CEQA INITIAL STUDY FOR THE 2017 CACHE CREEK AREA PLAN UPDATE

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Prepared For:

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1.0 INTRODUCTION

In June 2015 the County Board of Supervisors approved a work plan for the ten-year review and update of the Cache Creek Area Plan (CCAP). This required ten-year review/update, which is considered a "project" (referred to hereafter as Project or CCAP Update) under the California Environmental Quality Act (CEQA), is the subject of this Initial Study (IS). This Initial Study reviews the proposed changes and updates of the CCAP documents and evaluates whether these proposed changes could result in new environmental impacts. This Initial Study (IS) has been prepared by the County to provide a preliminary evaluation of the potential environmental impacts of the proposed Project.

This IS has been prepared in accordance with CEQA, Public Resources Code 21000 et seq., and the state CEQA Guidelines, Title 14 California Code of Regulations (CCR). A lead agency prepares an IS to determine if a project may have a significant effect on the environment and, if additional analysis is necessary, to guide the preparation of an environmental impact report (EIR). This IS follows the methods and format proposed in Appendix G of the CEQA Guidelines and relies on expert opinion based on facts, technical studies, and other substantial evidence to document its findings.

The lead agency is the public agency with primary responsibility over a proposed project. In accordance with state CEQA Guidelines 15051(b)(1), "the lead agency will normally be the agency with general governmental powers, such as a city or county, rather than an agency with a single or limited purpose." The lead agency for the proposed project is the Yolo County Natural Resources Division.

Potentially significant impacts have been identified in this IS related to Aesthetics, Agriculture and Forestry, Air Quality, Biological Resources, Geology/Soils, Hydrology and Water Quality, Noise, Population and Housing, and Transportation and Circulation. The County has determined that an EIR will be prepared for the proposed Project based on the findings of this IS.

This IS is comprised of the following sections: 1) Introduction; 2) Project Description; and 3) Impact Evaluation.

2.0 PROJECT DESCRIPTION

INTRODUCTION

Cache Creek Area Plan

The Cache Creek Area Plan (referred to hereafter as CCAP or program) is a rivershed management plan adopted by Yolo County in 1996 for 14.5 miles of Lower Cache Creek, between the Capay Dam and the town of Yolo. The CCAP was adopted as a "specific plan" pursuant to Section 65450 et seq of the State Government Code. It was adopted as a part of the County's General Plan and as a result, changes to the CCAP are regulated as general plan amendments. The CCAP consists of two distinct complementary plans governing different areas of the overall plan area, namely the Cache Creek Resources Management Plan (CCRMP) and the Off-Channel Mining Plan (OCMP), briefly described below:

Cache Creek Resources Management Plan

The CCRMP is a creek restoration plan that eliminated in-channel commercial mining. Much of the CCRMP was based on a 1995 report entitled Technical Studies and Recommendations for the Lower Cache Creek Resources Management Plan (referred to as the "1995 Technical Studies"). This report examined the creek from three perspectives: geology and geomorphology; groundwater and hydrology; riparian biology. This 1995 report presented numerous management and regulatory recommendations and provided specific direction for the CCRMP, which established a policy and regulatory framework for:

- Habitat preservation and restoration
- Aquifer recharge and conjunctive water use
- Channel stabilization and maintenance
- Managed public open space and recreation

The CCRMP also established the Cache Creek Improvement Program (CCIP) for implementing on-going projects to improve, stabilize, and maintain the creek. The CCIP provided the structure and authority for a Technical Advisory Committee (TAC). The CCRMP and CCIP are available at the following County website:

http://www.yolocounty.org/general-government/general-government-departments/county-administrator/county-administrator-divisions/natural-resources/cache-creek-area-plan-document-library

Off-Channel Mining Plan

The OCMP is an aggregate resources management plan that established a policy and regulatory framework that allows for controlled off-channel gravel mining no closer than 200 feet to the banks of Cache Creek. The OCMP is available at the following County website:

http://www.yolocounty.org/general-government/general-government-departments/county-administrator/county-administrator-divisions/natural-resources/the-cache-creek-area-plan-ccap-/the-off-channel-mining-plan-ocmp-

Separate environmental impact reports (EIRs) were prepared in 1996 for the CCRMP and OCMP and all identified mitigation measures were incorporated into the plans and subsequent implementing ordinances. These ordinances are:

- Title 10, Chapter 3, Cache Creek In-Channel Maintenance Mining Ordinance (hereafter referred to as the In-Channel Ordinance)
- Title 10, Chapter 4, Off-Channel Surface Mining Ordinance (referred to as the Mining Ordinance)
- Title 10, Chapter 5, Surface Mining Reclamation Ordinance (referred to as the Reclamation Ordinance)
- Title 10, Chapter 11, Gravel Mining Fee Ordinance (hereafter referred to as the Fee Ordinance)

The CCAP has a planning "view" of 50 years through the end of 2046, however the horizon date for the plan is December 31, 2026. As a part of the proposed update the horizon year for the CCAP is proposed to be extended to 2068.

2017 Technical Studies and 20-Year Retrospective for the Cache Creek Area Plan

For the 2017 Update, the three TAC members undertook extensive technical analysis of collected data, other available information and analysis, and conditions within the creek within their respective disciplines. Three technical reports have been prepared that together provide an update to the 1995 Technical Studies. The three reports have been combined and released as one report entitled "2017 Technical Studies and 20-Year Retrospective for the Cache Creek Area Plan" (referred to as the "2017 Technical Studies"). This document is available online at the following website and is summarized below:

http://www.yolocounty.org/home/showdocument?id=41164

Fluvial Geomorphology Study

Significant Findings:

The streamway influence boundary delineated in the 1995 Technical Studies is a product of sound geomorphic principles and should continue to be used in future implementation of the CCAP.

- The general idea behind the Test 3 Run Boundary remains valid, however, some assumptions of the Test 3 hydraulic modeling have not been fully implemented, so the Test 3 Run Boundary should be updated (and renamed) to reflect current understanding of channel conditions and change.

- The primary active channel of Cache Creek has migrated extensively since 1996.

- A total of approximately ten million tons of sediment was deposited in Cache Creek in the CCRMP area between 1996 and 2011.

- Sediment deposition has occurred almost exclusively on channel bars.

- The long-term trend of sediment deposition in Cache Creek since 1996 is interspersed with years of erosion in the CCRMP area.

- Lateral channel migration in dynamic reaches typically occurs during peak flows between 15,000 and 25,000 cfs (greater than two-year but less than ten-year recurrence interval flows).

- Active channel sinuosity has increased from the degraded 1995 condition in all of the reaches in the CCRMP, except for the Hoppin and Rio Jesus Maria reaches.

- Lateral channel migration and magnitude of erosion and/or deposition varies by reach and with magnitude of peak flows.

Significant Recommendations:

- The CCRMP boundary should be modified to incorporate the latest FEMA 100-year floodplain boundary (map effective date June 17, 2010) and the 2015 active channel extent, whichever is further from the centerline of the Cache Creek corridor.

- The Test 3 Run Boundary should be updated based on observations of active channel and topography change over the past twenty years and renamed the Channel Form Template (CFT).

- The flood protection purpose of the plan should be refined to require maintenance of existing level of flood flow capacity as opposed to maintenance of a specific level of flood protection.

- Major stabilization projects should be replaced with more general guidance to maximize available area for continued channel evolution, while still achieving some measure of channel smoothing at bridges.

- Multiple in-channel mining templates should be replaced with a single generalized in-channel mining template that is easier to understand and implement.

- Priority projects should replace site specific bridge transition and stabilization projects with standard river management and bank protection design approaches for bank stabilization at bridges and other locations.

- Gravel bar skimming instream maintenance projects should be included in priority projects to address significant sediment deposition on gravel bars over the last twenty years.

Hydrology and Water Quality Study

Significant Findings:

- The period 1996-2016 produced statistically expected peak flow patterns characterized by cycles of wet and dry periods. No extraordinary flow events occurred during the period evaluated in this study. Wet and dry cycles are historically common in the Sacramento Valley.

- Groundwater levels near Cache Creek have continued their seasonal trends of depression in the irrigation season and recovery in the rainy season and the impacts of drought periods (particularly the drought starting in 2012) are evident.

- The water quality monitoring program under CCAP (both surface water samples collected by the County and samples collected at mining site by operators) is providing a reasonable overview of the condition of the Creek. While there are no obvious long term trends, and most contaminants are below action levels, the Gordon Slough site frequently has the highest recordings of many contaminants and may be a key source of nutrient and organic contaminants.

- Mercury continues to be a concern for Cache Creek and its surrounding areas, but CCAP and mining activities do not seem to be exacerbating mercury impacts.

Significant Recommendations:

- The Test 3 Run Boundary should be revised based on new data and understanding of creek processes and renamed the 2017 Channel Form Template.

- In general, CCIP monitoring requirements should be amended to reflect up to date scientific methods and funding realities and better data management practices should be put in place.

- There should be amendments to plan documents to avoid overly prescriptive approaches to management of the Creek.

- The water quality monitoring program should be further streamlined and clarified.

- If funding from Yolo County and/or the YCFCWCD allows, a stream gage should be established and maintained at the Capay Dam. Such a gage would provide useful

information on flows at the upstream end of the CCRMP study area. Because the Dam represents a fixed, concrete overflow structure, it offers an opportunity for a consistent and simple rating curve from which to equate measure stage to flow in the Creek.

Biological Resources Study

Significant Findings:

- Over the last two decades since implementation of the CCAP, native riparian vegetation has generally increased, especially in areas that were formerly mined.

- Special-status native blue elderberry shrubs are presently abundant along lower Cache Creek, and there is strong evidence that the local population is on an increasing trajectory.

- Numerous opportunities exist to accelerate further recovery of native vegetation, including restoring additional riparian and upland habitat, increasing base creek flows during spring and summer seasons, and expanding treatment of invasive species.

- The three invasive plant species (arundo, ravennagrass, and tamarisk) that have been historically prioritized for treatment since the early 2000s have been greatly reduced, although many additional nonnative and invasive species are now present and should be targeted for removal and replacement with native species.

- Over 200 wildlife species were observed from 1995–2016. Many species were consistently observed during the study period, such as Swainson's hawk, riparian bank swallow, numerous migratory songbirds, Western pond turtle, river otter, Columbian black-tailed deer, bobcat, Sacramento pikeminnow, and Sacramento sucker.

- The continued recovery of native vegetation and natural ecological processes should provide additional habitat and resources for these and other native species, further increasing the value of lower Cache Creek as habitat within the matrix of agricultural and urban lands in Yolo County.

Significant Recommendations:

- The invasive species management program should continue to be expanded, encompassing additional priority species (e.g., perennial pepperweed) and areas further from the main creek channel. Mobile mapping technology and GIS software should be used to prioritize and track treatments, and efforts should be made to support additional mapping and treatment efforts upstream of Capay Dam.

- After treatment of invasive species, native understory and overstory species should be seeded or planted to accelerate habitat recovery and prevent reinvasion.

- Standardized vegetation monitoring protocols developed during the CCAP update process should be consistently implemented in future years to track changes in abundance and distribution of both native and nonnative riparian vegetation.

- Post-implementation monitoring and adaptive management of revegetation and restoration projects should become standard components of such projects, to ensure long-term success.

- Opportunities to accelerate further recovery of native vegetation along lower Cache Creek via increasing base creek flows during spring and summer seasons should be explored.

- Opportunities for additional monitoring of native vegetation, wildlife, invertebrates, and fish should also be explored, likely in partnership with local universities and non-profit organizations, to better understand the status of local populations and to develop targeted conservation strategies as a component of the multi-benefit CCAP framework.

CCAP 10-YEAR REVIEW

The structure of the 1996 CCAP is based on the concept of adaptive management. The OCMP and CCRMP (including the various implementing ordinances) and the mining permit conditions of approval require regularly conducted monitoring, surveying, modeling, and reporting. The resulting information is to be analyzed for the purpose of program update/modification if appropriate, when the County conducts regularly required program reviews. The County is required to review the plan documents and implementing ordinances, the fee program, and the mining permits every ten years.

In June 2015 the County Board of Supervisors approved a work plan for the ten-year review and update of the CCAP. The technical analysis necessary to support the CCAP Update was undertaken by the members of the TAC, as independent technical experts. This approach was taken for a number of reasons: 1) the TAC member's existing familiarity with the program; the TAC member's professional expertise in appropriate technical areas; the desire to reinforce TAC understanding of the program through the rigors of the analysis.

The CCAP Update is based on the findings of the 2017 Technical Studies (described above) and County experience implementing the program over the past twenty years. The updates and changes to the CCAP documents are shown in "track change" mode so that it is clear to the reader where changes are proposed. These updated documents are available online at the following website:

> http://www.yolocounty.org/general-government/general-government-departments/county-administrator/county-administrator-divisions/natural-resources/cache-creek-area-plan-ccap/cca

This required ten-year review/update, which is considered a "project" under the California Environmental Quality Act (CEQA), is the subject of this Initial Study. This Initial Study reviews the proposed changes and updates of the CCAP documents and evaluates whether these proposed changes could result in new environmental impacts.

MODIFICATIONS TO THE CCAP DOCUMENTS

As a part of the proposed update, changes are proposed to the following program documents:

- CCRMP
- CCIP
- OCMP
- In-Channel Maintenance Mining Ordinance
- Reclamation Ordinance
- Mining Ordinance
- Fee Ordinance

This package of documents can be viewed at the following web link:

http://www.yolocounty.org/general-government/general-government-departments/county-administrator/county-administrator-divisions/natural-resources/the-cache-creek-area-plan-ccap

For the purposes of this environmental review, these modifications to the CCAP documents can be divided into three categories: 1) updates to include history and context of what has occurred under the program since 1996, including updates related to the regulatory framework and corrections of errata; 2) clarifications that better describe the intent of the program relative to the text included in the original documents; and 3) substantive changes to the program. There are two categories of these substantive changes used in this analysis: those that could result in new environmental impacts and those that are unlikely to result in any new environmental impacts. The table (Table 1) below summarizes the program changes considered to be substantive, including changes not expected to result in environmental impacts (these are included to provide the reader an explanation as to why they are not identified as having potential to cause new impacts). It should be noted that the table below does not include an exhaustive summary and analysis, but rather provides an overview of the more important modifications. Based on this Initial Study, the County has determined that an Environmental Impact Report (EIR) will be prepared for the project. The EIR will include a comprehensive accounting of all the proposed changes to the CCAP documents. Potential substantive changes are organized in the following topical areas and summarized in Table 1:

- Changes to Horizon Year Of Plans
- Clarification of Allowable In-Channel Project Categories
- Maintenance of Flood Flow Capacity
- Change in The Amount Of Material that Can Be Removed from the Channel in a Given Year
- Changes to Hydraulic Modeling Requirements
- Channel Form Template
- Modification of In-Channel Water Quality Testing Requirements

- Climate Change Adaptation
- Change in the CCRMP Channel Boundary
- Increase in Potential Off-Channel Mining Area
- Farmland Mitigation Requirements
- Aggradation in the Creek Channel
- Mercury Bioaccumulation
- Depth of Mining
- Reclaimed Slope Steepness
- Soil on Reclaimed Land
- In-Channel Material Removal Requirements

CCAP DOCUMENT CHANGE	DISCUSSION	POTENTIALLY AFFECTED CEQA TOPIC AREA(S)
Changes to Horizon Year of Plans		
CCRMP (page 14) Horizon Year The horizon year for this plan is 2068.	This new text that specifically sets the planning horizon for the CCRMP at 2068 clearly establishes a planning horizon for the CCRMP. The purpose of establishing a specific planning horizon is to clarify the period of time during which potential cumulative impacts are evaluated.	Traffic and Circulation
OCMP (Page 16) Horizon Year The horizon year for this plan is 2068.	This new text that specifically sets the planning horizon for the CCRMP at 2068 clearly establishes a planning horizon for the OCMP. The purpose of establishing a specific planning horizon is to clarify the period of time during which potential cumulative impacts are evaluated.	Traffic and Circulation
Clarification of Allowable In-Channel Project Categories		
CCIP (page 38) 2. The TAC 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: maintain flood flow capacity; protect existing structures, infrastructure, and/or farmland; minimize bank erosion; implement the Channel Form Template; enhance creek stability; establish riparian vegetation; and recreation and open space uses consistent with the Parkway Plan. Except to implement the Channel Form Template, annual aggregate removal shall not exceed the average annual amount of sand and gravel deposited since the last prior year of removal in the CCRMP area, as determined by comparison of channel topography data. Recommendations shall	This modified text clarifies the type of in-channel projects that are allowed under the program While this modification is generally a clarification and not a substantive change in the program, It is possible that implementation of in-channel projects, which could include excavation in the creek channel, could result in environmental impacts.	Hydrology and Water Quality, Biological Resources

CCAP DOCUMENT CHANGE	DISCUSSION	POTENTIALLY AFFECTED CEQA TOPIC AREA(S)
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.		
Maintenance of Flood Flow Capacity		
CCRMP (page 25) ~~In addition to having responsibilities for monitoring aggregate operations and coordinating with other agencies in implementing this Plan, the Community Development Director also serves as the County's Floodplain Administrator.~~ The County has no obligation or responsibility under either the CCRMP or CCIP to manage or maintain flood flow conveyance capacity in Cache Creek. However, both the CCRMP and CCIP include monitoring and reporting tasks to inform interested landowners and agencies about information relevant to flood management that is derived from the program.	This modified text clarifies that the County has no obligation or responsibility under either the CCRMP or CCIP to manage or maintain flood flow conveyance capacity in Cache Creek. This does not represent a change in the CCAP, just a clarification.	This clarification is not anticipated to result in any new CEQA impacts.
Change in the Amount of Material that Can Be Removed from the Channel in a Given Year		
CCRMP (page 33) Based on the analysis conducted for the 2017 Technical Studies, between 1996 and 2011, an average of approximately 690,800 tons per year of sediment was actually deposited in the CCRMP area, of which 156,400 tons is estimated to be sand and gravel and 534,400 is estimated to be fines. This estimate of deposition was calculated by comparing topographic maps of Cache Creek in 1996 and 2011. It differs significantly from the original estimate in that	This change quantifies an increase in allowable material~~tonnage~~ to be removed from the channel in any given year. This increase could increase use of heavy equipment and truck trips resulting in increased~~more severe~~ traffic and air quality environmental impacts relative to those evaluated in the 1996 CCRMP EIR or 2002 CCRMP SEIR.	Traffic and Circulation, Air Quality, Greenhouse Gas Emissions.

