4.2 AGRICULTURE AND FORESTRY RESOURCES

1. INTRODUCTION

This section assesses the effects of the proposed CCAP Update on the agricultural and forestry resources of the County. Government agencies and the public were provided an opportunity to comment on the Project in response to a Notice of Preparation (NOP) of an EIR and an Initial Study that provided a preliminary summary of potential impacts that could result from the Project. No comments related to agriculture and forestry were received.

The following subsections describe the existing agricultural and forestry setting of the County and specifically in the lower Cache Creek area, the regulatory framework applicable to agriculture and forestry in the County, criteria of significance used to determine potential environmental effects that may result from implementation of CCAP Update, identified impacts, and mitigation measures to reduce those impacts to a less-than-significant level, if applicable.

2. SETTING

a. Physical Environment

(1) Agricultural Lands

Over 85 percent of Yolo County's land is used for agriculture. Fruit crops, particularly tomatoes and wine grapes, dominate the County's agricultural economy. The County's most profitable agricultural commodities (in 2017) were almonds, processing tomatoes, grapes, organic crops, walnuts, rice, sunflower seed, hay/alfalfa, nursery, and cattle and calves.[1] The County continues to see growth in higher value crops, organic products, wine grapes and wineries, olives and specialty products such as grass fed beef. Dominant crop types within the CCAP area include wheat, tomatoes, seed crops, and almonds.[2]

Yolo County's agricultural landscape is dominated by irrigated agriculture. Since rainfall in Yolo County is inadequate to sustain most crops, agriculture depends on a reliable irrigation water supply from a combination of both groundwater and surface water. In most years, surface water is the primary source of irrigation water in Yolo County. The main sources of surface water supply in Yolo County are the Sacramento River, Colusa Basin Drain, Putah Creek, Cache Creek (including Clear Lake and Indian Valley Reservoirs), Yolo Bypass, Tule Canal, Willow Slough and the Tehama-Colusa Canal. Farmers rely on groundwater for approximately 40 percent of their supply in a normal year and rely more heavily on groundwater during drought years.[3]

The quality of agricultural soils is categorized and mapped by a number of classification systems. Consistent with the CEQA significance criteria, this analysis focuses on the California Department of Conservation Farmland Mapping and Monitoring Program classification approach. Under this classification system, much of the flatland acreage within CCAP area is comprised of highly-rated soils for agricultural production (Figure 4.2-1), including Prime farmland, Unique farmland, and Farmland of Statewide Importance, defined as follows:

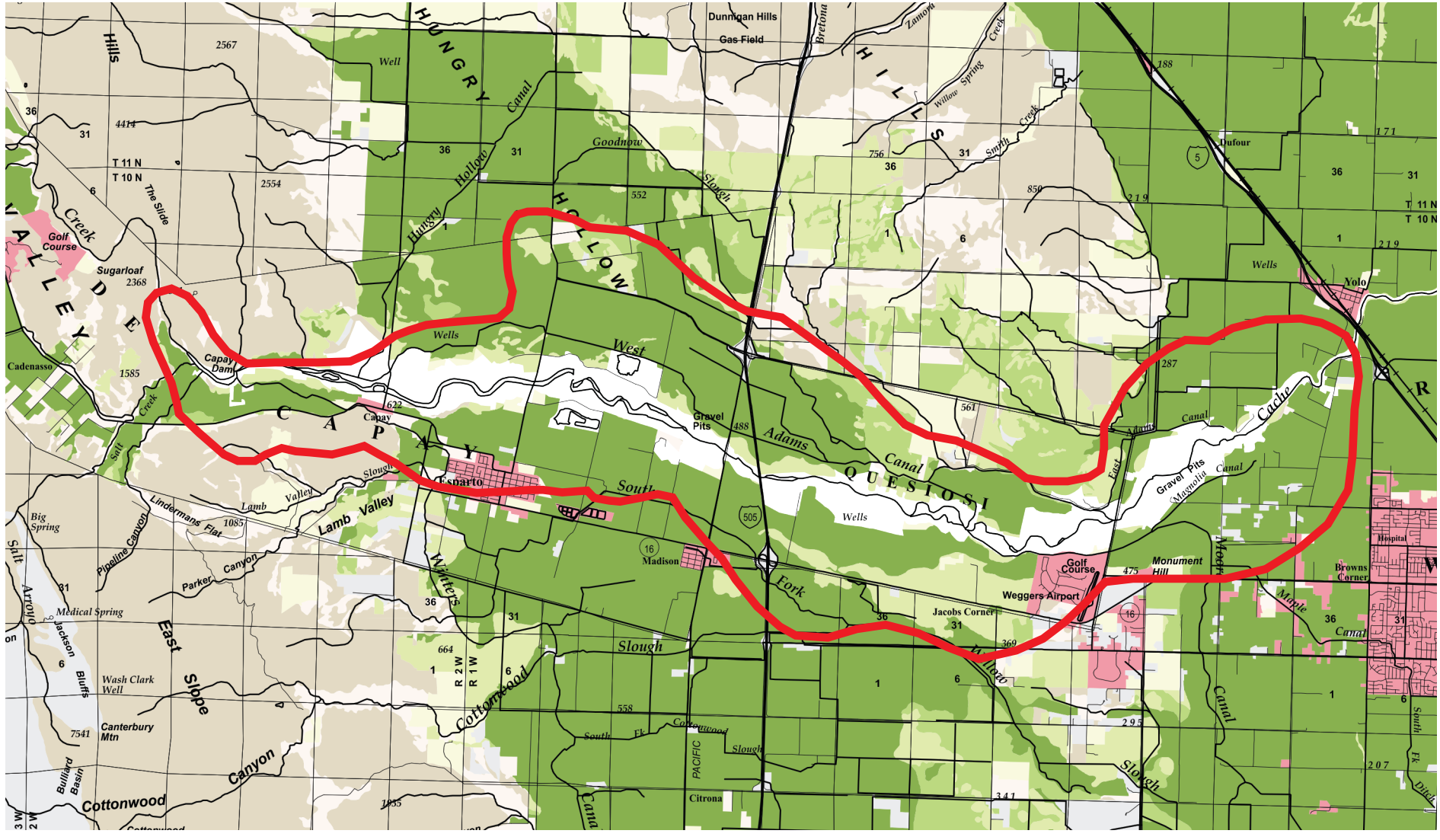
[1] Yolo County Department of Agriculture and Weights & Measures, 2018. Yolo County 2017, Agricultural Crop Report.

[2] Yolo County, 2009, 2030 Countywide General Plan, November 10.

[3] Yolo County, 2009, op.cit..

CCAP UPDATE AREA IMPORTANT FARMLAND

Figure 4.2-1



Legend

- Prime Farmland
- Farmland of Statewide Importance
- Unique Farmland
- Farmland of Local Importance
- Farmland of Local Potential
- Grazing Land
- Urban and Built-Up Land
- Other Land
- Project Area

0 2 Miles

Source: California Department of Conservation, Division of Land Resource Protection, 2017.

BASELINE ENVIRONMENTAL CONSULTING

P:|Base 17218-00 Yolo 10-Yr Review\4-EIR sections\0.5 EIR Figures\Figure 4.2-1 cdr 11/5/18

Prime Farmland. Farmland with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

Farmland of Statewide Importance. Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

Unique Farmland. Farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.

Some agricultural use areas along the channel are susceptible to significant channel bank erosion, particularly during high creek flow events. The lateral erosion of the channel can result in removal of large areas of land, including productive farmlands. An example of loss of agricultural land during a high flow event is the erosion of approximately 60 acres of crop land along the south bank of the creek east of the Capay Bridge (approximately 2,000 feet) during flooding events in 1983 and 1986.[4] Across the creek from this location, approximately 18 acres of grazing land were also lost during migration of a meander during the 1986 flooding event.[5] More recently (in 2017) a property owner on the north bank of the creek at County Road 89 lost approximately 1.2 acres of land to erosion during a high flow event.[6]

(2) Timber Lands

While California Department of Fish and Wildlife mapping indicates there are no private timberlands or public lands with forests in Yolo County,[7] there are scattered wooded areas along the Cache Creek riparian corridor. Recent analysis of 1995 vegetation mapping conducted in 2016, using current GIS-based methods, indicated over 2,000 acres of mixed riparian forest, oak woodland, and willow scrub in the CCAP area.[8] Based on field data collected in 2015-2016, a total of 4,004 acres of vegetation was mapped (including 624 acres of riparian forest and 597 acres of oak woodland (Figure 4.2-2).[9]

[4] Yolo County, 1996. Draft Program EIR for the Cache Creek Resources Management Plan and Project-Level EIR for the Cache Creek Improvement Program for Lower Cached Creek, April 8, page 4.5-13.

[5] Ibid.

[6] Frank, Paul, CCAP TAC member and Civil Engineer, FlowWest, 2018, email communication with Casey Liebler, Natural Resources Program Coordinator, County of Yolo, September 19.

