3.0 PROJECT DESCRIPTION

3.1 INTRODUCTION

The proposed Project is a mandatory update of the Cache Creek Area Plan (CCAP) referred to hereafter as the Project or the CCAP Update. The CCAP is a rivershed management plan adopted by Yolo County in 1996 for 14.5 miles of Lower Cache Creek, located generally between an area just west of the Capay Dam and the town of Yolo (see Figure 3-1 for the location of the Project). The CCAP is comprised of an integrated set of resource plans and implementing ordinances that regulate off-channel aggregate mining and guide in-channel creek management and restoration. The following eight plans and ordinances comprise the CCAP:

- Off-Channel Mining Plan (OCMP)
- Cache Creek Resources Management Plan (CCRMP)
- Cache Creek Improvement Program (CCIP)
- Title 10, Chapter 3, Cache Creek In-Channel Maintenance Mining Ordinance (In-Channel Ordinance)
- Title 10, Chapter 4, Off-Channel Surface Mining Ordinance (Off-Channel Ordinance)
- Title 10, Chapter 5, Surface Mining Reclamation Ordinance (Reclamation Ordinance)
- Title 10, Chapter 11, Gravel Mining Fee Ordinance (Fee Ordinance)
- Title 8, Chapter 4, Flood Protection Ordinance (Flood Ordinance)

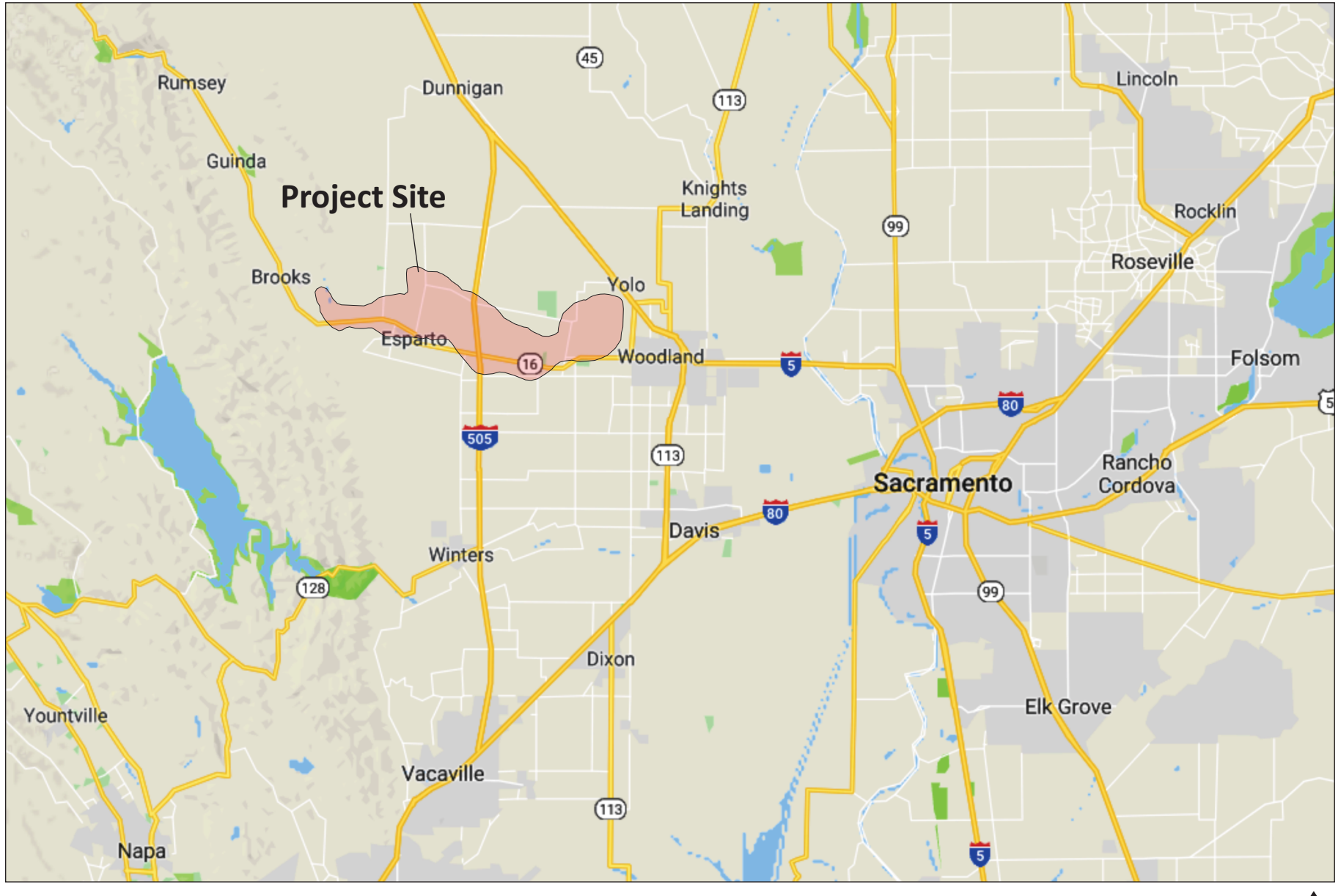
The CCAP Update proposes changes to these eight documents. The changes fall into three categories: 1) updates to include history and context of what has occurred under the program since 1996, including updates related to the regulatory framework and corrections of errata; 2) clarifications that better describe the intent of the program relative to the text included in the original documents; and 3) other proposed changes to the program.

Key proposed changes that may lead to environmental impacts are to: 1) increase the in-channel material removal limit from 210,000 tons to 690,800 tons annually; 2) identification of an additional 1,188 acres within the planning area to be rezoned for future possible aggregate mining; and 3) extension of the horizon year to 2068.

The CCAP is based on the concept of adaptive management, and relies on ongoing detailed monitoring, analysis, and reevaluation. A comprehensive ten-year review is mandatory. The 2017 CCAP Update constitutes the second mandatory ten-year program review. The purpose of the Update is to analyze trends and adjust the program to avoid unexpected effects on creek resources, focusing on: changes in creek conditions; analysis of collected data; and new regulatory requirements.

REGIONAL LOCATION

Figure 3-1



BASELINE ENVIRONMENTAL CONSULTING

The Proposed Draft 2017 CCAP Update was released for public review on May 10, 2017. On September 28, 2018 refinements to the proposed CCAP Update were released.This package of documents is available for review at the Yolo County Administrator's Office, 625 Court Street, Room 202, Woodland, CA 95695, or can be viewed at the following web link:

https://www.yolocounty.org/general-government/general-government-departments/county-administrator/county-administrator-divisions/natural-resources/cache-creek-area-plan-ccap/2018-ccap-update-revisions

The CCAP was adopted as a "specific plan" pursuant to Section 65450 et seq of the California 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 amendments to the 2030 Countywide General Plan.

This required ten-year review/update of the CCAP and its associated documents is considered a "project" (CCAP Update or Project) under the California Environmental Quality Act (CEQA), and is the subject of this CEQA review process. 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 Yolo County, specifically the Natural Resources Division of the Yolo County Administrator's Office.

3.2 HISTORY

Gravel mining in Lower Cache Creek has occurred since the late 1880s. As early as 1936, Yolo County began to regulate mining in the Cache Creek channel. The requirement for use permits for all new gravel operations was adopted in 1963. In the 1970s, the effects of mining in general were becoming a significant issue statewide. In 1976, the State Surface Mining and Reclamation Act (SMARA) was enacted. In-channel mining was becoming more of a concern locally, and in 1979 the County adopted a Mining and Reclamation Ordinance that established excavation elevations and set a maximum production amount for operators. In 1980, Solano Concrete received the first approval to be issued in Yolo County for "wet pit" mining which involved off-channel mining to depths below the groundwater table.

In the late 1980s and early 1990s, the County experienced a period of extensive controversy and debate regarding appropriate management of the various resources and values along lower Cache Creek. During this period the County sought to minimize the adverse environmental effects of in-channel mining while also ensuring a healthy mining industry. The Board of Supervisors adopted a framework of goals and objectives for mining regulation in 1994. In doing so, the Board recognized that although mining was an important consideration, Cache Creek is integrally bound to the environmental and social resources of the County, including drainage/flood protection, water supply and conveyance, wildlife habitat, recreation, and agricultural productivity, and thus a broader regulatory view was important.

In response to the recognition that Cache Creek needed to be managed more comprehensively, the County developed the CCAP, which was based on the key assumption that the creek must be viewed as an integrated system, with an emphasis on the management of all of Cache Creek's resources, rather than a singular focus on the issue of mining. The Board directed the preparation of an extensive analysis of fluvial geomorphology, hydrology, and riparian habitat to provide historical and baseline information, and recommendations for improving the natural processes and resources of Cache Creek. This information was released as the 1995 Technical Studies and became the scientific underpinnings of the CCAP regulatory program.