CCAP DOCUMENT CHANGE	DISCUSSION	POTENTIALLY AFFECTED CEQA TOPIC AREA(S)
it appears much more fine sediment is depositing in Lower Cache Creek than originally predicted. ~~in-stream excavation of sand and gravel has averaged some two million tons, however, which has resulted in a cumulative deficit of nearly 80 million tons since mining intensified in the 1950s. At the natural rate of replacement it would take over 500 year to replenish the material removed~~. ~~In addition, gravel bar skimming disturbs the formation or armor materials and removes riparian vegetation that allow the channel to readjust, thus increasing the potential for erosion.~~ While it is unclear whether the current rate of deposition will continue into the future, it appears likely that at least some portions of Cache Creek are recovering faster than expected in 1996. Based on this information, the cap for in-channel extraction for maintenance purposes should be increased from 210,000 tons annually on average to 690,800 tons annually on average to reflect actual conditions. In addition, in recognition that the creek may in reality deposit no tonnage in a given year or double the tonnage in another (depending on flow conditions) the cap shall be based on the annual average deposition since the last prior year that extraction occurred, not to exceed 690,800 tons annually.		
Changes to Hydraulic Modeling Requirements		
CCRMP (page 39) Develop and maintain a hydraulic model of Cache Creek capable of simulating a range of discharges and flood hydrographs up to the 100-year flood and assessing sediment transport patterns. Update this model with new topography, vegetation cover, and other available data sources. (Note: HEC 2 and HEC 6 were completed by NHC in the 1995 Technical Studies; HEC RAS an HEC 2 were completed by MBK	The new text at the beginning of this modification restates the existing requirement that the hydraulic model of the Cache Creek system be maintained and updated. The second part of the modification eliminates the prescriptive methodology (e.g., specifying which hydraulic model must be used) because modeling software and other analytical techniques evolve over time and specifying a particular	This clarification is not anticipated to result in any new CEQA impacts.

CCAP DOCUMENT CHANGE	DISCUSSION	POTENTIALLY AFFECTED CEQA TOPIC AREA(S)
for the area between CR 94B and I-5 in 2001; HEC RAS was completed by MBK for the area between CR 94B and I-5 in 2006) ~~Specific activities associated with this Action include:~~ ~~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 ever five years or more frequently as determined necessary by review of aggradation/degradation trends evident from annual topographic mapping. Assess HEC-56 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~~	model needlessly limits the flexibility of the TAC	

CCAP DOCUMENT CHANGE	DISCUSSION	POTENTIALLY AFFECTED CEQA TOPIC AREA(S)
~~degradation at bridges or other infrastructure crossings, and potential aggradation in areas where flood control capacity is limited.~~ ~~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 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.~~ ~~C. Use the information developed from the HEC-6 and HEC-2 models, along with appropriate local~~		

CCAP DOCUMENT CHANGE	DISCUSSION	POTENTIALLY AFFECTED CEQA TOPIC AREA(S)
~~scour analysis techniques, to assess the level of risk to bridges, utilities, and other channel infrastructure of failure or exposure to scour.~~ ~~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 Performance Standard 2.5-5 of the CCRMP.~~ ~~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.~~ ~~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.~~ ~~G. The technical analysis need not be limited to HEC-6 and HEC-2. Other equivalent models may also~~		

CCAP DOCUMENT CHANGE	DISCUSSION	POTENTIALLY AFFECTED CEQA TOPIC AREA(S)
~~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.~~		
Channel Form Template		
CCRMP (page 38) ~~Implement the~~ Channel Form Template~~Test 3 Run Boundary~~ described in the 2017~~1995~~ Technical Studies to reshape the Cache Creek channel based on best available data and hydraulic modeling tools. ~~Continue to gather HEC-model erosion and deposition data to initiate streambed and channel alteration projects.~~Continue to collect and analyze channel topography (LiDAR) data, and update the CCRMP hydraulic model with those data. Based on outcomes of these analyses, the TAC can determine the need for streambed and channel alteration projects . 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.	A major recommendation from the 1995 Technical Studies was a proposed "reshaping" of the channel to develop more uniform hydraulic conditions and reduce the potential for adverse erosion. The 1995 Technical Studies proposed a conceptual channel configuration, referred to as the Test 3 Run Boundary. The modification (on CCRMP page 38) changes the name of the Test 3 Boundary to Channel Form Template. The Channel Form Template replaces the Test 3 Run Boundary, but provides similar guidance for smoothing abrupt channel width transitions.	The revised configuration could result in new impacts to aesthetic, agriculture, biological resources, and cultural resources
Modification of in-Channel Water Quality Testing Requirements		
CCRMP (page 51) Testing should ~~be comprehensive and respond to all applicable regulatory requirements. It should~~ include, but not be limited to: pH, ~~total dissolved solids,~~ temperature, turbidity, total and fecal coliform, mercury, ~~total petroleum hydrocarbons,~~ dissolved oxygen, nitrogen, and orthopohosphate. ~~orus,~~	The 2017 Technical Studies review all in-channel water quality data collected over the past 20 years and determine that some of the constituents being analyzed are never, or almost never, detected. Based on this data analysis, the CCRMP monitoring requirements would be modified to collect data that is useful and	Hydrology and Water Quality

CCAP DOCUMENT CHANGE	DISCUSSION	POTENTIALLY AFFECTED CEQA TOPIC AREA(S)
~~herbicides, and pesticides (EPA Methods 8140 and 8150), suspended and floating matter, odor, an color.~~ This information will~~ould~~ assist in habitat restoration efforts and allow the County to monitor water quality trends within the planning area. The County NRM~~Resource Management Coordinator~~ shall be responsible for the collection, management, and distribution of all water quality data, and should coordinate all data management activities (formatting, storage, quality control) with the appropriate TAC member. Testing should also be conducted near in-channel projects prior to, during, and after construction/completion (i.e., at first high-flow inundation) to detect any potential non-compliance with Regional Water Quality Control Board (RWQCB) Water Quality Objectives. ~~The testing program(s) should be designed to measure all constituents for which there are RWQCB numeric and/or narrative regulatory limits. If non-compliance is found, modify future projects of similar type to eliminate such non-compliance.~~	appears to be an issue for Cache Creek. It is possible that this reduced list of constituents that would be monitored would allow water quality impacts to go unnoticed.	
Climate Change Adaptation		
CCRMP (page 64) 4.2-6 Integrate climate-smart adaptation strategies to increase resiliency and prepare for future uncertainty.	The 1996 CCRMP did not include climate change adaptation strategies and the CCRMP EIR did not evaluate potential impacts related to climate change	Greenhouse Gas Emissions
OCMP (page 55) 6.2-3 Integrate climate-smart adaptation strategies	The 1996 OCMP did not include climate change adaptation strategies and the OCMP EIR did not	Greenhouse Gas Emissions

CCAP DOCUMENT CHANGE	DISCUSSION	POTENTIALLY AFFECTED CEQA TOPIC AREA(S)
to increase resiliency and prepare for future uncertainty	evaluate potential impacts related to climate change	
Change in the CCRMP Channel Boundary		
CCRMP (page 13) ~~The areas within both the present channel bank and the 100-year floodplain were then merged, and the outermost limit of these areas became the channel boundary for the Cache Creek Resources Management Plan (see Figure 2).~~ The area within the channel boundary originally encompassed 4,956 acres.~~; however,~~ As recommended in the program EIR for the CCRMP, the boundary was modified to eliminate an~~the~~ off-channel mining pit operated by Solano Concrete at the time.~~, as recommended in the program EIR for the CCRMP.~~ In addition, the large floodplains located downstream of County Road 94B were deleted,~~. from the CCRMP boundary~~ because it was determined that t~~T~~hese farmlands did~~do~~ not have a direct impact on the dynamics of the channel, except to serve as overflow areas during severe flood events. In this downstream reach, the boundary was~~is~~ defined by the ~~present~~ channel bank line, as delineated in the 1995 Technical Studies. The revised channel boundary, comprising 2,324 acres, serve~~d~~s as the plan area for the CCRMP. In 2017, as part of the CCAP Update, the CCRMP channel boundary (also referenced to as the in-channel area or the active creek channel) and the more narrow CCRMP plan area boundary were updated to reflect the best available information including 2011 LIDAR topography and two-dimensional hydraulic modeling using this topography, 2015 aerial photography, and the 2012 FEMA	The CCAP Update modifies the boundary of the CCRMP. However, the method for determining the boundary is the same (i.e., it is a combination of the area within the creek banks and the 100-year floodplain, with some floodplain areas excluded due to their lack of direct influence on in-channel hydraulic function). Therefore, the updated boundary reflects changes in actual channel bank locations and updated floodplain limits based on current hydraulic modeling. It should be note that though the method for determining the boundaries of the CCRMP area are consistent, in some locations the new boundary encompasses agricultural land that was not in the CCRMP area before (and conversely, some ag lands that were previously in the CCRMP area are now outside the area). It is possible that agricultural lands could be affected by CCRMP and CCIP projects.	

CCAP DOCUMENT CHANGE	DISCUSSION	POTENTIALLY AFFECTED CEQA TOPIC AREA(S)
regulatory 100-year floodplain (see Figures 1, 2, and 10). As redrawn, the in-channel area totals 5,109 acres and the CCRMP plan area totals 2,266 acres.		
Increase in Potential Off-Channel Mining Area		
OCMP (page 14) The planning area for the OCMP is defined as the area contained within the Mineral Resource (_____ acres), minus the planning~~in-channel~~ area regulated under the CCRMP (_____ acres), or a total of _____ acres (see Figure 4). Within the OCMP planning area, 1,900 acres are currently approved for mining (Sand and Gravel Overlay), 1,282 acres are zoned currently to allow for future mining (Sand and Gravel Reserve Overlay), and another 968 acres are proposed to be rezoned for future mining.	The addition of new area (1,262 acres) to the OCMP planning area and rezoning this land SGRO would allow future mining that was not evaluated in the original OCMP and OCMP EIR.	The OCMP EIR identified potentially significant impacts in most of the CEQA topical areas related to establishing new off-channel mining areas. It is anticipated that expanding the mining area would result in ~~-~~similar impacts in these new geographic areas (though all impacts were mitigated to a less-than-significant level with the exception of specific Land Use and Aesthetic impacts)
Farmland Mitigation Requirements		
OCMP (page 47) Since its inception, the CCAP has required 1:1 mitigation for permanent loss of prime farmland, with no separate mitigation requirements for non-prime land or for land impacted on an interim basis during the term of the mining but ultimately reclaimed to agricultural uses. There are a variety of reasons for this including: • The County's mining program is already one of the most stringent in the state and exceeds the requirements of SMARA for operator obligations. • The CCAP imposes burdens for the protection of	Mining within the OCMP area (particularly within the proposed OCMP expansion area of 1,262 acres of new SGRO-zoned land along the banks of the Lower Cache Creek corridor) could result in the loss of farmland. This modification to the OCMP and the Reclamation Ordinance (Sec. 10-5.525) address the inconsistency between the County Code and the CCAP.	Agriculture

CCAP DOCUMENT CHANGE	DISCUSSION	POTENTIALLY AFFECTED CEQA TOPIC AREA(S)
open space and agriculture on the mining industry that exceed those imposed on other land uses. • The CCAP includes a requirement for special community benefits called "net gains" that include the provision of property dedications and easement for/on reclaimed mining sites, restored habitat, trail connections, and related community enhancements (see OCMP Action 2.4-7). • Integral to the program is a focus on managing lower Cache Creek resources to balance and maximize multiple competing goals. • Each operator along Cache Creek has an agreement with the County to fund the entire program plus specified open space and restoration activities through the payment of fees for each ton of aggregate sold (see OCMP Action 2.4-16). • The program is already structured to minimize the geographic impacts of mining by limiting it to a defined area and by encouraging the removal of the full depth of available resources. • The program includes an obligation to develop and implement the Cache Creek Parkway Plan. • The program includes, and has since 1996, special protections and monitoring of groundwater and recharge, management of the creek for the protection of adjoining land uses, and permanent protection of reclaimed lands as open space or		

CCAP DOCUMENT CHANGE	DISCUSSION	POTENTIALLY AFFECTED CEQA TOPIC AREA(S)
agriculture. • Aggregate mining is a unique land use in that it is interim by definition – permits are limited to a maximum term of 30-years (Mining Ordinance Section 10-4.426) and reclamation to a beneficial end use (agriculture, open space, or habitat) is not only required, but ensured through special bonding called financial assurances. • Aggregate mining is also unique in that it is the only land use that can result in the creation of net new prime agricultural land through reclamation. • Aggregate mining is an important economic development engine for the County. In order to address inconsistency between the County Code and the CCAP as related to mitigation for agricultural conversion, this CCAP Update expands the obligation to mitigate beyond prime farmlands to also include unique farmlands, and farmlands of statewide significance consistent with the requirements of CEQA. This update also requires mitigation equivalent to but not necessarily identical to the increased ratios in the County Code. It applies the same 3:1 and 2:1 mitigation ratio requirements from Section 8-2.404 of the County Code that apply elsewhere throughout the County, but allows new mining applications to demonstrate equivalency (down to a minimum 1:1 base mitigation ratio) to the applicable ratio using several options identified in Section 10-5.525 (Farmland Conversion) of the Reclamation Ordinance. These options include improvements to farmland quality, permanent		

CCAP DOCUMENT CHANGE	DISCUSSION	POTENTIALLY AFFECTED CEQA TOPIC AREA(S)
easements, dedication of additional net gain lands beyond those already required under the CCAP program, and/or other benefits consistent with the Cache Creek Parkway that would not otherwise already be achieved through agreements and obligations of the program.		
Reclamation Ordinance (page 15) Sec. 10-5.525. ~~Prime f~~Farmland conversion. All mining permit applications ~~that include "prime farmlands" as defined by the provisions of the Williamson Act~~ shall identify the location and acreage of ~~"~~prime farmlands,~~"~~ unique farmland, and farmland of statewide significance, as shown on the State Farmland Mapping and Monitoring program (FMMP) which, as a result of reclamation, would be permanently converted to non-agricultural uses. For each acre of ~~"prime~~ farmland~~"~~ in these categories that would be converted to non-agricultural use, the reclamation plan shall present provisions to offset ~~(at a 1:1 ratio)~~ the conversion of these lands, at a ratio consistent with Section 8-2.404 (Agricultural Conservation and Mitigation program) of the County Code. Thi~~s~~e mitigation requirement may be ~~potential~~ satisfied using a variety of flexible options identified below so long as the total acreage of benefit is found to be equivalent to the applicable ratio and acreage required under Section 8-2.404 of the County Code, by type and amount of farmland being impacted, and so long as a minimum ratio of 1:1 of permanently protected agriculture land of equivalent or better quality/capability is achieved. ~~offsets can included, but not be limited to, one or more of the following options:~~ (a) Implementation ~~Identification~~ of	See discussion above	Agriculture

CCAP DOCUMENT CHANGE	DISCUSSION	POTENTIALLY AFFECTED CEQA TOPIC AREA(S)
improvements, identified by a qualified soil scientist, to the agricultural capability of non-prime lands within the project site or outside the project site but within the OCMP area, that convert non-prime to prime agricultural conditions. These improvements can include permanent improvement of soil capability through soil amendments, reduction of soil limitations (such as excessive levels of toxins), or improvements in drainage for areas limited by flooding or low permeability soils. (b) Placement of permanent conservation easements on land of equal or better quality/capability.~~meeting the Williamson Act definition of "prime farmland."~~ The operator shall be encouraged to target property "at risk" of conversion to non-agricultural uses in selecting areas for permanent protection~~the offset~~. Prior to approval of the conservation easement, the operator shall consult with the County and/or an appropriate non-profit agency to determine the relative risk of conversion, to which the proposed property might otherwise be subject. A minimum ratio of 1:1 is required in this category ~~(c)~~ Dedication of land, or equivalent improvements, consistent with the County's net gains goals, above and beyond the net gains benefits otherwise required under the CCAP program.~~Demonstration of the ability to provide irrigation to non-prime lands limited only by the lack of an irrigation water supply. The identified water supply cannot be provided at the expense of "prime farmlands" currently using the same water supply.~~ (d) Dedication of land, or equivalent improvements, consistent with the Parkway Plan, above and beyond net gains benefits otherwise required under the CCAP program.		

