6.0 OTHER CEQA CONSIDERATIONS

As required by CEQA Guidelines Section 15126, this chapter discusses the following types of impacts that could result from implementation of the proposed Project: growth-inducing impacts; significant irreversible changes; unavoidable significant effects, and cumulative impacts. The significant environmental effects of the Project and the mitigation measures proposed to minimize significant effects are discussed in each topical section and summarized in Table 2-1. Alternatives to the proposed Project are discussed in Chapter 5.0 Alternatives.

6.1 GROWTH INDUCEMENT

CEQA Guidelines Section 15126.2(d) requires an EIR to discuss "the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." Growth inducement may be considered detrimental, beneficial, or of insignificant consequence under CEQA. Induced growth is considered a significant impact only if it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth, in some other way, significantly affects the environment.

Impact 6.1-1: Foster Population Growth and Construction of Housing (LTS)

Proposed Revisions to In-Channel Plans and Regulations

The in-channel components of the proposed CCAP Update, which include primarily proposed revisions to the CCRMP, CCIP, In-Channel Ordinance, and Flood Ordinance, focus on habitat preservation and restoration, aquifer recharge and conjunctive water use, channel stabilization and maintenance, and managed public open space and recreation within the creek channel. The proposed changes to the in-channel plans and regulations do not include proposals for new housing, commercial, or industrial facilities and therefore, are expected to have no or less-than-significant impacts on populations growth or the construction of housing. The potential for impact is less than significant (LTS).

Proposed Revisions to Off-Channel Plans and Regulations

The off-channel components of the CCAP Update, which include the OCMP, Mining Ordinance, Reclamation Ordinance, and Fee Ordinance, establishes policies and regulations for off-channel deep-pit sand and gravel mining. The proposed changes to the off-channel plans and regulations do not include proposals that would result in population growth or construction of housing. The off-channel components of the CCAP may result in new or expanded aggregate mining operations including extraction, processing, asphalt, and concrete production capabilities. Implementation of the CCAP Update (and the potential establishment of new or expanded off-channel mining operations) would provide needed building materials to support planned land use within the market area of each mining operation. Off-channel mining under the CCAP Update would provide for the continued availability of locally mined aggregates in the Sacramento-Fairfield region in support of planned urban and rural investment/development. The CCAP, including the proposed Update, does not directly result in employment, housing, or population growth. It accommodates growth already planned and/or approved and already

analyzed for potential environmental impacts resulting from employment, housing, and population growth. The potential for significant adverse impact is less-than-significant (LTS).

Impact 5.2-2: Eliminate Obstacles to Population Growth (LTS)

Proposed Revisions to In-Channel Plans and Regulations

Population growth, to the extent that it is occurring in the vicinity of the CCAP area, is located in the City of Woodland, and to a lesser extent, in the towns of Esparto, Madison and Capay. These population centers are outside the CCRMP area. No activities proposed under the in-channel components of the CCAP Update (which focus on creek restoration and stabilization) would remove obstacles to growth, allow growth within the CCRMP area, or change the current population growth patterns outside the CCRMP area. The potential for significant adverse impact is less than significant (LTS).

Proposed Revisions to Off-Channel Plans and Regulations

Continued implementation of the off-channel components of the CCAP program do not directly affect population growth. As described above, the mining that will potentially occur as a result of the CCAP will accommodate planned urban and rural growth but will not induce it or directly impact it. The potential for significant adverse impact is less than significant (LTS).

Impact 5.2-3: Foster Economic growth (LTS)

Proposed Revisions to In-Channel Plans and Regulations

Management and restoration of Cache Creek would contribute positively to local resource-based economic conditions. This would result in benefits to the region. The potential for significant adverse impact is less than significant (LTS).

Proposed Revisions to Off-Channel Plans and Regulations

Aggregate mining is an important industry in Yolo County that contributes significantly to the local economy. It is anticipated that continued implementation of the CCAP, including the proposed Update, will foster economic growth. However, implementation of the CCAP does not directly induce growth. It accommodates growth resulting from the cumulative land use decisions of area local governments by ensuring a local source of aggregate resources. The potential for significant adverse impacts from these planned land uses is addressed in CEQA analysis undertaken for those actions. The potential for new significant adverse impacts is less than significant (LTS).

Impact 5.2-4: Affect service levels, facility capacity, or infrastructure demand (LTS)

Proposed Revisions to In-Channel Plans and Regulations

As discussed in Section 3.14 of the Initial Study prepared for this CCAP Update (Appendix A), and as described above and herein, the in-channel components of the proposed CCAP Update would not significantly affect existing service levels, facility capacity, or infrastructure demand. There would be no substantive unplanned use of community facilities (LTS).

Proposed Revisions to Off-Channel Plans and Regulations

Implementation of the off-channel components of the proposed CCAP Update would not significantly affect service levels, facility capacity, or infrastructure demand. Access to mining sites and processing plants would occur on existing or proposed private haul roads. After

processing, aggregate materials would be transported to construction sites or other job sites on existing public roads along designated approved haul routes for which the operators must take shared maintenance responsibility. All public service, infrastructure, and utilities impacts are fully mitigated. The program has beneficial impacts in that it allows for local production of sand and gravel needed for construction of planned infrastructure, facilities, and utilities (LTS).

Impact 5.2-5: Encourage or Facilitate other Activities That Could Significantly Affect the Environment (LTS)

For both in-channel and off-channel plans and regulations, this Draft EIR provides a comprehensive assessment of the potential for environmental impact associated with implementation of the proposed CCAP Update. Please refer to Chapter 4 (Setting, Impacts, and Mitigation Measures) which comprehensively addresses the potential for impacts implementation of the proposed CCAP Update.

In summary, the proposed CCAP Update accommodates growth consistent with local general plans, and land use decisions. While growth inducement can be considered an adverse impact under CEQA, the proposed CCAP Update is growth accommodating not inducing. The potential for significant adverse impact is considered less than significant, and additional mitigation measures beyond those identified in Chapter 4 are not necessary (LTS).

6.2 SIGNIFICANT IRREVERSIBLE CHANGES

Section 15126.2(d) of the CEQA Guidelines requires the environmental analysis to identify significant irreversible environmental changes which would result from the proposed action. Pursuant to Section 15126.2(d), impacts associated with a project may be considered to be significant and irreversible if any of the following would occur:

- The project would involve a large commitment of nonrenewable resources during any phase or all of the project.