3.3 SETTING FOR CACHE CREEK AREA PLAN

Cache Creek traverses Yolo, Lake, and Colusa counties in northern California. Its drainage basin extends from the upper basin highlands north and northeast of Clear Lake to the Yolo Bypass east of the City of Woodland. The 14.5-mile segment of lower Cache Creek that is the focus of the CCAP and its implementing ordinances falls between Capay Dam and the town of Yolo, at the western margin of the Sacramento Valley in central Yolo County (see Figure 3-1). The regional topography consists of low rolling hills and broad alluvial plains formed at the base of the eastern flank of the California Coast Range. The predominant land use for the region is agriculture. Unincorporated towns in the vicinity of the Project area include Capay, Esparto, Madison, and Yolo. The City of Woodland, the county seat, is located to the southeast of the CCAP plan area.

3.4 PLANS AND OTHER DOCUMENTS OF CCAP

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). Table 3-1 includes a summary of the amount of aggregate material approved by permit to be excavated and sold from in-channel and off-channel sources. The CCRMP and OCMP are briefly described below:

1. Cache Creek Resources Management Plan

The CCRMP is a creek restoration plan that eliminated in-channel commercial mining. The CCRMP area plan boundary is the present channel bank line or the 100-year flood elevation boundary (as determined by the Federal Emergency Management Agency), whichever is wider, extending from the Capay Dam to the Town of Yolo (see Figure 3-2).

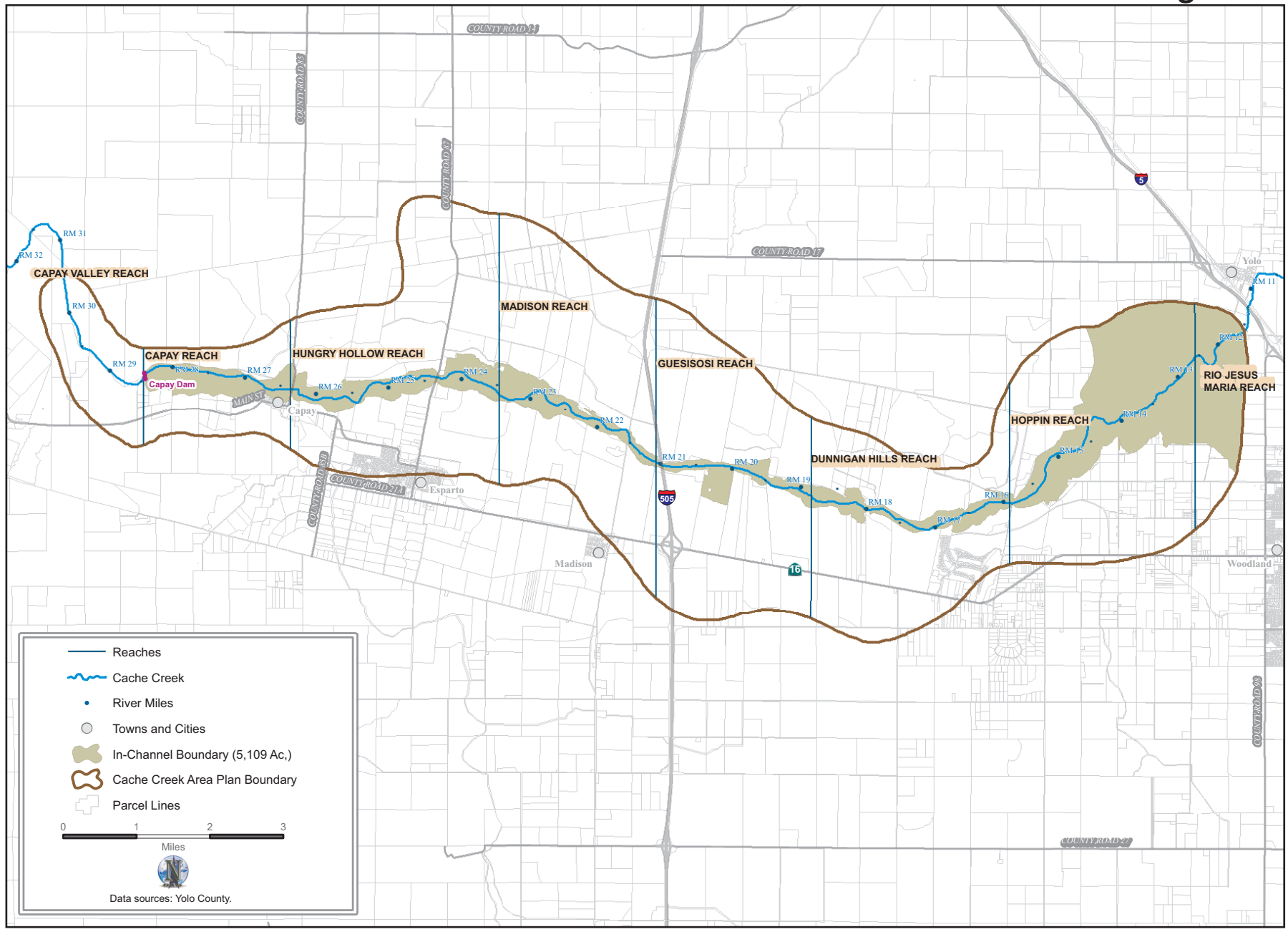
As described above, the CCRMP was largely based on the 1995 Technical Studies, which presented numerous management and regulatory recommendations and provided specific direction for the CCRMP, which established a policy and regulatory framework for:

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

The CCRMP includes 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). A list of projects completed under the CCRMP/CCIP is included in Table 3-2 (creek reaches and river miles are shown on Figure 3-2).

IN-CHANNEL BOUNDARY

Figure 3-2



BASELINE ENVIRONMENTAL CONSULTING

Table 3-1 Summary of CCAP Mining Tonnages

Ref #[1]/ Site	Permit Approvals [2]					
	Annual Permitted		Annual 20% Exceedence [3]		Total Permitted [4]	
	Tons Sold	Tons Mined	Tons Sold	Tons Mined	Tons Sold [5]	Tons Mined [5]
1/CEMEX [6]	1,000,000	1,204,819	200,000	240,964	26.7	32.17
2/Granite Capay [7]	1,000,000	1,075,269	200,000	215,054	30.0	32.26
3/Granite Esparto	870,000[8]	1,000,000 [8]	174,000[8]	200,000[8]	26.1[8]	30.0[8]
4/Granite Woodland [9]	Allocation of 420,000 tons mined (370,000 tons sold) annually transferred to Granite Esparto site in 2011.[10] Site reclaimed.					
5/Syar	1,000,000	1,111,111	200,000	222,222	30.0	33.33
6/Teichert Esparto	1,000,000	1,176,471	None[11]	None[11]	22.0	25.88
7/Teichert Woodland	Allocation of 1,176,471 tons mined (1,000,000 tons sold) annually transferred to Teichert Schwarzgruber site upon cessation of mining.[12] Site undergoing reclamation.				15.2	17.88
8/Teichert Schwarzgruber	1,000,000[13]	1,176,471[13]	200,000[13]	235,295[13]	4.0[13]	4.65[13]
9/Original In-Channel Maintenance Extraction	180,000[14]	200,000[14]	N/A	N/A	9.9[15]	11.0[15]
Sub-Total Existing Conditions	**6,050,000**	**6,944,141**	**844,000**	**1,113,535**	**163.9**	**187.2**
10/Proposed Teichert Shifler[16]	2,000,000	2,352,942	200,000	235,295	35.25 [16]	41.6[16]
11/SGRO (Existing + Proposed CCAP Update)[17]	1,000,000[18]	1,100,000[18]	200,000[18]	220,000[18]	114.7[19]	124.4[19]
12/Proposed In-Channel Maintenance Extraction	621,720 [20]	690,800 [20,21]	N/A	N/A	12.53[21]	13.92[17,21]
Sub-Total Assumed Future Conditions	1,441,720[22]	1,590,800[22]	200,000	220,000	162.5	179.9
Total	**7,491,720[22]**	**8,534,941[22,23]**	**1,044,000[22]**	**1,333,535[22]**	**326.4**	**367.1**

Source: TSCHUDIN CONSULTING GROUP, original 1996 OCMP DEIR Table 3-1; revised 2009 Granite Esparto DEIR Table 5-1; updated January 13, 2019 for CCAP Update EIR.