CCAP DOCUMENT CHANGE	DISCUSSION	POTENTIALLY AFFECTED CEQA TOPIC AREA(S)
Aggradation in the Creek Channel		
CCRMP (page 33) Based on the analysis conducted for the 2017 Technical Studies, between 1996 and 2011, an average of approximately 690,800 tons per year of sediment was actually deposited in the CCRMP area, of which 156,400 tons is estimated to be sand and gravel and 534,400 is estimated to be fines. This estimate of deposition was calculated by comparing topographic maps of Cache Creek in 1996 and 2011. It differs significantly from the original estimate in that it appears much more fine sediment is depositing in Lower Cache Creek than originally predicted. ~~in-stream excavation of sand and gravel has averaged some two million tons, however, which has resulted in a cumulative deficit of nearly 80 million tons since mining intensified in the 1950s. At the natural rate of replacement it would take over 500 year to replenish the material removed. In addition, gravel bar skimming disturbs the formation or armor materials and removes riparian vegetation that allow the channel to readjust, thus increasing the potential for erosion.~~ While it is unclear whether the current rate of deposition will continue into the future, it appears likely that at least some portions of Cache Creek are recovering faster than expected in 1996.	The 2017 Technical Studies documented that aggradation (accumulation of sand and gravel) in the creek channel is occurring since in-stream mining was discontinued. This aggradation is likely to increase flood risk over time. While this is an outcome of CCAP implementation, it is not considered a CEQA impact because this aggradation would occur with o~~u~~r without implementation of the CCRMP and CCIP. The CCAP program provides a feasible mitigation strategy to address the increased flood risk by providing information to creek-front property owners or other interested parties that wish to implement projects to address flood capacity issues, and also provides a streamlined permitting process to facilitate implementation of flood mitigation projects.	Discussed in more detail in the Hydrology and Water Quality section
CCIP (page 29) Implementation of the CCRMP and CCIP has~~will~~ improved channel stability ~~over the long~~since ~~term~~1996 ~~term~~, but significant additional channel adjustments caused by winter and spring high flows and sediment transport~~can~~ should be expected ~~under present conditions~~, especially during periods of ~~high~~	See discussion above	Discussed in more detail in the Hydrology and Water Quality section

CCAP DOCUMENT CHANGE	DISCUSSION	POTENTIALLY AFFECTED CEQA TOPIC AREA(S)
flow greater than 20,000 cubic feet per second. It is anticipated that channel maintenance requirements will decrease as the channel becomes more stable over time. However, some degree of channel maintenance will be required for the foreseeable future to assist with flood management, to ensure that existing flood flow capacity is not diminished ~~flood carrying capacity is preserved~~, and to reduce the risk of bank erosion, lateral channel migration, and significant degradation or aggradation of the streambed in specific locations.		
Mercury Bioaccumulation		
Reclamation Ordinance (page 11) Sec. 10-5.517. Mercury bioaccumulation in wildlife. ~~Prior to the approval of reclamation of aggregate mining areas to permanent lakes, the County shall commission a sampling and analysis program, to be implemented in one existing wet pit mining area within the OCMP planning area, to evaluate the potential for increased methylmercury production associated with wet pit mining and reclamation of mining areas to permanent lakes. The program shall include the sampling of water and sediments from the bottom of the existing pit and analysis of the samples for organic content; pH; dissolved oxygen content; dissolved carbon content; and total mercury. In addition, samples of predatory fish (preferably largemouth bass) shall be collected and analyzed for mercury and methylmercury content. If the initial sampling indicates either of the following conditions, the County shall perform verification sampling:~~	This modification to the Reclamation Ordinance proposes to change how the potential bioaccumulation of mercury in fish within newly created wet mining pits is evaluated.	Biological Resources, Hazards

CCAP DOCUMENT CHANGE	DISCUSSION	POTENTIALLY AFFECTED CEQA TOPIC AREA(S)
~~(a) Average concentrations of total mercury in excess of 0.000012 milligrams per liter (mg/l) in the water; and~~ ~~(b) Average mercury levels in fish samples in excess of 0.5 milligrams per kilogram (mg/kg).~~ ~~If verification sampling indicates exceedance of these mercury criteria, the County shall approve the reclamation of mining areas to permanent lakes only if the average level of mercury in fish collected from the existing mining pits is shown to be equal to or less than ambient (background) mercury levels determined from a representative sample of similar species of fish (of similar size) collected in the Cache Creek channel within the planning area. The determination of the ambient mercury level shall be performed by the County prior to the excavation of any new wet pit mine and at years 10, 20, and 30 in the permit time period, and shall be paid for by the mining permit operators on a fair-share basis. The County shall evaluate available data to determine any significant change in ambient concentrations of mercury in fish within the Cache Creek channel.~~ ~~In the event of approval of reclamation of mined areas to permanent lakes, e~~Each mining area to be reclaimed to a permanent lake as part of each approved long-range mining plan shall be evaluated annually by the operator for a minimum of five years after ~~creation of the lake~~the pit fills with groundwater with an intensive fish mercury monitoring program, as outlined below ~~for conditions that could result in significant methylmercury production~~. An additional ten years of biennial monitoring shall be performed after reclamation of each lake has been completed. The evaluations shall be conducted by a qualified aquatic systems scientist~~aquatic biologist or limnologist~~ acceptable to the County and shall include		

CCAP DOCUMENT CHANGE	DISCUSSION	POTENTIALLY AFFECTED CEQA TOPIC AREA(S)
the following ~~analyses~~: ~~(c) Lake condition profiling during the period of June through September, including measurements of pH; eH (or redox potential); temperature; dissolved oxygen; and total dissolved carbon.~~ (d) Collection of a representative sample of fish specimens ~~(including a minimum of five (5) predator fish if available)~~ and analysis of the specimens for mercury content including 30 adult (angling size) fish muscle samples and multi-individual whole fish samples of 3 species of young-of-year small fish, as available. Adult fish sampling should target 10 individuals from each of 3 species, distributed across the prevailing size ranges. Priority shall go to a predatory species like bass, with additional species including a midwater planktivore such as sunfish and a bottom feeder such as catfish, if present. If less than 3 species are present, sample up to 20 of the predatory species, if present. Small fish sampling should target 3 prevalent species, as available. These should be characterized either with 15 individual whole fish samples or 4 multi-individual whole fish composites (≥5 fish per composite) for each species. Composites should span the range of typical sizes present, but with the individuals within each composite being closely matched in size. Sampling and analysis shall be conducted using methodologies which are consistent with the California State Water Resources Control Board Toxic Substances Monitoring program procedures, or more stringent procedures. ~~(e)~~ The results of the evaluation shall be summarized in a report and submitted to the County. The report shall include a comparison of the site specific data to available data on the background concentrations of mercury in fish within the Cache		

CCAP DOCUMENT CHANGE	DISCUSSION	POTENTIALLY AFFECTED CEQA TOPIC AREA(S)
Creek watershed. The County shall be responsible for submitting the data on mercury levels in fish to the ~~California Department of Fish and Game and the~~ State Office of Environmental Health Hazard Assessment for consideration as related to existing Cache Creek ~~a determination of whether a~~ fish advisories[1] ~~y should be issued~~ and shall post the information on the CCAP website. ~~(f)~~ If a fish advisory is applicable~~issued~~, the owner/operator shall ~~be required to~~ post warnings on fences surrounding the mining pit lakes which prohibit fishing in the lakes and describe the fish advisory. If the average fish specimen mercury content exceeds the statistically verified ambient mercury concentrations for comparable fish species (of similar size) collected within the CCRMP planning area (defined as average fish mercury greater than 30 percent above corresponding baseline creek samples in the majority of pond samples) for two (2) consecutive years., ~~wet pit mining on property controlled by the mining operator/owner shall be suspended and~~ the owner/operator shall ~~either:~~ continue annual fish specimen sampling and initiate lake condition monitoring to identify factors linked to elevated methylmercury production and/or exposure in the pond. This shall include: (1) water column profiling of temperature and dissolved oxygen (determined at ≤1 m intervals, surface to bottom) approximately every 6 weeks between mid-May and mid-November (5 events/year); (2) determination of maximum depth; (3) estimation of pond bottom area and volume affected		

[1] Fish advisories are issued by the State Office of Environmental Health Hazard Assessment (OEHHA). A fish advisory issued by this agency for Cache Creek has been in place for some time. Please refer to the following state web site for more information: https://oehha.ca.gov/fish/advisories/cache-creek

CCAP DOCUMENT CHANGE	DISCUSSION	POTENTIALLY AFFECTED CEQA TOPIC AREA(S)
by seasonal anoxia; and (4) characterization of water quality and bottom sediment parameters most relevant to mercury bioaccumulation (the choice of specific analyses may change as mercury biogeochemistry science continues to develop, but may include: sediment organic percentage, total mercury, methylmercury, and/or 'reactive' mercury; and aqueous suspended solids and organic carbon). If elevated mercury levels in fish persist during this period, following two years of lake condition monitoring for factor-identification and continued fish sampling, the owner/operator shall either: (ag) Present a revised reclamation plan to the DirectorYolo County Community Development Agency which provides for filling the reclaimed lake to a level five (5) feet above the average seasonal high groundwater level with a suitable backfill material; or (bh) Present a mitigation plan to the DirectorYolo County Community Development Agency which provides a feasible and reliable method for reducing methylmercury production or exposure to elevated mercury levels. Potential mitigation could include permanent aeration of the bottom levels of the lake, alteration of the water chemistry (increasing pH or dissolved organic carbon levels), control of anaerobic bacteria populations, or removal and replacement of affected fish populations. The mitigation plan shall be subject to review and acceptance b the County. Following finalization, the plan shall be implemented by the operator and shall be posted to the CCAP web site by the County.would require review by the Regional Water Quality Control Board, California Department of Fish and Game, and the Yolo County Department of Environmental Health. (The removal and replacement of fish, if within the		

CCAP DOCUMENT CHANGE	DISCUSSION	POTENTIALLY AFFECTED CEQA TOPIC AREA(S)
same species, is not intended to be a long-term solution, though replacement with species that alter the existing food web may be effective.) ~~The reclamation plan shall be modified such that the mitigation approved for methylmercury reduction shall be applied to all mining areas proposed for reclamation to permanent lakes within the reclamation plan.~~		
Depth of Mining		
Mining Ordinance (page 9) Sec.10-4.411.1 Depth of Mining This ordinance regulates the size of the footprint of the mining operation, and establishes no regulatory depth limit for off-channel mining. Unless an environmental analysis concludes that unacceptable environmental impacts will result, mining operations shall be encouraged to excavate the full depth of available resources at any particular mining site. In conjunction with a minimize mining footprint, this will ensure efficiency in resource extraction, help minimize impacts to agriculture by containing the area of surface disturbance of any individual mining operation, and minimize impacts of water loss associated with evaporation from reclaimed lakes.	It has always been the policy of the program to reduce agricultural land loss and efficient resource management and minimizing evaporation water losses by encouraging reducing the size of the footprint of off-channel mining pits and encouraging deeper mining. However, it is possible that deeper mining (and potentially backfill or clogging of the pit walls with fines) could result in impacts to groundwater flow.	Hydrology and Water Quality
Reclaimed Slope Steepness		
Mining Ordinance (page 19) Sec. 10-4.431. Slopes. Except where benches are used, all banks above groundwater level shall be sloped no steeper	This modification clarifies that the slope steepness specifications only applies to final reclaimed slopes, not	Hazards

CCAP DOCUMENT CHANGE	DISCUSSION	POTENTIALLY AFFECTED CEQA TOPIC AREA(S)
than 2:1 (horizontal:vertical). Proposed steeper slopes shall be evaluated by a slope stability study, prepared by a Registered Civil ~~engineer~~Engineer. Slopes below the groundwater level shall be no steeper than 1:1 (horizontal:vertical). Slopes located five (5) feet or less below the summer low groundwater level shall not be steeper than 2:1 (horizontal:vertical). This section applies only to final/reclaimed slopes and not to active mining faces.	active mining sites. Long-term geologic stability of active mining slopes is not a concern because the slopes continually change and are being worked. Any slope failures would be addressed as part of the mining activity (i.e., the failed material would be transported to the processing plant). Existing regulations and standard work practices are in-place that reduce safety risks related active mining slopes.	
Soil on Reclaimed Land		
Reclamation Ordinance (page 16) Sec. 10-5.532. Use of overburden and fine sediments in reclamation. Sediment fines associated with processed in-channel aggregate deposits (excavated as a result of maintenance activities performed in compliance with the CCIP) ~~shall not~~may be used in the backfill or reclamation of off-channel permanent lakes where it can be demonstrated that no detrimental sediment toxicity exists (including unacceptable levels of mercury), and where fines will not reduce the porosity of the permanent lake in an adverse way. Fines that result from the processing of in-channel sand and gravel shall not be used for in-channel reshaping or habitat restoration efforts or as soil amendments in agricultural fields. Overburden and processing fines shall be used whenever possible to support reclamation activities around reclaimed wet pits. These materials may be used in reclamation activities without testing for agricultural chemicals. If topsoil (A-horizon soil), formerly in agricultural production, is proposed for use within the drainage area of a wet pit, the soils must be	The modification at the end of this ordinance would require that land that is reclaimed to a use that requires planting be supplied with an appropriate soil profile to support the plantings. This would improve the probability of success of reclamation plantings, but could require~~d~~ soil material and/or supplements to be hauled in to the reclamation site (if there is inadequate on-site soil). This hauling could result in increased truck trips, contributing traffic and air quality impacts	Transportation and Circulation, Air Quality

CCAP DOCUMENT CHANGE	DISCUSSION	POTENTIALLY AFFECTED CEQA TOPIC AREA(S)
sampled prior to placement and analyzed for pesticides and herbicides (EPA 8140 and 8150). Samples shall be collected and analyzed in accordance with EPA Test Methods for Evaluating Solid Waste Physical/Chemical Methods, SW-846, Third Edition (as updated). Topsoil that contains pesticides or herbicides above the Maximum Contaminant Levels for primary drinking water (California Code of Regulations) shall not be placed in areas that drain to the wet pits. Land reclaimed to a subsequent use that includes planting of vegetation (e.g., agriculture, habitat) shall be provided an adequate soil profile (i.e., depth and texture of soil) to ensure successful reclamation. Proposed soil profiles associated with specific proposed reclamations plans shall be subject to expert review and evaluation during the CEQA process for that project. If the project is not subject to additional CEQA review, at the discretion of the County, the proposed reclamation plan for the project may be peer reviewed by an appropriate expert/professional, and recommendations, if any, shall be incorporated into the project as conditions of approval.		
In-Channel Material Removal Requirements		
In-Channel Ordinance (page 5) Sec. 10-3.40~~96~~. ~~Excavation~~ Limitations on Removal of Material. (a) Where gravel bars are to be removed, there ~~excavated, aggregate removal~~ shall be ~~limited to the downstream portion~~minimize disturbance of ~~the deposit and may not exceed seventy-five (75) percent of the length of the bar. At least twenty-five (25)~~	This modification removes some of the prescriptive requirements that specified quantitative criteria and needlessly limited the TAC. The new text provides performance standards and allows the TAC more flexibility when designing in-channel projects.	Hydrology and Water Quality, Biological Resources

CCAP DOCUMENT CHANGE	DISCUSSION	POTENTIALLY AFFECTED CEQA TOPIC AREA(S)
~~percent of the upstream portion of the gravel bar shall be retained, in order to allow for the establishment of~~ established, mature riparian vegetation and there shall be preservation of geomorphic controls on channel gradient where they exist. Complete removal of gravel bars may be recommended by the TAC and approved by the Director only if hydraulic conditions related to the bar are recognized to threaten structures and property. (b) Aggregate material to be removed from the streambed or streambank under approved in-channel projects shall be removed~~excavated~~ as soon as is practicable after deposition, prior to the establishment of vegetation. No stockpiles shall be left within the channel after material removal~~excavation~~ has been completed. (c) The amount of aggregate removed from the channel shall be limited to the average annual amount of sand and gravel (and associated fines) deposited since the last prior year of in-channel material removal ~~during the previous year~~ as estimated by the TAC based on channel topography and bathymetry,~~morphology data~~ not to exceed 690,800 ~~(approximately 200,000~~ tons annually on average~~)~~, except where ~~bank excavation~~bank widening is necessary ~~to widen the channel~~ as a part of implementing ~~the Test 3 Run~~ the Channel Form Template, ~~Boundary,~~ or where potential erosion and flooding problems exist. The amount and location of in-channel aggregate material removal shall be carried out according to the ongoing recommendations of the TAC and any related County approvals, with the voluntary cooperation of the landowners. (d) Aggregate material removed pursuant to this ordinance may be sold (CCRMP, Section 6.1, para. 5). This material is excluded from the tonnage allocation assigned to each off-channel operator		

CCAP DOCUMENT CHANGE	DISCUSSION	POTENTIALLY AFFECTED CEQA TOPIC AREA(S)
pursuant to an approved FHDP (CCRMP, Section 6.1, para. 7). (e) The volume of aggregate material removed pursuant to this ordinance shall be reported to the County on an annual and total-per-permit basis.		

3.0 EVALUATION OF ENVIRONMENTAL EFFECTS

This section provides information on the methodology used in this IS to assess the environmental impacts that may be associated with implementation of the proposed Project. The evaluated impacts include both short-term and long-term direct and indirect effects of the Project. Once it is determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is “Potentially Significant”, “Potentially Significant Unless Mitigation Incorporated”, or a “Less-Than-Significant Impact.” A "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

The following guidelines are provided for the answers to questions included in the checklist format:

> No Impact. This determination is used when significance thresholds do not apply or when the environmental resource does not occur within the area of potential effect.
>
> Less than Significant Impact. This determination applies if there is a potential for some limited impact, but not a substantial adverse effect that qualifies under the significance criteria as a significant impact. Impacts that are less than significant do not require mitigation.
>
> Less Than Significant With Mitigation Incorporated. This determination applies if there is the potential for a substantial adverse effect that meets the significance criteria, but mitigation is available to reduce the impact to a less-than-significant level.
>
> Potentially Significant Impact. This determination applies if there is a potential for a substantial adverse effect that meets the significance criteria but for which mitigation has not yet been identified (but will be further evaluated in the EIR).

The analysis performed in this IS indicates that the proposed Project could cause "Potentially Significant Impacts" and, therefore, will require that a focused EIR be prepared for the Project. The analysis presented in this IS is preliminary. Further analysis of the effects identified in this IS as "Potentially Significant Impacts" will be performed during preparation of the EIR for the Project. The more in-depth analysis in the EIR may determine that an effect initially identified as potentially significant in the IS could ultimately be found to have "No Impact" or a "Less-Than-Significant Impact." Additionally, the subsequent analysis could result in the final determination that a "Potentially Significant Impact" can be reduced to a less-than-significant level following development and implementation of mitigation measures in the EIR.

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.1 AESTHETICS Would the project:				
a) Have a substantial adverse effect on a scenic vista?	■	☐	☐	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	■	☐	☐	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	■	☐	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	■	☐	☐	☐

The following is a discussion of whether the proposed Project could result in a significant adverse impact based on each of the significance criteria, above.

a) Have a substantial adverse effect on a scenic vista ***(Potentially Significant Impact)***

The regional landscape of the planning area consists of broad, generally flat agricultural lands in the Sacramento Valley. Occasional rolling terrain and winding creeks are also part of this landscape. Expansive farm fields, including cultivated crop fields, pasture, and orchards are dominant visual forms. Non-agricultural tree cover is relatively sparse in these areas. The gently- to steeply-sloped hillsides of the Dunnigan Hills can be seen as they rise at the western end of the planning area where the Coast Range forms the horizon several miles to the west. The Sierra Nevada Mountains can be seen on clear days in very long-range views to the east. The planning area is dominated by agricultural land uses, with low-density residential and commercial development located in the communities of Esparto, Madison and Capay. These features contribute to the predominantly rural character of the area.