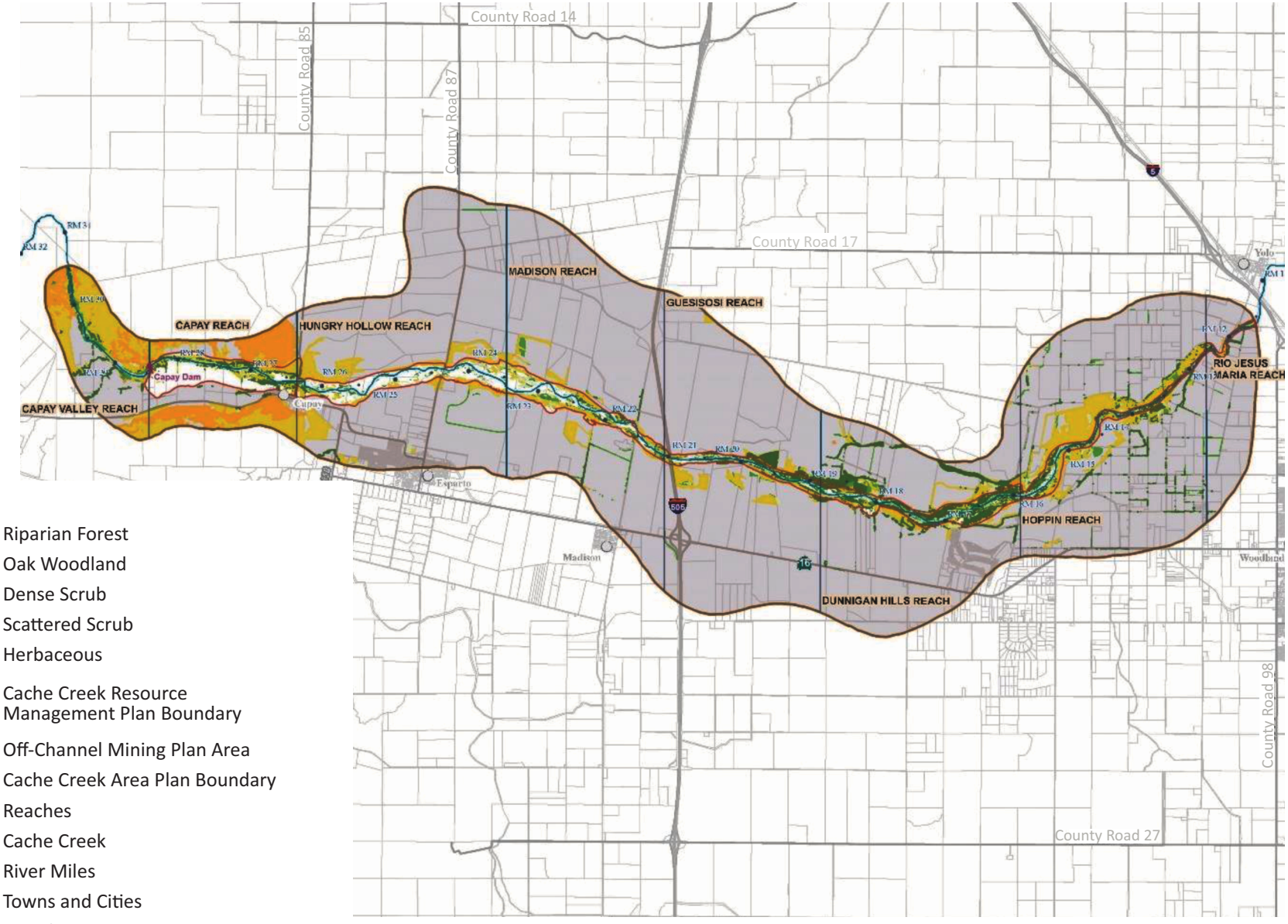
[7] California Department of Fish and Wildlife website Forests and Timberlands, map showing forests and timberlands in Region 2, accessed 9/21/18:
https://www.wildlife.ca.gov/Conservation/Timber/R2

[8] Tompkins, M., Frank, P., and Rayburn, A.P., 2017. 2017 Technical Studies and 20-Year retrospective for Cache Creek Area Plan, March 17, Page 3-3.

[9] Ibid, Page 3-11

2015 CCAP UPDATE AREA VEGETATION

Figure 4.2-2



Source: Tompkins, M., et.al., 2017, Page 3-3.

BASELINE ENVIRONMENTAL CONSULTING

b. Regulatory Environment

(1) Federal and State

California Department of Conservation Farmland Mapping and Monitoring Program (FMMP). Important farmland in California is classified and mapped according to the California Department of Conservation FMMP. Authority for the FMMP comes from Government Code Section 65570(b) and Public Resources Code Section 612. Government Code Section 65570(b) requires the Department of Conservation to collect or acquire information on the amount of land converted to or from agricultural use for every mapped county and to report this information to the Legislature. Public Resources Code Section 612 requires the Department to prepare, update, and maintain Important Farmland Series Maps and other soils and land capability information.

The California Land Conservation Act. The California Land Conservation Act, also known as the Williamson Act, was adopted by the State of California in 1965, and was subsequently amended, to encourage the preservation of the State's agricultural lands. State funding was provided in 1971 by the Open Space Subvention Act, which created a formula for allocating annual payments to local governments based on acreage enrolled in the Williamson Act Program. Subvention[10] payments were made through fiscal year 2009, but have been suspended in more recent years due to revenue shortfalls. The historic average subvention totaled $23.3 million per year between 1972 and 2008. In 2009, the subvention payments were reduced to a total of $1,000 annually. There have been no subvention payments since fiscal year 2010.[11]

The Department of Conservation's Division of Land Resource Protection provides an annual summary of new legislation affecting the Williamson Act which can be found on the Department of Conservation's website.[12] To carry out the Act, a land contract is established, whereby the County Board of Supervisors stabilizes taxes on qualifying lands. In return, the land owner guarantees to provide for the exclusion of uses other than agricultural and those uses determined to be compatible with agricultural uses, for the 10-year duration of the contract. Each year, on its anniversary date, the contract is automatically renewed unless a Notice of Non-Renewal is filed.

Government Code Section 51238.2 (Compatible Uses; mineral extraction) was added to the Williamson Act in 1994 to specifically address the operation of surface mining activities within contracted land. Mineral extraction may be considered a compatible use with Williamson Act contracted lands provided that a reclamation plan is in place that is consistent with the Mining and Geology Board requirements and that there is an underlying contractual commitment to preserve prime agricultural land (i.e., if prime agricultural land is mined, then it must be restored to prime agricultural land).

[10] "Subvention" refers to a grant of money in aid or support, mostly by the government.

[11] California Department of Conservation, 2019, Williamson Act Program - Open Space Subvention Payments, Frequently Asked Questions, website accessed 1/2/2019: https://www.conservation.ca.gov/dlrp/wa/Pages/questions_anwers.aspx

[12] http://www.conservation.ca.gov/dlrp/wa/Pages/lrcc/Legislative%20Amendments.aspx. Accessed November 1, 2018

(2) Local

Yolo County Zoning Ordinance. Title 8 (Land Development) of the Yolo County Code contains the primary land development regulations of the County, including the Zoning Ordinance. In 2013, Yolo County completed a comprehensive update of the County Zoning Code (Chapter 2, Title 8 of the County Code) to modernize the code and ensure consistency with the General Plan which was updated in 2009. Among the many changes, the revised code eliminates two prior agricultural zone districts (Agricultural General, A-1, and Agricultural Preserve, A-P) and creates two new agricultural zoning districts (Agricultural Intensive, A-N, and Agricultural Extensive, A-X) that are not directly tied to the requirements of the Williamson Act. Where relevant, changes have been proposed in the CCAP to ensure consistency with the revised Zoning Code.

The Yolo County Zoning Ordinance includes the following zoning designations in Article 3 for agriculture:

A-N	The Agricultural Intensive (A-N) Zone is applied to preserve lands best suited for intensive agricultural uses typically dependent on higher quality soils, water availability, and relatively flat topography. The purpose of the zone is to promote those uses, while preventing the encroachment of nonagricultural uses. Uses in the A-N Zone are primarily limited to intensive agricultural production and other activities compatible with agricultural uses.
A-X	The Agricultural Extensive (A-X) Zone is applied to protect and preserve lands that are typically less dependent on high soil quality and available water for irrigation. Such lands require considerably larger parcel sizes to allow extensive agricultural activities such as livestock and ranching operations, and dry land farming. These lands may also be used for open space functions that are often connected with foothill and wetlands locations, such as grazing and pasture land, and wildlife habitat and recreational areas.
A-C	The Agricultural Commercial (A-C) Zone is applied to existing and planned commercial uses in the agricultural areas. The Agricultural Commercial Use Types set forth in Section 8-2.303(c) and Table 8-2.304(c) do not require rezoning to the A-C Zone. The Agricultural Commercial Zone is to be applied only when the primary use of the property is for significant commercial agricultural activities.
A-I	The Agricultural Industrial (A-I) Zone is applied to land in the rural areas for more intensive processing and industrial-type uses, which are directly related to the local agricultural industry. The A-I zone also allows mineral extraction uses, wind and solar power, gas and oil wells, electrical utilities and yards, and wireless communication towers.
A-R	The Agricultural Residential (A-R) Zone shall be applied only to those lots created through a subdivision approved under the Clustered Agricultural Housing Ordinance (see Section 8-2.403).