Table Notes:
[1] Rows 1-9 reflect "existing" conditions" as analyzed and/or approved. Actual existing conditions are lower – see County tonnage records. Rows 10 -12 comprise assumed future conditions.
[2] Total allocated/approved by County under CCAP pursuant to approval of individual applications. See Development Agreements for project specific details unless otherwise footnoted.
[3] In any given year, if exercised by Applicant. Must be approved by County pursuant to Mining Code Section 10-4.405.
[4] This number is "as approved" – actual could be lower. This number will change as permits expire or are approved over time. Accurate as of table update date of Dec 19, 2018.
[5] In million tons
[6] Previously Rinker, originally Solano

[7] Originally R.C. Collet aka Cache Creek Aggregates
[8] A 30-year permit was approved November 8, 2011 for mining on 313 acres at Granite Esparto site. Mining at the site is precluded until mining at the Granite Capay site has ceased. Total tonnage allocation of 2,244,000 tons sold can be used at either site. The Granite Esparto application used all remaining Unallocated tonnage (505,859 tons mined; 500,000 tons sold) originally analyzed as part of cumulative conditions in the OCMP EIR.
[9] 1997 – 2001
[10] This tonnage was identified in the OCMP but not the OCMP EIR.
[11] Not approved to utilize the 20% exceedance
[12] Remaining 235,294 tons mined (200,000 tons sold) from Teichert Woodland approval relinquished.
[13] A 15-year permit was approved Nov 13, 2012 on 40.7 acres Teichert Schwarzgruber site. Mining precluded until mining at Teichert Woodland has ended.
[14] Not included in OCMP EIR and OCMP totals because authorization for this was provided through the Cache Creek Resource Management Plan (CCRMP) EIR and CCRMP
[15] Cumulative total tonnage for which CEQA clearance was provided in 1996 Program EIR, OCMP DEIR, p. 3-22 and 3-23
[16] Application received September 26, 2018 for 30-year permit to mine on 277 acres of a 310-acre site. Understood to reflect transfer of both Schwarzgruber plus Teichert Esparto tonnage which would zero out the annual permitted for both those operations in the chart (no change to the bottom line totals for those two columns), but would be additive to the Total Permitted.
[17] There are 1,001ac countywide currently zoned Sand and Gravel Reserve Overlay (SGRO) for future mining. The CCAP Update would increase that area by 1,188ac to a total of 2,189ac. Currently mining is approved on 2,464ac for a cumulative total of 187.2 mil tons mined (see CCAP Update Figure 5, Past, Current, and Future Mining). The total SGRO land comprises 89% of the currently mined land. A conservative assumption for future mining is 89% of the currently approved total of 187.2 mil tons mined, or 166 mil new tons mined (149.4 mil tons sold).
[18] Assumes one new operation of an average size of approximately 440 acres with 1,100,000 annual tons mined at each and 1,000,000 annual tons sold (assumes 10% average waste) All other acreage/tonnage assumed to be brought online over time as currently approved mining sites are mined out. In other words, “new” acreage/tonnage is assumed to replace “old” acreage/tonnage, not be “in addition to”.
[19] The 1,188 acres of new SGRO proposed in the CCAP Update includes the Shifler site. This number was developed several years prior to receipt of the Teichert Shilfer application in 2018. The Teichert Shifler application is reflected separately in row 9. To avoid double counting of total tons mined, the Shifler tonnage has been backed out of the numbers in row 10. 166.0 mil tons mined – 41.6 mil tons mined = 124.4 mil tons mined. 150.0 mil tons sold – 35.3 mil tons sold = 114.7 mil tons sold.
[20] Reflects CCAP Update. In-Channel change from 210,000 (sometimes rounded to 200,000) to 690,800 tons mined (621,720 tons sold assuming 10% waste)
[21] In-channel removal assumptions based on sediment transport modeling undertaken for 2017 Technical Studies: In about 10 of the 50 years 690,800 tons (690,800 x 10 = 6.908,000). In about 3 of the 50 years twice that amount or 1,381,600 tons (1,381,600 x 3 = 4,144,800). In the remaining 37 years 77,542 tons (77,542 x 37 = 2,869,054). Total in-channel removal over 50 years 6,908,000 + 4,144,800 + 2,869,054 = 13,921,854.
[22] Column total minus Teichert Esparto, Teichert Schwarzgruber, and original in-channel acres.
[23] Includes 74,141 tons more than combined total of transferred Granite Woodland allocation (420,000 tons mined) plus Unallocated tonnage (505,859 tons mined) combined. The Unallocated tons mined number was a derived number – see 2009 version of this table in Granite Esparto DEIR (p. 5-3).

Table 3-2: Completed/Approved In-Channel Projects

Project Name	River Mile	Project Type	Year Implemented
CAPAY REACH			
Capay Dam	28.39	Dam Apron Repair	2010
PG&E Palisades	26.9	Erosion control	Mid 1990s
Vehicle Boneyard (Woods Property)	26.6	Water quality	N/A
HUNGRY HOLLOW REACH			
Capay Bridge at CR 85	26.35	Erosion control	1997; 2003
Capay Open Space Park	26.3	Habitat restoration; publicly owned open space	2004
Craig Property	25.8	Erosion control; habitat restoration	1998
Jensen Property Spur Dikes	25.4	Erosion control; habitat restoration	2003-2004
Granite North Bank Stabilization	24.95	Major channel stabilization; habitat restoration	2002
Granite North Bank Stabilization	24.5	Major channel stabilization; habitat restoration	2017
Syar North Bank Spur Dikes	24.4	Erosion control; habitat restoration	1992
Stephens Property	24.4	Erosion control; habitat restoration	1992
Esparto Bridge at CR 87	24.35	Erosion control	N/A
Syar South Bank Spur Dikes	24.15	Major channel stabilization; habitat restoration	1999
MADISON REACH			
Esparto-Reiff Bank Protection and Habitat Restoration Project	23.5	Major channel stabilization; habitat restoration	1997
Teichert Bank Protection Project	23-22.8	Erosion control	2006
Grube-Payne Project	22.0	Erosion control; habitat restoration	2005-current
Tuttle Property (Madison Reach North and South Bank Spur Dikes	21.6	Erosion control; habitat restoration	2002-2003
Syar Bank Stabilization Rock Piers (Floodway Spur Dikes Upstream of I-505 Bridge	21.6-21.4 and 21.3-21.1	Major channel stabilization; habitat restoration	1998-1999

Project Name	River Mile	Project Type	Year Implemented
Dunbar Project (Scheuring Property Revegetation)	21.5	Erosion control; habitat restoration	2002
GUESISOSI REACH			
I-505 Bridge	21.0	Major channel stabilization	N/A
Cemex Slope Protection Project	21.0-19.3	Major channel stabilization	2010
Solano Erosion Control Willow Trenches and Habitat Restoration	20.8-20.7	Erosion control; habitat restoration	1998
Rinker Erosion Control and Habitat Restoration	20.2	Major channel stabilization; habitat restoration	2002-2005
Hayes Bow-Tie	19.8	Habitat restoration	1997-2000
DUNNIGAN HILLS REACH			
Solano Erosion Control Spur Dikes	18.6	Major channel stabilization	1998
Milsap Property	18.5	Habitat Acquisition; publicly owned open space	1999
Moore's Siphon (YCFCWCD Property)	18.0	N/A	N/A
Cache Creek Aggregates (RC Collet) Spur Dikes	17.5-17.2	Erosion control	1980
Wild Wings Open Space	16.9	Habitat restoration; publicly owned open space	2004-2006
Cache Creek Nature Preserve	16.4	Habitat restoration; publicly owned open space	1999-2000
Salisbury Slough/Adams Canal	16.4	Erosion control	2001, 2003
Stephens Bridge at CR 94B	15.9	N/A	N/A
HOPPIN REACH			
Haller Habitat Peninsula	15.8	Habitat restoration	1996-1999
Granite Woodland (Reiff Property; Zone File 97-045)	14.4	Habitat restoration	1997
Rodgers Demonstration Water Recharge and Habitat Project	13.8	Groundwater recharge, habitat restoration; publicly owned open space	1997-1999; 2007-2010

Project Name	River Mile	Project Type	Year Implemented
Correll Property	13.7	Habitat restoration; publicly owned open space	1996-1998; 2007-2010
Harrison Property	13.4	South bank erosion control and habitat restoration project	2004
JESUS MARIA REACH			
Huff's Corner	11.6	Major channel stabilization; habitat restoration	2006/2007
GENERAL – ALL REACHES			
Invasive Removal Projects	28.3-11.2	Erosion control; habitat restoration	2001/2016

Source: Natural Resources Division of the Yolo County Administrator's Office, *CRMP/CCIP Project/Site List*, revised April 6, 2012 (included in Appendix A)
Notes:
N/A = not available