In general, activities associated with the CCRMP and CCIP are conducted within the Cache Creek channel and therefore would not be visible from most vantage points.

Implementation of CCAP Update related to the OCMP would include the expansion of potential mining areas (by designating an additional 1,262 acres of land as Sand and Gravel Reserve Overlay or SGRO, which could result in a variety of landscape changes resulting from the excavation and reclamation of off-channel mining pits in areas currently under agricultural production. These include removal of existing vegetation, excavation of pits and development of material stockpiles, and the creation of lowered topography, wildlife habitat and bodies of open water (lakes). These activities could be viewed from scenic viewpoints and vistas. This would be a significant impact that will be further evaluated in the EIR for the project.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway ***(Potentially Significant Impact)***

The following routes are designated as local scenic roadways, as shown in Figure LU-3 (Scenic Highways) of the General Plan:

o State Route 16 (Colusa County line to Capay)

o State Route 128 (Winters to Napa County line)

o County Roads 116 and 116B (Knights Landing to eastern terminus of County Road 16)

o County Roads 16 and 117 and Old River Road (County Road 107 to West Sacramento)

o South River Road (West Sacramento City Limits to Sacramento County line)

It is possible that the CCAP area could be viewed from State Route 16 near Capay. The other scenic roadways are located at considerable distance from the CCAP area and there are no state scenic highways. The potential for CCAP activities to affect visual resources along scenic roadways will be evaluated further in the EIR.

*c) Substantially degrade the existing visual character or quality of the site and its surroundings (****Potentially Significant Impact)***

The 2030 Countywide General Plan Final EIR[1] indicates that the County's scenic areas, vistas, and views are primarily accessible by the County's locally-designated scenic roadways and routes. However, the 2030 Countywide General Plan Final EIR also recognizes that the County's landscapes and visual features are of predominantly local importance. New mining areas associated with the expansion of the OCMP could adversely affect the visual character of the area as viewed by nearby residents. This is a potentially significant impact. This impact will be evaluated in detail in the EIR. In addition, the EIR will evaluate the proposed Project's conformance with applicable plans, policies, regulations, and ordinances related to aesthetics.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area ***(Potentially Significant Impact)***

No nighttime work would occur within the channel under the CCRMP and therefore no night lighting would be required.

Mining and aggregate processing in the expanded OCMP area would typically occur during daylight hours. However, processing plants and mining areas may maintain nighttime lighting (for security or occasional nighttime operation). New nighttime lighting

[1] Yolo County, 2009, 2030 Countywide General Plan Final EIR; 9 October; page 753.

associated with new aggregate operations could adversely affect nighttime views in the area. This potential impact will be evaluated in detail in the EIR.

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.2 AGRICULTURE AND FORESTRY RESOURCES In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. -- Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring program of the California Resources Agency, to non-agricultural use?	■	☐	☐	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	■	☐	☐	☐
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	■	☐	☐	☐
d) Result in the loss of forest land or conversion of forest land to non-forest use?	■	☐	☐	☐
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	■	☐	☐	☐

The following is a discussion of whether the proposed Project could result in a significant adverse impact based on each of the significance criteria, above.

a) *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring program of the California Resources Agency, to non-agricultural use?* ***(Potentially Significant Impact)***

The CCAP area includes extensive agricultural resources. While there are no Prime, Unique, or farmlands of Statewide Importance within the Cache Creek channel, there are these types of farmlands within the CCRMP boundary (along the banks of the creek) that could be affected by creek widening or flood capacity projects located adjacent to the creek banks. In addition, implementation of CCAP Update related to the OCMP would include the expansion of potential mining areas (by designating an additional 1,262 acres of land as SGRO, which could result in disturbance of farmland. This potential impact will be evaluated in detail in the EIR.

b) *Conflict with existing zoning for agricultural use, or a Williamson Act contract?* ***(Potentially Significant Impact)***

Implementation of CCAP Update related to the OCMP would include the expansion of potential mining areas (by designating an additional 1,262 acres of land as SGRO), which could result in disturbance of farmland. As part of the EIR analysis, it will be determined whether any of these farmlands are under Williamson Act contract.

c) *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?* ***(Potentially Significant Impact)***

There are wooded areas along the Cache Creek corridor. The EIR will include an analysis to determine if any of these wooded areas are considered forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g). If it is determined by this analysis that these wooded areas would be considered forest land and/or timberland, The EIR will evaluate potential impacts to these resources.

d) *Result in the loss of forest land or conversion of forest land to non-forest use?* ***(Potentially Significant Impact)***

As described above, if it is determined by EIR analysis that the wooded areas along the Cache Creek corridor would be considered forest land and/or timberland, The EIR will evaluate potential conversion or loss impacts related to CCAP implementation to these resources.

e) *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?* ***(Potentially Significant Impact)***

Potential impacts to agricultural and forestry lands related to implementation of the CCAP Update will be evaluated as described above. No other changes in the environment which, due to their location or nature, would result in conversion of Farmland to non-agricultural use, or conversion of forest land to non-forest use.

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.3 AIR QUALITY Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	■	☐	☐	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	■	☐	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	■	☐	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	■	☐	☐	☐
e) Create objectionable odors affecting a substantial number of people?	■	☐	☐	☐

The following is a discussion of whether the proposed Project could result in a significant adverse impact based on each of the significance criteria, above.

The Project Site is located in the southwest portion of the Sacramento Valley Air Basin (Basin). The Basin is bounded by the North Coast Ranges on the west and Northern Sierra Nevada Mountains on the east and encompasses all of Sutter, Yuba, Sacramento, and Yolo counties, and the westernmost portion of Placer County. The Yolo-Solano Air Quality Management District (YSAQMD) is the local oversight agency for air quality issues in Yolo and northern Solano counties.

a) Conflict with or obstruct implementation of the applicable air quality plan ***(Potentially Significant Impact)***

YSAQMD has adopted the following attainment plans to achieve state and federal air quality standards:

- The 1992 *Yolo-Solano Air Quality Attainment Plan* (AQAP); and
- The 2013 *Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan*.

These plans identify feasible emission control measures to reduce emissions of ozone and attain state and federal ozone standards. The control measures focus on emission sources under YSAQMD's authority, specifically, stationary emission sources and some area-wide sources.

Activities conducted under the CCAP program and under the updated program include the use of off-road equipment (for in-channel restoration projects and off-channel mining). Emission inventories for off-road equipment were developed by CARB and YSAQMD staff using the OFFROAD emission model. The OFFROAD model estimates average seasonal daily emissions from a large spectrum of generally diesel-powered off-road equipment and develops forecasts based on anticipated growth and controls within each equipment category.

Under the CCAP Update, additional mining sites (including new processing plants) could be established in the expanded OCMP area. Emissions from these new possible mining sites will be quantified in the project-level EIRs that will be required to further evaluate the potentially significant impact on implementation of the AQAP and 2013 *Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan*.

b) Violate applicable air quality standards or contribute substantially to an existing or projected air quality violation ***(Potentially Significant Impact)***

The following six criteria air pollutants are regulated by both the U.S. EPA and the California Air Resources Board (CARB): ozone, carbon monoxide, sulfur dioxide, nitrogen dioxide, lead, respirable particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$). In accordance with the federal Clean Air Act and California Clean Air Act, areas in California are classified as either in "attainment" or "non-attainment" for criteria air pollutants, based on whether or not the federal and state ambient air quality standards have been achieved. Yolo County is classified as a non-attainment area for ozone and PM_{10} for both federal and state standards, the partial nonattainment of the federal $PM_{2.5}$ (the non-attainment area includes the CCAP area),[2] and is classified as a moderate maintenance area for CO by the state.

To evaluate regional impacts from criteria air pollutants, the YSAQMD has established the following quantitative thresholds of significance for emissions of ozone precursors (reactive organic gases [ROG] and nitrogen oxides [NO_x]) and PM_{10}.[3]

- NO_x - 10 tons per year;

[2] That portion of Yolo County which lies east of the line described as follows: (Mount Diablo Base and Meridian) beginning at the intersection of Yolo-Solano County boundary and the range line of the eastern edge of township T8N R2W, north along the range line of the eastern edge of township T8N R2W, continuing north along the range line common to ranges R2W and R1W, to the Yolo-Colusa County boundary.

[3] Yolo-Solano Air Quality Management District (YSAQMD), 2007, Handbook for Assessing and Mitigating Air Quality Impacts, Adopted 11 July.

- ROG - 10 tons per year;
- PM_{10} - 80 pounds per day; and
- CO - Violation of a state ambient air quality standards for CO.[4]

Projects with emissions below these thresholds, which apply to both the construction and operational phases of a project, would not be considered to contribute a significant environmental impact, including contributing substantially to an existing or projected air quality violation. Emissions of criteria air pollutants will be quantified and further evaluated in the EIR to determine if the CCAP Update would likely result in exceedance of the YSAQMD's thresholds and violate applicable air quality standards or contribute substantially to an existing or projected air quality violation.

c) *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)* ***(Potentially Significant Impact)***

Air pollution is largely a cumulative impact and, therefore, future development projects contribute to the region's adverse air quality impacts on a cumulative basis. As discussed under Section b), above, the future emissions of criteria pollutants under the CCAP update could result in a violation of air quality standards. Emissions of criteria air pollutants will be quantified and evaluated further in the EIR to determine if the CCAP Update would results in a potentially significant cumulative impact.

d) *Expose sensitive receptors to substantial pollutant concentrations.* ***(Potentially Significant Impact)***

The YSAQMD recommends evaluating potential localized health impacts from toxic air contaminant and construction dust emissions to nearby sensitive receptors. Sensitive receptors include schools, convalescent homes, and hospitals because the very young, the old, and the infirm are more susceptible to air-quality-related health problems than the general public. Residential areas are also considered sensitive to poor air quality because people are often at home for extended periods, thereby increasing the duration of exposure to potential air contaminants.

Under the CCAP Update, toxic air contaminant emissions would primarily be limited to diesel particulate matter from off-road construction equipment and haul trucks used to complete in-channel restoration projects and for mining in the expanded OCMP area. YSAQMD recommends evaluating potential sources of toxic air contaminant emissions within up to 1,000 feet of a sensitive receptor. Concentrations of diesel particulate matter will be modeled and evaluated further in the EIR to determine if the CCAP Update would expose sensitive receptors to substantial pollutant concentrations.

[4] 20 parts per million – one hour average or 9 parts per million – eight hour average.

e) Create objectionable odors affecting a substantial number of people ***(Potentially Significant Impact)***

Odor impacts could result from creating a new odor source or from exposing a new receptor to an existing odor source. Typical odor sources are generally associated with municipal, industrial, or agricultural land uses, such as wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, and chemical plants. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source, the wind speed and direction, and the sensitivity of receptors. YSAQMD recommends evaluating potential sources of odors within up to 1 mile of a sensitive receptor. The general types of activities that would be conducted under the CCAP Update (e.g., creek restoration, mining, aggregate processing) are not listed in YSAQMD's guidance as a project type that would generate odorous emissions. However, new mining and processing sites may include asphalt plants which can emit odors. This potential impact will be evaluated in the EIR.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.4 BIOLOGICAL RESOURCES Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	■	☐	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	■	☐	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	■	☐	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	■	☐	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	■	☐	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	■	☐

The following is a discussion of whether the proposed Project could result in a significant adverse impact based on each of the significance criteria, above.

a) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service* ***(Potentially Significant Impact)***

Special-status species[5] are plants and animals which are legally protected by the State and/or Federal Endangered Species Acts[6] or other regulations and other species which the scientific community and trustee agencies have identified as rare enough to warrant special consideration, particularly the protection of isolated populations, nesting or denning locations, communal roosts, and other essential habitat. Species protected by the Endangered Species Acts often represent major constraints to development, particularly when they are wide-ranging or highly sensitive to habitat disturbance. The EIR will include an evaluation of the potential for the project to impact any species identified as a candidate, sensitive, or special status.

b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?* ***(Potentially Significant Impact)***

Sensitive natural communities are natural community types considered to be rare or of a "high inventory priority" by the CDFW. Although sensitive natural communities have no legal protective status under the FESA or CESA, they are provided some level of consideration under CEQA. The CNDDB provides an inventory of sensitive natural communities considered to have a "high inventory priority" in the state by the CDFW.

Projects under the CCAP Update, including projects to maintain flood conveyance flow capacity; protect existing structures, infrastructure, and/or farmland; minimize or prevent bank erosion; or contribute to channel stabilization implement the CFT could adversely affect riparian habitat or other sensitive natural communities. The EIR will include an evaluation of the potential for the project to have a substantial adverse effect on any riparian habitat or other sensitive natural community, and develop mitigation measures to address any identified impacts.

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[5] Special-status species include:

- Officially designated (rare, threatened, or endangered) and candidate species for listing by the California Department of Fish and Wildlife (CDFW).
- Officially designated (threatened or endangered) and candidate species for listing by the U.S. Fish and Wildlife Service (USFWS).
- Species considered to be rare or endangered under the conditions of Section 15380 of the CEQA Guidelines, such as those identified on lists 1A, 1B, and 2 in the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Vascular Plants of California.
- And possibly other species which are considered sensitive or of special concern due to limited distribution or lack of adequate information to permit listing or rejection for state or federal status, such as those included on lists 3 and 4 in the CNPS Inventory or identified as "California Special Concern" (CSC) species by the CDFG. CSC species have no legal protective status under the state Endangered Species Act but are of concern to the CDFG because of severe decline in breeding populations in California, and other factors.

[6] The Federal Endangered Species Act (FESA) of 1973 declares that all federal departments and agencies shall use their authority to conserve endangered and threatened plant and animal taxa. The California Endangered Species Act (CESA) of 1984 parallels the policies of FESA and pertains to native California species.

c) *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means* ***(Potentially Significant Impact)***

Although definitions vary to some degree, wetlands generally are considered to be areas that are periodically or permanently inundated by surface or ground water and support vegetation adapted to life in saturated soil. Wetlands are recognized as important features on a regional and national level due to their high inherent value to fish and wildlife, use as storage areas for storm and flood waters, and water recharge, filtration, and purification functions. Technical standards for delineating wetlands have been developed by the U.S. Army Corps of Engineers (Corps) and the USFWS which generally define wetlands through consideration of three criteria: hydrology, soils, and vegetation.

Projects under the CCAP Update, including in-channel projects to maintain flood conveyance flow capacity; protect existing structures, infrastructure, and/or farmland; minimize or prevent bank erosion;, or contribute to channel stabilization implement the CFT could adversely affect wetland resources. In addition, off-channel mining in the expanded OCMP area could affect wetland resources. The EIR will include an evaluation of the potential for the project to adversely affect federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites ***(Potentially Significant Impact)***

As the CCAP area covers a relatively large area along the Cache Creek riparian corridor, it is possible that activities carried out under the CCAP program and the updated program could adversely affect the movements of fish and/or migratory wildlife. For example, the expansion of the OCMP mining area, which could result in new mining sites, could adversely affect wildlife movements along the Cache Creek corridor. This potential impact will be evaluated in detail in the EIR.

e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance* ***(Potentially Significant Impact)***

The CCRMP and CCIP are creek restoration plans. The OCMP includes broad goals, objectives, and actions in the Biological Resources Element related to protecting and enhancing natural ecosystems within the off-channel planning area along Cache Creek. The CCAP plans were adopted as a part of the County's General Plan and are considered consistent local policies or ordinances protecting biological resources. The implementing ordinances all contain specific requirements to protect biological resources. The Mining Ordinance contains:

- Provisions related to compliance with the Yolo County Habitat Conservation Plan (Section 10-4.418), discussed further in Section f);

- Vegetation protection (Section 10-4.436), avoidance of jurisdictional wetlands (Section 10-4.439);

- Important wildlife habitat (Section 10-4.440); and

- A review of the feasibility of establishing landscaping for screening and other purposes as part of the required biological inventory and analysis (Section 10-4.502(b)(1).

The Reclamation Ordinance contains:

- Provisions related to re-establishment of fence row habitat (Section 10-5.509);

- Habitat management plan compliance (Section 10-5.5.514);

- Habitat plan referral to resource agencies (Section 10-5.515);

- Development of site-specific planting plans by a qualified biologist (Section 10-5.523); and

- Provisions to establish wetland habitat where off-channel excavations are to be reclaimed as permanent lakes (Section 10-5.533).

The Reclamation Ordinance also requires a biological analysis to evaluate the feasibility of proposed revegetation efforts [Section 10-5.601(c)(1)], including detailed plans describing planting methods, appropriate planting times, species to be used, irrigation requirements, erosion control, weed control, and proposed success rates for plant cover and density.

The project updates these plans. It is possible that some of the updates could affect biological resources or be inconsistent with local policies or ordinances protecting biological resources. This potential impact will be evaluated in detail in the EIR.

f) *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan* ***(Less-Than-Significant Impact)***

There are currently no adopted Habitat Conservation Plans (HCPs) or Natural Community Conservation Plans (NCCPs) for the Project Site or surrounding areas. However, the Yolo Habitat Conservancy (YHC or Conservancy) has prepared a Draft HCP/NCCP and Draft EIS/EIR which will be released in eary June 2017. The Conservancy is a Joint Powers Agency (JPA) formed in 2002 to serve as the lead agency for the preparation of a county-wide multi-species conservation plan.The Conservancy governing board is composed of representatives from the member agencies, which include the Yolo County Board of Supervisors, and the cities of Davis, Woodland, West Sacramento and Winters.

In 1993 a Swainson's Hawk program was established as part of the early planning efforts for habitat conservation planning in the county, now overseen by the Conservancy. The Swainson's Hawk program utilizes mitigation fees to acquire conservation easements protecting Swainson's hawk habitat.

