The Plan should include measures to evaluate the feasibility of creating contiguous wildlife habitat areas by physically connecting (i.e., vegetation planting bridge) individual habitat areas to one another via riparian corridors or some other connecting habitat.</p> <p>Mitigation Measure 4.2-10: Establish a regional (Conservation Bank) program that identifies priority locations within the Planning Area that could be enhanced through mitigation funds to improve habitat for special status species (i.e. VELB, raptors, etc) or sensitive habitats (i.e. wetlands, riparian). Augmenting existing restoration efforts through the establishment of a regional mitigation bank could accelerate the achievement of CCRMP Goals and Objectives (e.g., connecting restoration area to make continuous habitat corridors) and integrate well with objectives of the Yolo County Habitat Conservation Plan.</p>
<p>July 2002</p>	<p>Goal 4.2-2: Create a continuous corridor of riparian and wetland vegetation to link the foothill habitats of the upper watershed with those of the settling basin.</p> <p style="text-align: right;">2-19</p>	<p>See course of action for Goal 4.2-1 above.</p>	<p>See Mitigation Measures 4.2-9 and 4.2-10 above.</p> <p style="text-align: right;">Final SEIR</p>

Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
	<p>Action 4.4-5: Establish a series of wildlife preserves (see Figure 9 [of the CCRMP]) to provide core areas for maximizing wildlife and fish habitat, to help protect areas of high habitat quality from future degradation, and to provide source areas from which native plants and wildlife can colonize other reaches of the creek. Wildlife preserves should emphasize the preservation of high quality existing habitat; areas with high species diversity; areas supporting unique species or biotic communities; and habitat for rare, threatened, and endangered species.</p>	<p>See course of action for Goal 4.2-1 above.</p>	<p>See Mitigation Measures 4.2-9 and 4.2-10 above.</p>
	<p>Action 4.4-8: Restore riparian habitat throughout the plan area in order to create a continuous habitat corridor along Cache Creek. The CCRMP includes a series of recommended restoration sites located throughout the plan area.</p>	<p>See course of action for Goal 4.2-1 above.</p>	<p>See Mitigation Measures 4.2-9 and 4.2-10 above.</p>
	<p>Action 4.4-10: Integrate in-channel revegetation plans in order to connect disparate wildlife areas and ensure that elements such as drainage, slopes, and habitat types complement one another in a coordinated effort. In-channel habitat areas shall also be coordinated with proposed wildlife mitigation and "net gain" established as a part of the off-channel mining operations, in order to create a larger riparian habitat area.</p>	<p>See course of action for Goal 4.2-1 above.</p>	<p>See Mitigation Measures 4.2-9 and 4.2-10 above.</p>
	<p>Action 4.4-13: Avoid disturbance to important wildlife habitat features such as nest trees, colonial breeding locations, elderberry host plants for VELB, and essential cover associated with riparian forest and oak woodland habitat. This should include sensitive siting of, maintenance access, and recreational facilities away from these features.</p>	<p>Restoration and erosion control projects and other monitoring activities within the Planning Area have reported successful implementation of measures to avoid disturbance to wildlife and their habitat.</p>	
	<p>Goal 5.2-3: Ensure the compatibility of recreational facilities with surrounding land uses and sensitive wildlife habitat, in order to minimize adverse impacts.</p>	<p>Yolo County is currently updating and expanding the Open Space Element of the General Plan to include recreation. The goals, objectives, policies, and recommended actions of the recreational element will be developed to be consistent with the goals of the CCRMP for protecting special status wildlife species. The County expects to submit the update in early 2002.</p>	<p>Mitigation Measure 4.2-11: The TAC, in consultation with resource agencies (USFWS and CDFG), should develop a specific guidance (CCRMP Action) to control human (recreational) access to sensitive wildlife habitat or other natural communities in order to minimize impacts on these resources.</p>
	<p>Objective 5.3-1: Create a continuous corridor of natural open space along the creek and provide for limited access, as specific locations, in order to minimize adverse impacts.</p>	<p>See course of action for Goal 5.2-3 above.</p>	<p>See Mitigation Measure 4.2-11 above.</p>
	<p>Action 5.4-3: Identify possible locations for future recreational, habitat, and educational uses along Cache Creek, as shown in Figure 10 [of the CCRMP]. Sites shall be located at regular intervals throughout the plan area. Intensive recreational uses, such as horseback riding, picnicking, and boating, shall be located away from designated habitat areas.</p>	<p>See course of action for Goal 5.2-3 above.</p>	<p>See Mitigation Measure 4.2-11 above.</p>
	<p>Action 5.4-6: Design and manage recreational sites so that trespassing, vandalism, and other undesirable activities are discouraged.</p>	<p>See course of action for Goal 5.2-3 above.</p>	<p>See Mitigation Measure 4.2-11 above.</p>

Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
<p>Impact 4.6-4: Impact on Special Status Species</p>	<p>Action 4.4-5: Establish a series of wildlife preserves to provide core areas for maximizing wildlife and fish habitat, to help protect areas of high habitat quality from future degradation, and to provide source areas from which native plants and wildlife can colonize other reaches of the creek. Wildlife preserves should emphasize the preservation of high quality existing habitat; areas with high species diversity; areas supporting unique species or biotic communities; and habitat for rare, threatened, and endangered species.</p>	<p>See course of action for Goal 4.2-1 above.</p>	<p>See Mitigation Measures 4.2-9 and 4.2-10 above.</p>
	<p>Action 4.4-11: Assist the aggregate industry in developing a Mitigation Banking Program, whereby habitat developed as a part of a reclamation plan may be dedicated for preservation to offset development projects elsewhere.</p>	<p>Several of the Development Agreements (between Yolo County and the mining companies) have established provisions that will dedicate restored lands.</p>	<p>Mitigation Measure 4.2-12: Develop an integrated habitat conservation (Conservation Banking) program for the Planning Area that identifies an ecologically functional pattern of habitat that could be preserved and/or enhanced through the establishment of a mitigation fund or some other mechanism. The program should identify specific locations where recommended measures could be applied (e.g., connecting habitats to create effective wildlife corridors). This program could serve as a vehicle linking the CCRMP/CCIP with the County's HCP efforts.</p>

Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
	<p>Performance Standard 4.5-16: The following guidelines shall be followed when creating habitat areas within previously mined areas outside of the active channel:</p> <p>(a) Basins that have floors close to the groundwater level should be restored to seasonal marsh and riparian wetlands. Those that are permeable, dominated by sand and gravel, should promote woodland habitat.</p> <p>(b) Pits floors shall have sufficient topsoil and overburden to support the proposed habitat. Overburden and soil may be obtained from the diversion of agricultural tailwater, aggregate processing wash fines, of deposition by the creek. Areas to be planted shall be appropriately prepared, prior to planting. If necessary, soils may be tested after preparation has occurred in order to determine the need for soil amendments.</p> <p>(c) Pits should then be planted and irrigated until the plants have established. Agricultural tailwater is encouraged as an irrigation source. It would provide a valuable source of water for revegetation projects, and would also provide bio-filtering for the sediment and residue pesticides contained within the tailwater.</p> <p>(d) Areas that will not be planted may be graded to create steep, barren slopes to provide habitat for the bank swallow.</p> <p>(e) Except in important recharge areas, levees may be removed, breached at the downstream end, or a culvert installed at the downstream end to allow for dynamic interaction with the variable water level in the creek. Natural flooding will provide additional water, increase the diversity of tree species through colonization, and allow for the accumulation of organic nutrients and sediment.</p> <p>(f) Habitat plans shall take into account the range of expected water level fluctuations and shall adjust the siting and design of the pit accordingly.</p>	<p>See discussion for Performance Standard 4.5-16 under Impact 4.6-1 above.</p>	<p>See mitigation measure for Performance Standard 4.5-16 under Impact 4.6-1 above.</p>

Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
	<p>Performance Standard 4.4-4: Coordinate with the Cache Creek Conservancy, the H.A.W.K. program, the Yolo County Flood Control and Water Conservation District, the California Department of Fish and Game, the U.S. Fish and Wildlife Service, and the U.S. Army Corps of Engineers to ensure that habitat restoration projects proposed by these and other entities are consistent with the Cache Creek Resources Management Plan. Restoration plans shall compliment the preservation and enhancement measures in the Yolo County Habitat Conservation Program.</p>	<p>Yolo County regularly coordinates with the CCC on activities within the Planning Area. In addition, Development Agreements between Yolo County and the mining companies have provided measures that coordinate with the CCRMP, CCIP, and OCMP. Coordination with these plans is monitored via the Surface Mining Inspection Reports that are submitted annually to the Yolo County. These reports contain verification that several projects have coordinated restoration efforts through agencies that have jurisdiction over special status species (CDFG and USFWS). Existing and planned restoration projects in the Planning Area are consistent with habitat protection and enhancement objectives of the most recent Preliminary Draft Yolo County HCP. It should be noted that the H.A.W.K. program referenced in Performance Standard 4.4-4 is no longer in existence.</p>	<p>Mitigation Measure 4.2-12a: The text of Performance Standard 4.4-4 shall be replaced with the following text: "Coordinate with the Cache Creek Conservancy, the Yolo County Flood Control and Water Conservation District, the California Department of Fish and Game, the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, and all other appropriate agencies to ensure that habitat restoration projects proposed by these and other entities are consistent with the Cache Creek Resources Management Plan. Restoration plans shall compliment preservation and enhancement measures in the Yolo County Habitat Conservation Program.</p>
	<p>Action 4.4-14: A biological data base search shall be completed prior to implementation of priority projects. The data base shall compile existing information on occurrences of special-status species and areas supporting sensitive natural communities which should be considered for preservation. Where detailed information is not available, the data base shall be supplemented by reconnaissance-level field surveys to confirm the presence or absence of populations of special-status species, location of elderberry shrubs, and extent of sensitive natural communities along the previously unsurveyed creek segment. Essential habitat for special-status species shall be protected and enhanced as part of restoration efforts, or replaced as part of mitigation plans prepared by a qualified biologist.</p>	<p>No new sensitive species and/or habitats, other than those presented in the 1996 EIR, currently occur within the Planning Area. Unavoidable impacts to elderberry shrubs (Teichert Woodland, CCC) have been or will be mitigated by implementing the USFWS approved VELB guidelines. Development Agreements between Yolo County and the mining companies will establish nearly 300 acres of naturalized habitat. Additionally, hundreds of acres will be reclaimed as lake habitat, which will most likely support fringe vegetation.</p>	
<p>Impact 4.6-5: Modifications to Jurisdictional Wetlands or Other Waters</p>	<p>Action 4.4-15: Coordinate with jurisdictional agencies to establish "blanket" permits and agreements to ensure a consistent multi-agency approach to managing the creek.</p>	<p>Yolo County has established agreements with the resource agencies to meet this objective.</p>	
<p>Impact 4.6-6: Compatibility and Consistency of Restoration Provisions</p>	<p>Goal 3.2-2: Promote the conjunctive use of surface and groundwater to maximize the availability of water for a range of uses, including habitat, recreation, agriculture, water storage, flood control, and urban development.</p>	<p>In compliance with goal.</p>	

Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
	<p>Goal 7.2-2: Develop opportunities where restoration efforts and agriculture can provide mutual benefits.</p>	<p>The Cache Creek Conservancy has coordinated with the Yolo County Flood Control District to create conditions that trap sediment from agricultural tail water in Adams Canal. The Hayes and Correll Pits have been used to collect sediment from Cache Creek to provide substrate for riparian vegetation recruitment. The Hayes Pit also collects agricultural tail water from two adjacent fields. Restoration efforts at Teichert's Haller Pit have created a combination of both naturalized and agricultural habitats. The bottom of the pit has been converted to active row-crop farmland and the surrounding slopes and upper terrace have been reclaimed to support annual grassland, riparian, and oak woodland habitat. This and other similar projects, implemented as part of the Development Agreements between Yolo County and the Planning Area mining companies, have and could continue to incorporate CCRMP Actions to meet this goal.</p>	<p>Mitigation Measure 4.2-13: Establish a "safe harbor" agreement between resource agencies and local farmers to encourage the creation of new wildlife habitat on agricultural lands within the Planning Area. Also evaluate the feasibility of land easements as an alternative to the "safe harbor" strategy on private property within the Planning Area. The Yolo County Resource Manager for the CCRMP and CCIP should coordinate the development of any "safe harbor" initiative with all appropriate agencies to explore opportunities for broadening the program and its benefits.</p>
	<p>Goal 4.2-4: Manage riparian habitat so that it contributes to channel stability.</p>	<p>Implementation of "soft engineering" methods for bank protection. Projects include: Teichert's wash pond shield levee at the Esparto facility, Solano Concrete's bank stabilization project downriver of I-505, Syar's bank willow plantings, bank willow plantings at the Janet Hayes property, and the Cache Creek Conservancy's streambank protection project at Gordon Slough. The CCC and the County, in cooperation with DWR, Yolo County Flood Control and Water Conservation District and FEMA, have removed in-channel tamarisk and Arundo in lower Cache Creek to provide bank protection.</p>	
	<p>Objective 4.3-3: Adopt standards for planning and developing habitat revegetation areas, in order to assure consistency and reasonable success, as well as provide information for public service groups seeking to undertake restoration projects.</p>	<p>Yolo County has developed consistent habitat revegetation within the Planning Area, and for projects outside the Planning Area, that has relevance to the biological issues of the CCRMP. The Cache Creek Conservancy also developed a revegetation plan for the Correll site.</p>	
	<p>Objective 4.3-4: Ensure that the establishment of habitat does not significantly divert streamflow, or cause excessive erosion or damage to nearby structures and/or property.</p>	<p>In compliance with objective.</p>	
	<p>Objective 4.3-5: Encourage the use of alternative methods and practices for stream and erosion control that incorporate riparian vegetation in the design.</p>	<p>In compliance with objective.</p>	
	<p>Objective 4.3-6: Coordinate restoration programs with relevant planning efforts of both the County and other private and public agencies.</p>	<p>Restoration efforts have been, and will continue to be consistent with the Yolo County PDHCP, the CCRMP, the CCIP and the OCMP.</p>	

Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
	<p>Performance Standard 4.4-3: Promote the eradication of invasive species, such as the giant reed and tamarisk, in areas where they inhibit the growth and development of native riparian vegetation.</p>	<p>The CCC has been funded by the Wildlife Conservation Board (WCB) to remove and control tamarisk and Arundo throughout the Planning Area. The removal program was initiated in October of 2001 and will continue until all 14 miles of stream channel in the Planning Area has been treated (approximately 300 acres of tamarisk and Arundo removal). The method for removal includes mechanical mulching followed by a herbicide treatment. The program includes five years of annual monitoring surveys to determine the effectiveness of the program and to make further removal recommendations.</p>	
	<p>Performance Standard 4.4-4: Coordinate with the Cache Creek Conservancy, the H.A.W.K. program, the Yolo County Flood Control and Water Conservation District, the California Department of Fish and Game, the U.S. Fish and Wildlife Service, and the U.S. Army Corps of Engineers to ensure that habitat restoration projects proposed by these and other entities are consistent with the Cache Creek Resources Management Plan. Restoration plans shall compliment the preservation and enhancement measures in the Yolo County Habitat Conservation Program.</p>	<p>Yolo County regularly coordinates with the CCC on activities within the Planning Area. In addition, other agreements negotiated by Yolo County with private landowners outside of the Planning Area, but could potentially affect the Planning Area, have provided measures that are in coordination with the Area Plans (CCRMP and CCIP) and the 1996 EIR.</p>	<p>See Mitigation Measure 4.2-12a above.</p>
	<p>Performance Standard 4.4-7: Solicit the assistance of community groups in carrying out ongoing monitoring programs. Examples may include enlisting the local Audubon Society to perform annual bird counts at specific points along Cache Creek; coordinating with UC Davis to create a program whereby students could obtain class credits for performing surveying, vegetation mapping, or bed material counts; and collecting well levels from landowners in the plan area.</p>	<p>Qualitative Fish studies were conducted throughout the Planning Area in 1997 by Dr. Peter Moyle (U.C. Davis). A riparian survey and monitoring project for vegetation and avifauna was conducted between 1999 and 2001 at the CCC by Melanie Truan (U.C. Davis).</p>	
GEOLOGY AND SOILS			
<p>Impact 4.3-1: Impacts of Sediment Deposition and Removal Potentially Affecting Creek Stability and Causing Lateral Erosion of the Channel Bed or Banks, Resulting in Loss of Agricultural Lands and Other Valuable Improvements, Such as Roads, Bridges, or Other Structures</p>	<p>Goal 2.2-1: Recognize that Cache Creek is a dynamic stream system that naturally undergoes gradual and sometimes sudden changes during high flow events.</p>	<p>In compliance with goal.</p>	
	<p>Goal 2.2-2: Establish a more natural channel floodway capable of conveying floodwaters without damaging essential structures, causing excessive erosion, or adversely affecting adjoining land uses.</p>	<p>In compliance with goal.</p>	
	<p>Goal 2.2-3: Coordinate land uses and improvements along Cache Creek so that the adverse effects of flooding and erosion are minimized.</p>	<p>In compliance with goal.</p>	
	<p>Objective 2.3-5: Restrict the amount of aggregate removed from Cache Creek, except where necessary to promote channel stability, prevent erosion, protect bridges, or to ensure 100-year flood protection, in order to allow the streambed to aggrade and create a more natural channel system.</p>	<p>In compliance with objective.</p>	

Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
	<p>Action 2.4-2: Limit the amount of aggregate removed from the channel to the amount of sand and gravel deposited during the previous year as estimated by the Technical Advisory Committee based on channel morphology data (approximately 210,000 tons on average), except where bank excavation is necessary to widen the channel as a part of implementing the Test 3 Run Boundary, or where potential erosion and flooding problems exist. The amount and location of in-channel aggregate removal shall be carried out according to the ongoing recommendations of the Technical Advisory Committee, with the voluntary cooperation of the landowners involved.</p>	<p>Since 1996, runoff events threatened and/or caused erosion and sediment deposition on the south banks of Cache Creek, between County Road 87 and I-505. Syar Industries placed rock groins to control erosion at these locations. Minor gravel bar removal was also necessary; however, total aggregate removal in 1998 was 90 percent (1997's) total deposition. Removal of excavated material from haul roads, in an attempt to create a breach, occurred at the Hayes and Correll properties.</p>	
	<p>Performance Standard 2.5-1: All proposed grading and/or construction projects within the channel shall be subject to the Yolo County Flood Damage Prevention Ordinance.</p>	<p>In compliance with Performance Standard 2.5-1 at the time of issuance of the 1999 Annual TAC Report.</p>	
	<p>Performance Standard 2.5-5: The Technical Advisory Committee shall review topographic data and such other information as is appropriate, to determine the amount and location of aggregate to be removed from the channel. Aggregate removal from the channel shall only be recommended in order to provide flood control, protect existing structures, minimize bank erosion, or implement the Test 3 Run Boundary. Except for bank excavation to widen the channel, annual aggregate removal shall not exceed the amount of sand and gravel deposited the previous year, as determined by aerial photography analysis. Recommendations shall take into consideration the desires of the property owner where excavation is to take place, as well as the concerns of property owners in the immediate vicinity.</p> <p>The provisions of the CCIP shall be implemented by the County Resource Management Coordinator, with the assistance of the TAC. The CCIP shall contain provisions to ensure that 100-year flood protection is maintained within the Planning Area and that existing flooding problems downstream are not exacerbated by channel reshaping. This will be accomplished by annual monitoring of channel geomorphology, distribution and density of plant material within the channel, and modeling to forecast changes in base flood elevations. When modeling indicates that the channel is approaching loss of 100-year conveyance capacity (or has already lost this capacity), the TAC shall identify actions to reestablish 100-year capacity with adequate tolerances.</p> <p>The County shall review and monitor removal of aggregate and/or plant material, consistent with the CCRMP and CCIP. The County, at its discretion, may enlist the aid of gravel mining operators, other private property owners, or conduct the maintenance activities using County resources.</p>	<p>The TAC conducted a data review to identify areas to improve around structures and streambanks to comply with Performance Standard 2.5-5 (Refer to Action 2.4-2 regarding in channel gravel removal.) Also, according to the 1999 Annual TAC Report and the County's 2000/2001 <i>Resource Management Annual Accomplishments Report</i>, projects have been implemented at certain property owners' sites and the County continues to work with other landowners within the Planning Area on future projects.</p> <p>Thirteen transects for invasive flora and geomorphic conditions were established by the County in December 2001. The TAC has also been monitoring the Planning Area since 1999 and found no significant loss in flood capacity. However, since hydraulic monitoring in 1995, the TAC has not provided a 5-year update as required by the CCIP. If hydraulic monitoring is not updated, significant impacts could occur within the Planning Area related to flood capacity. In addition, the Corps has updated hydraulic modeling data from the Woodland Flood Control Project.</p>	<p>Mitigation Measure 4.3-1: Performance Standard 2.5-5 should be modified to have the TAC hydrologist compare the recent FEMA mappings with 1995 floodplain modeling, and either update the 1995 hydraulic modeling or declare the FEMA maps acceptable. FEMA maps would need to be updated and consistent in the upcoming years. For more detailed technical information, refer to Hydrology Mitigation Measure 4.5-1.</p>
	<p>Action 2.4-3: Implement the Test 3 Run Boundary described in the Technical Studies to reshape the Cache Creek channel. Altering the channel banks and profiles will assist in returning the creek to a form that is more similar to its historical condition. This will result in reduced erosion, increased in-channel recharge, and additional riparian habitat opportunities.</p>	<p>The following projects were completed in 1998: Syar and Solano completed rock groins as part of the Test 3 Boundary; Teichert Esparto eliminated spur dikes for bank protection; the Cache Creek Conservancy constructed rice straw and groins for bank stabilization and continuity. Currently, an invasive vegetation and sediment removal project is underway in the lower reaches of the Planning Area. These projects are considered beneficial impacts to Action 2.4-3 and continued implementation over the project's 30-year lifespan would ensure that the Test 3 Boundary goals are attained.</p>	<p>Mitigation Measure 4.3-2: Action 2.4-3 should be modified as follows: Continue to gather HEC modeling erosion and deposition data in order to initiate streambed and channel alteration projects.</p>

Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
	<p>Action 2.4-4: Replace the theoretical thalweg, as defined in 10.3-221 of the Yolo County Mining Ordinance, with recommended channel slope standards specific to each reach of the creek.</p>	<p>Two in-channel projects involving the alteration of low-flow channels occurred since the 1996 EIR. Both projects were overseen by the TAC to ensure that the gradients of the low-flow channels were maintained in accordance with CCIP target sinuosity.</p>	
	<p>Action 2.4-5: Acknowledge the streamway influence boundary described in the Technical Studies as the general area of the creek which has historically been subject to meandering. The streamway influence boundary also defines the area where in-stream and off-channel issues overlap and are addressed in both plans.</p>	<p>In compliance with action.</p>	
	<p>Action 2.4-8: Enter into a Memorandum of Understanding with the Yolo County Flood Control and Water Conservation District to provide a regular source of surface water flow in Cache Creek throughout the year, when annual precipitation is sufficient. The timing and volume of flows should be established consistent with the Technical Studies, in order to create a stable low-flow channel and allow for the natural revegetation of the streambed, where appropriate.</p>	<p>An MOU does not exist between the County and YFCWCD to maintain continuous surface water flow within the channel to stabilize channel conditions and promote natural revegetation.</p>	<p>Mitigation Measure 4.3-3: It is recommended that the County seek to establish an MOU with the YFCWCD.</p>
	<p>Action 2.4-9: Obtain funding to install a gauge at Capay. This will allow the Technical Advisory Committee to monitor the amount of stream flow and sediment coming into the plan area and compare the results with data obtained from the gauge at Yolo. This information is important in determining how much water is recharged within the plan area, and whether the sediment "budget" is in a net gain or deficit.</p>	<p>While funding is currently available to install such a gauge, its installation has not been budgeted. The Planning and Public Works Department is investigating the installation of this gauge.</p>	<p>Mitigation Measure 4.3-4: Action 2.4-9 should be modified to direct the TAC, as part of the updated hydraulic modeling, to work closely with the Planning and Public Works Department to budget funds for installation of a gauge at Capay and attempt to work with other jurisdictional agencies (i.e. USACE, YFCWCD, DWR) to establish a gauge maintenance program.</p>
	<p>Action 2.4-10: The County shall manage collection of the information necessary to make informed decisions about the management of Cache Creek, including: regular water and sediment discharge data at Capay and Yolo gauge sites, water and sediment discharge data at other sites during high flow events, and topographic data showing the erosion, aggradation, and the alignment of the low-flow channel within the creek. This data should be maintained in the County Geographic Information System, so that staff and the Technical Advisory Committee can coordinate this information with the results of other monitoring programs to develop a comprehensive and integrated approach to resource management. Monitoring may, at the discretion of the County, be conducted by either consultants or trained volunteers, including landowners, public interest groups, the aggregate industry, and students, as a part of future public education programs associated with Cache Creek. However, the County shall maintain responsibility for the collection of high quality data.</p>	<p>Since 1996, the County has been analyzing annual flow and sediment budget data via DTM as part of Action 2.4-10. As per the 1998 and 1999 Annual TAC Reports, contractors have provided assistance in determining erosion and deposition rates within the channel with respect to high flow events. It is expected that continued reports will be produced</p>	

Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
	<p>Action 2.4-11: Create a Technical Advisory Committee (TAC) to provide the County with specific expertise and knowledge in implementing the CCRMP and CCIP. The TAC will also provide advice during emergency situations, such as flooding, and will assist the County in carrying out its responsibilities under this plan, as well as recommending changes to the CCRMP, the CCIP, and implementing ordinances.</p>	<p>In compliance with action.</p>	
	<p>Action 2.4-12: Focus efforts on reshaping the channel banks immediately upstream and downstream of both County and State bridges to minimize scour and erosion. Work on the stream banks could be accompanied by the construction of check dams or weirs within the channel, downstream of the bridges, to encourage aggradation. These measures will not only create a more stable channel, but will also help in preventing structural failure and prolong the life of local bridges. The length of the transitions shall be five times longer than the width of the channel at the bridge site, and shall incorporate guide banks, grade control structures, dikes, berms, vegetation, and other similar measures. Such methods and practices shall incorporate riparian vegetation and increase wildlife habitat values, to the extent that the objective of minimizing scour and erosion are not compromised.</p>	<p>In compliance with action.</p>	
	<p>Action 2.4-13: Update the Cache Creek Resource Management Plan a minimum of every ten years. This will allow the plan to be amended on a regular basis so that the results of monitoring programs and reclamation efforts can be taken into account.</p>	<p>The CCRMP was adopted in 1996 and an update is not required until 2006, per Action 2.4-13. Specific elements of the CCRMP are currently being reviewed in this Supplemental EIR. Mitigation measures presented in this SEIR are recommended changes or additions to the CCRMP that the County may consider adopting.</p>	
	<p>Performance Standard 2.5-2: Check dams or sills should be constructed within the channel to stabilize the streambed so that structures, such as County bridges, are protected from the adverse effects of channel scour. Engineered plans for dams or sills shall be submitted to the County Building Division and the County Community Development Agency for approval prior to construction.</p>	<p>Performance Standard has not been implemented to date.</p>	
	<p>Performance Standard 3.5-4: Sediment fines generated by aggregate processing of in-channel sand and gravel shall be used for agricultural soil enhancement or -stream revegetation projects. In-channel sediment fines shall not be used as backfill material in off-channel habitat restoration, due to potential high mercury content.</p>	<p>In compliance with Performance Standard.</p>	
	<p>Performance Standard 6.5-9: In-channel haul roads shall be located along the toe of the streambank, in order to provide additional bank stabilization and to minimize disturbance of the low-flow channel. Each operation may have no more than two (2) haul roads at one time that cross the low-flow channel. Construction of the haul roads shall not result in excavation of the toe of the streambank, and shall be designed to avoid existing or restored riparian habitat. Haul roads shall comply with all applicable requirements.</p>	<p>In compliance with Performance Standard. Teichert (Woodland) is the only mining operation with a seasonal in-channel haul road and is in compliance.</p>	
	<p>Performance Standard 6.5-10: Approved channel improvement projects requiring excavation of channel banks and removal of riparian vegetation shall revegetate upon the completion of excavation activities or shall develop similar habitat at a suitable off-site location.</p>	<p>In compliance with the Performance Standard.</p>	

Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
	<p>Performance Standard 6.5-6: Final slopes for in-channel excavations shall conform with the channel slope and sinuosity guidelines shown in Figure 11 of the CCRMP. Excavations shall be sloped in a downstream direction, towards the low-flow channel. When recommended by the TAC, alternate grading plans may be approved.</p>	<p>In compliance with Performance Standard.</p>	
	<p>Performance Standard 6.5-7: In-channel excavations shall generally conform with the cross-section profiles shown in Figures 12 through 16 of the CCRMP. When recommended by the TAC, alternate grading plans may be approved.</p>	<p>In compliance with Performance Standard.</p>	
	<p>Performance Standard 6.5-12: Where gravel bars are to be excavated, aggregate removal shall be limited to the downstream portion of the deposit and may not exceed seventy-five (75) percent of the length of the bar. Twenty-five (25) percent of the upstream portion of the gravel bar shall be retained, in order to allow for the establishment of riparian vegetation. Complete removal of gravel bars may be recommended by the TAC only if hydraulic conditions related to the bar are recognized to threaten structures and property.</p>	<p>In compliance with Performance Standard.</p>	
	<p>Performance Standard 6.5-13: Aggregate material to be removed from the streambed shall be excavated as soon as is practicable after deposition, prior to the establishment of vegetation. No stockpiles shall be left within the channel after excavation has been completed.</p>	<p>In compliance with Performance Standard.</p>	
	<p>Performance Standard 6.5-14: Proposed off-channel excavations located within the streamway influence boundary shall be set back a minimum of seven-hundred (700) feet from the existing channel bank, unless an engineering analysis demonstrates that a smaller distance will not adversely affect channel stability within the reach. If the proposed engineering measures are demonstrated to be feasible, then the minimum setback distance shall be no less than two-hundred (200) feet.</p> <p>Approval of any off-channel mining project located within seven-hundred (700) feet of the existing channel bank shall be contingent upon an enforceable agreement which requires the project operator to participate in the completion of channel improvement projects, along the frontage of their property, consistent with the CCRMP and CCIP. The agreement shall also require that the operator provide a bond or other financial instrument for maintenance during the mining and reclamation period of any bank stabilization features approved for the mining project. The agreement shall also require that a deed restriction be placed on the underlying property which requires maintenance of the streambank protection by future owners of the property. Maintenance of the bank stabilization features following completion of reclamation shall be the responsibility of the property owner.</p>	<p>All mining operations currently comply with the Performance Standard.</p>	
	<p>Action 4.4-2: Remove vegetation when it threatens channel stability. In particular, the growth of tamarisk, giant reed, and willow on mid-channel gravel bars shall be controlled to prevent streamflows from being diverted towards nearby banks.</p>	<p>The CCC and the County, in cooperation with DWR, FEMA, and the YCFCWCD, have removed in-channel tamarisk and Arundo in Lower Cache Creek to provide bank stabilization (see Section 4.2, Biological Resources).</p>	
	<p>Goal 6.2-1: Use the removal of in-channel aggregate deposits as an opportunity to reclaim, restore, and/or enhance the channel stability and habitat of Cache Creek.</p>	<p>In compliance with goal.</p>	

Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
	Action 2.4-14: Rezone those lands within the CCRMP plan boundary with to add the Open Space (OS) designation as an integrated zone. This will allow for those excavations necessary to carry out the channel widening envisioned in the Technical Studies, as well as any regular and/or emergency flood control and bank protection activities, riparian restoration, and other resource management efforts.	In compliance with action.	
	Action 6.4-1: Revise the existing ordinances contained in the Yolo County Code to incorporate Performance Standards to prevent hazards and reduce potential environmental impacts; programs to carry out the policies included within the Cache Creek Resources Management Plan and Cache Creek Improvements Program; and recent amendments to SMARA, if appropriate.	In compliance with action.	
	Action 6.4-4: Draft the County In-Channel Ordinance to require that, upon revocation of existing in-channel mining permits, the tonnage of aggregate removed by an aggregate mining operator in the completion of approved channel improvement projects is excluded from the operator's permitted maximum annual production. These market incentives would ensure that the necessary work would be accomplished at little cost to the County, while generating royalties for the owner of any property where excavation takes place.	Action 6.4-4 has been incorporated by the County and complied with by Syar in 1998.	
	Action 6.4-5: Provide technical support through the TAC to mining operators, property owners, and government agencies involved with Cache Creek to provide a professional and scientific basis for making decisions regarding the removal of channel deposits that affect property and structures, the construction of flood protection and erosion control measures, and the provision of emergency labor, equipment, and materials during and/or after flood events.	In compliance with Action.	
	Performance Standard 2.5-6: Require all channel improvement projects to comply with the requirements of the CCIP and implementing regulations.	In compliance with Performance Standard.	
	Performance Standard 4.5-23: The TAC shall evaluate the vegetative cover within the CCRMP on an annual basis. At a minimum of once every five years, the existing hydraulic model of the Cache Creek channel shall be updated based on current conditions, including estimates of channel roughness. If sensitivity analysis indicates that the existing vegetation is contributing to adverse channel roughness, the TAC shall recommend removal of vegetation within selected areas of the channel.	Transects for invasive flora and geomorphic conditions were completed by the Cache Creek Conservancy in 2001. TAC has also been monitoring the Planning Area since 1999 and found no significant loss in flood capacity. However, since hydraulic monitoring in 1995, the TAC has not provided a 5-year update as required by the CCIP. If hydraulic monitoring is not updated, significant impacts could occur within the Planning Area related to flood capacity.	See Mitigation Measure 4.3-1.
	Action 2.4-15: Present a request to the State Mining and Geology Board to grant an exemption from the requirements of SMARA for all channel improvement projects approved under the CCIP. If the CCRMP is found to be subject to SMARA, the County shall submit the plan, including the CCIP, to the Department of Conservation for review and comment as the mining and reclamation plan for the study area of the creek.	As per Action 2.4-15, the State Legislature approved Assembly Bill (AB) 297.	
	Action 2.4-16: Adopt an County In-Channel Ordinance to prohibit commercial mining within the CCRMP Planning Area and specify that aggregate extraction within the area shall be limited to activities necessary to complete channel improvement projects.	In compliance with action.	

Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
	<p>Performance Standard 2.5-7: Require the TAC to annually prepare a list of priority channel improvement projects which will be identified and described in an annual report to the Board of Supervisors. Projects which could improve channel stability at the location of bridges or other structures shall maintain a high priority until implementation. Following review by the Board of Supervisors, the TAC shall contact individual landowners to explain recommended channel improvements for their property and describe available resources for design and implementation of the projects.</p>	<p>The 1999 Annual TAC Report is the most recent available source of information made available to the SEIR prepares on priority channel improvement projects. Channel improvement projects have been implemented over the years at various bridge locations; however, the Owens residence near the south bank at I-5 is threatened by adverse channel conditions. A recent Flood Damage Reduction study is underway by the Army Corps of Engineers via MBK Engineering.</p>	
<p>Impact 4.3-2: Modifications of the Channel During Improvement Projects Could Potentially Result in Unstable Conditions Upstream or Downstream of the Projects</p>	<p>Performance Standard 2.5-8: The review by the TAC of all Floodplain Development Permit applications for Cache Creek improvement projects within the CCRMP area shall include an evaluation of potential upstream and downstream effects of the proposed channel modifications. The TAC shall evaluate data on hydraulic conditions presented in the permit application. The TAC shall also examine aerial photographs and perform a reconnaissance investigation of the site and surrounding areas to identify potential upstream and downstream effects.</p>	<p>See Performance Standard 2.5-5 and Action 2.4-11 under Impact 4.3-1 above.</p>	
<p>Impact 4.3-3: Channel Stability Within the CCRMP Planning Area Could Be Affected By Significant Changes in Upstream and Downstream Portions of the Watershed</p>	<p>Action 2.4-6: Work with other agencies having jurisdiction over Cache Creek including, but not limited to, the Yolo County Flood Control and Water Conservation District, the U.S. Army Corps of Engineers, the State Reclamation Board, the California Department of Water Resources, and the Federal Emergency Management Agency in developing a coordinated solution for managing flood events throughout the watershed of Cache Creek. As a part of this effort, the County should coordinate with the U.S. Army Corps to make appropriate sedimentation and channel stability assessments in conjunction with the development of flood control alternatives near the downstream end of the study area. This would ensure that both agencies are using the same sets of assumptions when making recommendations about the management of Cache Creek. The County Resource Management Coordinator shall maintain contact with the specified agencies. Interagency contact shall be initiated at least annually. The Resource Management Coordinator shall encourage coordination between the County and the other agencies.</p>	<p>All mining operations are currently in compliance with their respective Development Agreements as per the 2001 Surface Mining Inspection Reports. Besides being a water quality issue (addressed in Section 4.6 of this SEIR), the sediment-laden runoff from agricultural operations contributes to the overall sediment load within the Creek and can be a potential significant (cumulative) impact to the natural erosion and sedimentation process.</p>	<p>Mitigation Measure 4.3-5: The County should continue to identify all regional watershed groups, landowners, and other jurisdictional agencies involved with the Cache Creek watershed and share information (i.e. TAC Annual Report) gathered by the TAC and the County for the Planning Area in order to better coordinate regional watershed management offers.</p>
<p>SEIR Impact 4.3-1: Potential for Damage from Seismic Shaking</p>		<p>As per the 2001 Surface Mining Inspection Reports, no strong seismic events have been reported in the Planning Area since 1996.</p>	

Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
SEIR Impact 4.3-2: Potential Impacts Related to Slope Stability, Erosion, and Sedimentation		<p>All mining operations comply with appropriate slope horizontal-to-vertical requirements. Teichert Woodland has not yet commenced mining below the groundwater table and acknowledges these requirements (Yolo County Planning and Public Works Department, 2001h). No benching is associated with any of the mining operations, with the exception of Teichert Esparto. Teichert submitted plans and a supporting geotechnical analysis for benches along the southern shore of Phase 1 and the plans and calculations were approved by the County (Yolo County Planning and Public Works Department, 2001g). As per 2001 Surface Mining Inspection Reports, Stormwater Pollution Prevention Plans (SWPPP) have been developed by all mining operations, except for Granite Capay. Since Granite Capay will retain all stormwater onsite during construction and operation (zero discharge), a SWPPP is not required as per the National Pollutant Discharge Elimination System (NPDES) permit requirements (Yolo County Planning and Public Works Department, 2001d). The retention of stormwater onsite can be a beneficial impact in reducing discharge into the Cache Creek; however, it can also be an adverse impact because a portion of a subwatershed to the Cache Creek has been cut off. As per the 2001 Surface Mining Inspection reports, slope stability analyses resulted in either meeting or exceeding the threshold requirements. As per the 2001 Surface Mining Inspection Reports, all mining operations are incorporating appropriate erosion control measures via stabilization. Reclamation at the site began in March of 2002. The lessee would be expected to complete final reclamation. No active mining is occurring at this site; however, exposed soils are subject to mechanical erosion processes via wind and water (Yolo County Planning and Public Works Department, 1999a). Mitigation measure 4.3-6 is recommended to mitigate potential significant impacts to the Planning Area via erosion to a less than significant level until final reclamation of the site occurs.</p>	<p>Mitigation Measure 4.3-6: Reclamation at the site has begun. It should be revegetated at a minimum to limit wind and water erosion and potential sedimentation.</p>
SEIR Impact 4.3-3: Potential for Erosion from Surface Water Discharge, Including "Pit Capture"		<p>Solano and both Teichert operations are currently working within the 700-foot boundary of the streamway influence and are in compliance with the OCMP, as per the 2001 Surface Mining Inspection Reports. Therefore, these operations create a less than significant impact in the Planning Area.</p>	
Final SEIR	<p>Performance Standard 2.5-1: All proposed grading and/or construction projects within the channel shall be subject to the Yolo County Flood Damage Prevention Ordinance.</p> <p style="text-align: center;">2-32</p>	<p>In compliance with Performance Standard.</p>	<p style="text-align: center;">July 2002</p>

Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
	<p>Performance Standard 2.5-8: The review by the TAC of all Floodplain Development Permit applications for Cache Creek improvement projects within the CCRMP area shall include an evaluation of potential upstream and downstream effects of the proposed channel modifications. The TAC shall evaluate data on hydraulic conditions presented in the permit application. The TAC shall also examine aerial photographs and perform a reconnaissance investigation of the site and surrounding areas to identify potential upstream and downstream effects.</p>		<p>Mitigation Measure 4.3-7: The TAC shall update the HEC flood modeling and confirm whether the channel is capable of handling a 100-year flood event as indicated in recent FEMA/ACOE maps. The TAC shall then review pertinent agreements and coordinate with all parties to ensure the channel conveyance capacity is maintained and flood protection can be maintained.</p>
GROUNDWATER			
<p>Impact 4.4-5: Potential Impacts Associated with Groundwater Recharge and Surface Water Supplies</p>	<p>Goal 2.2-4: Ensure that the floodway is maintained to allow other beneficial uses of the channel, including groundwater recharge, recreation, and riparian vegetation, without adversely affecting flood capacity.</p>	<p>In compliance with goal.</p>	
	<p>Objective 2.3-7: Manage Cache Creek so that the needs of the various uses dependent upon the creek, such as flood protection, wildlife, groundwater, structural protection, and drainage are appropriately balanced.</p>	<p>In compliance with objective.</p>	
	<p>Goal 3.2-1: Improve the gathering and coordination of information about water resources so that effective policy decisions can be made.</p>	<p>In compliance with goal.</p>	
	<p>Goal 3.2-2: Promote the conjunctive use of surface and groundwater to maximize the availability of water for a range of uses, including habitat, recreation, agriculture, water storage, flood control, and urban development.</p>	<p>In compliance with goal.</p>	
	<p>Objective 3.3-1: Encourage the development of a groundwater recharge program, where appropriate, within the Cache Creek basin. The program may specify use of reclaimed mining pits and open lakes to the greatest extent feasible, while maintaining consistency with the other goals, objectives, actions, and standards of both the CCRMP and OCMP.</p>	<p>Projects related to the encouragement of groundwater recharge programs include the Cache Creek Nature Preserve, Correll Pit, and the Rodgers Pit. Teichert (Woodland), as part of their development agreement, proposes to create future groundwater recharge opportunities at the Muller and Storz properties. However, many of the other mining reclamation plans do not specifically promote groundwater recharge reclamation activities and as per the YCFCWCD, other land use reclamation may prove to be more successful if reclaimed for groundwater recharge.</p>	

Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
	<p>Action 3.4-2: Negotiate cooperative agreements with the Yolo County Flood Control and Water Conservation District, U.S. Army Corps of Engineers, Regional Water Quality Control Board, Yolo County Resource Conservation District, and U.S. Bureau of Land Management, among others, to extend the provisions of the CCRMP outside of the plan area and incorporate the requirements of other agencies of jurisdiction into the County's planning efforts. Interagency contact shall be initiated by the County Resource Management Coordinator at least once per year.</p>	<p>In compliance with action.</p>	
	<p>Action 3.4-4: Enlist landowners adjoining Cache Creek to submit regular groundwater level measurements, so that an ongoing groundwater data base can be developed for this area. This information would be used as reference material for the Water Resources Agency and other regional water planning efforts.</p>	<p>As part of their Development Agreements (and as reported in the 2001 Surface Mining Inspection Reports) mining companies such as Granite (Capay), Solano, Syar, and Teichert (Esparto and Woodland) have been conducting or are in the process of conducting groundwater monitoring.</p>	<p>Mitigation Measure 4.4-1: An amendment to Action 3.4-4 is recommended to establish an outreach program to encourage all landowners adjoining the Planning Area to participate in a groundwater monitoring program. The County shall attempt to coordinate with other relevant jurisdictional agencies to educate landowners about groundwater/surface water interactions and the importance of developing a comprehensive groundwater database. The TAC hydrogeologist shall provide technical assistance to landowners to compile data and develop a groundwater database.</p>
SEIR Impact 4.4-1 has been deleted.			
SEIR Impact 4.4-2 has been deleted.			Mitigation Measure 4.4-2 has been deleted.
SEIR Impact 4.4-3 has been deleted.			
HYDROLOGY			
Impact 4.4-1: Potential Impacts Associated with Flooding Outside the Planning Area	<p>Objective 2.3-1: Provide flood management as required to protect the public health and safety.</p>	<p>In compliance with objective.</p>	
	<p>Objective 2.3-2: Integrate the Cache Creek Resources Management Plan with other planning efforts to create a comprehensive, multi-agency management plan for the entire Cache Creek watershed.</p>	<p>In compliance with objective.</p>	
	<p>Objective 2.3-3: Design and implement a more stable channel configuration that will convey a 100-year flood event.</p>	<p>In compliance with objective.</p>	

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	<p>Objective 2.3-5: Restrict the amount of aggregate removed from Cache Creek, except where necessary to promote channel stability, prevent erosion, protect bridges, or to ensure 100-year flood protection, in order to allow the streambed to aggrade and create a more natural channel system.</p>	<p>In compliance with objective.</p>	
	<p>Objective 2.3-6: Establish monitoring programs for the continued collection of data and information, to be used in managing the resources of Cache Creek.</p>	<p>In compliance with objective.</p>	
	<p>Objective 2.3-7: Manage Cache Creek so that the needs of the various uses dependent upon the creek, such as flood protection, wildlife, groundwater, structural protection, and drainage are appropriately balanced.</p>	<p>In compliance with objective.</p>	
	<p>Action 2.4-1: Revoke the 1979 In-Channel Mining Boundary, as defined in Section 10-3.303(a) of the Yolo County Mining Ordinance. In its place, adopt a new in-channel area based on present channel banks and the 100-year floodplain, as determined by the U.S. Army Corps of Engineers in the Westside Tributaries Study, whichever is wider. This is a more accurate measure of delineating the boundary between in-channel and off-channel uses.</p>	<p>In compliance with action.</p>	
	<p>Action 2.4-2: Limit the amount of aggregate removed from the channel to the amount of sand and gravel deposited during the previous year as estimated by the Technical Advisory Committee based on channel morphology data (approximately 210,000 tons on average), except where bank excavation is necessary to widen the channel as a part of implementing the Test 3 Run Boundary, or where potential erosion and flooding problems exist. The amount and location of in-channel aggregate removal shall be carried out according to the ongoing recommendations of the Technical Advisory Committee, with the voluntary cooperation of the landowners involved.</p>	<p>In compliance with action.</p>	
	<p>Action 2.4-6: Work with other agencies having jurisdiction over Cache Creek including, but not limited to, the Yolo County Flood Control and Water Conservation District, the U.S. Army Corps of Engineers, the State Reclamation Board, the California Department of Water Resources, and the Federal Emergency Management Agency in developing a coordinated solution for managing flood events throughout the watershed of Cache Creek.</p> <p>As a part of this effort, the County should coordinate with the U.S. Army Corps to make appropriate sedimentation and channel stability assessments in conjunction with the development of flood control alternatives near the downstream end of the study area. This would ensure that both agencies are using the same sets of assumptions when making recommendations about the management of Cache Creek.</p> <p>The County Resource Management Coordinator shall maintain contact with the specified agencies. Interagency contact shall be initiated at least annually. The Resource Management Coordinator shall encourage coordination between the County and the other agencies.</p>	<p>The Corps is evaluating two levee alternatives to protect the City of Woodland from Cache Creek flooding. In addition, the County is investigating the removal of gravel bars for flood control, by increasing the conveyance capacity of the channel downstream of Road 94B.</p>	

Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
	<p>Performance Standard 2.5-5: The Technical Advisory Committee shall review topographic data and such other information as is appropriate, to determine the amount and location of aggregate to be removed from the channel. Aggregate removal from the channel shall only be recommended in order to provide flood control, protect existing structures, minimize bank erosion, or implement the Test 3 Run Boundary. Except for bank excavation to widen the channel, annual aggregate removal shall not exceed the amount of sand and gravel deposited the previous year, as determined by aerial photography analysis. Recommendations shall take into consideration the desires of the property owner where excavation is to take place, as well as the concerns of property owners in the immediate vicinity.</p> <p>The provisions of the CCIP shall be implemented by the County Resource Management Coordinator, with the assistance of the TAC. The CCIP shall contain provisions to ensure that 100-year flood protection is maintained within the Planning Area and that existing flooding problems downstream are not exacerbated by channel reshaping. This will be accomplished by annual monitoring of channel geomorphology, distribution and density of plant material within the channel, and modeling to forecast changes in base flood elevations. When modeling indicates that the channel is approaching loss of 100-year conveyance capacity (or has already lost this capacity), the TAC shall identify actions to reestablish 100-year capacity with adequate tolerances.</p> <p>The County shall review and monitor removal of aggregate and/or plant material, consistent with the CCRMP and CCIP. The County, at its discretion, may enlist the aid of gravel mining operators, other private property owners, or conduct the maintenance activities using County resources.</p>	<p>A determination of the appropriate amount of material to remove from the channel in order to provide flood control, protect existing structures, minimize bank erosion, or implement the Test 3 Run Boundary, is difficult to make from review of topographic information. Whereas Performance Standard 2.5-5 also refers to other information to be used as appropriate, no specific guidelines are set forth. Mitigation Measure 4.5-1 is intended as a methodology for systematically gathering and evaluating flooding and sediment transport information on Cache Creek to assist the County and the TAC in future planning and development decisions that could affect the CCRMP.</p> <p>As individual projects are implemented within the CCRMP, there is a possibility for cumulative effects to be significant. Mitigation measure 4.5-2 will ensure that future planning decisions and project approvals within the CCRMP take the potential for increasing flood peaks into account.</p>	<p>Mitigation Measure 4.5-1: Establish channel slope, width, depth, and cross section standards specific to each reach of the creek based on annual monitoring and periodic engineering analysis of hydraulic and sediment transport conditions. Specific activities associated with this mitigation measure are as follows: For specific activities associated with this mitigation measure see Section 4.5.3.2 of Chapter 4.3, Hydrology.</p> <p>Mitigation Measure 4.5-2: The County shall evaluate Muskingum and/or Modified Puls hydrologic stream-routing parameters, used by the U.S. Army Corps of Engineers, in developing the design discharge for the possible Woodland flood control project currently being evaluated, and use these routing parameters to develop floodplain encroachment guidelines, taking into account probably cumulative effects, for consideration when reviewing projects that may have an effect on downstream discharge through removal of floodplain storage areas. A stream routing shall be performed once every five years to monitor the cumulative effects of development and to adjust encroachment guidelines as necessary.</p>

Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
	<p>Action 2.4-4: Replace the theoretical thalweg, as defined in 10.3-221 of the Yolo County Mining Ordinance, with recommended channel slope standards specific to each reach of the creek.</p>	<p>See Performance Standard 2.5-5.</p>	<p>See Mitigation Measure 4.5-1, above.</p>
	<p>Action 2.4-13: Update the Cache Creek Resource Management Plan a minimum of every ten years. This will allow the plan to be amended on a regular basis so that the results of monitoring programs and reclamation efforts can be taken into account.</p>	<p>In compliance with action.</p>	
	<p>Performance Standard 2.5-1: All proposed grading and/or construction projects within the channel shall be subject to the Yolo County Flood Damage Prevention Ordinance.</p>	<p>In compliance with Performance Standard 2.5-1 at the time of issuance of the 1999 Annual TAC Report (See Impact 4.3-1 in Chapter 4.3, Geology and Soils).</p>	
	<p>Action 3.4-2: Negotiate cooperative agreements with the Yolo County Flood Control and Water Conservation District, U.S. Army Corps of Engineers, Regional Water Quality Control Board, Yolo County Resource Conservation District, and U.S. Bureau of Land Management, among others, to extend the provisions of the CCRMP outside of the plan area and incorporate the requirements of other agencies of jurisdiction into the County's planning efforts. Interagency contact shall be initiated by the County Resource Management Coordinator at least once per year.</p>	<p>In compliance with action.</p>	
<p>Impact 4.4-2: Potential Impacts Associated with Inconsistencies between the FEMA Designated 100-Year Flood Zone and More Recent Hydraulic Analyses</p>	<p>Action 2.4-1: Revoke the 1979 In-Channel Mining Boundary, as defined in Section 10-3.303(a) of the Yolo County Mining Ordinance. In its place, adopt a new in-channel area based on present channel banks and the 100-year floodplain, as determined by the U.S. Army Corps of Engineers in the Westside Tributaries Study, whichever is wider. This is a more accurate measure of delineating the boundary between in-channel and off-channel uses.</p>	<p>In compliance with action.</p>	
	<p>Action 2.4-7: Manage activities and development within the floodplain to avoid hazards and adverse impacts on surrounding properties. This shall be accomplished through enforcement of the County Flood Ordinance and ensuring that new development complies with the requirements of the State Reclamation Board.</p> <p>The County Floodplain Administrator shall file for a Letter of Map Revision with the Federal Emergency Management Agency to update the Flood Insurance Rate Maps affected by channel reshaping within the Planning Area every ten years, or as needed.</p>	<p>Flood Insurance Rate Maps have been updated in two revised flood studies. The first, completed in 1998, covered the entire CCRMP study area using topography from the fall of 1995 (after the 1995 flood). The second, completed in 2001, used year 2000 topography and covered Cache Creek downstream of Road 94B. The CCRMP reach between Capay Dam and Road 94B will be due for map revision in the year 2005. The reach downstream of Road 94B will be due for revision in 2010, unless the floodplain is modified earlier, such as by the proposed Corps of Engineers levee project.</p>	

Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
<p>Impact 4.4-4: Potential Impacts Associated with Water Supply for Biotic Restoration</p>	<p>Objective 4.3-2: Establish conditions to encourage the development of a variety of natural riparian habitat types within the Cache Creek channel.</p> <p>Performance Standard 4.5-11: Existing hydraulic conditions shall be assumed for all proposed biotic reclamation activities. If an agreement is reached between the County and the Yolo County Flood Control and Water Conservation District regarding maintenance of year-round flow in the creek, additional water would be available for restoration activities. The TAC would be responsible for identifying and implementing new restoration opportunities resulting from the increased water availability. All plantings should be carefully selected based on the existing hydrology and water availability of the reclamation area.</p> <p>Irrigation of tree and shrub plantings may be necessary for the first two or three summers in drier sites to allow the roots to develop sufficiently to tap into the summer ground water level. Irrigation may be necessary at least twice per month during dry periods for the first three years. Water requirements of young plantings should be evaluated as part of routine monitoring, with adjustments to the frequency and duration of irrigation made in response to indications of stress.</p>	<p>See discussion for Performance Standard 4.5-11, below.</p> <p>The Yolo County Flood Control and Water Conservation District is planning a diversion of Gordon Slough overflow water away from Cache Creek. The project is currently in the feasibility stage. Although this project is currently in the planning stage, there is a potential for an eventual reduction in Cache Creek water supply for biotic restoration.</p>	<p>Mitigation Measure 4.5-3: It is recommended that the County work with the Yolo County Flood Control and Water Conservation District to arrive at an agreement regarding the long-term water supply to Cache Creek from Gordon Slough.</p>
<p>SEIR Impact 4.5-1: Channel Aggradation, Degradation, or Bank Erosion</p>		<p>A dynamic system such as Cache Creek has natural imbalances in sediment supply and transport that can have adverse impacts on man-made improvements in or near the stream. Natural fluctuations in streambed elevation can occur during a flood, as well as over the long term. These natural fluctuations are difficult to control without making drastic alterations to the channel. Further, state-of-the-art technical modeling is often a best-case approximation. SEIR Mitigation Measure 4.5-1 is intended to provide the TAC with engineering and technical information for informed decision-making regarding the probable effects of proposed projects on channel slopes, sediment transport and bank erosion. However, since Cache Creek is a naturally unpredictable system, this mitigation measure cannot ensure that there will be no future sediment imbalance on Cache Creek.</p>	<p>Mitigation Measure 4.5-4: The County shall negotiate with the Regional Water Quality Control Board to allow 100% extraction of the previous year's accumulation of sand and gravel under the 401 Water Quality Certification if it can be demonstrated that the removal of the sand and gravel is required for flood-control purposes.</p>
<p>SEIR Impact 4.5-2: Reduced Channel Flood Conveyance Capacity and Increased Flood Potential Outside the Channel</p>		<p>Based on a review of aerial photographs, TAC (1998 and 1999) review of sediment accumulation, new projects, and the Development Agreements and environmental impact analysis for the various mining companies, it appears the channel capacity has not been significantly reduced upstream of Road 94B as a result of human activities since 1995. An accurate determination can be made by implementation of Mitigation Measure 4.5-1.</p> <p>Since Cache Creek is a dynamic and unpredictable alluvial system, flood-control capacity could be altered significantly by</p>	<p>Mitigation Measure 4.5-5: It is recommended that paragraph 2 of CCRMP Performance Standard 2.5-5 shall be revised to state: <i>"The provisions of the CCIP shall be implemented by the County Resource Management Coordinator, with the assistance of the TAC. The CCIP shall contain provisions to ensure that Cache Creek</i></p>

Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
		<p>scour or deposition in a single flood event. The change may be due to natural causes and, if occurring in a privately-owned area not adjacent to mining operations, which can be authorized to remove material from the channel to maintain conveyance capacity, it may not be practicable or advisable for the County to attempt to ensure 100-year capacity at all times. The main area currently affected by overbank flooding is on the Lower Cache Creek downstream of the gravel pits. The proposed Corps of Engineers flood-control project downstream of Road 94B should mitigate adverse flooding effects in that area. Mitigation Measure 4.5-1 (above) is intended to mitigate Impact 4.5-2 in the future for the entire CCRMP area.</p>	<p><i>management decisions not reduce flood capacity nor exacerbate existing flooding problems downstream through channel reshaping. This will be accomplished by annual monitoring of channel geomorphology, distribution and density of plant material within the channel, and modeling to forecast changes in base flood elevations. When modeling indicates that the channel is losing conveyance capacity, the TAC shall identify for consideration actions by the County or landowners to reestablish capacity.</i></p>
WATER QUALITY			
Impact 4.4-3: Potential Impacts to Water Quality	Objective 2.3-2: Integrate the Cache Creek Resources Management Plan with other planning efforts to create a comprehensive, multi-agency management plan for the entire Cache Creek watershed.	In compliance with objective.	
	Goal 3.2-1: Improve the gathering and coordination of information about water resources so that effective policy decisions can be made.	In compliance with goal.	
	Goal 3.2-3: Maintain the quality of surface and groundwater so that nearby agricultural productivity and available drinking water supplies are not diminished.	In compliance with goal.	
	Goal 3.2-4: Enhance the quality of water resources by stressing prevention and stewardship, rather than costly remediation.	In compliance with goal.	
	Objective 3.3-2: Use the CCRMP as a basis for developing a comprehensive watershed plan for Cache Creek, that eventually integrates the area above Clear Lake to the Yolo Bypass, relying on coordinated interagency management.	In compliance with objective.	
	Objective 3.3-3: Eliminate water quality impacts from the use of pesticides, fertilizers, and other soil amendments in the channel. Promote public education programs that encourage the use of innovative methods and practices for enhancing the water quality of Cache Creek, through the voluntary cooperation of local landowners.	In compliance with objective.	

Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
	<p>Objective 3.3-4: Establish monitoring programs for the continued collection of data and information, to be used in managing surface and groundwater resources.</p>	<p>Based on the review of the existing monitoring data and the current situations in Cache Creek, it is recommended that Yolo County conduct a review of their existing water quality monitoring program, with emphasis on whether this program needs to be modified to better meet the County's needs for obtaining accurate water quality information associated with the various Cache Creek projects and its obligations under the various requirements for monitoring</p>	<p>Mitigation Measure 4.6-1: It is recommended that changes to Yolo County's current <i>Cache Creek Water Quality Monitoring Program</i> occur to insure that this program is comprehensive and responds to all applicable regulatory requirements. Appendix F of the Draft SEIR provides a reference for recommended changes.</p>
	<p>Action 3.4-1: Discourage activities that impact the surface water quality of Cache Creek. Although surface mining operations are regulated, other land uses along the creek are not. The County shall work with the U.S. Natural Resource Conservation Service and the Yolo County Resource Conservation District to promote alternative soil and water management practices that improve local water resources. The County Resource Management Coordinator shall initiate contact with resource conservation agencies at least annually. Pesticides and herbicides shall be used within the channel boundary only under the direction of a certified pesticide/herbicide applicator. These chemicals shall not be applied prior to forecasted rainfall. Public access to County-owned land shall be allowed only at limited points within the CCRMP Planning Area to facilitate the control of potential releases of deleterious materials (including fuel, motor oil, household waste, and debris) that could affect water quality within the Cache Creek channel. Access to private property along the creek should be discouraged through the posting of "No Trespassing" signs.</p>	<p>In compliance with action.</p>	
	<p>Action 3.4-2: Negotiate cooperative agreements with the Yolo County Flood Control and Water Conservation District, U.S. Army Corps of Engineers, Regional Water Quality Control Board, Yolo County Resource Conservation District, and U.S. Bureau of Land Management, among others, to extend the provisions of the CCRMP outside of the plan area and incorporate the requirements of other agencies of jurisdiction into the County's planning efforts. Interagency contact shall be initiated by the County Resource Management Coordinator at least once per year.</p>	<p>In compliance with action.</p>	

Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
	<p>Action 3.4-3: Provide for annual testing or more frequent (if necessary) of surface water quality of Cache Creek at Capay and Yolo. The sample collection and testing should be conducted in the fall or early winter so that the "first flush" of runoff is evaluated for water quality. The County should, when appropriate, enlist the assistance of other government agencies in carrying out the measurements, to reduce costs and provide accurate information. However, the County should not rely on others to complete the monitoring.</p> <p>Testing should include, but not be limited to: pH, total dissolved solids, temperature, turbidity, total and fecal coliform, mercury, total petroleum hydrocarbons, dissolved oxygen, nitrogen, phosphorus, herbicides and pesticides (EPA Methods 8140 and 8150), suspended and floating matter, odor, and color. This information would assist in habitat restoration efforts and allow the County to monitor water quality trends within the Planning Area. The County Resource Management Coordinator shall be responsible for the collection, management, and distribution of all water quality data.</p> <p>Performance Standard 3.5-3: Wastewater should not be directly discharged to Cache Creek. Measures such as berms, silt fences, sediment ponds, hay bales, and/or revegetation should be used to control erosion. Agricultural tailwater should be diverted to catchment basins prior to release to the creek.</p> <p>Performance Standard 3.5-4: Sediment fines generated by aggregate processing of in-channel sand and gravel shall be used for agricultural soil enhancement or -stream revegetation projects. In-channel sediment fines shall not be used as backfill material in off-channel habitat restoration, due to potential high mercury content.</p> <p>Performance Standard 6.5-8: No excavation shall take place within one-hundred and fifty (150) feet of the centerline of the low-flow channel, where the creek is contained within a single channel. Where the creek is braided or contains multiple channels, no excavation shall take place within one-hundred and twenty-five (125) feet of each channel.</p> <p>Performance Standard 6.5-9: In-channel haul roads shall be located along the toe of the streambank, in order to provide additional bank stabilization and to minimize disturbance of the low-flow channel. Each operation may have no more than two (2) haul roads at one time that cross the low-flow channel. Construction of the haul roads shall not result in excavation of the toe of the streambank, and shall be designed to avoid existing or restored riparian habitat. Haul roads shall comply with all applicable requirements.</p> <p>Performance Standard 6.5-11: All work within the channel shall comply with the requirements of all agencies of jurisdiction, including but not limited to: the State Department of Fish and Game, the U.S. Army Corps of Engineers, the State Regional Water Quality Control Board, CalTrans, and the State Reclamation Board.</p>	<p>See Objective 3.3-4, above.</p> <p>In compliance with Performance Standard.</p> <p>In compliance with Performance Standard.</p> <p>In compliance with Performance Standard.</p> <p>In compliance with Performance Standard.</p> <p>In compliance with Performance Standard.</p> <p>In compliance with Performance Standard.</p>	<p>See Mitigation Measure 4.6-1, above.</p>
<p>SEIR Impact 4.6-1: Groundwater Pollution</p>		<p>Groundwater recharge contains potentially significant levels of chemical constituents that could be adverse to the use of groundwater for domestic, industrial and agricultural purposes.</p> <p>Since Cache Creek recharges groundwater along some of its length in the Planning Area, there is the potential for constituents from projects implemented under the CCRMP and</p>	<p>Mitigation Measure 4.6-2 has been deleted.</p>

Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
		<p>CCIP to pollute the groundwater in adjacent areas. This issue is of the greatest concern for those who may use shallow wells near the Creek as a domestic water supply. While the characteristics of the shallow groundwater in domestic water supply wells have not been investigated in this study, there is a potential for herbicides used as a means of vegetation control for habitat restoration projects under the CCIP to pollute groundwaters in the Planning Areas. This pollution could in turn pollute a domestic well that draws water near the Creek. The Yolo County Public Health Department, Division of Environmental Health, is responsible for the regulation of domestic water supplies, wells, and liquid discharges, as outlined in the Yolo County Code §6-8.101 to 6.8-301 (Water Quality). Proposed projects under the CCRMP and CCIP within close proximity to an existing well would be subject to such regulation if impacts occur.</p>	
<p>SEIR Impact 4.6-2 has been deleted.</p>			<p>Mitigation Measure 4.6-3 has been deleted.</p>
<p>SEIR Impact 4.6-3: Non-compliance with 401 Certification Requirements and/or Basin Plan Water Quality Objectives (WQOs)</p>		<p>Some activities implemented under the CCRMP and CCIP (bank stabilization, vegetation removal, and bank repair) have the potential to be in non-compliance with WQOs.</p>	<p>Mitigation Measure 4.6-4: Water quality monitoring should be conducted near projects prior to, during, and after the project is completed (at first high-flow inundation) to detect WQO non-compliance. The monitoring programs should be designed to measure all constituents for which there are CVRWQCB numeric and narrative regulatory limits. If violations are found, modify future projects of this type to eliminate WQO non-compliance.</p> <p>Mitigation Measure 4.6-5: For bank repair using fill, conduct appropriate leaching test on fill materials to determine if it contains leachable constituents at concentrations of potential concern.</p>

Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
<p>SEIR Impact 4.6-4: Impacts of Herbicides Released During Vegetation Removal on Surface and Groundwater Quality</p>		<p>Herbicides released during chemical vegetation removal could have the potential to impact aquatic life and pollute water wells near the Creek. As previously mentioned, the Yolo County Public Health Department, Division of Environmental Health, is responsible for the regulation of domestic water supplies, wells, and liquid discharges.</p>	<p>See Mitigation Measure 4.6-5, above.</p> <p>Mitigation Measure 4.6-6: Evaluate the potential for herbicides to cause aquatic life toxicity – use herbicides with low toxicity to aquatic life (fish, zooplankton and algae). Evaluate the potential for herbicide use to cause pollution of nearby groundwater wells through understanding of groundwater hydrology (i.e., for herbicides to be transported from creek bed to well). If the potential exists, monitor groundwater in flow path to well in conjunction with requirements of the Yolo County Department of Public Health, Division of Environmental Health.</p>
<p>SEIR Impact 4.6-5 has been deleted.</p>			<p>Mitigation Measure 4.6-7 has been deleted.</p>
LAND USE			
<p>Impact 4.2-1: Consistency with Yolo County and Other General Plans</p>	<p>Goal 7.2-1: Protect farmland along Cache Creek from land uses that may conflict with agricultural operations.</p>	<p>In December 1996, the County considered several long-term off-channel Development Agreements with Teichert, Solano, Syar, and Cache Creek Aggregates, acquired by Granite (#96-286 to 290). These agreements included numerous project-level conditions and environmental mitigation measures consistent with the requirements of the CCRMP and CCIP, which included relinquishment of in-channel mining rights.</p> <p>The County's commitment and actions to carry out its policies to preserve agricultural land and enhance the viability of its agricultural industry have remained strong. The County's main concern with regard to Cache Creek is that appropriate steps be taken to minimize or avoid the loss of agricultural land due to erosion or evulsive (sudden major) bank failure due to changes in channel location during high flow periods.</p>	
	<p>Objective 7.2-3: Manage Cache Creek to reduce the loss of farmland from erosion and increase the recharge potential of the channel.</p>	<p>See Goal 7.2-1, above.</p>	

Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
Impact 4.2-2: Consistency with the Yolo County Zoning Ordinance and County Code		No new impacts resulting from consistency with the Yolo County and other General Plans have occurred since the adoption of the CCRMP and CCIP.	
Impact 4.2-3: Consistency with the State Mining and Reclamation Act (SMARA) and the State Mining and Geology Board of Reclamation Regulations		<p>In 1999, the State Legislature enacted Assembly Bill (AB) 297 which, in part, allows the CCRMP to be submitted in place of a standard reclamation plan required under SMARA for in-stream mining until December 31, 2003, and adopts the CCRMP and CCIP in place of individual reclamation plans for excavation projects conducted in conformance with them.</p> <p>To comply with AB297, the County has formed the TAC to review all proposed mining, bank stabilization projects and reclamation plans in the Cache Creek Plan Area. However, the County has not yet adopted the in-channel mining ordinance required to exempt it from SMARA.</p> <p>No new types of projects or activities have or are being proposed by the County. No new impacts are being identified and no additional mitigation measures in addition to those contained in the 1996 EIR are being proposed.</p>	Mitigation Measure 4.7-1: Adopt the required ordinance to obtain exemption from SMARA under AB 297.
Impact 4.2-4: Compatibility with Existing and Planned Land Uses	<p>Goal 2.2-2: Establish a more natural channel floodway capable of conveying floodwaters without damaging essential structures, causing excessive erosion, or adversely affecting adjoining land uses.</p> <p>Goal 2.2-3: Coordinate land uses and improvements along Cache Creek so that the adverse effects of flooding and erosion are minimized.</p> <p>Objective 2.3-2: Integrate the Cache Creek Resources Management Plan with other planning efforts to create a comprehensive, multi-agency management plan for the entire Cache Creek watershed.</p> <p>Objective 2.3-4: Protect permanent in-channel improvements (e.g., pipelines, bridges, levees, and dams) from structural failure caused by erosion and scour.</p> <p>Objective 2.3-7: Manage Cache Creek so that the needs of the various uses dependent upon the creek, such as flood protection, wildlife, groundwater, structural protection, and drainage are appropriately balanced.</p>	<p>In compliance with goal.</p> <p>In compliance with goal.</p> <p>In compliance with objective.</p> <p>In compliance with objective.</p> <p>In compliance with objective.</p>	

Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
	<p>Action 2.4-7: Manage activities and development within the floodplain to avoid hazards and adverse impacts on surrounding properties. This shall be accomplished through enforcement of the County Flood Ordinance and ensuring that new development complies with the requirements of the State Reclamation Board.</p> <p>The County Floodplain Administrator shall file for a Letter of Map Revision with the Federal Emergency Management Agency to update the Flood Insurance Rate Maps affected by channel reshaping within the Planning Area every ten years, or as needed.</p>	<p>In compliance with action.</p>	
	<p>Goal 5.2-3: Ensure the compatibility of recreational facilities with surrounding land uses and sensitive wildlife habitat, in order to minimize adverse impacts.</p>	<p>In compliance with goal.</p>	
	<p>Objective 5.3-2: Include use of the "Open Space" designation for the areas where resource management and habitat protection is warranted.</p>	<p>In compliance with objective.</p>	
	<p>Action 5.4-6: Design and manage recreational sites so that trespassing, vandalism, and other undesirable activities are discouraged.</p>	<p>In compliance with action.</p>	
	<p>Performance Standard 5.5-1: Only those uses that are river dependent, such as fishing, canoeing, and nature observation shall be located on the creek. More active uses, including parking, restrooms, and picnic areas should be located in areas located away from sensitive habitat, preferably on land that has been reclaimed from sand and gravel mining.</p>	<p>In compliance with Performance Standard.</p>	
	<p>Performance Standard 5.5-2: Recreational uses shall be clustered at locations along the creek, in order to limit public access, minimize habitat disturbance, and provide efficient and cost-effective management by the County. All access, whether by road or by trail, shall be through an entry point which can be controlled, and will return to that same entry point without giving road or trail access to other parts of the creek.</p>	<p>In compliance with Performance Standard.</p>	<p>Mitigation Measure 4.7-2: The text of Performance Standard 5.5-2 shall be replaced with the following text: "Recreational uses shall be clustered at locations along the creek, in order to limit public access, minimize habitat disturbance, and provide efficient and cost-effective management by the County. All access, whether by road or by trail, shall be through an entry point which can be controlled."</p>

Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
	<p>Performance Standard 5.5-3: Physically control access with gates and collect user fees to support operations and deter inappropriate activities. Limited public access will also reduce impacts to sensitive habitat and adjoining private uses. Additional options include permits, volunteer docents to patrol the site, and escorted tours.</p>	<p>In compliance with Performance Standard.</p>	<p>Mitigation Measure 4.7-3: The text of Performance Standard 5.5-3 shall be replaced with the following text: "Limited public access will also reduce impacts to sensitive habitat and adjoining private uses. Additional options include permits, volunteer docents to patrol the site, and escorted tours."</p>
	<p>Performance Standard 5.5-4: Recreational facilities shall be located a minimum of one-hundred and fifty (150) feet from private dwellings, with a landscaped buffer provided to reduce noise and maintain privacy.</p>	<p>In compliance with Performance Standard.</p>	
	<p>Performance Standard 5.5-6: Large-scale, high-intensity recreational uses, such as amusement parks, off-road vehicle parks, or uses involving motorized watercraft, are not compatible with land uses along Cache Creek.</p>	<p>In compliance with Performance Standard.</p>	
	<p>Performance Standard 5.5-7: The recreational use of off-road vehicles and all-terrain vehicles on public property shall be prohibited.</p>	<p>In compliance with Performance Standard.</p>	
	<p>Performance Standard 6.5-1: All in-channel operations shall be limited to the hours of 8:00 a.m. to 5:00 p.m., Monday through Friday, unless emergency conditions require otherwise.</p>	<p>In compliance with Performance Standard.</p>	
	<p>Performance Standard 6.5-3: All unpaved roads shall be adequately watered to keep soil moist at all times, in order to control fugitive dust.</p>	<p>In compliance with Performance Standard.</p>	
	<p>Performance Standard 6.5-5: Noise levels shall not exceed an average noise level equivalent (Leq) of eighty (80) decibels (dBA) measured at the outermost boundaries of the property being excavated. However, noise levels may not exceed an average noise level equivalent (Leq) of sixty (60) decibels (dBA) for any nearby off-site residences or other noise-sensitive land uses, unless emergency conditions require otherwise.</p>	<p>In compliance with Performance Standard.</p>	
	<p>Goal 7.2-1: Protect farmland along Cache Creek from land uses that may conflict with agricultural operations.</p>	<p>In compliance with goal.</p>	
	<p>Objective 7.3-1: Ensure the compatibility of planned habitat and the channel floodplain with adjoining agricultural land, so that productivity is not adversely affected.</p>	<p>In compliance with objective.</p>	
	<p>Objective 7.3-2: Coordinate with local farmers to employ existing agricultural practices in improving the quality of riparian habitat.</p>	<p>In compliance with objective.</p>	
	<p>Action 7.4-2: Design and develop habitat restoration projects so that they do not adversely impact the agricultural productivity of nearby farmland.</p>	<p>In compliance with action.</p>	
	<p>Action 7.4-3: Incorporate agriculturally related features, such as agricultural forage areas and drainage systems, into the design of habitat planning.</p>	<p>In compliance with action.</p>	
	<p>Performance Standard 7.5-1: Revegetation projects may be coordinated with agricultural drainage structures that empty into Cache Creek or previously mined areas separated from the creek, so that the sediment deposited can provide additional topsoil and so that riparian species requiring a more steady supply of water can be established.</p>	<p>In compliance with Performance Standard.</p>	

Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
	<p>Performance Standard 7.5-2: Vegetated buffers should be placed between restored habitat areas and adjoining farmland, in order to minimize the potential for riparian areas to serve as reservoirs for predators and insect pests. Said buffers will also reduce the effects of noise, dust, and spraying generated by agricultural operations on wildlife and riparian vegetation.</p>	In compliance with Performance Standard.	
	<p>Performance Standard 7.5-3: Species and water features included in habitat areas should be designed to discourage the intrusion of wildlife, insect pests, and weeds that would impair local crops.</p>	In compliance with Performance Standard.	
Impact 4.2-5: Changes in Land Use Intensity		No new impacts due to changes in land use intensity since adoption of the CCRMP have been identified.	
Impact 4.2-6: Land Use Incompatibility Due to Changes in Creek Boundary		No new impacts are identified as a result of this aspect of CCRMP implementation.	
Impact 4.2-7: Establishment of a Conceptual Planning Framework for the Long-Term Preservation and Development of Open Space and Recreational Opportunities in the Cache Creek Area	<p>Goal 5.2-1: Improve scenic resources within the Cache Creek channel.</p>	As mining activities wind down and more areas along the Creek become accessible to the public, the County will implement its long-range plan and strategy to accommodate the variety of recreational uses to meet public demand. Such plans will require separate review when specific plans and projects are proposed. These issues are addressed in greater detail in the Draft County's Open Space and Recreation Element of the General Plan. The County has moved aggressively to address this impact by preparing its Updated Open Space and Recreation Element of the General Plan due for adoption in early 2002. No new impacts are identified and no new mitigation measures are proposed with regard the establishment of a conceptual planning framework for the long-term preservation and development of open-space and recreational opportunities in the Planning Area.	
	<p>Goal 5.2-2: Establish a variety of outdoor recreational and educational opportunities along Cache Creek for use by the public.</p>	See Goal 5.2-1, above.	
	<p>Goal 5.2-3: Ensure the compatibility of recreational facilities with surrounding land uses and sensitive wildlife habitat, in order to minimize adverse impacts.</p>	See Goal 5.2-1, above.	
	<p>Action 5.4-1: Solicit the dedication of restored habitat areas and/or recreational areas to the County or an appropriate land trust, such as the Cache Creek Conservancy, in order to provide continuous open space along the creek.</p>	See Goal 5.2-1, above.	
	<p>Action 5.4-2: Develop a future recreation plan for Cache Creek, in consultation with the County Parks Administrator, to provide a range of public activities and uses. Suggested recreational uses may include, but are not limited to: hiking, horseback riding, fishing, picnic grounds, boating, educational exhibits, and birdwatching.</p>	See Goal 5.2-1, above.	
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Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
	Action 5.4-3: Identify possible locations for future recreational, habitat, and educational uses along Cache Creek, such as those shown in Figure 10. Sites shall be located at regular intervals throughout the plan area. Intensive recreational uses, such as horseback riding, picnicking, and boating, shall be located away from designated habitat areas.	See Goal 5.2-1, above.	
	Action 5.4-4: Designate identified recreational areas as "Open Space" in the Cache Creek Resource Management Plan.	See Goal 5.2-1, above.	
	Action 5.4-5: Coordinate with the Bureau of Land Management to investigate the eventual linkage of recreational uses located along the upper watershed of Cache Creek to the designated recreational sites located within the plan area.	See Goal 5.2-1, above.	
	Action 5.4-6: Design and manage recreational sites so that trespassing, vandalism, and other undesirable activities are discouraged.	See Goal 5.2-1, above.	
	Action 5.4-7: Acquire future sites, through purchase or voluntary donation, so that the County can maintain and develop the areas according to the future recreation plan.	See Goal 5.2-1, above.	
	Performance Standard 5.5-1: Only those uses that are river dependent, such as fishing, canoeing, and nature observation shall be located on the creek. More active uses, including parking, restrooms, and picnic areas should be located in areas located away from sensitive habitat, preferably on land that has been reclaimed from sand and gravel mining.	See Goal 5.2-1, above.	
	Performance Standard 5.5-2: Recreational uses shall be clustered at locations along the creek, in order to limit public access, minimize habitat disturbance, and provide efficient and cost-effective management by the County. All access, whether by road or by trail, shall be through an entry point which can be controlled, and will return to that same entry point without giving road or trail access to other parts of the creek.	See Goal 5.2-1, above.	See Mitigation Measure 4.7-2 above.
	Performance Standard 5.5-3: Physically control access with gates and collect user fees to support operations and deter inappropriate activities. Limited public access will also reduce impacts to sensitive habitat and adjoining private uses. Additional options include permits, volunteer docents to patrol the site, and escorted tours.	See Goal 5.2-1, above.	See Mitigation Measure 4.7-3 above.
	Performance Standard 5.5-4: Recreational facilities shall be located a minimum of one-hundred and fifty (150) feet from private dwellings, with a landscaped buffer provided to reduce noise and maintain privacy.	See Goal 5.2-1, above.	
	Performance Standard 5.5-5: Educational and interpretive curricula shall be developed that will reach all segments of the community. The County shall rely heavily on compatible programs already developed by volunteers, schools, and nonprofit organizations.	See Goal 5.2-1, above.	

Impact	Goals/Objectives/Actions/Performance Standards that Apply to the Impact	Course of Action Since 1996 EIR	2002 SEIR Recommended Mitigation Measures
	<p>Objective 5.3-1: Create a continuous corridor of natural open space along the creek and provide for limited access, at specific locations, to recreational and educational uses.</p>	<p>Due to the high degree of private land ownership along the Creek, public access to it has been severely limited. However, the recreational nodes identified in the CCRMP and in the new Open Space and Recreation Element of the County's General Plan provide public access at each bridge and are widely used by the public. There is the potential for the County to eventually expand these and connect them into a continuous public trail. The Cache Creek Nature Preserve is 130 acres of upland wetlands and on-going nature enhancement improvements administered by the County on reclaimed gravel pits previously mined by Teichert. The CCNP provides public access to the creek but at this time it is not included as part of the anticipated continuous public trail created via the network of nodes.</p>	
	<p>Objective 5.3-2: Include use of the "Open Space" designation for the areas where resource management and habitat protection is warranted.</p>	<p>See Objective 5.3-1, above.</p>	
	<p>Performance Standard 5.5-6: Large-scale, high-intensity recreational uses, such as amusement parks, off-road vehicle parks, or uses involving motorized watercraft, are not compatible with land uses along Cache Creek.</p>	<p>The use of off-road vehicles (ORV) has grown in recent years. The County has neither planned nor regulated their use and no suitable areas have been set aside for this recreational activity. Consequently, off-road vehicle riders have made unauthorized use of private land along the Creek as well as the Cache Creek Conservancy managed land. This has created a law enforcement problem. The County should work with the appropriate stakeholders to develop a plan for addressing the needs of ORV riders in the Planning Area and elsewhere in the County.</p>	
	<p>Performance Standard 5.5-7: The recreational use of off-road vehicles and all-terrain vehicles on public property shall be prohibited.</p>	<p>See Performance Standard 5.5-6, above.</p>	
	<p>Performance Standard 5.5-8: The hunting and/or discharge of firearms along Cache Creek shall be prohibited on public property.</p>	<p>In compliance with Performance Standard.</p>	

3.0 RESPONSES TO COMMENTS ON THE DRAFT SEIR

This section presents responses to comments received on the Draft Supplemental EIR (SEIR). Table 3-1 lists all comments received, and shows the comment set identification number for each comment letter.

Table 3-1 Commenters and Comment Set Numbers

Commenter	Comment Set
Cache Creek Conservancy (Jan Lowrey)	A
Yolo County Resources Conservation District (Paul Robins)	B
California Department of Transportation, District 3 (Jeffrey Pulverman)	C
Construction Materials Association of California (Linda Falasco)	D
Luhdorff & Scalmanini (Joseph Scalmanini)	E
Granite Construction Company (Grant Williams)	F

Section 4.0 presents copies of all comment letters submitted on the Draft SEIR. Each comment on the Draft SEIR presented in Section 4.0 has a corresponding response in this section. The responses are presented in the order shown in Table 3-1. To find the response to a particular comment or comment set, note its comment set number from Table 3-1 (the comment set number is also shown on the top of each comment letter).

3.1 RESPONSES TO GENERAL WATER QUALITY COMMENTS

A number of the comment letters raised issues related to Chapter 4.6, Water Quality, of the Draft SEIR. The County felt it was necessary to include general water quality responses to address some of the broader issues raised by the commenters on the water quality section. Individual responses to water quality comments are also included in Section 3.2 below.

GENERAL WATER QUALITY RESPONSES

GR-1 A number of the comments relate to the expanded regulatory requirements that are currently, or will soon be applicable to Cache Creek in-channel projects (Projects), compared to those requirements in place when the CCRMP was adopted in 1996. The minimum 401 Certification requirements for assessing environmental impacts of Cache Creek in-channel projects have been significantly expanded since 1996 and will be applicable to all future Cache Creek in-channel projects. The 401 Certification, administered by the Central Valley Regional Water Quality Control Board (CVRWQCB), requires that all Cache Creek in-channel projects not cause or contribute to violations of water quality standards (objectives). In order to fulfill this requirement, the County will have to comply with all the conditions of the permits issued by CVRWQCB and the Army Corps of Engineers.

Any discussion regarding an increased cost of complying with the 401 Certification requirements is not appropriate for this SEIR as a requirement under CEQA. The County recognizes that future requirements by the CVRWQCB may result in conditions in the permits that may require additional costs.

GR-2 Several commenters raised concern about projects having to conform to yet-to-be-developed water quality objectives. The Draft SEIR Water Quality chapter discussed a number of pending water quality objectives that have a high probability of being adopted during the next 401 Certification period. Such adoption by the CVRWQCB would require that any project conducted after adoption includes the particular parameter as part of those evaluated with respect to the impact of the project on Cache Creek water quality.

- GR-3 Another issue raised by the commenters was that sponsors of Cache Creek in-channel projects could in some way become responsible for existing water quality problems in Cache Creek. Sponsors of Cache Creek in-channel projects can not be held responsible for existing water quality problems; however, the Clean Water Act does require that discharges, such as releases from any Cache Creek in-channel project subject to 401 Certification, not cause an increase in the magnitude of violations of the water quality objectives. Any project that is found to cause an increase in the magnitude of a violation of a water quality objective would have to be conducted with appropriate mitigation to eliminate the increased violation. There is no requirement that a project mitigate for all of the non-project caused water quality problems in Cache Creek.
- GR-4 Another issue raised by commenters was that this chapter of the Draft SEIR made use of data on characteristics of Cache Creek upstream of the project area to indicate areas of potential concern with respect to conducting projects. These data were included to provide the County and other project proponents with insight into potential problem areas that could necessitate consideration as part of formulating Cache Creek in-channel projects.

3.2 RESPONSES TO COMMENTS

COMMENT SET A. CACHE CREEK CONSERVANCY

- A-1 Since 1996, scour caused by storm events and subsequent high flows have removed the majority of tamarisk and Arundo in the channel area west of the Capay Bridge, referred to in Performance Standards 4.5-20 and 4.5-21. Consequently, this is no longer a high priority area for removal. Performance Standard 4.5-20 also stated that chemical treatment for tamarisk will be conducted from November through January. This schedule is outdated, as the new chemicals require foliage treatment between the months of July and November, when tamarisk is most susceptible to treatment (i.e., immediately following the initial seasonal growth spurt). The chemicals for tamarisk control referred to in the Performance Standards (Rodeo 4, Round-up, and Garlan) are outdated. The new chemicals are Round-up pro, Aqua Master, and Stalker. As a result of these modifications to the tamarisk removal program, pages 4.2-19 to 4.5-20 of the Draft SEIR have been modified as follows to reflect these updates:

“Performance Standard 4.5-20 The in-channel area located west of the Capay Bridge is the highest priority for Tamarisk elimination. Weed control shall begin within the first year after ground disturbance in order to prevent Tamarisk from out-competing native vegetation. Chemical control is preferred, since dying trees keep soil in place and retain moisture, encouraging the growth of other species. Options include, but may not be limited to: Rodeo, 4 Roundup, and Garlon 3A. Rodeo is low in toxicity, does not persist in the soil, and is labeled for aquatic use. Chemicals should be applied to freshly cut stumps and must cover the entire cambium layer. Cut plants should be removed from the channel and either disposed of or burned. Cutting and chemical treatment is most effective during November through January, when the plant is entering dormancy. Application should be repeated to control shoots growing from root systems. All chemical spraying must be done by a certified herbicide applicator.

Tamarisk removal commenced in October of 2001 and the reach from the Harrison property to the Dewey property was completed in November of 2001. The remaining properties between County Road 94-B and the Dewey property (with the exception of the Kerr property) are scheduled to be completed in 2002.~~The portion from County Road 94B to the Dewey property was completed between October and December, with the exception~~

of the Bloodworth, Plocher and Kerr properties. The Plocher and Bloodworth properties are scheduled to be completed in 2003. The tamarisk removal area west of Capay Bridge identified in Performance Standard 4.5-20 is no longer a high priority area due to scour caused by storm events and erosion caused by subsequent high flows. In addition, the suggested schedule for tamarisk removal is outdated since new chemicals used for tamarisk control require foliage treatment between the months of July and November. The new chemicals currently being used for tamarisk control include Round-up pro, Aqua Master, and Stalker. Performance Standard 4.5-20 in conjunction with SEIR Mitigation Measure 4.2-8 adequately addresses these updates.

Performance Standard 4.5-21 Giant reed shall be removed from areas of high flow velocity, especially within the channel area located west of the Capay Bridge. The most effective control is the chemical application of Rodeo during March and April. Optimum results are achieved with total spray coverage, although Rodeo may be sprayed at full strength on stumps that are cut as close to the ground as is practicable. Alternatively, reed may be sprayed with follow up removal of the dead plants. All cut plants should be either disposed of or burned. Applications should be repeated to treat shoots that resprout. All chemical spraying must be done by a certified herbicide applicator.

The area reach of Cache Creek west of the Capay Bridge, heavily infested with Tamarisk and Arundo, was completely scoured and the tamarisk and Arundo were completely exotic species removed during 1998 flood events in 1998. Therefore, this area is no longer considered a high priority area for exotic plant removal. New herbicides and new technology in tamarisk and Arundo control have resulted in a timing change for spraying applications from November through January for Arundo or to July for Tamarisk through the first frost (November). The new herbicides (e.g. Aqua Master) are safe for aquatic uses (e.g. marsh areas).

SEIR Mitigation Measure 4.2-8: It is recommended to continue to use new the most recent technology for tamarisk and Arundo removal, that includings a combination of mulching and spraying controls. Per new The latest technology in tamarisk and Arundo removal includes techniques, spraying herbicides from the period beginning in April for Arundo and July for Tamarisk through the “first frost” (November). Arundo control involves application of Round-Up (away from water) or Aqua Master (near water) during March and April. Applications should be repeated to treat shoots that resprout when re-growth is approximately 4-feet tall and 60% of the original stem density. All chemical spraying must be done by a certified herbicide applicator. All cut plants should be either disposed of or burned. Monitor and map the success of the tamarisk and Arundo removal efforts. Monitoring and mapping should be coordinated with the Yolo County Weed Management Area efforts.”

- A-2 The purpose of Mitigation Measure 4.5-2 is to ensure that future channel modifications in the CCRMP Planning Area, upstream of the flood protection proposed by the Corps of Engineers, not reduce floodplain storage to the point where the flood protection design discharge is increased, resulting in a reduced level of protection for the City of Woodland and other flood-prone areas that will be protected by the Corps project. It is not intended that routings be performed for each new project.

The mitigation measure in the SEIR has been revised to more clearly define how the routing parameters are to be used, and to recommend that the parameters be reevaluated every five years. The updated mitigation measure is presented below:

“SEIR Mitigation Measure 4.5-2: The County shall evaluate Muskingum and/or Modified Puls hydrologic stream-routing parameters, used by the U.S. Army Corps of Engineers, in developing the design discharge for the possible Woodland flood control project currently being evaluated, and take use these routing parameters to develop floodplain encroachment guidelines, taking into account probable cumulative effects, for ~~into~~ consideration when reviewing projects that may have an effect on downstream discharge through removal of floodplain storage areas. A stream routing shall be performed once every five years to monitor the cumulative effects of development and to adjust encroachment guidelines as necessary.”