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

2. Off-Channel Mining Plan

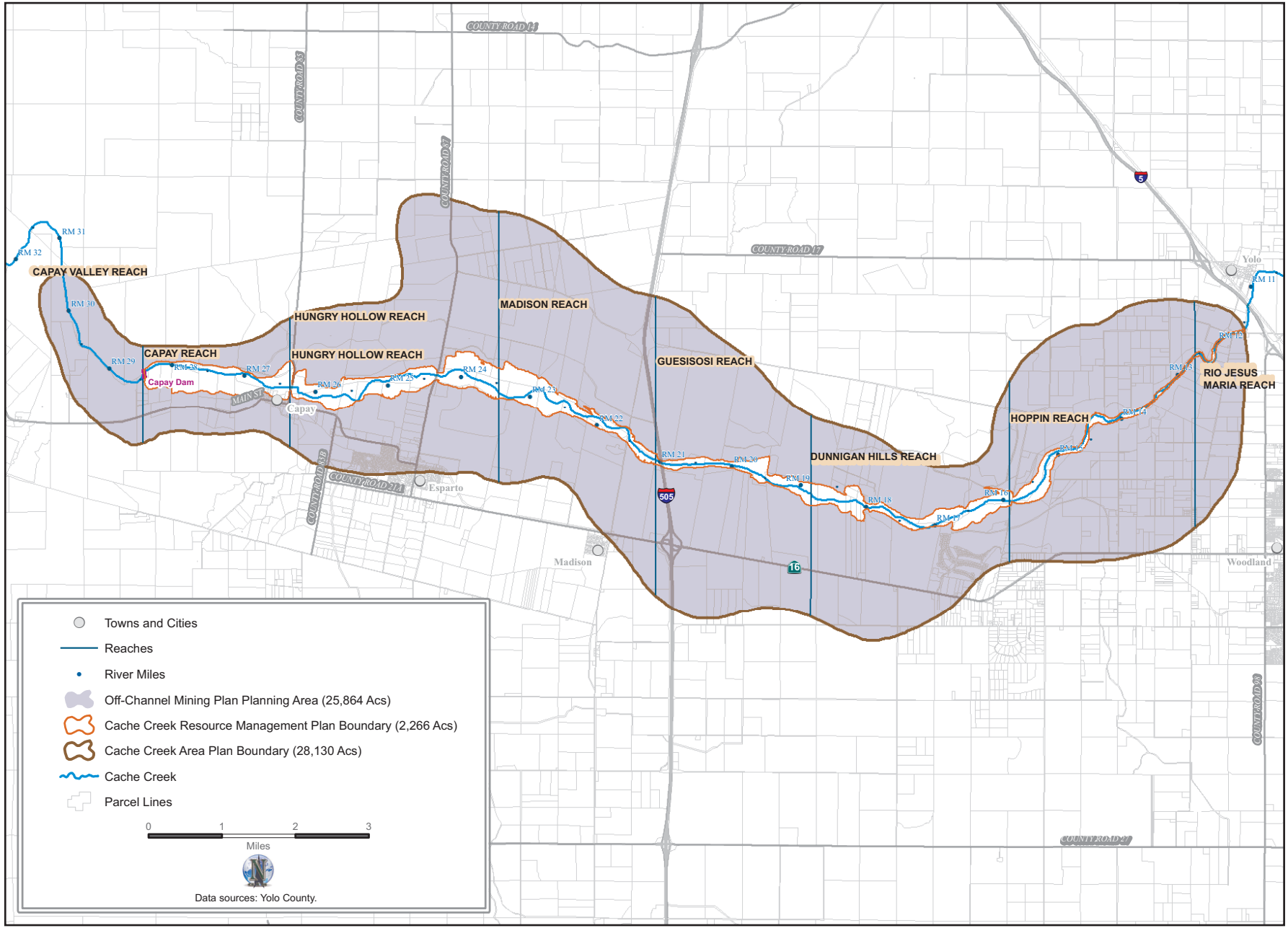
The OCMP is an aggregate resources management plan that established a policy and regulatory framework that allows for controlled off-channel gravel mining no closer than 200 feet to the banks of Cache Creek. The planning area for the OCMP was defined as the area contained within the Mineral Resource Zones (MRZs) delineated by the Department of Conservation as potentially containing mineral aggregate resources, minus the in-channel area regulated under the CCRMP (see Figure 3-3). Within the off-channel planning area, the area defined for mining through 2046 was referred to as the OCMP "boundary". This same area was subsequently designated in the County Zoning Ordinance using the Sand and Gravel Reserve (SGR) overlay or combining zone for parcels on which mining was planned, but for which no operations were approved and the Sand and Gravel (SG) overlay or combining zone for parcels on which mining operations were approved. The OCMP is available at the following County website:

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

The OCMP allows for off-channel, deep-pit mining under controlled and monitored circumstances, originally envisioned as an alternative to continued in-channel mining. It prescribes standards and regulations for siting of operations in relation to the creek channel, adjoining pits, and other land uses. It identifies protections for groundwater quality and quantity and allows for multiple reclamation uses including agriculture, habitat, flood control, water storage, groundwater recharge, and recreation. It also establishes the groundwork for the development of a future plan to allow for public recreational activities and uses along the creek.

OFF-CHANNEL MINING PLAN PLANNING AREA

Figure 3-3



BASELINE ENVIRONMENTAL CONSULTING

As reported in the OCMP (see page 7), about 918 million tons of high grade "Portland Cement Concrete" or PCC-grade sand and gravel were estimated to remain within the designated mineral resource zone (MRZ-2 area) as of 1995. This estimate excluded about 1,250 acres (of the total 18,452 acres within the MRZ-2) which was removed due to the existence of infrastructure making those locations unavailable for mining. Under the CCAP, approximately 176 million tons of aggregate have been approved for excavation (see Table 3-3) and approximately 71.6 million tons of aggregate have actually been excavated (1996 through 2015). This means about 846.4 million tons of aggregate remain in the ground as of 2015 and another 115.4 tons are expected to be excavated, leaving aggregate reserves of approximately 742 million tons.

Table 3-3: Lower Cache Creek Mining Operations

Operator	Approved Tons Sold (million)	Approved Tons Mined (million)	SG Overlay Acres	Permit Expiration
Cemex (originally Solano Concrete)	26.70	32.17	780	August 11, 2027
Granite Capay (formerly Cache Creek Aggregates [R.C. Collet])	30.00	32.26	323	January 1, 2028
Granite Esparto	26.10	30.00	311	November 8, 2041
Syar	30.00	33.33	342	June 8, 2029
Teichert Esparto	22.00	25.88	210	January 1, 2028
Teichert Woodland	15.20	17.88	411	January 1, 2028
Teichert Schwarzgruber	4.00	4.65	87	January 1, 2028
Total	**154**	**176.17**	**2,464**	

Source: County of Yolo, 2018, 2017 Cache Creek Area Plan Review and Update.
Notes:
N/A = not applicable

3. Other Outcomes of the Program

In addition, the CCAP also resulted in the following:

- Conversion of vested rights for processing plants and facilities to conditional use permits with expiration dates coincident with the end of the approved mining period for each operation.
- Creation of a per-ton fee to fund the program.
- Voluntary dedication of specified reclaimed property over time to allow for the creation of the Cache Creek Parkway.
- Additional environmental protections and monitoring requirements.

Separate environmental impact reports (EIRs) were prepared for each plan and all identified mitigation measures were incorporated into the plans and subsequent implementing ordinances. These are described below.

4. Program EIRs and Ordinances

In 1996, the County prepared program-level EIRs in accordance with the requirements of the CEQA for the CCRMP and OCMP. The CCRMP was updated by the County in August 2002 for the purpose of securing new general permits from the U.S. Army Corps of Engineers, the Central Valley Regional Water Quality Control Board, and the California Department of Fish and Game. The CCRMP was amended and a Supplemental EIR was certified at that time.

These EIRs were prepared as informational documents, the purpose of which was to inform public agency decision-makers and the general public of the significant environmental effects that could be associated with implementation of the plans. Additionally, the EIRs identified the means to minimize the significant effects of plan implementation. As "program level" EIRs, they provided a more thorough consideration of regional influences, secondary effects, cumulative impacts, broad alternatives, and other factors that apply to the program as a whole. Program EIRs help avoid duplicative analysis of CEQA issues associated with initial broad policy considerations. They allow the Lead Agency to consider broad policy alternatives and program-wide mitigation measures early in the decision-making process at a time when the agency has greater flexibility to deal with basic problems or cumulative impacts.

The discussion below briefly summarizes the findings of the 1996 CCRMP and OCMP EIRs.