Because the NCCP/HCP has not been formally adopted, no significant conflicts with an adopted plan would occur and there would be no impact under this significance criterion. However, the proposed Project could have potentially significant impacts on special-status species.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.5 CULTURAL RESOURCES Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?	☐	☐	■	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	■	☐	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	■	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	■	☐

The following is a discussion of whether the proposed Project could result in a significant adverse impact based on each of the significance criteria, above.

a) Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5 ***(Less-Than-Significant Impact)***

The ample and diverse natural resources of the lower Cache Creek basin have made it the focus of human use over an extended period of time, beginning as early as 5,000 years ago and continuing into the present. There are documented prehistoric and historic cultural resources within the CCAP area. Historical resources (and potential historical resources) are more abundant. As stated in the 1996 OCMP EIR, in addition to 14 documented historical resources and one historic district, the CCAP area contains 153 mapped locations of buildings, building complexes, and structures predating 1946.[7]

Activities conducted under the Project have the potential to affect historic resources. However, the following sections of the In-Channel Ordinance and the Mining Ordinance (which are not proposed to be substantively modified by the CCAP Update) would ensure that off-channel mining operations evaluate and mitigate impacts related to important cultural resources (including historic resources):

> Sec.10-3.404. Cultural Resources.
>
> (a) If human skeletal remains are encountered during material removalexcavation, all work within seventy-five (75) feet shall immediately stop, and the County Coroner shall be notified within twenty-four (24) hours. If the remains are of Native American origin, the appropriate Native American community identified by the Native American Heritage Commission shall be

[7] OCMP EIR, page 4.11-4

contacted, and an agreement for treating or disposing, with appropriate dignity, of the remains and associated grave goods shall be developed. If any cultural resources, such as chipped or ground stone, historic debris, building foundations, or paleontological materials are encountered during material removalexcavation, then all work within seventy-five feet shall immediately stop and the Director shall be notified at once. A qualified archaeologist shall then examine any cultural resources found on the site and the information shall be submitted to the County.

(b) Damaging effects to cultural resources shall be avoided whenever possible. If avoidance is not feasible, the importance of the site shall be evaluated by a qualified archeologist prior to the commencement of excavation operations. If a cultural resource is determined not to be important, both the resource and the effect on it shall be reported to the County, and the resource need not be considered further. If avoidance of an important cultural resource is not feasible, a mitigation plan shall be prepared and implemented. The mitigation plan shall explain the importance of the resource, describe the proposed approach to mitigate destruction or damage to the site, and demonstrate how the proposed mitigation would serve the public interest.

Sec. 10-4.410. Cultural resources.

(a) All resource records shall be checked for the presence of and the potential for prehistoric and historic sites. Damaging effects on cultural resources shall be avoided whenever possible. If avoidance is not feasible, the importance of the site shall be evaluated by a qualified professional prior to the commencement of mining operations. If a cultural resource is determined not to be important, both the resource and the effect on it shall be reported to the Agency, and the resource need not be considered further. If avoidance of an important cultural resource is not feasible, a mitigation plan shall be prepared and implemented. The mitigation plan shall explain the importance of the resource, describe the proposed approach to mitigate destruction or damage to the site, and demonstrate how the proposed mitigation would serve the public interest.

(b) If human skeletal remains are encountered during excavation, all work within seventy-five (75) feet shall immediately stop, and the County Coroner shall be notified within twenty-four (24) hours. If the remains are of Native American origin, the appropriate Native American community identified by the Native American Heritage Commission shall be contacted, and an agreement for treating or disposing of, with appropriate dignity, the remains and associated grave goods shall be developed. If any cultural resources, such as chipped or ground stone, historic debris, building foundations, or paleontological materials are encountered during excavation, then all work within seventy-five (75) feet shall immediately stop and the Director shall be notified at once. Any cultural resources found on the site shall be recorded by a qualified archaeologist and the information shall be submitted to the Agency.

Implementation of existing requirements under the County ordinances would ensure that any potential impacts to historic resources are mitigated to a less-than-significant level.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5 ***(Potentially Significant Impact)***

It is possible that ground-disturbing activities (e.g., in-channel restoration projects and off-channel mining in the expanded OCMP area) could adversely affect subsurface archaeological resources, including Native American archaeological resources covered under AB 52, AB 52 specifies that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource requires a lead agency to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. The existing and proposed updates to the CCAP ordinances do not specifically require the activities required under AB 52. The potential impacts to Native American resources will be further evaluated in the EIR.

c) Directly or indirectly destroy a unique paleontological resource or site ***(Less-Than-Significant Impact)***

The Project Site is underlain by Holocene (last 10,000 years) riverine deposits. The lower Cache Creek basin contains fossil-bearing geologic formations including the gravels along Cache Creek.[8] However, the fossil locations are scarce and are not predictable. Identified fossils include disarticulated mammoth skeletons transported downstream from other locations by Cache Creek. It is possible that paleontological resources could be encountered during channel maintenance and/or mining activities associated with the implementation of CCAP activities. As described above under subsection "a)", implementation of existing requirements under the County ordinances would ensure that any potential impacts to paleontological resources are mitigated to a less-than-significant level.

d) Disturb any human remains, including those interred outside of formal cemeteries ***(Less-Than-Significant Impact)***

It is possible that ground-disturbing activities (e.g., in-channel restoration projects and off-channel mining in the expanded OCMP area) could disturb human remains. As described above under subsection "a)", implementation of existing requirements under the County ordinances would ensure that if human remains are encountered, that they are handled properly and therefore associated impacts would be mitigated to a less-than-significant level.

[8] Yolo County, Off-Channel Mining Plan program EIR; 26 March; pp. 4.11-4 et seq.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.6 GEOLOGY AND SOILS Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	■	☐
ii Strong seismic ground shaking?	☐	☐	■	☐
iii Seismic-related ground failure, including liquefaction?	☐	☐	■	☐
iv Landslides?	■	☐	☐	☐
b) Result in substantial soil erosion or the loss of topsoil?	■	☐	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	■	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	■	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	■	☐

The following is a discussion of whether the proposed Project could result in a significant adverse impact based on each of the significance criteria, above.

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42* ***(Less-Than-Significant Impact****)*

No portion of the CCAP area is within the established Alquist-Priolo Earthquake Fault Zone (A-PEFZ),[9] and no active faults have been mapped in the area by the United States Geological Survey (USGS) or the California Geological Survey (CGS).[10] Fault rupture of the surface typically occurs along existing faults that have ruptured the surface in the past. The closest A-PEFZ is the zone delineated for the Hunting Creek-Berryessa Fault, located approximately 30 miles west of the CCAP area. Since faults with known surface rupture have been mapped in California, and none are known to occur at or near the CCAP area, the potential for impacts to the proposed Project due to fault rupture are less than significant.

ii) *Strong seismic ground shaking* ***(Less-Than-Significant Impact****)*

The closest known active faults to the Project Site are the Great Valley Fault System and a segment of the Dunnigan Hills Fault, both located to the west and northwest, respectively. In the event of a major earthquake along these faults or other faults in the area, the CCAP area could be subject to seismic ground shaking. Peak ground acceleration, a measure of an earthquake's ability to cause ground motion, has been estimated for the site. Expected acceleration at the CCAP area generally ranges from 0.30 to 0.36g (with a 10 percent chance of exceedance in 50 years), depending on soil type.[11] This range of ground acceleration would be considered very strong to severe (under the Modified Mercalli scale) and the related damage to typical structures would be moderate. The proposed restoration projects and mining and aggregate processing land uses would not be particularly susceptible to seismic ground shaking, and therefore impacts related to seismic shaking are less than significant.

iii) *Seismic-related ground failure, including liquefaction* ***(Less-Than-Significant Impact)***

Liquefaction of soils can occur when ground shaking causes loose, saturated, granular soils to lose strength due to an increase in pore pressure. This can happen when groundwater is near the ground surface, and an earthquake causes significant ground shaking. Clean sands have a higher liquefaction potential than gravels, silts, and clays.

Regional liquefaction hazard maps have not been developed for Yolo County. The CGS recommends designating areas underlain by late Holocene alluvial sediments (current river channels and their historical floodplains) potentially subject to 0.1g seismic shaking, or greater, and with an anticipated depth to saturated soil less than 40 feet as

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[9] *Department of Conservation, 2010,* California Geological Survey – Alquist-Priolo Fault Zones in Electronic Format, December. Accessed 11 October 201*1 at: http://www.quake.ca.gov/gmaps/ap/ap_maps.htm*

[10] USGS and CGS, 2006, *Quaternary fault and fold database for the United States*. Accessed 11 October 2011 at: http://earthquakes.usgs.gov/regional/qfaults/.

[11] California Geologic Survey, 2017, Ground Motion Interpolator, located at: http://www.quake.ca.gov/gmaps/psha/psha_interpolator.html.

"liquefaction zones of required investigation."[12] Seismic acceleration within the CCAP area is expected to range from 0.30g to 0.36g during a large earthquake on a regional fault, and groundwater is relatively shallow. Therefore, the Project Site could be susceptible to liquefaction. However, the proposed land uses at the site, surface mining and post-mining reclamation to open space, are not particularly susceptible to liquefaction hazards, and therefore impacts related to liquefaction are less than significant.

iv) *Landslides* ***(Potentially Significant Impact)***

Project activities performed under the CCRMP and CCIP include creek channel reshaping and could include alterations to creek bank steepness and slope stability. Potential impacts related to in-channel slope stability impacts will be evaluated in the EIR. In addition, off-channel mining often creates slopes where none existed before (during excavation of wet pits). The updates to the OCMP include the following:

> Sec. 10-4.431. Slopes.
>
> Except where benches are used, all banks above groundwater level shall be sloped no steeper than 2:1 (horizontal:vertical). Proposed steeper slopes shall be evaluated by a slope stability study, prepared by a Registered Civil ~~engineer~~Engineer. Slopes below the groundwater level shall be no steeper than 1:1 (horizontal:vertical). Slopes located five (5) feet or less below the summer low groundwater level shall not be steeper than 2:1 (horizontal:vertical). This section applies only to final/reclaimed slopes and not to active mining faces.

No change to final reclaimed slope steepness in the OCMP area is proposed. Potential impacts related to not enforcing limitations on slope steepness during mining operations will be evaluated in the EIR.

b) Result in substantial soil erosion or the loss of topsoil ***(Potentially Significant Impact)***

The activities that occur under the CCAP program and would continue to occur under the CCAP Update include soil excavation and grading close to a surface water body (Cache Creek) and could result in adverse impacts related to erosion and sedimentation. In addition, expanding the potential mining area in the OCMP area (by increasing the area covered by the SGRO zoning designation) could result in loss of topsoil. These potential impacts were all addressed in the CCRMP and OCMP EIRs and will be re-evaluated, considering the proposed updates, in the EIR for this project.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse ***(Less-Than-Significant Impact)***

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[12] California Geological Survey, 2004, Recommended Criteria for Delineating Seismic Hazard Zones in California. Special Publication 118. *Accessed 12 October 2011 at: http://www.conservation.ca.gov/cgs/shzp/webdocs/Documents/SP118_Revised.pdf*

Most of the CCAP area is underlain by Holocene stream channel deposits.[13] While these types of geologic materials (i.e., unconsolidated clay, silt, sand and gravel deposits) can be loose and subject to liquefaction hazards, they are not considered particularly "unstable." As described above, project activities performed under the CCRMP and CCIP include creek channel reshaping and could include alterations to creek bank steepness and slope stability. Potential impacts related to in-channel slope stability impacts will be evaluated in the EIR. In addition, off-channel mining often creates slopes where none existed before (during excavation of wet pits). Potential impacts related to slope steepness and increasing instability during restoration and mining operations will be evaluated in the EIR.

d) *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?*

In general, the types of coarse-grained soils (which include abundant sand and gravel) that characterize the CCAP area are not highly expansive. In addition, the proposed land uses at the site, in-channel open space, off-channel surface mining and post-mining reclamation to open space, are not particularly susceptible to expansive soil hazards, and therefore impacts related to expansive soils are less than significant.

e) *Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water* ***(Less-Than-Significant Impact)***

It is possible that new mining sites may need to install new septic systems. However, existing County ordinances include specific soils testing requirements for new systems and if on-site soils are found to be inadequate, imported soils can be used and alternative treatment systems which meet County requirements constructed.

[13] Helley, Edward J., and Harwood, David S., 1985, Geologic map of late Cenozoic deposits of the Sacramento Valley and northern Sierran foothills, California: U.S. Geological Survey Miscellaneous Field Studies Map MF-1790, 5 plates, scale 1:62,500, 1 pamphlet, 24 p. [http://pubs.usgs.gov/mf/1985/1790/].

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.7 GREENHOUSE GAS EMISSIONS Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	■	☐	☐	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	■	☐	☐	☐

The following is a discussion of whether the proposed Project could result in a significant adverse impact based on each of the significance criteria, above.

*a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment (**Potentially Significant Impact**)*

Greenhouse gases (GHGs) are gases that trap heat in the atmosphere and are contributing to the cumulative change in the earth's climate. GHGs include carbon dioxide, methane, and nitrous oxide among others. The International Panel on Climate Change (IPCC) has concluded that the global climate is changing at a rate unmatched in the past 1,000 years and that this change is most likely due to human activity.[14] Combustion of fossil fuels used for heat, electricity, and transportation are the main source of these anthropogenic GHGs.

Global climate change may result in substantial changes in weather patterns, a rise in sea levels, and increased extreme weather events. Local potential effects of climate change are higher temperatures, more precipitation falling as rain and less as snow, increased risk of wildfires, and higher water levels in the San Joaquin Delta. Higher temperatures may also facilitate easier formation of summer ozone and impact agriculture production.

Activities conducted under the CCAP and CCAP Update could result in GHG emissions from the operation of heavy earth-moving equipment, worker vehicle trips, and reclamation activities. Potential impacts related to GHG emissions were not evaluated in the original CCRMP and OCMP EIRs because it was not industry practice to include GHG analysis in CEQA documents in the mid-1990s. The GHG emissions under the CCAP and CCAP Update will be quantified and further evaluated in the EIR.

*b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases (**Potentially Significant Impact**)*

[14] IPCC, 2001, Third Assessment Report - Climate Change.

In 2006, the California legislature passed Assembly Bill (AB) 32, also known as the California Global Warming Solutions Act. AB 32 requires California to reduce statewide GHG emissions to 1990 levels by 2020. In 2011, Yolo County adopted its Climate Action Plan (CAP), which includes measures to reduce GHG emissions and satisfy the goals of AB 32.

To demonstrate project-level CEQA compliance relevant to GHG emissions and climate change impacts, the CAP requires the following information:

- Demonstrate consistency with the General Plan land use designation and applicable policies.

- Demonstrate consistency with the CAP, including consistency with the growth projections upon which the CAP modeling is based, and incorporation of applicable strategies and measures from the CAP as binding and enforceable components of the project.

- Pursuant to Section 15064.4(a)(1) of the CEQA Guidelines, estimate the level of GHG emissions that would result from implementation of the project.

Potential conflicts with the CAP's consistency criteria, as shown above, will be evaluated further in the EIR.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.8 HAZARDS AND HAZARDOUS MATERIALS Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	■	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	■	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	■	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	■
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	■	☐	☐	☐
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	■
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	■	☐
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	■	☐

The following is a discussion of whether the proposed Project could result in a significant adverse impact based on each of the significance criteria, above.

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials ***(Less-Than-Significant Impact)***

The activities that would be conducted under the CCAP Update may require routine storage of petroleum, lubricants, and other hazardous materials in drums or above ground storage tanks for fueling and maintenance activities. Hazardous materials can pose a threat to human health and the environment if not properly managed. The routine management and storage of hazardous materials in California are regulated by the California Environmental Protection Agency under the Unified program.[15] Yolo County Department of Environmental Health has been granted responsibilities for the implementation and enforcement of hazardous material regulations under the Unified program as a Certified Unified program Agency. Under the Unified program, operators handling threshold quantities of hazardous materials are required to prepare and implement a Hazardous Materials Business Plan and/or a Spill Prevention, Countermeasure, and Control Plan depending on the type and quantity of hazardous materials stored. These plans must include measures for safe storage, transportation, use, and handling of hazardous materials, as well as contingency measures that describe the facility's response procedures in the event of a hazardous materials release.

Hazardous building materials may be present in structures proposed for demolition within the CCAP area Site and could pose a threat of a hazardous materials release or affect construction workers, if not handled properly. Destruction of buildings constructed prior to 1980 have the potential to release lead particles, asbestos fibers, and/or other hazardous materials to the air, where they may be inhaled by construction workers and the general public. Prior to 1978, lead compounds were commonly used in interior and exterior paints. Prior to the 1980s, building materials often contained asbestos fibers, which were used to provide strength and fire resistance. In compliance with existing regulations, the project proponent would be required to obtain a Demolition Permit from the County to remove the structures. Under the Demolition Permit, hazardous building materials surveys would be conducted by a qualified professional for structures proposed for demolition. All loose and peeling lead-based paint and asbestos-containing material would be abated by a certified contractor(s) in accordance with local, state, and federal requirements.

Based on the requirements of existing hazardous material regulations and enforcement of these regulations under the Unified program, the routine transport, use, or disposal of hazardous materials at the Project Site would have a less-than-significant impact on the public or the environment.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment ***(Less-Than-Significant Impact)***

[15] California Health and Safety Code, Chapter 6.11, Sections 25404-25404.8.

As discussed above, the proposed Project may require routine usage of hazardous materials that could pose a threat to human health and the environment if not properly managed. In addition to the hazardous material regulations required under the Unified program, the CCAP program includes specific requirements in the mining and reclamation ordinances that include measures to protect human health and the environment from hazardous materials releases. These provisions are summarized below for each ordinance:

- Mining Ordinance, Section 10-4.415: Equipment Maintenance.
  - Maintain all internal combustion engine driven equipment and vehicles to minimize the leakage of oils and fuels.
  - Fueling and maintenance activities of heavy equipment, except drag lines and floating suction dredges, are prohibited within 100 feet of open bodies of water during mining and reclamation.
- All Storm Water Pollution Prevention Plans shall include provisions for releases of fuels during fueling activities for drag lines and floating suction dredges.