The cost of this mitigation measure is not known at this time, but is expected to be minimal. The Corps of Engineers routing model has already been developed and can be used as a baseline and for development of encroachment guidelines. Once every five years the model would be updated based on any encroachments or changes in flood storage within the CCRMP to evaluate what effect the encroachments have on peak discharges. In the event there are no encroachments or changes in flood storage in the previous five years, the update could consist of a statement to that effect and a continuation of the same guidelines previously in effect.

- A-3 Mitigation Measure 4.5-4 does not conflict with any of the constraints in Chapter 4.6, Water Quality, of the Draft SEIR. SEIR Mitigation Measure 4.5-4 recommends that the County negotiate with the RWQCB to allow 100% extraction versus 95% extraction as previously permitted. It has been determined that an additional 5% increase in extraction would not create any additional hydrology or water quality impacts.
- A-4 The flows that Chapter 4.6 (Water Quality) of the SEIR was based on are appropriately presented in the Draft SEIR published in April of 2002. The administrative draft served as a review document prior to publication to find any inconsistencies or errors. A change in the flow numbers between the administrative and published document indicates that the wrong numbers for flow were in the administrative version of the SEIR. It should be noted that the water quality aspects of the Draft SEIR were not based on a particular flow of Cache Creek. While flow influences this, this issue is not a determining factor in compliance with the 401 Certification requirements for Cache Creek in-channel projects. The Water Quality chapter of the Draft SEIR considered the range of flows that are of potential concern in influencing the water quality impacts of in-channel projects. While average flow in the creek is generally less than 1,000 cfs, reference is made in the SEIR to instances where peak flows were 10, 20 or 30 times as great.
- A-5 The last paragraph on page 4.6-21 of the Draft SEIR has been updated to read as follows:
- ~~“Locations along the Creek below County Road 94B that provide public access could be potential areas of concern for exposure to elevated coliforms and likely associated pathogens. These locations include: Capay, Esparto, Stevens and I-5 bridges, Cache Creek Nature Preserve, or wherever there is the potential for children and adults to enter the creek. The Conservancy staff discourages recreational contact with Cache Creek waters in the Project Area. This preventive measure is important to mitigate any impact.”~~
- A-6 The commenter is concerned that the language adopted by the Board of Supervisors in the CCRMP in 1996, is in conflict with present planning activities, particularly those affecting the programs and operation of the Cache Creek Conservancy.

Performance Standard 5.5-1 cites river-dependent activities such as fishing, canoeing and nature observation as being allowed to be located on the creek. These are only examples of permitted

activities. Other activities include educational programs such as those conducted by the Cache Creek Conservancy, and access by the general public to Conservancy managed land for purposes of nature observation and enjoyment.

The standard does not preclude facilities required to support permitted activities, such as restrooms, but calls for them to be located away from sensitive habitat, preferably on reclaimed land such as that on which the Conservancy is located. This standard is consistent with present planning activities.

Performance Standard 5.5-2 states, in part, that: "All access (to the creek), whether by road or by trail, shall be through an entry point which can be controlled, and will return to the same entry point without giving road or trail access to other parts of the creek." The Cache Creek Conservancy is concerned that requiring people to enter and exit at the same point is overly restrictive, given recent developments. For example, in light of the anticipated creation of the creekside wildlife area as part of approving the Wildwings housing project across the creek from the Conservancy, it may be desirable to allow people to enter the area on one side of the creek and exit on the other, consistent with the Standard's intent of controlled access. Similar situations may arise elsewhere along the creek in the future. As such, Mitigation Measure 4.7-2 is presented below.

"SEIR Mitigation Measure 4.7-2: The text of Performance Standard 5.5-2 shall be replaced with the following text: "Recreational uses shall be clustered at locations along the creek, in order to limit public access, minimize habitat disturbance, and provide efficient and cost-effective management by the County. All access, whether by road or by trail, shall be through an entry point which can be controlled."

Performance Standard 5.5-3 states: "Physically control access with gates and collect user fees to support operations and deter inappropriate activities." The Cache Creek Conservancy suggests giving the County discretion in charging fees, especially when educational programs accessible to all segments of the population are involved. As such, Mitigation Measure 4.7-3 is presented below.

"SEIR Mitigation Measure 4.7-3: The text of Performance Standard 5.5-3 shall be replaced with the following text: "Limited public access will also reduce impacts to sensitive habitat and adjoining private uses. Additional options include permits, volunteer docents to patrol the site, and escorted tours."

COMMENT SET B. YOLO COUNTY RESOURCES CONSERVATION DISTRICT

- B-1 Subsequent to the 1996 EIR, the CCRMP is now within the jurisdiction of the Yolo County Weed Management Agency (YCWMA). This County agency is conducting and coordinating county-wide weed mapping as one of its primary goals, as well as, educating the public on weed control and managing and monitoring noxious weed populations. As a result, all mapping and monitoring of noxious weeds within the CCRMP Planning Area should be coordinated with the YCWMA. This update is reflected in SEIR Mitigation Measure 4.2-8 (refer to Response to Comment A-1).
- B-2 The plant species listed in Performance Standards 4.5-13 through 4.5-15 are only recommendations, and final plant mixes are subject to review and approval from the TAC.
- B-3 SEIR Mitigation Measure 4.2-12a has been added to the discussion on page 4.2-34 of the Draft SEIR to update Performance Standard 4.4-4. The measure reads as follows:

“SEIR Mitigation Measure 4.2-12a: The text of Performance Standard 4.4-4 shall be replaced with the following text: “Coordinate with the Cache Creek Conservancy, the Yolo County Flood Control and Water Conservation District, the California Department of Fish and Game, the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, and all other appropriate agencies to ensure that habitat restoration projects proposed by these and other entities are consistent with the Cache Creek Resources Management Plan. Restoration plans shall compliment preservation and enhancement measures in the Yolo County Habitat Conservation Program.””

B-4 The Yolo County Resource Manager for the CCRMP and CCIP will coordinate the development of any “safe harbor” initiative with all appropriate agencies in order to explore opportunities for broadening the program and its benefits. SEIR Mitigation Measure 4.2-13 has been updated as follows:

“SEIR Mitigation Measure 4.2-13: Establish a “safe harbor” agreement between resource agencies and local farmers to encourage the creation of new wildlife habitat on agricultural lands within the Planning Area. Also evaluate the feasibility of land easements as an alternative to the “safe harbor” strategy on private property within the Planning Area. The Yolo County Resource Manager for the CCRMP and CCIP should coordinate the development of any “safe harbor” initiative with all appropriate agencies to explore opportunities for broadening the program and its benefits.””

B-5 The availability of data on the water consumption of a selected group of local native wetland species is noted. The TAC is aware that this information is available from the Yolo County Resource Conservation District as well as other resources for future analyses.

B-6 The availability of data on farm irrigation runoff sediment and nutrient capture by sediment traps and tailwater traps is noted. The TAC is aware that this information is available from the Yolo County Resource Conservation District as well as other resources for future analyses.

B-7 The Yolo County Resource Conservation District’s support of the goals of the CCRMP and CCIP is noted.

COMMENT SET C. CALIFORNIA DEPARTMENT OF TRANSPORTATION, DISTRICT 3

C-1 SEIR Mitigation Measure 4.5-1 requires an evaluation of the potential effect of channel reshaping activities on bridges. Subsection “C” of Mitigation Measure 4.5-1 has been modified to ensure Caltrans review of individual projects.

“C. Use the information developed from the HEC-6 and HEC-2 models, along with appropriate local scour analysis techniques, to assess the level of risk to bridges, utilities and other channel infrastructure of failure or exposure by scour. Individual projects with the potential for affecting bridge scour or hydraulic capacity shall be required to submit hydraulic and scour analyses for review and approval by the County. County review shall include providing a copy of the analysis to the agency responsible for the potentially-affected bridges (for instance Caltrans), and consideration of comments by the responsible agency.””

C-2 These comments were submitted by the commenter during the comment period for the Draft EIR published in April of 1996. Responses to these comments were adequately presented by the County in the Final EIR (pages 4-27 through 4-31) published in July of 1996. Please refer to Chapter 4.0 of the 1996 Final EIR. Since implementation of the CCRMP and CCIP, the

County has taken into consideration the presence of bridges and opportunities to enhance a bridge structure in the selection of project sites.

COMMENT SET D. CONSTRUCTION MATERIALS ASSOCIATION OF CALIFORNIA

D-1 The current conditions and recognition of improvements to conditions as a result of projects completed under the CCRMP and CCIP is reflected throughout the SEIR. Because changes to many of the regulations relating to surface and ground water quality have occurred or are currently being proposed by the EPA and Central Valley Regional Water Quality Control Board (CVRWQCB), the Water Quality and Groundwater chapters of this document go beyond merely those regulations that have been or currently are in place and also include those that will likely be in place during the next 401 Certification period for the CCRMP in anticipation of having to comply with these anticipated regulations as a condition of the permit.

D-2 The commenter states that “*The basic question is not if these projects are perfect laboratory samples or whether conditions in the watershed meet or don’t meet a given standard, but whether or not the projects are functioning as presumed in the original CCRMP and therefore whether or not general permits should be re-issued.*” However, as stated on page 1-6 of the Draft SEIR, “The SEIR updates the environmental setting since adoption of the CCRMP and CCIP and analyzes the environmental impacts associated with the projects implemented under the CCRMP since adoption.” This SEIR does not seek to determine whether the projects are functioning as presumed, rather it analyses the impacts of these projects. This impact analysis and updated setting indicates the successfulness of the CCRMP and CCIP and provides a basis for the U.S. Army Corps of Engineers, Central Valley Regional Water Quality Control Board (CVRWQCB), and the California Department of Fish and Game to issue new permits that will allow the County to continue the streamline permitting process for channel improvement and habitat restoration projects in the Planning Area.

Significant effort has been made in this SEIR to document the “... *changes to the channel as a result of the CCRMP since 1996.*” The intent of this SEIR, however, is to indicate the relative success or failure of the CCRMP in regulating projects within the Planning Area, and not to address each project regulated by this Plan. Consequently, the purpose of the SEIR is to evaluate those impacts addressed in the 1996 EIR with respect to current conditions and changes to those conditions and to the regulatory environment. Mitigation is recommended to address impacts of the CCRMP and CCIP (stated in the 1996 EIR) that are not being adequately addressed by the respective Plan and Program, as originally envisioned.

Continued monitoring of resources (modified, as recommended in the SEIR) should allow for a more accurate assessment of current conditions and the (positive and negative) impacts of the various projects within the CCRMP boundary. This improved monitoring should allow project proponents to more accurately assess the potential impacts of their proposed activities on the Creek and its immediate environs.

D-3 The commenter expressed concern that the Groundwater section does not mention any positive feedback on groundwater conditions due to the elimination of in-channel gravel mining and what affects the CCRMP had on groundwater. Please refer to Sections 4.4.2.3 and 4.4.3.2 of the Draft SEIR. Section 4.4.2.3 of the SEIR discusses post-1996 abandonment of in-channel mining and the subsequent Development Agreements, which forfeited leasehold rights for in-channel mining. Section 4.4.3.2 (Impact Analysis and Recommended Mitigation) discusses the impacts to groundwater resources since 1996. This section provides positive feedback on groundwater recharge programs and notes this item as a beneficial impact to groundwater recharge.

- D-4 The commenter stated that the Groundwater section 4.4.2 states that “*no new Federal Regulations*” have been identified or adopted since the 1996 EIR; however, the Water Quality section 4.6 cites numerous such regulations. The regulations cited in Section 4.6 of the SEIR (Federal [NPDES, 404], and State [401, Streambed Alteration, Porter-Cologne]) are related to surface water related activities and will be adhered to by the County via the conditions of the new 401 Water Quality Certification permit.
- D-5 The changes in water quality regulations have been discussed in chapter 4.6.2 of the Draft SEIR (New Applicable Regulations, Plans, and Standards Since 1996.) and will be adhered to by the County via the conditions of the new 401 Water Quality Certification permit. The “... *Federal, State, or Regional water quality regulations ... in consideration for changes or ... additional regulations ... presently under consideration for adoption that would affect the CCRMP project area*” are discussed.
- D-6 The question is asked, “*What requirement does the County have to adopt higher standards of water quality testing, when such standards have not or may not be adopted?* [sic].” Chapter 4.6 of the Draft SEIR was designed to not only discuss existing water quality standards (objectives), but also water quality standards (objectives) that have a high probability to be adopted during the next 401 Certification period. What the County and other Project proponents have to conform to are the water quality standards that are in place at the time of renewal of the 401 Certification for the CCRMP and CCIP.

This commenter raised the issue of Cache Creek not now meeting a water quality objective potentially impacting a Project. The US EPA Clean Water Act regulations are explicit in that the Project shall not cause or contribute to a violation of a water quality standard (objective). If the Clean Water Act or the RWQCB determines that the concentrations of constituents are already in excess, then the project shall not cause any additional increase in the concentration of the constituents in violation of the water quality objective.

- D-7 There is no requirement to mitigate water quality impacts that are due to other causes. The project, however, cannot cause an increase in the concentration of constituents if Cache Creek is determined to already be in violation of the water quality objective.
- D-8 The commenter states that “*The section appears to take the approach that the CCRMP is responsible for the overall collection of data and mitigation of impacts for the entire watershed.*”. As discussed in the Draft SEIR, Cache Creek in-channel projects must be conducted in light of existing environmental conditions. Any increase in the concentration of a regulated constituent already present in concentrations that already violate a water quality objective is not allowed, and must be mitigated. There is no requirement, however, for the project proponent to mitigate the water quality problems that occur due to other reasons outside of the Planning Area. Stated simply, projects implemented under the CCRMP cannot make a situation worse, since the other causes of water quality problems have used up all of the assimilative capacity of Cache Creek for increases in pollutants.

With respect to the issue of discussing matters based on data outside of the Project area, this discussion was included because Cache Creek is listed by the CVRWQCB as an impaired waterbody due to unknown-caused toxicity. Any increase in the magnitude of an existing toxicity associated with a given project requires mitigation for the amount of the increase, not including the existing toxicity levels. It is important to be aware of the existing parameters and requirements when siting projects under the CCRMP and CCIP to avoid impacting an already impaired situation.

The question is asked about whether the Yolo County Department of Health has been contacted to comment on the potential for human health hazards by contact with water in the creek, and whether they see it as a concern. Tom To of the Yolo County Department of Environmental Health was contacted and indicated that, although the Department of Health does not monitor sanitary quality in the project area, there is concern regarding potential human health hazards. If human health hazards become a greater issue, the Yolo County Department of Environmental Health would directly address this issue.

- D-9 The author of this section does not intend to suggest that monitoring and mitigation is required for water quality problems in the Planning Area caused by other activities in the watershed. The commenter makes specific references to text of the Draft SEIR (pages 4.6-19, 4.6-16, 4.6-21, and 4.5-28) that provide parameters indicating why the water is impaired. These are merely examples of existing water quality conditions in the Cache Creek Planning Area. The Draft SEIR is explicit in requiring that all in-channel project sponsors must be cognizant of existing water quality conditions, since any increase in parameters brought about by a project could result in the project sponsors' violating 401 Certification requirements (WQOs). A project sponsor would not be held responsible for the total amount of contamination, but would be held responsible and require mitigation for any increase above already existing conditions. It is important to be aware of these existing parameters and requirements when siting projects under the CCRMP and CCIP to avoid impacting further an already impaired situation.
- D-10 It is important, in considering the conditions that existed in 1996 during the development of the CCRMP, that the 401 Certification requirements implemented since then require those who wish to conduct projects at this time do more monitoring and managing of projects so that they do not cause or contribute to violations of water quality objectives that are applicable at the time the project is implemented.

COMMENT SET E. LUHDORFF & SCALMANINI

- E-1 A Project EIR analyzes the impacts of an individual activity or a specific project. In the case of this SEIR, the CCIP is considered a specific project. The specific projects of the CCIP that were analyzed in light of the goals, actions, and performance standards of the CCRMP are described in Tables 3-2 and 3-3 of the Draft SEIR and throughout the resource area analyses presented in Chapter 4.0 of the Draft SEIR, where applicable.

The commenter notes that vegetation removal is not listed in Table 3-3, nor anywhere in Chapter 3.0 (Project Description). However, Table 3-2 lists those projects that have been implemented under the CCRMP and CCIP since 1996, two of which involved vegetation removal, the Conservancy Tamarisk Removal Project and the Oliver Project.

- E-2 See Response to Comment E-1, above, on "project-level" EIR for the CCIP. On page 4.2-19 of the Draft SEIR, Performance Standards 4.5-20 and 4.5-21 and Action 4.4-3 identify the need to eliminate and control the growth of Arundo and tamarisk within the Planning Area. As described under Performance Standard 4.5-20, tamarisk removal involves the use of chemical control, particularly for weed control within the first year after ground disturbance to prevent tamarisk from out-competing native vegetation. Tamarisk and Arundo removal has been implemented under the CCRMP and CCIP and was initiated in October of 2001. The analysis under Impact 4.6-1 relating to groundwater quality issues near mining activities has been deleted (see Response to Comment E-9 below).

The commenter states that "*it seems inappropriate to speculate on such impacts as some of those discussed under Water Quality (e.g. herbicides used for vegetation control could, in turn,*

pollute a domestic well that draws water from near the creek) when there is no 'project' identified in this document that could trigger such an impact." SEIR Impact 4.6-1 (Groundwater Pollution) states that "Since Cache Creek recharges groundwater along some of its length in the Planning Area, there is potential for constituents in the creek waters to pollute the groundwater in adjacent areas." While the SEIR is "project-level" with respect to the CCIP, it is also a "program level" document with respect to the CCRMP. Consequently, any project conducted within the framework of the CCRMP that could potentially adversely affect surface waters in the creek must be addressed in this document, as the surface water could in turn affect adjacent groundwaters.