CCRMP EIR

The CCRMP EIR (SCH #96013004) was certified by the Yolo County Board of Supervisors on August 20, 1996. The CCRMP EIR evaluated potential environmental impacts, at a programmatic level, associated with the implementation of the CCRMP and four alternatives in an equal level of detail (two other alternatives were also considered; one was rejected as infeasible and another analyzed qualitatively). The EIR also included a project-level environmental analysis of the CCIP. The 1996 CCRMP EIR was a program-level and comprehensive EIR with detailed technical analysis of potential environmental impacts in areas such as hydraulics, erosion, wildlife habitat, public infrastructure, ground and surface water, flooding, aesthetics, and the loss of agricultural land. The potential environmental effects of the CCIP were analyzed at a "project level" in the EIR as specifically and comprehensively as possible to limit or preclude the need for further CEQA compliance for CCIP implementation.

The EIR identified significant effects on the environment resulting from the implementation of the CCRMP/CCIP and alternatives, and concluded that all identified significant impacts related to the CCRMP/CCIP could be eliminated or reduced to a less-than-significant level through the implementation of recommended mitigation measures, except air quality. The following impact related to air quality remained significant and unavoidable after implementation of all available mitigation measures:

- Impact 4.7-3: Cumulative Effects on Attainment of State and Federal Standards

The CCRMP was found to be the CEQA environmentally superior alternative.

In 2002, the County prepared a Supplemental Program/Project-Level Environmental Impact Report (FSEIR) on the CCRMP program. The County determined that preparation of a SEIR was necessary prior to re-application for agency general permits required for streamlining projects under the CCRMP. Six topical issue areas (biological resources, geology and soils, hydrology, groundwater, water quality, and land use) were evaluated in the SEIR. The CCRMP FSEIR (SCH #9613004) was certified by Yolo County Board of Supervisors on July 23, 2002.

The SEIR "revisited" significant impacts identified in the 1996 CCRMP EIR. The SEIR identified significant effects on the environment in the six issue areas analyzed including: biological resources, geology and soils, groundwater, hydrology, water quality, and land use. The SEIR specified mitigations measures to address the identified issues and determined that implementation of the mitigation measures would reduce the impacts to a less-than-significant level in all issue areas (i.e., no new significinant and unavoidable impacts were identified). The SEIR also analyzed alternatives to the CCRMP, including the No Project alternative and CCRMP and OCMP Implemented as a Single Plan alternative. While the SEIR did not explicity identify an environmentally superior alternative, it did determine that the CCAP Program "is preferred" over the alternative reviewed.

OCMP EIR

The OCMP EIR (SCH #95113034) was certified by the Yolo County Board of Supervisors on July 30, 1996. The OCMP EIR evaluated potential environmental impacts associated with the implementation of the OCMP and eight alternatives in an equal level of detail. The OCMP constitutes a series of actions affecting properties within the OCMP boundary. The OCMP includes maps, goals, objectives, actions, and performance standards that are logical parts in a chain of contemplated action. Each of these components comprises rules, regulations, or general criteria governing the implementation of the OCMP.

The purpose of the OCMP EIR was to: 1) identify the potential significant effects on the environment resulting in the implementation of the OCMP and to indicate the manner in which those significant effects could be mitigated or avoided; and 2) to identify any unavoidable adverse impacts that could not be mitigated. The EIR identified significant effects anticipated as a result plan implementation, in the areas of land use and planning, geology and soils, hydrology and water quality, agriculture, biological resources, air quality, traffic and circulation, noise, aesthetics, cultural resources, public services and utilities, and hazards. The EIR found that all identified significant impacts related to the OCMP could be eliminated or reduced to a less-than-significant level through the implementation of recommended mitigation measures, except agriculture, air quality, traffic and circulation, and aesthetics. The following impacts in these topical areas for the OCMP remained significant and unavoidable after implementation of all available mitigation measures:

- Potential Impact of Permanent Loss of Agricultural Land Caused by Conversion of Agricultural Land to Other Post-Reclamation Uses [Impact 4.5-2]
- Potential Impacts of the Temporary Loss of Agricultural Productivity Due to Disturbance by Mining [Impact 4.5-3]
- Potential Cumulative Loss of Productive Agricultural Land Within Yolo County [Impact 4.5-7]
- Potential Emissions of PM10 [Impact 4.7-1]
- Potential Emissions of Ozone Precursors (ROG and NOx) [Impact 4.7-2]
- Cumulative Effects on Attainment of State and Federal Standards [Impact 4.7-3]
- Potential for Increase in Vehicle Trips [Impact 4.8-2]
- Effects on Existing Views or Vistas During Mining [Impact 4.10-1]

The OCMP EIR found that Alternative 4, Shallow Mining (Alternative Method/Reclamation)[1] was the environmentally superior alternative.

Subsequent projects approved pursuant to a Program EIR (in this case individual mining projects along lower Cache Creek proposed by the aggregate operators) may require additional environmental review (i.e., project-level EIRs). State law requires that subsequent environmental documents focus on issues that are unique to the site and that were not specifically addressed in the Program EIR. This allows decision makers and interested parties to focus an EIR for a subsequent project on new effects that have not previously been considered. Since approval of the OCMP in 1996, the County has approved seven mining operation projects. Project-level EIRs were prepared for each of these individual projects. The names of these projects (at the time the applications were submitted and the project-level EIRs were prepared) are listed Table 3-3.

Implementing Ordinances

Adopted mitigation measures included in the earlier CCRMP and OCMP EIRs were substantively incorporated into the plans and subsequent implementing ordinances. These ordinances are:

- Title 10, Chapter 3, Cache Creek In-Channel Maintenance Mining Ordinance (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)
- Title 8, Chapter 4, Flood Protection Ordinance (hereafter referred to as the Flood 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.

3.5 REGULATORY FRAMEWORK

Changes in environmental regulations from program adoption in 1996 through 2005 were examined as part of the Mining Permit Review completed in March 2007. This Draft EIR examines regulatory changes that have occurred from 2005 to 2018 to determine whether additional modifications to the program or operator conditions of approval are merited as a result.

For many areas of State and federal regulation, there is separate permitting and/or enforcement authority which allows agencies to apply new regulatory requirements as relevant. Examples

[1] Under this alternative, the OCMP would limit all new mining to depths no greater than 10 feet above the historic average high groundwater elevation.

include, but are not limited to, the U.S. Fish and Wildlife Service for federally-listed special-status species and waters of the U.S., the State Department of Conservation for SMARA, the State Water Quality Control Board for water quality and discharge, the State Department of Fish and Wildlife for state-listed special-status species and essential habitat, and the Yolo-Solano Air Quality Management District for air pollutant emissions.

The following new regulations, promulgated since 2005, have been identified as potentially relevant to the CCAP program and were considered by the County in developing the proposed CCAP Update. Other regulations have also been identified as a part of the environmental impact analysis and are included in the appropriate sections of this Draft EIR. More detailed descriptions of each item is provided in the applicable Chapter 4.0 subsections.

- Climate Change and Greenhouse Gas Emissions (2006)
- State Flood Legislation (2007)
- 2010 Countywide General Plan (2009 Update)
- Williamson Act (2009 Changes)
- County Zoning Ordinance (2013 Changes)
- Tribal Cultural Resources (2014)
- County Agricultural Conservation and Mitigation Program (2015 Update)
- Groundwater Legislation (2015)
- State Surface Mining and Reclamation Act (SMARA) (2016 Changes)
- State Mineral Land Classification (2018)
- Yolo Habitat Conservation Plan (HCP)/ Natural Community Conservation Plan (NCCP) (2018)

3.6 CCAP 10-YEAR REVIEW AND UPDATE - PROJECT DESCRIPTION

1. Project Objectives

The CCAP Program requires regularly conducted modeling, monitoring, surveying, and reporting. The resulting information is to be analyzed for patterns and fed back into the program for the purpose of program update/modification if appropriate, when the County conducts regularly required program reviews. The County is required to review and update, as necessary, the plan documents and implementing ordinances, the fee program, and the mining permits every ten years. The proposed update of the plan documents and implementing ordinances are the primary subject of this environmental review. Similar to the mining permit review process that was undertaken in 2007, the County will review the individual mining permits concurrent with, or subsequent to, adoption of these changes, to determine if modifications are necessary to ensure consistency and compliance with the changes. The fees were last adjusted by the County in 2014 and are set through 2026. An overview of the prior mining permit review and fee ordinance updates are provided below.

These updates allow the plan to be amended on a regular basis so that the results of monitoring programs and reclamation efforts can be taken into account. The objectives for the CCAP Update are to:

- Conduct a ten-year review and update required by the adopted program, and necessary to satisfy the adaptive management requirements.

- Document and evaluate the changes in creek conditions that have occurred over the prior ten years.

- Conduct an analysis of collected data from monitoring programs, habitat restoration, channel stabilization, and reclamation efforts over the prior ten years and use the data analysis as a basis to improve the program.

- Acknowledge and accommodate new regulatory requirements that have been developed over the prior ten years and account for these changes in the CCAP.