- Mining Ordinance, Section 10-4.417: Groundwater monitoring programs.
  - Water quality in the vicinity of each active wet pit mining location shall be evaluated prior to and during mining and reclamation activities by analyzing samples from an upgradient monitoring well, a downgradient monitoring well, and the wet pit surface water.
  - Water quality analyses include the following: general minerals, inorganics, nitrates, total petroleum hydrocarbons as diesel and motor oil, benzene, toluene, ethylbenzene, total xylenes, pesticides, and coliform with E. coli confirmation.
  - The water quality sampling frequency ranges between one and two times a year during mining and reclamation activities, and is every other year for a 10-year period after completion of reclamation.
  - If analyte concentrations exceed the U.S. Environmental Protection Agency Maximum Contaminant Levels at any time during the monitoring period, a qualified professional shall prepare a report that evaluates the source of contamination and specifies remedial actions to be implemented by the operator for corrective action. The evaluation report shall be submitted to the Yolo County Community Development Agency, Yolo County Department of Environmental Health, the Central Valley Regional Water Quality Control Board, and the U.S. Environmental Protection Agency.

- Reclamation Ordinance, Section 10-5.517: Mercury bioaccumulation in wildlife.
  - Prior to the approval of reclamation of aggregate mining areas to permanent lakes, the County shall commission a sampling and analysis program to evaluate methylmercury concentrations in the wet pit mining area. The program shall include the sampling of water and sediments from the bottom of the existing pit and analysis of the samples for the following: organic content, pH, dissolved oxygen content, dissolved carbon content, and total mercury. In addition, samples of predatory fish (preferably largemouth bass) shall be collected and analyzed for mercury and methylmercury content.

No changes under the CCAP Update are proposed for the equipment maintenance and groundwater monitoring programs under the mining ordinance. However, the CCAP Update would modify the mercury bioaccumulation in wildlife section of the Reclamation Ordinance. The proposed changes to mercury bioaccumulation in wildlife section will be evaluated in the EIR.

c) *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? environment* ***(Less-Than-Significant Impact)***

The types of activities conducted under the CCAP and CCAP Update do not require the storage or use any acutely hazardous materials. Therefore, the proposed Project would have a less-than-significant impacts to existing or proposed school facilities from the emission or handling of hazardous or acutely hazardous materials.

d) *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment* ***(Less-Than-Significant Impact)***

The provisions of Government Code Section 65962.5 are commonly referred to as the "Cortese List". The provisions require the Department of Toxic Substance Control, the State Water Resources Control Board, the California Department of Public Health, and the California Department of Resources Recycling and Recovery to submit information pertaining to sites associated with solid waste disposal, hazardous waste disposal, leaking underground tank sites, and/or hazardous materials releases to the Secretary of California Environmental Protection Agency. Based on a review of the lists compiled pursuant to Section 65962.5, there are six hazardous materials release sites within the CCAP boundary. Only one of the six release sites, “Teichert and Son, Incorporated”, appears to be located within a future proposed mining area. The other five release sites would not be affected by development under the CCAP Update.

In 2001, a leak of petroleum from an underground storage tank site was reported at the Teichert facility at 35030 County Road 20. The case was closed in 2003, indicating that cleanup and/or investigation activities were complete. Because the case has been closed, development under the CCAP Update at the Teichert facility would not be expected to create a hazard to the public or environment and, thereby, would have a less-than significant impact.

e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area (****Potentially Significant Impact****)*

Development near public-use airports can pose a potential hazard to people and property on the ground, as well as create obstructions and other hazards to flight. The Sacramento Area Council of Governments (SACOG) has adopted Comprehensive Land Use Plans for areas surrounding public-use airports within the counties of Yolo,

Sacramento, Yuba, and Sutter. The closest public-use airports to the Project Site are the Watts-Woodland Airport and Yolo County Airport.

The Yolo County Airport is located approximately 6 miles south of the CCAP area. The SACOG has adopted Federal Aviation Administration (FAA) height restriction policies to protect navigable airspace around Yolo County Airport. The height restriction policies apply to any construction more than 200 feet above ground level or construction within 20,000 feet of the closest airport runway.[16] Mining equipment and structures that could be part of the mining activities under the expansion of the OCMP area would not exceed 200 feet above ground level and the CCAP area is located more than 20,000 feet from the nearest Yolo County Airport runway. Since the proposed Project would not exceed FAA height restriction policies, the proposed Project would have no impact on airport safety operations for Yolo County Airport.

Watts-Woodland Airport is a privately-owned airport for public use with a 3,600-foot long runway located within the CCAP area. One of the proposed future mining sites is located about 500 feet northeast of the airport runway and is located within the airport approach/departure zone. According to the height restriction policies designed to protect navigable airspace around the Watts-Woodland Airport,[17] the FAA would require notification of any proposed construction above an imaginary surface extending outward 20 feet and upward one foot for a horizontal distance of 5,000 feet from the approach/departure runway centerline. Therefore, the FAA considers any obstructions to the airspace above a height of approximately 85 feet at the Project Site to be a potential aviation hazard for the Watts-Woodland Airport Construction equipment and structures for the Project Site would not exceed the applicable height restriction of 85 feet (any structures would have to comply with this height limitation).

The *Watts-Woodland Airport Comprehensive Land Use Plan* (Airport Land Use Plan) identifies certain types of land uses that have been recognized as hazards to air navigation. These include land uses that attract large concentrations of birds within approach and departure zones. It is possible that a future reclaimed wet pit located within the airport's approach/departure zone could attract birds and result in a potentially significant impact on airport safety operations for the Watts-Woodland Airport. Therefore, potential aviation hazards associated with the Project will be evaluated further in the EIR.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area ***(Less-Than-Significant Impact)***

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[16] Sacramento Area Council of Governments, 1999. *Yolo County Airport Comprehensive Land Use Plan*. October.

[17] Sacramento Area Council of Governments, 1988. *Watts-Woodland Airport Comprehensive Land Use Plan*. December (Amended March 1993).

There are no private airstrips within the CCAP boundary. Therefore, future mining activities at the Project Site would have no impact related to the safety of private airstrip operations.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan ***(Less-Than-Significant Impact)***

The Yolo County Office of Emergency Services (OES) is responsible for coordinating emergency response and evacuation in the event of a major disaster within Yolo County. The OES has identified general evacuation routes throughout the County, such as Interstate 5 and State Route 16 near the Project Site. Implementation of CCAP activities would not be expected to interfere with emergency response or evacuation plans because the proposed implementation would not restrict access to Interstate 5 or State Route 16. Therefore, the proposed Project would have no impact on emergency response or evacuation plans.

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands ***(Less-Than-Significant Impact)***

Development within or adjacent to lands susceptible to wildland fires increases the risk for loss of life, property, and resources when wildland fire prevention measures are not applied. In 2007, the California Department of Forestry and Fire Protection (CAL FIRE) mapped areas in Yolo County with significant fire hazards based on fuels, terrain, weather, and other relevant factors.[18] In accordance with Government Code Section 51175-5118, areas with "very high" potential for wildland fires to cause ignition of buildings must be identified by CAL FIRE so that public officials are able to identify and implement measures that will reduce the spread and intensity of wildland fires. No very high fire hazard severity zones were identified by CAL FIRE within or adjacent to the CCAP area; therefore, the proposed Project would have a less-than-significant impact related to wildland fires.

i) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? ***(Less-Than-Significant Impact)***

Development within or adjacent to lands susceptible to wildland fires increases the risk for loss of life, property, and resources when wildland fire prevention measures are not applied. In 2007, the California Department of Forestry and Fire Protection (CAL FIRE) mapped areas in Yolo County with significant fire hazards based on fuels, terrain, weather, and other relevant factors. In accordance with Government Code Section 51175-5118, areas with "very high" potential for wildland fires to cause ignition of buildings must be identified by CAL FIRE so that public officials are able to identify and implement measures that will reduce the spread and intensity of wildland fires. No very high fire hazard severity zones were identified by CAL FIRE within or adjacent to the

[18] CAL FIRE, 2007. *Draft Fire Hazard Severity Zones in LRA*. 5 October.

Project Site; therefore, the proposed Project would have a less-than-significant impact related to wildland fires.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.9 HYDROLOGY AND WATER QUALITY Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	■	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	■	☐	☐	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	■	☐	☐	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	■	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	■	☐
f) Otherwise substantially degrade water quality?	☐	☐	■	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	■
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	■	☐	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	■	☐	☐	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	■	☐

The following is a discussion of whether the proposed Project could result in a significant adverse impact based on each of the significance criteria, above.

a) *Violate any water quality standards or waste discharge requirements* ***(Potentially Significant Impact)***

There are two main ways that the proposed Project could impact water quality and potentially violate water quality standards: 1) result in direct discharges of degraded runoff to surface waters (i.e., Cache Creek or its tributaries), or 2) result in discharges of contaminants to the wet mining pits that would degrade groundwater quality.

The CCAP Update would allow new off-channel mining areas (discussed below) and the Updates include new specification of the types of in-channel projects that would be allowed under the CCIP, as follows:

~~CCRMP (page 14): Policies regarding the conservation and development of classified mineral deposits, in accordance with the above requirements, are contained in the OCMP. As discussed earlier, the CCRMP restricts sand and gravel removal extraction of material within the Cache Creek channel to those activities, which: maintain flood flow capacity;control, protect existing structures, infrastructure, and/or farmland; minimizeprevent bank erosion;, or contribute to channel stabilization implement the Channel Form Template (described further below); enhance creek stability; establish riparian vegetation; and/or result in recreation and open space uses consistent with the Parkway Plan. In addition, in-channel aggregate extraction is limited to the average annual amount deposited since the last prior year of removalduring the previous year. Those aggregate resources remaining within the channel will be conserved and maintained, with Open Space zoning to restrict the encroachment of incompatible uses.~~

CCIP (page 38) 2. The TAC 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: maintain flood flow capacity; protect existing structures, infrastructure, and/or farmland; minimize bank erosion; implement the Channel Form Template; enhance creek stability; establish riparian vegetation; and recreation and open space uses consistent with the Parkway Plan. Except to implement the Channel Form Template, annual aggregate removal shall not exceed the average annual amount of sand and gravel deposited since the last prior year of removal in the CCRMP area, as determined by comparison of

channel topography data. 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.

The types of in-channel projects allowed under the CCAP Update, including maintenance of flood flow capacity; protection of existing structures, infrastructure, and/or farmland; minimization of bank erosion; implementation of the Channel Form Template; enhancement of creek stability; establishment of riparian vegetation; and recreation and open space uses consistent with the Parkway Plan could have adverse effects on water quality, potentially violating water quality standards, if not implemented properly. These potential impacts will be evaluated in detail in the EIR.

The off-channel activities conducted under the CCAP Update could also violate water quality standards by discharging contaminants to mining wet pits in the off-channel area. There are several ways that wet mining pits could degrade groundwater quality, including:

- Chemical releases from equipment;
- Agricultural tailwater and runoff;
- Eutrophication/biological degradation;
- Floodwater mixing;
- Illegal discharge of chemicals;
- Discharges from motorized watercraft;
- Infiltration of agricultural waters;
- Bioaccumulation of mercury.

The existing County ordinances include numerous sections that address these potential impacts to water quality related to creation and ongoing operation of wet pits. Some of these ordinances would be modified by the CCAP Updates, as shown below. The potential for these activities (as regulated by the updated ordinances) to adversely affect water quality will be evaluated in the EIR.

Mining Ordinance

Sec. 10-4.413. Drainage.

Surface water shall be prevented from entering mined areas, through either perimeter berms or ditches and grading. Appropriate erosion control measures shall be incorporated into all surface water drainage systems. SNatural and stormwater drainage systems shall be designed to connect with natural drainages so as to prevent flooding on surrounding properties and County rights-of-way. Storm water runoff from mining areas shall be conveyed to lowered areas (detention basins) to provide detention of runoff generated during a 20-year, one-hour storm event. All drainage conveyance channels or pipes (including spillways for detention areas) shall be designed to ensure positive drainage and minimize erosion. The drainage conveyance system and storm water detention areas shall be designed and maintained in accordance with Best Management Practices for the reduction of pollutants associated with runoff from mined areas. The design and maintenance procedures shall be documented in the Storm Water Pollution Prevention Plan required for mining operations. The drainage system shall be inspected annually by a Registered Civil Engineer, Registered Geologist, or Certified Erosion and Sediment Control Specialist to ensure that the drainage system is functioning effectively and that adverse erosion and sedimentation are not occurring. The annual inspection shall be documented in the Annual Mining and Reclamation Report. If the system is found to be functioning ineffectively, the operator shall promptly implement the recommendations of the engineer.

Sec. 10-4.415. Equipment maintenance.

All internal combustion engine driven equipment and vehicles shall be kept tuned according to the manufacturer's specifications and properly maintained to minimize the leakage of oils and fuel. No vehicles or equipment shall be left idling for a period of longer than is required by law, recommended by the Air District, or ten (10) minutes, whichever is shorter.

Fueling and maintenance activities of heavy equipment (except draglines and floating suction dredges) are prohibited within one-hundred (100) feet of open bodies of water during mining and reclamation. All Storm Water Pollution Prevention Plans shall include provisions for releases of fuels during fueling activities for draglines and floating suction dredges.

Section 10-4.417 - Groundwater monitoring programs ***(no changes proposed)***

Additional tests and analysis shall be required only if a new condition is recognized that may threaten water quality or if the results of previous tests fall outside allowable ranges. If at any time during the monitoring period, testing results indicate that sampling parameters exceed Maximum Contaminant Levels (MCLs), as reported in the California Code of Regulations, or established background levels, a qualified professional shall evaluate potential sources of the contaminants. The evaluation shall determine the source and process of migration (surface or subsurface) of the contaminants. A report shall be submitted to the regulatory agencies (the Agency, Yolo County Department of Environmental Health, the Central Valley Regional Water Quality Control Board,

and the U.S. Environmental Protection Agency) which identified the source of the detected contaminants and specifies remedial actions to be implemented by the operator for corrective action. If it is determined that the source of water quality degradation is offsite, and the County and the RWQCB are in agreement with this conclusion, the operator shall not be responsible for corrective action.

If corrective action is ineffective or infeasible, the responsible party must provide reparation to affected well owners, either by treatment of water at the wellhead or by procurement of an alternate water supply.

If, at the completion of the mining and reclamation period, water quality has not been impacted, all monitoring wells shall be destroyed in accordance with the California Department of Water Resources Well Standards. If the County or other agency wishes to maintain the wells for future water resources evaluation, selected wells may be preserved for this use.

The County may retain appropriate staff or a contract consultant to provide third party critical review of all hydrologic reports related to monitoring.

Sec. 10-4.427 - Protection of nearby drinking water wells ***(no changes proposed)***

If any off-channel excavation proposes to extend below the level of seasonal high groundwater, then six months prior to the commencement of excavation below the average high groundwater level, the operator shall identify and locate all off-site municipal wells within one-thousand (1,000) feet and all domestic wells within five hundred (500) feet of the proposed wet· pit mining boundary. If active wells are identified, well· characteristics (pumping rate, depth, and locations of screens) shall be determined. If wells are not located within one-thousand (1,000) feet, the pre-mining impact evaluation shall be considered complete.

If wet pit mining is proposed within one-thousand (1,000) feet of a municipal water supply or within five-hundred (500) feet of a domestic water supply well, a capture zone analysis shall be conducted using the U.S. Environmental Protection Agency model WHPA (or a similar model of equal capability and proven reliability, as approved by the Director). The simulation shall assume thirty (30) days of continuous pumping of the water supply well (at its maximum probable yield) under analysis. A mining setback shall be established so that the capture zone and the pit do not coincide. Alternatively, the operator shall submit a written agreement that the well owner has agreed to relocate or redesign the well, or accept the potential impact (at no expense to the County). The analysis shall be prepared and signed by a Registered Civil Engineer or Certified Hydrogeologist and submitted to the County for review and approved at least six months prior to the commencement of excavation below the seasonal high groundwater level. Any new drinking water wells proposed for installation within one-thousand (1,000) feet of an approved wet pit mining area shall be subject to review by the Yolo County Environmental Health Department. The County shall determine, based on site-specific hydrogeology and available water quality data, whether to approved the proposed. Well installation. Analysis of environmental impact for projects ill the vicinity of the wet pits shall include consideration of potential water quality impacts on the open water bodies. The County may retain

appropriate staff or a contract consultant to provide third party critical review of all hydrogeologic reports related to mining applications.

Sec. 10-4.437 - Wastewater discharge ***(no changes proposed)***

No wastewater shall be directly discharged to Cache Creek. Sediment fines generated by aggregate processing shall either be used for agricultural soil enhancement, habitat restoration sites, or shall be placed in settling ponds, designed and operated in accordance with all applicable regulations, and used for backfill materials in off-channel excavations. Agricultural tailwater shall be diverted to catchment basins prior to its release to the creek.

Sec. 10-4.438 - Watercraft

Sec. 10-4.438. Watercraft.

Only motorized dredges and draglines shall be allowed on the wet pit lakes. All other fuel-powered (gasoline or diesel) watercraft shall not be used on the wet pit lakes. Fuel-powered watercraft may be allowed for mercury sampling or bathometric measurements, as necessary, to fulfill requirements this chapter. Electric-powered or non-motorized boats shall be permissible.

Reclamation Ordinance

Sec. 10-5.510 – Fencing ***(no changes proposed)***

Open wet pits shall be fenced with a forty-two (42) inch minimum, four (4) strand barbed wire fence or the equivalent (e.g., welded square "hog" fencing), prior to the commencement of excavation during excavation, and during reclamation. Fencing may enclose the property of which mining is a part, the mining site, or both. In addition, signs shall be installed at the project site boundaries and· access road, indicating that the excavation area is restricted. Additional security (e.g., gates with protected locks and wing fences to prevent drive-arounds) shall be provided at all vehicular routes. The fencing and gates shall be maintained throughout the mining and reclamation period after completion of reclamation. A requirement shall be recorded on the deed of the property which requires the landowner to maintain fences.

Sec. 10-5.517. Mercury bioaccumulation in wildlife.