- E-3 The commenter is concerned about the level of detail and/or no information provided regarding regional and local groundwater conditions and projects to enhance Cache Creek groundwater resources. The Regional Groundwater setting is a summary of the 1996 EIR. Although an informative update has been provided regarding the Planning Area since the 1996 EIR, the descriptive adjective "detailed" used to modify this update has been removed from the SEIR. Please refer to Impacts Section 4.4.3.2 that describes activities that are beneficial and/or the mining companies that remain in compliance so as not to adversely affect groundwater conditions.
- E-4 The commenter notes that the introduction in Section 4.4.3 addresses a subsequent detailed discussion within Section 4.4.3.2; however, Section 4.4.3.2 provides a minimally detailed discussion. This comment has been noted; however, because this SEIR is an update to the 1996 EIR, the County feels that the impacts and mitigations portions of Section 4.4.3.2 provide detailed summaries of measures not in compliance. Therefore, the descriptive adjective "detailed" within Section 4.4.3 has been deleted.
- E-5 SEIR Impacts 4.4-1, 4.4-2, 4.4-3, and 4.6-2 are addressed under the OCMP and in Development Agreements between the County and the mining companies. Consequently, these impacts, the analysis, and SEIR Mitigation Measure 4.6-3 have been deleted from the Draft SEIR.
- E-6 The statement, "*Ultimately, it appears that the recommended monitoring reduces to a form of simply monitor(ing) for anything for which there is some numerical limit, however, low, regardless of whether there is a connection to the proposed project,*" is inappropriate in characterizing statements made in this chapter. As specified, in accord with the 401 Certification requirements, there can be no violation of a water quality objective caused by an in-channel project. The only way that it will be known whether a project causes a violation is through monitoring. Those responsible for sponsoring or approving a project will need to propose an appropriate monitoring program to comply with CVRWQCB requirements, considering the water quality objectives applicable at the time of undertaking the project, and to be certain that the 401 Certification requirements are fulfilled.

With respect to the recommended monitoring frequency, "first flush" issues, etc., these issues need to be worked out in consultation with the CVRWQCB. It is not possible at this time to delineate, for as yet unspecified projects, those parameters that will need to be monitored, or the location and frequency of monitoring, etc. Similarly, since "first flush" was specifically identified in the CCRMP as a condition that needs to be monitored, there will be need for the County and CVRWQCB to come to an agreement on appropriate timing of this first flush monitoring.

- E-7 With respect to the discussions of boron, the County required that the existing water quality monitoring data be reviewed with reference to the water quality characteristics of Cache Creek

in the Water Quality chapter of the Draft SEIR. Boron was included in the chapter because of this County requirement.

The statement is made that, “*Suspended solids and turbidity are yet other examples of impractical interpretation of monitored numbers.*” As discussed in this chapter, the CVRWQCB has specific requirements for turbidity associated with discharges, which would include releases from projects. The monitoring requirements should be such that they evaluate whether the CVRWQCB water quality objectives for turbidity are violated.

Similarly, with respect to odor, the County, as part of developing its water quality monitoring program, included odor as one of the parameters. A review of the odor data showed that the odor concentrations found in Cache Creek were, at times, in excess of the DHS standards and CVRWQCB objectives for a domestic water supply. Since Cache Creek’s listed beneficial uses include domestic water supply, this was discussed as a potential issue that could have to be addressed associated with project development. It should be noted that the County has some flexibility in the constituents that are tested for in the monitoring program, depending on its persistence in samples as the monitoring efforts progress.

- E-8 The discussion about developing a technically valid, cost-effective monitoring program is supported by the commenter. However, the statement that “*These considerations are not apparent in the recommended mitigation measure,*” is inappropriate. The theme throughout the Water Quality chapter of the Draft SEIR is that the County, along with project proponents, should be aware of regulatory requirements and the potential for a proposed project to cause violations of these requirements. The County and individual project proponents should, with the advice of the TAC, plan and implement appropriate monitoring for Cache Creek in-channel projects.
- E-9 The first sentence under SEIR Impact 4.6-1 (page 4.6-36 of the Draft SEIR) does not apply to the Cache Creek Planning Area. Consequently, this text has been struck from the SEIR. The concluding statement in the discussion of SEIR Impact 4.6.1 that “*Impacts to groundwater from herbicides are considered a less than significant impact with appropriate implementation of Mitigation Measure 4.6-2, below*” is misleading and has been deleted. While testing of domestic wells within one half mile of a proposed project could detect a possible pollution issue, the analysis of these wells alone will not reduce any detected pollution to a less-than-significant level. Specific recommendations for a groundwater monitoring program are beyond the scope of the current document and should be formulated in consultation with relevant agencies. The discussion under SEIR Impact 4.6-1 has been updated as follows:

~~“There are groundwater quality issues associated with in-channel projects near Cache Creek mining activities related to groundwater recharge. Groundwater recharge contains potentially significant levels of chemical constituents that could be adverse to the use of groundwater for domestic, industrial and agricultural purposes.~~

Since Cache Creek recharges groundwater along some of its length in the Planning Area, there is the potential for constituents from projects implemented under the CCRMP and CCIP in the Creek waters to pollute the groundwater in adjacent areas. This issue is of the greatest concern for those who may use shallow wells near the Creek as a domestic water supply. While the characteristics of the shallow groundwater in domestic water supply wells have not been investigated in this study, there is a potential for herbicides used as a means of vegetation control for habitat restoration projects under the CCIP to pollute groundwaters in the Planning Areas. This pollution could in turn pollute a domestic well that draws water near the Creek. The Yolo County Public Health Department, Division of

Environmental Health, is responsible for the regulation of domestic water supplies, wells, and liquid discharges, as outlined in the Yolo County Code §6-8.101 to 6.8-301 (Water Quality). Proposed projects under the CCRMP and CCIP within close proximity to an existing well would be subject to such regulation if impacts occur. ~~Impacts to groundwater from herbicides are considered a less than significant impact with appropriate implementation of Mitigation Measure 4.6-2, below.~~

~~**SEIR Mitigation Measure 4.6-2:** Domestic wells within one half mile of projects under the CCRMP and CCIP shall be, as required by the Yolo County Health Department, Division of Environmental Health.”~~

E-10 It is agreed that it would be far more effective to control the use of herbicides so that there is no potential for them to migrate from the point of application in the channel, via groundwater, to nearby water supply wells. The labeling of herbicides by the US EPA and the California Department of Pesticide Regulation does not address this issue. Since this was raised by members of the public who are concerned about the use of herbicides possibly polluting their domestic wells along the creek, this is an issue that the Project proponents should address as part of developing a Project.

1. Herbicides have been, and are proposed to continue to be used as part of vegetation control in Cache Creek in-channel projects.
2. The US EPA Office of Pesticide Programs and the California Department of Pesticide Regulation’s registration of herbicides do not adequately address the control of groundwater pollution by herbicides applied in accord with the label.

The decision on the use of specific herbicides for vegetation control should consider their possible effect on groundwater quality.

The statement that, “*The California Department of Food and Agriculture has been conducting a statewide well-sampling program to evaluate the presence of pesticides in ground water in response to the Pesticide Contamination Prevention Act*” has little relevance to the CCRMP Planning Area. The commenter states that “*These and related findings should be addressed through a comprehensive coordinated County-wide monitoring effort, not through one that speculates that habitat restoration along the Cache Creek corridor is exacerbating an existing source of potential shallow ground-water contamination.*”. This would indeed be a localized problem, potentially related to the use of specific herbicides for vegetation control (or other pollutants) that could affect groundwater wells in certain areas along Cache Creek. While there is adequate justification for a County-wide monitoring program associated with the use of herbicides/pesticides in the County, that is a separate issue from the issue raised in the Draft SEIR.

With respect to the comments on organochlorine herbicides and organophosphorus and organochlorine pesticides, the commenter states that “*these discussions do not directly link use to an impact condition created as a result of removal of vegetation (or any other removal of vegetation); there is no nexus between the types of ‘projects’ discussed in the Project Description and the speculative impacts on ground-water quality discussed in the Water Quality section.*” The Water Quality chapter discusses the potential for the use of these types of herbicides for in-channel vegetation control to cause both surface and groundwater pollution. This discussion is informational in nature and does not suggest that these types of herbicides are being, or will necessarily be used for this purpose within the Planning Area.

- E-11 As stated in Response to Comment E-5, SEIR Impact 4.6-2 is addressed under the OCMP and in Development Agreements between the County and the mining companies. Consequently, SEIR Impact 4.6-2, the analysis, and SEIR Mitigation Measure 4.6-3 have been deleted from the Draft SEIR.
- E-12 There is no specification in the Water Quality chapter of the SEIR to monitor for all constituents for which there are CVRWQCB numeric regulatory limits. There is a requirement, as part of the 401 Certification, to prevent violations of water quality objectives caused by a given project. This will require monitoring for all constituents for which a project could result in an increased concentration in Cache Creek, either at the time of the project or in subsequent, higher-flow events.
- E-13 Typically, fill is placed without performing a leaching test on the fill to determine the potential impacts of its constituents. The discussion in the Water Quality chapter of the Draft SEIR about testing of any fill placed in the Cache Creek channel as part of a project is appropriate.
- E-14 SEIR Impact 4.6-5 is addressed under the OCMP and in Development Agreements between the County and the mining companies. Consequently, SEIR Impact 4.6-5, the analysis, and SEIR Mitigation Measure 4.6-7 have been deleted from the Draft SEIR.

COMMENT SET F. GRANITE CONSTRUCTION COMPANY

- F-1 Please refer to Response to Comments E-5, E-9, and E-14 which delete or update all impact discussions that are addressed under the OCMP and separate permitting for this plan.
- F-2 The commenter's support for implementation of Mitigation Measure 4.2-13 has been noted.
- F-3 Mitigation Measure 4.2-3 does not require landowners to take any action. This measure was developed as a potential means to acquire water for restoration, and only with consent from, and compensation for, landowners. This measure is intended to avoid problems such as the generator theft that resulted in failure of the rice bales restoration area near Capay.

APPENDIX A MITIGATION MONITORING PLAN

CCRMP MITIGATION MONITORING PLAN				
Environmental Impact	Mitigation Measure	Reporting/Monitoring Requirement	Responsibility for Compliance	Method for Compliance
BIOLOGICAL RESOURCES				
Impact 4.6-1: Impact on Existing Vegetative Cover	Mitigation Measure 4.2-1 <i>Revise the Yolo County Ordinance to include specific guidelines</i>	None required.	County Planning & Public Works Department	Adoption of updated Ordinance
	Mitigation Measure 4.2-2 <i>Create in-channel vegetation (riparian) plots in the I-505 to Capay reach of Lower Cache Creek to trap bed materials and subsequently aid in creating shallow terraces.</i>	Ongoing/During and Post-Construction of Restoration Project	County Planning & Public Works Department	Monitoring reports for revegetation success
	Mitigation Measure 4.2-3 <i>Provide secure irrigation systems for revegetation projects within the Planning Area (e.g. obtain irrigation agreements with landowners to ensure adequate water supply for new plantings).</i>	Ongoing/During Restoration Projects	County Planning & Public Works Department	Agreements with landowners or other water suppliers
	Mitigation Measure 4.2-4 <i>In other areas where fluctuating groundwater levels may affect revegetation plants at wet pit sites, consult with the TAC hydrogeologist and biologist to develop a viable, site-specific planting plan.</i>	Ongoing (site-specific)	County Planning & Public Works Department	Site-specific planting plans, approved by TAC
	Mitigation Measure 4.2-5 <i>It is recommended that Performance Standard 4.5-19 be modified to read "Low weirs may be installed, outside of the low-flow channel, to provide shallow pools for encouraging the establishment of riparian vegetation. When establishing shallow pools outside of the low flow channel, but within the floodplain of Cache Creek, the County shall coordinate with the California Department of Fish and Game to minimize the potential for native fish species mortality."</i>	Ongoing	County Planning & Public Works Department and CDFG	Adoption of amended Performance Standard
	Mitigation Measure 4.2-6 <i>It is recommended that Performance Standard 4.5-22 be modified to read "Where riparian reforestation is proposed in the streambed areas located outside of the low-flow channel, cottonwood and willow cuttings should be placed within existing swales and other naturally occurring low elevation areas in order to provide them with sufficient water to survive the summer months."</i>	None required.	County Planning & Public Works Department	Adoption of amended Performance Standard
	Mitigation Measure 4.2-7 <i>Produce a GIS-based Riparian Habitat Map of the Planning Area to indicate changes since adoption of the CCRMP and CCIP. In order to adequately discern changes in riparian habitat, the riparian habitat survey and GIS map should be conducted at 10-year intervals (rather than every five years). This would allow a more reasonable period for detecting changes in riparian plant growth. The annual data collected at the 13 established monitoring transect locations should be used to augment other survey data and aerial photography collected in order to develop a comprehensive GIS map.</i>	Creation of maps.	County Planning & Public Works Department	Updated Riparian Habitat Map

CCRMP MITIGATION MONITORING PLAN				
Environmental Impact	Mitigation Measure	Reporting/Monitoring Requirement	Responsibility for Compliance	Method for Compliance
	<p>Mitigation Measure 4.2-8</p> <p><i>It is recommended to continue to use the most recent technology for tamarisk and Arundo removal, including a combination of mulching and spraying. The latest technology in tamarisk removal includes, spraying herbicides from July through the "first frost" (November). Arundo control involves application of Round-Up (away from water) or Aqua Master (near water) during March and April. Applications should be repeated to treat shoots that resprout when regrowth is approximately 4-feet tall and 60% of the original stem density. All chemical spraying must be done by a certified herbicide applicator. All cut plants should be either disposed of or burned. Monitor and map the success of the tamarisk and Arundo removal efforts. Monitoring and mapping should be coordinated with the Yolo County Weed Management Area efforts.</i></p>	Ongoing monitoring, plan modification and mapping to track weed control success.	County Planning & Public Works Department and Yolo County Weed Management Agency	Periodic coverage mapping of tamarisk & Arundo and review of eradication plan for effectiveness
Impact 4.6-2: Impact on Sensitive Natural Communities	None Required.			
Impact 4.6-3: Disturbance to Wildlife Habitat and Wildlife Movement Corridors	<p>Mitigation Measure 4.2-9</p> <p><i>Develop a comprehensive, Integrated Revegetation Plan that incorporates measures to connect wildlife habitat within the Planning Area. The Plan should include measures to evaluate the feasibility of creating contiguous wildlife habitat areas by physically connecting (i.e., vegetation planting bridge) individual habitat areas to one another via riparian corridors or some other connecting habitat.</i></p>	Develop Integrated Revegetation Plan.	County Planning & Public Works Department	Periodic progress review by TAC
	<p>Mitigation Measure 4.2-10</p> <p><i>Establish a regional (Conservation Bank) program that identifies priority locations within the Planning Area that could be enhanced through mitigation funds to improve habitat for special status species (i.e. VELB, raptors, etc) or sensitive habitats (i.e. wetlands, riparian). Augmenting existing restoration efforts through the establishment of a regional mitigation bank could accelerate the achievement of CCRMP Goals and Objectives (e.g., connecting restoration area to make continuous habitat corridors) and integrate well with objectives of the Yolo County Habitat Conservation Plan.</i></p>	Establish program (ongoing)	County Planning & Public Works Department	Periodic progress review by TAC
	<p>Mitigation Measure 4.2-11</p> <p><i>The TAC, in consultation with resource agencies (USFWS and CDFG), should develop a specific guidance (CCRMP Action) to control human (recreational) access to sensitive wildlife habitat or other natural communities in order to minimize impacts on these resources.</i></p>	Develop CCRMP Action.	County Planning & Public Works Department, USFWS, and CDFG	Adoption of new CCRMP Action
Impact 4.6-4: Impact on Special Status Species	<p>Mitigation Measure 4.2-12</p> <p><i>Develop an integrated habitat conservation (Conservation Banking) program for the Planning Area that identifies an ecologically functional pattern of habitat that could be preserved and/or enhanced through the establishment of a mitigation fund or some other mechanism. The program should identify specific locations where recommended measures could be applied (e.g., connecting habitats to create effective wildlife corridors). This program could serve as a vehicle linking the CCRMP/CCIP with the County's HCP efforts.</i></p>	Establish program (ongoing).	County Planning & Public Works Department	Periodic progress review by TAC

CCRMP MITIGATION MONITORING PLAN				
Environmental Impact	Mitigation Measure	Reporting/Monitoring Requirement	Responsibility for Compliance	Method for Compliance
	<p>Mitigation Measure 4.2-12a</p> <p><i>The text of Performance Standard 4.4-4 shall be replaced with the following text: "Coordinate with the Cache Creek Conservancy, the Yolo County Flood Control and Water Conservation District, the California Department of Fish and Game, the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, and all other appropriate agencies to ensure that habitat restoration projects proposed by these and other entities are consistent with the Cache Creek Resources Management Plan. Restoration plans shall compliment preservation and enhancement measures in the Yolo County Habitat Conservation Program.</i></p>	None required.	County Planning & Public Works Department	Adopt addition to Performance Standard
Impact 4.6-5: Modifications to Jurisdictional Wetlands or Other Waters	None identified.			
Impact 4.6-6: Compatibility and Consistency of Restoration Provisions	<p>Mitigation Measure 4.2-13</p> <p><i>Establish a "safe harbor" agreement between resource agencies and local farmers to encourage the creation of new wildlife habitat on agricultural lands within the Planning Area. Also evaluate the feasibility of land easements as an alternative to the "safe harbor" strategy on private property within the Planning Area. The Yolo County Resource Manager for the CCRMP and CCIP should coordinate the development of any "safe harbor" initiative with all appropriate agencies to explore opportunities for broadening the program and its benefits.</i></p>	Establish agreement and coordinate development of initiative (on-going).	County Planning & Public Works Department	Periodic progress review by TAC
GEOLOGY AND SOILS				
Impact 4.3-1: Impacts of Sediment Deposition and Removal Potentially Affecting Creek Stability and Causing lateral Erosion of the Channel Bed or Banks, Resulting in Loss of Agricultural Lands and Other Valuable Improvements, such as Roads, Bridges, or Other Structures	<p>Mitigation Measure 4.3-1</p> <p><i>Performance Standard 2.5-5 should be modified to have the TAC hydrologist compare the recent FEMA mappings with 1995 floodplain modeling, and either update the 1995 hydraulic modeling or declare the FEMA maps acceptable. FEMA maps would need to be updated and consistent in the upcoming years. For more detailed technical information, refer to Hydrology Mitigation Measure 4.5-1.</i></p>	Amend Performance Standard 2.5-5	County Planning & Public Works Department	Adopt amended Performance Standard
	<p>Mitigation Measure 4.3-2</p> <p><i>Action 2.4-3 should be modified as follows: Continue to gather HEC modeling erosion and deposition data in order to initiate streambed and channel alteration projects.</i></p>	Amend Action 2.4-3	County Planning & Public Works Department	Adopt amended Action
	<p>Mitigation Measure 4.3-3</p> <p><i>It is recommended that the County seek to establish an MOU with the YFCWCD.</i></p>	Establish MOU.	County Planning & Public Works Department and YFCWCD.	Periodic progress review by TAC
	<p>Mitigation Measure 4.3-4</p> <p><i>Action 2.4-9 should be modified to direct the TAC, as part of the updated hydraulic modeling, to work closely with the Planning and Public Works Department to budget funds for installation of a gauge at Capay and attempt to work with other jurisdictional agencies (i.e. USACE, YFCWCD, DWR) to establish a gauge maintenance program.</i></p>	Modify Action and establish a gauge maintenance program.	County Planning & Public Works Department	Adopt amended Action
Impact 4.3-2: Modifications	Mitigation Measure 4.3-1	Modify Performance Standard and	County Planning & Public Works	Adopt amended