- The project is such that later removal or non-use would be unlikely and changes in land use associated with the project would generally commit future generations to similar uses.

- The project involves uses that could result in irreversible damage from potential environmental accidents associated with the project.

The following discussions substantiate that potential CCAP Update impacts associated with the consumption of nonrenewable resources, irreversible changes in land use, and changes related to potential accidents would not be considered significant and irreversible.

1. Use of Nonrenewable Resources

Proposed Revisions to In-Channel Plans and Regulations

Implementation of the proposed CCAP Update would require the irreversible commitment of energy resources for planned in-channel activities. This would include the use of fossil fuels including oil and gasoline for automobiles, trucks, and off-road equipment to fuel activities such as material removal, processing, and channel shaping/restoration activities. The use of these resources would be restricted to planned activities consistent with the CCAP, allowing continued implementation of this program which began in 1996. Planned activities include habitat preservation and restoration, aquifer recharge and conjunctive water use, channel stabilization

and maintenance, and managed public open space and recreation within the creek channel each of which contributes beneficially to the region and is consistent with the adopted mission of the CCAP. The use of nonrenewable resources for these purposes is beneficial on balance and prevents larger unplanned use of fossil fuels for remedial purposes if the creek is not effectively managed and property or infrastructure is at risk or lost to flood events. In-channel activities would also involve the occasional removal of aggregate resources from the creekbed, in compliance with the regulations of the program. These activities are limited to projects that are beneficial to the environment overall. Impacts resulting from use of nonrenewable resources to implement the in-channel plans and regulations of the CCAP are considered a less-than-significant impact.

Proposed Revisions to Off-Channel Plans and Regulations

Implementation of the proposed CCAP Update would require the irreversible commitment of natural resources for planned off-channel activities. This would include commercial mining of aggregate resources and the use of fossil fuels for those activities. The CCAP, including the proposed Update, would permit ongoing off-channel mining and processing of mineral resources that would not be replenished within near-term planning horizons. The off-channel mining projects would decrease the availability of aggregate resources in the future. However, the CCAP Update area is located within a geologic setting that is known to contain significant aggregate resources. In particular, the planning area for the OCMP was defined as the area contained within the Mineral Resource Zones (MRZs) delineated by the State Department of Conservation and later by the County as containing significant deposits of high quality sand and gravel resources. One of the primary objectives of the ongoing CCAP program is to allow for the managed extraction of a controlled amount of these sand and gravel resources within designated areas under stringent regulations. The OCMP ensures the preservation and regulation of known mineral resources. Impacts resulting from use of nonrenewable resources to implement the off-channel plans and regulations of the CCAP are considered a less-than-significant impact.

2. Changes in Land Use Which Would Commit Future Generations

Proposed Revisions to In-Channel Plans and Regulations

Implementation of the in-channel components of the CCAP Update allows activities to occur that would assist lower Cache Creek in attaining a more stable condition, including reducing ongoing erosion and loss of adjacent farmland resources related to bank failures. A maximum of 690,800 tons per year could be removed in-channel, with removal of up to 1.38 million tons in certain years, depending on conditions (see Table 3-1). Cache Creek would be maintained to allow other beneficial uses of the channel, including groundwater recharge and riparian vegetation. The needs of various uses dependent upon the creek, such as flood protection, wildlife, structural protection, and drainage, are carefully balanced within the plans and regulations. In addition, regular opportunities are provided to allow the County to review the success and/or failure of past efforts and make program modifications and project decisions to reflect changing environmental conditions and social priorities, if applicable.

Proposed Revisions to Off-Channel Plans and Regulations

Implementation of the off-channel components of the CCAP Update would result in the designation and rezoning of 1,188 new acres within the OCMP planning area (currently zoned as Agriculture Intensive) to add the Sand and Gravel Reserve (SGR) overlay which would allow consideration of future mining consistent with the CCAP. This would be in addition to 1,001 acres currently designated SGRO. Potential new mining of up to 1.32 million tons annually may

result which would be in addition to up to 8.04 million tons annually already approved for extraction (see Table 3-1). Because mining permits are for set time periods, generally 30 years, the total annual amount will ebb and flow over time as new mining sites are established or expanded, and depending on market conditions and the economy.

Combined mining from both in-channel and off channel could be as much as 9.86 million tons although this number has never been reached (see Table 3-1). In 1996, when the OCMP was originally adopted, approximately 918 million tons of high quality aggregate reserves were know estimated to exist in the Cache Creek mineral resource zone. Maximum allowed mining from 1996 through the new 50-year horizon of 2068 would not exceed 367.1 million tons, which equates to about 40 percent of the known reserves over a 72-year period. The actual amount of material removed each year from 1997 to 2017 has averaged 3,696,331 tons per year, for a total of 77,622,946 tons. Moreover, aggregate is a recyclable resource that can be reused. The CCAP contains incentives for recycling and because many jurisdictions mandate recycling, there is a market for recycled asphalt and concrete, primarily as road base in roadways.

This rate of use is consistent with the goals and policies of the CCAP which was adopted by the Board of Supervisors in 1996, and subsequently placed by the Board before the voters on the November 1996 ballot against an opposing citizen's initiative that would have curtailed or completely restricted mining. Over 60 percent of the voters supported the CCAP and that same proportion voted against the citizen's initiative. Moreover, the CCAP carried in every supervisorial district.

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). While it is possible to reclaim mined lands to agricultural use after mining is complete, in some cases of a higher quality that original conditions. However because there is a net loss of native materials with any mining operation, reclamation of all mined lands to agricultural land use is not feasible. Due to lack of suitable material to fill in mined areas and other constraints, some of the lands will be reclaimed to habitat, open space, and wet pit lakes (see subsection 4.2.3 of the Agriculture and Forestry Resources Section for a discussion of potential off-channel mining operation impacts on agricultural uses). To address the potential impact associated with the loss of agricultural land that cannot be reclaimed as a result of the Project, The CCAP Update includes a modification to Section 10-5.525. Farmland Conversion of the Reclamation Ordinance. This revision would serve to broaden the types of agricultural land that would be protected and/or replaced after mining (i.e., offsets and/or establishment of agricultural preserve easements would be required for Unique farmland and Farmland of Statewide Importance, in addition to Prime farmland).

Implementation of the proposed CCAP Update would result in less-than-significant impacts in this category.