In addition to the five zones identified above, overlay zones including the Sand and Gravel Overlay (SGO) and the Sand and Gravel Reserve Overlay (SGRO), may be combined with the underlying agricultural zoning districts. Section 8-2.906(g) of the Zoning Ordinance states that the SGO and SGRO zones are intended to be combined with the A-N and A-X zones within the

boundaries of the OCMP to indicate land areas in which surface mining operations may be conducted and/or considered. SGO identifies areas where mining is approved. SGRO identifies areas where mining is planned in the future but not yet approved.

2030 Countywide General Plan. The 2030 Countywide General Plan[13] contains the following key policies and actions related to agriculture and forestry resources that are relevant to the proposed Project:

Policy LU-1.1 Assign the following range of land use designations throughout the County, as presented in detail in Table LU-4 (Land Use Designations) *(the following is an excerpt of the relevant portions of the full policy)*:

Open Space (OS) includes public open space lands, major n natural water bodies, agricultural buffer areas, and habitat. The primary land use is characterized by "passive" and/or very low-intensity management, as distinguished from AG or PR land use designations, which involve more intense management of the land. Detention basins are allowed as an ancillary use when designed with naturalized features and native landscaping, compatible with the open space primary use.

Agriculture (AG) includes the full range of cultivated agriculture, such as row crops, orchards, vineyards, dryland farming, livestock grazing, forest products, horticulture, floriculture, apiaries, confined animal facilities and equestrian facilities. It also includes agricultural industrial uses (e.g. agricultural research, processing and storage; supply; service; crop dusting; agricultural chemical and equipment sales; surface mining; etc.) as well as agricultural commercial uses (e.g. roadside stands, "Yolo Stores," wineries, farm-based tourism (e.g. u-pick, dude ranches, lodging), horseshows, rodeos, crop-based seasonal events, ancillary restaurants and/or stores) serving rural areas. Agriculture also includes farmworker housing, surface mining, and incidental habitat.

Mineral Resource Overlay (MRO) applies to State designated mineral resource zones (MRZ-2) containing critical geological deposits needed for economic use, as well as existing mining operations.

Policy AG-1.3 Prohibit the division of agricultural land for non-agricultural uses.

Policy AG-1.4 Prohibit land use activities that are not compatible within agriculturally designated areas.

Policy AG-1.6 Continue to mitigate at a ratio of no less than 1:1 the conversion of farm land and/or the conversion of land designated or zoned for agriculture, to other uses.

Policy AG-1.14 Preserve agricultural lands using a variety of programs, including the Williamson Act, Farmland Preservation Zones (implemented through the Williamson Act), conservation easements, an Agricultural Lands Conversion Ordinance and the Right-to-Farm Ordinance.

[13] Yolo County, 2009, 2030 Countywide General Plan, November 10.

GOAL AG-2 Natural Resources for Agriculture. Protect the natural resources needed to ensure that agriculture remains an essential part of Yolo County's future.

Policy AG-2.1 Protect areas identified as significantly contributing to groundwater recharge from uses that would reduce their ability to recharge or would threaten the quality of the underlying aquifers.

Policy AG-2.8 Facilitate partnerships between agricultural operations and habitat conservation efforts to create mutually beneficial outcomes.

Policy AG-2.9 Support the use of effective mechanisms to protect farmers potentially impacted by adjoining habitat enhancement programs, such as "safe harbor" programs and providing buffers within the habitat area.

Policy AG-2.10 Encourage habitat protection and management that does not preclude or unreasonably restrict on-site agricultural production.

Policy ED-1.2 Support the continued operation of existing aggregate mining activities within the County as well as new aggregate mining in appropriate areas, to meet the long-range construction needs of the region.

Policy ED-1.8 Retain and encourage growth in important economic export sectors, including mining, natural gas, tourism and manufacturing.

GOAL CO-3 Mineral Resources. Protect mineral and natural gas resources to allow for their continued use in the economy.

Policy CO-3.1 Encourage the production and conservation of mineral resources, balanced by the consideration of important social values, including recreation, water, wildlife, agriculture, aesthetics, flood control, and other environmental factors.

Policy CO-3.2 Ensure that mineral extraction and reclamation operations are compatible with land uses both on-site and within the surrounding area, and are performed in a manner that does not adversely affect the environment.

Action CO-A37 Designate and zone lands containing identified mineral deposits to protect them from the encroachment of incompatible land uses so that aggregate resources remain available for the future. (Policy CO-3.1) Responsibility: Planning and Public Works Department Timeframe: 2009/2010

Action CO-A39 Encourage the responsible development of aggregate deposits along Cache Creek as significant both to the economy of Yolo County and the region. (Policy CO-3.1) Responsibility: Parks and Resources Department Timeframe: Ongoing

Action CO-A40 Encourage recycling of aggregate materials and products. (Policy CO-3.1) Responsibility: Parks and Resources Department, Planning and Public Works Department Timeframe: Ongoing

Action CO-A41 Regularly review regulations to ensure that they support an economically viable and competitive local aggregate industry. (Policy CO-3.1)

Responsibility: Parks and Resources Department, County Administrator's Office Timeframe: Ongoing

Action CO-A42 Implement the Cache Creek Area Plan to ensure the carefully managed use and conservation of sand and gravel resources, riparian habitat, ground and surface water, and recreational opportunities. (Policy CO-3.1) Responsibility: Parks and Resources Department Timeframe: Ongoing

Action CO-A43 Monitor updates to the State Mineral Resource classification map and incorporate any needed revisions to the County's zoning and land use map. (Policy CO-3.1) Responsibility: Planning and Public Works Department Timeframe: Ongoing

Action CO-A44 Coordinate individual surface mining reclamation plans so that the development of an expanded riparian corridor along Cache Creek may be achieved. (Policy CO-3.1) Responsibility: Parks and Resources Department Timeframe: Ongoing

Action CO-A46 Maintain standards and procedures for regulating surface mining and reclamation operations so that potential hazards and adverse environmental effects are reduced or eliminated. (Policy CO-3.1, Policy CO-3.2) Responsibility: Parks and Resources Department Timeframe: Ongoing

Action CO-A47 Ensure that mined areas are reclaimed to a usable condition that is readily adaptable for alternative land uses, such as agriculture, wildlife habitat, recreation, and groundwater management facilities. Responsibility: Parks and Resources Department (Policy CO-3.1) Timeframe: Ongoing

Action CO-A48 Regularly update surface mining and reclamation standards to incorporate changes to State requirements, environment conditions, and County priorities. (Policy CO-3.1) Responsibility: Parks and Resources Department Timeframe: Ongoing

Action CO-A54 Implement the Cache Creek Area Plan (Policy CO-3.2). Responsibility: Parks and Resources Department Timeframe: Ongoing.

CCAP Plans and Regulations The existing plan policies and ordinances related to agriculture and forestry are presented below. The CCAP Update proposed minor changes to some of these plans and ordinances (which are not shown here). Refer to Table 4.2-1, located at the end of this section, for the proposed relevant CCAP Update changes to these policies and ordinances.

CCRMP

7.2 Goals

7.2-1 Protect farmland along Cache Creek from land uses that may conflict with agricultural operations.

7.2-2 Develop opportunities where restoration efforts and agriculture can provide mutual benefits.

7.3 Objectives

7.3-1 Ensure the compatibility of planned habitat and the channel floodplain with adjoining agricultural land, so that productivity is not adversely affected.

7.3-2 Coordinate with local farmers to employ existing agricultural practices in improving the quality of riparian habitat.

7.3-3 Manage Cache Creek to reduce the loss of farmland from erosion and increase the recharge potential of the channel.

7.4 Actions

7.4-2 Design and develop habitat restoration projects so that they do not adversely impact the agricultural productivity of nearby farmland.

7.5 Performance Standards

7.5-1 Revegetation projects may be coordinated with agricultural drainage structures that empty into Cache Creek or previously mined areas separated from the creek, so that the sediment deposited can provide additional topsoil and so that riparian species requiring a more steady supply of water can be established.

OCMP 2.2 Goals

2.2-2 Encourage the production and conservation of mineral resources, balanced by the consideration of important social values, including recreation, watershed, wildlife, agriculture, aesthetics, flood control, and other environmental factors.

2.2-5 Ensure that mined areas are reclaimed to a usable condition which are readily adaptable for alternative land uses, such as agriculture, wildlife habitat, recreation, and groundwater management facilities.

5.2-3 Recognize that although multiple uses are encouraged along Cache Creek, agriculture remains the primary economic activity in the region.

5.3 Objectives

5.3-1 Encourage the preservation of prime and important farmland along Cache Creek, while giving consideration to other compatible beneficial uses, such as groundwater storage and recharge facilities, surface mining operations, riparian habitat, and public recreation. Reclamation of agricultural lands to other uses, however, is discouraged wherever agricultural reclamation is feasible.