~~Prior to the approval of reclamation of aggregate mining areas to permanent lakes, the County shall commission a sampling and analysis program, to be implemented in one existing wet pit mining area within the OCMP planning area, to evaluate the potential for increased methylmercury production associated with wet pit mining and reclamation of mining areas to permanent lakes. The program shall include the sampling of water and sediments from the bottom of the existing pit and analysis of the samples for organic content; pH; dissolved oxygen content; dissolved carbon content; and total mercury. In addition, samples of predatory fish (preferably largemouth bass) shall be collected and analyzed for mercury and methylmercury content. If the initial sampling indicates either of the following conditions, the County shall perform verification sampling:~~

~~(a) Average concentrations of total mercury in excess of 0.000012 milligrams per liter (mg/l) in the water; and~~

~~(b) Average mercury levels in fish samples in excess of 0.5 milligrams per kilogram (mg/kg).~~

~~If verification sampling indicates exceedance of these mercury criteria, the County shall approve the reclamation of mining areas to permanent lakes only if the average level of mercury in fish collected from the existing mining pits is shown to be equal to or less than ambient (background) mercury levels determined from a representative sample of similar species of fish (of similar size) collected in the Cache Creek channel within the planning area. The determination of the ambient mercury level shall be performed by the County prior to the excavation of any new wet pit mine and at years 10, 20, and 30 in the permit time period, and shall be paid for by the mining permit operators on a fair-share basis. The County shall evaluate available data to determine any significant change in ambient concentrations of mercury in fish within the Cache Creek channel.~~

~~In the event of approval of reclamation of mined areas to permanent lakes, e~~Each mining area to be reclaimed to a permanent lake as part of each approved long-range mining plan shall be evaluated annually by the operator for a minimum of five years after ~~creation of the lake~~the pit fills with groundwater with an intensive fish mercury monitoring program, as outlined below ~~for conditions that could result in significant methylmercury production~~. An additional ten years of biennial monitoring shall be performed after reclamation of each lake has been completed. The evaluations shall be conducted by a qualified aquatic systems scientist~~aquatic biologist or limnologist~~ acceptable to the County and shall include the following ~~analyses~~:

~~(c) Lake condition profiling during the period of June through September, including measurements of pH; eH (or redox potential); temperature; dissolved oxygen; and total dissolved carbon.~~

~~(d)~~ Collection of a representative sample of fish specimens ~~(including a minimum of five (5) predator fish if available)~~ and analysis of the specimens for mercury content including 30 adult (angling size) fish muscle samples and multi-individual whole fish samples of 3 species of young-of-year small fish, as available. Adult fish sampling should target 10 individuals from each of 3 species, distributed across the prevailing size ranges. Priority shall go to a predatory species like bass, with additional species including a midwater planktivore such as sunfish and a bottom feeder such as catfish, if present. If less than 3 species are present, sample up to 20 of the predatory species, if present. Small fish sampling should target 3 prevalent species, as available. These should be characterized either with 15 individual whole fish samples or 4 multi-individual whole fish composites (≥5 fish per composite) for each species. Composites should span the range of typical sizes present, but with the individuals within each composite being closely matched in size. Sampling and analysis shall be conducted using methodologies which are consistent with the California State Water Resources Control Board Toxic Substances Monitoring program procedures, or more stringent procedures.

~~(e)~~ The results of the evaluation shall be summarized in a report and submitted to the County. The report shall include a comparison of the site specific data to available data on the background concentrations of mercury in fish within the Cache Creek watershed. The County shall be responsible for submitting the data on mercury levels in fish to the ~~California Department of Fish and Game and the~~ State Office of Environmental Health Hazard Assessment for consideration as related to existing Cache Creek ~~a determination of whether a~~ fish advisories[1] ~~should be issued~~ and shall post the information on the CCAP website.

~~(f)~~ If a fish advisory is applicable~~issued~~, the owner/operator shall ~~be required to~~ post warnings on fences surrounding the mining pit lakes which prohibit fishing in the lakes and describe the fish advisory.

If the average fish specimen mercury content exceeds the statistically verified ambient mercury concentrations for comparable fish species (of similar size) collected within the CCRMP planning area (defined as average fish mercury greater than 30 percent above corresponding baseline creek samples in the majority of pond samples) for two (2) consecutive years., ~~wet pit mining on property controlled by the mining operator/owner shall be suspended and~~ the owner/operator shall ~~either:~~ continue annual fish specimen sampling and initiate lake condition monitoring to identify factors linked to elevated methylmercury production and/or exposure in the pond. This shall include: (1) water column profiling of temperature and dissolved oxygen (determined at ≤1 m intervals, surface to bottom) approximately every 6 weeks between mid-May and mid-November (5 events/year); (2) determination of maximum depth; (3) estimation of pond bottom area and volume affected by seasonal anoxia; and (4) characterization of water quality and bottom sediment parameters most relevant to mercury bioaccumulation (the choice of specific analyses may change as mercury biogeochemistry science continues to develop, but may include: sediment organic percentage, total mercury, methylmercury, and/or 'reactive' mercury; and aqueous suspended solids and organic carbon).

If elevated mercury levels in fish persist during this period, following two years of lake condition monitoring for factor-identification and continued fish sampling, the owner/operator shall either:

(a~~g~~) Present a revised reclamation plan to the Director~~Yolo County Community Development Agency~~ which provides for filling the reclaimed lake to a level five (5) feet above the average seasonal high groundwater level with a suitable backfill material; or

(b~~h~~) Present a mitigation plan to the Director~~Yolo County Community Development Agency~~ which provides a feasible ~~and reliable~~ method for reducing methylmercury production or exposure to elevated mercury levels. Potential mitigation could include permanent aeration of the bottom levels of the lake, alteration of the water chemistry ~~(increasing pH or dissolved organic carbon levels),~~ control of anaerobic bacteria populations, or removal and replacement of affected fish populations. The mitigation plan shall be subject to review and acceptance b the County. Following finalization, the plan shall be implemented by the operator and shall be posted to the CCAP web site by the County.~~would require review by the Regional Water Quality Control Board, California~~

~~Department of Fish and Game, and the Yolo County Department of Environmental Health.~~ (The removal and replacement of fish, if within the same species, is not intended to be a long-term solution, though replacement with species that alter the existing food web may be effective.)

~~The reclamation plan shall be modified such that the mitigation approved for methylmercury reduction shall be applied to all mining areas proposed for reclamation to permanent lakes within the reclamation plan.~~

Sec. 10-5.532. Use of overburden and fine sediments in reclamation.

Sediment fines associated with processed in-channel aggregate deposits (excavated as a result of maintenance activities performed in compliance with the CCIP) ~~shall not~~may be used in the backfill or reclamation of off-channel permanent lakes where it can be demonstrated that no detrimental sediment toxicity exists (including unacceptable levels of mercury), and where fines will not reduce the porosity of the permanent lake in an adverse way. Fines that result from the processing of in-channel sand and gravel shall not be used for in-channel reshaping or habitat restoration efforts or as soil amendments in agricultural fields.

Overburden and processing fines shall be used whenever possible to support reclamation activities around reclaimed wet pits. These materials may be used in reclamation activities without testing for agricultural chemicals. If topsoil (A-horizon soil), formerly in agricultural production, is proposed for use within the drainage area of a wet pit, the soils must be sampled prior to placement and analyzed for pesticides and herbicides (EPA 8140 and 8150). Samples shall be collected and analyzed in accordance with EPA Test Methods for Evaluating Solid Waste Physical/Chemical Methods, SW-846, Third Edition (as updated). Topsoil that contains pesticides or herbicides above the Maximum Contaminant Levels for primary drinking water (California Code of Regulations) shall not be placed in areas that drain to the wet pits.

Land reclaimed to a subsequent use that includes planting of vegetation (e.g., agriculture, habitat) shall be provided an adequate soil profile (i.e., depth and texture of soil) to ensure successful reclamation. Proposed soil profiles associated with specific proposed reclamations plans shall be subject to expert review and evaluation during the CEQA process for that project. If the project is not subject to additional CEQA review, at the discretion of the County, the proposed reclamation plan for the project may be peer reviewed by an appropriate expert/professional, and recommendations, if any, shall be incorporated into the project as conditions of approval.

[1] Fish advisories are issued by the State Office of Environmental Health Hazard Assessment (OEHHA). A fish advisory issued by this agency for Cache Creek has been in place for some time. Please refer to the following state web site for more information: https://oehha.ca.gov/fish/advisories/cache-creek

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or

planned uses for which permits have been granted) ***(Potentially Significant Impact)***

Groundwater is an important resource in the vicinity of the CCAP area and the entire County. The CCAP Update, which would expand the area designation SGRO and increase the potential wet pit mining area, could result in evaporative loss of groundwater via the new mining pits. Following reclamation, the pits would be ponds with areas of wetlands, which would also allow groundwater loss via evaporation. The proposed placement of processing fines in the reclamation area may also reduce groundwater recharge, as uniform, fine-grained material would be less permeable than native soils and allow less stormwater to percolate to the aquifer.

Section. 10-5.529 of the OCMP, which states "All permanent wet pits shall be reclaimed to include valuable wildlife habitat as a beneficial use of the water lost from wet pits due to evaporation" indicating that the evaporative losses provide a compensating beneficial impact in creation of new wildlife habitat. Therefore, potential impacts related to evaporation of groundwater are less than significant.

The following new section would be added to the Mining Ordinance under the CCAP Update:

> Mining Ordinance (page 9) Sec.10-4.411.1 Depth of Mining
>
> This ordinance regulates the size of the footprint of the mining operation, and establishes no regulatory depth limit for off-channel mining. Unless an environmental analysis concludes that unacceptable environmental impacts will result, mining operations shall be encouraged to excavate the full depth of available resources at any particular mining site. In conjunction with a minimize mining footprint, this will ensure efficiency in resource extraction, help minimize impacts to agriculture by containing the area of surface disturbance of any individual mining operation, and minimize impacts of water loss associated with evaporation from reclaimed lakes.

It has always been the policy of the CCAP program to reduce agricultural land loss and efficient resource management and minimizing evaporation water losses by encouraging reducing the size of the footprint of off-channel mining pits and encouraging deeper mining. However, it is possible that deeper mining (and potentially backfill or clogging of the pit walls with fines) could result in impacts to groundwater flow.

The potential for this proposed new ordinance section to result in impacts to groundwater resources will be evaluated in the EIR.

c) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site* ***(Potentially Significant Impact)***

One of the main goals of the CCRMP and CCIP is to implement projects to assist with stabilization and maintenance of Cache Creek. These projects may include excavation for channel shaping and smoothing. However, it is not the intention of the program to

alter the course of Cache Creek. Potential erosion and siltation that could result from these in-channel projects is discussed under "a)" above.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site ***(Less-Than-Significant Impact)***

One of the main goals of the CCRMP and CCIP is to implement project to assist with stabilization and maintenance of Cache Creek. These projects may include excavation for channel shaping and smoothing. However, it is not the intention of the program alter the course of Cache Creek. The CCAP program includes regular evaluation of the flood conveyance capacity of the creek and includes identification of potential projects that could be implemented by interested parties (e.g., adjacent landowners or others) to address flood conveyance issues. Potential impacts related to flooding will be further evaluated in the EIR.

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff ***(Less-Than-Significant Impact)***

In general, the CCAP area is not currently connected to a public stormwater drainage system, and is not anticipated to be connected in the future. No impacts related to existing or planned storm drainage systems would therefore occur.

f) Otherwise substantially degrade water quality ***(Less-Than-Significant Impact)***

Refer to Section a), above, for a discussion of potential impacts to water quality.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map ***(No Impact)***

The CCAP Update does not propose housing; therefore there would be no impact.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows ***(Potentially Significant Impact)***

Activities under the CCAP Update could alter landforms and/or place materials (e.g., aggregate stockpiles) in the 100-year hazard area. The potential for stockpiles and other off-channel mining activities to affect flooding would be evaluated in project-specific CEQA analyses conducted for those projects. One of the main goals for in-channel projects under the CCRMP and CCIP would be to minimize potential flooding and improve conveyance. Potential impacts related to flooding will be further evaluated in the EIR.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam ***(Less-Than-Significant Impact)***

The CCAP areas is downstream of the Indian Valley Reservoir, and is within the County General Plan's Dam Inundation Zone.[19] In a catastrophic failure of the Indian Valley Reservoir Dam, inundation in the proposed Project vicinity could reach depths of 4 to 17 feet.[20] Analysis of this potential impact in the OCMP EIR found that the flood hazard from dam failure inundation was a less-than-significant-impact, as it is a low probability event that has been addressed by preparation and implementation of an Emergency Action Plan prepared by the Yolo County Flood Control and Water Conservation District.[21]

j) Inundation by seiche, tsunami, or mudflow ***(Less-Than-Significant Impact)***

The CCAP area is not in a location that would be affected by tsunamis or seiches. Waves from tsunamis in the Pacific Ocean would dissipate before reaching the area, more than 50 miles inland from San Pablo Bay. There are no major enclosed water bodies within 10 miles of the Project Site that could generate a seiche. Therefore, the risk of the proposed Project being inundated by a tsunami or a seiche would be less than significant. Please see Section 3.6, Geology, Soils, and Seismicity, for a discussion of potential impacts associated with mudflows (a type of landslide).

[19] Yolo County, 2009, County of Yolo 2030 Countywide General Plan, November.

[20] Yolo County, 1996, Off-Channel Mining Plan program EIR, March 26.

[21] Ibid.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.10 LAND USE Would the project:				
a) Physically divide an established community?	☐	☐	☐	■
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	■
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	■

The following is a discussion of whether the proposed Project could result in a significant adverse impact based on each of the significance criteria, above.

*a) Physically divide an established community **(No Impact)***

The CCAP area includes the unincorporated communities of Capay, a portion of Madison, and Wild Wings, among others. Most of the CCAP area is comprised of scattered rural residences, agricultural land and established mining sites. The City of Woodland, the county seat, is several miles to the southeast of the CCAP area. None of the CCRMP activities, which would largely be confined to the Cache Creek channel and the adjacent channel banks, would have the potential to physically divide a community because there are no communities within the creek channel. Of the OCMP activities associated with the current program and the updates, only establishing new mining sites and/or building major new roads would have the potential to divide a community (no major new roads are proposed). There are more than 15 new areas where off-channel mining could occur in the future as part of the rezoning to expand the areas of Sand and Gravel Overlay and Sand and Gravel Reserve Overlay (CCAP update Figure 5). Based on the review of the proposed locations of these possible new mining sites (Figure 5), none would occur within or adjacent to Capay or Madison. Therefore, updates to the OCMP would not have the potential to physically divide a community.

*b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect **(No Impact)***

The CCAP is a specific plan that has already been determined by the County to be consistent with the County General Plan and Zoning Code. No conflicts have been

identified related to any other land use plans or regulations, and therefore, this is not an impact.

c) *Conflict with any applicable habitat conservation plan or natural community conservation plan* ***(No Impact)***

There are currently no adopted Habitat Conservation Plans or Natural Community Conservation Plans for the CCAP area or surrounding areas. Refer to discussion of subsection 3.4.f (Biological Resources), above

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.11 MINERAL RESOURCES Would the project:				
d) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	■	☐
e) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	■	☐

The following is a discussion of whether the proposed Project could result in a significant adverse impact based on each of the significance criteria, above.

a) *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state* ***(Less-Than-Significant Impact)***

Sand and gravel aggregate is an important mineral resource used for construction of buildings, roads, bridges, and other infrastructure components. The CCAP area is located within a geologic setting that is known to contain important and high-quality aggregate resources. The area is classified as MRZ-2.[22] This classification indicates areas underlain by mineral deposits where geologic data demonstrate that significant measured or indicated economic resources are present. Further, these deposits contain Portland cement concrete (PCC)-grade aggregates. The material specifications for PCC-grade aggregate are more restrictive than the specifications for aggregate for other uses. For this reason PCC-grade aggregate is the scarcest and most valuable aggregate resource in the region.[23]

The loss of availability of this resource could occur, for example, if urbanization was allowed to encroach on the resource zone, eliminating access to the resource due to the presence of high-value improvements at the surface. One of the primary objectives of the proposed ongoing CCAP program (in particular the OCMP portion of the program) is allow for the extraction of these sand and gravel resources while recognizing that there are other resources that require recognition and protection. As a mining plan, the OCMP would allow the development of a known mineral resource, and would not cause the

[22] California Department of Conservation, Division of Mines and Geology, 1985, Mineral Land Classification: Portland Cement Concrete-Grade Aggregate in the Sacramento-Fairfield Production-Consumption Region, Special Report 156.

[23] California Department of Conservation, Division of Mines and Geology, 1988, Mineral Land Classification: Portland Cement Concrete-Grade Aggregate in the Sacramento-Fairfield Production-Consumption Region, Special Report 156.

loss of the availability of the resource. Therefore, the potential impact related to a loss of availability of a known mineral resource of regional value is less than significant.

*b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan (**Less-Than-Significant Impact)***

The Yolo County General Plan shows that the CCAP area is located within a MRZ-2. Mining in Yolo County is regulated by the OCMP, which is a component of the CCAP. The OCMP and implementing ordinances preserve, protect, and allow controlled harvesting of mineral resources consistent with state policy and law. Therefore, the potential impact related to a loss of availability of a known mineral resource of regional value is less than significant. .

.	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.12 NOISE Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	■	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	■	☐	☐	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	■	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	■	☐	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	■	☐
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	■

The following is a discussion of whether the proposed Project could result in a significant adverse impact based on each of the significance criteria, above.

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies ***(Less than Significant Impact)***

Mining, which can use a variety of heavy equipment, can be a significant noise-generating activity. However, with regard to use of heavy equipment in the Cache Creek channel under the CCRMP, it is important to note that the in-channel CCRMP activities (erosion control, creek stabilization, and flood conveyance projects) replace large-scale in-stream mining activities that were more intense and used more equipment more often. The CCAP Update would not substantially change the types of in-channel projects. In addition, all in-channel work would be subject to the in-channel ordinance, which addresses noise-generating activities:

Sec. 10-3.411. Noise.

> Noise levels shall not exceed an average noise level equivalent (Leq) of eighty (80) decibels (dBA) measured at the outermost boundaries of the parcel being excavated. However, noise levels may not exceed an average noise level equivalent (Leq) of sixty (60) decibels (dBA) at any nearby residences or other noise-sensitive land uses, unless emergency conditions require otherwise as determined by the Director.

Based on the reasoning presented above, noise associated with CCRMP Update is considered less-than-significant.