3. Irreversible Changes from Environmental Accidents

Proposed Revisions to In-Channel Plans and Regulations

The CCAP Update would allow for the implementation of in-channel projects to protect public infrastructure (such as pipelines, bridges, levees, and dams) from damage related to erosion or flooding along Cache Creek. Land uses, activities, and development along the creek and within the floodplain would be regulated to avoid hazardous conditions and minimize the adverse effects of flooding and erosion on surrounding infrastructure and properties. Also, Article 10 of the In-Channel Ordinance includes provisions for regular inspections to ensure compliance with

applicable requirements. Implementation of the CCAP would be beneficial in this category, not adverse.

Proposed Revisions to Off-Channel Plans and Regulations

The CCAP Update allows for an increase in the areas for future off-channel mining and includes revisions in the OCMP and Mining Ordinance to regulate those activities and operations. Article 11 of the Mining Ordinance) includes provisions for regular inspections to avoid hazardous conditions. For example, the Mining Ordinance Sec. 10-3.4078(b). Hazards and Hazardous Materials, requires that "firms or individuals performing work within the channel shall immediately notify the Director and/or the Yolo County Office of Emergency Services of any events such as fires, explosions, spills, land or slope failures, or other conditions at the site which could pose a risk to property, the environment, or human health and safety outside the permitted area." As a regulated and regularly inspected activity under the CCAP, the potential for irreversible changes related to environmental accidents as a result of off-channel mining would be less-than-significant.

6.3 CUMULATIVE IMPACTS

CEQA defines cumulative impacts as "two or more individual effects which, when considered together, are considerable, or which can compound or increase other environmental impacts." Section 15130 of the CEQA Guidelines requires that an EIR evaluate potential environmental impacts that are individually limited but cumulatively significant. These impacts can result from the proposed project alone, or together with other projects. The CEQA Guidelines state: "The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects." A cumulative impact of concern under CEQA occurs when the net result of combined individual impacts compounds or increases other overall environmental impacts. In other words, cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.[1]

1. Methodology

This EIR examines the potential impacts of an entire program and is therefore cumulative by design. Nevertheless, the following discussion examines impacts associated with implementation of the proposed CCAP Update, plus implementation of planned growth for Yolo County, in order to assess the potential for cumulative impacts from the project plus general plan build-out.

When evaluating cumulative impacts, CEQA allows the use of either a list of past, present, and probable future projects, including projects outside the control of the lead agency, or a summary of projections in an adopted planning document, or a thoughtful combination of the two approaches. This cumulative analysis uses a combination of the two approaches.

Table 3-1 in the Project Description provides a list of all approved and projected future mining project through the 2068 horizon year. Impacts from these projects are analyzed throughout the document. For the cumulative effects analysis the information contained in Table 3-1 is evaluated in light of the growth projections included in the Yolo County 2030 Countywide General Plan, which was completed in 2009, with consideration of relevant subsequent amendments to the General Plan.

[1] *CEQA Guidelines*, 2008. Section 15355.

a. Yolo County 2030 Countywide General Plan

This section provides a summary of the cumulative conditions assumed in the County General Plan and General Plan EIR (SCH # 2008102034).

The Yolo County 2030 General Plan EIR examined the impacts associated with growth from 23,265 people, 7,263 homes, and 20,818 jobs in the unincorporated area in 2008/09 to approximately 64,700 people, 22,061 homes, and 53,154 jobs by 2030. Buildout of a specific plan in the unincorporated town of Dunnigan was assumed to account for the majority of these increases. At build-out, assumed to occur in 2030, the town of Dunnigan would contain about 22,700[2] people, 8,108[3] homes, and 8,371[4] jobs. This would have comprised approximately 55 percent of the net increase in population and housing, and about 26 percent of the net increase in employment.

The General Plan designates the majority of the County, approximately 544,723 acres (87.7 percent of unincorporated lands), for agricultural use. Open space is the second largest designation, with approximately 52,969 acres (8.5 percent of unincorporated lands), followed by 7,001 acres (1.1 percent) of public and quasi-public uses. The remaining 17,531 acres (approximately 2.8 percent) are designated for parks and recreation, residential, commercial, industrial, specific plan, and other uses.

The CCAP is an adopted part of the General Plan. The focus of the CCAP is groundwater protection, agricultural preservation, restoration of Cache Creek, and limitation and regulation of mining. Policies and actions included in the Conservation and Open Space Element of the General Plan support the goal of mineral and natural gas resource protection to allow for their continued use.

> Policy CO-3.1 states:
>
> 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.
>
> Action CO-A42 which implements Policy CO-3.1 states:
>
> 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.

b. Relevant Changes to the 2030 Countywide General Plan

On February 21, 2017, the Yolo County Board of Supervisors voted to amend the General Plan by adopting the 2016 Dunnigan General Plan Amendment (GPA 2017-001), which included amendments to the 2030 Yolo Countywide General Plan and to the Yolo County Zoning Code to remove all references to the Dunnigan Specific Plan. This action removed:

- 2,254 acres previously identified for urban development as part of the Dunnigan Specific plan and re-designated that acreage as Agriculture;

[2] 8,108 dwelling units x 2.8 persons per household; (General Plan EIR, Draft Volume, Table III-5, note a, p. 80, certified November 10, 2009.

[3] General Plan EIR, Draft Volume, Table III-8, p. 84, certified November 10., 2009.

[4] General Plan EIR, Draft Volume, Table III-10, p. 86, certified November 10, 2009.