5.3-2 Ensure the use of appropriate agricultural management practices in reclaiming mined areas to productive farmland.

5.4 Actions

5.4-1 Maintain the existing A-1 (General Agriculture) or A-P (Agricultural Preserve) Zoning within the off-channel planning area, except where it serves as a holding area for growth within the communities spheres of

Capay, Madison, Esparto, and Yolo, so as to preserve the agricultural character of the region.

5.4-2 Revise the A-P (Agricultural Preserve) Zone to allow for the operation of surface mining on contracted land, in accordance with the provisions of the California Land Conservation (Williamson) Act. The primary purpose of the Williamson Act is to preserve open space, including agriculture, scenic areas, wildlife habitat, and recreational uses.

5.4-3 Provide for the protection of farmland within the planning area, including mined and reclaimed farmland, through the use of agricultural preserves and/or conservation easements.

5.4-4 Ensure that all proposed surface mining operations that include reclamation .to agricultural uses comply with the requirements of the Land Conservation (Williamson) Act and the State Mining and Geology Board Reclamation Regulations.

Yolo County Code. Potential activities that could affect agricultural lands that occur under the CCAP include CCRMP stabilization and restoration activities that could convert near channel flat terrace agricultural lands to more stable banks of Cache Creek and establishment of new off-channel mining areas.

The existing ordinances related to in-channel aggregate removal and off-channel mining activity and agricultural land are presented below. The CCAP Update proposes changes to some of these ordinances (which are not shown here). Refer to Table 4.2-1, located at the end of this section, for the proposed CCAP Update changes.

In-Channel Ordinance

Section 10-3.408. Hazards and Hazardous Materials [excerpt] (10-3.408 is changed to 10-3.407 under the CCAP Update)

(d) Wastewater from in-channel projects shall not be directly discharged to Cache Creek. Measures such as berms, silt fences, sediment ponds, hay bales, and/or revegetation shall be used to control erosion. Agricultural tailwater shall be diverted to catchment basins prior to release to the creek. ·

(e) Sediment fines generated by aggregate processing of in-channel sand and gravel shall be used for agricultural soil enhancement or -stream revegetation projects. In-channel sediment fines shall not be used as backfill material in off-channel habitat restoration, due to · potential high mercury content.

Mining Ordinance

Section 10-4.220. Prime agricultural land.

"Prime agricultural land" shall mean all land zoned Agricultural Preserve (A-P) and all land which meets the definition of prime agricultural land set forth in Section 5120l of the Government Code of the State as administered by the County in the administration of its agricultural preserve program.

Section 10-5.525. Prime 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," which, as a result of reclamation, would be permanently converted to nonagricultural uses. For each acre of "prime farmland" that would be converted to nonagricultural use, the reclamation plan shall present provisions to offset (at a 1:1 ratio) the conversion of these lands. The potential offsets can included, but not be limited to, one or more of the following options:

(a) Identification of improvements by a qualified soil scientist to the agricultural capability of non-prime lands within or outside the project site 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 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 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.

(c) 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.

Reclamation Ordinance

Section 10-5.103. Purposes. [excerpt]

The purposes of this chapter are as follows:

(d) The continued protection of agriculture and open-space uses is essential. As such, all off-channel, prime agricultural land and/or off-channel lands zoned Agricultural Preserve (A-P) and within a Williamson

Act contract at the time that mining commences shall be reclaimed to an agriculturally productive state equal to or greater than that which existed before mining commenced. Prime agricultural land that is within the A-P Zone and is not within a Williamson Act contract shall be reclaimed to those uses which are declared by the County to be compatible with agricultural activities. Such uses include, but are not limited to, the following:

(1) Agriculture and range land;

(2) Groundwater storage and recharge areas;

(3) Fish, wildlife, and plant habitat;

(4) Watercourses and flood control basins; and,

5) Recreational or open space lands;

(e) Non-prime agricultural land shall be similarly reclaimed to one of the alternate uses described above; and

(f) Reclamation plans shall be designed to integrate with the long-term goals of encouraging agriculture, habitat, recreation, and the riparian corridor. Provisions shall be made to continue monitoring and maintenance activities after reclamation is completed, where appropriate, in order to ensure that reclaimed uses remain compatible with and enhance local resource management.

Section 10-5.516. Lowered elevations for reclaimed agricultural fields.

The final distance between lowered surfaces reclaimed to agriculture and the average high groundwater shall not be less than five (5) feet. The average high groundwater level shall be established for each proposed mining area. The degree of groundwater level fluctuation varies with location throughout the basin and within relatively small areas (proposed mining sites). The determination of the average high groundwater level shall be conducted by a Registered Civil Engineer or Certified Hydrogeologist and shall be based on wet season water level elevation data collected at the proposed site or adjacent areas with similar hydrogeological conditions. Water level records prior to 1977 shall not be used since they would reflect conditions prior to the installation of the Indian Valley Dam. The dam caused a significant change in hydrology of the basin and data collected before its installation shall not be used in estimating current average high groundwater levels. The wells shall be adequately distributed throughout the proposed mining site to reflect spatial variation in groundwater levels and fluctuations.

Agricultural Conservation and Mitigation Program (County Code Section 8-2.404)

In 2015, the County prepared an ordinance revising the existing Agricultural Conservation and Mitigation Program. Revisions to the program: (a) allow development projects below 20 acres in size to pay an “in-lieu” fee (the previous threshold was five acres); (b) establish a 3:1

ratio for conversion of prime farmland to non-agricultural uses and 2:1 mitigation ratio for projects that convert other farmland to non-agricultural uses; (c) require all agricultural mitigation to occur within two miles of a city or certain unincorporated towns; (d) allow adjustments to the mitigation ratio based on conservation easement location (potential ratio decrease) and, potentially, project residential density (potential ratio increase); and (e) eliminate the current requirement that conservation easements acquired as mitigation be located within two to four miles of the project site. Mining activities under the CCAP were exempted from these expanded mitigation requirements pending completion of the CCAP Update.

3. IMPACTS AND MITIGATION MEASURES

a. Significance Criteria

The following significance criteria are based on the changes to CEQA, including Appendix G, that were adopted by the California Natural Resources Agency on December 28, 2018.[14] The following criteria are for the topics of agriculture and forestry and have not changed from the previously adopted CEQA criteria that were identified in the NOP/Initial Study released in May 2017.

The proposed Project would result in a significant impact to agricultural or forestry resources if it would:

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?

b. Impacts Found Less than Significant in Initial Study

The Initial Study included a preliminary evaluation of the potential impacts of the proposed Project that could occur during Project implementation based on the significance criteria listed in Subsection 3.a, above. The Project was found to have a potentially significant impact associated with each of the criteria and therefore each is analyzed below.

c. Approach

The proposed CCAP Update is comprised of a series of specific text changes to eight policy and regulatory County plans and ordinances that govern the County's activities along Lower Cache Creek. The proposed text changes that have the potential to result in impacts related to

[14] http://resources.ca.gov/ceqa/ accessed January 9, 2019.

agriculture and forestry resources are identified in Table 4.2-1, located at the end of this section. Each proposed change is discussed in the impact analysis below. As part of the evaluation of potential impacts related to agriculture and forestry, the preparers of this EIR used geographic information systems (GIS) analysis to determine the potential acreage of agriculture and forestry resources that could be affected by proposed the CCPA Update.

d. Impacts Analysis

Impact AG-1: The CCAP Update could have the potential to convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), to non-agricultural use. (S)

Proposed Revisions to In-Channel Plans and Regulations

Most of the area within the CCRMP boundary, which is primarily within the Cache Creek channel and composed of recently deposited alluvial sand and gravel, is mapped as "other land"[15] under the FMMP. The relatively small fraction of land within the CCRMP area that is mapped as agricultural land is located on the flatland terraces above the creek channel banks. These agricultural lands include Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

As described above, some areas along the channel are susceptible to significant channel bank erosion, particularly during high creek flow events. Lateral erosion of the channel bank has resulted in removal of large areas of land, including productive farmlands as recently as 2017.

The vision and purpose of the CCRMP/CCIP (and the CCAP Update) includes increasing the stability of Cache Creek to, among other goals, provide protection to farmland against erosion. The following policies of the CCRMP (which are not proposed to be updated) relate to the protection of agricultural land within the CCRMP planning area:

Goal 7.2-1: Protect farmland along Cache Creek from land uses that may conflict with agricultural operations.

Obj. 7.3-3: Manage Cache Creek to reduce the loss of farmland from erosion and increase the recharge potential of the channel.

Active management and channel stabilization is expected to result in reduced loss of agricultural land to erosion. The oversight and monitoring of channel conditions performed by the Technical Advisory Committee under the CCRMP improves the possibility of controlling adverse responses of the creek to changes caused by modifications to the channel.

The existing CCIP (which was developed by the County to implement the goals, objectives, actions, and performance standards of the CCRMP), presented a conceptual Cache Creek channel model (Test 3), the implementation of which could result in loss of agricultural lands. The Test 3 design identifies a generalized preferred channel form which would require widening of the channel in some areas while narrowing the channel in other areas. Channel widening would require excavation of the channel banks or removal of some existing levees. The position of the Test 3 model boundary indicates that some agricultural land could be removed.