2. Prior Mining Permit Review and Fee Ordinance Updates

Prior Mining Permit Review

Section 10-4.605 of the Mining Ordinance and the conditions of approval for each mining operation require specified interim reviews of the permits at ten years (due January 1, 2007), twenty years (due January 1, 2017), and thirty years (due January 1, 2027). A discretionary review was originally contemplated at 15 years (January 1, 2012) – but never exercised[2].

The first review took place over a period of time commencing in 2005 and extending through March of 2007. Three discussions papers on several components of the ten-year review were presented to the Commission and Board of Supervisors:

Discussion Paper #1 (released April 20, 2005) addressed the "Scope of the Interim Review". This paper identified that the main purpose of the interim review is to provide the County with a limited "window" during which relevant future environmental regulations or statutory changes may be applied to the permits whether or not they would otherwise apply.

An additional purpose is to re-examine the per-ton regulatory fees. The exact language from Section Section 10-4.605, Interim Permit Review, of the Mining Ordinance and Section 10-5.814. Interim Permit Review, of the Reclamation Ordinance as related to the mining fees is as follows:

> … As a part of this review, the Commission shall also consider whether per-ton fees to which the permit is subject, reasonably reflect actual costs. The fees shall be adjusted up or down accordingly…

Discussion Paper #2 (released September 26, 2005) examined changes in environmental regulations and/or statutes that had occurred since November 1996 when the off-channel mining and reclamation permits were originally approved.

Discussion Paper #3 (released March 26, 2006) analyzed two distinct issues: 1) Whether any unanticipated or unmitigated environmental changes had occurred since the 1996 approvals;

[2] As a component of the 2007 amendments to the Gravel Mining Fee Ordinance, the optional 15-year review of the fees was waived.

and 2) Whether CEQA is triggered by the interim permit reviews, and if so, what type of environmental analysis was necessary to provide appropriate CEQA clearance. Because the CCAP permits are in effect "conditional use permits" issued by the County, the discussion paper concluded they are discretionary and subject to CEQA. Modification or amendment of those permits is also a discretionary action. Therefore, any modification to the permits as a result of the interim review is a "project" under CEQA (CEQA Guidelines 15378a3). Based on the results of the first interim review, the action was determined to be exempt from CEQA.

On March 20, 2007, as an outcome of the 2007 interim review, the permits for all operators were amended to align their permit conditions related to payment of per-ton fees with the revised fee schedule. The permits were also amended to add two new conditions: a new general condition requiring all operators to be in full compliance with any other required federal, state, and regional permits; and, a new condition encouraging the use of vehicles and equipment that emit cleaner air and are equipped with diesel particulate filters.

Fee Ordinance Updates

Based on the policy and regulatory guidance in the CCRMP document, the Fee Ordinance establishes the amount of the gravel mining fees and how they are to be spent. A summary is provided below:

CCRMP Implementation (creek stabilization fee) currently .556% of per-ton fee

- Implement CCRMP and CCIP
- Design and construction of channel stabilization projects
- Design and construction of bridge protection projects
- Design and construction channel maintenance projects
- Monitoring, modeling, and flood watch per CCIP
- Compensation for TAC

Maintenance and Remediation (contingency fund fee) currently .044% of per-ton fee

- Starting January 2027 available for:
  - Remediation of mercury bioaccumulation in wildlife
  - Remediation of hazardous materials contamination
  - Environmental monitoring (including data gathering and groundwater modeling)
  - Ongoing maintenance of publicly held lakes

- Starting January 2047 available for:
  - Implementation of CCAP
  - Habitat restoration
  - Creation of open space and passive recreation opportunities
  - Creek restoration/stabilization

OCMP Implementation (administration fee) currently .178% of per-ton fee

- Implement OCMP
- Administer long-term mining permits
- Administer Development Agreements

- Inspect mining and reclamation operations

Cache Creek Conservancy Contribution (habitat restoration fee) currently 0.222% of per-ton fee[3]

- Habitat restoration per CCRMP
- Revegetation consistent with CCRMP creek stabilization

Twenty Percent Production Exception Surcharge (currently fixed at $0.20 per ton)

- Half to CCRMP Implementation fund (creek stabilization -- see above)
- Half to Maintenance and Remediation fund (contingency -- see above)

The mining fees were originally set (in 1996) at $0.20 per ton divided ten cents for the CCRMP Implementation fee, two cents for the Maintenance and Remediation Fee, three cents for the OCMP Implementation fee, and five cents for the Cache Creek Conservancy Contribution. The surcharge was originally fixed at ten cents per ton. In March 2007, a ten-year review of mining fees and the mining permits was undertaken. The Fee Ordinance was amended to:

- Increase the per-ton mining fees from $0.20 per-ton sold to $0.45 per ton sold for the base fee
- Increase the surcharge fee from $0.10 per surcharges ton to $0.20 per surcharge ton
- Adjust the fees annually by four percent
- Waive the optional interim review of the fees in 2012
- Modify the start date for the fee increase and extend the fee schedule through the end of 2016
- Add a requirement for the County to biennially review the revenues and expenditures for the fees

In 2013 and 2014 the Board amended the fee ordinance three more times to:

- Freeze the 2013 fees at 2012 rates for one year
- Roll back the 2013 fees by $0.077 per ton
- Extend the fee schedule through the end of 2026
- Continue the annual four percent annual adjustment

[3] Paid directly to the Cache Creek Conservancy

As a result, the fees through the end of 2026[4] are as follows:

Date	Fee (per ton)
January 1, 1997 thru	
March 31, 2007	$0.200
April 1, 2007	$0.450
January 1, 2008	$0.468
January 1, 2009	$0.487
January 1, 2010	$0.506
January 1, 2011	$0.526
January 1, 2012	$0.526*
January 1, 2013	$0.470**
January 1, 2014	$0.489
January 1, 2015	$0.508
January 1, 2016	$0.529
January 1, 2017	$0.550
January 1, 2018	$0.572
January 1, 2019	$0.595
January 1, 2020	$0.618
January 1, 2021	$0.643
January 1, 2022	$0.669
January 1, 2023	$0.696
January 1, 2024	$0.724
January 1, 2025	$0.752
January 1, 2026	$0.783

* Fees frozen for one year
** Fees rolled back 7.7 cents from scheduled $0.547

3. Basis for 2017 Update

For the CCAP Update, the County oversaw extensive technical analysis of collected data, other available information and analysis, and conditions within the creek. The technical analyses form the basis of the update and this Project, and the technical reports listed below are incorporated by reference into this EIR document.

1995 Technical Studies and 2017 Technical Studies and 20-Year Retrospective for the Cache Creek Area Plan

In October 1995, Yolo County accepted a seminal 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 nearly 60 management and regulatory recommendations and provided specific direction in the following areas:

[4] These fees apply to the tonnage sold that year but under the terms of the program are paid the next year.

- With the exception of initial channel reshaping and periodic "maintenance mining" to be controlled by the County, the report suggested that commercial mining and hauling within the active channel should be discontinued.

- The "Test 3" hydraulic modeling results provide the best feasible guide for the type of channel smoothing and shaping that should occur all along the creek, pursuant to the recommendations of the report.

- On-going in-channel maintenance activities are important to maintain 100-year flood capacity.

- Besides recharge and recreation potential, reclamation of pits should also consider flood control opportunities. Spillways for controlled "pit capture" in the event of a catastrophic flood event are beneficial. These should be limited, however, and pits should generally be located a safe distance from the creek based on engineering analysis.

- Off-channel mining, in particular deep wet-pit mining, can be feasibly regulated to prevent the potential for impacts to groundwater quality.

- Deep wet pits are generally not as beneficial for groundwater recharge purposes as shallower dry basins. However, they can be beneficial for recreation uses.

- The "streamway influence boundary" represents the area outside the present bank line that is influenced by the channel where in-channel characteristics and off-channel characteristics overlap.

- Tamarisk should be selectively controlled, particularly west of the Capay Bridge. Giant reed should be removed in areas of high flow velocity.

- The best area for groundwater recharge are the reaches near Esparto (between County Road 89 and the Capay Bridge), and below the Stevens Bridge, near Woodland.

- The highest priority habitat restoration area lies approximately between the CEMEX facilities and CR 94B because of the availability of water to sustain vegetation. If additional water can be provided to other reaches, the extent of riparian habitat restoration can be expanded.

- The most important item for promoting vegetation along the Creek is to identify a mechanism for maintaining continuous flow in all or portions of the creek.

- A coordinated approach for monitoring and reclamation of off-channel mining will provide important information for updating the program and for implementation of a Cache Creek Parkway over time. The report points out that management of the creek must be flexible to respond to changes that will occur in acknowledgement of the dynamics of the Cache Creek system.