- 8,108 planned residential units in Dunnigan;
- 450 acres of planned commercial and industrial growth in Dunnigan comprised of 212 acres (4,961 assumed jobs) of general commercial; 30 acres of local commercial (690 assumed jobs), and 208 acres of industrial (2,167 assumed jobs)

Similarly, on July 18, 2017, the Yolo County Board of Supervisors voted to amend the General Plan to remove three Specific Plans (Elkhorn, Knights Landing and Madison) from the Yolo 2030 Countywide General Plan. This action removed the following:

Elkhorn

- 170 acres of Commercial (4,095 new jobs assumed)
- 130 acres of Industrial (1,354 new jobs assumed)
- High Density Residential uses for upper story units (range of units to be determined through the Specific Plan)

Knights Landing

- 38 acres of job producing commercial and industrial land uses (assumes 532 existing jobs, no new jobs)
- 71 acres of residential uses in various densities allowing for 393 to 800 new units

Madison

- 131 acres commercial (assumes 3,065 new jobs)
- 44 acres identified for agricultural industrial land uses (no new jobs assumed)
- 125 acres of residential uses in various densities allowing 630 to 1,335 new units

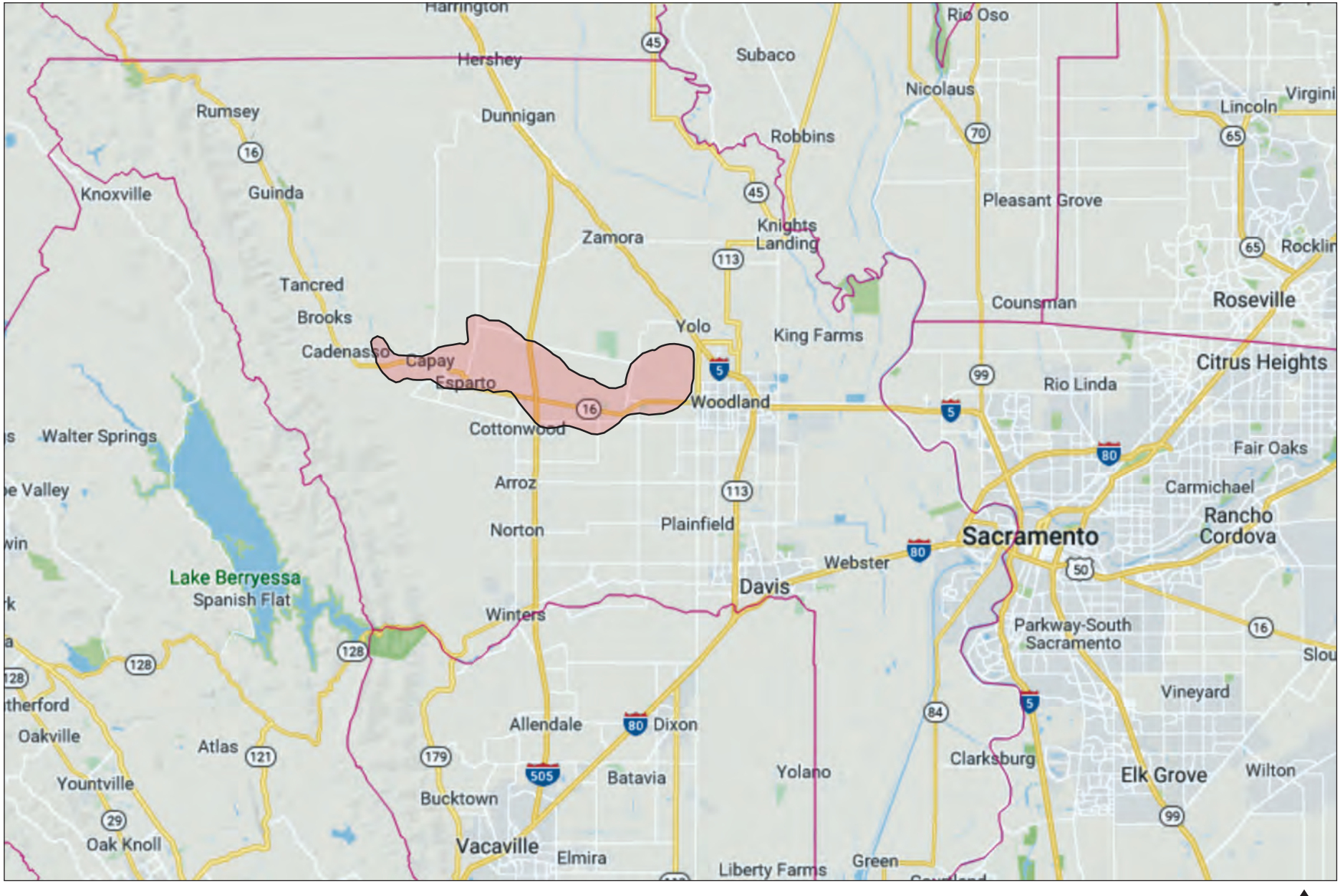
These General Plan amendments result in a significant reduction in the projected amount of future growth in the County. The urban growth associated with the various specific plans, including related impacts in the categories of land use, transportation, agriculture, air quality, climate/change/greenhouse gases, noise, and public services, utilities and energy, cultural resources, biology, hydrology, hazards, and aesthetics will not occur.

2. Cumulative Effects of the Proposed CCAP Update

The following analysis examines the cumulative effects of the CCAP, the proposed CCAP Update, and General Plan build-out taking into account the recent general plan amendments described above. The potential cumulative effects are summarized below for each of the topics analyzed in Chapter 4.0 of this EIR. The CCAP area and surrounding vicinity is shown on Figure 6-1.

CCAP AND SURROUNDING AREAS

Figure 6-1



0 7 Miles

Source: Yolo County GIS, 2009; modified by Baseline, 2019.

BASELINE ENVIRONMENTAL CONSULTING

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a. Aesthetics

Visual and scenic resources are generally localized, and not cumulative in nature. For example, the creation of glare or shadows at one location is not worsened by glare or shadows created at another location. Rather these effects are independent, and the determination as to whether they are adverse is specific to the project and location where they are created. Projects that block a view or affect the visual quality of a site are also localized not cumulative. The impact occurs specific to a site or area and remains independent from another project elsewhere that may block a view or degrade the visual environment of a specific site.

There are two types of aesthetic impact that may be additive in nature and thus cumulative, night sky lighting and overall changes in the visual environment as the result of increasing urbanization of large areas. As substantiated in Section 4.1, Aesthetics, the CCAP Update does not contribute significantly to either of these.

With regard to the visual environment experienced throughout the cumulative impact analysis area, as planned cumulative development occurs over time the overall visual environmental will change. Whether this overall change in land use is experienced as an adverse or beneficial outcome is highly subjective.

Proposed Revisions to In-Channel Plans and Regulations

Proposed in-channel aggregate removal, restoration, and bank stabilization projects that could occur under the CCAP Update would include earthmoving activities and the use of heavy equipment largely within the Cache Creek channel (below the channel banks). These activities would be out of sight to most viewers and therefor would not have a substantial adverse effect on views of the rural landscape, the night sky, or ridgelines and hillsides. In the long-term, these short-time in-channel activities would have a beneficial effect on visual resources by reducing bank failures, erosion, and increasing riparian vegetation. Any small effect that these in-channel activities would have would be localized and short-term, and would not make a cumulatively considerable contribution to regional visual impacts that could occur under General Plan build-out Including the CCAP and CCAP Update.