It is possible that under the CCAP Update, which expand the area designation SGO and SGRO and increase the potential off-channel mining areas, could result in location of a new mining operation in close proximity to a sensitive receptor (e.g., a rural residence) and result in exposure of persons to noise levels in excess of standards established in the local general plan or noise ordinance. However, any new mining location or new processing facility would be required to undergo project-specific CEQA review. During the CEQA review process, project-related noise levels would be estimated and impacts on sensitive receptors evaluated.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels ***(Potentially Significant Impact)***

In-channel restoration projects and off-channel mining and reclamation activities could cause vibration that could disturb local residents or cause cosmetic damage to buildings and structures. Vibration is energy transmitted in waves through the ground, which generally dissipate with distance from the vibration source. Since energy is lost during the transfer of energy from one particle to another, vibration that is distant from a source is less perceptible than vibration closer to the source.[24] Construction activities can result in varying degrees of ground vibration, depending on the equipment, activity, and relative proximity to sensitive receptors. Building foundations in the vicinity of construction or mining activities may also transmit groundborne vibrations into the buildings.

Ground vibration from construction activities can achieve levels that are audible (i.e., groundborne noise) in buildings very close to operating heavy construction equipment. Groundborne noise in buildings is generated when interior surfaces are “excited” into motion by ground vibration transmitted into the structure. For example, ground vibration could cause windows to rattle.

Vibratory ground motion may be measured in terms of peak particle velocity (PPV) in the vertical and horizontal directions, typically in units of inches per second (in/sec). A freight train passing at 100 feet can cause vibrations of 0.1 in/sec PPV, while a strong earthquake can produce vibrations in the range of 10 in/sec PPV. In general, cosmetic

[24] Federal Transit Administration, “Transit Noise and Vibration Impact Assessment” (DTA-VA-90-1003-06), May 2006.

or threshold damage to residential buildings can occur at peak particle velocities over 0.5 in/sec.[25] Vibration levels of 0.025 in/sec PPV can cause disturbance or annoyance in the daytime and 0.012 in/sec PPV at night.[26] Based on these criteria, vibration exceeding 0.025 in/sec PPV during the day and 0.012 in/sec PPV during the nighttime would be considered significant.

The potential for in-channel restoration projects to cause vibration impacts to nearby receptors will be evaluated in the EIR. It is possible that under the CCAP Update, which expand the area designation SGO and SGRO and increase the potential off-channel mining areas, could result in locations of a new mining operation in close proximity to a sensitive receptor (e.g., a rural residence) and result in exposure of persons to vibration levels in excess of standards. However, any new mining location or new processing facility would be required to undergo project-specific CEQA review. During the CEQA review process, project-related vibration levels would be estimated and impacts on sensitive receptors evaluated.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project ***(Less than Significant Impact)***

The activities that generate noise (e.g., channel reshaping and erosion control projects) conducted under the CCRMP would not result in a permanent increase in noise, as all these projects would occur over a relatively short period of time and the post construction projects would not be noise generating. Therefore, for in-channel CCRMP projects, this impact would be less than significant.

It is possible that under the CCAP Update, which expand the area designation SGO and SGRO and increase the potential off-channel mining areas, could result in locations of a new long-term mining operation in close proximity to a sensitive receptor (e.g., a rural residence) and result in exposure of persons to elevated noise levels for a long period of time. However, any new mining location or new processing facility would be regulated by mining noise ordinance (Sec. 10-4.421, 10-4.422, and 10-4.423) and be required to undergo project-specific CEQA review. During the CEQA review process, project-related noise levels would be estimated and compliance with the noise standards evaluated.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project ***(Potentially Significant Impact)***

Mining, which can use a variety of heavy equipment, can be a significant noise-generating activity. However, with regard to use of heavy equipment in the Cache Creek channel under the CCRMP, it is important to note that the in-channel CCRMP activities (erosion control, creek stabilization, and flood conveyance projects) replace large-scale in-stream mining activities that were more intense and used more equipment more often. The CCAP Update would not substantially change the types of in-channel

[25] Ibid.

[26] Ibid.

projects and therefore temporary noise associated with CCRMP Update is considered less than significant.

It is possible that the CCAP Update, which expand the area designation SGO and SGRO and increase the potential off-channel mining areas, could result in location of a new mining operation in close proximity to a sensitive receptor (e.g., a rural residence) and result in exposure of persons to temporary elevated noise levels. However, any new mining location or new processing facility would be required to undergo project-specific CEQA review. During the CEQA review process, project-related noise levels would be estimated and impacts on sensitive receptors evaluated.

e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels* ***(Less-Than-Significant Impact)***

The Watts-Woodland Airport at 17992 County Road 94B is the nearest public airport to the Project Site, a portion of which is located within the southeastern portion of the CCAP area. The CCAP Update would not result in any increase in airport or aircraft noise. Noise contours developed for the airport operations indicate that the noise impact from the airport would be less than 65 dBA at the nearest proposed mining site and would be less than 55 dBA at the other future planned or proposed mining sites where new users could be located due to the mining activities. In addition, mining-related land uses are not particularly susceptible to noise and would not be considered a sensitive receptor. This impact is less than significant.

f) *For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels* ***(No impact)***

There is no private airstrip in the vicinity of the Project Site. Therefore, this is not an impact.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.13 POPULATION AND HOUSING Would the project				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	■
b) Displace a substantial number of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	■	☐
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	■	☐

The following is a discussion of whether the proposed Project could result in a significant adverse impact based on each of the significance criteria, above.

a) *Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)* ***(No Impact)***

The proposed CCAP Update would not induce growth in the area, but rather refine an ongoing existing program that allows for the production of an important mineral resource. Continued implementation of the OCMP would provide for a continued availability of moderately-priced aggregates in the Sacramento-Fairfield region in the future, at levels comparable to existing demand.

b) *Displace a substantial number of existing housing, necessitating the construction of replacement housing elsewhere* ***(Less-Than-Significant Impact)***

The CCAP Update would not result in any substantial displacement of existing housing units. It is possible that potential new off-channel mining areas could include one or more rural residences that would need to be removed in order to conduct the mining and reclamation at a particular site. But the displacement of just a few rural residences would not be considered a significant displacement of housing stock. Therefore, this potential impact is less than significant.

c) *Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere* ***(Less-Than-Significant Impact)***

As discussed above, only a few people may be displaced as a result of potential new off-channel mining operations. Therefore, this potential impact is less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.14 PUBLIC SERVICES				
Would the project:				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i Fire protection?	☐	☐	■	☐
ii Police protection?	☐	☐	■	☐
iii Schools?	☐	☐	☐	■
iv Parks?	☐	☐	■	☐
v Other public facilities?	☐	☐	☐	■

The following is a discussion of whether the proposed Project could result in a significant adverse impact based on each of the significance criteria, above.

a) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*

- *Fire protection* ***(Less-Than-Significant Impact)***

The CCAP Update, which include an expanded area where mining could occur, could incrementally increase fire hazards related to operation heavy equipment (i.e., sparks from internal combustion engines). In addition, CCRMP activities could increase fire hazards by increasing riparian habitat within and along the Cache Creek channel. However, though removal of invasive species under the CCRMP would also result in decreases in fire hazards. Overall, with some incremental increases and decreases, it is anticipated that the net change in fire hazard would be negligible and therefore less than significant.

- *Police protection* ***(Less-Than-Significant Impact)***

Police protection at the Project Site is provided by the Yolo County Sheriff's Department. It is possible that trespass, vandalism, or theft of equipment could occur within the expanded OCMP area and/or as a result of implementation of the program, eg future public access to parkway sites. However, active mining sites are generally well controlled and monitored by the operator, and there is an existing

program for patrolling the creek. Overall, it is anticipated that there would be no significant net change in police protection. Potential impact on police protection would be considered less than significant.

- *Schools* ***(No Impact)***

- *Parks* ***(Less-Than-Significant Impact)***

The CCAP includes ongoing acceptance of reclaimed properties as part of an anticipated Parkway Plan and a draft Parkway Plan is under development pursuant to the program requirements. The CCAP Update proposes no change to this component of the program.

- *Other public facilities* ***(No Impact)***

The CCAP Update would not result in a substantial increase in jobs or population (see Section 13, Population and Housing, for analysis). Therefore, no increase in demand for other public facilities would occur as a result of the Project and no impact would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.15 RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	■	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	■	☐

The following is a discussion of whether the proposed Project could result in a significant adverse impact based on each of the significance criteria, above.

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated ***(Less-Than-Significant Impact)***

The CCAP Update would not result in increases in jobs or population (see analysis under Section 13, Population and Housing). The program does involve creation of a Parkway of reclaimed properties along Lower Cache Creek over time. The CCAP Update would not change this component of the program. This is a less-than-significant impact.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment ***(Less-Than-Significant Impact)***

The program does involve creation of a Parkway of reclaimed properties along Lower Cache Creek over time. The CCAP Update would not change this component of the program. The CCAP Update includes a proposed clarification regarding the practice of accepting property dedications and easements for/on reclaimed mining sites, restored habitat, trail connections, and related community enhancements as community benefits ("net gains" required under the program (see OCMP Action 2.4-7 below).

> 2.4-7 Require that all surface mining applications within the OCMP plan area include a proposal for providing a "net gain" to the County, as determined by the following criteria:
>
> a. Reclamation to multiple or conjunctive uses;
>
> b. Enhancement and enrichment of existing resources;

c. Restoration of past sites where the requirements of reclamation at the time no longer meet community expectations in terms of good stewardship of the land; and/or

d. Provision of new dedications and easements to supplement/benefit the Cache Creek Parkway including reclaimed mining sites, restored habitat, trail connections, and related enhancements.

This CCAP Update represents a beneficial impact of the program because it will result in an increase in recreational opportunities along the Cache Creek corridor.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.16 TRANSPORTATION AND CIRCULATION Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	■	☐	☐	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	■	☐	☐	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	■	☐
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	■	☐	☐	☐
e) Result in inadequate emergency access?	☐	☐	■	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	■	☐

The following is a discussion of whether the proposed Project could result in a significant adverse impact based on each of the significance criteria, above.

a) *Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit* ***(Potentially Significant Impact)***

The Circulation Element of the 2030 Countywide General Plan specifically identifies the development and adoption of transportation impact study guidelines that consider all modes of travel and establish clear guidance for analysis and significance criteria. In February 2010, the County established the Traffic Impact Study Guidelines[27] to assist applicants with assessing potential traffic impacts of proposed projects. The 2030 Countywide General Plan and the Traffic Impact Study Guidelines are the applicable policy documents related to determining a project's effects on local and regional traffic circulation. The analysis of transportation and circulation (including cumulative conditions) that was completed for the General Plan included traffic associated with the CCAP and therefore the CCAP is consistent with the General Plan.

It is possible that the addition of new mining areas that could occur under the CCAP Update could result in increased truck traffic on County roads and highways related to distribution of the aggregate materials. In addition, CCAP Update extend the horizon of the CCAP program beyond what was considered in the CCRMP and OCMP EIRs. Therefore, future potential traffic impacts (through 2068) have not been evaluated. The potential cumulative impacts related to potential new mining sites and extending the time horizon of the CCAP program will be evaluated in the EIR.

b) *Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highway* ***(Potentially Significant Impact)***

As described under Section a) above, the CCAP Update could result in an increase in future truck trips (related to a potential increase in tonnage removed from in-channel and new off-channel mining sites) and would extend the time horizon for the CCAP program. The potential for the CCAP Update to conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highway will be evaluated in the EIR.

c) *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks* ***((Less-Than-Significant Impact)***

The CCAP Update would not result in a change in air traffic patterns as none of the updates are related to air travel. The nearest airport to the Project Site is the Watts-Woodland Airport (a portion of which is located within the southeastern portion of the CCAP area). The CCAP Update would not result in a change in air traffic patterns as none of the updates are related to air travel. Therefore, this impact is less than significant.

[27] Yolo County, 2010, Traffic Impact Study Guidelines, February.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) ***(Less-Than-Significant Impact)***

The CCAP includes requirements that aggregate mining and processing operators contribute their fair share of road improvements costs along haul routes. The following CCAP Update (OCMP) provides additional clarification of this:

> 2.4-21 Ensure that each mining operation adheres to approved haul routes and approved ingress/egress locations. Ensure through conditions of approval and other appropriate mechanisms that mining operations are funding their fair share of roadway and related impacts, including both one-time improvements and ongoing operations and maintenance, along approved haul routes and in proximity to approved operation ingress/egress locations.

This ongoing requirement allows the County to adequately address identified deteriorated and/or hazardous road conditions and acquire the funding to address these conditions.

e) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities ***(Less-Than-Significant Impact)***

The Yolo County Transportation District administers Yolobus, which provides limited daily service throughout Yolo County. Two routes, Cache Creek and Dunnigan, run on SR-16 in the vicinity of the CCAP area. According to the Yolo County Bicycle Transportation Plan,[28] there are no existing bicycle facilities on any of the study area roadway segments. Pedestrian facilities in the vicinity of the Project Site are limited, typically consisting of roadway shoulders.

The CCAP updates do not propose changes in transit, bicycle, or pedestrian facilities. This is a less-than-significant impact.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? ***(Less-Than-Significant Impact)***

The CCAP and CCAP Update guide and regulate in-channel restoration activities and off-channel mining sites. While it is possible that truck traffic patterns on local county roads could change as a result of the proposed CCAP Update, the potential for the CCAP Update to result in conflicts with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities is considered less than significant.

[28] Yolo County Transportation Advisory Committee, 2006, County of Yolo Bicycle Transportation Plan, Bicycle Routes and Priorities, December.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.17 UTILITIES AND SERVICE SYSTEMS Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	■
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	■
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	■	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	■	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	■
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	■	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	■	☐

The following is a discussion of whether the proposed Project could result in a significant adverse impact based on each of the significance criteria, above.

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board ***(No Impact)***

The proposed Project does not propose new discharges to a wastewater treatment facility. In general, mining facilities either use portable toilet facilities or install on-site septic systems. No impact related to wastewater treatment facilities would occur as a result of the proposed Project.

b) *Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects* ***(No Impact)***

See discussion under Section 3.17 a), above.

c) *Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects* ***(Less-Than-Significant Impact)***

In general, stormwater within the CCAP area either infiltrates into the ground or flow overland toward creek channels. New mining areas that could be developed under the CCAP Update may include on-site drainage facilities (e.g., culverts). However, inspection and maintenance of these facilities is regulated by the existing and updated mining ordinance:

> Sec. 10-4.413. Drainage.
>
> Surface water shall be prevented from entering mined areas, through either perimeter berms or ditches and grading. Appropriate erosion control measures shall be incorporated into all surface water drainage systems. S~~Natural and s~~tormwater drainage systems shall be designed to connect with natural drainages so as to prevent flooding on surrounding properties and County rights-of-way. Storm water runoff from mining areas shall be conveyed to lowered areas (detention basins) to provide detention of runoff generated during a 20-year, one-hour storm event. All drainage conveyance channels or pipes (including spillways for detention areas) shall be designed to ensure positive drainage and minimize erosion. The drainage conveyance system and storm water detention areas shall be designed and maintained in accordance with Best Management Practices for the reduction of pollutants associated with runoff from mined areas. The design and maintenance procedures shall be documented in the Storm Water Pollution Prevention Plan required for mining operations. The drainage system shall be inspected annually by a Registered Civil Engineer, Registered Geologist, or Certified Erosion and Sediment Control Specialist to ensure that the drainage system is functioning effectively and that adverse erosion and sedimentation are not occurring. The annual inspection shall be documented in the Annual Mining and Reclamation Report. If the system is found to be functioning ineffectively, the operator shall promptly implement the recommendations of the engineer.

No off-Site stormwater drainage facilities are proposed or would be necessary for the proposed Project, and therefore, this impact is less than significant.

d) *Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed* ***(Less-Than-Significant Impact)***

With the exception of temporary irrigation of new plantings and revegetation project, the CCRMP activities generally do not require substantial water supply. Water supply for temporary irrigation would be provided by local sources, including local wells.

Off-channel mining sites and processing plants use water for dust control and aggregate processing. The existing mining operators use water from wells and/or wet pits. It is expected that any future mining operations would similarly use local water from wells and/or wet pits. In addition, water use for these operations would be evaluated for potential environmental impacts during project-level CEQA review.

e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments ***(No Impact)***

See discussion under Section 3.17 a) above.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs ***(Less-Than-Significant Impact)***

The CCRMP activities would generate a negligible amount of solid waste. Potential new off-channel mining site could generate more solid waste. Most of the solid waste generated by off-channel mining operations is composed of fines from aggregate washing and processing. These would be allowed to dry and returned to mining areas during the reclamation process.

One public disposal facility in Yolo County, the 722-acre Yolo County Central Landfill, accepts solid waste from businesses. The landfill is projected to be operational through December 31, 2080,[29] well beyond the horizon date of the CCAP Update. This impact is less than significant.

g) Comply with federal, state, and local statutes and regulations related to solid waste ***(Less-Than-Significant Impact)***

Disposal of solid wastes generated during aggregate mining, reclamation, and processing activities would be subject to federal, state, and local waste management laws and regulations. See additional discussion of solid waste generation under Section 3.17 f), above. This impact is less than significant.

[29] Yolo County, 2011, County of Yolo 2030 Countywide General Plan

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.18 MANDATORY FINDINGS OF SIGNIFICANCE WOULD THE PROJECT:				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	■	☐	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	■	☐	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	■	☐	☐	☐

DISCUSSION

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

Potentially Significant Impact. Based on the analysis provided in this Initial Study, it is possible that project implementation could adversely affect, either directly or through habitat modifications, sensitive or special status species, potentially could have a substantial adverse effect on riparian habitat or other sensitive natural community, and could affect wetlands.

b) Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

Potentially Significant Impact. The CCAP Update would expand the potential off-channel mining area and extend the time horizon of the CCAP. This could result in increased air quality and greenhouse gas emissions, which could degrade air quality cumulatively, in combination with other projects in Yolo County. In addition, truck traffic associated with new mining sites could increase, potentially affecting future cumulative transportation and circulation patterns.

c) *Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?*

Potentially Significant Impact. Based on the analysis provided in this Initial Study, in-channel restoration projects and off-channel mining and reclamation activities could cause vibration that could disturb local residents or cause cosmetic damage to buildings and structures. In addition, truck traffic associated with new mining sites could increase, potentially affecting future cumulative transportation and circulation patterns.