As indicated in Table 4.2-1, located at the end of this section, under the CCAP Update, the preferred channel form (previously called the Test 3 boundary) would be modified (based on

[15] Other Land - Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than 40 acres.

current hydraulic modeling) and renamed the Channel Form Template. Similar to the Test 3 boundary, if the Channel Form Template is implemented, it could result in loss of agricultural lands. However, the amount of farmland that could be affected under the proposed Channel Form Template is much reduced relative to the Test 3 Boundary. Based on GIS analysis, approximately 17 acres (3 acres of Prime and 14 acres of Unique farmland) are within the Channel Form Template boundary that could be affected by channel widening. For comparison purposes, approximately 179 acres of farmland (53 acres of Prime and 126 acres of Unique farmland) are within areas within the Test 3 boundary under current conditions, that could be affected by channel widening. The proposed CCAP Update including the Channel Form Template would result in an approximately 90 percent decrease in the potential farmland acreage that could be affected by channel smoothing and stability projects. In addition, although channel widening could result in a modest loss of agricultural land, areas identified in the Channel Form Template for channel narrowing could provide opportunities for filling and creation of new agricultural land, potentially offsetting the loss due to widening.

The modeling and historic evidence shows that implementation of the CCRMP/CCIP is expected to reduce erosion and catastrophic bank failure which has totaled 80 acres since 1983. Moreover, the agricultural acreage is not being converted to a non-agricultural land use, rather it is the result of continued implementation of the channel stabilization methods identified in the CCRMP/CCIP which will in turn minimize further loss of agricultural land over time. Therefore, the potential loss farmlands as a result of channel stabilization projects under the CCRMP/CCIP is a less than significant impact. (LTS)

Proposed Revisions to Off-Channel Plans and Regulations

As indicated in Table 4.2-1, located at the end of this section, the CCAP Update would result in the rezoning of 1,188 new acres within the OCMP planning area (currently zoned as Agriculture Intensive, AI) to AI/SGRO which would allow future mining consistent with the program but on acreage not previously evaluated in the original OCMP and OCMP EIR. The agricultural lands within the “Future Proposed Mining” areas include approximately 1,060 acres of farmland (a combination of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance).

OCMP Action 5.4-7 identifies “reclamation to viable agricultural uses” as the highest priority land use for reclamation under the CCAP. In some situations, reclaimed agricultural soils can be higher quality than the original soils as a result of mixing and amendments of the final soils layers. However, because the effect of mining is a net loss in soil/minerals as the minable sand and gravel is removed, processed, and sold from a particular site, not all land at any given mining site can be reclaimed to agriculture. Due to lack of suitable material to fill in mined areas and other constraints, some lands will be reclaimed to native habitat (priority #2), and public recreation/and open space uses (priority #3). Therefore, the Project has the potential to convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), to non-agricultural use. The OCMP EIR found that even with implementation of all available mitigation measures, including 1) offsets (i.e., for each acre of "Prime farmland" that would be converted to non-agricultural use, the reclamation Plan include provisions to offset (at a 1:1 ratio) the conversion of these lands); and 2) establishment of agricultural preserve easements, that the impact remained significant and unavoidable.

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. The County has identified 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 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 resource.

- 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 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.

As reflected in Table 4.2-1, located at the end of this section, the CCAP Update expands the obligation to mitigate potential loss of farmland associated with proposed mining operations to reflect more recent County policy. Under existing CCAP regulations (Reclamation Ordinance Section 10-5.525), loss of prime farmland is the only type of farmland for which mitigation is triggered. The CCAP Update expands the program to require mitigation for loss of unique farmlands, and farmlands of statewide significance. This update also generally increases the required mitigation ratio in a manner equivalent to, but not necessarily identical to, the recently 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 easements, dedication of additional net gain lands beyond those already required under the CCAP, and/or other benefits consistent with the Cache Creek Parkway Plan that would not otherwise already be achieved through agreements and obligations of the program.

Implementation of the CCAP Update regulations (i.e., Section 10-5.525 of the Reclamation Ordinance [as modified by the proposed CCAP Update]) would reduce but not eliminate this impact for the OCMP. Because there is still an overall net loss of farmland this impact would remain significant and unavoidable at the programmatic level. (SU)

Impact AG-2: The CCAP Update would not conflict with existing zoning for agricultural use or with a Williamson Act contract. (LTS)

Proposed Revisions to In-Channel Plans and Regulations

As indicated in Table 4.2-1, located at the end of this section, under the CCAP Update, the preferred channel form would be modified (based on current hydraulic modeling) and renamed from the "Test 3 boundary" to the "Channel Form Template". Approximately 428 acres of farmlands currently under Williamson Act contract (Figure 4.2-3) fall within the proposed Channel Form Template. However, since the primary purpose of the channel bank smoothing and stabilization projects would be to protect agricultural lands, these activities would not be considered incompatible with the Williamson Act. Moreover, the agricultural acreage is not being converted to a non-agricultural land use, rather it is the result of continued implementation of the channel stabilization methods identified in the CCRMP/CCIP which will in turn minimize further loss of agricultural land over time. Therefore, the potential for impacts related to conflict with a Williamson Act contract is less than significant (LTS).

Proposed Revisions to Off-Channel Plans and Regulations

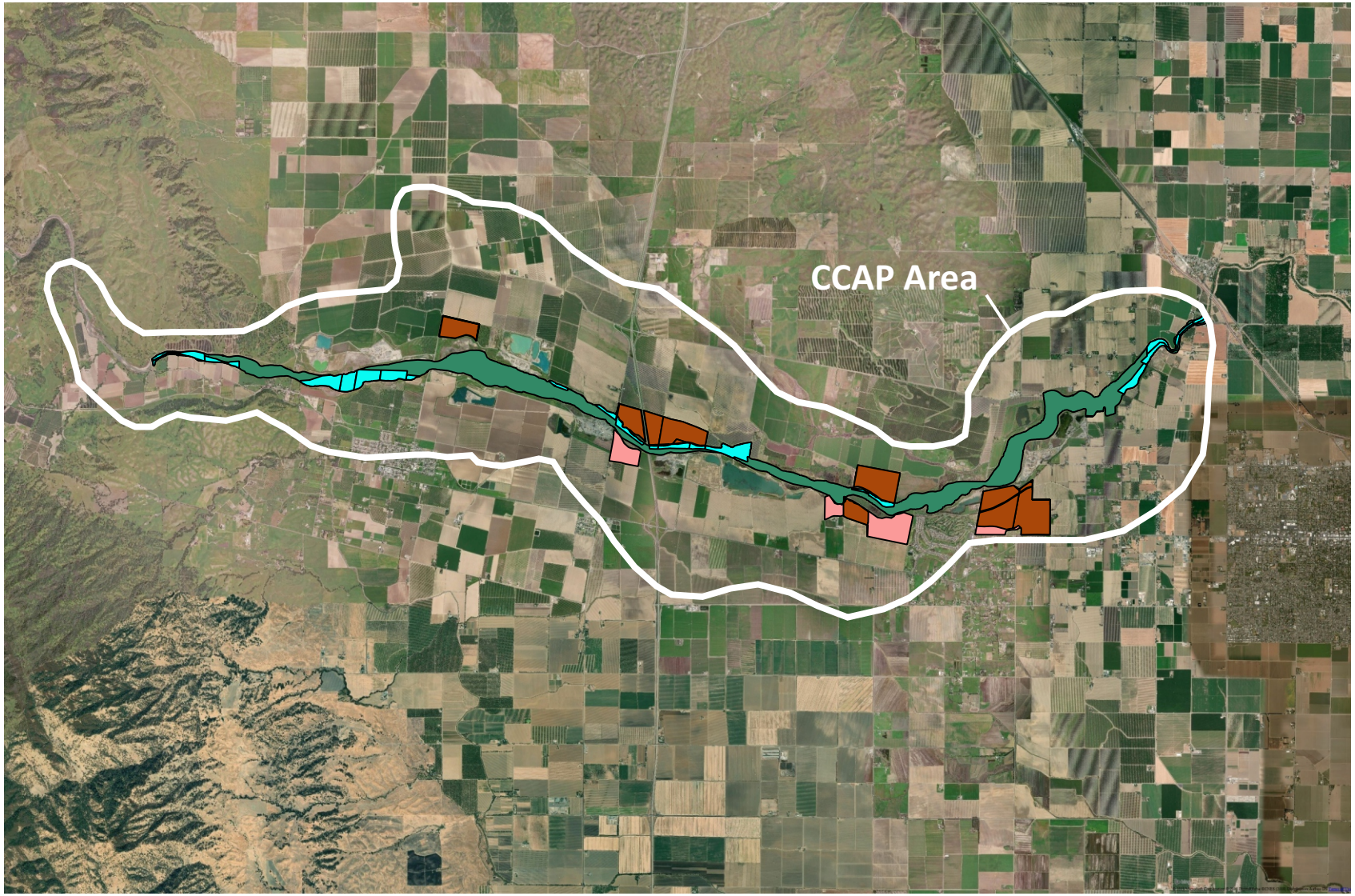
As indicated in Table 4.2-1, located at the end of this section, the CCAP Update would result in the rezoning of 1,188 new acres within the OCMP planning area (currently zoned as Agriculture Intensive, AI) to AI/SGRO which would allow future mining consistent with the program but on acreage not previously evaluated in the original OCMP and OCMP EIR. The potential new mining areas would be located within (and constrained to) the "Future Proposed Mining" areas shown on Figure 3-4. Since the Project includes the addition of the SGR overlay to the underlying zoning, it would not create a conflict with existing zoning.