Proposed Revisions to Off-Channel Plans and Regulations

Mning in the CCAP area is an allowed use and has been ongoing in one form or another for over one hundred years. Mining and reclamation under the CCAP Update (in new areas designated for future mining within the OCMP area) would contribute to cumulative visual changes within the planning area, however these changes are anticipated, consistent with the existing and historic visual environment, and substantively regulated through the CCAP program.

The 2030 Countywide General Plan (approved in 2009) planned for substantial (over 1,350 acres) new residential, commercial, and industrial development in the unincorporated towns of Dunnigan, Knights Landing, Elkhorn, and Madison. However, the General Plan EIR found that this development would not be of a scale or density to affect regional visual and scenic resources. Since adoption, the General Plan has been amended to remove the envisioned development in all four of these towns. As a result cumulatively, significant planned visual change throughout the County, analyzed in the General Plan EIR, will not occur

The OCMP and supporting Mining Ordinance include policies and ordinances intended to minimize potential adverse effects on views and vistas from new off-channel mining projects through the application of setbacks and visual screening based on site-specific and proposed

project conditions. Implementation of Mining Ordinance Secs. 10-4.429, 10-4.430, and 10-4.505 limit visual exposure of mining facilities by requiring setbacks from property lines and visual screening. These Mining Ordinance requirements would ensure that any new mining operations that could occur under the CCAP Update would also include setbacks and visual screening and minimize any contribution from CCAP Update projects to cumulative visual changes.

As required by State law and Mining Ordinance Sec. 10-4.505, 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. In conjunction with the required environmental review of individual projects permitted under the OCMP, the visibility of mining operations, facilities and landform alterations from public viewpoints would be assessed based on site specific visual characteristics and viewing conditions.

In light of the regulations included within the CCAP program to preclude and minimize visual impacts, the requirement for project-specific CEQA analysis, and recent amendments of the general plan to eliminate other planned contributions to cumulative visual change, cumulative impact on visual resources from implementation of off-channel mining pursuant to the CCAP Update is substantively mitigated. However given the subjective nature of visual impacts and the fact that the CCAP Update would result in an overall increase in acreage identified for future off-channel mining, this impact is conservatively considered cumulatively considerable over the entire plan area and plan horizon.

Impact CUMULATIVE AES-1: Implementation of the OCMP in conjunction with other planned development in the region would contribute cumulatively to aesthetic impacts. (S)

Mitigation Measure CUMULATIVE AES-1: None available. (SU)

b. Agriculture and Forestry Resources

Loss of agriculture and forest resources associated with implementation of the CCAP Update are analyzed in Section 4.2, Agricultural and Forestry Resources. As stated in the General Plan EIR, planned development in the unincorporated County will, in some cases, contribute to the loss of protected farmlands. This represents a cumulatively considerable contribution to the regional loss of agricultural land.

As described in Section 4.2 (Impact 4.2-1) the proposed CCAP Update would potentially result in the loss of up to 17 acres of farmland in-channel and up to 1,060 acres of farmland off-channel for a total impact of up to 1,077 acres of protected farmland. While it is not expected that all this farmland would be converted to non-agricultural use, some portion of it could be. Other projects assumed under cumulative conditions would also result in loss of farmland. The loss of farmland associated with the CCAP Update would contribute to this cumulative loss and is therefore cumulatively considerable. Implementation of the CCAP Update regulations (i.e., Sec. 10-5.525 of the Reclamation Ordinance [as modified by the proposed CCAP Update]) would reduce but not eliminate this impact for the OCMP. This cumulative impact would be cumulatively considerable. This is discussed further below.

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" 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. 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 modeling and historic evidence shows that implementation of the CCRMP/CCIP is expected to reduce erosion and catastrophic bank failure. Continued implementation of the channel stabilization methods identified in the CCRMP/CCIP would minimize further loss of agricultural land over time (more than off-setting any small effects on farmland associated with bank protection work). Therefore, implementation of the CCAP Update would have a beneficial effect (i.e., would reduce overall loss of land) on the potential loss of farmlands as a result of channel stabilization projects under the CCRMP/CCIP. No cumulatively considerable impact would result.

Proposed Revisions to Off-Channel Plans and Regulations

The OCMP and the Reclamation Ordinance recognize that off-channel mining can result in the conversion of agricultural land to non-agricultural use. Under the CCAP Update, the Reclamation Ordinance Sec. 10-5.525. Farmland Conversion, would be modified to broaden the types of agricultural land that would be protected and/or replaced after mining (i.e., offsets and/or establishment of agricultural preserve easements would be required for Unique farmland and Farmland of Statewide Importance, in addition to Prime farmland) consistent with State law and more recent County policy. Implementation of the CCAP Update regulations (i.e., Sec. 10-5.525 of the Reclamation Ordinance [as modified by the proposed CCAP Update]) would reduce but not eliminate the loss of agricultural land under the OCMP. A cumulatively considerable contribution to this impact would occur.

Impact CUMULATIVE AG-1: Implementation of the OCMP in conjunction with other planned development in the region would contribute cumulatively to loss of farmland impacts. (S)

Mitigation Measure CUMULATIVE AG-1: None available. (SU)

c. Air Quality

Air quality impacts specific to sensitive receptors or adjoining land uses (e.g. odors) are not cumulative in nature. An impact at one location does not combine in effect with a cumulative impact at another location for these types of effects. However, air emissions of criteria pollutants are cumulative in nature. Ongoing community activity and continued build-out under the General Plan contribute to Yolo County's adverse emissions of criteria pollutants on a cumulative basis. No single project is of sufficient size to individually result in non-attainment of ambient air quality standards. However, each project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. The unincorporated area of Yolo County falls within the boundaries of the Yolo-Solano air basin and is regulated by the Yolo Solano Air Quality Management District (YSAQMD). According to the YSAQMD Handbook, any project that would individually have a significant air quality impact would also be considered to have a cumulatively considerable contribution to regional impacts. As discussed in Section 4.3, Air Quality of this EIR, criteria pollutant emissions that would occur under the CCAP Update would exceed the applicable thresholds established by the YSAQMD.