The 1995 Technical Studies significantly influenced the County's subsequent planning and regulatory program for aggregate resources. The analysis, recommendations, direction contained in the report provided the technical and scientific basis for development of the CCAP. The 1995 Technical Studies 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/1995-technical-studies

Three technical reports were prepared that together provided an update to the 1995 Technical Studies. The three reports were 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

2017 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 (which represented the 1995 Technical Studies recommendation for the best feasible approach and template for the type of channel smoothing and shaping that should occur all along the creek), 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. This slightly modified concept for the Cache Creek channel is referred to as the "Channel Form Template" in the CCAP Update.

- 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 cubic feet per second (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.

2017 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. Recently completed monitoring activities indicate that mercury levels in Cache Creek were highest in the fish species that feed at the top of the creek food chain, eating other fish. Monitoring of mercury levels in fish was also conducted in 2015 and 2016 at four off-channel wet pit aggregate mining ponds adjacent to lower Cache Creek between Capay and Woodland. It was determined that mercury was present in fish tissue from some of the ponds at levels of concern, while not present at levels of concern in others.

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.

2017 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.

Summary of Creek Condition

Implementation of the CCAP has resulted in a more natural Cache Creek channel where processes have deposited gravel bars and eroded the channel bed and banks in certain areas as the creek adjusts to a rising bottom elevation.[5] Since 1996, significant sediment deposition has occurred in the CCRMP area and the sinuosity of the active channel has increased in most of the creek reaches. This geomorphic change has been accompanied by a significant increase in riparian vegetation along the creek. Based on the monitoring and observations of the Cache Creek system over the past 20 years under the CCAP, it is apparent that the creek has begun the process of recovery to a more stable natural channel form, but it is an evolutionary process that is not yet complete. However, the CCAP recognizes and acknowledges that it is not possible to return the creek to the conditions of 100 years ago and that the creek must remain a managed system in order to protect agricultural land, off-channel mining operations, and nearby communities from the effects of floods and erosion.

4. 2017 Update Process and Approach

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. 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 proposed 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 following CCAP documents have been updated:

[5] The channel bottom is rising because the 1996 cessation of in-stream aggregate mining has allowed sand and gravel to collect or "aggrade" within the creek channel.

- CCRMP
- CCIP
- OCMP
- In-Channel Ordinance
- Reclamation Ordinance
- Off-Channel Ordinance
- Fee Ordinance
- Flood Ordinance

These changes 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:

https://www.yolocounty.org/general-government/general-government-departments/county-administrator/county-administrator-divisions/natural-resources/cache-creek-area-plan-ccap/2018-ccap-update-revisions

Summary of Changes to CCAP Documents

Most of the proposed changes are to add history and context regarding what has occurred under the program since 1996, including updates related to the regulatory framework and corrections of errata. Changes also include clarifications that better describe the intent of the program relative to the text included in the original documents. Key proposed changes by document are summarized below:

CCRMP

- Extend horizon year to 2068 to allow for a full 50 years and to be consistent with the HCP/NCCP (p. 14)
- Clarify allowable in-channel project categories (p. 17)
- Clarify role related to flood protection (e.g., p. 25-26)
- Summarize 2017 Tech Studies analysis of aggradation (p. 33)
- Identify new channel form template to replace Test 3 (p. 35)
- Increase in-channel material removal limit from 210,000 tons to 690,800 tons (2.4-2, p. 38)
- Simplify description of required hydraulic modeling (2.4-4, p.39)
- Move Performance Standards into CCIP and/or In-Channel Ordinance (e.g. p. 44)
- Modify required water quality testing (3.4-3, p. 51)
- Recognize climate change (4.2-6, p. 64)
- Clarify coordination requirements for restoration (4.4-10, p. 66 and 4.4-11, p. 67)
- Modify in-channel boundary and CCRMP boundary based on channel changes (new figures 1 and 2 in the updated CCRMP)

CCIP

- Clarify work flow for annual monitoring and reporting (p. 18, 19)
- Clarify a significant event threshold of 20,000cfs (e.g., p. 19, 29, 43, etc)

- Eliminate references to “major channel stabilization projects” which were to occur in first 5 years (p. 20)
- Identify new channel form template to replace Test 3 (p. 23-25)
- Eliminate references to specific design templates in favor of references to industry standards and best practices (Chapter 5, e.g., p. 37)
- Increase in-channel material removal limit from 210,000 tons to 690,800 tons (p. 39)
- Integrate program protocols developed since 1996 (e.g.,changes aerial surveying to every 5 years p. 49)
- Clarify role related to flood protection (e.g., p. 52)

OCMP

- Identify 1,188 acres for rezoning for future aggregate mining (p. 14 and new Figure 5 in the OCMP update)
- Extend horizon year to 2068 to allow for a full 50 years and to be consistent with the HCP/NCCP (p. 16)
- Eliminate optional 15-year interim review (p. 31)
- Clarify roadway mitigation and maintenance obligations (2.3-8, p. 32 and 2.4-21, p. 36)
- Expand “net gain” concept to include contributions to the parkway (2.4-7, p. 34)
- Summarize 2017 Tech Studies analysis of aggradation (p. 41)
- Identify new channel form template to replace Test 3 (p. 43)
- Change farmland mitigation requirement (p. 47)
- Recognize climate change (6.2-3, p. 55)
- Clarify coordination requirements for restoration (6.4-1, 6.4-7, p. 56-57)

In-Channel Ordinance (In-Channel Maintenance Mining Ordinance, Yolo County Code, Title 10, Chapter 3)

- Change name and modify text to eliminate references to “mining” or “excavation” (p. 1 and throughout)
- Change term “maintenance mining” to “material removal” (10-3.207, p. 2)
- Modify some of the restrictions to allow site specific technical analysis to determine appropriate thresholds (e.g. 10-3.409, 10-3.407e, p. 5-6)
- Integrate County violation procedures and clarifies that costs incurred are billable to the operator (Article 10, p. 21)

Reclamation Ordinance (Surface Mining Reclamation Ordinance, Yolo County Code Title 10, Chapter 5)

- Integrate mercury protocol clarifications (10-5.517, p. 11)
- Clarify that consistency with the Parkway Plan will be required (10-5.520.1, p. 13)
- Integrate requirements for permanent easement to preserve reclamation end uses (10-5.520.2, p. 14)
- Change to farmland mitigation requirement (10-5.525, p. 14)

- Clarify requirement for base level of soil on reclaimed land (10-5.532, p. 16)
- Clarify that inspection fees are to be based on costs for each operation and the responsibility of each operation (10-5.1002, p. 32)
- Integrate County violation procedures and clarify that costs incurred are billable to the operator (Article 12, p. 34)

Mining Ordinance (Off-Channel Surface Mining Ordinance, Yolo County Code Title 10, Chapter 4)

- Clarify roadway mitigation and maintenance obligations (10-4.408 and 10-4.409, p. 8)
- Codify policy related to mining depth (10-4.411.1, p. 9)
- Add requirement for 50 feet setback around a pit for access (10-4.429, p. 17)
- Clarify the link between allowed reductions in the 700-foot setback from the creek and implementation of the channel form template (10-4.429e7, p. 18)
- Clarify that slope requirement does not apply to active mining slopes (10-4.431, p. 19)
- Integrate County violation procedures and clarify that costs incurred are billable to the operator (Article 11, e.g.,p. 34)

Fee Ordinance (Gravel Mining Fee Ordinance, Yolo County Code, Title 10, Chapter 11)

- Clarify that the OCMP fee applies to inspection fees required equally of all mines, but where an individual mine incurs greater cost that a base minimum applicable to all, that operator is solely responsible for those costs (10-11.02c4, p. 3)
- Clarify that the minimum $50,000 annual fee payment is per permitted operation (10-11.08, p. 6)

Flood Protection Ordinance

- Clarify circumstances in which issuance of a FHDP would be appropriate (p.1)

3.7 ON-THE-GROUND PROJECTS ANTICIPATED UNDER THE CCAP UPDATE

The CCAP is a program based on the concept of adaptive management. Specific on-the-ground projects that will occur under the program are not defined at this time. However, to facilitate programmatic level CEQA review of the CCAP Update (both in-channel and off-channel) and of in-channel activities at a project level, the following potential Project scenarios, which based on 20 years of program experience encompass likely Project scenarios, are presented for further analysis.

1. In-Channel CCRMP Projects

As clarified in the proposed CCAP Update, in-channel projects are limited to those that: 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/or result in recreation and open space uses consistent with the parkway plan. Landowners are responsible for applying for and financing in-channel projects unless other funding is available.

Based on program experience, a combination of in-channel project types (refer to Table 3-2) could occur in any given year. Under the CCAP Update, such in-channel activities are restricted to no more than the average annual amount of aggregate deposited since the last prior year of removal (not to exceed approximately 690,800 tons on average), including tonnage associated with reshaping of the channel bank to comply with the Channel Form Template. Removal of aggregate from the channel may only occur under the direction of the County, informed by recommendations of the TAC.