The Williamson Act enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments which are much lower than normal because they are based upon farming and open space uses as opposed to full market value. The contracts are issued with a duration of nine to ten years. Each year, on its anniversary date, the contract is automatically renewed unless a Notice of Non-Renewal is filed. If a Notice of Non-Renewal is filed, the contractual restrictions would still apply until the remaining term has expired.

There are agricultural lands located within the "Future Proposed Mining" areas that are currently under Williamson Act contract that could be affected by the CCAP Update. Approximately 885 acres of farmland within the "Future Proposed Mining" areas are currently under contract. Based on past experience with the program, it is likely that a mining applicant would either file a Notice of Non-Renewal and not submit an application to the County until the contract had expired, or file an application in conjunction with filing a Notice of Nonrenewal and phasing their proposed mining to avoid contracted lands.

WILLIAMSON ACT MAP AREAS

Figure 4.2-3



Legend

- Channel Form Template (CFT) - non-Willamson Act Map Area
- Channel Form Template (CFT) - Williamson Act Map Area
- Future Proposed Mining Area (as Proposed under CCAP Update) non-Williamson Act Map Area
- Future Proposed Mining Area (as Proposed under CCAP Update) Williamson Act Map Area

0 2.8 Miles

BASELINE ENVIRONMENTAL CONSULTING

Source: Yolo County GIS data.

Mineral extraction may be considered a compatible use with Williamson Act contracted lands (pursuant to Government Code Section 51238.2) provided that the Board is able to document that the underlying contractual commitment to preserve prime agricultural land will not be significantly impaired. Section 51238.2 requires a reclamation plan be in place that is consistent with the Mining and Geology Board reclamation standards, including the applicable performance standards for prime agricultural land and other agricultural land. The Mining and Geology Board standards require that there is an underlying contractual commitment to preserve prime agricultural land (i.e., if prime agricultural land is mined, then it must be restored to prime agricultural land). Further, under Section 51238.2, land that is mined that is not prime agricultural land must be reclaimed for open-space use. The CCAP Update includes additional provisions (Section 10-5.520.2. Permanent Easements, see Table 4.2-1, at the end of this section) that would further protect mined and reclaimed lands. This provision would require that, for land that will not be dedicated or deeded to the County, the operator must enroll each reclaimed parcel in Williamson Act contract, or other long-term easement or deed restriction satisfactory to the County, for the purpose of protecting the open space and/or agricultural use of the reclaimed land in perpetuity. The proposed change to Section 10-5.520.2 simply codifies the County's existing practice for reclaimed lands.

In some cases, it may not be possible to reclaim all mined prime agricultural land to prime agricultural land (i.e., there may be a deficit of material and/or lowered surfaces would have side slopes that could not be restored as prime land). If the affected land were under Williamson Act contract, then mining activities would not be allowed until a Notice of Non-Renewal is filed and the remaining contract term expired. This existing requirement would ensure that the CCAP, including the CCAP Update, would not conflict with existing zoning for agricultural use or with a Williamson Act contract. Therefore, the potential for an impact related to a conflict with existing agricultural zoning or a Williamson Act contract would be less than significant. (LTS)

Impact AG-3: The CCAP Update could not 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)). (LTS)

For the purposes of this CEQA analysis, forest and timberland are defined as follows:

> ***Forest Land.*** Under the Public Resources Code section 12220(g) "Forest land" is land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.
>
> ***Timberland.*** Under the Public Resources Code section 4526 "Timberland" means land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the board on a district basis. In this code section, "Board" means the State Board of Forestry and Fire Protection.
>
> ***Timberland Production Zone.*** Under the Government Code section 51104(g) "Timberland production zone" or "TPZ" means an area which has been zoned pursuant to Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses.

There are no timberland production zones within the CCAP area. Based on review of the County zoning maps, there is no land within the CCAP area that is zoned as forest land or timberland. According to California Department of Fish and Wildlife mapping, there are no private timberlands or public lands with forests in Yolo County.[16] However, there are wooded areas along the Cache Creek riparian corridor that may meet the Public Resources Code section 12220(g) definition of ”forest land” (refer to Impact 4.2-4 for a discussion of potential impacts to riparian wooded “forest land”).

Since there are no zoned forest or timberlands in the CCAP area and no current timber or forest product operations located in the area, potential impacts related to conflicts with existing zoning for forest and timberlands would be less than significant (LTS).

Impact AG-4: The CCAP Update would not have the potential to result in the loss of forest land or conversion of forest land to non-forest use. (LTS)

Proposed Revisions to In-Channel Plans and Regulations

There are lands within the CCRMP area that currently support 10 percent or greater native tree cover. While no commercial timber harvesting occurs within the CCRMP boundary, the wooded areas that comprise the riparian corridor are (mostly passively) managed for non-timber resources, including aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

In-channel work that is conducted under the CCAP is limited to habitat preservation and restoration, aquifer recharge, channel stabilization, channel maintenance (e.g. bar skimming to maintain hydraulic capacity), and management of public open space for recreation. Instream maintenance projects (which can include excavation and material removal) could occur within the lower Cache Creek channel under the CCAP Update and could result in removal of trees. However, in general, removal of trees, which provide habitat value and tend to improve bed and bank stability, is avoided because one of the main goals of the CCRMP is to establish a continuous corridor of vegetation along Cache Creek throughout the plan area.[17] When excavation or grading occurs and it is necessary to remove trees, the In-Channel Ordinance (as modified by the CCAP Update – Section 10-3.414. Regrading and 10-3.415. Revegetation (see Table 4.2-1, at the end of this section) includes regulations that an undulating topography is created that promotes tree regrowth and revegetation occurs and that riparian growth is encouraged.

As outlined above, and CCRMP/CCIP in-channel maintenance projects that result in removal of vegetation, including trees would be accompanied by revegetation. The CCAP Update does not propose new development within the CCRMP boundary that could result in the loss of forest land or wooded areas to other land uses. Therefore, since excavated or graded areas would be revegetated and no conversion of land use would occur, the potential impacts related to loss of forest land or conversion of forest land to non-forest uses in the CCRMP area is less than significant (LTS).

Proposed Revisions to Off-Channel Plans and Regulations

As indicated in Table 4.2-1 located at the end of this section, the CCAP Update would result in the rezoning of 1,188 new acres within the OCMP planning area (currently zoned as Agriculture

[16] California Department of Fish and Wildlife website Forests and Timberlands, map showing forests and timberlands in Region 2, accessed 9/21/18:
https://www.wildlife.ca.gov/Conservation/Timber/R2

[17] Yolo County, 1996. Revised Final Cache Creek Resources Management Plan for Lower Cache Creek, adopted August 20, 1996, revised August 15, 2002, page 48.

Intensive, AI) to add the SGR Overlay to the base zoning. This change would allow future mining consistent with the program on acreage not previously evaluated in the original OCMP and OCMP EIR. The potential new mining areas would be located within (and constrained to) the "Future Proposed Mining" areas shown on Figure 3-4. It is possible that if one or more of the "Future proposed Mining" areas was located in a wooded area that meets the definition of "forest land," an impact to forestry resources could occur.

As required by State law and detailed in the Mining Ordinance (Section10-4.505), new proposed mining operations that could be located in the "Future Proposed Mining" areas shown on Figure 3-4 would be subject to CEQA review, as detailed in the following regulation from the existing Mining Ordinance:

Each proposed new mining application would be required to evaluate the potential loss of forestry resources, and if impacts to forestry resources would occur, require mitigation measures to address the potential impact. Based on the requirements of existing regulations, potential impacts related to loss of forestry resources are less than significant (LTS).

Impact AG-5 The CCAP Update would not 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. (LTS)

Proposed Revisions to In-Channel Plans, Off-Channel Plans, and Regulations

No other activities under the CCAP Update (other than those discussed above) would affect agriculture or forest lands. Therefore, this impact is less than significant (LTS).