Impact CUMULATIVE AIR-1: Implementation of the CCAP Update in conjunction with other planned development in the unincorporated county would contribute cumulatively to air quality impacts. (S)

Mitigation Measure CUMULATIVE AIR-1: None available. (SU)

d. Biological Resources

Impacts to Biological Resources are addressed in Section 4.4. The discussion below addresses the project's contribution to cumulative impacts to biological resources within the County.

In-channel projects and activities and off-channel mining and reclamation projects within the CCAP area could result in "take" of special-status species, elimination of essential habitat, and removal of nests, elderberry shrubs, and riparian vegetation. As documented in Section 4.4, these species and habitats have been increasing within the in-channel area as a direct result of implementation of the CCAP including relocation of in-channel commercial mining into less sensitive off-channel locations, and ongoing preservation and restoration of in-channel area. Loss of essential habitat features such as riparian vegetation, nests in active use, colonial breeding locations, and larval host plants could contribute to a cumulative reduction in population levels, and possibly further aggravate the status of a particular species unless appropriate controls and adequate compensatory mitigation is provided. Special-status species of particular concern within the CCAP area include Swainson's hawk, bank swallow, VELB, and tricolored blackbird. However, the overall cumulative effect would depend on the degree to which significant vegetation, sensitive habitats and wildlife resources are protected at each location where development is proposed, the effectiveness of County imposed mitigation for non-covered species, and compliance with the Yolo HCP/NCCP for covered species.

Compliance with the requirements of the CCAP, including the proposed Update, and the requirements of the Yolo HCP/NCCP will mitigate impacts from in-channel and off-channel activities on biological resources to less-than-significant levels. The in-channel components of the CCAP have resulted in net benefits for biological resources. Both in-channel and off-channel projects require reclamation to beneficial habitat and open space uses following completion of the underlying activity.

Therefore, cumulative impacts to biological resources associated with implementation of the CCAP Update would not be cumulatively considerable, and conversely have been documented to be cumulatively beneficial..

e. Cultural and Tribal Cultural Resources

While some cultural resources may have regional significance, the resources themselves are site-specific, and impacts to them are project-specific. For example, impacts to a subsurface archeological find at one project site are generally not made worse by impacts from another project to a cultural resource at another site. Rather the resources and the effects upon them are generally independent.

Implementation of mitigation measures in Section 4.5, Cultural and Tribal Cultural Resources would minimize the contribution of the proposed CCAP Update to cumulative impacts to cultural resources. While specific impacts at project locations within the unincorporated area may be potentially significant, impacts associated with the regional contribution to this impact would be mitigated to acceptable levels.

Therefore, the CCAP's contribution to cumulative impacts associated with cultural resources would not be cumulatively considerable.

f. Geology, Soils, Mineral, and Paleontological Resources

Impacts to these resources are addressed in Section 4.6, Geology, Soils, Mineral, and Paleontological Resources. The discussion below addresses the project's contribution to cumulative impacts in these categories.

The potential cumulative impacts for geology and soils do not extend far beyond a project's boundaries, since geological impacts are confined to discrete spatial locations and do not generally combine to create a cumulative impact condition. For example, impacts resulting from development on expansive soils at one project site are not worsened by impacts from development on expansive soils at another project site. Rather the soil conditions, and the implications of those conditions for each project, are independent. The exception to this would occur where a large geologic feature (e.g., fault zone, massive landslide) might affect an extensive area, or where the development effects from the project could affect the geology of an off-site location. These circumstances are not presented as a result of implementation of the CCAP Update, and so do not apply. Therefore, cumulative geotechnical impacts would not be cumulatively considerable.

Mineral resources are similar in that impacts resulting from development over sub-surface mineral resources at one project site are generally not worsened by impacts from development over mineral resources at another project site. The exception would be where a particular resource deposit is rare and/or unique. The most common mineral resource in the cumulative impact analysis area is construction aggregate (sand and gravel). Construction sand and gravel is a high-volume, low-value commodity. The industry is highly competitive and is characterized by many operations serving local or regional markets. Production costs vary widely depending on geographic location, the nature of the deposit, and other factors. However, in general, transportation is a major factor in the delivered price of construction sand and gravel in the cumulative impact analysis area. The cost of moving construction sand and gravel from the plant to the market often exceeds the sales price of the product at the plant. Because of the high cost of transportation, construction sand and gravel continue to be marketed locally. Economies of scale, which might be realized if fewer, larger operations served larger marketing areas, would be unlikely not offset the increased transportation costs.

The CCAP area is located within a geologic setting that is known to contain important and high-quality aggregate resources. The area is classified as MRZ-2. One of the primary objectives of the OCMP is allow for the extraction of these sand and gravel resources while recognizing that there are other resources that require recognition and protection. The OCMP ensures the preservation and regulation of known mineral resources, and would not cause the loss of the availability of the resource. Therefore, the CCAP Update would not have a cumulatively considerable contribution to regional impacts related to a loss of availability of a known mineral resource.

Similar to other cultural resources, while some paleontological resources may have regional significance, the resources themselves are site-specific, and impacts to them are project-specific. For example, impacts to a subsurface find at one project site are generally not made worse by impacts from another project to a paleo resource at another site. Rather the resources and the effects upon them are generally independent. Many of the sedimentary geologic units within Yolo County (and potentially those within the CCAP Area) are fossil-bearing and could contain paleontological resources. Both in-channel CCRMP/CCIP and off-channel OCMP

excavation activities could encounter and potentially damage or destroy paleontological resources.

The CCAP, including the proposed Update, includes specific requirements for protecting paleontological resources, and Mitigation Measures GEO-3a and GEO-3b provide additional protections by specifying how discovered resources should be handled and preserved. Implementation of the CCAP Update ordinances and mitigation measures would ensure that the CCAP's contribution to impacts on paleontological resources is not cumulatively considerable.

g. Greenhouse Gas Emissions and Energy

Impacts to these resources are addressed in Section 4.7, Greenhouse Gas Emissions and Energy. The discussion below addresses the project's contribution to cumulative impacts tin these categories.

GHG emissions contribute, on a cumulative basis, to global climate change. No single project could generate enough GHG emissions to noticeably change the global average temperature. However, the combination of GHG emissions from past, present and future projects contribute substantially to the phenomenon of global climate change and its associated environmental impacts. Therefore, similar to air quality impacts, any project that would individually have a significant GHG impact would also be considered to have a significant cumulative impact.[5] As in section 4.7, the project's impacts related to GHG emissions is significant and unavoidable. As a result, the proposed CCAP Update would result in a cumulatively considerable contribution to global climate change.