CCRMP MITIGATION MONITORING PLAN				
Environmental Impact	Mitigation Measure	Reporting/Monitoring Requirement	Responsibility for Compliance	Method for Compliance
of the Channel During Improvement Projects Could Potentially Result in Unstable Conditions Upstream or Downstream of the Projects	<i>Performance Standard 2.5-5 should be modified to have the TAC hydrologist compare the recent FEMA mappings with 1995 floodplain modeling, and either update the 1995 hydraulic modeling or declare the FEMA maps acceptable. FEMA maps would need to be updated and consistent in the upcoming years. For more detailed technical information, refer to Hydrology Mitigation Measure 4.5-1.</i>	update mapping	Department	Performance Standard and update mapping
Impact 4.3-3: Channel Stability within the CCRMP Planning Area Could Be Affected by Significant Changes in Upstream and Downstream Portions of the Watershed	Mitigation Measure 4.3-5 <i>The County should continue to identify all regional watershed groups, landowners, and other jurisdictional agencies involved with the Cache Creek watershed and share information (i.e. TAC Annual Report) gathered by the TAC and the County for the Planning Area in order to better coordinate regional watershed management offers.</i>	Ongoing	County Planning & Public Works Department	Update County mailing list
SEIR Impact 4.3-1: Potential for Damage from Seismic Shaking	None required.			
SEIR Impact 4.3-2: Potential Impacts Related to Slope, Stability, Erosion, and Sedimentation	Mitigation Measure 4.3-6 <i>Reclamation at the site has begun. It should be revegetated at a minimum to limit wind and water erosion and potential sedimentation.</i>	Prepare and implement site revegetation plan	County Planning & Public Works Department	Periodic progress review by TAC
SEIR Impact 4.3-3: Potential for Erosion from Surface Water Discharge, including "Pit Capture"	Mitigation Measure 4.3-7 <i>The TAC shall update the HEC flood modeling and confirm whether the channel is capable of handling a 100-year flood event as indicated in recent FEMA/ACOE maps. The TAC shall then review pertinent agreements and coordinate with all parties to ensure the channel conveyance capacity is maintained and flood protection can be maintained.</i>	Update HEC modeling and ongoing monitoring of channel conveyance capacity	County Planning & Public Works Department	Periodic progress review by TAC
GROUNDWATER				
Impact 4.4-5: Potential Impacts Associated with Groundwater Recharge and Surface Water Supplies	Mitigation Measure 4.4-1 <i>An amendment to Action 3.4-4 is recommended to establish an outreach program to encourage all landowners adjoining the Planning Area to participate in a groundwater monitoring program. The County shall attempt to coordinate with other relevant jurisdictional agencies to educate landowners about groundwater/surface water interactions and the importance of developing a comprehensive groundwater database. The TAC hydrogeologist shall provide technical assistance to landowners to compile data and develop a groundwater database.</i>	Amend Action 3.4-4 and establish an outreach program for landowners.	County Planning & Public Works Department	Periodic progress review by TAC
SEIR Impact 4.4-1 has been deleted.	Mitigation Measure 4.4-2 has been deleted.			
SEIR Impact 4.4-2 has been deleted.				
SEIR Impact 4.4-3 has been deleted.				

CCRMP MITIGATION MONITORING PLAN				
Environmental Impact	Mitigation Measure	Reporting/Monitoring Requirement	Responsibility for Compliance	Method for Compliance
HYDROLOGY				
Impact 4.4-1 : Potential Impacts Associated with Flooding Outside of the Planning Area	<p><i>Update and revise the theoretical thalweg, as defined in 10.3-221 of the Yolo County Mining Ordinance, as necessary, based on technical studies conducted every five years or more frequently as described below. Depending upon the results of the technical studies, consider replacing the theoretical thalweg with channel width, depth, and slope standards specific to each reach of the creek, based on annual monitoring and periodic engineering analysis of hydraulic and sediment transport conditions. Specific activities associated with this mitigation measure are as follows:</i></p>	Update and revise the theoretical thalweg.	County Planning & Public Works Department	Annual monitoring and periodic engineering analysis of hydraulic and sediment transport conditions
	<p>A. Amend sediment-monitoring activities under the CCRMP without detracting from any existing CCRMP actions, policies or mitigation measures, to include the following: Update the HEC-6 model (or equivalent model - see Item "G." below) developed for the CCRMP Technical Studies to reflect 2001 topographic and sediment conditions in the Cache Creek channel and compare the results with those of the 1995 model. Update the HEC-6 model once every five years, or more frequently as determined necessary by review of aggradation/degradation trends evident from annual topographic mapping. Assess HEC-6 model accuracy and calibrate as appropriate using known flood hydrographs occurring over the previous year, known sediment deposition/scour and known changes in sediment size distribution over the year. Use the HEC-6 model and topographic mapping to assess sediment supply and transport conditions for a range of discharges and flood hydrographs up to the 100-year flood. The HEC-6 results shall be used as a guide to estimate probable future areas of risk resulting from changes in sediment transport characteristics of the creek. Areas to be evaluated in detail include, but should not be limited to, areas of known bank erosion, areas of potential degradation at bridges or other infrastructure crossings, and potential aggradation in areas where flood-control capacity is limited.</p>	<p>Amend sediment-monitoring activities under the CCRMP</p> <ul style="list-style-type: none"> - Update and calibrate HEC-6 (or equivalent) model - Use model to assess sediment supply and transport 	County Planning & Public Works Department	Periodic progress review by TAC
	<p>B. Update the 1995 HEC-2 hydraulic model of Cache Creek, from Capay Dam to I-5, developed as a basis for the CCRMP, to evaluate hydraulic changes that have occurred as a result of channel bed elevation changes, and other channel modifications, since 1995. The following guidelines apply: In order that results be comparable, it is suggested that the same HEC-2 model prepared in 1995 be used as a basis (see Item "G." below). The model should be updated using the same cross-sections modified for 2001 topography, roughness conditions, encroachments and in-channel structures. Cross-sections may be added or subtracted, and other changes made, as determined appropriate by a civil engineer, with the intent of maintaining continuity of the model to allow an appropriate comparison. Use the 1995 and 2001 HEC-2 models to map the 100-year floodplain boundary as it existed in 1995 and 2001 and assess changes in floodplain extent and water surface elevation. This information should be used to assess the effect of channel aggradation, degradation and the various CCRMP policies and projects on flood elevations. Model a range of discharges from 2-year to 100-year flood flow velocities and depths</p>	Update the 1995 HEC-2 model	County Planning & Public Works Department	Periodic progress review by TAC

CCRMP MITIGATION MONITORING PLAN				
Environmental Impact	Mitigation Measure	Reporting/Monitoring Requirement	Responsibility for Compliance	Method for Compliance
	<p>C. Use the information developed from the HEC-6 and HEC-2 models, along with appropriate local scour analysis techniques, to assess the level of risk to bridges, utilities and other channel infrastructure of failure or exposure by scour. Individual projects with the potential for affecting bridge scour or hydraulic capacity shall be required to submit hydraulic and scour analyses for review and approval by the County. County review shall include providing a copy of the analysis to the agency responsible for the potentially-affected bridges (for instance Caltrans), and consideration of comments by the responsible agency.</p> <p>D. Identify channel thalweg, slope and cross-section goals on a reach-by-reach basis, based on the results of the HEC-2, HEC-6 and local scour analysis modeling. Identify appropriate CCRMP management activities to achieve the desired thalweg, slope and cross-section goals, including potential skimming of accumulated bed material as appropriate to avoid loss of flood-control capacity, provided that the total amount skimmed not exceed the previous year's supply nor violate any provision of P.S. 2.5-5 of the CCRMP.</p> <p>E. Use the HEC-6, HEC-2 and local scour information to supplement streamflow, sediment inflow, topographic information, pebble count and annual inspection information collected under CCRMP Actions 2.4-9 and 2.4-10 as a guide in making CCRMP management and policy decisions, identifying and prioritizing future projects, and in making recommendations regarding approval of proposed in-channel projects.</p> <p>F. Have a land surveyor stake all excavations of material from the Cache Creek channel bed prior to excavation to ensure proper excavation depths. Provide pre- and post-excavation topographic mapping or surveying of the area to be excavated for review and inclusion in the annual TAC report.</p> <p>G. The technical analysis need not be limited to HEC-6 and HEC-2. Other equivalent models may also be appropriate as determined by the County, provided that modeling consistency be maintained over time to ensure that observed changes in stream hydraulics and sediment transport are due to changes in the river system and not to the modeling methodology.</p>	<p>Periodically update level of risk to bridges, utilities, and other channel infrastructure of failure or exposure by scour. Share analysis with responsible agencies.</p> <p>1. Periodically update channel thalweg, slope, and cross-section goals on a reach-by-reach basis.</p> <p>2. Report appropriate CCRMP management activities to achieve the desired thalweg</p> <p>Update CCRMP management decisions, prioritize projects, make recommendations for project approval</p> <p>Stake excavation areas, prepare pre- and post-excavation maps</p> <p>Review appropriate models and methods</p>	<p>County Planning & Public Works Department</p> <p>County Planning & Public Works Department</p> <p>County Planning & Public Works Department</p> <p>County Planning & Public Works Department</p> <p>County Planning & Public Works Department</p>	<p>Periodic progress review by TAC</p> <p>Periodic progress review by TAC</p> <p>Periodic progress review by TAC</p> <p>Periodic progress review by TAC</p> <p>Periodic progress review by TAC</p>
	<p>Mitigation Measure 4.5-2</p> <p>The County shall evaluate Muskingum and/or Modified Puls hydrologic stream-routing parameters, used by the U.S. Army Corps of Engineers, in developing the design discharge for the possible Woodland flood control project currently being evaluated, and use these routing parameters to develop floodplain encroachment guidelines, taking into account probably cumulative effects, for consideration when reviewing projects that may have an effect on downstream discharge through removal of floodplain storage areas. A stream routing shall be performed once every five years to monitor the cumulative effects of development and to adjust encroachment guidelines as necessary.</p>	<p>1. Evaluate Muskingum and/or Modified Puls hydrologic stream for design discharge for Woodland flood control project</p> <p>2. Develop / update floodplain encroachment guidelines</p> <p>3. Review stream to monitor the cumulative effects of development and to adjust encroachment guidelines</p>	<p>County Planning & Public Works Department</p>	<p>Periodic progress review by TAC</p>

CCRMP MITIGATION MONITORING PLAN				
Environmental Impact	Mitigation Measure	Reporting/Monitoring Requirement	Responsibility for Compliance	Method for Compliance
Impact 4.4-2: Potential Impacts Associated with Inconsistencies between the FEMA Designated 100-Year Flood Zone and More Recent Hydraulic Analyses	None required.			
Impact 4.4-4: Potential Impacts Associated with Water Supply for Biotic Restoration	Mitigation Measure 4.5-3 <i>It is recommended that the County work with the Yolo County Flood Control and Water Conservation District to arrive at an agreement regarding the long-term water supply to Cache Creek from Gordon Slough.</i>	Develop agreement for long-term water supply from Gordon Slough	County Planning & Public Works Department and Yolo County Flood Control and Water Conservation District	Periodic progress review by TAC
SEIR Impact 4.5-1: Channel Aggradation, Degradation, or Bank Erosion	Mitigation Measure 4.5-4 <i>The County shall negotiate with the Regional Water Quality Control Board to allow 100% extraction of the previous year's accumulation of sand and gravel under the 401 Water Quality Certification if it can be demonstrated that the removal of the sand and gravel is required for flood-control purposes.</i>	Develop agreement to allow 100% extraction of the previous year's accumulation of sand and gravel, if necessary for flood control.	County Planning & Public Works Department and Regional Water Quality Control Board	Periodic progress review by TAC
SEIR Impact 4.5-2: Reduced Channel Flood Conveyance Capacity and Increased Flood Potential Outside the Channel	Mitigation Measure 4.5-5 <i>It is recommended that paragraph 2 of CCRMP Performance Standard 2.5-5 shall be revised to state: "The provisions of the CCIP shall be implemented by the County Resource Management Coordinator, with the assistance of the TAC. The CCIP shall contain provisions to ensure that Cache Creek management decisions not reduce flood capacity nor exacerbate existing flooding problems downstream through channel reshaping. This will be accomplished by annual monitoring of channel geomorphology, distribution and density of plant material within the channel, and modeling to forecast changes in base flood elevations. When modeling indicates that the channel is losing conveyance capacity, the TAC shall identify for consideration actions by the County or landowners to reestablish capacity."</i>	Revise Performance Standard 2.5-5	County Planning & Public Works Department	Adopt amended Performance Standard
WATER QUALITY				
Impact 4.4-3: Potential Impacts to Water Quality	Mitigation Measure 4.6-1 <i>It is recommended that changes to Yolo County's current Cache Creek Water Quality Monitoring Program occur to insure that this program is comprehensive and responds to all applicable regulatory requirements. Appendix F of the Draft SEIR provides a reference for recommended changes.</i>	Revise Cache Creek Water Quality Monitoring Program	County Planning & Public Works Department	Adopt changes to the County's existing water quality monitoring program
SEIR Impact 4.6-1: Groundwater Pollution	None required.			
SEIR Impact 4.6-2 has been deleted.	Mitigation Measure 4.6-3 has been deleted.			

CCRMP MITIGATION MONITORING PLAN				
Environmental Impact	Mitigation Measure	Reporting/Monitoring Requirement	Responsibility for Compliance	Method for Compliance
SEIR Impact 4.6-3: Non-compliance with 401 Certification Requirements and/or Basin Plan Water Quality Objectives	Mitigation Measure 4.6-4 <i>Water quality monitoring should be conducted near projects prior to, during, and after the project is completed (at first high-flow inundation) to detect WQO non-compliance. The monitoring programs should be designed to measure all constituents for which there are CVRWQCB numeric and narrative regulatory limits. If violations are found, modify future projects of this type to eliminate WQO non-compliance.</i>	1. Ongoing water quality monitoring 2. Modify projects, as necessary, to comply with WQOs	County Planning & Public Works Department	Water quality monitoring results in TAC Annual Report
	Mitigation Measure 4.6-5 <i>For bank repair using fill, conduct appropriate leaching test on fill materials to determine if it contains leachable constituents at concentrations of potential concern.</i>	Conduct appropriate leaching test on fill materials	County Planning & Public Works Department	Periodic review by TAC
SEIR Impact 4.6-4: Impacts of Herbicides Released During Vegetation Removal on Surface and Groundwater Quality	Mitigation Measure 4.6-5 <i>For bank repair using fill, conduct appropriate leaching test on fill materials to determine if it contains leachable constituents at concentrations of potential concern.</i>	Conduct appropriate leaching test on fill materials	County Planning & Public Works Department	Periodic review by TAC
	Mitigation Measure 4.6-6 <i>Evaluate the potential for herbicides to cause aquatic life toxicity – use herbicides with low toxicity to aquatic life (fish, zooplankton and algae). Evaluate the potential for herbicide use to cause pollution of nearby groundwater wells through understanding of groundwater hydrology (i.e., for herbicides to be transported from creek bed to well). If the potential exists, monitor groundwater in flow path to well in conjunction with requirements of the Yolo County Department of Public Health, Division of Environmental Health.</i>	1. Ongoing review of proposed herbicides for aquatic life toxicity and groundwater pollution potential 2. Monitor groundwater in flow path to well, as required.	County Planning & Public Works Department	Periodic review by TAC
SEIR Impact 4.6-5 has been deleted.	Mitigation Measure 4.6-7 has been deleted.			
LAND USE				
Impact 4.2-1: Consistency with Yolo County and Other General Plans	None required.			
Impact 4.2-2: Consistency with Yolo County Zoning Ordinance and County Code	Mitigation Measure 4.7-1 <i>Adopt the required ordinance to obtain exemption from SMARA under AB 297.</i>	Adopt ordinance.	County Planning & Public Works Department	Adopted Ordinance
Impact 4.2-4: Compatibility with Existing and Planned Land Uses	Mitigation Measure 4.7-2 <i>The text of Performance Standard 4.4-4 shall be replaced with the following text: "Recreational uses shall be clustered at locations along the creek, in order to limit public access, minimize habitat disturbance, and provide efficient and cost-effective management by the County. All access, whether by road or by trail, shall be through an entry point which can be controlled.</i>	Delete text from Performance Standard.	County Planning & Public Works Department	Adopted revised Performance Standard.

CCRMP MITIGATION MONITORING PLAN				
Environmental Impact	Mitigation Measure	Reporting/Monitoring Requirement	Responsibility for Compliance	Method for Compliance
	<p>Mitigation Measure 4.7-3</p> <p><i>The text of Performance Standard 5.5-3 shall be replaced with the following text: "Limited public access will also reduce impacts to sensitive habitat and adjoining private uses. Additional options include permits, volunteer docents to patrol the site, and escorted tours.</i></p>	Delete text from Performance Standard.	County Planning & Public Works Department	Adopted revised Performance Standard
Impact 4.2-5: Changes in Land Use Intensity	None required.			
Impact 4.2-6: Land Use Incompatibility Due to Changes in Creek Boundary	None required.			
Impact 4.2-7: Establishment of a Conceptual Planning Framework for the Long-Term Preservation and Development of Open Space and Recreational Opportunities in the Cache Creek Area.	<p>Mitigation Measure 4.7-2</p> <p><i>The text of Performance Standard 5.5-2 shall be replaced with the following text: "Recreational uses shall be clustered at locations along the creek, in order to limit public access, minimize habitat disturbance, and provide efficient and cost-effective management by the County. All access, whether by road or by trail, shall be through an entry point which can be controlled.</i></p>	Delete text from Performance Standard.	County Planning & Public Works Department	Adopted revised Performance Standard
	<p>Mitigation Measure 4.7-3</p> <p><i>The text of Performance Standard 5.5-3 shall be replaced with the following text: "Limited public access will also reduce impacts to sensitive habitat and adjoining private uses. Additional options include permits, volunteer docents to patrol the site, and escorted tours.</i></p>	Delete text from Performance Standard.	County Planning & Public Works Department	Adopted revised Performance Standard