Table 4.2-1: Proposed CCAP Updates Related to Agriculture and Forestry

Agriculture	
	CCAP DOCUMENT CHANGE
Channel Form Template	
CCRMP (page 40)	2.4-3 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.
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 referred 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 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 15)	**Planning Area for OCMP and CCRMP**~~**The Cache Creek Resources Management Plan**~~ The planning area for the OCMP is defined as the area contained within the Mineral Resource Zones (28,130 acres), minus the planning~~in-channel~~ area regulated under the CCRMP (2,266 acres), or a total of 25,864 acres (see Figure 4). Within the OCMP planning area, 1,900 acres are currently approved for excavation which is a subset of the 2,464-acre total for all approved mine sites (area zoned Sand and Gravel Overlay or SGO), 1,001 acres are zoned currently to allow for future mining (Sand and Gravel Reserve Overlay or SGRO), and another 1,188 acres are proposed to be rezoned for future mining, as described below. The planning area for the CCRMP is equal to the active in-channel area of the creek system, as defined by the delineated~~present~~ channel bank line or the 100-year flood elevation, ~~described in the Westside Tributaries Study prepared by the U.S. Army Corps of Engineers,~~ whichever is wider ~~(see Figure 3)~~ modified as described in the CCRMP .

	The in-channel area encompasses 5,109~~around 4,956~~ acres, including 2,266~~1,600~~ acres within the CCRMP~~present channel~~ boundary, plus several thousand acres located in the floodplain north of the City of Woodland (see Figure 3). ~~Subtracting this acreage from the 28,130 acres included in the State MRZs, leaves a total of approximately 23,174 acres within the planning area of the Off-Channel Mining Plan. As described in the following section, however, only 2,887 acres of the plan area are proposed to be rezoned to allow for off-channel mining over the next fifty years, or about 12 percent of the OCMP planning area.~~
Changes to Farmland	
OCMP (page 50)	**5.1 INTRODUCTION** **Present Conditions** As described in Chapter 2, the planning area largely consists of lands zoned A-~~1~~ N (~~General Agriculture~~Agricultural Intensive) and A-~~P~~ X (Agricultural ~~Preserve~~Extensive) ~~(see Figure 6)~~. Agricultural uses are an allowed use in these zones and are not subject to any discretionary approval by the County~~Community Development Agency~~, except where building permits or property adjustments and divisions are required. ~~The off-channel mining applications being processed under the OCMP contain a total of 2,123 acres, of which some 1,523 acres is currently under a Williamson Act contract. Approximately 988 acres of area mined is expected to be reclaimed to agriculture, the majority of which (542 acres) would be to row crops. Tree crops, such as poplars, which would provide bio-mass fuel, paper pulp, and lumber are proposed on 401 acres, while 45 acres would be reclaimed to pasture. Another 3,427 acres owned or controlled by the aggregate producers would not be disturbed and would remain in farming. The tree crops would also serve as a buffer between the mined and/or agricultural areas, to protect riparian habitat from pesticide spraying, noise, dust, and activity.~~ 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 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 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 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 Plan that would not otherwise already be achieved through agreements and obligations of the program.
Reclamation Ordinance (page 15)	**Section 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. This~~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 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, funding, 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, funding, or equivalent improvements, consistent with the Parkway Plan, above and beyond net gains benefits otherwise required under the CCAP program.
Updates Relevant to Agriculture and Forestry	
Reclamation Ordinance	**Section 10-5.520.2 Permanent Easements** Upon completion of reclamation within each phase of the project, for land that will not be dedicated or deeded to the County, the operator shall enroll each reclaimed parcel in Williamson Act contract, or other long-term easement or deed restriction satisfactory to the County, for the purpose of protecting the open space and/or agricultural use of the reclaimed land in perpetuity. ~~The approved end use for reclaimed land (e.g open space, habitat, agriculture, lake, recreation) shall be permanent protected through dedication to the County or the filing of a conservation or other preservation easement of the property.~~
In-Channel Maintenance Ordinance	**Section 10-3.414. Regrading.** Streambed regrading after material removal,~~excavation,~~ if required, shall leave behind an undulating surface topography outside of the low-flow channel as similar to naturally formed topography in the project area as possible, so that the resulting surface depressions expose the shallow water table and ~~encourage the~~maximize potential for colonization ~~of~~by riparian trees. Features such as channels and pools maximize the diversity of environmental conditions for the establishment of riparian habitat, and are therefore encouraged.
	Section 10-3.415. Revegetation. (A) Approved projects ~~requiring excavation~~that result in the removal of material from ~~of~~ channel banks and/or removal of riparian vegetation shall be required to restore the project area ~~d~~vegetated consistent with the following standards, and the CCIP: ~~Performance Standards 4.5-1 through 4.5-23 of the CCRMP, and with the CCAP, upon the completion of excavation activities.~~ 1) Native oaks, drought-tolerant shrubs, and drought-tolerant understory species shall be planted on upper slopes, terraces, and other areas where groundwater is deep and soil moisture from flows is minimal. 2) Shallow terraces may be created along the banks of the low-flow channel from I-505 to the Capay Bridge, with cottonwood and willow pole cuttings planted on the benches. Optional methods include: a) digging short trenches diagonally to the low-

flow channel (angled downstream), with pre-rooted willow and cottonwood cuttings planted on the upstream edge of the trench; and b) creating in-channel riparian plots along this reach to trap bed materials to aid in creating the shallow terraces. These measures would allow for the development of a ribbon of vegetation to establish along the low-flow channel in this area, thereby helping to connect the riparian corridor.

3) Planting shall be conducted immediately after grading, or other site preparation, before invasive vegetation has become established. If undesirable vegetation does become established, it should be removed by mechanical means and approved herbicides, under the supervision of a licensed applicator.

4) Dense native vegetation shall be emphasized along the streambank to create a distribution of velocities within the channel, with the highest velocities occurring within the low-flow channel. To ensure adequate water supply for new plantings, secure irrigation systems should be installed for revegetation projects within the planning area as needed.

5) Habitat areas located next to grazing lands shall be fenced in order to prevent vegetation disturbance.

6) Fertilizer shall not generally be used because its application favors non-native vegetation. Where appropriate, however, trees and shrubs may be planted with a slow-release fertilizer.

7) ~~All plant~~ Plant materials shall be collected in the vicinity of the project site in order to ~~maintain~~ control the origin of the genetic stock and provide the most site-adapted ecotypes. If seeding of native herbaceous species is proposed, seeds shall be collected, cleaned, tested for viability, and stored appropriately by a qualified native seed supplier. Cottonwood cuttings shall be collected and contract-grown at a nursery with staff experienced in the propagation of native plants. Alternatively, cottonwood cuttings can be collected from vegetation in the project vicinity and stockpiled for planting within twenty-four (24) hours of collection. Willow cuttings can be collected from vegetation in the project vicinity and stockpiled for planting within 24 hours of collection. Other woody riparian species shall be collected and contract-grown from local seed by a qualified native plant nursery.

8) Planting shall be initiated in the fall after the first soaking rains. Container plants shall be planted in holes at least twice as deep and wide as the plant container. The rootball should be thoroughly dampened before planting and the planting holes deeply irrigated prior to planting. After planting, the holes should be backfilled with native substrate material (with no mulch added) and thoroughly tamped to remove air pockets. Willow cuttings may be planted in clusters in planting holes prepared and backfilled in a similar manner. Trees, shrubs, and willow cutting clusters shall be located in randomly spaced, naturally clumped patterns. More regular planting patterns may be considered for larger sites, in order to allow for mechanized equipment used to maintain the site. Herbaceous seed mix (if used) should be planted via broadcast seeding (including raking in), drill seeding (preferred method for flatter areas), or hydroseeded (without hydromulch) over the planting area. If hydroseeding is used, the area shall then be covered with blown rice straw meeting State "weed-free" standards at one ton per acre. Soil stabilizer or tackifier, such as Ecology Controls M-Binder, shall then be included at 150 pounds per acre. Hydromulching is not recommended because of a history of poor results with native seedings. Herbaceous species may also be planted via plugs as appropriate.

9) Existing hydraulic conditions shall be assumed for all proposed biotic

reclamation activities. The County shall work with the the Yolo County Flood Control and Water Conservation District to explore opportunities for increasing surface flows during spring and summer. The TAC would be responsible for identifying and implementing new restoration opportunities resulting from the increased water availability. All plantings should be carefully selected based on the existing hydrology and water availability of the reclamation area.

Irrigation of tree and shrub plantings may be necessary for the first two or three summers in drier sites to allow the roots to develop sufficiently to tap into the summer ground water level. Irrigation may be necessary at least twice per month during dry periods for the first three years. Water requirements of young plantings should be evaluated as part of routine monitoring, with adjustments to the frequency and duration of irrigation made in response to indications of stress.

10) The site shall be closely monitored for competing nonnative and invasive vegetation, especially priority invasive species on the list maintained by the Cache Creek Conservancy. Nonnative species shall be sprayed or removed by hand as necessary to attain the success criteria, as defined in each site specific plan. For sites with substantial presence of nonnative species, an additional year of treatment shall be conducted to deplete the seed bank and prepare the site for planting.

11) All planted sites shall be monitored for native plant establishment and growth for a minimum of three years. If understory species are planted, monitoring shall include standard understory assessments (e.g., percent cover by species at peak standing biomass). Monitoring data shall be made available to the County and the Cache Creek Conservancy, and stored in a centralized database.

12) The following guidelines shall be followed when developing wetland habitat areas:

(a) Limit dense stands of aquatic vegetation in shallow areas to lower mosquito harborage and enhance wave action. This will also serve as substrate for mosquito predators.