Impact CUMULATIVE GHG-1: Implementation of the OCMP in conjunction with other planned development in the region would contribute cumulatively to GHG emissions impacts. (S)

Mitigation Measure CUMULATIVE GHG-1: None available. (SU)

Demand for energy resources (e.g., electrical power and natural gas) has the potential to affect a large area in a cumulative manner, because energy systems are interconnected over large areas that may crossover into other states and countries. If growth of area-wide supplies does not keep pace with area-wide demand, potential shortages could occur, resulting in a potentially significant cumulative impact. The General Plan includes a framework of policies that seek to ensure the increase in energy consumption would not be substantial by: encouraging higher density infill development; encouraging energy conservation, efficiency, and green design in new construction and existing buildings; reducing the infrastructure energy demands by encouraging alternative transportation such as bicycling, walking, and public transit; promoting alternative energy sources. In addition, the amount of development (that would consume energy) that is planned for in the County has been substantially decreased by the General Plan amendments that eliminate the specific plans for Dunnigan, Knights Landing, Elkhorn, and Madison. This action will reduce future energy demand locally.

Energy would be used in the form of fossil fuels and electricity during the proposed in-channel material removal and off-channel mining operations under the CCAP Update. It is in the mining operators' interests to minimize the costs of operations by conserving fossil fuels and electricity required during the operation. In addition, existing regulations require the proper maintenance and tuning of diesel engine driven equipment (Sec. 10-3.408) and limit on idling time (10-

[5] YSAQMD, 2007. Handbook for Assessing and Mitigating Air Quality Impacts. 11 July.

4.4154) which encourages efficient use of fuel. Therefore, the CCAP Update would not result in cumulatively considerable contributions to wasteful, inefficient, or unnecessary demand for energy resources.

h. Hazards and Hazardous Materials

Impacts to these resources are addressed in Section 4.8, Hazards and Hazardous Materials. The discussion below addresses the project's contribution to cumulative impacts in these categories.

Hazardous materials and other public health and safety issues are generally site-specific and would not be significantly affected by other development in the unincorporated County. For example an underground tank or residual pesticides on a project site at one location is not affected or cumulatively worsened by the same findings at another location. These are distinct, site-specific outcomes. Therefore, the contribution of the CCAP Update to cumulative impacts related to hazards and hazardous materials would not be considerable.

i. Hydrology and Water Quality

Impacts to hydrology and water quality are addressed in Section 4.9, Hydrology and Water Quality. The discussion below addresses the project's contribution to cumulative impacts in these categories. The geographic scope for potential cumulative impacts on hydrology and water quality encompasses the CCAP area, surrounding watershed lands, and lower Cache Creek floodplain.

According to the federal Clean Water Act Section 303(d) list of impaired water for California[6], Cache Creek is impaired for boron, unknown toxicity, and mercury, indicating that these constituents occur in Cache Creek at levels that impact beneficial uses. To the extent that the CCAP Update would exacerbate these conditions, a cumulatively considerable contribution to this existing regional impact would occur.

No identified activities that would occur under the CCAP Update would affect Cache Creek boron concentrations.

With regard to "unknown toxicity" Sec. 10-4.417 of the Mining Ordinance requires operators to perform groundwater testing for a broad spectrum of specified constituents including general minerals, inorganics, nitrates, total petroleum hydrocarbons, and coliform, plus other testing dependent of the active stage of the mining process. Action 3.4-3 of the CCRMP similarly describes County participation in testing of surface water quality in Cache Creek, for which the TAC hydrologist is the lead. The results of this required testing on groundwater associated with the off-channel mining and surface water in Cache Creek were summarized and analyzed in the 2017 Technical Studies which concluded with respect to water quality that "while there are no obvious long term trends, and most constituents 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." While the 2017 Technical Study suggests continued exploration of contributing conditions to the Gordon Slough results, this is an existing condition to which the mining and allowed activities under the CCAP make no contribution. As a result of these conclusions the scope of surface water quality testing is proposed to be streamlined and clarified as part of the proposed CCAP Update with proposed modifications to Action 3.4-3 to

[6] State Water Resources Control Board, 2010, California 303(d) List of Water Quality Limited Segments, website accessed November 6, 2018:
https://www.waterboards.ca.gov/water_issues/programs/tmdl/2010state_ir_reports/category5_report.shtml

eliminate the requirement to continue to test for certain "non-detect" contaminants and to clarify overall requirements.

With regard to mercury, testing and monitoring occurs on a regular basis pursuant to several requirements. Sec. 10-5.517 identifies the requirements for testing of methylmercury. This section is identified for substantial clarification as part of the proposed CCAP Update and Mitigation Measure HYD-1 recommends additional modifications. Total and dissolved mercury loads in surface water within the creek are measured as a part of required in-channel monitoring.

As described in Impact HYD-1, the results of monitoring and testing undertaken to date pursuant to Section 10-5.517 indicate that methylmercury can develop in off-channel wet pit lake water and levels may become elevated in fish in the off-channel wet pit lakes (because the fish bio-magnify the relatively low levels of methylmercury in the water). The CCAP Update would allow additional off-channel wet pit lakes to be created. However, regulations included in the off-channel Mining and Reclamation ordinances include several requirements that are designed to ensure that no discharges from the wet pit lakes to Cache Creek occur and that the mercury conditions in the pit lakes are not allowed to worsen existing conditions. Sec. 10-4.429 (Mining Ordinance) requires setbacks of mining operations from the creek channel to ensure the creek does not flow into the mining areas or wet pits; Sec. 10-5.506 (Reclamation Ordinance) requires bank stabilization features and regular inspections of the levees and separators; Sec. 10-5.507 (Reclamation Ordinance) requires that wet pits not discharge to the creek. These requirements ensure that the wet pit lakes that may contain methylmercury do not discharge to Cache Creek.

Also, pursuant to Mitigation Measure HYD-1, Sec. 10-5.517 would be modified to clarify required monitoring and remediation of conditions by mining phase, should the pits be determined to worsen existing conditions. The revised ordinance identifies the response threshold as any point at which "…the pit lake's average sport fish tissue mercury concentration exceeds the average mercury concentration from a representative sample of similar fish (in terms of species and size) collected in the Cache Creek channel within the CCAP planning area for three consecutive monitoring years…" Remediation actions include continued monitoring and management, fishing restrictions, chemical control, increased oxygenation, fish population control, and other lake management techniques. Modified reclamation to a filled pit condition is also identified. Therefore, the contribution of the CCAP Update to the regional water quality impact is not cumulatively considerable.