In general, the quantity of aggregate material being handled and removed from the channel is directly proportional to potential environmental impacts (particularly impacts related to air quality, greenhouse gas emissions, noise, and traffic [due to heavy equipment use]). Therefore, a reasonable worst-case scenario (from a CEQA impact analysis perspective) for future in-channel projects would be removal and processing of maximum allowable tonnage (690,800 tons) in one year from the Cache Creek channel. Removal of this amount of material would most likely occur as a relatively large bar skimming project to maintain flood flow capacity (though it could be a combination of projects that also include bank stabilization and erosion control). For the purposes of this CEQA analysis, it is assumed that a large bar-skimming project (or a group of smaller projects) that remove up 690,800 tons of material (on average) could occur each year. Due to the occasional year during which well above average deposition occurs in the lower Cache Creek channel, it is possible that an infrequent (estimated to occur approximately once every 20 years) maximum tonnage of 1,381,600 may be removed from the Cache Creek channel in a given year.

Based on interviews with existing aggregate mining operators, a 690,800 ton bar skimming project within the channel represents a reasonable and feasible in-channel project scenario. It is assumed a project like this would be accomplished as follows:

Scrapers would skim the gravel bar being pushed by D9 dozers (see sidebar photo). The scrapers would transport the aggregate material to the processing plant site and unload at a drive-over unloader and the material would be placed in a stockpile by a radial stacker (see sidebar photo). Loaders would be used to load material into the plant. At the plant, material would be processed into individual stockpiles for storage. Customer trucks would be loaded by the facility loader. An in-channel project of this type would take approximately four months and be completed within the dry season.

2. Off-Channel OCMP Projects

Since approval of the OCMP in 1996, the County has approved seven mining permits allowing for removal of a total of 176 million tons of material on 1,900 acres (2,464 total acres for combined mining operations). Approved mining areas are designated Sand and Gravel overlay (SGO) on the County Zoning Map. Future planned but not approved mining is zoned Sand and Gravel Reserve overlay (SGRO). There are currently 1,001 acres designated in this category. Under the CCAP Update some areas of additional likely mining have been identified on another 1,188 acres. Figure 3-4 identifies those areas where mining is approved or reasonably foreseeable over the next 50 years.

The addition of new area (1,188 acres) to the OCMP planning area and rezoning this land to add the SGR overlay would allow future mining that was not evaluated in the original OCMP and OCMP EIR. Establishment of new mining sites (and potentially processing facilities) within this new area could increase the total amount of mining in the region and result in new environmental impacts.

It is possible that under the CCAP Update, applications to establish new mining operations within the expanded area could be received by the County while the existing mining facilities continue to operate. However, it is more likely that new operations would look to move into these new areas as their existing mines approach completion (i.e., they run out of resource at the existing approved facilities). This is a reasonable assumption from a market demand perspective, as most of the current operators are not consistently producing their maximum permitted quantities of material. It also reflects the history of the program in restricting total possible annual mining and reflects limitations of the air quality permits for several of the plants.

However, it is possible that new operations would be established in the expanded area while current operations continue. For the purposes of this EIR analysis, establishment of one new mining/processing facility (that includes a concrete and asphalt batch plant) operating simultaneous to current approved operations is considered a reasonable worst-case scenario, and is summarized in Table 3-4.

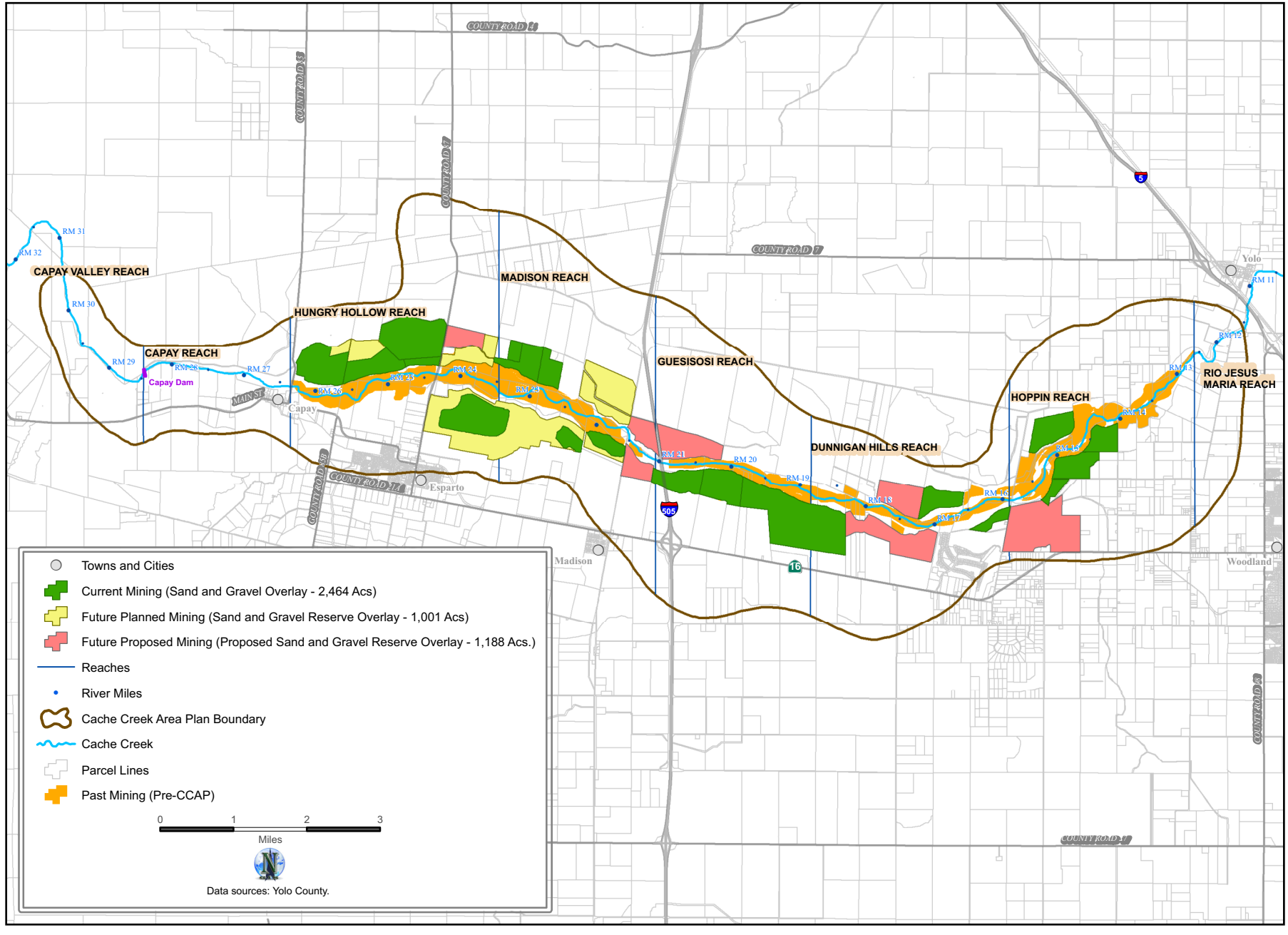
Table 3-4: New Mining Projects that Could Be Implemented within Expanded OCMP Area under CCAP Update

Facility	Annual Sold (tons)	Annual 20% Exceedence (tons)	Maximum Annual Sold (tons)*	Total Sold (tons)*
Site A	1,000,000	200,000	1,200,000	50,000,000

*Based on long-term average of 1,000,000 tons sold annually. Assumes operations of this facility [or similar facility] through the proposed new horizon year of the CCAP (2019 to 2068).

PAST, CURRENT, AND FUTURE MINING

Figure 3-4



3.8 REQUIRED ACTIONS

Approval of the proposed CCAP Update will require the following actions by the County:

- Certification of the EIR including a Resolution adopting findings of fact and taking other related CEQA actions.
- Approval of the CCAP Update
- Approval of a Resolution(s) amending the 2030 Countywide General Plan to recognizing the changes to the CCAP including amendments to the OCMP, CCRMP, and CCIP
- Approval of an Ordinance(s) modifying the In-Channel Ordinance, Mining Ordinance, Reclamation Ordinance, Fee Ordinance, and Flood Ordinance to incorporate the CCAP Update changes
- Approval of an Ordinance amending the zoning for 1,188 acres to add the Sand and Gravel Reserve overlay zone

Ongoing in-channel and off-channel operations and projects may involve approvals from other agencies as well, including, but not limited to: Yolo-Solano Air Quality Management District, California Department of Fish and Wildlife, U.S. Fish and Wildlife, and the U.S. Army Corp of Engineers.