(b) The banks of areas that retain water after June 1 (the beginning of the optimal mosquito breeding season) shall be steep enough to prevent isolated pooling as the water level recedes, to allow for wave action and to provide access by mosquito predators. Shorelines shall be configured so as not to isolate small channels or shallow ponding areas from the main body of water, to provide continuous access by predators, especially mosquito fish.

(c) Seasonal marshes shall be designed to have at least four months of soil saturation or shallow inundation. Water depths shall not exceed two (2) feet of water.

(d) Marsh species shall be planted every six (6) feet, using plugs salvaged from marshes in the immediate vicinity or obtained from a nursery. Transplanting shall take place within twelve (12) hours after salvage and the root masses shall be kept continuously inundated from the time of transplanting.

(e) Wetland areas shall cover a minimum of one (1) acre. Side slopes shall be no steeper than 3:1 (horizontal:vertical). Small islands and complex shorelines shall be provided to create a diverse environment. Wetland

designs shall include provisions for the wetlands to be partially drained periodically, in order to allow for the reseeding of aquatic plants and to promote the decay of built up organic debris.

(f) Pit bottoms shall be recontoured to create areas for waterfowl nesting and depressions to provide a more permanent water feature. Islands should generally be located on the upwind side of the water body to minimize exposure to the prevailing winds. Island slopes above the water level should be no steeper than 2:1 (horizontal:vertical). Emergent vegetation shall be placed around the edges of islands to reduce wave-related erosion. Shrubs shall be widely spaced. Trees and tall shrubs shall not be planted on the islands, since predators perch in them to prey on waterfowl.

(g) Appropriate species and densities for marsh restoration may include the following:

Species (common name)	Density (plugs per acre)
Creeping spikerush	200
Baltic rush	100
Tule	100
Bulrush	100
Three-square	10
Beaked sedge	5
Scouring rush	5
Buttonbush	5

13) The following guidelines shall be followed when developing riparian woodland habitat areas:

(a) Riparian woodland shall be established only where there are coarse slopes containing soil types such as cobbly loam, gravelly loam, or other loamy textures. Where slopes contain significant clay layers, open woodlands (e.g., oak savannas) or grasslands shall be restored instead.

(b) Native trees and shrubs shall be planted in clusters to create alternate patterns of open and enclosed spaces. Site-specific characteristics may require alternative planting patterns.

(c) Native understory species should be planted whenever possible to reduce soil erosion, resist nonnative species establishment, and to enhance habitat for wildlife and pollinators.

(d) Appropriate species and densities for riparian woodland restoration may include the following:

Species (common name)	Density (number or pounds/acre)
Wild rose	36
Valley oak	33
Fremont cottonwood	26
Black willow	23
Red willow	23
Arroyo willow	23
Sandbar willow	23

	Goodings willow 23 Native blackberry 19 Box elder 18 Wild grape 16 Dogwood 16 Oregon ash 16 Western sycamore 16 Blue elderberry 12 Buckbrush 12 Mugwort 10 Mule fat 6 Quailbush 6 Blue wildrye 16 lbs. Meadow barley 16 lbs. Creeping wildrye 16 lbs. Additional understory species, especially native forbs that provide pollinator resources (e.g., milkweeds, native clovers, lupines, California poppy) should also be considered. 14) The following guidelines shall be followed when developing oak woodland habitat areas: (a) Oaks shall be widely spaced by at least 50 ft., and shrubs shall be planted in mixed-species clusters at least 25 ft. apart. Native grasses and forbs should be densely planted in-between woody vegetation. (b) Appropriate species and densities for oak woodland/savanna restoration may include the following: Species (common name) Density (number or pounds/acre) Valley oak 20 Wild rose 15 Blue elderberry 10 Coyote bush 10 Toyon 10 Redbud 10 Coffeeberry 10 Native blackberry 8 Interior live oak 6 California buckeye 5 Creeping wildrye 16 lbs. California brome 10 lbs. California barley 5 lbs. Pina bluegrass 5 lbs. Purple needlegrass 5 lbs. Slender wheatgrass 5 lbs. Additional understory species, especially native forbs that provide pollinator resources (e.g., milkweeds, native clovers, lupines, California poppy) should also be considered. 15) The following guidelines shall be followed when creating habitat areas within previously mined areas outside of the active channel:

	(a) Basins that have floors close to the groundwater level should be restored to seasonal marsh and riparian wetlands. Those that are permeable, dominated by sand and gravel, should promote woodland habitat. (b) Pit floors shall have sufficient topsoil and overburden to support the proposed habitat. Overburden and soil may be obtained from the diversion of agricultural tailwater, aggregate processing wash fines, of deposition by the creek. Areas to be planted shall be appropriately prepared prior to planting. If necessary, soils may be tested after preparation has occurred in order to determine the need for soil amendments. (c) Pits should then be planted and irrigated until the plants have established. Agricultural tailwater is encouraged as an irrigation source. It would provide a valuable source of water for revegetation projects, and would also provide bio-filtering for the sediment and residue pesticides contained within the tailwater. (d) Pits should be monitored closely for invasive plants species, and invasive species should be removed if found. (e) Areas that will not be planted may be graded to create steep, barren slopes to provide habitat for the bank swallow. (f) Except in important recharge areas, levees may be removed, breached at the downstream end, or a culvert installed at the downstream end to allow for dynamic interaction with the variable water level in the creek. Natural flooding will provide additional water, increase the diversity of tree species through colonization, and allow for the accumulation of organic nutrients and sediment. (g) Habitat plans shall take into account the range of expected water level fluctuations and shall adjust the siting and design of the pit accordingly. (h) In areas where fluctuating groundwater levels may affect revegetation plots at wet pit sites, consult with the TAC hydrogeologist and biologist to develop a viable, site-specific planting area. 16) Topsoil and vegetation removed from the streambed shall be salvaged for use in restoration planting within the channel. 17) Where the low-flow channel is creating excessive bank erosion problems and its relocation becomes necessary, grading within the low-flow channel shall provide topographic conditions that will ensure the safe passage of fish and prevent them from becoming trapped in isolated pockets of water. 18) Low weirs may be installed, outside of the low-flow channel, to provide shallow pools for encouraging the establishment of riparian vegetation. When establishing shallow pools out of the low-flow channel, but within the floodplain of Cache Creek, the County shall coordinate with the TAC and the California Department of Fish and Wildlife to minimize the potential for native fish species mortality due to potential impediments to fish migrations. 19) Site-scaled treatment of priority species shall begin within the first year after any ground disturbance using best available methods and optimal timing as appropriate for the species present (e.g., herbicide spraying, cut/stump, mechanical removal). All chemical spraying must be done by a certified herbicide applicator. All

	cut plants shall either be disposed of or burned to reduce debris and prevent resprouts. All treatments shall be implemented in accordance with the Migratory Bird Treaty Act, the Yolo HCP/NCCP, as other regulations as appropriate. Monitoring of treated areas shall be implemented in order to determine if or when retreatment is necessary to ensure complete removal of the target species. 20) Where riparian restoration is proposed in streambed areas located outside of the low-flow channel, cottonwood and willow cuttings should be placed within existing swales and other naturally-occurring low-elevation areas in order to provide them with sufficient soil moisture to survive the summer months. 21) The TAC shall evaluate the vegetative cover within the CCRMP on an annual basis. At a minimum of once every five years, the existing hydraulic model of the Cache Creek channel shall be updated based on current conditions, including topography and estimation of channel roughness based on vegetation conditions. Based on these updates, the TAC shall determine whether changes in topography and vegetation are decreasing channel flood capacity and recommend actions for consideration by landowners and agencies that could alleviate such a loss of capacity if deemed appropriate. (B~~b~~) Vegetated buffers comprised of native species should be placed between restored habitat areas and adjoining farmland, in order to minimize the potential for riparian areas to serve as reservoirs for agricultural pests. Said buffers will also reduce the effects of noise, dust, and spraying generated by agricultural operations on wildlife and riparian vegetation. (C~~c~~) Native species and water features included in habitat areas should be designed to discourage the proliferation of agricultural pests and weeds that would impair local crops. (D~~d~~) Native species shall be selected to encourage the biological control of agricultural and native habitat pests and weeds. (E~~e~~) Native trees that are suitable for wildlife perching near agricultural fields dedicated to row crop production should be incorporated into habitat design, in order to provide foraging habitat for Swainson's hawks and other birds of prey. (F~~f~~) As an alternative to on-site revegetation where such cannot be feasibly and successfully implemented, habitat restoration or creation at a suitable off-site location and/or non-native removal and other habitat enhancement at a suitable off-site location will be required.
Mining Ordinance	**Section 10-4.505. Applications: Review.** The Director shall notify the Department in writing of any application for a surface mining permit within thirty (30) days of its being filed. The application shall also be circulated to all other agencies of jurisdiction for their review and comments in accordance with CEQA, or other applicable regulatory requirements. In addition, a notice of the filing of a reclamation plan shall be mailed to any other person with an interest in the application, who has deposited a self-addressed, stamped envelope with the Agency for the purpose of receiving a notice of the filing.