Flooding is also a concern in the vicinity of the CCAP area. Damaging flood events occur periodically that affect the vicinity (particularly the eastern portion of the CCAP area and the City of Woodland) demonstrating an existing cumulative impact related to flooding. If implementation of the CCAP Update exacerbated flooding problems, this could represent a cumulatively considerable contribution to this significant cumulative impact. However, as described above under Impact 4.9-3, one of the main goals of the CCAP (specifically the CCRMP/CCIP) is to facilitate a level of flood management required to protect the public health and safety (CCRMP Objective 2.3-1). While the responsibility for flood control does not rest with Yolo County, the CCAP Program facilitates flood management by providing identifying potential locations for bank stabilization and flood flow capacity projects based on regular field monitoring and inspection, and sound science. The CCAP program provides a means to address flooding problems when property owners within the CCAP area voluntarily come forward to initiate these types of projects. Therefore, the contribution of the CCAP Update to the cumulative flooding impact is not cumulatively considerable.

j. Noise and Groundborne Vibration

Impacts related to noise and vibration are addressed in Section 4.10, Noise and Groundborne Vibration. The discussion below addresses the project's contribution to cumulative impacts in these categories. Noise and vibration impacts are generally experienced locally and are not cumulative in nature. These effects occur independently of one another, related to site-specific and project-specific characteristics and conditions. Also, the geographic extent of the cumulative noise and vibration is localized because at relatively short distances, noise and vibration related to specific CCAP Update activities would generally dissipate such that project-related noise levels would blend in with background noise levels and vibration would attenuate through soil within tens of feet.

A possible exception to the localized nature of noise impacts could occur where there are substantial increases in transportation noise along a highway or roadway. Where this occurs that impact could extend into neighboring jurisdictions along the route of the roadway. In the General Plan EIR, impacts related to traffic noise levels on roadway segments throughout the region from build-out of the General Plan were identified as significant and unavoidable. However, as noted above, the County has subsequently removed most of the new planned growth associated with the towns of Dunnigan, Knights Landing, Elkhorn, and Madison thus substantially reducing projected impacts.

Proposed Revisions to In-Channel Plans and Regulations

In-channel projects and activities are not anticipated to contribute to significant cumulative noise impacts related to transportation as a result of Mitigation Measure TR-3 of this EIR which modifies the Mining Ordinance to ensure that material removed from the channel will be accounted for in the existing operator's annual permit limits. This will ensure that the combined volume of aggregate material removed from in-channel and off-channel sources that is transported on the County roadway network in any given year will not exceed the annual allocation (as specified in approved mining use permits) assigned to the applicable off-channel operator. As a result no new truck trips associated with in-channel material removal (beyond what has already been reviewed and accounted for in approved mining use permits) will occur. Therefore, the contribution of in-channel work to cumulative noise impacts would not be considerable.

Proposed Revisions to Off-Channel Plans and Regulations

Potential new off-channel mining operations would generate new trucks trips on the County roadway network. Given recent County modifications to remove most future planned community growth from the General Plan it is unlikely a significant and unavoidable noise impact would still occur. Nevertheless because a cumulative impact is identified in the General Plan EIR, the contribution from the off-channel mining that could occur under the CCAP Update would conservatively be cumulatively considerable.

Impact CUMULATIVE NOI-1: Implementation of the OCMP and associated increase in truck trips in conjunction with increased traffic under General Plan build-out would contribute cumulatively to roadway noise impacts. (S)

Mitigation Measure CUMULATIVE NOI-1: None available. (SU)

k. Transportation

Impacts related to transportation are addressed in Section 4.11, Transportation. The discussion below addresses the project's contribution to cumulative transportation impacts. However, as noted above the County has subsequently removed most of the new planned growth associated with the towns of Dunnigan, Knights Landing, Elkhorn, and Madison thus likely eliminating this unmitigated impact.

The Transportation and Circulation section of the General Plan EIR included a detailed analysis of the cumulative conditions related to transportation and build-out of the General Plan. Under the cumulative condition, which assumed build-out of all planned growth in the region, including the County's General Plan, regional roadways and highways would experience the following impacts: increased vehicle miles traveled; levels of service in excess of those identified by responsible agencies; increased travel on roadways that do not meet current design standards; and increased travel on State facilities that do not meet current design standards. These impacts, and the County's contribution to them under the Draft General Plan, were considered regionally significant and unavoidable.

Proposed Revisions to In-Channel Plans and Regulations

As discussed above under the cumulative Noise analysis, Mitigation Measure TR-3 of this EIR, modifies the Mining Ordinance to ensure that material removed from the channel and processed for sale will be accounted for in the existing operator's annual permit limits, such that the combined volume of aggregate material removed from in-channel and off-channel sources that is transported on the County roadway network in any given year shall not exceed the annual allocation (as specified in their conditional use permit) assigned to the applicable off-channel operator. This ensures that no new truck trips associated with in-channel material removal (beyond what has already been reviewed and accounted for in approved mining use permits) will occur. Therefore, the contribution of in-channel work to cumulative transportation impacts would not be considerable.

Proposed Revisions to Off-Channel Plans and Regulations

Potential new off-channel mining operations would generate new trucks trips on the County roadway network. Given recent County modifications to remove most future planned community growth (including associated vehicle trips) from the General Plan it is unlikely a significant and unavoidable traffic impact would still occur. Nevertheless because a cumulative impact is identified in the General Plan EIR, the contribution from the off-channel mining that could occur under the CCAP Update would conservatively be cumulatively considerable.

All new proposed off-channel mining operations would be required to undergo project level CEQA review, including quantitative Transportation Impact Studies that evaluate cumulative conditions. This would ensure full disclosure and assessment of traffic and circulation conditions. There is no other known feasible mitigation measure available to mitigate this impact.

Impact CUMULATIVE TR-1: Implementation of the OCMP and associated increase in truck trips in conjunction with increased traffic under General Plan build-out would contribute cumulatively to transportation impacts. (S)

Mitigation Measure CUMULATIVE TR-1: None available. (SU)